

Abacavir

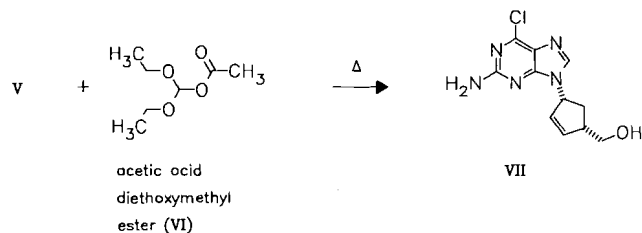
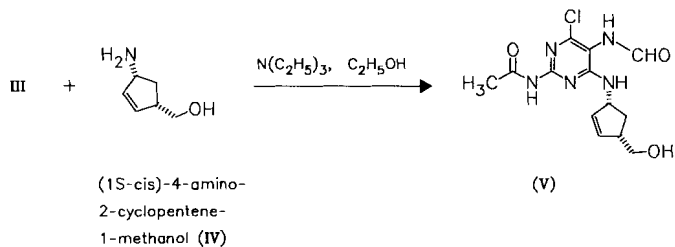
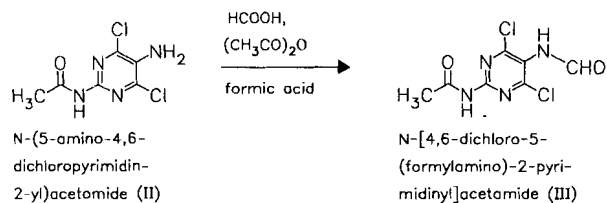
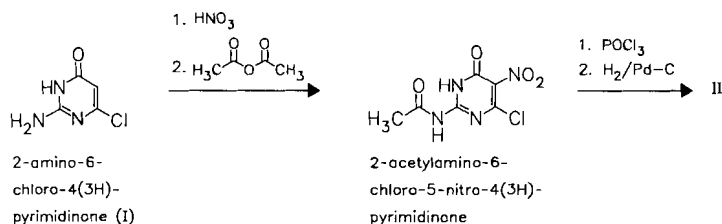
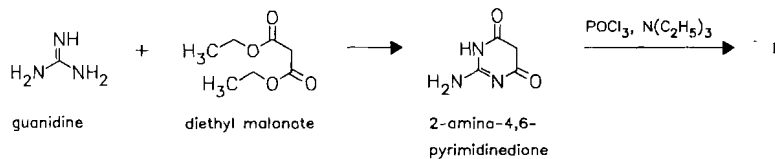
(1592U89)

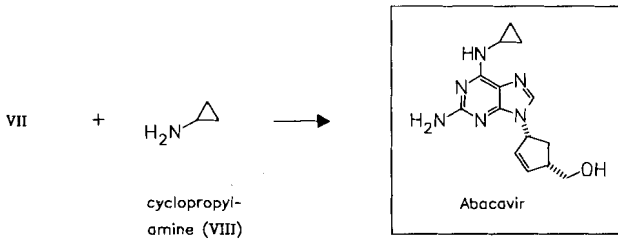
ATC: J05AF06

Use: antiviral, anti HIV, reverse transcriptase inhibitor

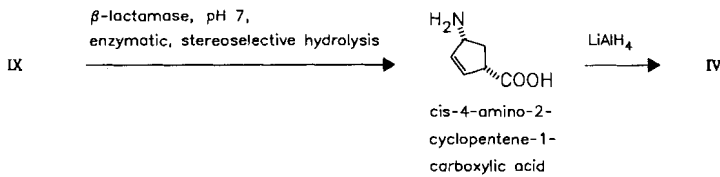
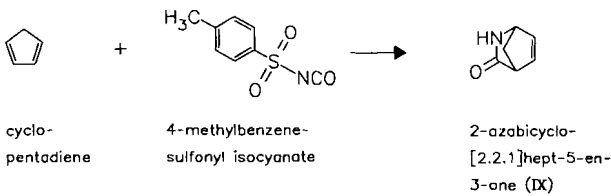
RN: 136470-78-5 MF: $C_{14}H_{18}N_6O$ MW: 286.34CN: (1*S*,4*R*)-4-[2-Amino-6-(cyclopropylamino)-9*H*-purin-9-yl]-2-cyclopentene-1-methanol**succinate**RN: 168146-84-7 MF: $C_{14}H_{18}N_6O \cdot C_4H_6O$ MW: 356.43**sulfate**RN: 188062-50-2 MF: $C_{14}H_{18}N_6O \cdot 1/2H_2SO_4$ MW: 670.76

a

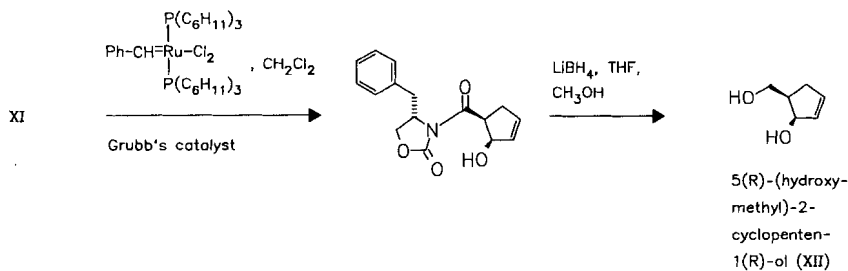
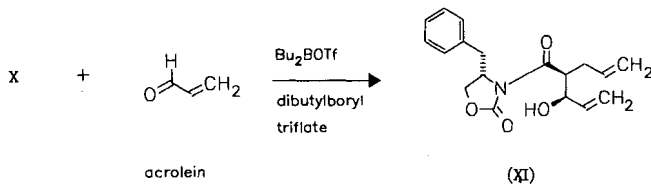
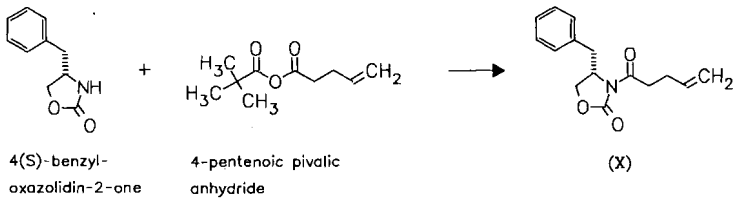


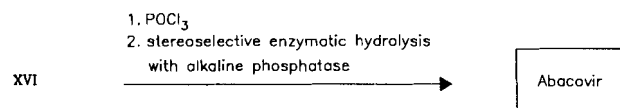
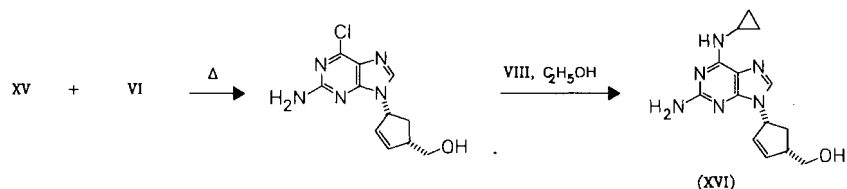
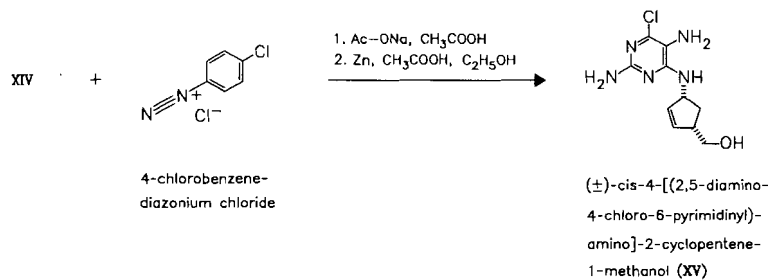
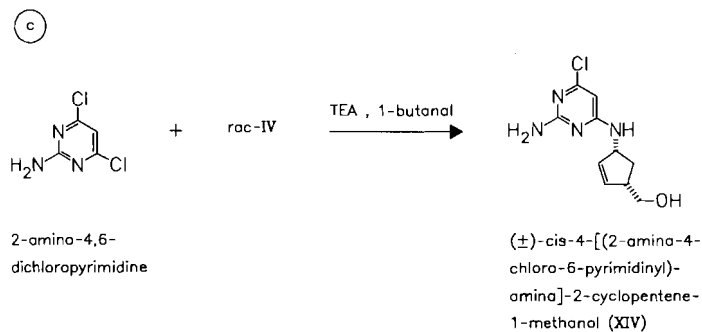
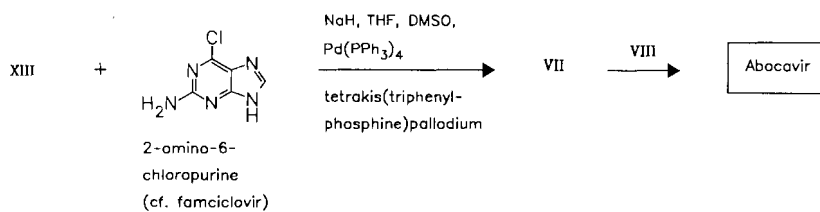
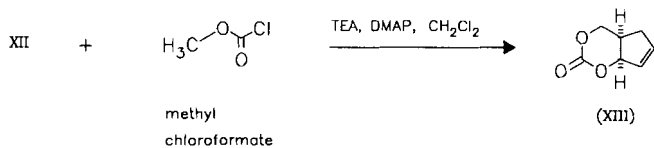


(aa) synthesis of (1S-cis)-4-amino-2-cyclopentene-1-methanol (IV)

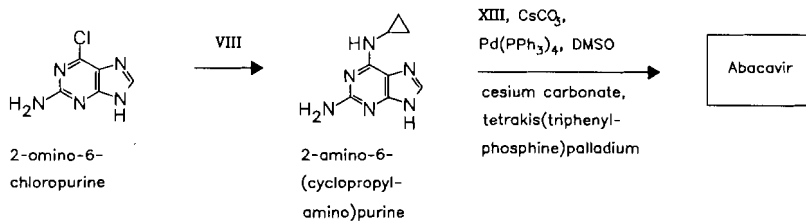


(b)





d

*Reference(s):*

- a EP 434 450 (Wellcome Found.; 26.6.1991; appl. 21.12.1990; USA-prior. 22.12.1989).
Crimmins, M.T. et al.: J. Org. Chem. (JOCEAH) **61** 4192 (1996).
- aa EP 424 064 (Enzymatix; appl. 24.4.1991; GB-prior. 16.10.1989).
- b Olivo, H.F. et al.: J. Chem. Soc., Perkin Trans. 1 (JCPRB4) **1998**, 391.
- c US 5 034 394 (Wellcome Found.; 23.7.1991; appl. 22.12.1989; GB-prior. 27.6.1988).
- d WO 9 924 431 (Glaxo; appl. 12.11.1998; WO-prior. 12.11.1997).

alternative syntheses:

EP 878 548 (Lonza; appl. 13.5.1998; CH-prior. 13.5.1997).

condensation of pyrimidines with cyclopentylamine IV:

Vince, R.; Hua, M.: J. Med. Chem. (JMCMAR) **33** (1), 17 (1990).
EP 349 242 (Wellcome Found.; appl. 26.6.1989; GB-prior. 27.6.1988).
EP 366 385 (Wellcome Found.; appl. 23.10.1989; GB-prior. 24.10.1988).
Grumam, A. et al.: Tetrahedron Lett. (TELEAY) **36** (42), 7767 (1995).
JP 1 022 853 (Asahi Glass Co.; appl. 17.7.1987).

alternative preparation of 4-amino-2-cyclopentene-1-methanol:

EP 926 131 (Lonza; appl. 24.11.1998; CH-prior. 27.11.1997).
WO 9 745 529 (Lonza; appl. 30.5.1997; CH-prior. 30.5.1996).

abacavir succinate as antiviral agent:

WO 9 606 844 (Wellcome; 7.3.1996; appl. 25.8.1995; GB-prior. 26.8.1994).

synergistic combinations for treatment of HIV infection:

WO 9 630 025 (Wellcome; 3.10.1996; appl. 28.3.1996; GB-prior. 30.3.1995).

Formulation(s): oral sol. 20 mg/ml; tabl. 300 mg (as sulfate)

Trade Name(s):

D: Ziagen (Glaxo Wellcome; 1999) USA: Ziagen (Glaxo Wellcome)

Abciximab

(7E3; C7E3; C7E3 Fab; C7E3-F(ab')₂)

ATC: B01AC13

Use: platelet antiaggregation inhibitor,
antianginal, GPIIb/IIIa-receptor
antagonist

RN: 143653-53-6 MF: unspecified MW: unspecified

CN: immunoglobulin G (human-mouse monoclonal c7E3 clone p7E3V_HhC_γ₄ Fab fragment antihuman glycoprotein IIb/IIIa receptor), disulfide with human-mouse monoclonal c7E3 clone p7E3V_KhC_κ light chain

Reference(s):

Gold, H.K. et al.: Circulation Suppl. (CISUAQ) **80**(4) (1989), Abst. 1063.

Formulation(s): vial 10 mg/5 ml

Trade Name(s):

D: ReoPro (Lilly)

GB: Reopro (Lilly)

F: ReoPro (Lilly)

USA: ReoPro (Lilly)

Acamprosate calcium

ATC: V03AA

Use: alcohol deterrent

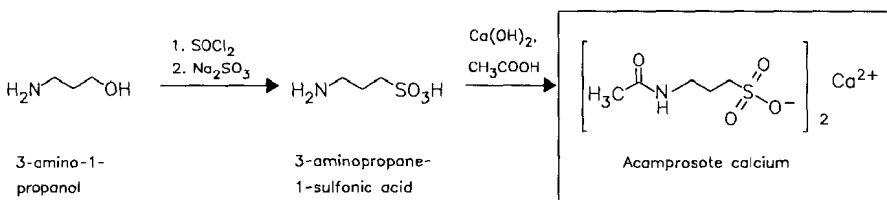
RN: 77337-73-6 MF: $C_{10}H_{20}CaN_2O_8S_2$ MW: 400.49 EINECS: 278-665-3

LD₅₀: >10 g/kg (M, p.o.)

CN: 3-(acetylamino)-1-propanesulfonic acid calcium salt (2:1)

free acid

RN: 77337-76-9 MF: $C_5H_{11}NO_4S$ MW: 181.21 EINECS: 278-667-4



Reference(s):

DE 3 019 350 (Lab. Meram; appl. 21.5.1980; F-prior. 23.5.1979).

synthesis of 3-aminopropane-1-sulfonic acid:

JP 46 002 012 (Kowa; appl. 19.1.1971).

Fujii, A. et al.: J. Med. Chem. (JMCMAR) **18**, 502 (1975).

WO 8 400 958 (Mitsui; appl. 15.3.1984; J-prior. 7.9.1982, 19.7.1983, 8.9.1982).

Formulation(s): tabl. 333 mg

Trade Name(s):

D: Campral (Lipha)

F: Aotal (Meram)

GB: Campral (Lipha)

Acarbose

(Bay-g-5421)

ATC: A10BF01

Use: antidiabetic, α -glucosidase inhibitor, hypoglycemic

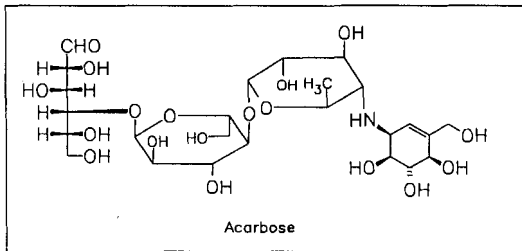
RN: 56180-94-0 MF: $C_{25}H_{43}NO_{18}$ MW: 645.61 EINECS: 260-030-7

LD₅₀: >500.000 SIE/kg (M, i.v.); >1000.000 SIE/kg (M, p.o.);

478.000 SIE/kg (R, i.v.); >1000.000 SIE/kg (R, p.o.)

65.000 SIE = 1g (SIE = saccharase inhibitory units)

CN: [1S-(1 α ,4 α ,5 β ,6 α)]-O-4,6-dideoxy-4-[[4,5,6-trihydroxy-3-(hydroxymethyl)-2-cyclohexen-1-yl]amino]- α -D-glucopyranosyl(1 \rightarrow 4)-O- α -D-glucopyranosyl-(1 \rightarrow 4)-D-glucose



Fermentation of *Actinoplanes* SE50/110.

Reference(s):

US 4 062 950 (Bayer; 13.12.1977; D-prior. 22.9.1973).

DOS 2 347 782 (Bayer; appl. 21.9.1973).

Schmidt, D.D. et al.: *Naturwissenschaften (NATWAY)* **64**, 535 (1977).

total synthesis:

Ogawa, S.; Shibata, Y.: *Chem. Commun. (CCOMA8)* **1988**, 605.

review:

Tschesche, H. in *Arzneimittel, Fortschritte 1972-1985* (Ed. A. Kleemann, E. Lindner, J. Engel), p. 87, VCH Verlagsgesellschaft, Weinheim 1987.

Formulation(s): tabl. 50 mg, 100 mg

Trade Name(s):

D: Glucobay (Bayer; 1990)

GB: Glucobay (Bayer)

USA: Precose (Bayer)

F: Glucor (Bayer)

J: Glucobay (Bayer)

Acebutolol

ATC: C07AB04; C07BB04

Use: β -adrenergic receptor blocker

RN: 37517-30-9 MF: $C_{18}H_{28}N_2O_4$ MW: 336.43 EINECS: 253-539-0

LD₅₀: 75.2 mg/kg (M, i.v.);

4 mg/kg (dog, i.v.)

CN: (\pm)-N-[3-acetyl-4-[2-hydroxy-3-[(1-methylethyl)amino]propoxy]phenyl]butanamide

(R)-base

RN: 68107-81-3 MF: $C_{18}H_{28}N_2O_4$ MW: 336.43

(S)-base

RN: 68107-82-4 MF: $C_{18}H_{28}N_2O_4$ MW: 336.43

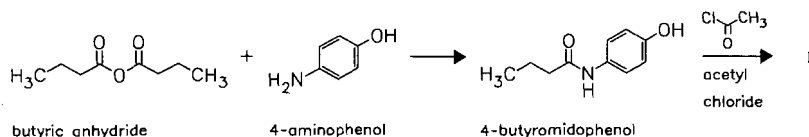
(RS)-monohydrochloride

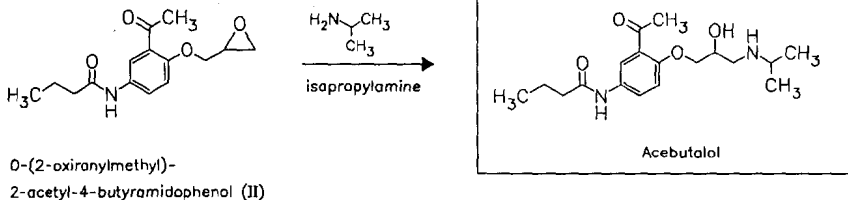
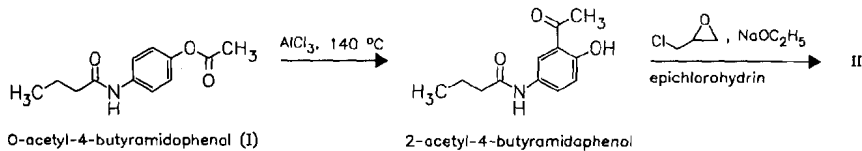
RN: 34381-68-5 MF: $C_{18}H_{28}N_2O_4 \cdot HCl$ MW: 372.89 EINECS: 251-980-3

LD₅₀: 185 mg/kg (M, i.p.); 53 mg/kg (M, i.v.); 4050 mg/kg (M, p.o.); 291 mg/kg (M, s.c.);

222 mg/kg (R, i.p.); 103 mg/kg (R, i.v.); 6620 mg/kg (R, p.o.); 1310 mg/kg (R, s.c.);

41 mg/kg (rabbit, i.v.); 296 mg/kg (rabbit, p.o.)





Reference(s):

GB 1 247 384 (May & Baker; appl. 22.12.1967).
 DAS 1 815 808 (May & Baker; appl. 19.12.1968; GB-prior. 22.12.1967, 14.5.1968, 2.8.1968).
 US 3 726 919 (May & Baker; appl. 19.12.1968; GB-prior. 22.12.1967, 14.5.1968, 2.8.1968).
 US 3 857 952 (May & Baker; appl. 3.8.1972).

preparation of 4-butyramidophenol:

Kuhn; Koehler; Koehler: Hoppe-Seyler's Z. Physiol. Chem. (HSZPAZ) **247**, 197, 216 (1937).
 Verma, K.K.; Tyagi, P.: Anal. Chem. (ANCHAM) **56** (12), 2157 (1984).
 US 2 824 838 (Esso Research & Eng. Co.; 25.2.1958; appl. 13.1.1955).

Formulation(s): amp. 25 mg; tabl. 200 mg, 400 mg (as hydrochloride)

Trade Name(s):

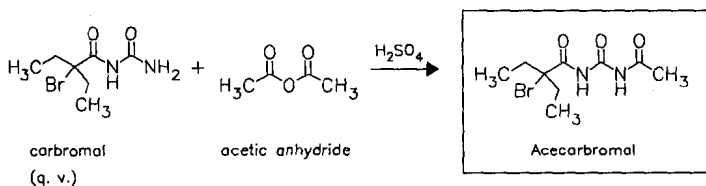
D:	Prent (Bayer; 1977)	Sectral (Rhône-Poulenc Rorer; 1975)	J:	Acetanol (Rhodia; 1984)
	Sali-Prent (Bayer; 1982)-comb.	I: Acecor (SPA)	USA:	Sectral (Wyeth-Ayerst; 1985)
	Tredalat (Bayer)-comb.	Alol (SIT)		
F:	Sectral (Specia; 1976)	Prent (Bayropharm; 1981)		
GB:	Secadrex (Rhône-Poulenc Rorer; 1982)-comb.	Sectral (Rhône-Poulenc Rorer; 1980)		

Accecarbromal

(Acetylcarbromal; Acetcarbromal)

ATC: N05CM
 Use: sedative, hypnotic

RN: 77-66-7 MF: C₉H₁₅BrN₂O₃ MW: 279.13 EINECS: 201-047-1
 LD₅₀: 1600 mg/kg (M, p.o.)
 CN: N-[(acetylamino)carbonyl]-2-bromo-2-ethylbutanamide



Reference(s):

DRP 225 710 (Bayer; 1910).

alternative syntheses:

DRP 286 760 (Bayer; 1913).

DRP 327 129 (Bayer; 1917).

Formulation(s): drg. 100 mg

Trade Name(s):

D: Abasin (Bayer); wfm
Afrodor (Farco-Pharma)

USA: Carbased (Mallard); wfm
Sedamyl (Riker); wfm

Aceclidine

ATC: S01EB08; S01EB58

Use: antiglaucoma, miotic

RN: 827-61-2 MF: C₉H₁₅NO₂ MW: 169.22 EINECS: 212-574-1

LD₅₀: 78 mg/kg (M, i.p.); 36 mg/kg (M, i.v.); 165 mg/kg (M, p.o.); 102 mg/kg (M, s.c.);

45 mg/kg (R, i.v.); 225 mg/kg (R, s.c.)

CN: 1-azabicyclo[2.2.2]octan-3-ol acetate (ester)

hydrochloride

RN: 6109-70-2 MF: C₉H₁₅NO₂ · HCl MW: 205.69 EINECS: 228-071-5

LD₅₀: 27 mg/kg (M, i.v.); 165 mg/kg (M, p.o.);

45 mg/kg (R, i.v.)

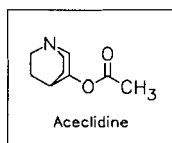
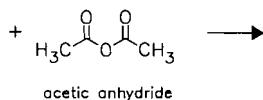
salicylate (1:1)

RN: 6821-59-6 MF: C₉H₁₅NO₂ · C₇H₆O₃ MW: 307.35

LD₅₀: 113 mg/kg (M, s.c.)



3-hydroxy-
quinuclidine
(cf. clidinium
bromide synthesis)



Reference(s):

US 2 648 667 (Roche; 1953; prior. 1951).

Grob, C.A. et al.: Helv. Chim. Acta (HCACAV) **40**, 2170 (1957).

Formulation(s): eye drops 200 mg (as hydrochloride), 20 mg

Trade Name(s):

D: Glaucotat (Chibret)

Glauco-stat (Merck Sharp &

F: Glaucadrine (Merck Sharp
& Dohme-Chibret)-comb.

Dohme-Chibret)

I: Glaunorm (Farmigea)

Aceclofenac

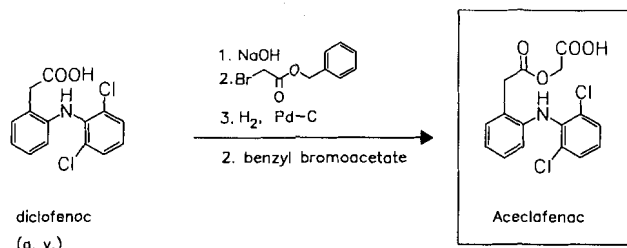
ATC: M01AB16

Use: non-steroidal anti-inflammatory,
analgesic, antipyretic, prostaglandin
synthesis inhibitor

RN: 89796-99-6 MF: C₁₆H₁₃Cl₂NO₄ MW: 354.19

LD₅₀: 121 mg/kg (M, p.o.)

CN: 2-[(2,6-dichlorophenyl)amino]benzeneacetic acid carboxymethyl ester

*Reference(s):*

EP 119 932 (Prodes; appl. 19.3.1984; E-prior. 21.3.1983).
US 4 548 952 (Prodes; 22.10.1985; appl. 15.3.1984; E-prior. 21.3.1983).

alternative synthesis:

ES 2 020 146 (Prodesfarma; appl. 29.5.1990).

Formulation(s): cream 1.5 %; vial 150 mg; tabl. 100 mg

Trade Name(s):

GB: Preservex (Bristol-Myers
Squibb; 1992)

Acediasulfone

ATC: S02

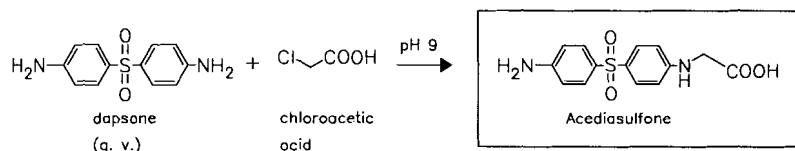
Use: antibacterial, cytotoxic agent

RN: 80-03-5 MF: C₁₄H₁₄N₂O₄S MW: 306.34 EINECS: 201-243-7

CN: N-[4-[(4-aminophenyl)sulfonyl]phenyl]glycine

monosodium salt

RN: 127-60-6 MF: C₁₄H₁₃N₂NaO₄S MW: 328.32 EINECS: 204-852-6

*Reference(s):*

CH 254 803 (Cilag; appl. 1946).
CH 278 482 (Cilag; appl. 1949).
US 2 589 211 (Parke Davis; 1952; appl. 1948).
US 2 454 835 (Parke Davis; 1948; prior. 1943).
US 2 751 382 (Cilag; 1956; D-prior. 6.7.1953).

Trade Name(s):

D: Ciloprin (Cilag-Chemie)-
comb.; wfm

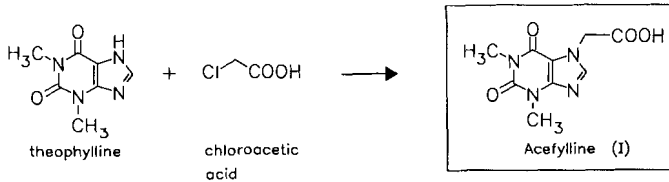
Acefylline

ATC: R03B

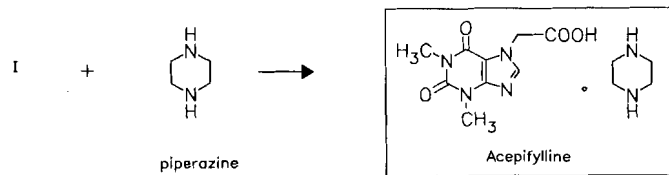
Use: cardiotoxic, diuretic, antispasmodic, bronchodilator

RN: 652-37-9 MF: $C_9H_{10}N_4O_4$ MW: 238.20 EINECS: 211-490-2LD₅₀: 1180 mg/kg (M, i.p.); 2733 mg/kg (M, p.o.)

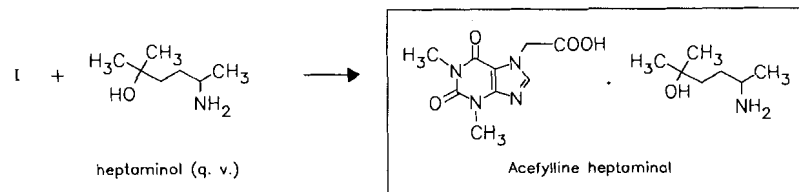
CN: 1,2,3,6-tetrahydro-1,3-dimethyl-2,6-dioxo-7H-purine-7-acetic acid

**Acepifylline**RN: 18833-13-1 MF: $C_9H_{10}N_4O_4 \cdot xC_4H_{10}N_2$ MW: unspecified EINECS: 242-614-3

CN: 1,2,3,6-tetrahydro-1,3-dimethyl-2,6-dioxo-7H-purine-7-acetic acid compd. with piperazine

**Acefylline heptaminol**RN: 59989-20-7 MF: $C_9H_{10}N_4O_3 \cdot C_8H_{19}NO$ MW: 367.45 EINECS: 262-012-4

CN: 1,2,3,6-tetrahydro-1,3-dimethyl-2,6-dioxo-7H-purine-7-acetic acid compd. with 6-amino-2-methyl-2-heptaminol (1:1)

**Reference(s):**Blaisse, J.: Bull. Soc. Chim. Fr. (BSCFAS) **1949**, 769.

Formulation(s): amp. 500 mg/200 ml; drg. 250 mg; suppos. 500 mg; tabl. 250 mg (acepifylline); drg. 250 mg; inj. 0.5 g; suppos. 0.5-1 g

Trade Name(s):

D: Etaphydel (Delalande; as acepifylline); wfm

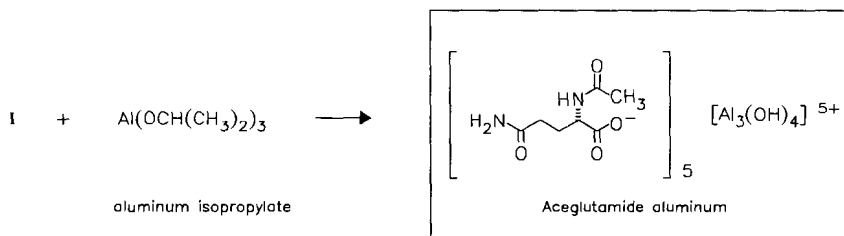
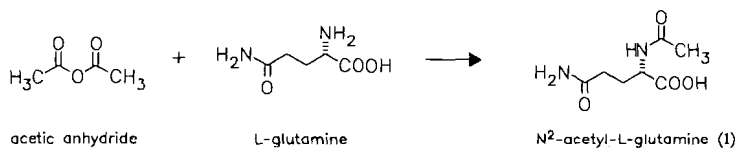
F: Sureptil (Synthelabo; as acefylline-heptaminol)-comb.

GB: Etophylate (Delalande; as acepifylline); wfm
I: Sureptil (Delalande) Isnardi)-comb.

Aceglutamide aluminum

ATC: A02AB; N06B
 Use: peptic ulcer therapeutic

RN: 12607-92-0 MF: C₃₅H₅₉Al₃N₁₀O₂₄ MW: 1084.85
 LD₅₀: 460 mg/kg (M, i.v.); 13.1 g/kg (M, p.o.);
 400 mg/kg (R, i.v.); >14.5 g/kg (R, p.o.)
 CN: pentakis(*N*²-acetyl-L-glutaminato)tetrahydroxytriluminum



Reference(s):

DOS 2 127 176 (Kyowa Hakko; appl. 1.6.1971; J-prior. 5.6.1970).
 US 3 787 466 (Kyowa Hakko; 22.1.1974; J-prior. 5.6.1970).

preparation of N²-acetyl-L-glutamine:

Reddy, A.V; Ravindranath, B.: Synth. Commun. (SYNCAV) **22** (2), 257 (1992).
 Syngé: Biochem. J. (BIJOAK) **33**, 673 (1939).

Formulation(s): gran. 700 mg

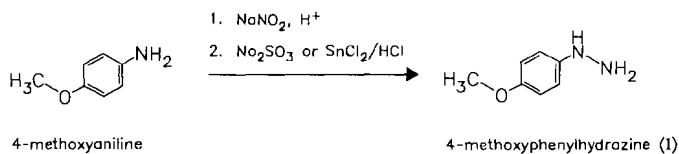
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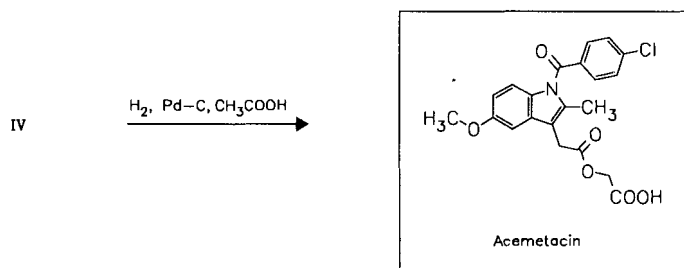
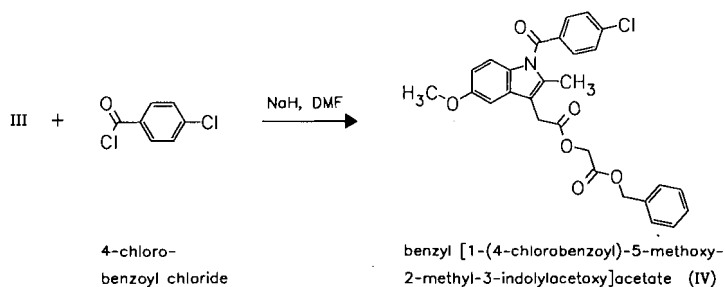
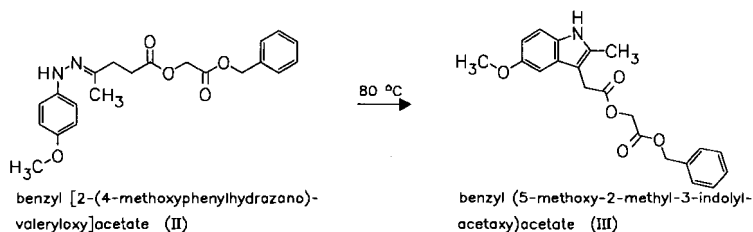
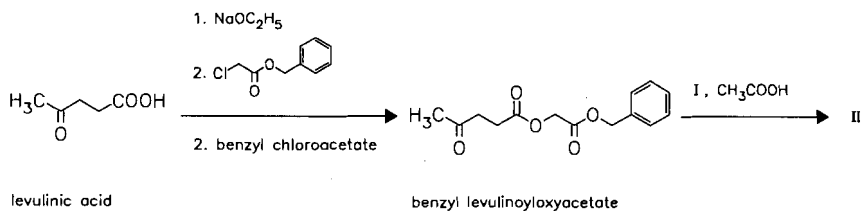
J: Glumal (Kyowa Hakko)

Acemetacin

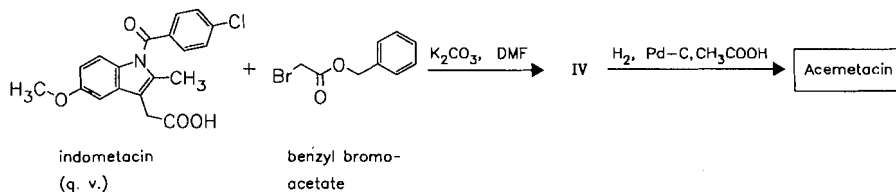
ATC: M01AB11
 Use: non-steroidal anti-inflammatory

RN: 53164-05-9 MF: C₂₁H₁₈ClNO₆ MW: 415.83 EINECS: 258-403-4
 LD₅₀: 55 mg/kg (Mm, p.o.); 18.42mg/kg (Mf, p.o.);
 24.2 mg/kg (Rm, p.o.); 30.1 mg/kg (Rf, p.o.)
 CN: 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-1*H*-indole-3-acetic acid carboxymethyl ester





(b)



Reference(s):

DOS 2 234 651 (Tropon; appl. 14.7.1972).

FR 2 192 828 (Tropon; appl. 13.7.1973; D-prior. 14.7.1972).

US 3 910 952 (Troponwerke Dinklage; 7.10.1975; appl. 28.6.1973; D-prior. 14.7.1972).

preparation of 4-methoxyphenylhydrazine from 4-methoxyaniline (*p*-anisidine):

Lee, A.-R. et al.: J. Heterocycl. Chem. (JHTCAD) **32** (1), 1-12 (1995).

Clade, D.W. et al.: J. Chem. Soc., Perkin Trans. 2 (JCPKBH), 909-916 (1982).

DE 70 459 (Riedel; 12.11.1891).

Altschul: Ber. Dtsch. Chem. Ges. (BDCGAS) **25**, 1849 (1892).

preparation of benzyl levulinoyloxyacetate:

Boltze, K.-H.; Brendler, O.; Jacobi, H.; Opitz, W.; Raddatz, S. et al.: Arzneim.-Forsch. (ARZNAD) **30** (8a), 1314-1325 (1980).

Formulation(s): cps. 30 mg, 60 mg; s. r. cps. 90 mg

Trade Name(s):

D: Rantudil (Bayer; 1980)

I: Acemix (Bioprogress)

J: Rantudil (Kowa; 1984)

GB: Emflex (Merck)

Solar (Bioindustria)

Acenocoumarol

(Acenocoumarin; Nicoumalone)

ATC: B01AA07

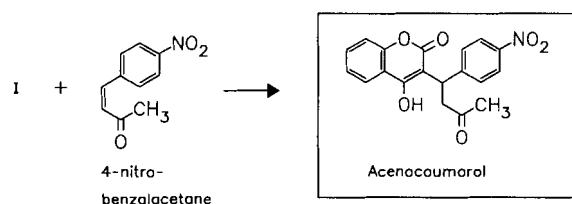
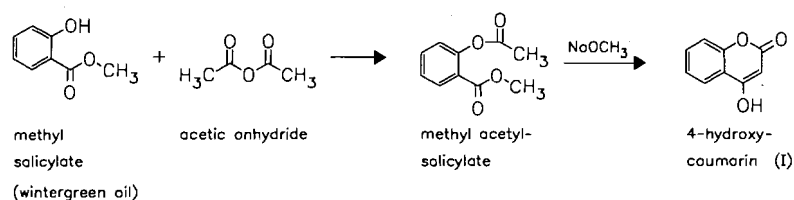
Use: anticoagulant

RN: 152-72-7 MF: C₁₉H₁₅NO₆ MW: 353.33 EINECS: 205-807-3

LD₅₀: 115 mg/kg (M, i.p.); 1470 mg/kg (M, p.o.);

513 mg/kg (R, p.o.)

CN: 4-hydroxy-3-[1-(4-nitrophenyl)-3-oxobutyl]-2H-1-benzopyran-2-one



Reference(s):

US 2 648 862 (Geigy; 1953; CH-prior. 1950).

Formulation(s): tabl. 1 mg, 4 mg

Trade Name(s):

D: Sintrom (Geigy); wfm

GB: Sinthrome (Geigy)

J: Sintrom (Ciba-Geigy)

F: Sintrom (Novartis)

I: Sintrom (Novartis)

USA: Sintrom (Geigy); wfm

Acepromazine

ATC: N05AA04

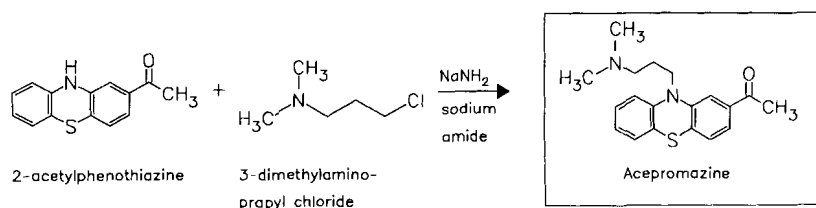
Use: neuroleptic, anti-emetic, tranquilizer

RN: 61-00-7 MF: C₁₉H₂₂N₂OS MW: 326.46 EINECS: 200-496-0LD₅₀: 59 mg/kg (M, i.v.)

CN: 1-[10-[3-(dimethylamino)propyl]-10H-phenothiazin-2-yl]ethanone

maleate (1:1)RN: 3598-37-6 MF: C₁₉H₂₂N₂OS · C₄H₄O₄ MW: 442.54 EINECS: 222-748-9LD₅₀: 65 mg/kg (M, i.v.);

95 mg/kg (R, i.v.); 400 mg/kg (R, p.o.)

**Reference(s):**

DE 1 049 865 (Bayer; appl. 7.9.1955).

Schmitt, J. et al.: Bull. Soc. Chim. Fr. (BSCFAS) **1957**, 938, 1474.**Formulation(s):** drops 1 mg/10 drops; syrup 2.5 mg; tabl. 10 mg (as maleate)**Trade Name(s):**

F: Noctran (Menarini)-comb.

J: Plebal (Fujinaga-Sankyo)-comb.

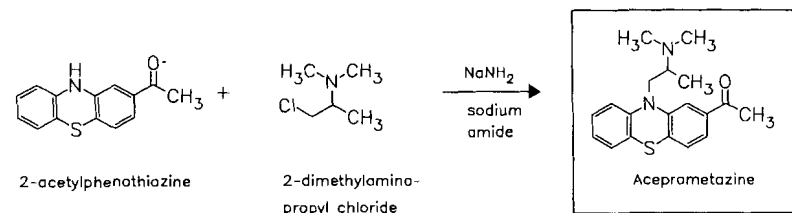
Aceprometazine

ATC: N05AA

Use: neuroleptic, antitussive

RN: 13461-01-3 MF: C₁₉H₂₂N₂OS MW: 326.46 EINECS: 236-661-9LD₅₀: 517 mg/kg (M, p.o.)

CN: 1-[10-[2-(dimethylamino)propyl]-10H-phenothiazin-2-yl]ethanone

maleateRN: 7455-18-7 MF: C₁₉H₂₂N₂OS · C₄H₄O₄ MW: 442.54**Reference(s):**

DE 1 049 865 (Bayer; appl. 7.9.1955).

Formulation(s): tabl. 13.55 mg (as maleate in combination with 400 mg meprobamate)

Trade Name(s):

D: Clindorm (Midy)-comb. Noctran (Menarini)-comb.
 F: Mépronizine (Sanofi)-comb. J: Noctran (Clin-Midy-Sanofi); wfm

Acetarsol

(Acetarsone)

ATC: A07AX02; G01AB01; P01CD02
 Use: antiprotozoal (trichomonas)

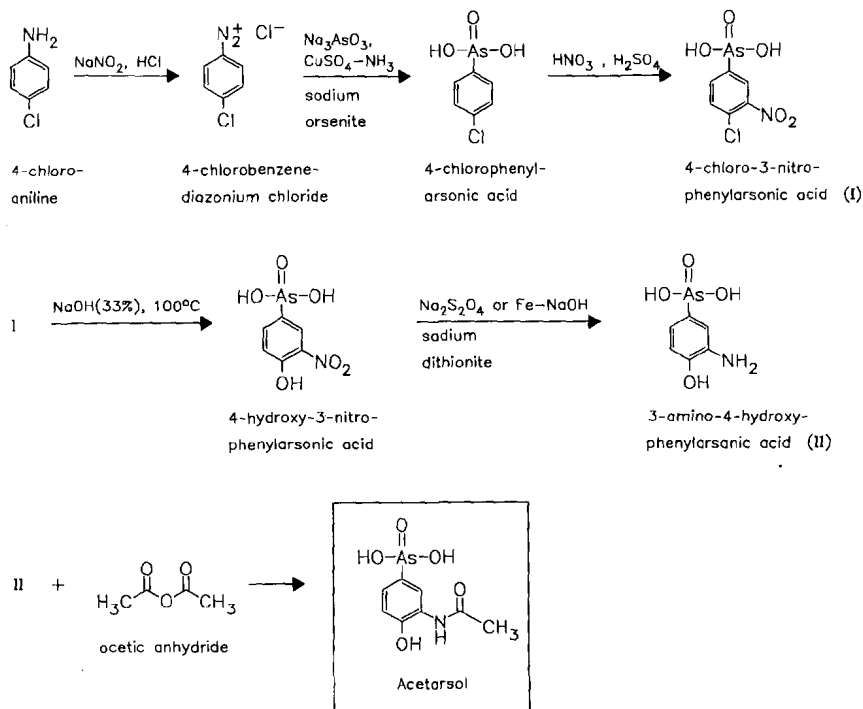
RN: 97-44-9 MF: C₈H₁₀AsNO₅ MW: 275.09 EINECS: 202-582-3

LD₅₀: 180 mg/kg (M, i.v.); 4 mg/kg (M, p.o.)

CN: [3-(acetylamino)-4-hydroxyphenyl]arsonic acid

monosodium salt

RN: 5892-48-8 MF: C₈H₉AsNNaO₅ MW: 297.07 EINECS: 227-573-1

*Reference(s):*

Raiziss, G.W.; Gavron, J.L.: *J. Am. Chem. Soc. (JACSAT)* **43**, 583 (1921).
 Raiziss, G.W.; Fisher, B.C.: *J. Am. Chem. Soc. (JACSAT)* **48**, 1323 (1926).
 DRP 250 264 (H. Bart; appl. 1910).
 DRP 245 536 (Hoechst; appl. 1911).
 DRP 224 953 (Hoechst; appl. 1909).

Formulation(s): collutorium (mouth wash) 0.5 mg/100 g

Trade Name(s):

F: Arpha collutoire (Fournier)-comb.; wfm Collagent acétarsol (Sarbach)-comb.; wfm	Gynoplix (Doms-Adrian); wfm Gynoplix (Théraplix)- comb.; wfm	Humex collutoire (Fournier)-comb.; wfm Humex Fournier collutoire (Fournier)-comb.; wfm
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Polygynax (Innothéra)- comb.; wfm	Sanogyl (Pharmascience)- comb.; wfm	I:	Gynoplix (Vaillant)
Polygynax Virgo (Innothéra)-comb.; wfm	Sanogyl (Vilette); wfm	J:	Neo Osvarsan (Banyu)
Pyorex (Bailly-Speab)- comb.; wfm	GB: Pyorex (Bengue)-comb.; wfm		Osvarsan (Banyu)
	S. V. C. (May & Baker)		

Acetazolamide

(Acetazoleamide)

ATC: S01EC01

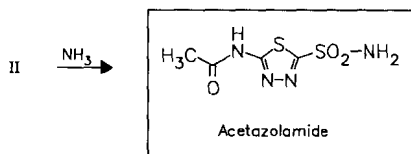
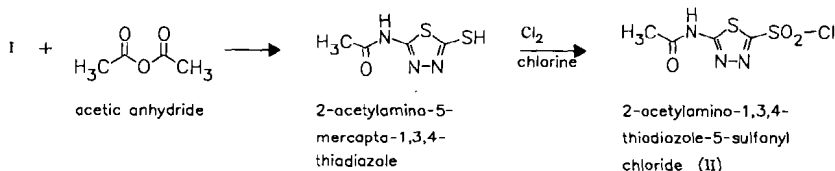
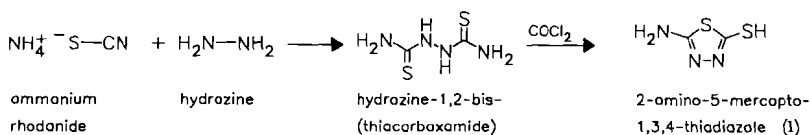
Use: diuretic

RN: 59-66-5 MF: C₄H₆N₄O₃S₂ MW: 222.25 EINECS: 200-440-5LD₅₀: 1175 mg/kg (M, i.p.); >3000 mg/kg (M, i.v.); 4300 mg/kg (M, p.o.); >3000 mg/kg (M, s.c.);
2750 mg/kg (R, i.p.);

>1500mg/kg (g. p., s.c.)

>2000 mg/kg (dog, i.v.);

CN: N-[5-(aminosulfonyl)-1,3,4-thiadiazol-2-yl]acetamide

*Reference(s):*

US 2 554 816 (American Cyanamid; 1951; prior. 1950).

Roblin, R.O.; Clapp, J.W.: J. Am. Chem. Soc. (JACSAT) **72**, 4890 (1950).*similar process:*

US 2 980 679 (Omikron-Gagliardi; 18.4.1961; I-prior. 4.4.1957).

Formulation(s): amp. 500 mg; cream 10 %; lyo. 500 mg; powder 500 mg; s. r. cps. 500 mg; tabl. 125 mg, 250 mg*Trade Name(s):*

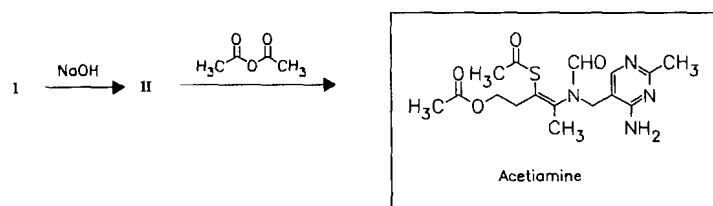
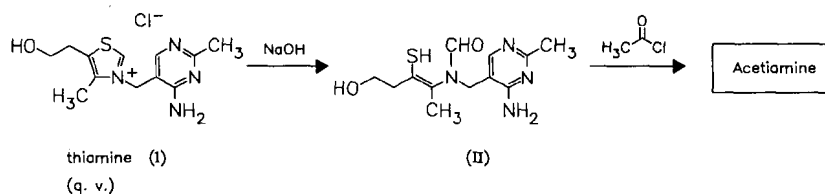
D:	Diamox (Lederle) Diuramid (medpharm) Glaupax (CIBA Vision)	I:	Diamox (Cyanamid)	Diamox S. R. (Lederle-Takeda)
F:	Défiltran (Labs. Jumer) Diamox (Thérapiex)	J:	Acetamox (Santen) Atenzol (Tsuruhara)	Didoc (Sawai) Donmox (Hotta) Zohnox (Konto)
GB:	Diamox (Storz)		Diamox (Lederle-Takeda)	USA: Diamox (Lederle)

Acetiamine

ATC: A11

Use: vitamin B₁-derivative, neurotropic analgesicRN: 299-89-8 MF: C₁₆H₂₂N₄O₄S MW: 366.44

CN: ethanethioic acid S-[1-[2-(acetyloxy)ethyl]-2-[[[(4-amino-2-methyl-5-pyrimidinyl)methyl]formylamino]-1-propenyl] ester

**Reference(s):**

US 2 752 348 (Takeda; 1956; J-prior. 1952).

Matsukawa, T.; Kawasaki, H.: Yakugaku Zasshi (YKKZAJ) **23**, 705 (1953).Gauthier, B. et al.: Ann. Pharm. Fr. (APFRAD) **21**, 655 (1963).**Formulation(s):** drg. 50 mg**Trade Name(s):**

D: Thianeurone (Rhône-Poulenc); wfm

F: Algo-Névriton (Pharmuka); wfm

Acetohexamide

(Cyclamide)

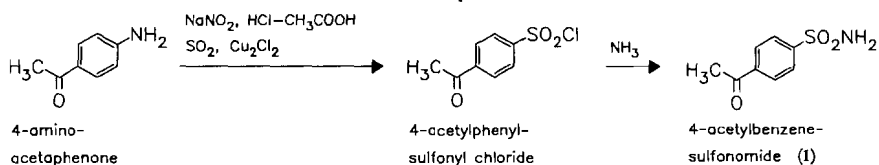
ATC: A10BB31

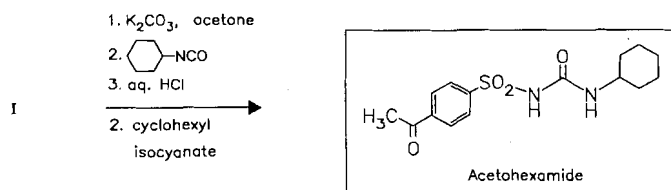
Use: antidiabetic

RN: 968-81-0 MF: C₁₅H₂₀N₂O₄S MW: 324.40 EINECS: 213-530-4LD₅₀: >2500 mg/kg (M, p.o.);

5g/kg (R, p.o.)

CN: 4-acetyl-N-[(cyclohexylamino)carbonyl]benzenesulfonamide



**Reference(s):**

US 3 320 312 (Lilly; 16.5.1967; prior. 28.4.1960).
 DE 1 177 631 (Lilly; appl. 21.4.1961; USA-prior. 28.4.1960).
 DE 1 135 891 (Hoechst; appl. 30.6.1960).

Formulation(s): tabl. 250 mg, 500 mg

Trade Name(s):

GB: Dimelor (Lilly); wfm J: Dimelin (Shionogi)
 I: Dimelor (Lilly); wfm USA: Dymelor (Lilly)

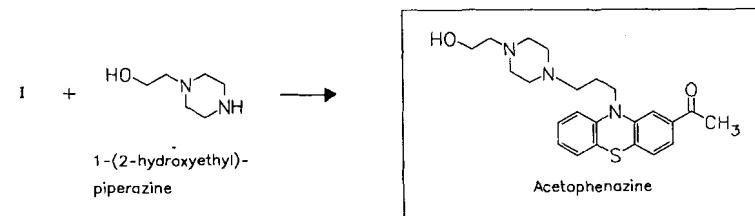
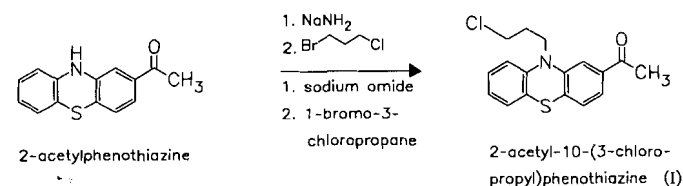
Acetophenazine

ATC: N05AB07
 Use: neuroleptic, antipsychotic

RN: 2751-68-0 MF: $C_{23}H_{29}N_3O_2S$ MW: 411.57
 CN: 1-[10-[3-[4-(2-hydroxyethyl)-1-piperazinyl]propyl]-10H-phenothiazin-2-yl]ethanone

maleate (1:2)

RN: 5714-00-1 MF: $C_{23}H_{29}N_3O_2S \cdot 2C_4H_4O_4$ MW: 643.71 EINECS: 227-202-3
 LD₅₀: 71 mg/kg (M, i.v.);
 60 mg/kg (R, i.p.); 39 mg/kg (R, i.v.); 415 mg/kg (R, p.o.)

**Reference(s):**

US 2 985 654 (Schering Corp.; 23.5.1961; prior. 21.9.1956).

Formulation(s): tabl. 20 mg (as dimaleate)

Trade Name(s):

USA: Tindal (Schering); wfm

Acetorphan

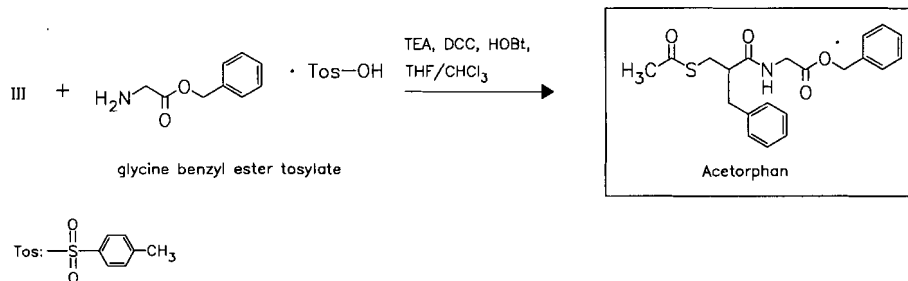
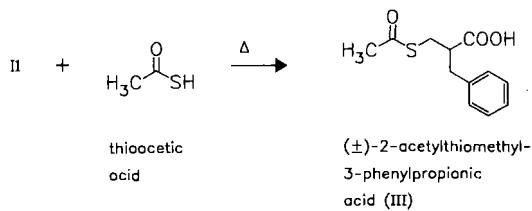
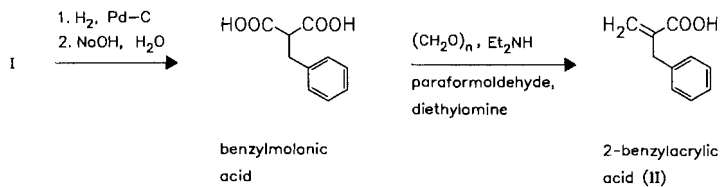
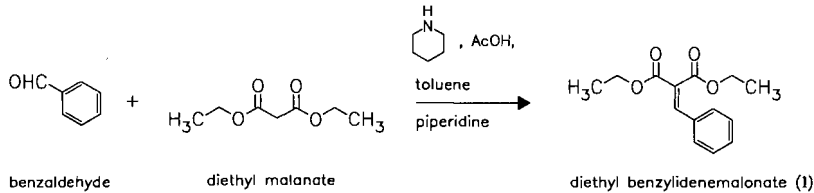
(Racecadotril)

ATC: A07XA04

Use: antisecretory, enkephalinaseinhibitor

RN: 81110-73-8 MF: C₂₁H₂₃NO₄S MW: 385.48

CN: (±)-N-[2-[(Acetylthio)methyl]-1-oxo-3-phenylpropyl]glycine phenylmethyl ester



Reference(s):

EP 38 758 (Roques, B. et al.; appl. 17.4.1981; F-prior. 17.4.1980).

EP 729 936 (Soc. Civile Bioprojet; appl. 1.3.1996; F-prior. 3.3.1995).

synthesis of III:

Mannich, C.; Ritsert, K.: Ber. Dtsch. Chem. Ges. (BDCGAS) **57**, 1116 (1924).

Formulation(s): cps. 100 mg

Trade Name(s):

F: Tiorfan (Bioprojet; 1993)

Acetrizoic acid

ATC: V08AA07

Use: X-ray contrast medium

RN: 85-36-9 MF: $C_9H_6I_3NO_3$ MW: 556.86 EINECS: 201-600-7LD₅₀: 8000 mg/kg (M, i.v.); 20 g/kg (M, p.o.)

CN: 3-(acetylamino)-2,4,6-triiodobenzoic acid

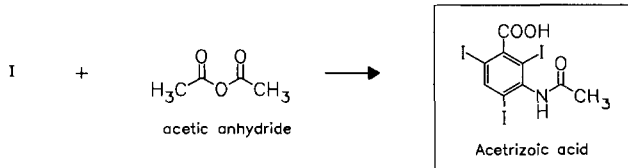
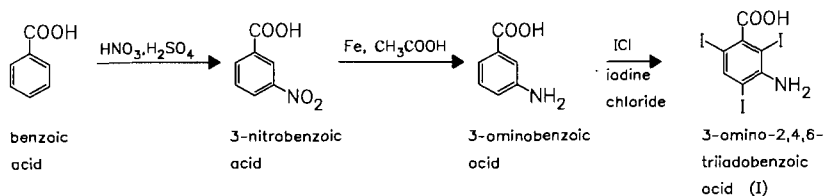
meglumine salt (1:1)RN: 22154-43-4 MF: $C_9H_6I_3NO_3 \cdot C_7H_{17}NO_5$ MW: 752.08LD₅₀: 10.1 g/kg (M, i.v.)**sodium salt**RN: 129-63-5 MF: $C_9H_5I_3NNaO_3$ MW: 578.85 EINECS: 204-956-1LD₅₀: 12156 mg/kg (M, i.m.); 7800 mg/kg (M, i.v.);

6400 mg/kg (R, i.v.);

5200 mg/kg (rabbit, i.v.);

5600 mg/kg (cat, i.v.);

6300 mg/kg (dog, i.v.)

**Reference(s):**

US 2 611 786 (Mallinckrodt; 1952; appl. 1950; prior. 21.7.1948).

Wallingford et al.: J. Am. Chem. Soc. (JACSAT) **74**, 4365 (1952).**3-amino-2,4,6-triiodobenzoic acid:**Kretzer: Ber. Dtsch. Chem. Ges. (BDCGAS) **30**, 1944 (1897).**Formulation(s):** vial. 250 mg/ml, 500 mg/ml**Trade Name(s):**

F: Vasurix (Guerbet); wfm

J: Diaginol (Banyu); wfm

Pyelokon-R

GB: Diaginol (May & Baker); wfm

USA: Cystocon (Mallinckrodt); wfm

(Mallinckrodt); wfm

Salpix (Ortho); wfm

Acetylcholine chloride

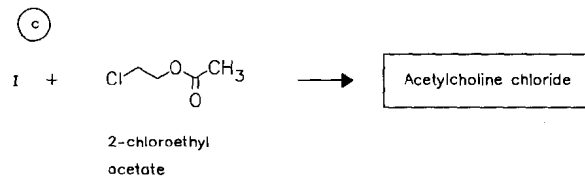
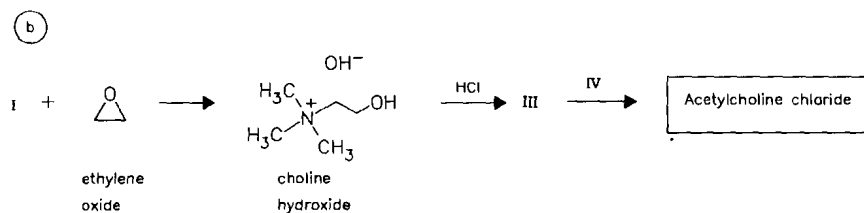
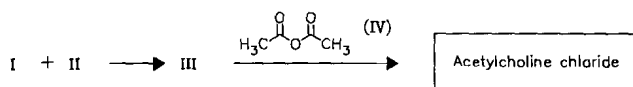
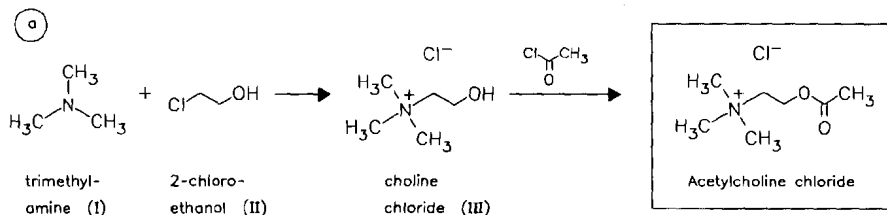
ATC: S01EB09

Use: parasympathomimetic, miotic, vasodilator (peripheral)

RN: 60-31-1 MF: $C_7H_{16}ClNO_2$ MW: 181.66 EINECS: 200-468-8LD₅₀: 10 mg/kg (M, i.v.); 3 g/kg (M, p.o.);

22 mg/kg (R, i.v.); 2500 mg/kg (R, p.o.)

CN: 2-(acetyloxy)-N,N,N-trimethylethanaminium chloride

hydroxideRN: 56-13-3 MF: C₇H₁₇NO₃ MW: 163.22**bromide**RN: 66-23-9 MF: C₇H₁₆BrNO₂ MW: 226.11 EINECS: 200-622-4LD₅₀: 170 mg/kg (M, s.c.)**Reference(s):**

- Baeyer, A. v.: Justus Liebigs Ann. Chem. (JLACBF) **142**, 235 (1867).
 Nothnagel: Arch. Pharm. (Weinheim, Ger.) (ARPMAS) **232**, 265 (1894).
 Fourneau, E.; Page, H.J.: Bull. Soc. Chim. Fr. (BSCFAS) [4] **15**, 544 (1914).
 DE 801 210 (BASF; appl. 1948).
 US 1 957 443 (Merck & Co.; 1934; appl. 1931).
 US 2 012 268 (Merck & Co.; 1935; appl. 1931).
 US 2 013 536 (Merck & Co.; 1935; appl. 1931).

Formulation(s): amp. 20 mg; eye drops 1 %

Trade Name(s):

- | | |
|--|--------------------------|
| D: Miochol-E (CIBA Vision) | J: Acetylcholine (Roche) |
| I: Farmigea acetilcolina (Farmigea); wfm | Neucholin-A (Zeria); wfm |
| | Ovisot (Daiichi); wfm |

Acetylcysteine

ATC: R05CB01; S01XA08; V03AB23

Use: mucolytic agent

RN: 616-91-1 MF: C₅H₉NO₃S MW: 163.20 EINECS: 210-498-3LD₅₀: 400 mg/kg (M, i.p.); 3800 mg/kg (M, i.v.); 7888 mg/kg (M, p.o.);

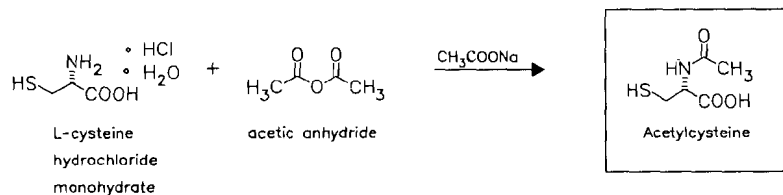
1140 mg/kg (R, i.v.); 5050 mg/kg (R, p.o.);

700 mg/kg (dog, i.p.); 700 mg/kg (dog, i.v.); >1 g/kg (dog, p.o.)

CN: N-acetyl-L-cysteine

monosodium saltRN: 19542-74-6 MF: C₅H₈NNaO₃S MW: 185.18 EINECS: 243-143-6LD₅₀: 3800 mg/kg (M, i.v.);

2559 mg/kg (R, i.v.)

monoammonium saltRN: 50807-78-8 MF: C₅H₉NO₃S · H₃N MW: 180.23**Reference(s):**

US 3 091 569 (Mead Johnson; 28.5.1963; appl. 26.8.1960).

US 3 184 505 (Mead Johnson; 18.5.1965; appl. 18.6.1962).

Smith, H.A.; Gorin, G.: J. Org. Chem. (JOCEAH) **26**, 820 (1961).**ammonium salt (mucolysis of bronchial mucus by nebulization):**

DOS 2 305 271 (Bristol-Myers; appl. 2.2.1973; USA-prior. 3.2.1972).

Formulation(s): amp. 300 mg (as monosodium salt); cps. 200 mg; eff. tabl. 100 mg, 200 mg, 600 mg; f. c. tabl. 100 mg, 200 mg, 600 mg; gran. 10 mg, 100 mg, 200 mg, 600 mg; lyo. for syrup 100 mg; syrup 200 mg/10 ml; tabl. 100 mg, 200 mg, 600 mg

Trade Name(s):

D:	ACC (Hexal)	Fluimucil (Zambon)	GB:	Ilube (Alcon)-comb.
	Acemuc (betapharm)	Fluimucil Antibiotic 750 (Zambon)		Parvolex (Evans)
	Fluimucil-100/-200 (Zambon)	Genac (Génévrier)	I:	Brunac (Bruschettini)
	Rinofluimucil (Inpharzam)-comb.	Mucolator (Abbott)		Fluimucil (Zambon)
	numerous combination and generic preparations	Mucomyst (Bristol-Myers Squibb)		Mucisol (Deca)
F:	Broncoclar (Oberlin)	Mucothiol (SCAT)		Rinofluimucil (Zambon)-comb.
	Codotussyl (Whitehall)	Rhinofluimucil (Débat)-comb.	J:	Acetein (Senju)
	Euronac (Europhta)	Solmucol (Génévrier)		Mucoflin Sol. (Eisai)
	Exomuc (Bouchara)	Tixair (Byk)	USA:	Mucosit (Dey)

Acetyldigitoxin

ATC: C01AA01

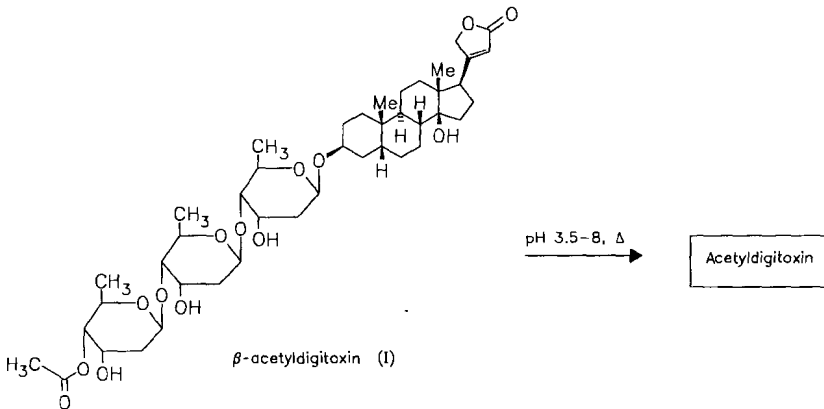
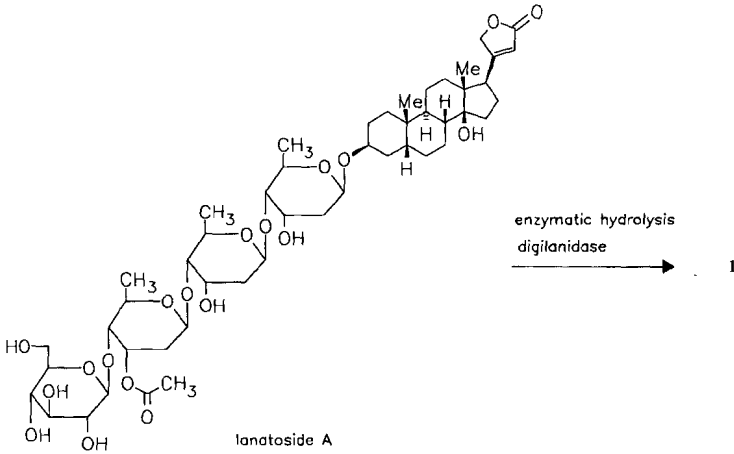
Use: cardiotoxic, cardiac glycoside

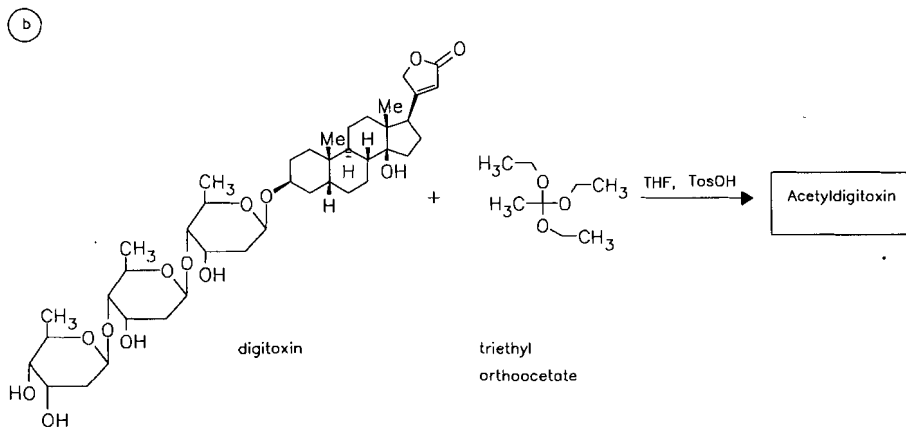
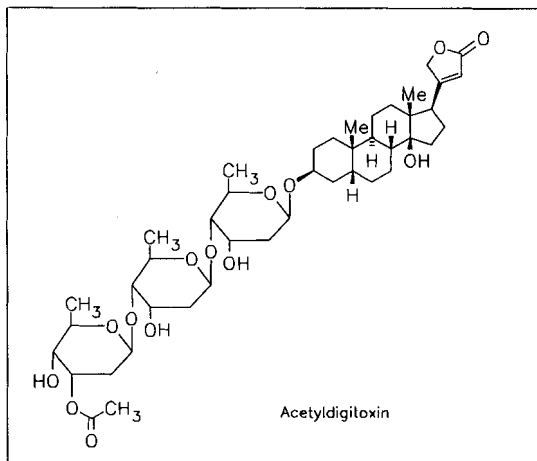
RN: 1111-39-3 MF: C₄₃H₆₆O₁₄ MW: 806.99 EINECS: 214-178-4LD₅₀: >30 mg/kg (g. p., p.o.);

514 µg/kg (cat, i.v.); 250 µg/kg (cat, p.o.)

CN: (3β,5β)-3-[(*O*-3-*O*-acetyl-2,6-dideoxy-β-*D*-ribo-hexopyranosyl-(1→4)-*O*-2,6-dideoxy-β-*D*-ribo-hexopyranosyl-(1→4)-2,6-dideoxy-β-*D*-ribo-hexopyranosyl)oxy]-14-hydroxycard-20(22)-enolide

a





Reference(s):

- a** Stoll, A. et al.: *Helv. Chim. Acta (HCACAV)* **34**, 397 (1951).
 Gisvold, O.: *J. Pharm. Sci. (JPMSAE)* **61**, 1320 (1972).
 HU 155 716 (Richter Gedeon; appl. 20.1.1968).
 DE 925 047 (Sandoz; appl. 1954; CH-prior. 1952).
- b** DE 2 010 422 (Boehringer Ing.; appl. 5.3.1970).

alternative synthesis:

DE 2 206 737 (Boehringer Mannh.; appl. 12.2.1972) (α -Acetyldigoxin, q. v.).

Formulation(s): tabl. 0.2 mg

Trade Name(s):

D: Acylanid (Sandoz); wfm F: Acylanid (Sandoz); wfm USA: Acylanid (Sandoz); wfm

α -Acetyldigoxin

ATC: C01AA02

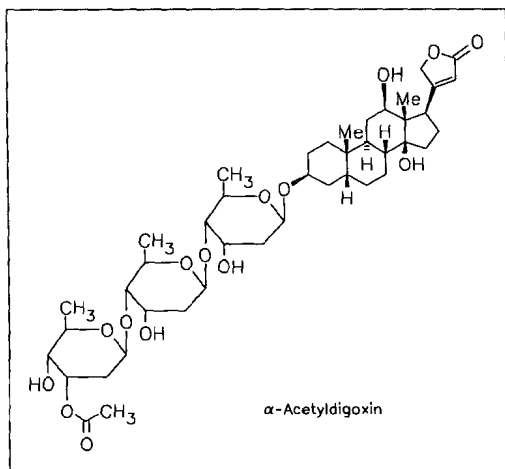
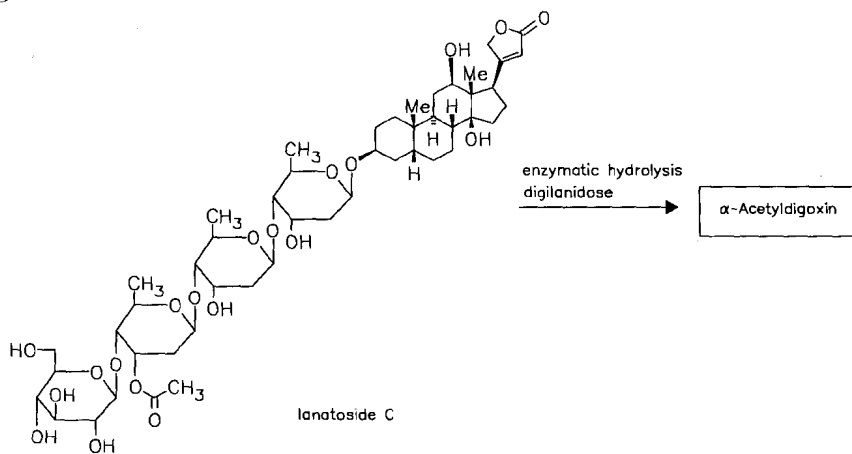
Use: cardiotonic, cardiac glycoside

RN: 5511-98-8 MF: C₄₃H₆₆O₁₅ MW: 822.99 EINECS: 226-855-1

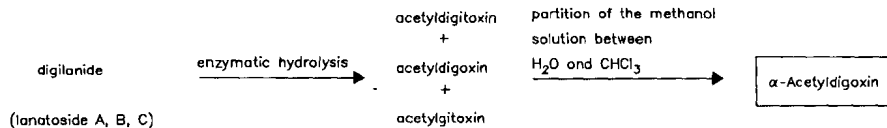
LD₅₀: 3300 μ g/kg (g. p., p.o.);
 200 μ g/kg (cat, p.o.)

CN: (3 β ,5 β ,12 β)-3-[(*O*-3-*O*-acetyl-2,6-dideoxy- β -D-ribo-hexopyranosyl-(1 \rightarrow 4)-*O*-2,6-dideoxy- β -D-ribo-hexopyranosyl-(1 \rightarrow 4)-2,6-dideoxy- β -D-ribo-hexopyranosyl)oxy]-12,14-dihydroxycard-20(22)-enolide

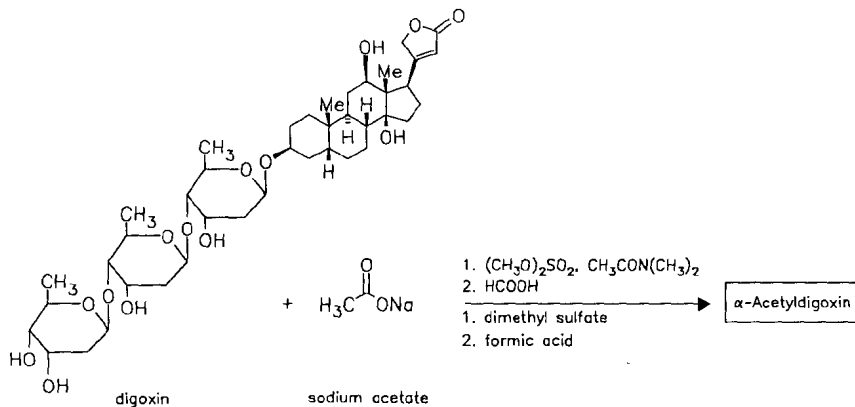
a



b



(c)

*Reference(s):*

- a** Fieser, L.F.; Fieser, M.: *Steroids*, p. 801, Verlag Chemie, Weinheim 1961.
b GB 1 162 614 (Heilmittelwerke Wien; appl. 1.2.1968; A-prior. 7.2.1967).
 Gisvold, O.: *J. Pharm. Sci. (JPMSAE)* **61**, 1320 (1972).

alternative syntheses:

- DE 2 010 422 (Boehringer Ing.; appl. 5.3.1970). (*Acetyldigitoxin*, q. v.).
 Rietbrock, N.; Kuhlmann, J.: *Naunyn-Schmiedeberg's Arch. Pharmacol. (NSAPCC)* **279**, 413 (1973).

Formulation(s): sol. 0.5 mg/ml; tabl. 0.25 mg, 0.2 mg

Trade Name(s):

D:	Card-Hydergin (Sandoz)- comb.; wfm	Lanadigin (Promonta); wfm	Nitro-Sandolanid (Sandoz)- comb.; wfm
	Digi-Complamin (Beecham-Wülfig)-comb.;	Lanadigin EL (Promonta); wfm	Sandolanid (Sandoz)
	wfm	Lanadigin + Theophyllin (Promonta)-comb.; wfm	F: Acygoxine (Sandoz); wfm
			I: Cedigossina (Sandoz)

 β -Acetyldigoxin

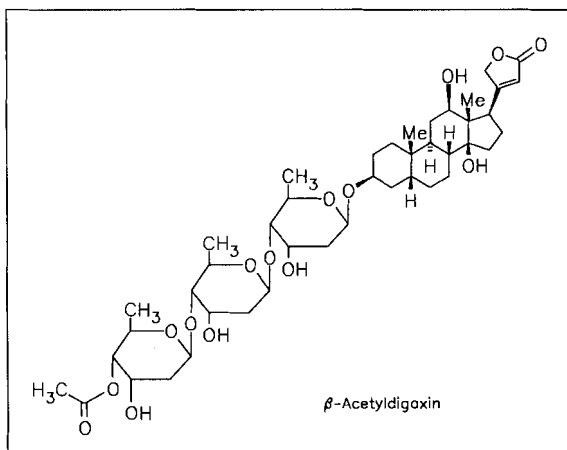
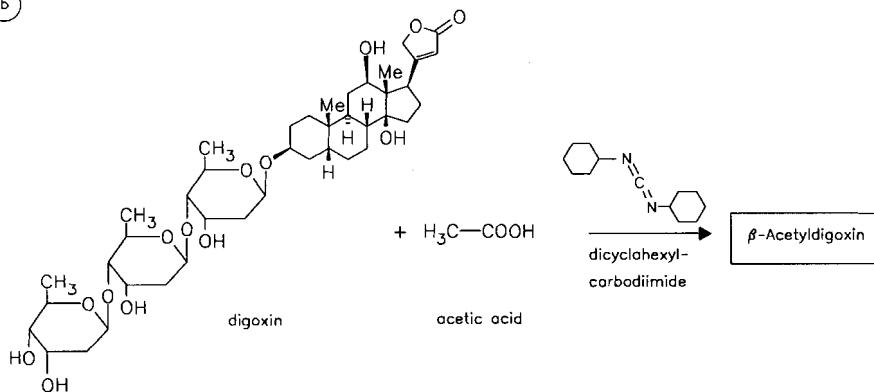
ATC: C01AA02

Use: cardiotonic, cardiac glycoside

RN: 5355-48-6 MF: $C_{43}H_{66}O_{15}$ MW: 822.99 EINECS: 226-337-5LD₅₀: 2400 μ g/kg (g. p., p.o.);422 μ g/kg (dog, p.o.)CN: (3 β ,5 β ,12 β)-3-[(*O*-4-*O*-acetyl-2,6-dideoxy- β -D-ribo-hexopyranosyl-(1 \rightarrow 4)-*O*-2,6-dideoxy- β -D-ribo-hexopyranosyl-(1 \rightarrow 4)-2,6-dideoxy- β -D-ribo-hexopyranosyl)oxy]-12,14-dihydroxycard-20(22)-enolide

a isolation and extraction from the leaves of *Digitalis lanata*

b



Reference(s):

- a Hopponen, R.E.; Gisvold, O.: J. Am. Pharm. Assoc. (JPHAA3) **41**, 146 (1952).
Rangaswami, S. et al.: Indian J. Pharm. (IJPAAO) **17**, 253 (1955).
- b HU 7 147 (Richter Gedeon; appl. 5.6.1972).

alternative syntheses:

- Haberland, G.: *Arzneim.-Forsch. (ARZNAD)* **15**, 481 (1965).
- Graf, E.; Pfaff, J.: *Arch. Pharm. (Weinheim, Ger.) (ARPMAS)* **307**, 943 (1974).
- DOS 2 826 532 (LEK tovarna farm.; appl. 16.6.1978; YU-prior. 22.6.1977).

medical use:

DOS 1 921 307 (Boehringer Ing.; appl. 25.4.1969) addition to DOS 1 767 553.

Formulation(s): tabl. 0.1 mg, 0.2 mg

Trade Name(s):

D: Beta-Acetyldigoxin (ratiopharm)	Beta-Acetyldigoxin-ratiopharm 0,1 mg/0,2 mg (ratiopharm)	Digotab (ASTA Medica AWD)
Beta-Acetyldigoxin R.A.N.	Digostada 0.2/-mite (Stadapharm)	Digox (ct-Arzneimittel)
= glycotop (R.A.N.)	Digostade (Stada)	Digoxin-Didier (Hormosan)
		Gladixol (Corax)

Kardiamed (Medice)		numerous combination	Cardiobeg (Nattermann);
Novodigal (Beiersdorf)		preparations	wfm
Stillacor (Wolff)	I:	Beta-Acigoxia (Inverni della Beffa); wfm	

Acetylsalicylic acid

(Acidum acetylsalicylicum; Aspirin)

ATC: A01AD05; B01AC06; M01BA03; N02BA01; N02BA51

Use: analgesic, antipyretic, antirheumatic, platelet aggregation inhibitor

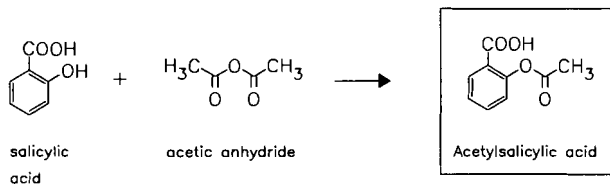
RN: 50-78-2 MF: C₉H₈O₄ MW: 180.16 EINECS: 200-064-1
 LD₅₀: 280 mg/kg (M, i.p.); 250 mg/kg (M, p.o.); 1520 mg/kg (M, s.c.);
 340 mg/kg (R, i.p.); 200 mg/kg (R, p.o.); 1600 mg/kg (R, s.c.);
 1075 mg/kg (g. p., p.o.);
 1010 mg/kg (rabbit, p.o.);
 681 mg/kg (dog, i.v.); 700 mg/kg (dog, p.o.)
 CN: 2-(acetyloxy)benzoic acid

aluminum saltRN: 147-31-9 MF: C₂₇H₂₁AlO₁₂ MW: 564.44**calcium salt**RN: 69-46-5 MF: C₁₈H₁₄CaO₈ MW: 398.38 EINECS: 200-707-6**lithium salt**RN: 552-98-7 MF: C₉H₇LiO₄ MW: 186.09 EINECS: 209-029-5**sodium salt**RN: 493-53-8 MF: C₉H₇NaO₄ MW: 202.14 EINECS: 207-777-7

LD₅₀: 730 mg/kg (M, i.p.);
 1450 mg/kg (R, i.p.)

magnesium saltRN: 132-49-0 MF: C₁₈H₁₄MgO₈ MW: 382.61 EINECS: 205-062-4LD₅₀: 620 mg/kg (M, s.c.)**lysine salt (1:1)**RN: 62952-06-1 MF: C₉H₈O₄ · C₆H₁₄N₂O₂ MW: 326.35

LD₅₀: 950 mg/kg (M, i.v.); 3270 mg/kg (M, p.o.);
 1525 mg/kg (R, i.v.); 4350 mg/kg (R, p.o.)

**Reference(s):**

Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. 13, 90.
 US 3 235 583 (Norwich Pharmacal; 15.2.1966; appl. 22.7.1964).

acetylation in presence of pyridine for avoidance of formation of acetylsalicylic anhydride and acetylsalicylsalicylic acid:

DOS 2 635 540 (A. L. de Week, H. Bundgaard; appl. 6.8.1976).

acetylation in presence of H₂SO₄:

US 2 731 492 (J. Kamlet; 1956; appl. 1954).

crystallization:

US 2 890 240 (Monsanto; 1959; appl. 1957).

aluminum salts:

DRP 585 986 (Chinoïn; appl. 1931; H.-prior. 1931).
 US 2 698 332 (Reheis Comp.; 1954; appl. 1951).
 US 2 918 485 (Keystone Chemurgic Corp.; 1959; appl. 1955).
 GB 888 666 (Hardman & Holden; appl. 1959).

aluminum acetylsalicylate glutamate:

DOS 2 909 829 (Kyowa Hakko; appl. 13.3.1979; J.-prior. 13.3.1978).

Formulation(s): cps. 325 mg, 500 mg, suppos. 125 mg, 150 mg, 300 mg; tabl. 50 mg, 75 mg, 100 mg, 300 mg, 500 mg

Trade Name(s):

D:	Alka-Seltzer (Bayer)	Aspirine Vitamine C (Oberlin)-comb.	Alupir (Farmacologico Milanese; as aluminum salt)
	Aspirin (Bayer; 1899)	Aspirisucré (Arkomedika)	Aspergum (Farmades)
	Aspisol (Bayer; as DL-lysine salt)	Aspro (Nicholas)	Aspirina (Bayer)
	Aspro (Roche Nicholas)	Catalgine (Schwarz)	Aspirinetta (Bayer)
	ASS Dura (durachemie)	Claragine (Nicholas)	Aspro (Roche)
	ASS-ratiopharm (ratiopharm)	Kardégic (Synthélabo)	Bufferin (Bristol-Myers Squibb)
	Godamed (Pfleger)	Rhonal (Théraplix)	Cemirit (Bayer)
	Micristin (OPW)	Sargépirine (ASTA Médica)	Endydol (Guidotti)
	Miniasal (OPW)	Solupsan (UPSA)	Kilios (Carlo Erba)
	Romigal (Romogal-Werk)	numerous combination preparations	numerous combination preparations
	Santasal (Merckle)	GB: Angettes (Bristol-Myers)	J: generic preparations
	Togal (Togal)	Aspan (Hoechst)-comb.	USA: Acuprin (Richwood)
	numerous combination preparations	Aspirin (Bayer)	Ecotrin (SmithKline Beecham Consumer)
F:	Actron (Bayer)-comb.	Caprin (Sinclair)	Equagesic (Wyeth-Ayerst)
	Afebry (Galephar)-comb.	Disprin CO (Reckitt & Colman)	Fiorinal (Novartis)
	Alka-Seltzer (Bayer)-comb.	Nu-Seals Aspirin (Lilly)	Halfprin (Kramer)
	Antigrippine (SmithKline Beecham)-comb.	Post MI (Ashbourne)	Norgeric (3M)
	Aspégic 500 (Synthélabo; as lysine salt)	numerous combination preparations	Percotan (Endo)
	Aspirine Bayér (Bayer)	I: Ac Acsal (Formulario Naz.; Tariff. Nazionale; Scfm; Iema; Farmacologico Milanese)	Roboxisal (Robins)
	Aspirine duRhône (Bayer)	Acesal (Geymonat)	
	Aspirine pH 8 (3M Santé)		
	Aspirine Upsa (UPSA)		
	Aspirine Upsa Vitamine C (UPSA)-comb.		

Acetylsulfafurazole

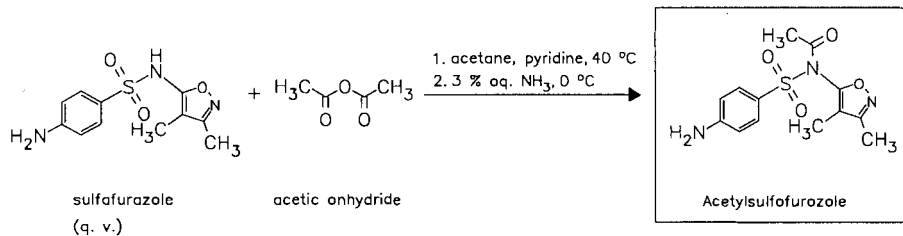
(Acetylsulfisoxazole; Sulfisoxazole Acetyl)

ATC: S01AB

Use: antibacterial

RN: 80-74-0 MF: C₁₃H₁₅N₃O₄S MW: 309.35 EINECS: 201-305-3

CN: N-[(4-aminophenyl)sulfonyl]-N-(3,4-dimethyl-5-isoxazolyl)acetamide

*Reference(s):*

US 2 721 200 (Roche; 1955; appl. 1953).

Formulation(s): susp. 500 mg/5 ml*Trade Name(s):*

USA: Eryzole (Alra)

Pediazole (Ross)

Acexamic acid

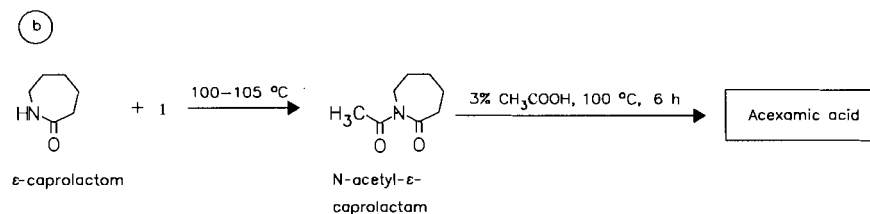
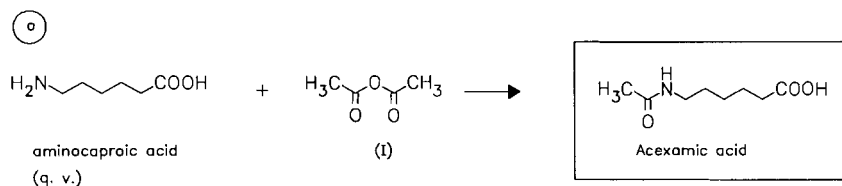
(Acide acexamique)

ATC: D03A

Use: antifibrinolytic

RN: 57-08-9 MF: C₈H₁₅NO₃ MW: 173.21 EINECS: 200-310-8

CN: 6-(acetylamino)hexanoic acid

sodium saltRN: 7234-48-2 MF: C₈H₁₄NNaO₃ MW: 195.19 EINECS: 230-635-0*Reference(s):*Offe, H.A.: Z. Naturforsch., B: Anorg. Chem., Org. Chem., Biochem., Biophys., Biol. (ZENBAX) 2, 182 (1947).
FR-M 2 332 (Rowa; appl. 1963).*Formulation(s):* amp. 5 g (as sodium salt); cps. 300 mg (as zinc salt); ointment 5 % (as sodium salt);
susp. 300 mg (as zinc salt)*Trade Name(s):*

F: Plasténan (Isopharm)

Plasténan Néomycine
(Isopharm)-comb.I: Plastenan (Italfarmaco);
wfm

Aciclovir

(Acyclovir; Acycloguanosine)

ATC: D06BB03; J05AB01; S01AD03

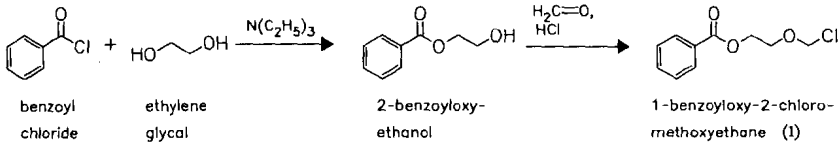
Use: antiviral

RN: 59277-89-3 MF: $C_8H_{11}N_5O_3$ MW: 225.21 EINECS: 261-685-1LD₅₀: 1000 mg/kg (M, i.p.); 1118 mg/kg (M, i.v.); >10000 mg/kg (M, p.o.); 1118 mg/kg (M, s.c.);
860 mg/kg (R, i.p.); 910 mg/kg (R, i.v.); >20000 mg/kg (R, p.o.); 620 mg/kg (R, s.c.)

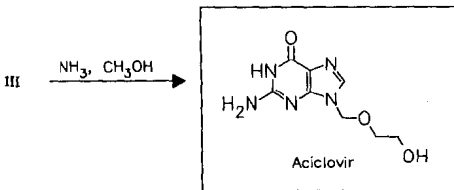
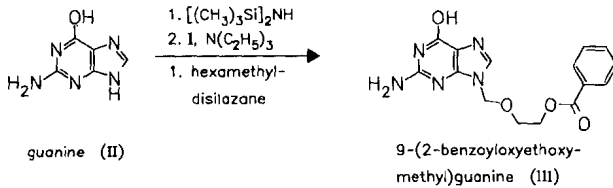
CN: 2-amino-1,9-dihydro-9-[(2-hydroxyethoxy)methyl]-6H-purin-6-one

monosodium saltRN: 69657-51-8 MF: $C_8H_{10}N_5NaO_3$ MW: 247.19LD₅₀: 999 mg/kg (M, i.p.); >10000 mg/kg (M, p.o.);

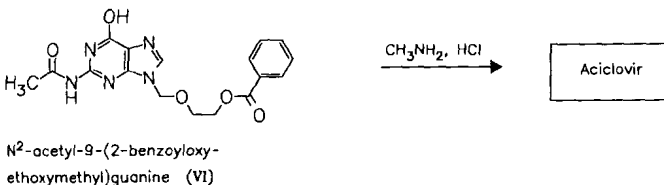
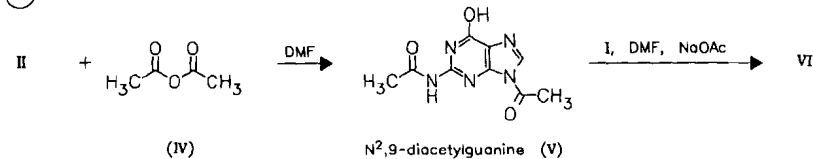
1210 mg/kg (R, i.p.); >600 mg/kg (R, i.v.); >20000 mg/kg (R, p.o.); 650 mg/kg (R, s.c.)



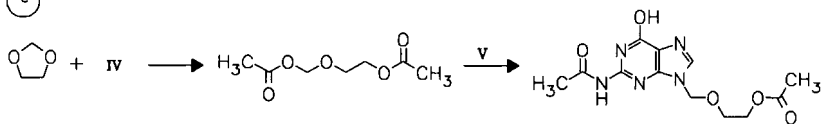
(a)



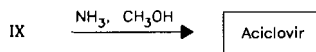
(b)



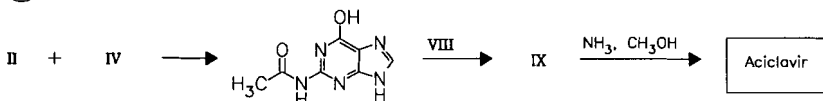
c

1,3-dioxo-
lane (VII)2-acetoxyethyl
acetoxymethyl ether (VIII)

"diacetylaciclovir" (IX)

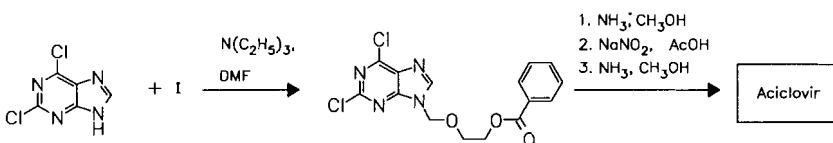


d

N²-acetylguanine

Aciclovir

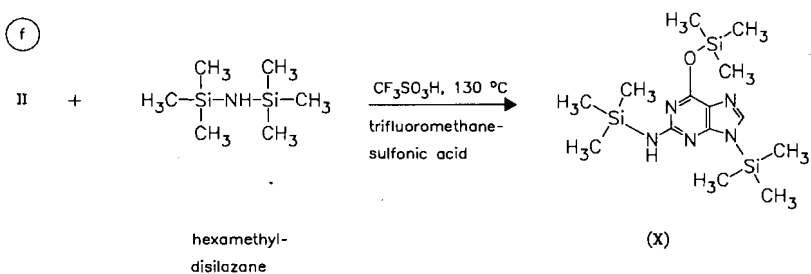
e



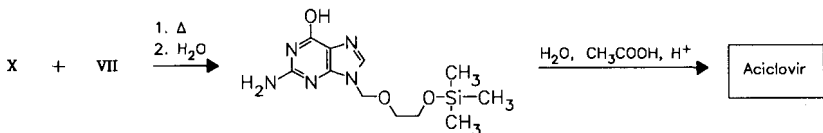
2,6-dichloropurine

Aciclovir

f

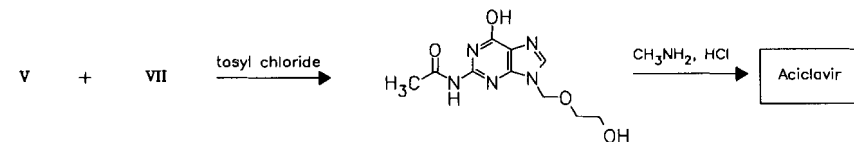
hexamethyl-
disilazane

(X)

9-(2-trimethylsilyloxy-
ethoxymethyl)guanine

Aciclovir

g



"monoacetylaciclovir"

Aciclovir

Reference(s):

- Schaeffer, H.J. et al.: Nature (London) (NATUAS) **272**, 583 (1978).
 DE 2 539 963 (Wellcome; appl. 2.9.1975; GB-prior. 2.9.1974).
 US 4 199 574 (Wellcome; 22.4.1980; GB-prior. 2.9.1974).
 GB 1 523 865 (Burrughs Wellcome; GB-prior. 2.9.1974).
 c GB 1 567 671 (Wellcome; appl. 26.8.1977; USA-prior. 27.8.1976).
 Matsumoto, H. et al.: Chem. Pharm. Bull. (CPBTAL) **36**, 1153 (1988).
 f EP 709 385 (Roche; appl. 13.7.1995; USA-prior. 26.7.1994, 27.4.1995).

alternative synthesis from 4-aminoimidazole-5-carboxamide:

WO 9 011 283 (GEA Farm.; 4.10.1990; DK-prior. 20.3.1989).

alternative synthesis via formylguanine:

WO 9 507 281 (Recordati; appl. 3.2.1994; I-prior. 10.9.1993).

synthesis using 1,3-dioxolane:

US 5 567 816 (Syntex; appl. 27.4.1995; USA-prior. 27.7.1994).

improved procedures:

- DE 19 536 164 (Boehringer Ingelheim; D-prior. 28.9.1995).
 WO 9 724 357 (Mallinckrodt; appl. 17.12.1996; USA-prior. 28.12.1995).
 DE 19 604 101 (B. Lehmann; 6.2.1996).
 EP 806 425 (Lupin Lab.; EP-prior. 9.4.1996).
 US 5 792 868 (Ajinomoto; appl. 18.3.1994; J-prior. 18.9.1991).

Formulation(s): cps. 200 mg; cream 50 mg/g; eye ointment 30 mg/g; susp. 8 %; tabl. 200 mg, 400 mg, 800 mg; vial 250 mg, 500 mg

Trade Name(s):

D:	Zovirax (Glaxo Wellcome; 1983)	Alovir (Foletto)	Sifiviral (SIFI)
F:	Activir (Warner-Lambert)	Avirase (Lampugnani)	Zovirax (Wellcome; 1984)
GB:	Zovirax (Wellcome; 1983)	Avyclor (Bioprogress)	J: Zovirax (Seimitomo-Wellcome; 1985)
	Herpetad (Boehringer Ing.)	Cycloviran (Sigma-Tau)	USA: Zovirax (Glaxo Wellcome; 1985)
	Zovirax (Glaxo Wellcome; 1981)	Dravyr (Drug Research)	
I:	Aciviran (Ripari-Gero)	Efrivir (Aesculapius-Bs)	
	Acyvir (Delalande Isnardi)	Esavir (Boniscontro & Gazzone)	
		Neviran (Coli)	

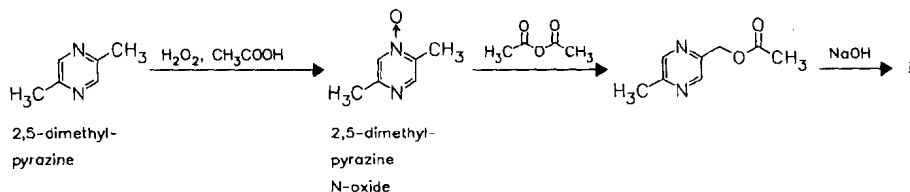
Acipimox

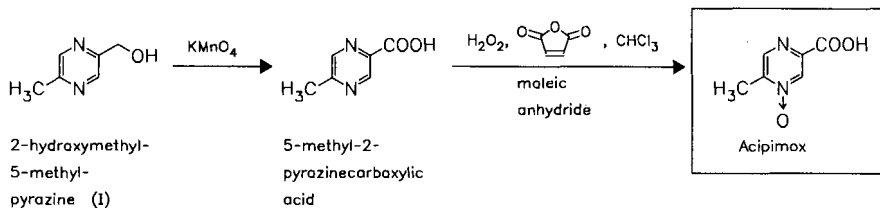
ATC: C10AD06

Use: antihyperlipoproteinemic

RN: 51037-30-0 MF: C₆H₆N₂O₃ MW: 154.13 EINECS: 256-928-3LD₅₀: 3500 mg/kg (M, p.o.)

CN: 5-methylpyrazinecarboxylic acid 4-oxide



**Reference(s):**

- US 4 002 750 (Carlo Erba; 11.1.1977; I-prior. 28.4.1972).
 US 4 051 245 (Carlo Erba; 27.9.1977; I-prior. 28.4.1972).
 DOS 2 319 834 (Carlo Erba; appl. 18.4.1973; I-prior. 28.4.1972).
 GB 1 361 967 (Carlo Erba; appl. 12.4.1973; I-prior. 28.4.1972).
 Brubroggi, V. et al.: Eur. J. Med. Chem. (EJMCA5) **15**, 157 (1980).

5-methyl-2-pyrazinecarboxylic acid:

Pitré, D. et al.: Chem. Ber. (CHBEAM) **99**, 364 (1966).

2-hydroxymethyl-5-methylpyrazine:

Klein, B. et al.: J. Org. Chem. (JOCEAH) **26**, 129 (1961).

Formulation(s): cps. 25 mg, 250 mg

Trade Name(s):

I: Olbetam (Pharmacia & Upjohn; 1985)

Aclarubicin

(Aclacinomycin A)

ATC: L01DB04

Use: antineoplastic

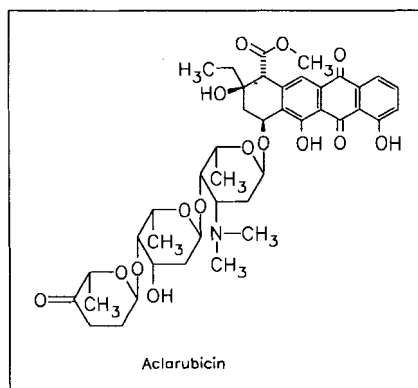
RN: 57576-44-0 MF: $\text{C}_{42}\text{H}_{53}\text{NO}_{15}$ MW: 811.88 EINECS: 260-824-3

LD₅₀: 22.6 mg/kg (M, i.p.); 33.7 mg/kg (M, i.v.)

CN: [1R-(1 α ,2 β ,4 β)]-2-ethyl-1,2,3,4,6,11-hexahydro-2,5,7-trihydroxy-6,11-dioxo-4-[[2,3,6-trideoxy-4-O-[2,6-dideoxy-4-O-[(2R-trans)-tetrahydro-6-methyl-5-oxo-2H-pyran-2-yl]- α -L-lyxo-hexopyranosyl]-3-(dimethylamino)- α -L-lyxo-hexopyranosyl]oxy]-1-naphthacencarboxylic acid methyl ester

hydrochloride

RN: 75443-99-1 MF: $\text{C}_{42}\text{H}_{53}\text{NO}_{15} \cdot \text{HCl}$ MW: 848.34



By fermentation of *Streptomyces galilaeus* MA 144-M1 (ATCC 3113); separation of aclacinomycin A and B by column chromatography.

Reference(s):

DOS 2 532 568 (Zaidanhojin Biseibutsu Kagaku Kenkyukai; appl. 21.1.1975; J-prior. 27.7.1974).
US 3 988 315 (Zaidanhojin Biseibutsu Kagaku Kenkyukai, 26.10.1976; J-prior. 27.7.1974).

Formulation(s): powder 20 mg; vial 20 mg (as hydrochloride)

Trade Name(s):

D: Aclaplastin (medac) F: Aclacinomycine (Roger Bellon); wfm J: Aclacinon (Sanraku)

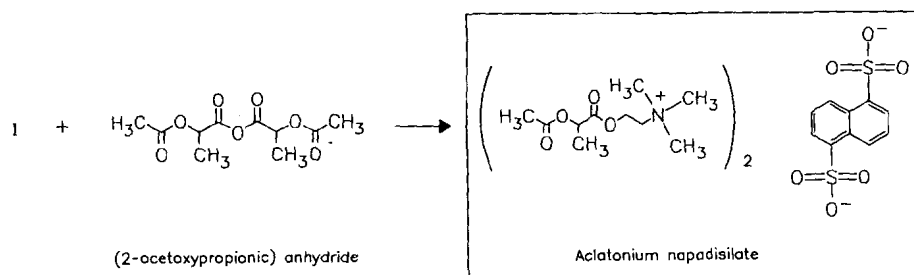
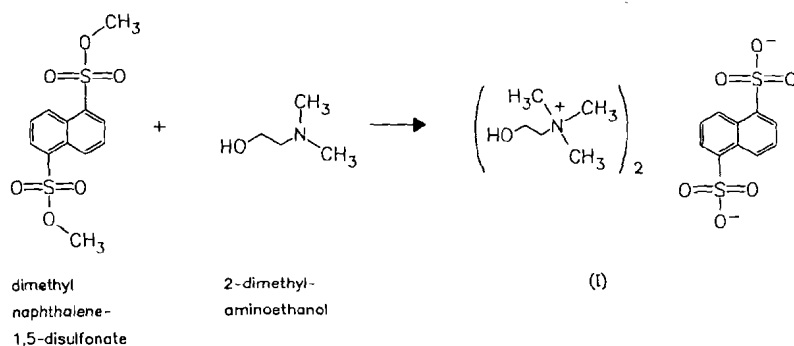
Aclatonium nepadisilate

ATC: A03AB
Use: antispasmodic, cholinergic

RN: 55077-30-0 MF: $C_{10}H_{20}NO_4 \cdot 1/2C_{10}H_6O_6S_2$ MW: 722.83

LD₅₀: 41.9 mg/kg (M, i.v.); 15 g/kg (M, p.o.);
46 mg/kg (R, i.v.); >13.9 g/kg (R, p.o.);
>10 g/kg (dog, p.o.)

CN: 2-[2-(acetyloxy)-1-oxopropoxy]-N,N,N-trimethylethanaminium 1,5-naphthalenedisulfonate (2:1)



Reference(s):

DE 2 425 983 (Toyama; appl. 30.5.1974; J-prior. 12.6.1973).
US 3 903 137 (Toyama; 2.9.1975; J-prior. 12.6.1973, 20.6.1973).

Formulation(s): cps. 25 mg, 50 mg

Trade Name(s):

J: Abovis (Toyama; 1981)

Acriflavinium chloride

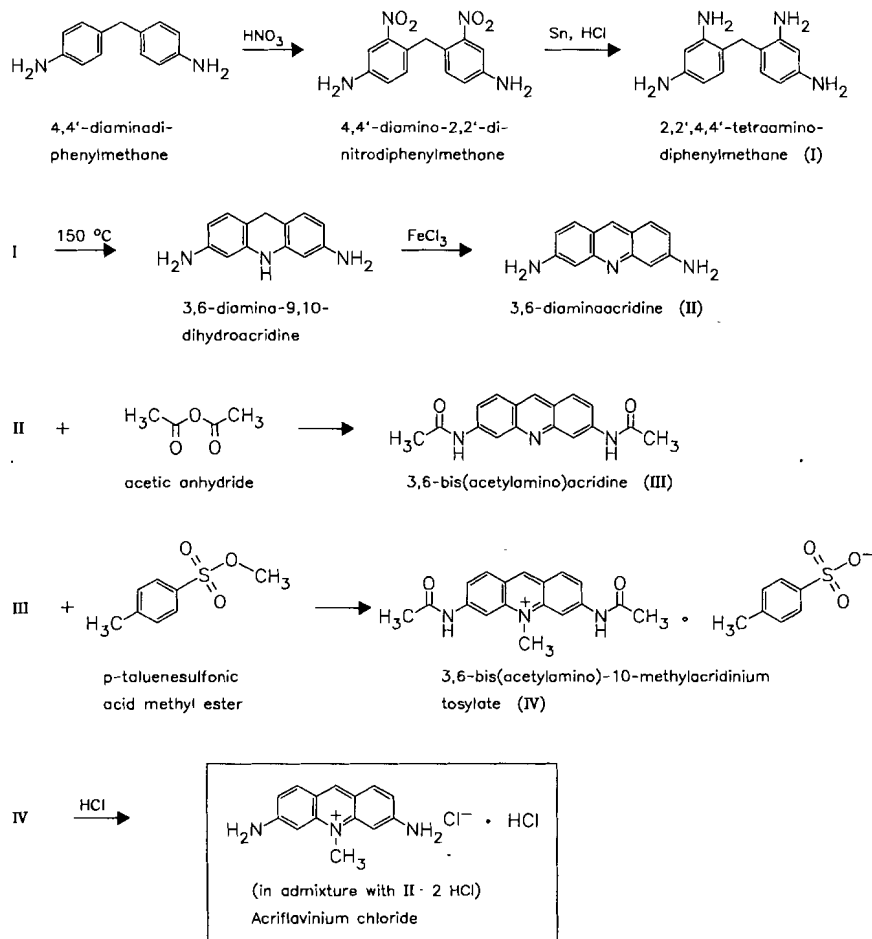
(Acriflavine hydrochloride)

ATC: R02AA13

Use: antiseptic, chemotherapeutic (local infections)

RN: 8063-24-9 MF: $C_{14}H_{14}ClN_3 \cdot C_{13}H_{11}N_3 \cdot 3HCl$ MW: 578.38

CN: 3,6-diamino-10-methylacridinium chloride monohydrochloride mixt. with 3,6-acridinediamine dihydrochloride

**Reference(s):**

FR 686 606 (I. G. Farben; 1929).

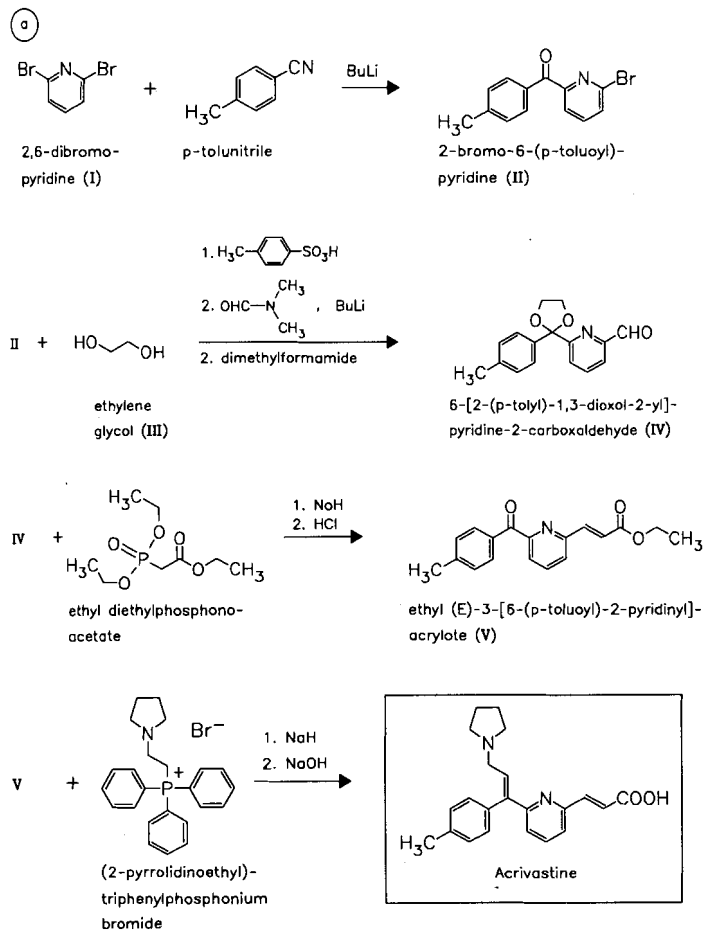
Formulation(s): sol. 150 mg/100 g; tabl. 0.15 mg (comb. with 5 mg benzocaine)**Trade Name(s):**D: Nordapanin (Michallik)-
comb.F: Chromargon (M. Richard)-
comb.J: Isravine (Takeda); wfm
comb.

Acrivastine

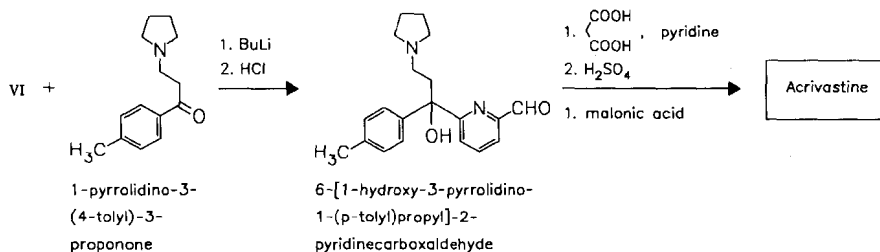
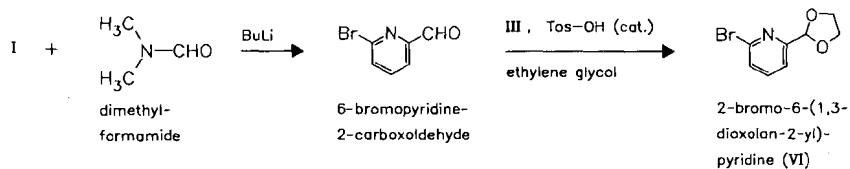
(BW-825C)

ATC: R06AX18

Use: non-sedative antihistaminic (for treatment of allergic rhinitis, urticaria)

RN: 87848-99-5 MF: C₂₂H₂₄N₂O₂ MW: 348.45CN: (*E,E*)-3-[6-[1-(4-methylphenyl)-3-(1-pyrrolidiny)-1-propenyl]-2-pyridinyl]-2-propenoic acid

(b)

*Reference(s):*

- EP 85 959 (Wellcome; appl. 3.2.1983; GB-prior. 4.2.1983).
 US 4 501 893 (Burroughs Wellcome; 26.2.1985; GB-prior. 4.2.1982).
 US 4 562 258 (Burroughs Wellcome; 31.12.1985; GB-prior. 4.2.1982).
 US 4 650 807 (Burroughs Wellcome; 17.3.1987; GB-prior. 4.2.1982).
 US 4 657 918 (Burroughs Wellcome; 14.4.1987; GB-prior. 4.2.1982).
 EP 249 950 (Wellcome; appl. 3.2.1983; GB-prior. 4.2.1982, 18.10.1982).

preparation of 2,6-dibromopyridine:

- Nakagawa, H. et al.: Chem. Pharm. Bull. (CPBTAL) **46** (10), 1656-1657 (1998).
 Malinowski, M., Kczmarek, L.: Synthesis (SYNTBF) **11** 1013-1015 (1987).
 den Hertog; Wibaut; Recl. Trav. Chim. Pays-Bas (RTCPA3) **51** 940, 947 (1932).
 McElvain; Goese: J. Am. Chem. Soc. (JACSAT) **65** 2227, 2230 (1943).

preparation of 2-bromo-6-(1,3-dioxolan-2-yl)pyridine:

- Davies, S.R. et al.: J. Organomet. Chem. (JORCAI) **550** (1-2), 29 (1998).
 Niemitz, J.: Synth. Commun. (SYNCAV) **11** (4), 273 (1981).
 Heirtzler, F.R.; Neuberger, N.; Zehnder, Margareta; Constable, E.G.: Liebigs Ann./Recl. (LIARFV) (2), 297-302 (1997).

preparation of 6-bromopyridine-6-carboxaldehyde:

- Meth-Cohn, O.; Jiang, H.: J. Chem. Soc., Perkin Trans. 1 (JCPRB4) **22**, 3737 (1998).
 Uenishi, J.; Nishiwaki, K.; Hata, S.; Nakamura, K.: Tetrahedron Lett. (TELEAY) **35** (43), 7973 (1994).
 Ashimori, A. et al.: Chem. Pharm. Bull. (CPBTAL) **38** (9), 2446 (1990).

preparation of 1-pyrrolidino-3-(4-tolyl)-3-propanone via Mannich-condensation from p-methylacetophenone:

- Adamson et al.: J. Chem. Soc. (JCSOA9) 312, 322 (1958).
 Huang, Y.; Hall, I: Pharmazie (PHARAT) **51** (4), 199-206 (1996).

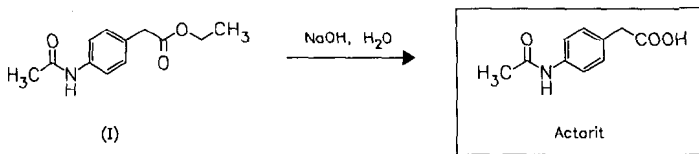
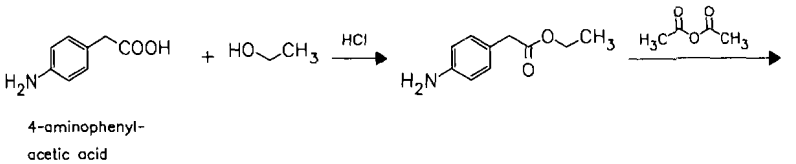
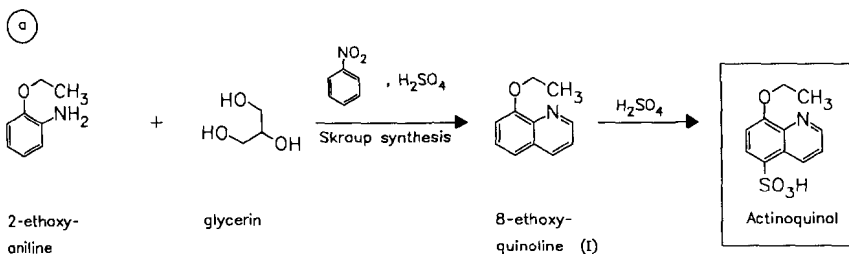
Formulation(s): cps. 8 mg; syrup 4 mg

Trade Name(s):

GB: Benadryl (Warner-Lambert Consumer) I: Semprex (Wellcome) USA: Semprex-D (Medeva)

Actarit
(MS 932)ATC: M01
Use: analgesic (non-opioid), antirheumatic,
immunomodulator, antiarthriticRN: 18699-02-0 MF: C₁₀H₁₁NO₃ MW: 193.20 EINECS: 242-511-3LD₅₀: 14.7 g/kg (M, p.o.);
14.8 g/kg (R, p.o.);
>6.05 g/kg (dog, p.o.)

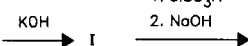
CN: 4-(acetylamino)benzeneacetic acid

**Reference(s):**DE 3 317 107 (Mitsubishi Chem. Ind.; appl. 24.11.1983; J-prior. 11.5.1982).
EP 94 599 (Mitsubishi Chem. Ind.; appl. 23.11.1983; J-prior. 11.5.1982).
Yoshida, H. et al.: Int. J. Immunother. (IJIMET) 3(4), 261 (1987).**Formulation(s):** tabl. 100 mg**Trade Name(s):**J: Mover (Mitsubishi Chem./
Nikken Chem.)Orel (Nippon Shinyaku;
1994)**Actinoquinol**
(Etoquinol)ATC: D02B
Use: light protection agentRN: 15301-40-3 MF: C₁₁H₁₁NO₄S MW: 253.28 EINECS: 239-334-9
CN: 8-ethoxy-5-quinolinesulfonic acid**sodium salt**RN: 7246-07-3 MF: C₁₁H₁₀NNaO₄S MW: 275.26 EINECS: 230-651-8

(b)

oxyquinoline
(q. v.)

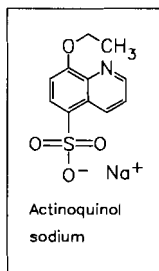
+

ethyl
bromide

I

1. ClSO₃H

2. NaOH

**Reference(s):**Ghosh, T.N.; Roy, A.C.: J. Indian Chem. Soc. (JICSAH) **22**, 39 (1945).**Formulation(s):** eye drops 0.3 %**Trade Name(s):**D: dura Ultra (durachemie)-
comb.Idrilsine (Winzer)-comb.
Tele-Stulln (Stulln)-comb.

I: Fotofil (Intes)-comb.

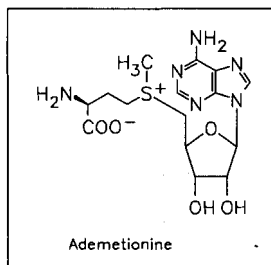
Ademetionine

(Adenosylmethionine; Methioninyl adenylate; SAM)

ATC: A16AA02

Use: antirheumatic (degenerative
arthropathy)RN: 29908-03-0 MF: C₁₅H₂₂N₆O₅S MW: 398.44 EINECS: 249-946-8

CN: 5'-[[[(3S)-3-amino-3-carboxypropyl]methylsulfonio]-5'-deoxyadenosine inner salt

Preparation by fermentation of *Saccharomyces cerevisiae* (baker yeast) with addition of L- or DL-methionine, lyse of cells with ethyl acetate and purification by ion-exchange chromatography.**Reference(s):****fermentation and isolation:**Schlenk: Enzymologia (ENZYAS) **29**, 283 (1965).

DE 1 803 978 (Boehringer Mannh.; appl. 18.10.1968).

US 3 962 034 (Ajinomoto; 8.6.1976; J.-prior. 27.11.1973).

DOS 3 231 569 (Nippon Zeon; appl. 25.8.1982).

DOS 3 304 468 (Nippon Zeon; appl. 9.2.1983; J.-prior. 25.2.1982, 26.2.1982).

DOS 3 329 218 (Nippon Zeon; appl. 12.8.1983; J.-prior. 13.8.1982).

stable salts:**4-toluenesulfonates:**

DOS 2 336 401 (Errekappa Euroterapici; appl. 17.7.1973; I.-prior. 2.8.1972).

US 3 893 999 (Bioresearch; 8.7.1975; I.-prior. 2.8.1972).

4-toluenesulfonate sulfates:

US 3 954 726 (Bioresearch; 4.5.1976; I-prior. 27.6.1973; 24.5.1974).

other sulfonates:

DOS 2 530 898 (Bioresearch; appl. 10.7.1975; I-prior. 12.7.1974).

US 4 057 686 (Bioresearch; 8.11.1977; I-prior. 12.7.1974).

US 4 465 672 (Bioresearch; 14.8.1984; I-prior. 24.8.1981).

EP 72 980 (Bioresearch; appl. 12.8.1982; I-prior. 24.8.1981).

EP 162 323 (Bioresearch; appl. 25.4.1985; I-prior. 16.5.1984).

EP 162 324 (Bioresearch; appl. 25.4.1985; I-prior. 16.5.1984).

other salts:

EP 73 376 (Bioresearch; appl. 12.8.1982; I-prior. 24.8.1981).

EP 74 555 (Bioresearch; appl. 30.8.1982; I-prior. 11.9.1981).

EP 108 817 (Kanegafuchi; appl. 6.11.1982).

EP 141 462 (Tecofar; appl. 19.10.1984; I-prior. 26.10.1983).

formulations:**injection form:**

EP 136 463 (Bioresearch; appl. 1.8.1984; I-prior. 24.8.1983).

gastric juice resistant form:

EP 136 464 (Bioresearch; appl. 1.8.1984; I-prior. 24.8.1983).

Formulation(s): amp. 384 mg; tabl. 384 mg (as bisulfate)

Trade Name(s):

D: Gumbartal (ASTA Medica

AWD)

I: Donamet (Knoll)

Ergen (San Carlo)

Samyr (Bioresearch)

Transmetil (Bioresearch)

Turin (San Carlo)

Adiphenine

ATC: A03AA

Use: antispasmodic, anticholinergic

RN: 64-95-9 MF: $C_{20}H_{25}NO_2$ MW: 311.43 EINECS: 200-599-0

LD₅₀: 182 mg/kg (M, i.p.); 21.5 mg/kg (M, i.v.); 600 mg/kg (M, p.o.); 400 mg/kg (M, s.c.);

27 mg/kg (R, i.v.);

35 mg/kg (dog, i.v.);

30 mg/kg (rabbit, i.v.)

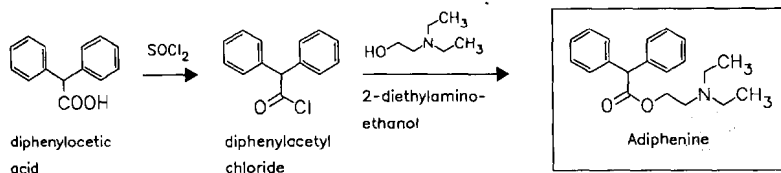
CN: α -phenylbenzeneacetic acid 2-(diethylamino)ethylester

hydrochloride

RN: 50-42-0 MF: $C_{20}H_{25}NO_2 \cdot HCl$ MW: 347.89 EINECS: 200-036-9

LD₅₀: 185 mg/kg (M, i.p.); 500 mg/kg (M, p.o.); 650 mg/kg (M, s.c.);

250 mg/kg (R, i.p.); 17.3 mg/kg (R, i.v.)

**Reference(s):**

DE 626 539 (Ciba; 1934).

Formulation(s): drg. 20 mg, 25 mg; suppos. 40 mg, 50 mg

Trade Name(s):

F: Spasmo-Cibalgine (Ciba)-
comb.; wfm

I: Nisidina (De Angeli)-
comb.; wfm

USA: Trasentine (Ciba); wfm

Adipiodone

(Iodipamide)

ATC: V08AC04

Use: X-ray contrast medium

RN: 606-17-7 MF: $C_{20}H_{14}I_6N_2O_6$ MW: 1139.76 EINECS: 210-105-5LD₅₀: 2440 mg/kg (M, i.v.)

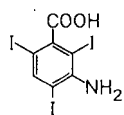
CN: 3,3'-(1,6-dioxo-1,6-hexanedyl)diimino]bis[2,4,6-triiodobenzoic acid]

disodium saltRN: 2618-26-0 MF: $C_{20}H_{12}I_6N_2Na_2O_6$ MW: 1183.73 EINECS: 220-049-3LD₅₀: 3400 mg/kg (R, i.v.)**meglumine salt (1:2)**RN: 3521-84-4 MF: $C_{20}H_{14}I_6N_2O_6 \cdot 2C_7H_{17}NO_5$ MW: 1530.19 EINECS: 222-534-5LD₅₀: 3195 mg/kg (M, i.v.);

5000 mg/kg (R, i.v.); 1921 mg/kg (R, parenteral);

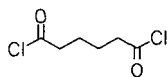
1446 mg/kg (rabbit, parenteral);

1200 mg/kg (dog, i.v.)



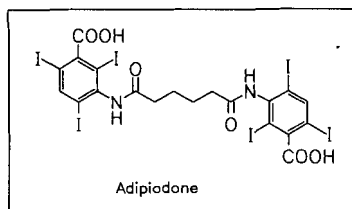
3-amino-2,4,6-
triiodobenzoic
acid
(cf. acetrizoic
acid synthesis)

+



adipoyl chloride

→



Adipiodone

Reference(s):

US 2 776 241 (Schering AG; 1957; D-prior. 1952).

DE 936 928 (Schering AG; appl. 1952).

DE 962 698 (Schering AG; appl. 1952).

DE 962 699 (Schering AG; appl. 1953).

DE 1 006 428 (Schering AG; appl. 1955).

starting material:

Kretzer, H.: Ber. Dtsch. Chem. Ges. (BDCGAS) **30**, 1944 (1897).

Formulation(s): amp. 20 ml with 300 mg meglumine salt/ml

Trade Name(s):

D:	Biligradin (Schering); wfm Endografin (Schering); wfm	I:	Endografin (Schering Chemicals); wfm Biligradin (Schering); wfm	USA:	Endografin (Schering- Nichidoku; as meglumine injection)
F:	Transbilix (Guerbet; as meglumine salt)	J:	Endocistobil (Bracco); wfm Biligradin (Schering- Nichidoku Yakuhin)	USA:	Cholografin (Squibb); wfm Cholografin Meglumin (Squibb); wfm
GB:	Biligradin (Schering Chemicals); wfm				

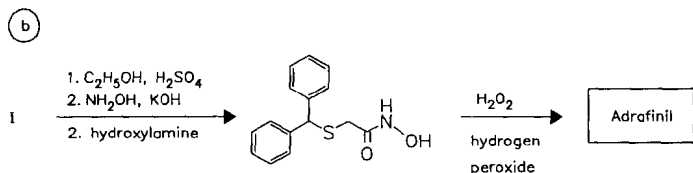
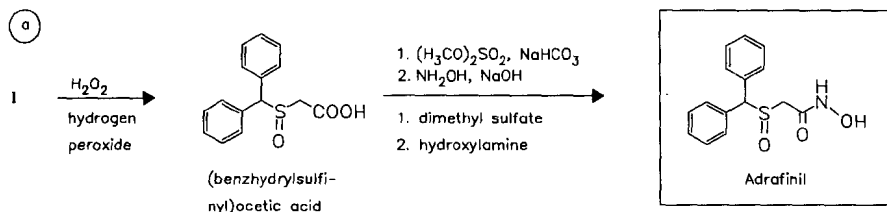
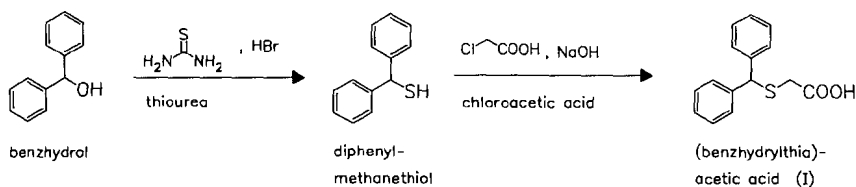
Adrafinil

(CRL-40028)

ATC: N06BX17

Use: α -adrenergic agonist (for symptomatic treatment of vigilance and depressive manifestations), antidepressantRN: 63547-13-7 MF: C₁₅H₁₅NO₃S MW: 289.36 EINECS: 264-303-1LD₅₀: >2048 mg/kg (M, i.p.); 1950 mg/kg (M, p.o.)

CN: 2-[(diphenylmethyl)sulfinyl]-N-hydroxyacetamide

**Reference(s):**

DOS 2 642 511 (Lab. Lafon; appl. 22.9.1976; GB-prior. 2.10.1975).

US 4 066 686 (Lab. Lafon; 3.1.1978; GB-prior. 2.10.1975).

US 4 098 824 (Lab. Lafon; 4.7.1978; GB-prior. 2.10.1975).

Formulation(s): cps. 300 mg**Trade Name(s):**

F: Olmifon (Lafon; 1985)

Adrenalone

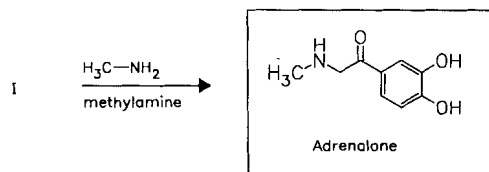
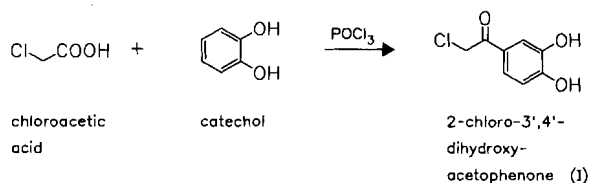
ATC: A01AD06; B02BC05

Use: sympathomimetic, vasoconstrictor, hemostyptic

RN: 99-45-6 MF: C₉H₁₁NO₃ MW: 181.19 EINECS: 202-756-9LD₅₀: 275 mg/kg (M, i.v.)

CN: 1-(3,4-dihydroxyphenyl)-2-(methylamino)ethanone

hydrochlorideRN: 62-13-5 MF: C₉H₁₁NO₃ · HCl MW: 217.65 EINECS: 200-525-7LD₅₀: 902 mg/kg (M, i.p.)

**Reference(s):**

DRP 152 814 (Hoechst; 1903).

Formulation(s): 60 mg/stick**Trade Name(s):**

D: Stryphnasal (Sertürmer)

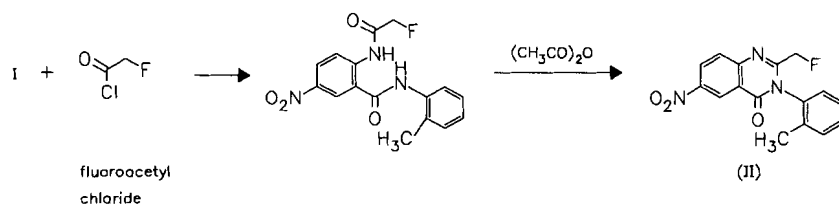
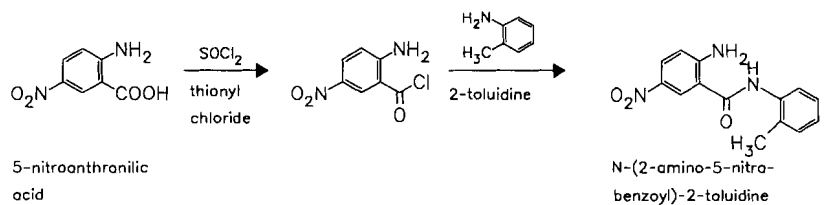
 F: Adréralone Tétracaine
 Guillon (Pharmascience)-
 comb.; wfm
Hémorrodine (Rocher)-
comb.; wfm**Afloqualone**

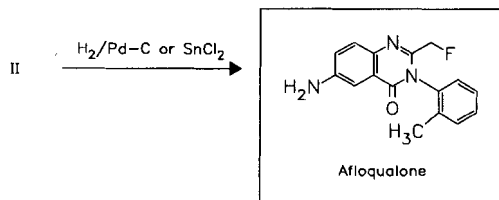
ATC: M03A

Use: muscle relaxant

RN: 56287-74-2 MF: $\text{C}_{16}\text{H}_{14}\text{FN}_3\text{O}$ MW: 283.31LD₅₀: 397 mg/kg (M, p.o.);

249 mg/kg (R, p.o.)

CN: 6-amino-2-(fluoromethyl)-3-(2-methylphenyl)-4(3*H*)-quinazolinone**hydrochloride**RN: 56287-75-3 MF: $\text{C}_{16}\text{H}_{14}\text{FN}_3\text{O} \cdot x\text{HCl}$ MW: unspecified

**Reference(s):**

DOS 2 449 113 (Tanabe; appl. 15.10.1974; J-prior. 15.10.1973).

US 3 966 731 (Tanabe; 29.6.1976; J-prior. 15.10.1973).

Tani, J. et al.: J. Med. Chem. (JMCMAR) **22**, 95 (1979).

Formulation(s): tabl. 20 mg

Trade Name(s):

J: Aflospan (Kyowa)

Arofuto (Tanabe; 1983)

Ajmaline

(Rauwolfine)

ATC: C01BA05

Use: antiarrhythmic

RN: 4360-12-7 MF: $\text{C}_{20}\text{H}_{26}\text{N}_2\text{O}_2$ MW: 326.44 EINECS: 224-439-4

LD₅₀: 75 mg/kg (M, i.p.); 21 mg/kg (M, i.v.); 255 mg/kg (M, p.o.); 180 mg/kg (M, s.c.);

94 mg/kg (R, i.p.); 26 mg/kg (R, i.v.); 360 mg/kg (R, p.o.); 216 mg/kg (R, s.c.)

CN: (17R,21α)-ajmalan-17,21-diol

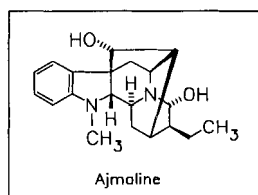
monohydrochloride

RN: 4410-48-4 MF: $\text{C}_{20}\text{H}_{26}\text{N}_2\text{O}_2 \cdot \text{HCl}$ MW: 362.90 EINECS: 224-562-3

LD₅₀: 105 mg/kg (M, i.p.); 26 mg/kg (M, i.v.); 205 mg/kg (M, p.o.);

86 mg/kg (R, i.p.); 19.3 mg/kg (R, i.v.); 290 mg/kg (R, p.o.);

135 mg/kg (g. p., p.o.)



By extraction from the pulverized roots of *Rauwolfia serpentina* (L.) Beuth.

Reference(s):

Siddiqui, S.; Siddiqui, R.H.: J. Indian Chem. Soc. (JICSAH) **8**, 667 (1931); **9**, 539 (1932); **12**, 37 (1935).

Formulation(s): amp. 2 mg/2 ml, 50 mg/2 ml, 10 mg/10 ml, 50 mg/10 ml

Trade Name(s):

D: Gilurytmal (Solvay
Arzneimittel)

Tachmalin (ASTA Medica
AWD)

F: Cardiorythmine (Servier);
wfm

Dipaxan (Innothéra)-
comb.; wfm

I: Aritmina (UCM)

Ritmosedina (Inverni della
Beffa)-comb.

J: Gilurytmal (Giulini-Tokyo
Tanabe)

Alacepril

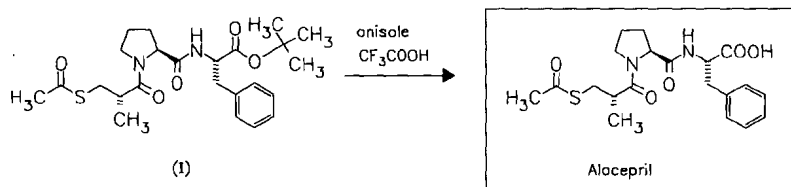
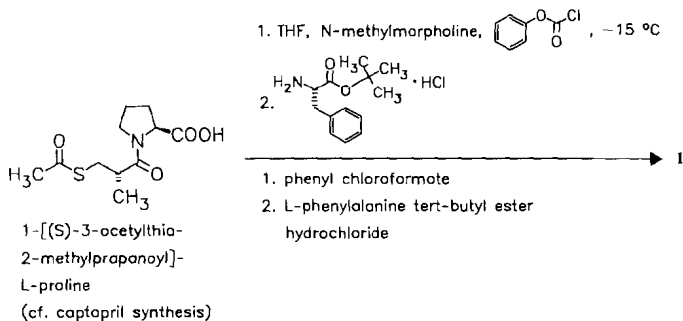
(DU-1219)

ATC: C09A

Use: antihypertensive (ACE inhibitor),
metabolizes partly to captoprilRN: 74258-86-9 MF: C₂₀H₂₆N₂O₅S MW: 406.50LD₅₀: >5 g/kg (M, p.o.);

>5 g/kg (R, p.o.)

CN: (S)-N-[1-[3-(acetylthio)-2-methyl-1-oxopropyl]-L-prolyl]-L-phenylalanine

**Reference(s):**

US 4 248 883 (Dainippon Pharmac. Co.; 3.2.1981; J-prior. 6.7.1978).

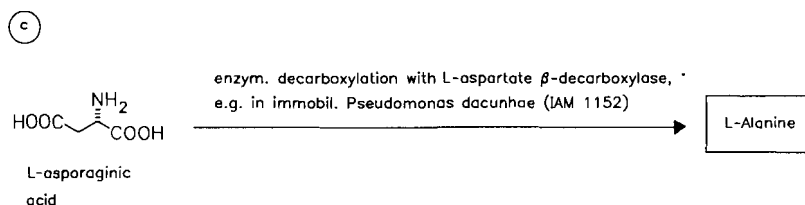
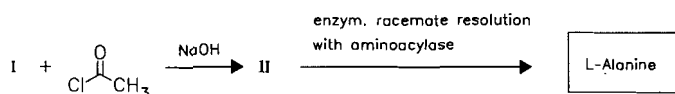
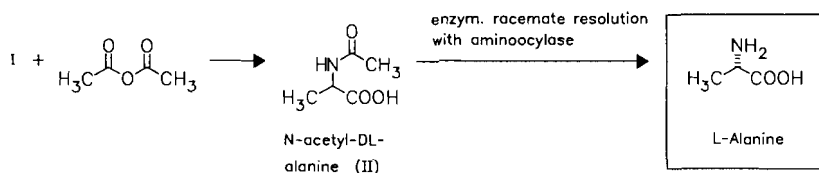
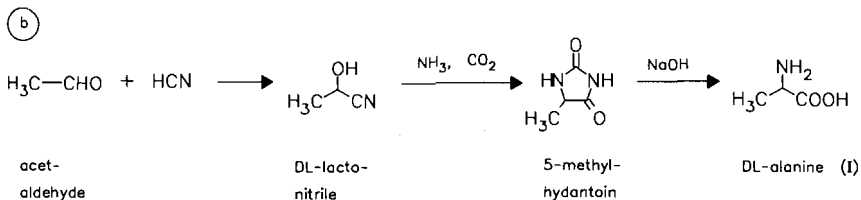
EP 7 477 (Dainippon Pharmac Co.; appl. 3.7.1979; J-prior. 6.7.1978).

pharmacology:Takeyama, K. et al.: *Arzneim.-Forsch. (ARZNAD)* **35**, 1502 (1985).**metabolism:**Matsumoto, K. et al.: *Arzneim.-Forsch. (ARZNAD)* **36**, 40 (1986).**Formulation(s):** tabl. 12.5 mg, 25 mg**Trade Name(s):**

J: Cetapril (Dainippon; 1988)

L-AlanineUse: non-essential proteinogenic amino
acid (part of infusion solutions)RN: 56-41-7 MF: C₃H₇NO₂ MW: 89.09 EINECS: 200-273-8

CN: L-alanine



Reference(s):

review:

Ullmann's Encyclopedia of Industrial Chemistry, 5th Ed., Vol. A2, 69.

Kaneko, T.; Izumi, Y.; Chibata, I.; Itoh, T.: Synthetic Production and Utilization of Amino Acids, Kodansha Ltd. and John Wiley & Sons, Tokyo, New York, p. 62 (1974).

c US 3 898 128 (Tanabe; 5.8.1975; J-prior. 20.11.1972).

Yamamoto, K. et al.: Biotechnol. Bioeng. (BIBIAU) 22, 2045 (1980).

Formulation(s): tabl. 400 mg

Trade Name(s):

F: Theraplix (Abufene)

Alatrofloxacin mesilate

(CP 116517; CP 116517-27)

ATC: J01MA

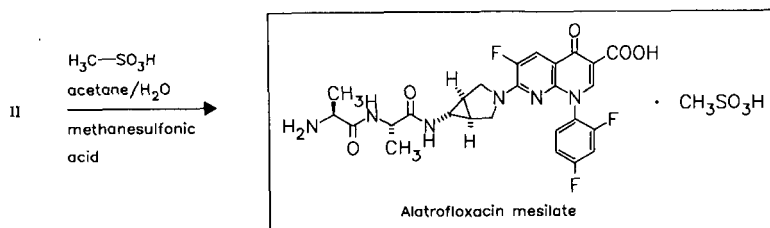
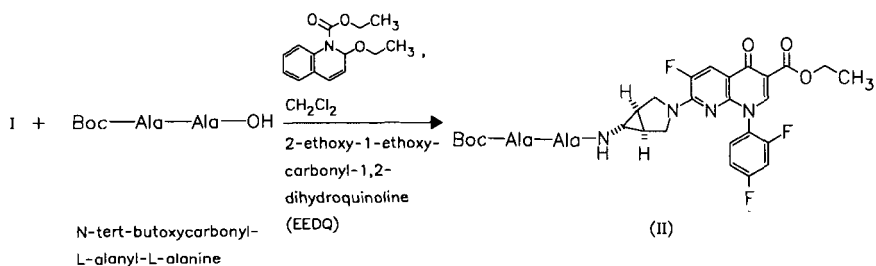
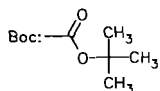
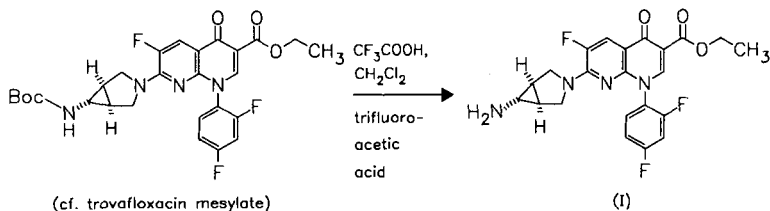
Use: antibacterial, prodrug of trovafloxacin

RN: 146961-77-5 MF: $\text{C}_{26}\text{H}_{25}\text{F}_3\text{N}_6\text{O}_5 \cdot \text{CH}_4\text{O}_3\text{S}$ MW: 654.62

CN: L-Alanyl-N-[(1 α ,5 α ,6 α)-3-[6-carboxy-8-(2,4-difluorophenyl)-3-fluoro-5,8-dihydro-5-oxo-1,8-naphthyridin-2-yl]-3-azabicyclo[3.1.0]hex-6-yl]-L-alaninamide monomethanesulfonate

base

RN: 146961-76-4 MF: $\text{C}_{26}\text{H}_{25}\text{F}_3\text{N}_6\text{O}_5$ MW: 558.52

**Reference(s):**

US 5 164 402 (Pfizer; 17.11.1992; appl. 4.2.1991; WO-prior. 16.8.1989).
WO 9 700 268 (Pfizer; appl. 27.3.1996; USA-prior. 15.6.1995).

Formulation(s): vials 200 mg/40 ml, 300 mg/60 ml (5 mg/ml) (as mesilate)

Trade Name(s):

D:	TROVAN (Pfizer); wfm	GB:	Turvel (Pfizer); wfm	USA:	Trovan (Pfizer); wfm
F:	Turvel (Pfizer); wfm	I:	Turvel (Pfizer); wfm		

Alclofenac

ATC: M01AB06
Use: analgesic, antipyretic, anti-inflammatory

RN: 22131-79-9 MF: $\text{C}_{11}\text{H}_{11}\text{ClO}_3$ MW: 226.66 EINECS: 244-795-4

LD₅₀: 508 mg/kg (M, i.p.); 1100mg/kg (M, p.o.);
465 mg/kg (R, i.p.); 1050 mg/kg (R, p.o.)

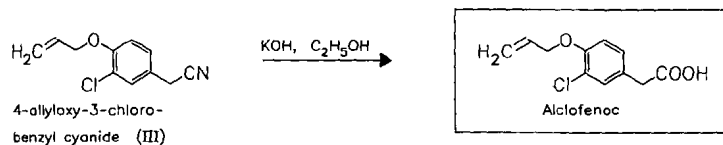
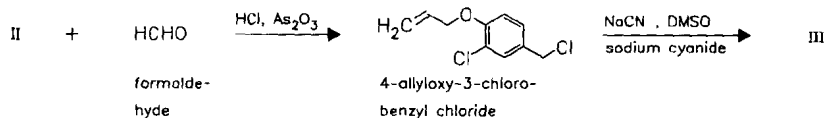
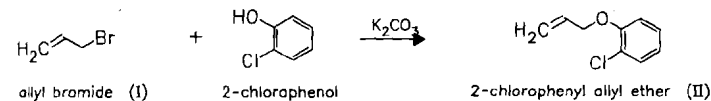
CN: 3-chloro-4-(2-propenyloxy)benzeneacetic acid

sodium salt

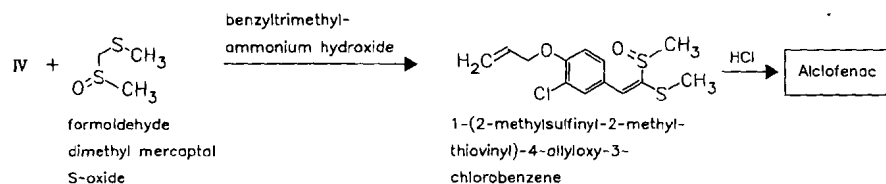
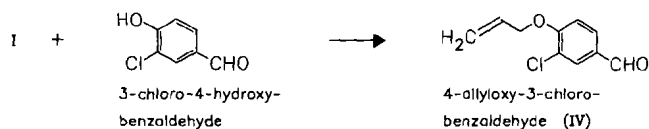
RN: 24049-18-1 MF: $\text{C}_{11}\text{H}_{10}\text{ClNaO}_3$ MW: 248.64

LD₅₀: 530 mg/kg (R, i.p.); 1050 mg/kg (R, p.o.)

(a)



(b)



Reference(s):

- a BE 704 368 (Madan; appl. 27.9.1967).
 BE 718 930 (Madan; appl. 1.8.1968; prior. 27.9.1967).
 GB 1 174 535 (Madan; appl. 28.8.1968; B-prior. 27.9.1967, 1.8.1968).
- b GB 1 504 828 (Sagami; appl. 26.11.1976; J-prior. 1.12.1975).

lysine salt:

DOS 2 711 964 (Biochefarm; appl. 18.3.1977).

Formulation(s): amp. 833 mg; tabl. 1 g, 500 mg

Trade Name(s):

D: Neoston (Beiersdorf); wfm	I: Rentenac (Tosi); wfm	J: Allopydin (Chugai)
GB: Prinalgin (Berk); wfm	Zumaril (Sidus); wfm	Epinal (Mitsubishi Yuka)

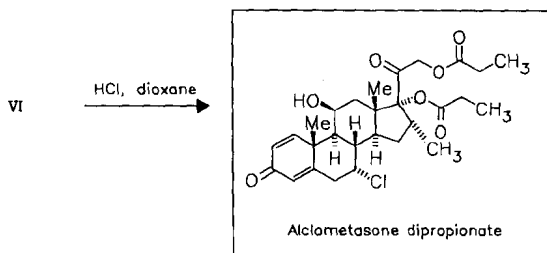
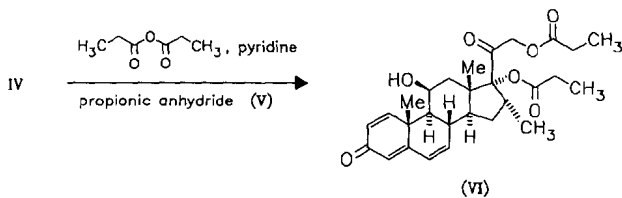
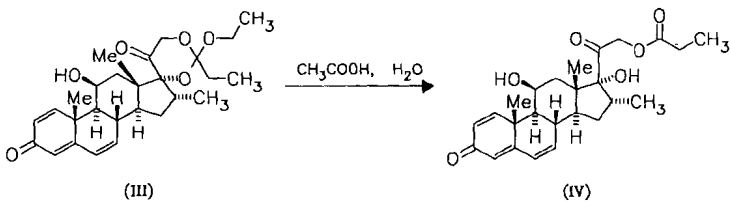
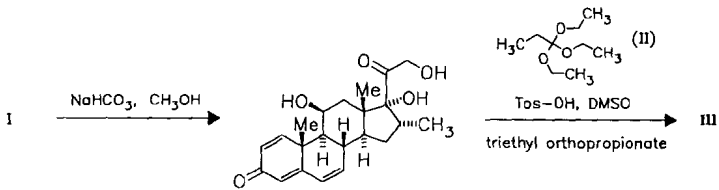
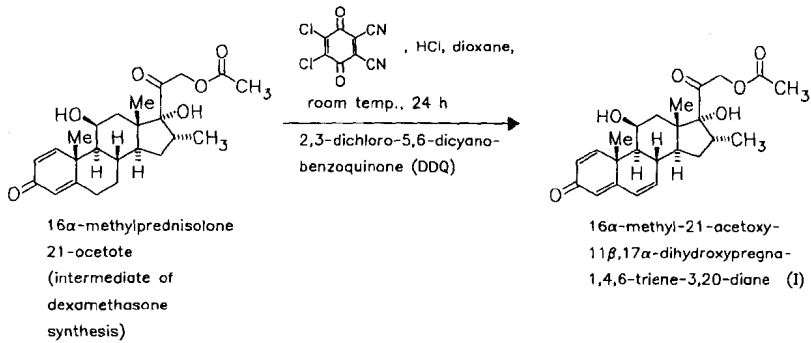
Alclometasone dipropionate

ATC: D07AB; S01BA
 Use: topical steroidal anti-inflammatory (glucocorticoid)

RN: 66734-13-2 MF: C₂₈H₃₇ClO₇ MW: 521.05 EINECS: 266-464-3

LD₅₀: 2506 mg/kg (M, s.c.);
 3593 mg/kg (R, s.c.)

CN: (7α,11β,16α)-7-chloro-11-hydroxy-16-methyl-17,21-bis(1-oxopropoxy)pregna-1,4-diene-3,20-dione

**Reference(s):**

- Shue, H.-J.; Green, M.J.: J. Med. Chem. (JMCMAR) **23**, 430 (1980).
 US 4 124 707 (Schering Corp.; 7.11.1978; prior. 12.12.1976, 7.11.1977).
 US 4 076 708 (Schering Corp.; 28.2.1978; prior. 22.12.1976).
 DOS 2 756 550 (Scherico; appl. 19.12.1977; USA-prior. 22.12.1976).

Formulation(s): cream and ointment 0.5 mg/1 g

Trade Name(s):

D:	Delonal (Essex Pharma; 1985)	GB:	Modrasone (Dominion; 1986)	J:	Almeta (Shionogi)
F:	Aclosone (Schering-Plough)	I:	Legederm (Schering-Plough; 1988)	USA:	Acloivate (Glaxo Wellcome; 1986)

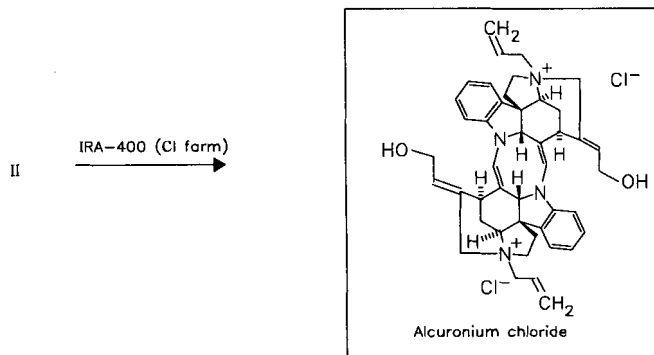
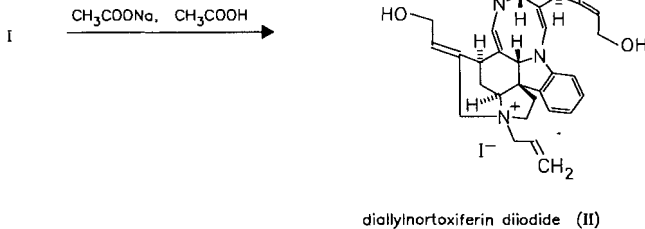
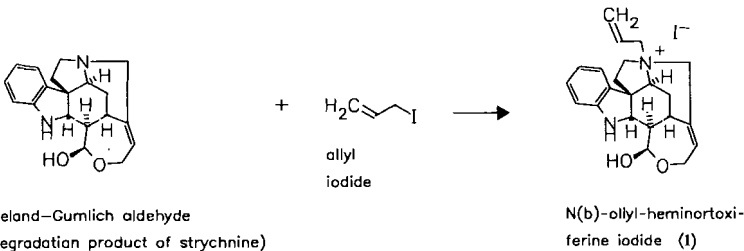
Alcuronium chloride

ATC: M03AA01
Use: muscle relaxant

RN: 15180-03-7 MF: C₄₄H₅₀Cl₂N₄O₂ MW: 737.82 EINECS: 239-229-8

LD₅₀: 610 µg/kg (M, i.p.); 240 µg/kg (M, i.v.); 38500 µg/kg (M, p.o.); 610 µg/kg (M, s.c.); 270 µg/kg (R, i.p.); 27600 µg/kg (R, p.o.); 280 µg/kg (R, s.c.)

CN: [1*R*-(1α,3α*S**,10α,11αβ,12α,14*aS**,19α,20β,21α,22αβ,23*E*,26*E*)]-2,3,11,11*a*,13,14,22,22*a*-octahydro-23,26-bis(2-hydroxyethylidene)-1,12-di-2-propenyl-10*H*,19*aH*,20*bH*,21*H*-1,21:10,12-diethano-dipyrrolo[3,2-*f*:3',2'-*f'*][1,5]diazocino[3,2,1-*jk*:7,6,5-*j'k'*]dicarbazolium dichloride



Reference(s):

US 3 080 373 (Roche; 5.3.1963; F-prior. 29.8.1960).
 Karrer, P. et al.: *Angew. Chem. (ANCEAD)* **70**, 644 (1958).

Formulation(s): amp. 5 ml, 10 ml (1 mg/ml); inj. sol. 10 mg/2 ml

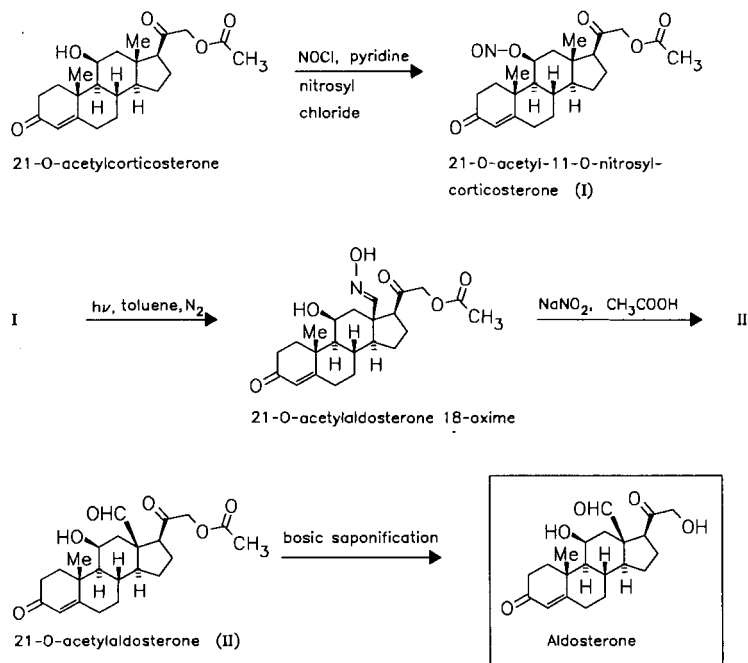
Trade Name(s):

D:	Alloferin Amp. (Roche)	GB:	Alloferin (Roche); wfm	USA:	Alloferin (Roche); wfm
F:	Alloférine (Roche); wfm	J:	Dialferin (Roche)		

Aldosterone

ATC: H02AA01
 Use: mineralocorticoid

RN: 52-39-1 MF: C₂₁H₂₈O₅ MW: 360.45 EINECS: 200-139-9
 CN: (11β)-11,21-dihydroxy-3,20-dioxopregn-4-en-18-al

*Reference(s):*

Barton, D.H.R.; Beaton, J.M.: *J. Am. Chem. Soc. (JACSAT)*, **82**, 2641 (1960).

starting material:

The Merck Index, 2513 (Rahway 1976).

alternative syntheses:

US 3 002 972 (Ciba; 3.10.1961; appl. 28.11.1958; CH-prior. 5.12.1957).
 US 3 014 029 (Ciba; 19.12.1961; appl. 16.6.1959; CH-prior. 18.6.1958).
 US 3 049 539 (Wisconsin Alumni Res. Found.; 14.8.1962; appl. 29.7.1957).
 Wettstein, A. et al.: *Helv. Chim. Acta (HCACAV)* **44**, 502 (1961).
 Reichstein, T. et al.: *Helv. Chim. Acta (HCACAV)* **38**, 1432 (1957).

review:

Fieser, L.F.; Fieser, M.: *Steroide* p. 766 ff, Verlag Chemie, Weinheim 1961.

*total synthesis:*Johnson, P.S. et al.: J. Am. Chem. Soc. (JACSAT) **80**, 2585 (1958).Blickenstaff, R.T.; Ghosh, A.C.; Wolf, G.C.: Total Synthesis of Steroids (Organic Chemistry Vol. **30**) p. 187 ff, Academic Press, New York, London 1974.*Formulation(s):* tabl. 500 mg, 750 mg*Trade Name(s):*

D: Aldocorten (Ciba); wfm

USA: Aldocortin (Burroughs

GB: Aldocorten (Ciba); wfm

Wellcome); wfm

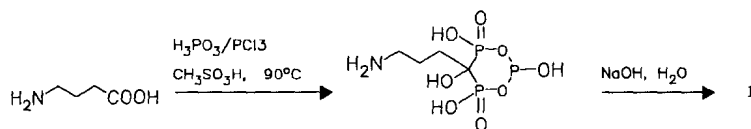
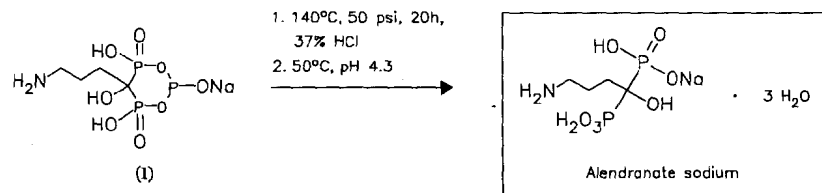
I: Sinsurrene Forte (Parke
Davis)-comb.Electrocortin (Ciba-Geigy);
wfm**Alendronate sodium**

ATC: M05BA04

Use: treatment of osteoporosis

RN: 121268-17-5 MF: $C_4H_{12}NNaO_7P_2 \cdot 3H_2O$ MW: 325.12LD₅₀: >4 g/kg (dog, p. o.)

CN: (4-Amino-1-hydroxybutylidene)bis[phosphonic acid] monosodium salt trihydrate

acidRN: 66376-36-1 MF: $C_4H_{13}NO_7P_2$ MW: 249.10**anhydrous monosodium salt**RN: 129318-43-0 MF: $C_4H_{12}NNaO_7P_2$ MW: 271.08 γ -aminobutyric acid*Reference(s):*

WO 9 506 052 (Merck & Co.; USA-prior. 25.8.1993).

WO 9 533 756 (Merck & Co.; appl. 2.6.1995; USA-prior. 6.6.1994).

US 5 510 517 (Merck & Co.; 2.3.1995; USA-prior. 25.8.1993).

DE 3 016 289 (Henkel KG; D-prior. 28.4.1980).

BE 896 453 (Ist. Gentili s. p. a.; appl. 14.4.1983; I-prior. 15.4.1982, 16.2.1983).

BE 903 513 (Ist. Gentili s. p. a.; appl. 25.10.1985; I-prior. 29.10.1984).

EP 494 844 (Ist. Gentili s. p. a.; appl. 2.1.1992; I-prior. 8.1.1991).

US 4 621 077 (Ist. Gentili s. p. a.; 8.6.1984; I-prior. 15.4.1982).

US 5 019 651 (Merck & Co.; 27.12.1991; USA-prior. 20.6.1990).

US 4 922 007 (Merck & Co.; 1.5.1990; USA-prior. 9.6.1989).

alternative process for the production of alendronate:

WO 9 834 940 (Aptex Inc.; CA-prior. 11.2.1997).

Formulation(s): amp. 5 mg, 10 mg; tabl. 5 mg, 10 mg, 40 mg (as sodium salt)

Trade Name(s):

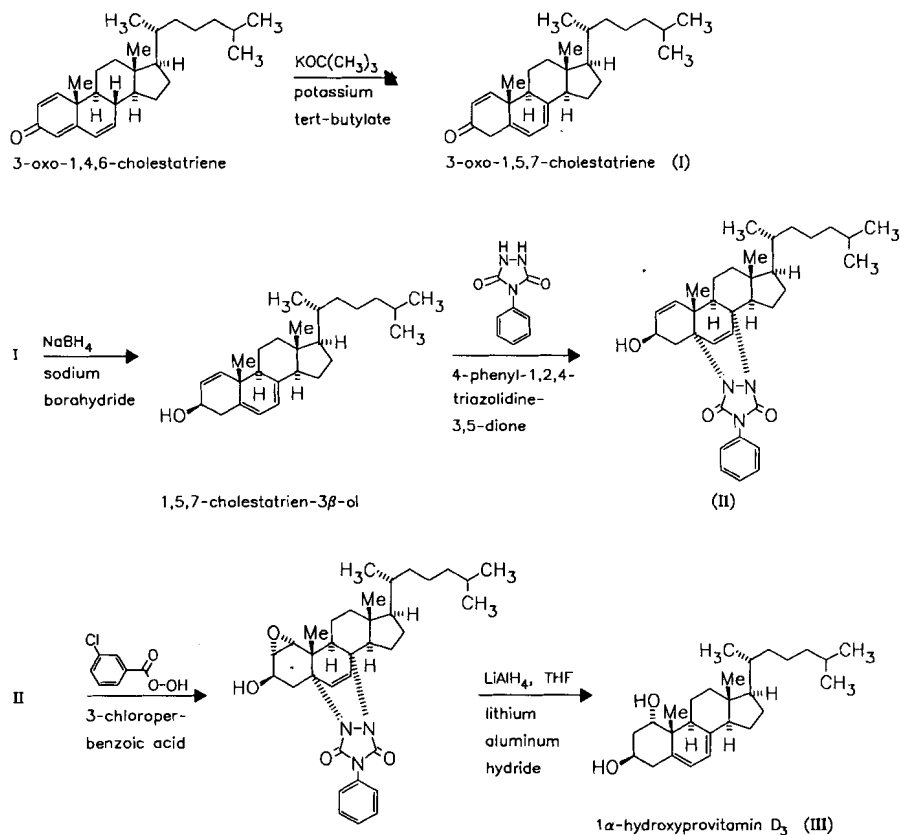
D:	Fosamax (Merck Sharp & Dohme)	Alendros (Gentili)	Teiroc (Teijin)
GB:	Fosamax (Merck Sharp & Dohme)	Dronal (Sigmatau)	USA: Fosamax (Merck Sharp & Dohme; 1993)
I:	Adronat (Neopharmed)	Fosamax (Merck Sharp & Dohme)	
J:	Onclast (Banyu)		

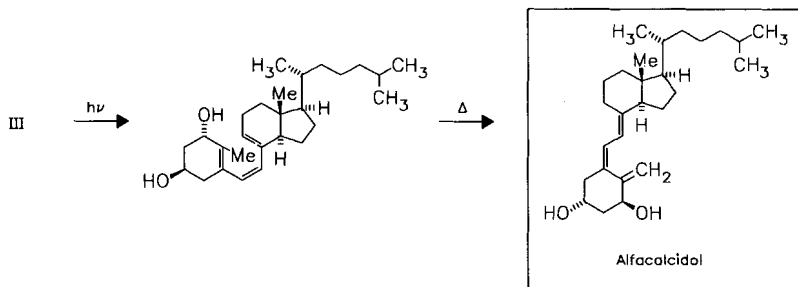
Alfacalcidol(1 α -Hydroxycholecalciferol; 1 α -Hydroxy-vitamin D₃)

ATC: A11CC03

Use: calcium metabolism regulator,
vitamin D-derivativeRN: 41294-56-8 MF: C₂₇H₄₄O₂ MW: 400.65 EINECS: 255-297-1LD₅₀: 440 g/kg (M, p.o.);

340 g/kg (R, p.o.)

CN: (1 α ,3 β ,5Z,7E)-9,10-secocholesta-5,7,10(19)-triene-1,3-diol

**Reference(s):**

US 3 929 770 (Wisconsin Alumni Res.; 30.12.1975; J-prior. 3.12.1973).

alternative syntheses:

Holick, M.F. et al.: Science (Washington, D.C.) (SCIEAS) **180**, 190 (1973).

Barton, D.H.R. et al.: J. Am. Chem. Soc. (JACSAT) **95**, 2748 (1973).

Fürst, A. et al.: Helv. Chim. Acta (HCACAV) **56**, 1708 (1973).

US 3 966 777 (Yeda Res. & Devel.; 29.6.1976; IL-prior. 22.10.1974).

DOS 2 259 661 (Wisconsin Alumni Res.; appl. 1.12.1972; USA-prior. 2.12.1971).

BE 877 356 (Wisconsin Alumni Res.; appl. 28.6.1979; USA-prior. 15.1.1979, 21.5.1979).

GB 1 553 321 (Merck & Co.; valid from 30.6.1977; USA-prior. 1.7.1976).

DOS 2 923 953 (Upjohn; appl. 13.6.1979; USA-prior. 19.6.1978).

total synthesis:

Harrison, R.G. et al.: Tetrahedron Lett. (TELEAY) **1973**, 3649.

synthesis of intermediates:

US 4 046 760 (Merck & Co., 6.9.1977; prior. 1.7.1976).

pharmaceutical formulation:

JP-appl. 78 136 512 (Chugai; appl. 28.4.1977).

US 4 164 569 (Chugai; 14.8.1979; J-prior. 8.4.1977).

use as anti-inflammatory:

FR 2 389 377 (J. Brohult, appl. 6.5.1977).

Formulation(s): amp. 0.001 mg, 0.002 mg; cps. 0.001 mg, 0.0025 mg, 1 mg; inj. 2 µg/ml

Trade Name(s):

D:	Bondiol (Gry)		One Alpha (Leo)		Diseon (Smith Kline & French)
	Eins Alpha (Leo)	I:	Dediol (Rhône-Poulenc Rorer)		
F:	Un-Alfa (Leo)			J:	Alfarol (Chugai)
GB:	Alfa D (Berk)				

Alfadolone acetate

(Alphadolone acetate)

ATC: N01A

Use: anesthetic (intravenous)

RN: 23930-37-2 MF: C₂₃H₃₄O₅ MW: 390.52 EINECS: 245-942-5

LD₅₀: >30 mg/kg (rabbit, i.v.)

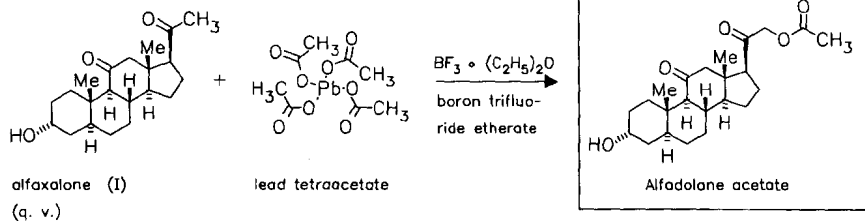
CN: (3α,5α)-21-(acetyloxy)-3-hydroxypregnane-11,20-dione

alfadolone

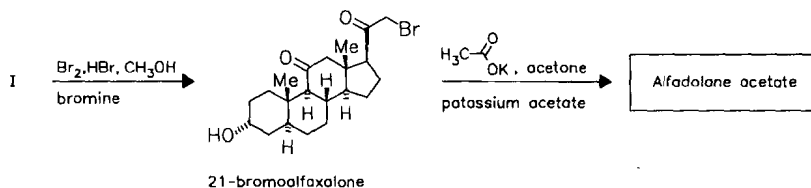
RN: 14107-37-0 MF: C₂₁H₃₂O₄ MW: 348.48 EINECS: 237-961-2

LD₅₀: 59 mg/kg (M, i.v.)

(a)



(b)

*Reference(s):*

DE 2 030 402 (Glaxo; appl. 19.6.1970; GB-prior. 20.6.1969; 11.6.1970).

ZA 703 861 (Glaxo; appl. 8.6.1970; GB-prior. 20.6.1969)

(alternative synthesis).

Browne, P.A.; Kirk, D.N.: J. Chem. Soc. (JCSOA9) **1969**, 1653.*Formulation(s):* amp. 0.5 mg/ml*Trade Name(s):*D: Aurantex (Glaxo)-comb.; GB: Althesin (Glaxo)-comb.;
wfmF: Alfatesine (Glaxo)-comb.; I: Althesin (Glaxo)-comb.;
wfm**Alfaxalone**

(Alphaxalone)

ATC: N01AX05

Use: anesthetic (intravenous)

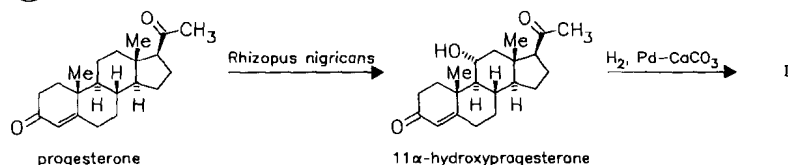
RN: 23930-19-0 MF: $\text{C}_{21}\text{H}_{32}\text{O}_3$ MW: 332.48 LD_{50} : 430 mg/kg (M, i.p.); 36.9 mg/kg (M, i.v.); 880 mg/kg (M, p.o.); 5220 mg/kg (M, s.c.);

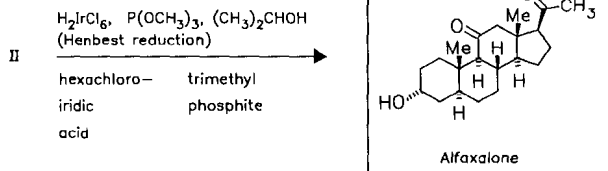
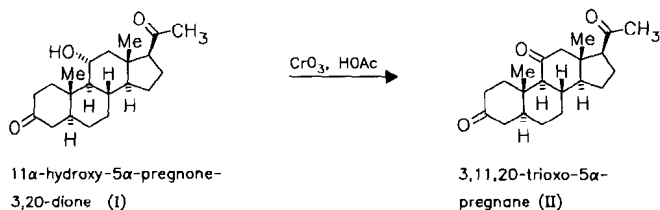
116 mg/kg (R, i.p.); 19.4 mg/kg (R, i.v.); 297 mg/kg (R, p.o.); >2200 mg/kg (R, s.c.);

9.36 mg/kg (rabbit, i.v.)

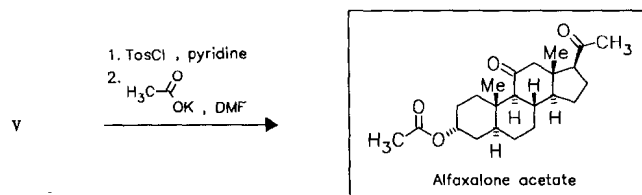
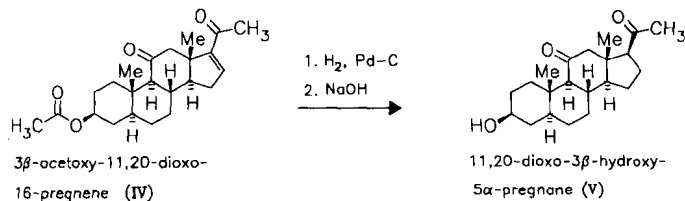
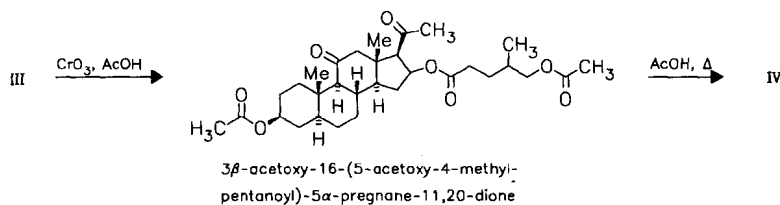
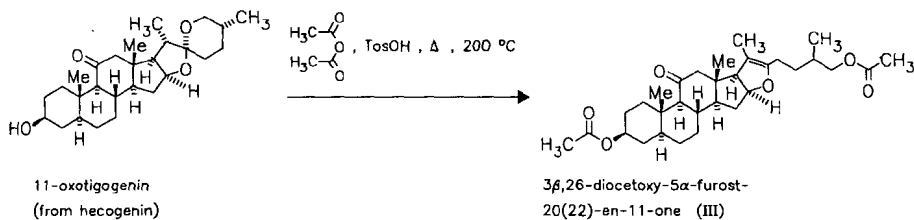
CN: (3 α ,5 α)-3-hydroxypregnane-11,20-dione**acetate**RN: 51267-69-7 MF: $\text{C}_{23}\text{H}_{34}\text{O}_4$ MW: 374.52

(c)





(b)



Reference(s):

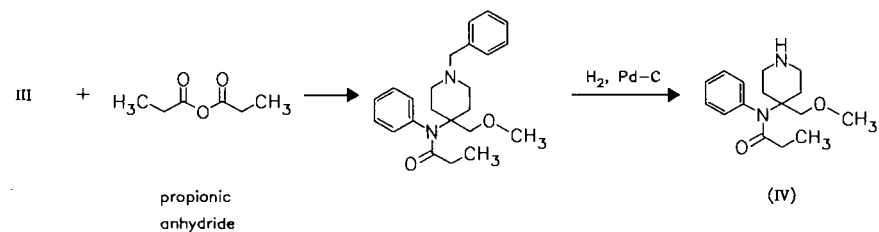
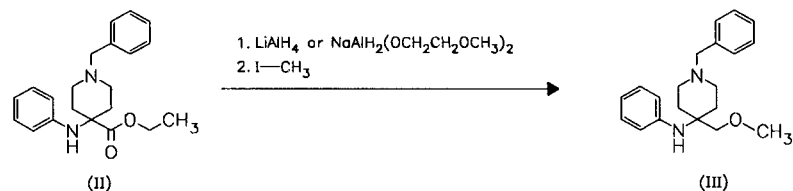
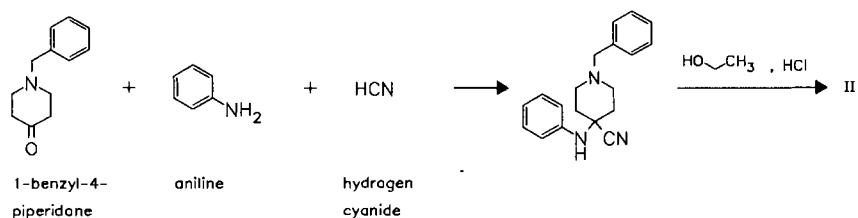
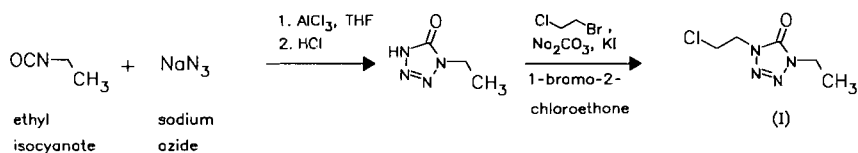
- a Browne, P.A.; Kirk, D.N.: *J. Chem. Soc. C (JSOOAX)* **1969**, 1653.
 b Nagata, W. et al.: *Helv. Chim. Acta (HCACAV)* **42**, 1399 (1959).

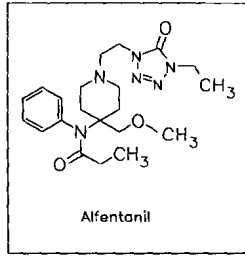
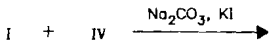
medical use:

DE 2 030 402 (Glaxo; appl. 19.6.1970; GB-prior. 20.6.1969, 11.6.1970).

Formulation(s): amp. 5 ml, 10 ml, 0.3 %*Trade Name(s):*J: Alphadione (Shin Nihon
Jitsugyo)**Alfentanil**

ATC: N01AH02

Use: analgesic, short-time anesthetic (for
basal narcosis)RN: 71195-58-9 MF: $C_{21}H_{32}N_6O_3$ MW: 416.53CN: *N*-[1-[2-(4-ethyl-4,5-dihydro-5-oxo-1*H*-tetrazol-1-yl)ethyl]-4-(methoxymethyl)-4-piperidinyl]-*N*-phenylpropanamide**monohydrochloride**RN: 69049-06-5 MF: $C_{21}H_{32}N_6O_3 \cdot HCl$ MW: 452.99 EINECS: 273-846-3**monohydrochloride monohydrate**RN: 70879-28-6 MF: $C_{21}H_{32}N_6O_3 \cdot HCl \cdot H_2O$ MW: 471.00



Reference(s):

GB 1 598 872 (Janssen; appl. 3.5.1978; USA-prior. 5.5.1977).
 DOS 2 819 873 (Janssen; appl. 5.5.1978; USA-prior. 5.5.1977, 13.3.1978).
 US 4 167 574 (Janssen; 11.9.1979; appl. 25.10.1978; prior. 13.3.1978).

Formulation(s): amp. 500 µg/ml; inj. sol. 1 mg/2 ml, 5 mg/10 ml; intensive care inj. 5 mg/ml

Trade Name(s):

D:	Rapifen (Janssen-Cilag; 1983)	GB:	Rapifen (Janssen-Cilag; 1983)
F:	Rapifen (Janssen-Cilag)	USA:	Alfenta (Janssen; 1987)

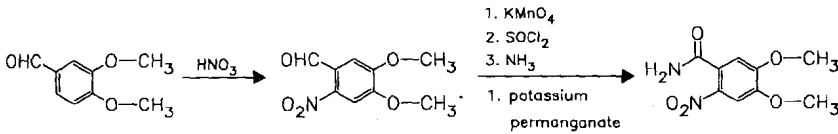
Alfuzosin

ATC: C02CA; G04CB01
 Use: antihypertensive, α₁-antagonist, treatment of benign prostatic hypertrophy

RN: 81403-80-7 MF: C₁₉H₂₇N₅O₄ MW: 389.46
 CN: (±)-N-[3-[(4-amino-6,7-dimethoxy-2-quinazolinyl)methylamino]propyl]tetrahydro-2-furancarboxamide

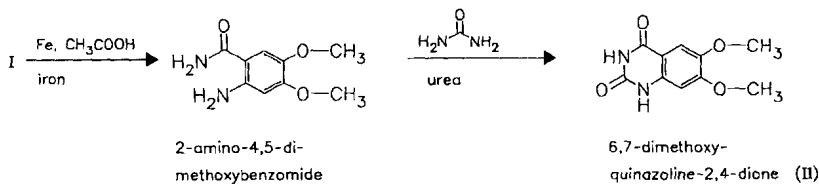
monohydrochloride

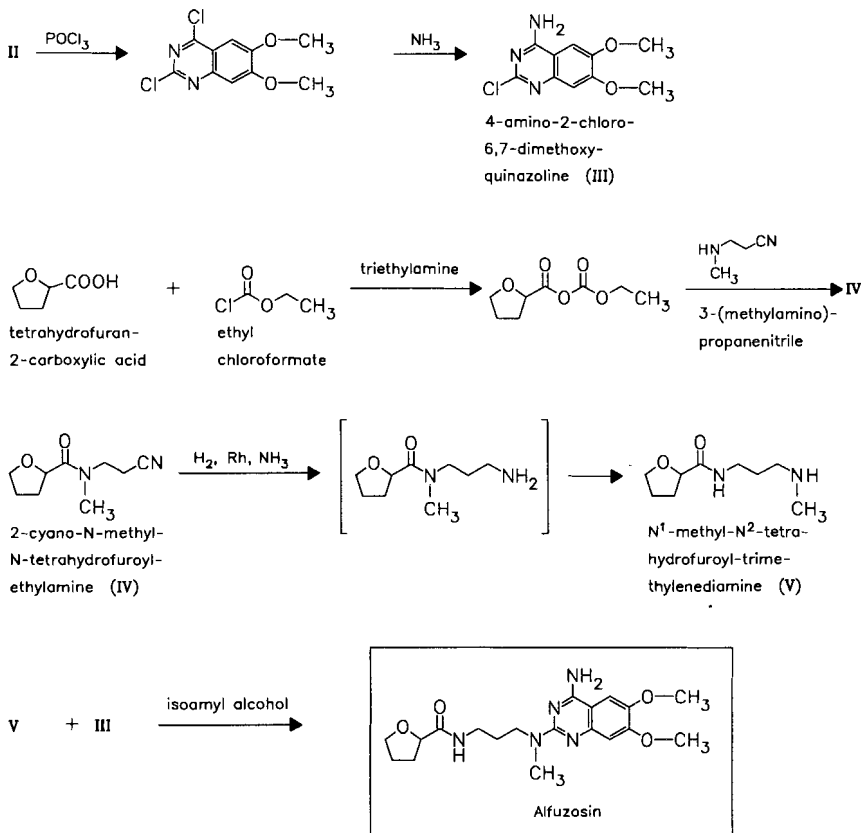
RN: 81403-68-1 MF: C₁₉H₂₇N₅O₄ · HCl MW: 425.92



3,4-dimethoxybenzaldehyde
 (veratraldehyde)

(I)



**Reference(s):**

US 4 315 007 (Synthelabo; 9.2.1982; F-prior. 6.2.1978, 29.12.1978).
 DE 290 445 (Synthelabo; appl. 16.8.1979; F-prior. 6.2.1978, 29.12.1978).
 Manoury, P.M. et al.: J. Med. Chem. (JMCMAR) **29**, 19 (1986).

synthesis of 6,7-dimethoxyquinazoline-2,4-dione:

Althuis, T.H.; Hess, H.J.: J. Med. Chem. (JMCMAR) **20**, 146 (1977).

Formulation(s): tabl. 2.5 mg (as hydrochloride)

Trade Name(s):

D:	Urion (Byk Gulden)	Xatral (Synthelabo; 1989)	Xatral (Synthelabo)
	Uroxatral (Synthelabo)	GB: Xatral (Lorex)	
F:	Urion (Zambon)	I: Mittoval (Schering)	

Algestone acetophenide

(Alfasone acetophenide; Alphasone acetophenide)

ATC: D10AX; G03DA

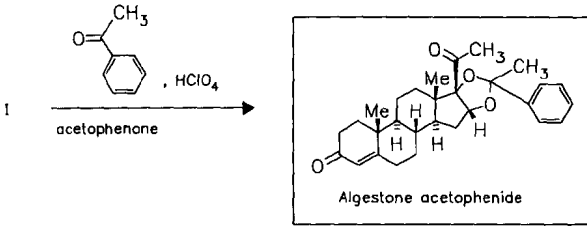
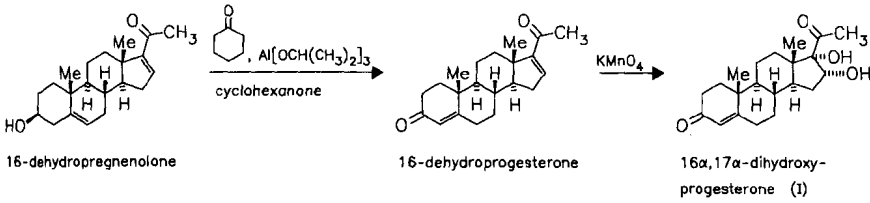
Use: antiacne, progestogen

RN: 24356-94-3 MF: C₂₉H₃₆O₄ MW: 448.60 EINECS: 246-195-8

CN: [16 α (R)]-16,17-[(1-phenylethylidene)bis(oxy)]pregn-4-ene-3,20-dione

algestone

RN: 595-77-7 MF: C₂₁H₃₀O₄ MW: 346.47 EINECS: 209-869-2



Reference(s):

DE 1 125 423 (Olin Mathieson; appl. 1959; USA-prior. 1958).
 Fried, J. et al.: Chem. Ind. (London) (CHINAG) **1961**, 465.

alternative synthesis:

US 3 008 958 (Olin Mathieson; 1961; prior. 1961).

synthesis of intermediates:

US 2 727 909 (Searle; 1955; prior. 1954).
 US 3 165 541 (Olin Mathieson; 12.1.1965; prior. 20.5.1963).
 Cooley, G. et al.: J. Chem. Soc. (JCSOA9) **1955**, 4373.
 Inhoffen, H.H. et al.: Chem. Ber. (CHBEAM) **87**, 593 (1954).
 Hydorn, A.E. et al.: Steroids (STEDAM) **3**, 493 (1964).

injection solution:

US 3 164 520 (Olin Mathieson; 5.1.1965; prior. 29.10.1962).

medical use as contraceptive:

GB 1 060 632 (Olin Mathieson; appl. 16.8.1963; USA-prior. 11.11.1962).

Formulation(s): cream 2 %

Trade Name(s):

I: Neolutin Depos. (Medici)

Alibendol

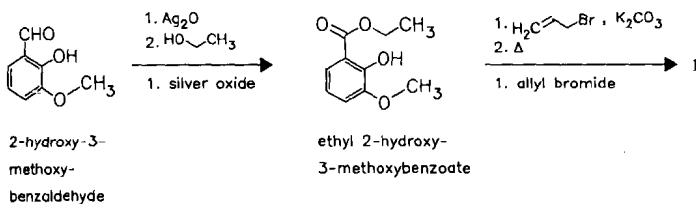
ATC: C10A; A03

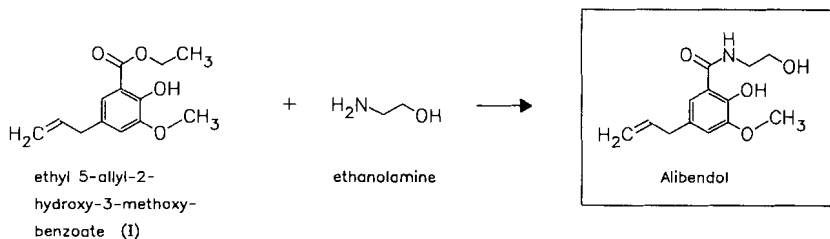
Use: antispasmodic, choleric, cholekinetic

RN: 26750-81-2 MF: C₁₃H₁₇NO₄ MW: 251.28 EINECS: 247-960-9

LD₅₀: >3000 mg/kg (M, p.o.); >2000 mg/kg (M, s.c.)

CN: 2-hydroxy-N-(2-hydroxyethyl)-3-methoxy-5-(2-propenyl)benzamide



**Reference(s):**

DE 1 768 615 (Roussel-Uclaf; appl. 1968; F-prior. 1967).
 Clemence, F. et al.: *Chim. Ther. (CHTPBA)* **5**, 188 (1970).

Formulation(s): tabl. 100 mg

Trade Name(s):

F: Cebera (Irex)

Alimemazine

(Trimeprazine)

ATC: R06AD01

Use: antihistaminic, psychosedative

RN: 84-96-8 MF: $C_{18}H_{22}N_2S$ MW: 298.45 EINECS: 201-577-3

LD₅₀: 33 mg/kg (M, i.v.); 300 mg/kg (M, p.o.);

35 mg/kg (R, i.v.); 210 mg/kg (R, p.o.)

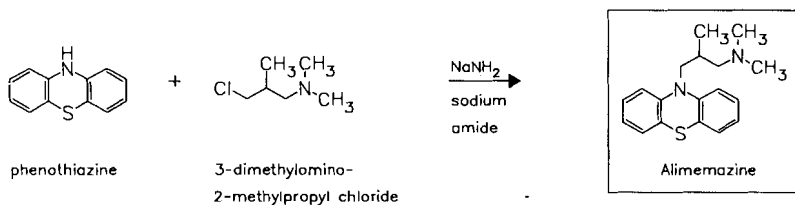
CN: *N,N*,β-trimethyl-10*H*-phenothiazine-10-propanamine

tartrate (2:1)

RN: 4330-99-8 MF: $C_{18}H_{22}N_2S \cdot 1/2C_4H_6O_6$ MW: 746.99 EINECS: 224-368-9

LD₅₀: 33 mg/kg (M, i.v.); 300 mg/kg (M, p.o.);

35 mg/kg (R, i.v.); 210 mg/kg (R, p.o.)

**Reference(s):**

US 2 837 518 (Rhône-Poulenc; 1958; F-prior. 1954).
 DE 1 034 639 (Rhône-Poulenc; appl. 1955; GB-prior. 1954 and 1955).

Formulation(s): drops 40 mg; tabl. 2.5 mg, 5 mg (as tartrate)

Trade Name(s):

D: Repeltin (Bayer)

F: Théralène (Evans Medical)

Théralène Pectoral (Evans Medical)-comb.

GB: Vallergan (Rhône-Poulenc Rorer; as tartrate)

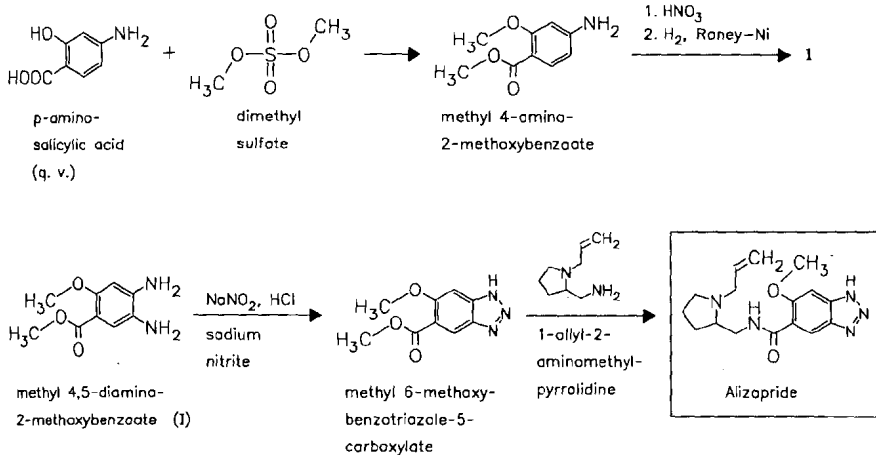
I: in comb. with prednisolone

J: Alimezine (Daiichi)

Alizapride

ATC: A03FA05; A04AD
 Use: anti-emetic, neuroleptic

RN: 59338-93-1 MF: C₁₆H₂₁N₅O₂ MW: 315.38 EINECS: 261-710-6
 LD₅₀: 92.7 mg/kg (M, i.v.)
 CN: 6-methoxy-N-[[1-(2-propenyl)-2-pyrrolidinyl]methyl]-1H-benzotriazole-5-carboxamide

**Reference(s):**

DE 2 500 919 (Delagrangé; appl. 11.1.1975).
 US 4 039 672 (Delagrangé; 2.8.1977; D-prior. 11.1.1975).

synthesis of methyl 4-amino-2-methoxybenzoate:

DOS 1 966 212 (Yamanouchi; appl. 29.12.1969; J-prior. 2.12.1968, 9.12.1968, 4.4.1969).

Formulation(s): amp. 50 mg/2 ml; drinking amp. 360 mg; suppos. 50 mg; tabl. 50 mg

Trade Name(s):

D: Vergentan (Synthelabo) I: Limican (Synthelabo)
 F: Plitican (Synthelabo) Nausilen (Baldacci)

Allantoin

ATC: D03; D05
 Use: wound remedy, antipsoriatic, adstringent, web stimulant, keratolytic, antacid

RN: 97-59-6 MF: C₄H₆N₄O₃ MW: 158.12 EINECS: 202-592-8
 CN: (2,5-dioxo-4-imidazolidinyl)urea

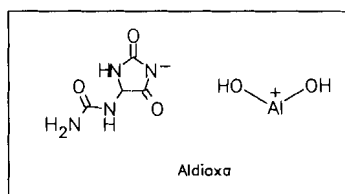
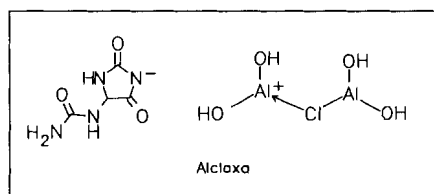
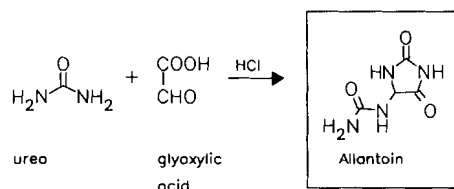
Alcloxa

RN: 1317-25-5 MF: C₄H₉Al₂ClN₄O₇ MW: 314.55 EINECS: 215-262-3
 LD₅₀: >8 g/kg (M,R, p.o.)
 CN: chloro[(2,5-dioxo-4-imidazolidinyl)uretato]tetrahydroxyaluminum

Aldioxa

RN: 5579-81-7 MF: C₄H₇AlN₄O₅ MW: 218.11 EINECS: 226-964-4LD₅₀: >8 g/kg (M, p.o.)

CN: [(2,5-dioxo-4-imidazolidinyl)ureato]dihydroxyaluminum



Reference(s):

DOS 1 939 924 (BASF; appl. 6.8.1969).

from glyoxal via "in situ"-glyoxylic acid:

DOS 2 714 938 (Akad. d. Wiss. der DDR; appl. 2.4.1977; DDR-prior. 29.10.1976).

from chloral hydrate via "in situ"-glyoxylic acid:

DOS 2 717 698 (Akad. d. Wiss. der DDR; appl. 21.4.1977; DDR-prior. 29.10.1976).

by oxidation of uric acid with PbO, or H₂O₂ or potassium permanganate:Org. Synth. (ORSYAT) **13** 1 (1933).by oxidation of glycoluril with H₂O₂:Biltz, H.; Schiemann, G.: J. Prakt. Chem. (JPCEAO) **113**, 92 (1926).

US 2 802 011 (Carbogen Corp.; 1957; appl. 1956).

by condensation of glyoxylic acid esters or glyoxylic acid acetal esters with urea:

US 2 158 098 (Merck & Co.; 1939; appl. 1937).

Formulation(s): cream 0.2 %; ointment 2 %; powder 0.5 %; tabl. 100 mg

Trade Name(s):

D: more than 70 combination preparations
allantoin
 Brand- und Wundgel (Eu Rho Arznei)-comb.
 Contractubex Gel (Merz & Co.)-comb.
 Ellsurex (Galderma)-comb.
 Essaven (Nattermann)-comb.
 HAEMO-Exhirud (Sanofi Winthrop)-comb.
 Hydro Cordes (Block Drug Company; Ichthyol)-comb.

Lipo Cordes (Block Drug Company)-comb.
 Psoralon (Hermal)-comb.
 Psoriasis-Salbe M (Balneopharm)
 Ulcurilen (Spitzner)-comb.
alcloxa
 Ansudor (Basotherm)-comb.
aldioxa
 Ansudor (Basotherm)-comb.
 Dexa-Mederma Akne (Merz & Co.)-comb.

Elmedal (Thiemann)-comb.
 Mederima (Merz & Co.)-comb.
 ZeaSorb Puder (Stiefel)-comb.
 F: *alcloxa*
 Ulfon (Lafon)-comb.
aldioxa
 Ulfon (Lafon)-comb.
 GB: *allantoin*
 Actinac (Hoechst)-comb. with chloramphenicol and hydrocortisone

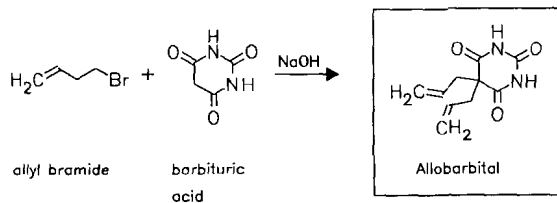
	Alphosyl (Stafford-Miller)- comb.	Antiacne Samil (Samil)- comb.	Cervex (Medics)-comb.; wfm
	Aphosyl HC (Stafford- Miller)-comb. with hydrocortisone	Apsor pomata (IDI Farmaceutici)-comb.	Cutemol Creme (Summers); wfm
	Dermalex (Sanofi Winthrop)-comb. with squalene and hexachlorophane	J: <i>aldioxa</i>	Herpecin-L (Campbell)- comb.; wfm
	I: <i>allantoin</i>	USA: <i>allantoin</i>	Sufamal (Milex)-comb.; wfm
	Alphosyle (Poli)-comb.	Alphosyl (Reed & Carrick)-comb.; wfm	Vagilia (Lemmon)-comb.; wfm
		Bahnex (Maxsil)-comb.; wfm	

Allobarbital

(Allobarbitone)

ATC: N05CA21

Use: hypnotic, sedative

RN: 52-43-7 MF: C₁₀H₁₂N₂O₃ MW: 208.22 EINECS: 200-140-4LD₅₀: 218 mg/kg (M, i.v.)CN: 5,5-di-2-propenyl-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione*Reference(s):*

DRP 268 158 (Ciba; appl. 1911).

DRP 526 854 (Hoffmann-La Roche; appl. 1930).

Formulation(s): tabl. 30 mg, 100 mg, 300 mg*Trade Name(s):*D: Toximer (Merckle)-comb.;
wfmF: Spasmo-Cibalgine (Ciba)-
comb.; wfmI: Allobarb (Tariff.
Integrativo)

USA: Diadol (Durst); wfm

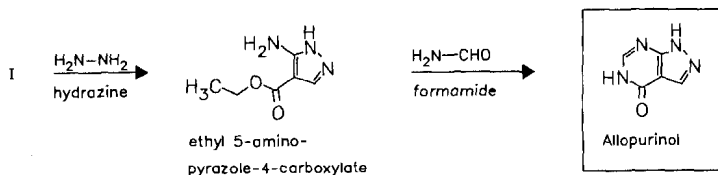
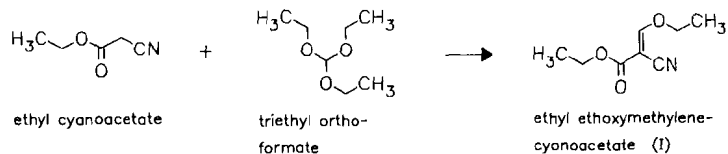
Allopurinol

ATC: M04AA01

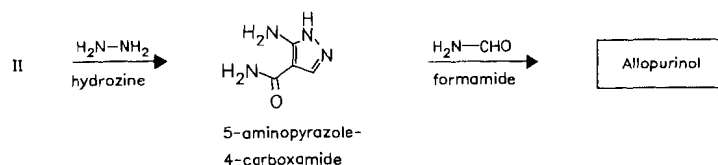
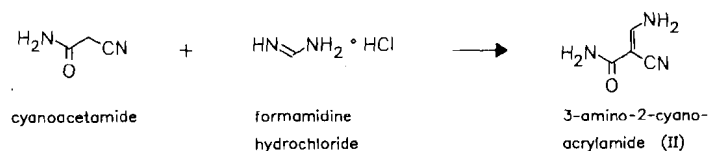
Use: uricosuric agent

RN: 315-30-0 MF: C₅H₄N₄O MW: 136.11 EINECS: 206-250-9LD₅₀: >1 g/kg (M, p.o.)CN: 1,5-dihydro-4*H*-pyrazolo[3,4-*d*]pyrimidin-4-one

a



b

*Reference(s):*

- a** US 2 868 803 (Ciba; 13.1.1959; CH-prior. 10.2.1956).
 US 3 624 205 (Burroughs Wellcome; 30.11.1971; USA-prior. 25.4.1967).
b DAS 1 720 024 (Wellcome Found; appl. 12.7.1967; GB-prior. 14.7.1966).

similar process:

- DAS 1 904 894 (Wellcome Found; appl. 31.1.1969; GB-prior. 2.2.1968).
 US 4 146 713 (Burroughs Wellcome; 27.3.1979; GB-prior. 2.2.1968).

alternative syntheses:

- US 3 474 098 (Burroughs Wellcome; 21.10.1969; prior. 29.3.1956).
 DAS 2 224 382 (Henning Berlin; appl. 18.5.1972).
 DE 1 118 221 (Wellcome Found; appl. 4.8.1956; GB-prior. 10.8.1955).
 DAS 1 814 082 (Wellcome Found; appl. 11.12.1968).
 DAS 1 950 075 (Henning Berlin; appl. 3.10.1969).
 DOS 2 018 345 (Delmar Chemicals; appl. 16.4.1970; GB-prior. 17.4.1969).

combination with benzbromarone:

- GB 1 493 237 (Henning Berlin; appl. 11.5.1976; D-prior. 10.12.1975).

Formulation(s): tabl. 100 mg, 200 mg, 300 mg

Trade Name(s):

- | | | | |
|----|-------------------------------------|------------------------------|--|
| D: | Allo-300-Tablinen (ct-Arzneimittel) | Allomaron (Nattermann)-comb. | Allo-Puren 100/-300 (Isis Puren)
Bleminol (gepepharm) |
|----|-------------------------------------|------------------------------|--|

Cellidrin (Henning) dura A1 300 (durachemie) Foligan (Henning Berlin) Remid 100/300 (TAD) Suspendol (Merckle) Uribenz 300 (R.A.N.) Uripurinol 100/300 (Azopharma) Urosin (Boehringer Mannh.)	F: GB: I:	Zyloric (Glaxo Wellcome; 1966) combination preparations Zyloric (Glaxo Wellcome; 1968) Zyloric (Glaxo Wellcome; 1966) Allopuri (Formulario Naz.) Allurit (RBS Pharma)	J: USA:	Allurit (Rhône-Poulenc Rorer) Uricemil (ICT) Uricodue (IFI)-comb. Zyloric (Wellcome; 1969) Zyloric (Tanabe; 1969) Zyloprim (Glaxo Wellcome; 1966)
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Allylestrenol

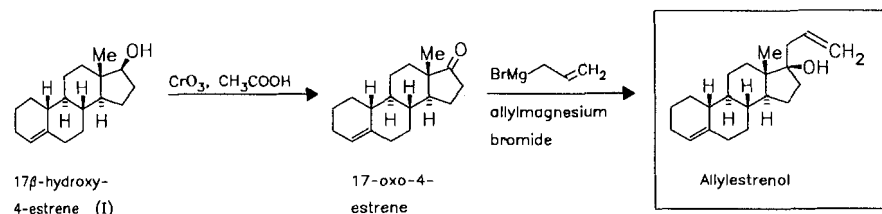
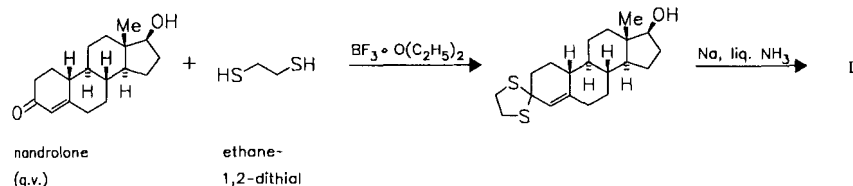
(Allyloestrenol)

ATC: G03DC01
Use: progestogen

RN: 432-60-0 MF: C₂₁H₃₂O MW: 300.49 EINECS: 207-082-9

LD₅₀: >640 mg/kg (M, p.o.)

CN: (17β)-17-(2-propenyl)estr-4-en-17-ol



Reference(s):

GB 841 411 (Organon; appl. 2.4.1958; NL-prior. 10.4.1957).

alternative syntheses:

GB 875 549 (Organon; appl. 31.12.1959; NL-prior. 13.1.1959).

US 2 878 267 (Organon; appl. 16.4.1958; NL-prior. 1.5.1957).

Formulation(s): tabl. 5 mg

Trade Name(s):

D: Gestanon (Organon); wfm	I: Gestanon (Organon Italia)
GB: Gestanin (Organon); wfm	J: Gestanon (Sankyo)

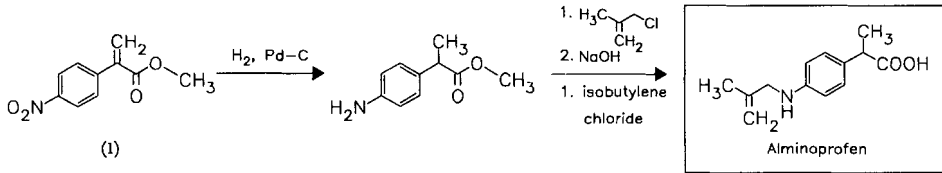
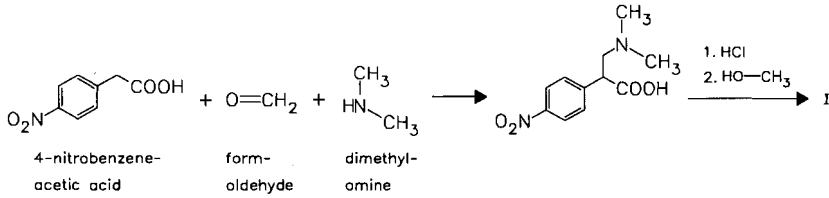
Alminoprofen

ATC: M01AE16
Use: non-steroidal anti-inflammatory, analgesic

RN: 39718-89-3 MF: C₁₃H₁₇NO₂ MW: 219.28 EINECS: 254-604-6

LD₅₀: 2400 mg/kg (M, p.o.)

CN: α-methyl-4-[(2-methyl-2-propenyl)amino]benzeneacetic acid

**Reference(s):**

Dumaitre, B. et al.: Eur. J. Med. Chem. (EJMCA5) **14**, 207 (1979).

alternative synthesis:

FR 2 289 180 (Lab. Bouchara; appl. 17.5.1971).

Formulation(s): tabl. 150 mg, 300 mg

Trade Name(s):

F: Minalfène (Bouchara)

J: Minalfen (Fujirebio)

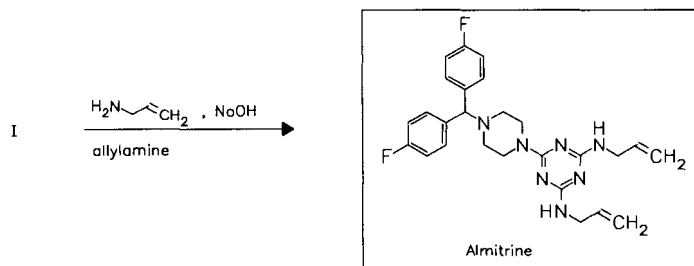
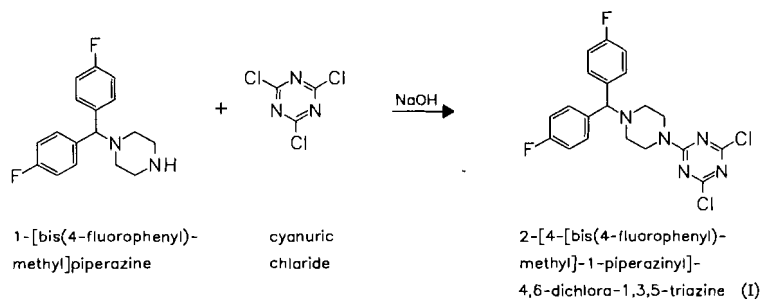
Almitrine

ATC: R07AB07

Use: analeptic, respiratory stimulant

RN: 27469-53-0 MF: $\text{C}_{26}\text{H}_{29}\text{F}_2\text{N}_7$ MW: 477.56 EINECS: 248-475-5

CN: 6-[4-[bis(4-fluorophenyl)methyl]-1-piperaziny]-N,N'-di-2-propenyl-1,3,5-triazine-2,4-diamine



Reference(s):

FR 2 019 646 (Science Union; appl. 22.9.1969; GB-prior. 2.10.1968).
 DOS 1 947 332 (Science Union; appl. 18.9.1969; GB-prior. 2.10.1968).
 US 3 647 794 (Science Union; 7.3.1972; GB-prior. 2.10.1968).
 GB 1 256 513 (Science Union; appl. 2.10.1968; valid from 30.9.1969).

Formulation(s): f. c. tabl. 50 mg; vial 15 mg/5 ml; tabl. 50 mg

Trade Name(s):

D: Vectarion (Servier; 1984) F: Duxil (Therval Médical; 1979)-comb. Vectarion (Euthérapie; 1983)

Aloxiprin

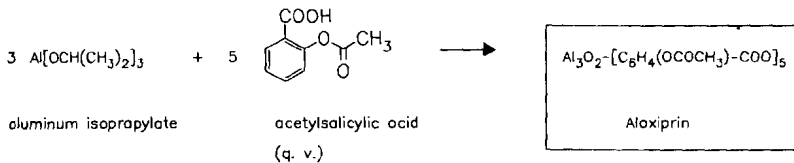
ATC: B01AC15; N02BA02

Use: analgesic

RN: 9014-67-9 MF: unspecified MW: unspecified

CN: aloxiprin

polymeric condensation product of aluminum oxide and acetylsalicylic acid

**Reference(s):**

Cummings, A.J. et al.: J. Pharm. Pharmacol. (JPPMAB) 15, 56 (1963).

Formulation(s): tabl. 400 mg, 450 mg, 600 mg

Trade Name(s):

GB: Palaprin (Nicholas); wfm Palaprin forte (Nicholas); wfm

Alfaprodine

(Alfaprodina)

ATC: N02AB

Use: analgesic

RN: 77-20-3 MF: C₁₆H₂₃NO₂ MW: 261.37 EINECS: 201-011-5

CN: cis-1,3-dimethyl-4-phenyl-4-piperidinol propanoate (ester)

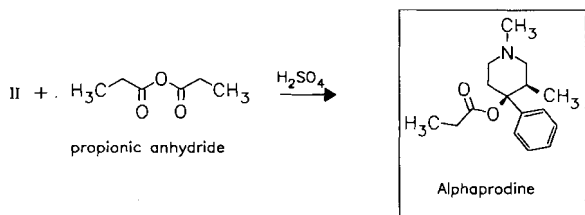
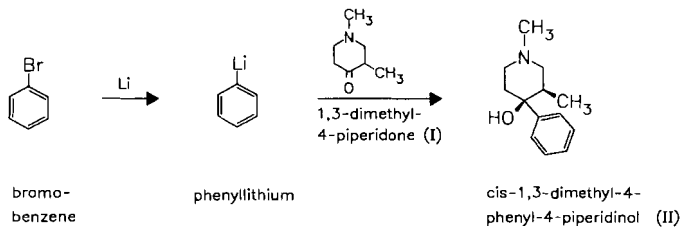
hydrochloride

RN: 561-78-4 MF: C₁₆H₂₃NO₂·HCl MW: 297.83

LD₅₀: 32 mg/kg (M, i.v.);

25 mg/kg (R, i.v.); 90 mg/kg (R, p.o.);

36.2 mg/kg (dog, i.v.)

**Reference(s):**

US 2 498 433 (Hoffmann-La Roche; 1950; prior. 1946).

starting material:

1,3-dimethyl-4-piperidone:

Howton: *J. Org. Chem. (JOCEAH)* **10**, 277 (1945).

Formulation(s): amp. 4 %, 6 %

Trade Name(s):

USA: Nisentil (Roche); wfm

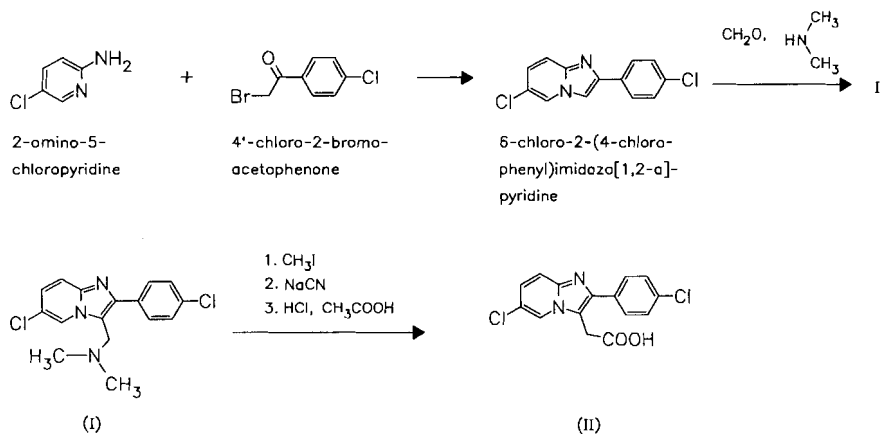
Alpidem

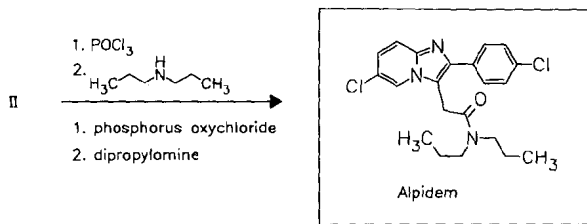
ATC: N05B

Use: anxiolytic, ω_1 -agonist

RN: 82626-01-5 MF: $C_{21}H_{23}Cl_2N_3O$ MW: 404.34

CN: 6-chloro-2-(4-chlorophenyl)-*N,N*-dipropylimidazo[1,2-*a*]pyridine-3-acetamide



**Reference(s):**

EP 50 563 (Synthelabo; appl. 15.10.1981; F-prior. 22.10.1980).

US 4 382 938 (Synthelabo; 10.5.1983; F-prior. 22.10.1980).

US 4 460 592 (Synthelabo; 17.7.1984; F-prior. 22.10.1980).

Formulation(s): tabl. 50 mg**Trade Name(s):**F: Anaxyl (Synthelabo; 1991);
wfm**Alprazolam**

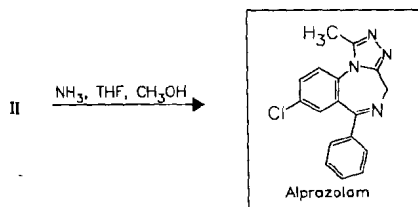
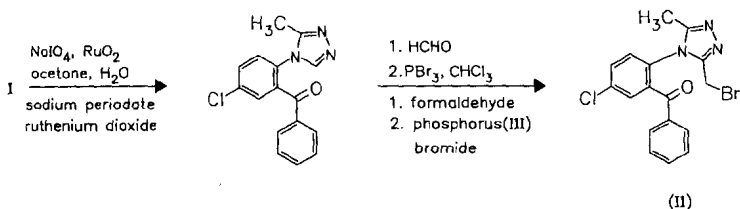
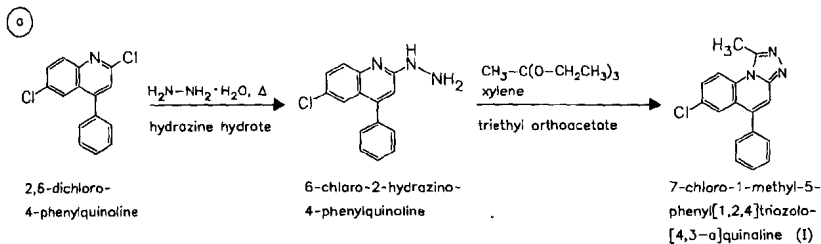
ATC: N05BA12

Use: tranquilizer

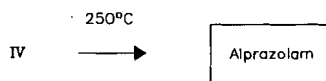
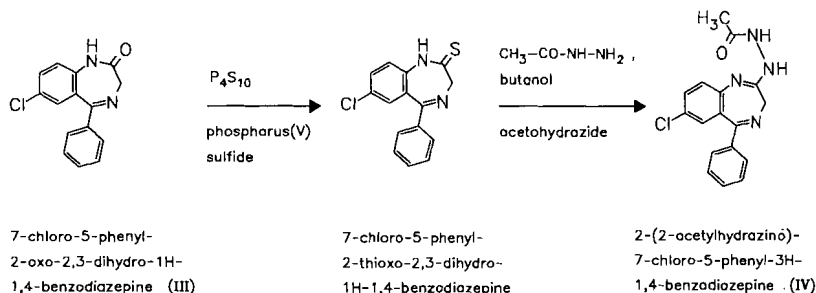
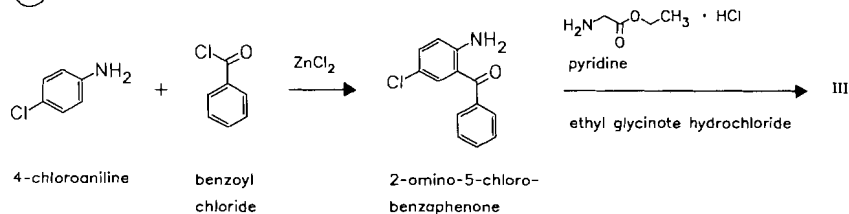
RN: 28981-97-7 MF: C₁₇H₁₃ClN₄ MW: 308.77 EINECS: 249-349-2LD₅₀: 770 mg/kg (M, p.o.);

1220 mg/kg (R, p.o.)

CN: 8-chloro-1-methyl-6-phenyl-4H-[1,2,4]triazolo[4,3-a][1,4]benzodiazepine



b

**Reference(s):**

- US 3 987 052 (Upjohn; 19.10.1976; appl. 29.10.1969; USA-prior. 17.3.1969).
 US 3 980 789 (Upjohn; 14.9.1976; appl. 19.6.1972; USA-prior. 29.3.1971).
 DE 1 955 349 (Takeda; D-prior. 4.11.1969).
 GB 1 298 364 (Upjohn; GB-prior. 27.10.1969).
 a DOS 2 203 782 (Upjohn; appl. 27.1.1972; USA-prior. 9.2.1971).
 US 3 709 898 (Upjohn; 9.1.1973; prior. 9.2.1971).
 US 3 781 289 (Upjohn; 25.12.1973; prior. 11.5.1972).
 b DOS 2 012 190 (Upjohn; appl. 14.3.1970; USA-prior. 17.3.1969).

Formulation(s): tabl. 0.25 mg, 0.5 mg, 1 mg, 1 g

Trade Name(s):

D:	Cassadan 0,25/0,5/1 (ASTA Medica AWD)	F:	Xanax (Upjohn; 1984)	J:	Xanax (Upjohn; 1985)
	Tafil 0,5/1,0 Tabletten (Pharmacia & Upjohn; 1984)	GB:	Xanax (Pharmacia & Upjohn; 1983)		Constan (Takeda; 1984)
	Xanax (Pharmacia & Upjohn)	I:	Frontal (UCM)	USA:	Solanax (Upjohn-Sumitomo; 1984)
			Mialin (Biomedica)		Xanax (Pharmacia & Upjohn; 1981)
			Foscama)		
			Valeans (Valeas)		

Alprenolol

ATC: C07AA01

Use: beta blocking agent

RN: 13655-52-2 MF: C₁₅H₂₃NO₂ MW: 249.35 EINECS: 237-140-9

LD₅₀: 20 mg/kg (M, i.v.)

CN: 1-[(1-methylethyl)amino]-3-[2-(2-propenyl)phenoxy]-2-propanol

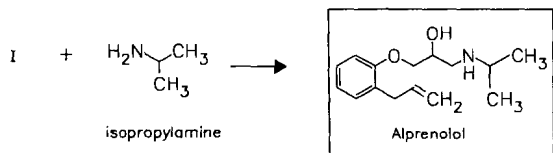
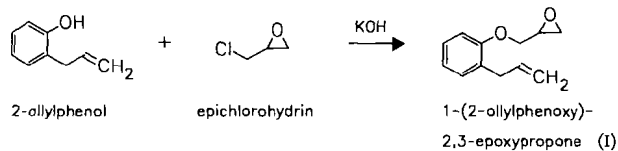
hydrochloride

RN: 13707-88-5 MF: C₁₅H₂₃NO₂ · HCl MW: 285.82 EINECS: 237-244-4

LD₅₀: 29 mg/kg (M, i.v.); 184 mg/kg (M, p.o.);

17 mg/kg (R, i.v.); 590 mg/kg (R, p.o.);

18 mg/kg (dog, i.v.); 383 mg/kg (dog, p.o.)



Reference(s):

US 3 466 376 (AB Hässle; 9.9.1969; prior. 18.1.1966, 17.6.1966).

Brandström, A.: Acta Pharm. Suec. (APSXAS) **1966**, 303.

2-allylphenol by *rearrangement of allyl phenyl ether*:

DOS 2 746 002 (Firestone; appl. 13.10.1977; USA-prior. 18.10.1976).

Formulation(s): cps. 10 mg, 20 mg, 40 mg, 50 mg; lyo. for inf. 42.6 mg; tabl. 200 mg

Trade Name(s):

D: Aptin-Duriles (Astra)

J: Apllobal (Fujisawa; as hydrochloride)

Altizide

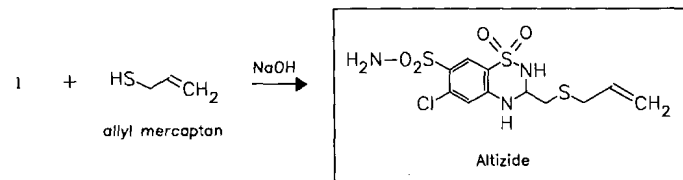
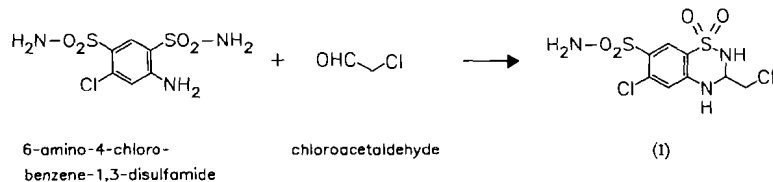
(Althiazide)

ATC: C03EA01; C03EA04

Use: diuretic, antihypertensive

RN: 5588-16-9 MF: C₁₁H₁₄ClN₃O₄S₃ MW: 383.90 EINECS: 226-994-8

CN: 6-chloro-3,4-dihydro-3-[(2-propenylthio)methyl]-2H-1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide



Reference(s):

GB 902 658 (Pfizer; appl. 10.1.1961; USA-prior. 27.9.1960).

Formulation(s): cps. 0.25 mg, 0.5 mg; drops 1 mg; sol. 0.1 mg/ml; tabl. 0.25 mg, 0.5 mg, 1 mg, 2 mg

Trade Name(s):

F:	Aldactazine (Monsanto)- comb. Practazin (Cardel)-comb.	Prinactizide (Dakota)- comb. Spiroctazine (Boehringer Mannh.)-comb.	I:	Aldatense (SPA)-comb.; wfm
			USA:	Aldactazide (Searle)- comb.; wfm

Altretamine

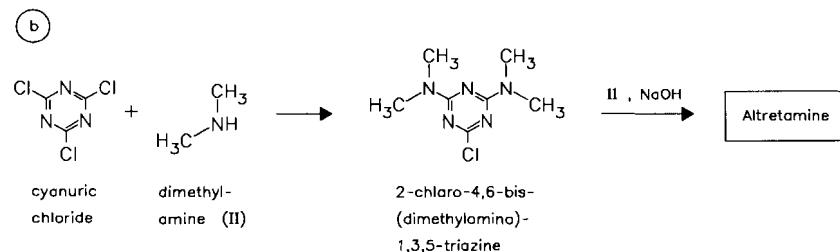
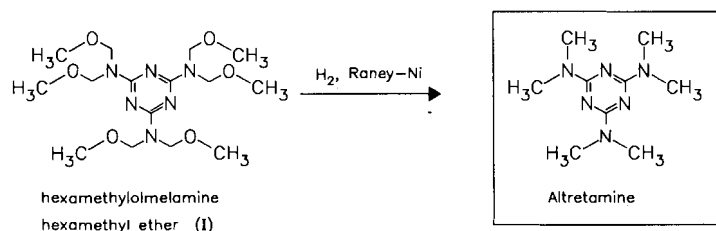
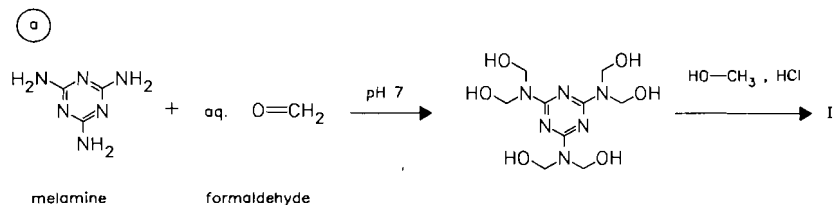
(Hexamethylmelamine)

ATC: L01XX03
Use: antineoplastic

RN: 645-05-6 MF: C₉H₁₈N₆ MW: 210.29 EINECS: 211-428-4LD₅₀: 350 mg/kg (R, p.o.)

CN: N,N,N',N',N'',N''-hexamethyl-1,3,5-triazine-2,4,6-triamine

hydrochloride

RN: 15468-34-5 MF: C₉H₁₈N₆ · xHCl MW: unspecifiedLD₅₀: 100 mg/kg (M, i.v.)

Reference(s):

a DE 1 240 870 (Cassella; appl. 17.11.1965).

b Gunduz, T.: Commun. Fac. Sci. Univ. Ankara, Ser. B: Chim. (CAKBA9) 15, 69 (1968).

Cumber, A.J.; Ross, W.C.J.: Chem.-Biol. Interact. (CBINA8) 17, 349 (1977).

synthesis of hexamethylolmelamine hexamethyl ether:

Gams, A. et al.: *Helv. Chim. Acta (HCACAV)* **24**, 302 (1941).

US 3 322 762 (Pittsburgh Plate Glass; 30.5.1967; prior. 27.2.1962; 8.4.1964).

Formulation(s): cps. 50 mg, 100 mg

Trade Name(s):

D:	Hexamethylmelamin (Rhône-Poulenc); wfm	F:	Hexastat (Roger Bellon); wfm	I:	Hexastat (Rhône-Poulenc Rorer)
		GB:	Hexalen (Speywood)	USA:	Hexalen (U.S. Bioscience)

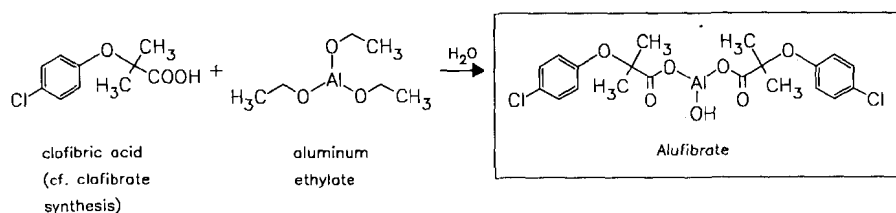
Alufibrate

(Aluminium clofibrate)

ATC: C01AB03
Use: cholesterol depressant

RN: 24818-79-9 MF: C₂₀H₂₁AlCl₂O₇ MW: 471.27 EINECS: 246-477-0

CN: bis[2-(4-chlorophenoxy-κO)-2-methylpropanoato-κO]hydroxyaluminum



Reference(s):

GB 860 303 (ICI; appl. 20.6.1958).

Formulation(s): tabl. 500 mg

Trade Name(s):

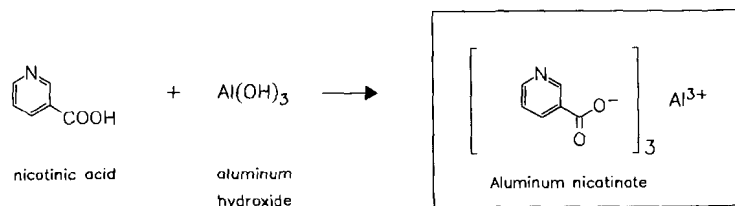
D:	Atherolipin (Schwarz); wfm	F:	Athérolip (Millot-Solac); wfm
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Aluminum nicotinate

ATC: C10AD04
Use: antihyperlipidemic, vasodilator
(peripheral)

RN: 1976-28-9 MF: C₁₈H₁₂AlN₃O₆ MW: 393.29 EINECS: 217-832-7

CN: 3-pyridinecarboxylic acid aluminum salt



Reference(s):

US 2 970 082 (Walker Labs.; 31.1.1961; appl. 7.10.1958).

Formulation(s): tabl. 125 mg

Trade Name(s):

USA: Nicalex (Merrell-National);
wfm

Alverine

(Dipropylamine; Fenpropamine)

ATC: A03AX08

Use: antispasmodic

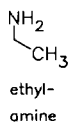
RN: 150-59-4 MF: C₂₀H₂₇N MW: 281.44 EINECS: 205-763-5

CN: *N*-ethyl-*N*-(3-phenylpropyl)benzenepropanamine

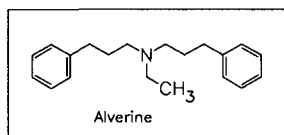
citrate (1:1)

RN: 5560-59-8 MF: C₂₀H₂₇N · C₆H₈O₇ MW: 473.57 EINECS: 226-929-3

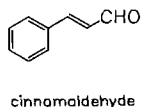
(a)



KOH

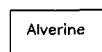


(b)



+ 1

H₂, Pt-BaSO₄



Reference(s):

a Küzl, F. et al.: Ber. Dtsch. Chem. Ges. (BDCGAS) **72**, 2161 (1939).

b Stühmer, W.; Elbrächter, E.-A.: Arch. Pharm. Ber. Dtsch. Pharm. Ges. (APBDJ) **287**, 139 (1954).

Formulation(s): inj. sol. 40 mg/2 ml; suppos. 80 mg; tabl. 40 mg

Trade Name(s):

D:	Spasmocol (Norgine)- comb.; wfm	Schoum comprimés (Pharmysiène)-comb.	I:	Spasmonal (Norgine; as citrate)
F:	Hepatoum (Hepatoum)- comb. Météospasmyl (Mayoly- Spindler)-comb.	Spasmavérine (Théraplix) Spasmavérine suppos. (Théraplix)-comb.	I:	Profenil (Ipti); wfm Spasmaverine (Roger Bellon); wfm
GB:	Alvercol (Norgine; as citrate)-comb.		USA:	Spacolin (Philips Roxane); wfm

Amantadine

ATC: J05AC; N04BB01

Use: antiparkinsonian, antiviral

RN: 768-94-5 MF: C₁₀H₁₇N MW: 151.25 EINECS: 212-201-2

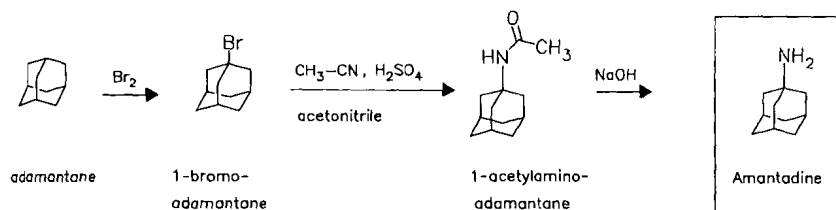
LD₅₀: 700 mg/kg (M, p.o.);
900 mg/kg (R, p.o.)

CN: tricyclo[3.3.1.1^{3,7}]decan-1-amine

hydrochlorideRN: 665-66-7 MF: C₁₀H₁₇N · HCl MW: 187.71 EINECS: 211-560-2LD₅₀: 95 mg/kg (M, i.v.); 700 mg/kg (M, p.o.);

90 mg/kg (R, i.v.); 800 mg/kg (R, p.o.);

37 mg/kg (dog, i.v.)

sulfate (2:1)RN: 31377-23-8 MF: C₁₀H₁₇N · 1/2H₂SO₄ MW: 400.58 EINECS: 250-604-5**Reference(s):**Stetter, H. et al.: Chem. Ber. (CHBEAM) **93**, 226 (1960).

US 3 310 469 (Du Pont; 21.3.1967; prior. 28.8.1961, 15.4.1963, 22.10.1963).

synthesis from adamantane, HCN and H₂SO₄:

US 3 152 180 (Studiengesellschaft Kohle; 6.10.1964, D-prior. 25.8.1960).

combination with molindone (antidepressant):

US 4 148 896 (Du Pont; 10.4.1979; appl. 22.2.1978).

Formulation(s): f. c. tabl. 100 mg, 150 mg; cps. 100 mg; amp. 200 mg/500 ml (as sulfate); syrup 50 mg/5 ml**Trade Name(s):**D: Amantadin (ratiopharm)
PK-Merz (Merz & Co.)GB: Symmetrel (Geigy; as
hydrochloride)J: Symmetrel (Fujisawa-
Novartis)

F: Mantadix (Du Pont)

I: Mantadan (Boehringer
Ing.)

USA: Symmetrel (Endo)

Ambazone

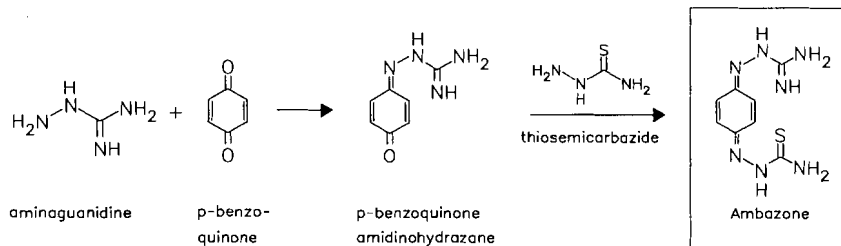
ATC: R02AA01

Use: antiseptic, disinfectant (oral and
pharyngeal chemotherapeutic),
antineoplasticRN: 539-21-9 MF: C₈H₁₁N₇S MW: 237.29 EINECS: 208-713-0LD₅₀: 1 g/kg (M, p.o.);

750 mg/kg (R, p.o.)

CN: 2-[4-[(aminoiminomethyl)hydrazono]-2,5-cyclohexadien-1-ylidene]hydrazinecarbothioamide

monohydrateRN: 6011-12-7 MF: C₈H₁₁N₇S · H₂O MW: 255.31

*Reference(s):*

DE 965 723 (Bayer; appl. 1953).

Formulation(s): tabl. 10 mg, 100 mg*Trade Name(s):*

D: Iversal (Bayer); wfm

GB: Iversal (Bayer); wfm

F: Iversal (Bayer); wfm

I: Primar (Bayer); wfm

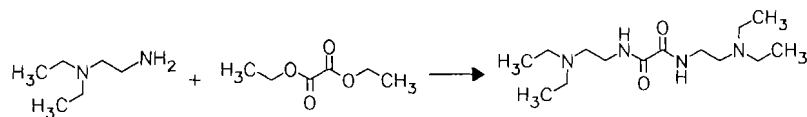
Ambenonium chloride

ATC: N07AA30

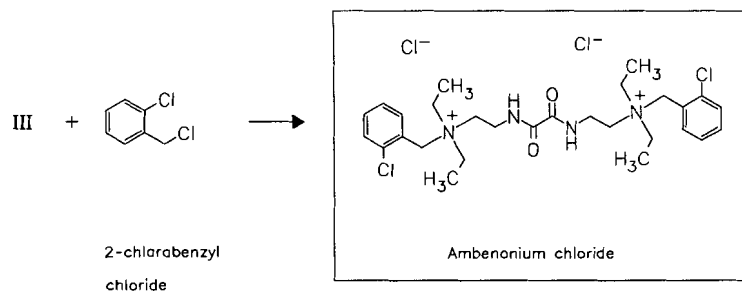
Use: cholinesterase inhibitor

RN: 115-79-7 MF: C₂₈H₄₂Cl₄N₄O₂ MW: 608.48 EINECS: 204-107-5LD₅₀: 1510 g/kg (M, i.v.); 145 mg/kg (M, p.o.);

2720 g/kg (R, i.v.); 18.5 mg/kg (R, p.o.)

CN: *N,N'*-[(1,2-dioxo-1,2-ethanediy)bis(imino-2,1-ethanediy)]bis[2-chloro-*N,N'*-diethylbenzenemethanaminium] dichloride**hydroxide**RN: 470-78-0 MF: C₂₈H₄₄Cl₂N₄O₄ MW: 571.59N,N-diethyl-
ethylenediamine

diethyl oxalate

N,N'-bis(2-diethylaminoethyl)-
oxamide (I)2-chlorobenzyl
chloride

Ambenonium chloride

Reference(s):

DE 1 024 517 (Sterling Drug; appl. 1954; USA-prior. 1953).

US 3 096 373 (Sterling Drug; 2.7.1963; appl. 1956).

Phillips, A.P.: J. Am. Chem. Soc. (JACSAT) **73**, 5822 (1951).

oxamide intermediate:

US 2 438 200 (Du Pont; 1948; appl. 1946).

Formulation(s): cps. 10 mg; tabl. 10 mg

Trade Name(s):

D:	Mytelase Tabletten (Winthrop); wfm	GB:	Mytelase (Winthrop); wfm	J:	Mytelase (Winthrop- Nippon Shoji)
F:	Mytélase (Sanofi Winthrop)	I:	Mytelase (Winthrop); wfm	USA:	Mytelase (Winthrop); wfm

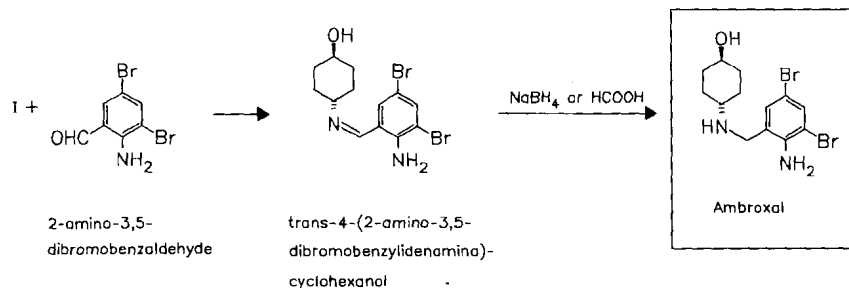
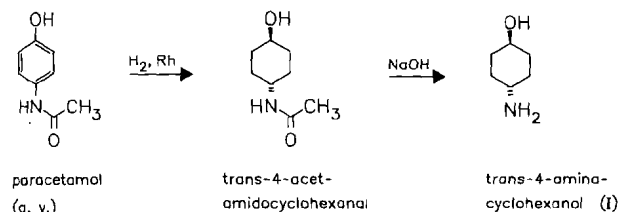
Ambroxol

ATC: R05CB
Use: expectorant

RN: 18683-91-5 MF: C₁₃H₁₈Br₂N₂O MW: 378.11 EINECS: 242-500-3

LD₅₀: 138 mg/kg (M, i.v.); 2720 mg/kg (M, p.o.);
13.4 g/kg (R, p.o.)

CN: *trans*-4-[(2-amino-3,5-dibromophenyl)methylamino]cyclohexanol



Reference(s):

GB 1 178 034 (Boehringer Ingelth.; appl. 10.5.1967; D-prior. 10.5.1966).
US 3 536 713 (Boehringer Ingelth.; 27.10.1970; appl. 10.5.1967; S-prior. 10.5.1966).
DE 1 593 579 (Thomae; appl. 10.5.1966).
DOS 2 218 647 (Thomae; appl. 18.4.1972).
DOS 2 223 193 (Thomae; appl. 12.5.1972).
Keck, J.: Justus Liebig's Ann. Chem. (JLACBF) **707**, 107 (1967).

Formulation(s): amp. 15 mg; cps. 75 mg; drops 7.5 mg, 30 mg; eff. tabl. 30 mg, 60 mg; f. c. tabl. 30 mg, 60 mg; inhalation sol. 7.5 mg; inj. 1000 mg; syrup 15 mg, 30 mg; tabl. 30 mg, 60 mg (as hydrochloride)

Trade Name(s):

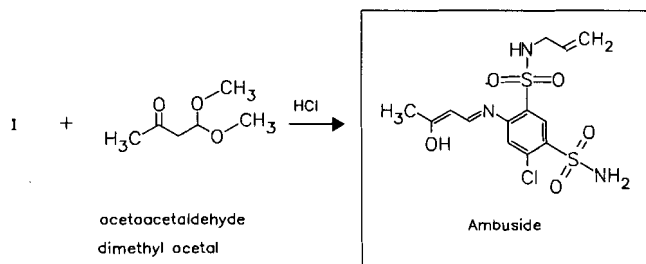
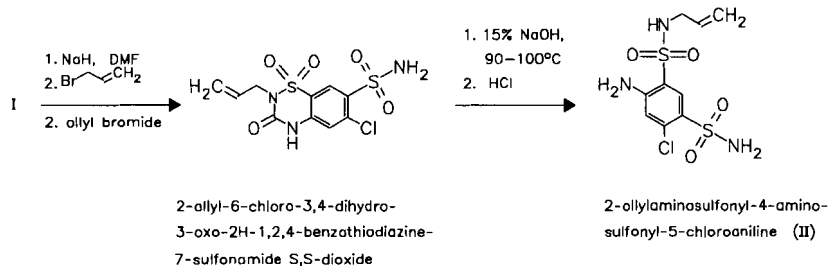
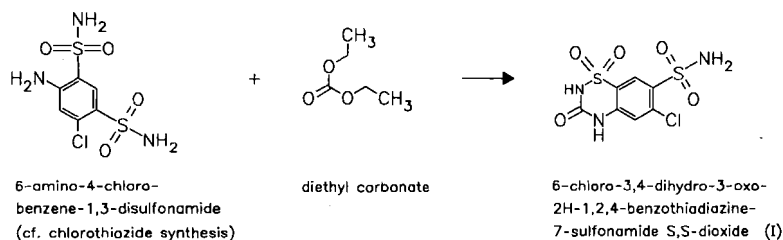
D:	Ambрил (Glaxo Wellcome) Bronchopront (Mack, Illert.) duramucal (durachemie)	frenopect (Hefa Pharma) Lindoxyl (Lindopharm) Mucoclear (Mundipharma) Mucophlogat (Azuchemie)	Mucosolvan (Boehringer Ing.; 1979) Mucotablin-Tropfen (Sanorania)
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	Mucotectan (Boehringer Ing.)-comb. stas-Hustenlöser (Stada)	Fluibron (Chiesi) Fluixol (Ripari-Gero) Lisopulm (Esseti) Muciclar (Piam) Mucobron (OFF) Mucosolvan (Boehringer Ing.; 1982)	Secretil (Caber) Surfacatal (Boehringer Ing.) Tauxolo (SIT) Viscomucil (ABC-Torino) Mucosolvan (Teijin; 1984)
I:	Amobronc (Ist. Chim. Inter.) Atus (Metapharma) Broxol (Pulitzer)		J:

Ambuside

ATC: C02L

Use: diuretic, antihypertensive

RN: 3754-19-6 MF: C₁₃H₁₆ClN₃O₅S₂ MW: 393.87 EINECS: 223-158-4CN: 4-chloro-6-[(3-hydroxy-2-butenylidene)amino]-N¹-2-propenyl-1,3-benzenedisulfonamide**Reference(s):**

US 3 188 329 (Colgate-Palmolive; 8.6.1965; appl. 10.4.1962).

intermediates:Close, W.J. et al.: J. Am. Chem. Soc. (JACSAT) **82**, 1132 (1960).**Trade Name(s):**

F: Hydrion (Robert et Carrière); wfm

Aminonide

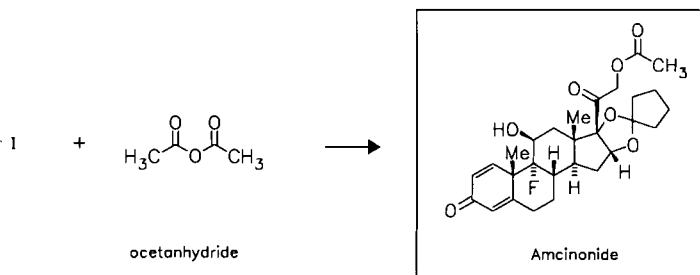
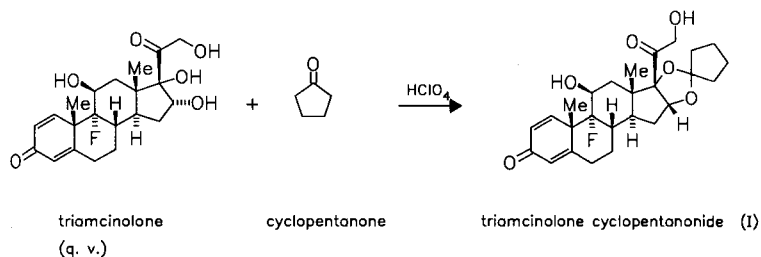
(Triamcinolone acetate cyclopentanoide)

ATC: D07AC11; H02AB
 Use: topical glucocorticoid

RN: 51022-69-6 MF: C₂₈H₃₅FO₇ MW: 502.58 EINECS: 256-915-2

LD₅₀: >5 g/kg (M, p.o.);
 >2 g/kg (R, p.o.)

CN: (11β,16α)-21-(acetyloxy)-16,17-[cyclopentylidenebis(oxy)]-9-fluoro-11-hydroxypregna-1,4-diene-3,20-dione



Reference(s):

- GB 1 442 925 (American Cyanamid; USA-prior. 17.8.1973).
- DOS 2 437 847 (American Cyanamid; appl. 6.8.1974; USA-prior. 17.8.1973).
- BE 818 929 (American Cyanamid; appl. 16.8.1974; USA-prior. 17.8.1973).
- US 4 158 055 (American Cyanamid; 12.6.1979; USA-prior. 6.6.1975).

Formulation(s): cream 0.1 %; lotion 0.1 %; ointment 0.1 %

Trade Name(s):

D: Amciderm (Hermal/Merck; 1985)	Penticort Neomycine (Wyeth-Lederle)-comb.	USA: Cyclocort (Fujisawa; 1979)
F: Penticort (Wyeth-Lederle; 1980)	I: Amcinil (Crosara)	
	J: Visderm (Lederle; 1982)	

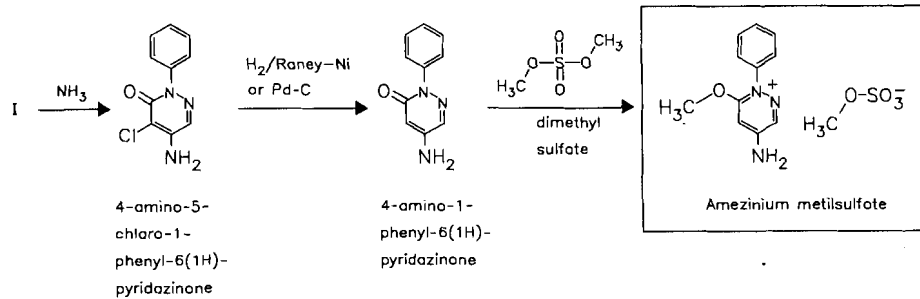
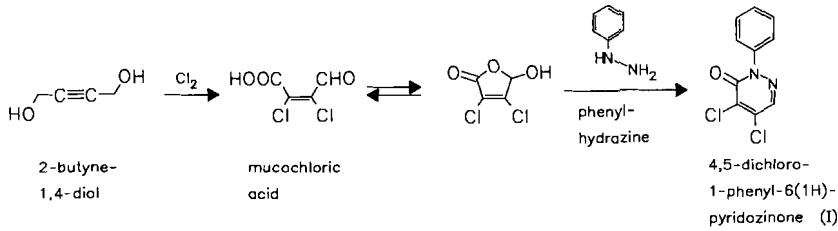
Amezinium metilsulfate

ATC: C01CA00
 Use: selective noradrenergic antihypotensive

RN: 30578-37-1 MF: C₁₁H₁₂N₃O · CH₃O₄S MW: 313.33 EINECS: 250-248-0

LD₅₀: 28 mg/kg (M, i.v.); 1330 mg/kg (M, p.o.);
 24 mg/kg (R, i.v.); 1410 mg/kg (R, p.o.);
 60 mg/kg (dog, i.v.); 100 mg/kg (dog, p.o.)

CN: 4-amino-6-methoxy-1-phenylpyridazinium methyl sulfate

chlorideRN: 51410-15-2 MF: C₁₁H₁₂ClN₃O MW: 237.69**Reference(s):**

Reicheneder, F. et al.: *Arzneim.-Forsch. (ARZNAD)* **31** (II), 1529 (1981).
 DE 1 912 941 (BASF; appl. 14.3.1969).
 DOS 2 139 687 (BASF; appl. 7.8.1971).
 DOS 2 211 662 (BASF; appl. 10.3.1972).
 DOS 3 114 496 (BASF; appl. 10.4.1981).
 EP 63 267 (BASF; appl. 31.3.1982; D-prior. 10.4.1981).

precursors:

DE 2 100 685 (BASF; appl. 8.1.1971).

Formulation(s): amp. 5 mg; tabl. 10 mg

Trade Name(s):

D: Regulton (Knoll)

Supratonin (Grünenthal)

Amfebutamone

(Bupropion)

ATC: N06AE

Use: antidepressant

RN: 34911-55-2 MF: C₁₃H₁₈ClNO MW: 239.75

LD₅₀: 544 mg/kg (M, p.o.)

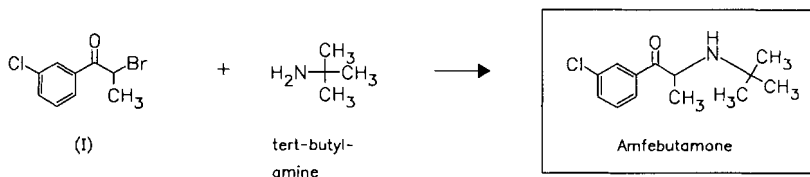
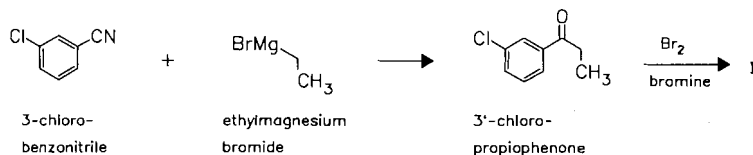
CN: (±)-1-(3-chlorophenyl)-2-[(1,1-dimethylethyl)amino]-1-propanone

hydrochloride

RN: 31677-93-7 MF: C₁₃H₁₈ClNO · HCl MW: 276.21 EINECS: 250-759-9

LD₅₀: 230 mg/kg (M, i.p.); 575 mg/kg (M, p.o.);

210 mg/kg (R, i.p.); 600 mg/kg (R, p.o.)

**Reference(s):**

DOS 2 059 618 (Wellcome; appl. 3.12.1970; GB-prior. 4.12.1969).
 DOS 2 064 934 (Wellcome; appl. 3.12.1970; GB-prior. 4.12.1969).
 CA 977 778 (Wellcome; appl. 15.11.1970).

Formulation(s): s. r. tabl. 100 mg, 150 mg (as hydrochloride); tabl. 75 mg, 100 mg

Trade Name(s):

USA: Wellbutrin (Glaxo Wellcome)

Zyban (Glaxo Wellcome)

Amfenac sodium

ATC: M01AB

Use: non-steroidal anti-inflammatory, analgesic

RN: 61941-56-8 MF: $C_{15}H_{12}NNaO_3$ MW: 277.26

LD₅₀: 550 mg/kg (M, i.v.); 615 mg/kg (M, p.o.);
 277 mg/kg (R, i.v.); 311 mg/kg (R, p.o.)

CN: 2-amino-3-benzoylbenzeneacetic acid monosodium salt

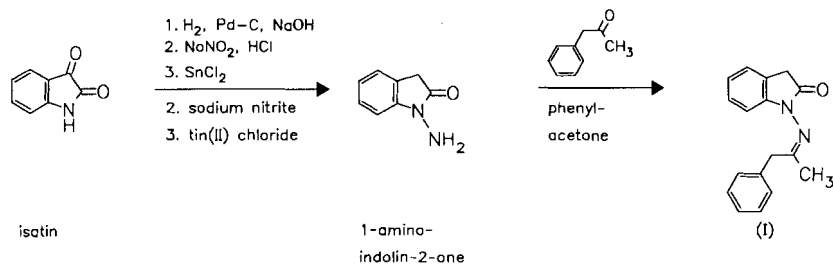
monohydrate

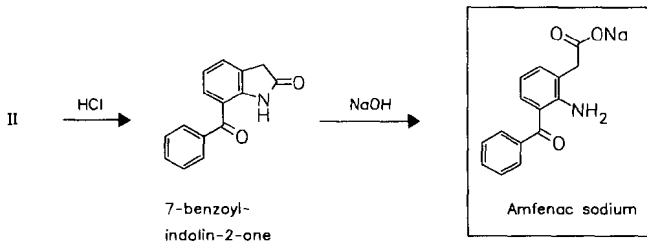
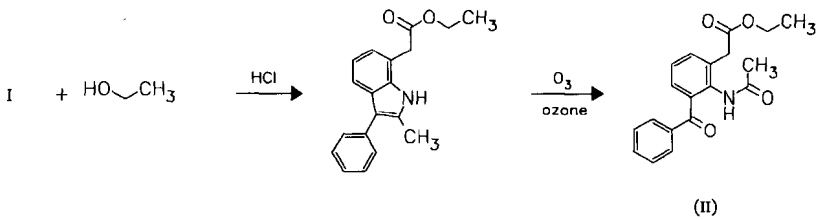
RN: 61618-27-7 MF: $C_{15}H_{12}NNaO_3 \cdot H_2O$ MW: 295.27

amfenac

RN: 51579-82-9 MF: $C_{15}H_{13}NO_3$ MW: 255.27

LD₅₀: 615 mg/kg (M, p.o.);
 311 mg/kg (R, p.o.)



**Reference(s):**

DOS 2 324 768 (Robins; appl. 16.5.1973; USA-prior. 17.5.1972).
 US 4 045 576 (Robins; USA-prior. 17.5.1972)
 Welstead, W.J. et al.: J. Med. Chem. (JMCMAR) **22**, 1074 (1979).

1-aminoindolin-2-one:

Lora Tamayo, M. et al.: Org. Prep. Proced. Int. (OPPIAK) **8**, 45 (1976).

Formulation(s): tabl. 5 mg

Trade Name(s):

J: Fenazox (Meiji Seika)

Amfepramone

(Diethylpropion)

ATC: A08AA03

Use: appetite depressant

RN: 90-84-6 MF: $\text{C}_{13}\text{H}_{19}\text{NO}$ MW: 205.30 EINECS: 202-019-1

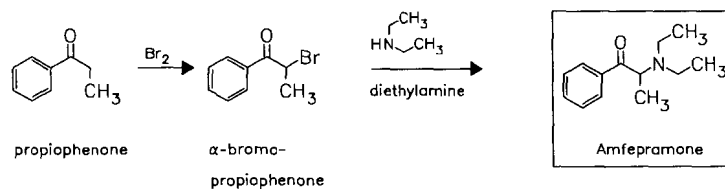
LD_{50} : 160 mg/kg (M, p.o.);
 >400 mg/kg (R, p.o.)

CN: 2-(diethylamino)-1-phenyl-1-propanone

hydrochloride

RN: 134-80-5 MF: $\text{C}_{13}\text{H}_{19}\text{NO} \cdot \text{HCl}$ MW: 241.76 EINECS: 205-156-5

LD_{50} : 50 mg/kg (M, i.v.); 385 mg/kg (M, p.o.);
 400 mg/kg (R, p.o.)

**Reference(s):**

US 3 001 910 (Temmler-Werke; 26.9.1961; D-prior. 16.4.1958).

Formulation(s): cps. 25 mg, 75 mg; s. r. cps. 375 mg; s. r. tabl. 75 mg; tabl. 25 mg, 75 mg

Trade Name(s):

D: Regenon retard (Temmler)	GB: Apisate (Wyeth)-comb.;	USA: Tenuate (Merrell-National);
Tenuate (Synomed)	wfm	wfm
F: Modératan (Théranol- Deglaude)	Tenuate (Merrell); wfm	Tepanil (Riker); wfm
Préfamone (Dexo)	Tenuate Dospan (Merrell);	
Tenuate-Dospan (Marion Merrell)	wfm	
	I: Linea Valeas (Valeas)	
	Tenuate Dospan (Lepctit)	

Amidephrine mesilate

(Amidefrine mesilate)

ATC: R03A

Use: rhinological therapeutic,
vasoconstrictor, sympathomimetic

RN: 1421-68-7 MF: C₁₀H₁₆N₂O₃S · CH₄O₃S MW: 340.42

LD₅₀: 190 mg/kg (M, i.v.); 2284 mg/kg (M, p.o.);

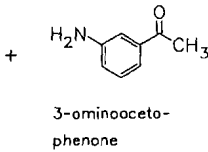
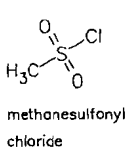
13 mg/kg (R, p.o.);

1400 g/kg (dog, i.v.)

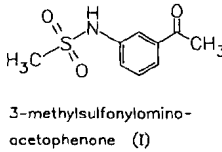
CN: (+)-N-[3-[1-hydroxy-2-(methylamino)ethyl]phenyl]methanesulfonamide monomethanesulfonate

amidephrine

RN: 37571-84-9 MF: C₁₀H₁₆N₂O₃S MW: 244.32

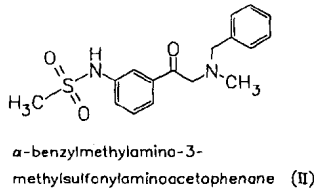
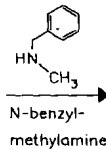
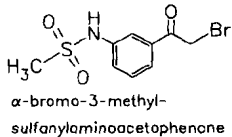


pyridine



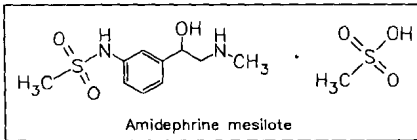
I

Br₂



II

1. H₂, Pd-C
2. CH₃SO₃H



Reference(s):

FR-M 3 027 (Mead Johnson; appl. 23.1.1963; USA-prior. 24.1.1962, 14.12.1962).

Formulation(s): sol. 0.1 %

Trade Name(s):

GB: Dricol (Bristol); wfm

Amidotrizoic acid

(Diatrizoic acid)

ATC: V08AA01

Use: X-ray contrast medium

RN: 117-96-4 MF: C₁₁H₉I₃N₂O₄ MW: 613.92 EINECS: 204-223-6LD₅₀: 8900 mg/kg (M, i.v.);

>12.3 g/kg (R, i.v.)

CN: 3,5-bis(acetylamino)-2,4,6-triiodobenzoic acid

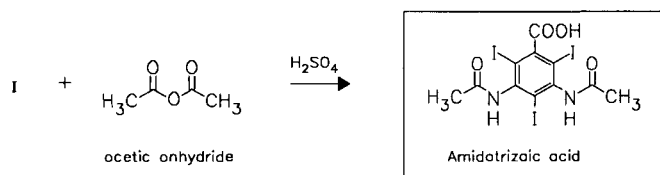
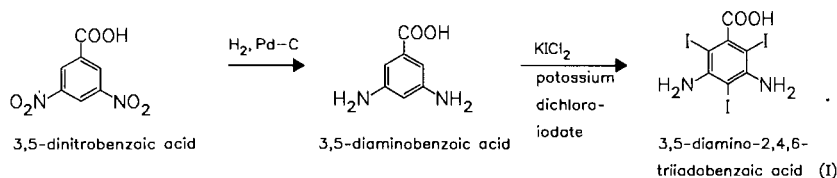
monosodium saltRN: 737-31-5 MF: C₁₁H₈I₃N₂NaO₄ MW: 635.90 EINECS: 212-004-1LD₅₀: 14 g/kg (M, i.v.); >7 g/kg (M,R, p.o.);

11.4 g/kg (R, i.v.);

13.2 g/kg (dog, i.v.)

meglumine saltRN: 8064-12-8 MF: C₁₁H₈I₃N₂NaO₄ · C₁₁H₉I₃N₂O₄ · C₇H₁₇NO₅ MW: 1445.03LD₅₀: 11.5 g/kg (M, i.v.);

29.2 mg/kg (R, i.v.)

**Reference(s):**Larsen, A.A. et al.: J. Am. Chem. Soc. (JACSAT) **78**, 3210 (1956).

GB 748 319 (Schering AG; appl. 1954; D-prior. 1953).

GB 782 313 (Mallinckrodt; appl. 1955; USA-prior. 1954).

US 3 076 024 (Sterling Drug; 29.1.1963; appl. 19.2.1954).

DE 1 260 477 (Schering AG; appl. 1954; USA-prior. 1953).

salts with amino acids:

DAS 2 261 584 (Dr. F. Köhler Chemie; appl. 15.12.1972).

Formulation(s): amp. 0.65 g/ml; inj. sol. 31 %-73 %**Trade Name(s):**

D:	Angiografín (Schering) Gastrografín (Schering) Peritrast (Köhler; as lysine salt) Urografín (Schering) Urovison (Schering)	GB:	Gastrografín (Schering Chemicals); wfm Hypaque (Winthrop); wfm Urografín (Schering Chemicals); wfm	J:	Urografín (Schering-Nichidoku Yakuhin)
F:	Angiografine (Schering) Gastrografine (Schering) Radiosélectan (Schering)	I:	Gastrografín (Schering)-comb. Selectografín (Schering)-comb.	USA:	Cardiografín (Squibb); wfm Cystografín (Squibb); wfm Gastrografín (Squibb); wfm Hypaque-Cysto (Winthrop); wfm Hypaque-Diu (Winthrop); wfm

Hypaque Sodium
(Winthrop); wfm
Meglumine Diatrizoate
(Squibb); wfm

Reno-M-30 (Squibb); wfm
Reno-M-60 (Squibb); wfm
Reno-M-DIP (Squibb);
wfm

Renovist (Squibb); wfm
Sinografin (Squibb)-comb.
with adipiodon; wfm

Amifostine

(Ethiophos; Gammaphos; NSC-296961; WR 2721)

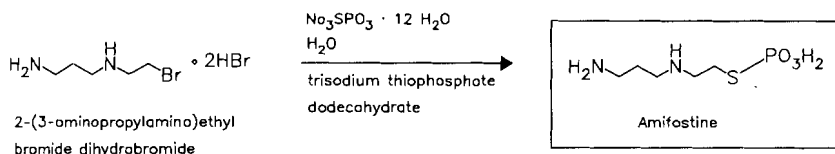
ATC: V03AF05

Use: mucolytic agent, radioprotector,
reduction of cisplatin induced renal
toxicity

RN: 20537-88-6 MF: C₅H₁₅N₂O₃PS MW: 214.23

LD₅₀: 557 mg/kg (M, i.v.); 842 mg/kg (M, p.o.);
826 mg/kg (R, p.o.)

CN: 2-[(3-aminopropyl)amino]ethanethiol dihydrogen phosphate (ester)



Reference(s):

DD 289 448 (Amt für Atomsicherheit; appl. 29.7.1982; DDR-prior. 29.7.1982).

DD 289 449 (Amt für Atomsicherheit; appl. 29.7.1983; DDR-prior. 29.7.1983).

composition having improved stability:

WO 9 403 179 (US Bioscience; appl. 30.7.1993; USA-prior. 31.7.1992).

preparation of monohydrate:

JP 54 046 722 (Yamanouchi; appl. 12.4.1979; J-prior. 21.9.1977).

preparation via 2-(3-aminopropylamino)ethyl bromide:

SU 751 030 (Kortun; 30.6.1981; SU-prior. 4.1.1979).

use for protection during radio- and chemotherapy:

US 5 298 499 (Res. Triangle Inst.; appl. 5.7.1991; USA-prior. 5.7.1991).

WO 8 907 942 (US Bioscience; appl. 21.2.1989; USA-prior. 23.2.1988).

US 5 167 947 (Southwest Res. Inst.; appl. 26.10.1989; USA-prior. 26.10.1989).

US 3 892 824 (Southern Res. Inst.; appl. 16.12.1988; USA-prior. 16.12.1988).

use for reducing side effects with azidothymidine:

WO 9 014 007 (US Bioscience; appl. 9.5.1990; USA-prior. 24.5.1989).

use for prevention of cytostatic alopecia:

DE 3 509 071 (ASTA-Werke; appl. 14.3.1985; D-prior. 29.3.1984).

Formulation(s): amp. 500 mg; vial 500 mg dry substance for inj.

Trade Name(s):

D: Ethylol (Essex Pharma;
1995)

GB: Ethylol (Schering-Plough)

Amikacin

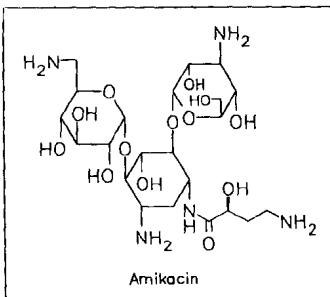
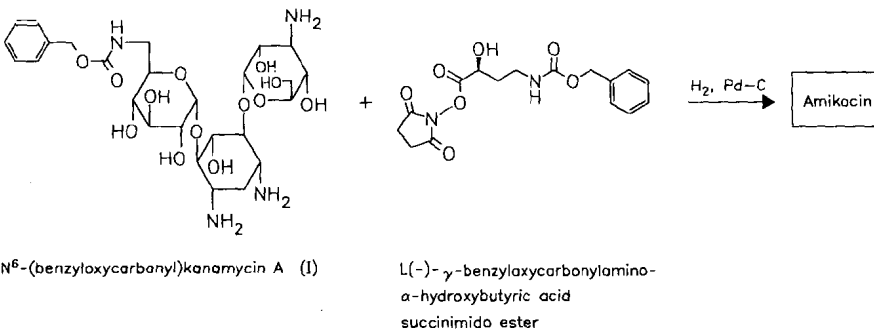
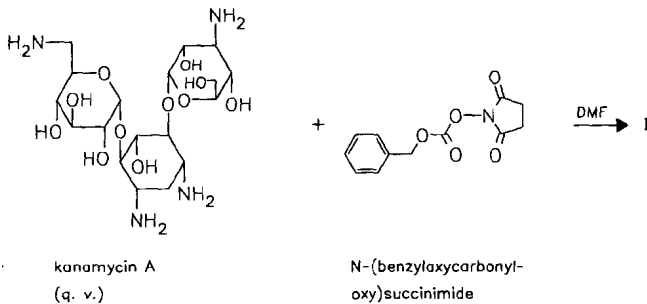
ATC: D06AX12; J01GB06; S01AA21

Use: aminoglycoside antibiotic

RN: 37517-28-5 MF: $C_{22}H_{43}N_5O_{13}$ MW: 585.61 EINECS: 253-538-5LD₅₀: 280 mg/kg (M, i.v.); >6 g/kg (M, p.o.)CN: (S)-O-3-amino-3-deoxy- α -D-glucopyranosyl-(1 \rightarrow 6)-O-[6-amino-6-deoxy- α -D-glucopyranosyl-(1 \rightarrow 4)]-N¹-(4-amino-2-hydroxy-1-oxobutyl)-2-deoxy-D-streptomine**sulfate (1:2)**RN: 39831-55-5 MF: $C_{22}H_{43}N_5O_{13} \cdot 2H_2SO_4$ MW: 781.76 EINECS: 254-648-6LD₅₀: 181 mg/kg (M, i.v.); >10.679 g/kg (M, p.o.);

234 mg/kg (R, i.v.); >4 g/kg (R, p.o.);

383 mg/kg (dog, i.v.)

**Reference(s):**

GB 1 401 221 (Bristol Myers; appl. 13.7.1972; USA-prior. 13.7.1971).

DE 2 234 315 (Bristol-Myers; appl. 12.7.1972; USA-prior. 27.1.1972, 13.7.1971).

US 3 781 268 (Bristol-Myers; 25.12.1973; prior. 27.1.1972, 13.7.1971).

Kawaguchi, H. et al.: J. Antibiot. (JANTAJ) **25**, 695 (1972).

alternative syntheses:

NL 7 401 517 (Bristol-Myers; appl. 4.2.1974; USA-prior. 7.2.1973).
 NL 7 414 668 (Bristol-Myers; appl. 11.11.1974; USA-prior. 14.11.1973, 23.5.1974).
 US 3 974 137 (Bristol-Myers; 10.8.1976; prior. 23.5.1974).
 DOS 2 432 644 (Takeda; appl. 8.7.1974; J-prior. 12.7.1973).
 DOS 2 716 533 (Pfizer; appl. 14.4.1977; GB-prior. 14.4.1976).
 DOS 2 818 822 (Bristol-Myers; appl. 28.4.1978; USA-prior. 28.4.1977, 20.3.1978).
 DOS 2 818 992 (Bristol-Myers; appl. 28.4.1978; USA-prior. 28.4.1977; 20.3.1978).

disulfate pentahydrate:

FR 2 308 373 (Bristol-Myers; appl. 22.3.1976; USA-prior. 23.4.1975).

review:

Kawaguchi, H.; Hiroshi: Drug Action Drug Resist. Bact. (DADRBY) 2, 45 (1975).

Formulation(s): cream 2.5 %, 5 %; eye drops 0.3 %, 0.5 %; gel 5.5; vial 100 mg/2 ml, 250 mg/2 ml, 500 mg/2 ml

Trade Name(s):

D:	Biklin (Bristol-Myers Squibb; 1976)	Chemacin (CT)	Pierami (Pierrel; 1980)
F:	Amiklin (Bristol-Myers Squibb)	Likacin (Lisapharma; 1981)	Sifamic (SIFI)
GB:	Amikin (Bristol-Myers Squibb; 1976)	Lukadin (San Carlo)	J: Amikacin Sulfate (Banyu)
I:	Amicasil (Biotekfarma)	Migracin (SmithKline Beecham)	Biklin (Banyu-Bristol-Myers Squibb)
	Bb-k8 (Bristol; 1978)	Mikavir (Salus Research; 1986)	USA: Amikin (BMS; 1976)

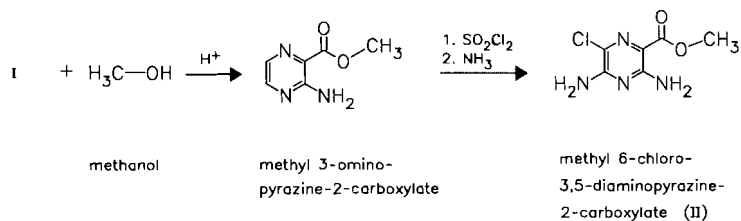
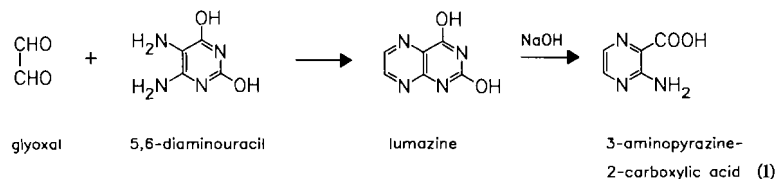
Amiloride

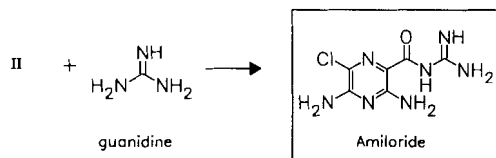
ATC: C03DB01

Use: diuretic, antihypertonic

RN: 2609-46-3 MF: C₆H₈ClN₇O MW: 229.63 EINECS: 220-024-7

CN: 3,5-diamino-N-(aminoiminomethyl)-6-chloropyrazinecarboxamide

monohydrochlorideRN: 2016-88-8 MF: C₆H₈ClN₇O · HCl MW: 266.09 EINECS: 217-958-2

**Reference(s):**

- DE 1 470 053 (Merck & Co.; appl. 28.10.1963; USA-prior. 30.10.1962).
 US 3 313 813 (Merck & Co.; 11.4.1967; prior. 30.10.1962, 7.10.1963).
 GB 1 066 855 (Merck & Co.; appl. 24.10.1963; USA-prior. 30.10.1962, 7.10.1963).
 Bicking, J.B. et al.: J. Med. Chem. (JMCMAR) **8**, 638 (1965).
 Cragoe, E.J. et al.: J. Med. Chem. (JMCMAR) **10**, 66 (1967).

improved method for 5,6-diaminouracil:

DOS 2 831 037 (Lonza; appl. 14.7.1978; CH-prior. 20.7.1977).

combination with etacrynic acid:

US 3 781 430 (Merck & Co.; 25.12.1973; prior. 30.10.1962, 7.10.1963, 7.2.1966, 18.2.1969, 21.12.1971).

Formulation(s): tabl. 2.5 mg, 5 mg, 10 mg in comb. with hydrochlorothiazide (as hydrochloride)

Trade Name(s):

D:	Amiduret (Trommsdorff; 1985)-comb.		Moducuren (Merck Sharp & Dohme-Chibret; 1979)-comb.	Lasoride (Hoechst; 1987)-comb.
	Diaphal (Pierre Fabre Pharma)-comb.		Modurétic (Merck Sharp & Dohme; 1973)-comb.	Moducuren (Morson; 1981)-comb.
	Diursan (TAD)-comb.			Moduret-25 (Du Pont; 1984)-comb.
	Esmalorid (Merck)-comb.	GB:	Amilco (Baker Norton; 1983)-comb. with hydrochlorothiazole	Moduretic (Du Pont; 1970)
	Moducrin (MSD; 1978)-comb.		Burinex A (Leo)-comb.	Navispare (Novartis)-comb.
	Moduretik, -mite (Du Pont Pharma; 1973)-comb.		FruCo (Baker Norton)-comb.	I: Moduretic (Merck Sharp & Dohme; 1975)-comb.
	Rhefluin, -mite (Kytta-Siegfried)-comb.		Frumil (Rhône-Poulenc Rorer; 1983)-comb.	USA: Midamor (Merck Sharp & Dohme; 1981)
F:	Logiréne (Pharmacia & Upjohn SA)-comb.		Kalten (Zeneca; 1985)-comb.	Moduretic (Merck Sharp & Dohme; 1981)-comb.
	Modamide (Merck Sharp & Dohme; 1973)			

Amineptine

ATC: N06AA19

Use: psychoanaleptic, CNS stimulant

RN: 57574-09-1 MF: C₂₂H₂₇NO₂ MW: 337.46 EINECS: 260-818-0

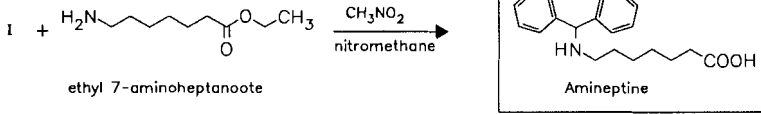
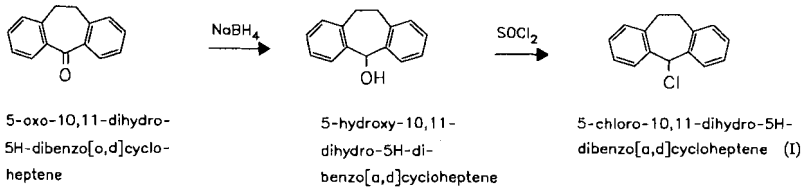
LD₅₀: 115 mg/kg (M, i.p.)

CN: 7-[(10,11-dihydro-5H-dibenzo[a,d]cyclohepten-5-yl)amino]heptanoic acid

hydrochloride

RN: 30272-08-3 MF: C₂₂H₂₇NO₂ · HCl MW: 373.92 EINECS: 250-107-3

LD₅₀: 405 mg/kg (M, p.o.)



Reference(s):

DOS 2 011 806 (Science Union; appl. 12.3.1970; GB-P. 27.3.1969).
 US 3 758 528 (Science Union; 11.9.1973; appl. 13.3.1970).
 US 3 821 249 (Science Union; 28.6.1974; prior. 13.3.1970, 30.10.1972).

Formulation(s): tabl. 100 mg (as hydrochloride)

Trade Name(s):

F: Survector (Euthérapic; 1978); wfm 1999
 I: Maneon (Poli; 1983)
 Survector (Stroder; 1983)

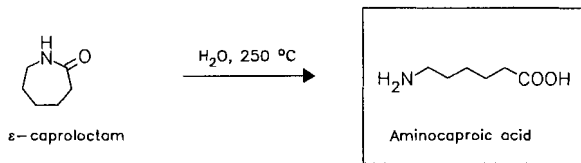
Aminocaproic acid

(Acide aminocaproïque; Epsilcapramin)

ATC: B02AA01

Use: antifibrinolytic, plasmin inhibitor

RN: 60-32-2 MF: C₆H₁₃NO₂ MW: 131.18 EINECS: 200-469-3
 LD₅₀: 4900 mg/kg (M, i.v.); 14.3 g/kg (M, p.o.);
 3300 mg/kg (R, i.v.);
 >7 g/kg (dog, p.o.)
 CN: 6-aminoheptanoic acid



Reference(s):

US 2 453 234 (American Enka Corp.; 1948; NL-prior. 1946).

Formulation(s): inj. flask 250 mg/ml; syrup 25 %; tabl. 500 mg

Trade Name(s):

D: Epsilon-Aminocapronsäure	F: Hexalense (Leurquin)	Resplamin (Kyorin)
"Roche" (Roche); wfm	I: Caprolisin (Malesci)	USA: Amicar (Immunex)
Epsilon-Tachostypan	J: Capusumine (Nichiiko)	
(Hormon-Chemie)-comb.;	Hemotin (Hokuriku)	
wfm	Ipsilon (Daiichi)	

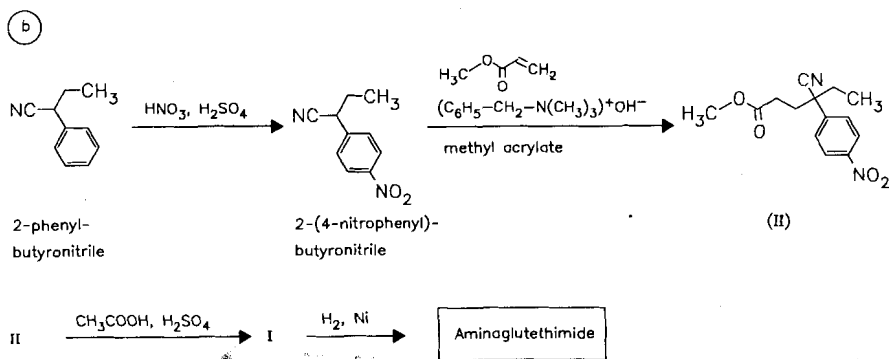
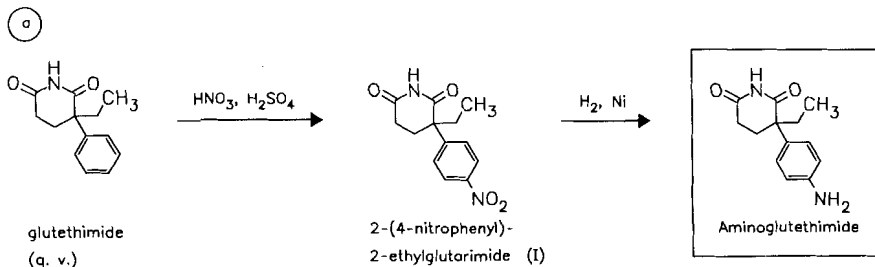
Aminoglutethimide

ATC: J04AA01

Use: antineoplastic (aromatase inhibitor)

RN: 125-84-8 MF: C₁₃H₁₆N₂O₂ MW: 232.28 EINECS: 204-756-4LD₅₀: 625 mg/kg (M, i.p.)

CN: 3-(4-aminophenyl)-3-ethyl-2,6-piperidinedione

**Reference(s):**

US 2 848 455 (Ciba; 1958; CH-prior. 1955).

racemate resolution:Finch, N. et al.: *Experientia (EXPEAM)* **31**, 1002 (1975).**Formulation(s):** tabl. 250 mg**Trade Name(s):**D: Orimeten (Novartis
Pharma)

F: Orimétène (Novartis)

USA: Cytadren (Novartis)

Rodazol (Novartis Pharma)

GB: Orimeten (Novartis)

I: Orimeten (Novartis)

Aminophenazone

(Amidophenazon; Amidopyrin; Aminopyrine)

ATC: N02BB03

Use: analgesic, antipyretic, anti-inflammatory

RN: 58-15-1 MF: C₁₃H₁₇N₃O MW: 231.30 EINECS: 200-365-8LD₅₀: 78 mg/kg (M, i.v.); 350 mg/kg (M, p.o.);

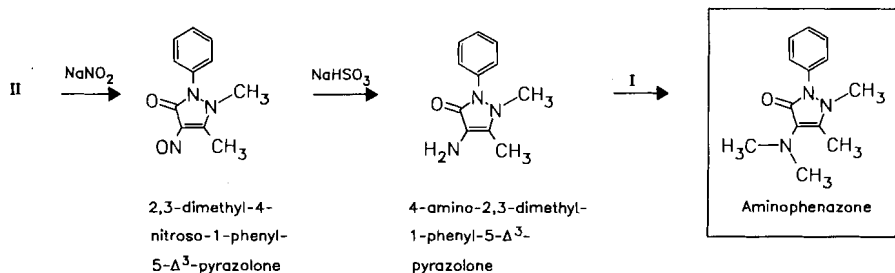
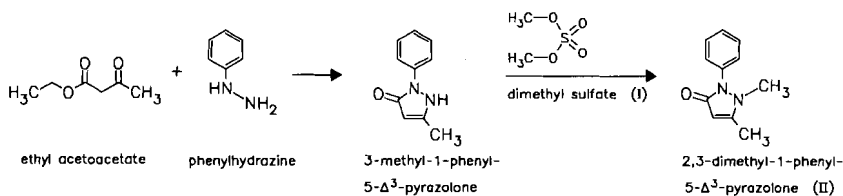
98 mg/kg (R, i.v.); 285 mg/kg (R, p.o.);

121 mg/kg (dog, i.v.); 220 mg/kg (dog, p.o.)

CN: 4-(dimethylamino)-1,2-dihydro-1,5-dimethyl-2-phenyl-3H-pyrazol-3-one

ascorbate

RN: 23635-43-0 MF: C₁₃H₁₇N₃O · C₆H₈O₆ MW: 407.42



Reference(s):

DRP 193 632 (E. Scheitlin; 1907).
 Ehrhart, Ruschig I, 171.

Formulation(s): suppos. 200 mg, 500 mg; tabl. 100 mg, 300 mg

Trade Name(s):

D: Compretten (Cascan); wfm	I: Pyramidon (Hoechst); wfm	J: numerous combination preparations
Dimametten (Hormosan); wfm	Famidone (Farmitalia)	Neophyllin (Nippon Eisai)
	Fugantil (Ghimas)	

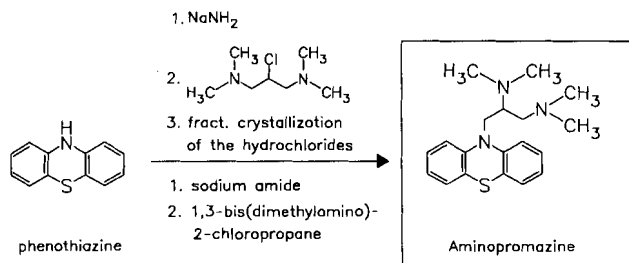
Aminopromazine
 (Proquamezine)

Use: antispasmodic

RN: 58-37-7 MF: C₁₉H₂₅N₃S MW: 327.50 EINECS: 200-378-9
 CN: N,N,N',N'-tetramethyl-3-(10H-phenothiazin-10-yl)-1,2-propanediamine

fumarate (2:1)

RN: 3688-62-8 MF: C₁₉H₂₅N₃S · 1/2C₄H₄O₄ MW: 771.06 EINECS: 222-987-9



Reference(s):

GB 800 635 (Rhône-Poulenc; appl. 1954).
 DE 1 034 637 (Rhône-Poulenc; appl. 1955; F-prior. 1954).

Trade Name(s):

D: Lorusil (Bayer); wfm F: Lispamol (Specia); wfm

p-Aminosalicylic acid

(Aminosalylum; PAS)

ATC: J04AA01

Use: tuberculostatic

RN: 65-49-6 MF: C₇H₇NO₃ MW: 153.14 EINECS: 200-613-5LD₅₀: 3898 mg/kg (M, i.v.); 4 g/kg (M, p.o.)

CN: 4-amino-2-hydroxybenzoic acid

calcium salt (2:1)RN: 133-15-3 MF: C₁₄H₁₂CaN₂O₆ MW: 344.34 EINECS: 205-095-4LD₅₀: 6500 mg/kg (M, p.o.)**monosodium salt**RN: 133-10-8 MF: C₇H₆NNaO₃ MW: 175.12 EINECS: 205-091-2LD₅₀: 3380 mg/kg (M, i.v.); 6900 mg/kg (M, p.o.);

8 g/kg (R, p.o.)

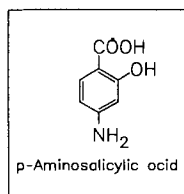
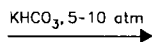


3-amino-phenol

+

CO₂

carbon dioxide



p-Aminosalicylic acid

Reference(s):

US 2 540 104 (Parke Davis; 1951; prior. 1949).

purification:

US 2 844 625 (Miles, 1958; appl. 1954).

Formulation(s): vial, 13.49 g (as monosodium salt)*Trade Name(s):*

D: Pas-Fatol N (Fatol)	GB: Asacol (SmithKline Beecham)	Salf-Pas (Salf; as sodium salt)
F: B-PAS (Salvoxy-Wander); wfm	Pental (Yamanouchi)	J: PAS Calcium (Sumitomo); wfm
PAS Elbiol (Pharmacotechnie); wfm	Salofalk (Thames)	I: Eupasal sodico (Bieffe Medital; as sodium salt)
		USA: Paser (Jacobus)

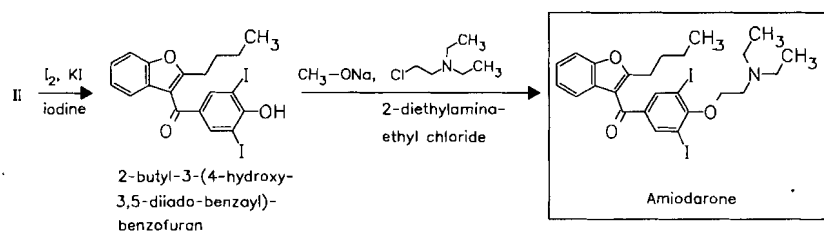
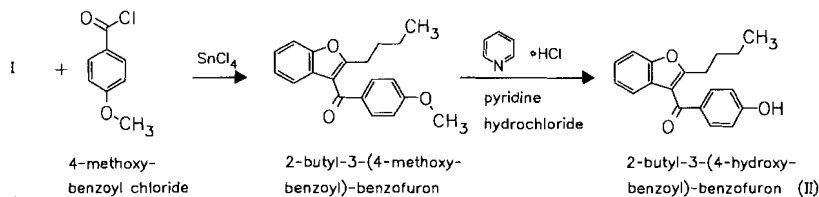
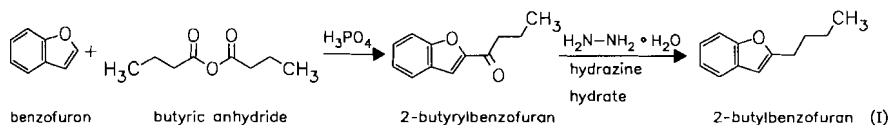
Amiodarone

ATC: C01BD01

Use: antiarrhythmic

RN: 1951-25-3 MF: C₂₅H₂₉I₂NO₃ MW: 645.32 EINECS: 217-772-1LD₅₀: 178 mg/kg (M, i.v.); >4 g/kg (M, p.o.)

CN: (2-butyl-3-benzofuranyl)[4-[2-(diethylamino)ethoxy]-3,5-diiodophenyl]methanone

hydrochlorideRN: 19774-82-4 MF: $C_{25}H_{29}I_2NO_3 \cdot HCl$ MW: 681.78**Reference(s):**

FR 1 339 389 (Labaz; appl. 22.11.1962).

US 3 248 401 (Labaz; 26.4.1966; prior. 24.11.1961).

2-butylbenzofuran:Buu-Hoi, N.P. et al.: J. Chem. Soc. (JCSOA9) **1964**, 173.**Formulation(s):** inj. sol. 150 mg/3ml; tabl. 200 mg**Trade Name(s):**

D:	Cordarex (Sanofi Winthrop)	F:	Cordarone (Sanofi Winthrop)	I:	Amiodar (Midy)
	Tachydaron (ASTA Medica AWD)	GB:	Cordarone X (Sanofi Winthrop)	USA:	Cordarone (Wyeth-Ayerst; as hydrochloride)

Amiphenazole

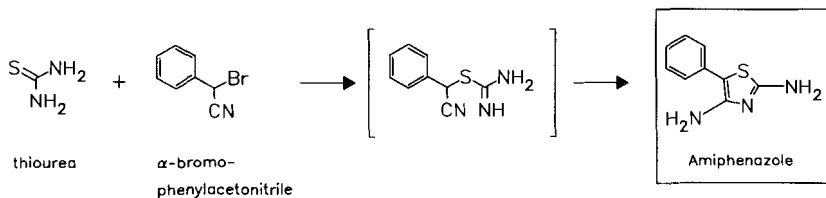
ATC: R07A

Use: respiratory stimulant, morphine antagonist, antidote (barbiturate poisonings)

RN: 490-55-1 MF: $C_9H_9N_3S$ MW: 191.26 EINECS: 207-713-8LD₅₀: 400 mg/kg (M, p.o.)

CN: 5-phenyl-2,4-thiazolediamine

monohydrochlorideRN: 942-31-4 MF: $C_9H_9N_3S \cdot HCl$ MW: 227.72 EINECS: 213-389-9LD₅₀: 372 mg/kg (M, p.o.)

**Reference(s):**Davis, W. et al.: J. Chem. Soc. (JSCOA9) **1955**, 3491.Chase, B.H. et al.: J. Chem. Soc. (JSCOA9) **1955**, 4443.**Formulation(s):** inj. flask 150 mg**Trade Name(s):**D: Daptazile 100 (Nicholas);
wfmDaptazile Injektion
(Nicholas); wfm

GB: Daptazole (Nicholas); wfm

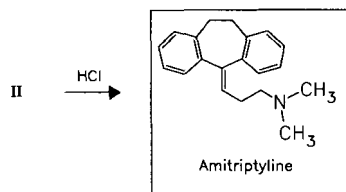
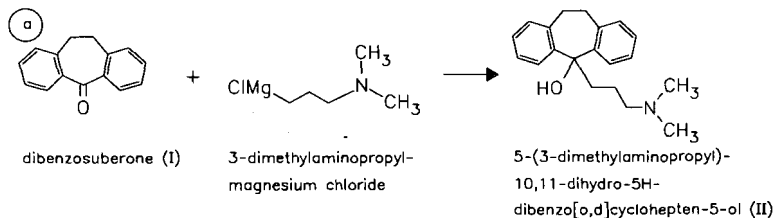
Amitriptyline

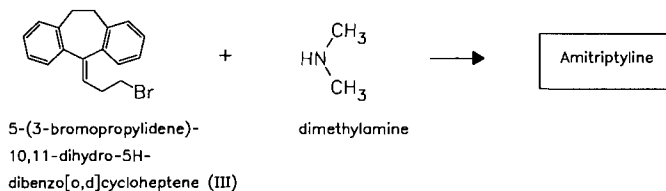
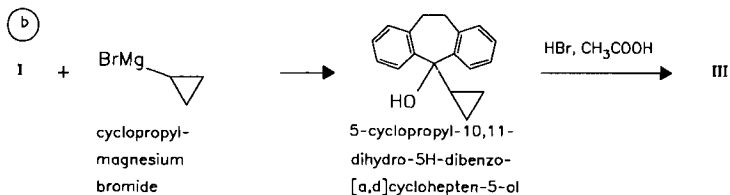
ATC: N06AA09

Use: antidepressant

RN: 50-48-6 MF: $C_{20}H_{23}N$ MW: 277.41 EINECS: 200-041-6LD₅₀: 16 mg/kg (M, i.v.); 140 mg/kg (M, p.o.);
320 mg/kg (R, p.o.)

CN: 3-(10,11-dihydro-5H-dibenzo[a,d]cyclohepten-5-ylidene)-N,N-dimethyl-1-propanamine

hydrochlorideRN: 549-18-8 MF: $C_{20}H_{23}N \cdot HCl$ MW: 313.87 EINECS: 208-964-6LD₅₀: 21 mg/kg (M, i.v.); 140 mg/kg (M, p.o.);
14 mg/kg (R, i.v.); 240 mg/kg (R, p.o.);
>27 mg/kg (dog, i.v.)



Reference(s):

- a GB 858 187 (Hoffmann-La Roche; appl. 24.3.1959; CH-prior. 3.4.1958).
DE 1 109 166 (Hoffmann-La Roche; appl. 16.3.1959; CH-prior. 3.4.1958).
BE 584 061 (Merck & Co.; appl. 27.10.1959; USA-prior. 31.10.1958).
BE 609 095 (Kefalas A/S; appl. 12.10.1961; DK-prior. 12.10.1960).
- b Hoffsommer, R.D. et al.: J. Org. Chem. (JOCEAH) **27**, 4134 (1962).

alternative synthesis:

- DAS 1 468 138 (Kefalas; appl. 12.3.1963; GB-prior. 23.3.1962, 9.11.1962).
US 3 205 264 (Merck & Co.; 7.9.1965; appl. 15.6.1962).

Formulation(s): amp. 56.6 mg; f. c. tabl. 10 mg, 25 mg, 50 mg; drg. 11.32 mg, 28.3 mg; drops 40 mg/1 ml; inj. 50 mg/2 ml; tabl. 25 mg, 50 mg (as hydrochloride)

Trade Name(s):

D:	Amineurin (Neuro Hexal)	I:	Adepril (Lepetit)	J:	Tryptanol (Merck-Banyu; as hydrochloride)
	Limbatril (ICN)		Amitript (IFI)	USA:	Elavil (Zeneca; as hydrochloride)
	Saroten (Bayer Vital)		Amitript (Formulario Naz.)		Etrafon (Schering)
F:	Elavil (Merck Sharp & Dohme-Chibret)		Diapatol (Teofarma)-comb.		Limbitrol (Roche Products; as hydrochloride)
	Laroxyl (Roche)		Laroxyl (Roche)		Triavil (Merck; as hydrochloride)
	Laroxyl (Roche)		Limbitryl (Roche)-comb.		generics
GB:	Lentizol (Parke Davis)		Sedans (Ganassini)-comb.		
	Triptafen (Goldshield)-comb.		Triptizol (Merck Sharp & Dohme)		
	Tryptizol (Morson)		combination preparations		

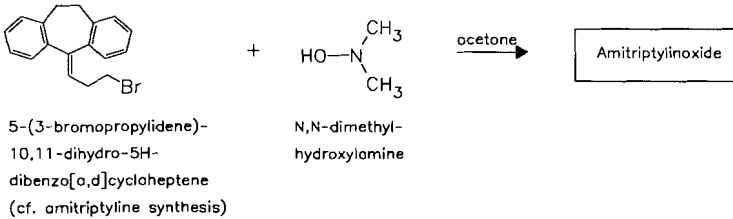
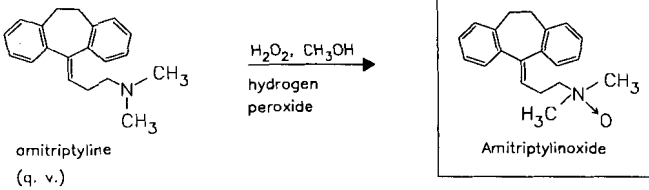
Amitriptylinoxide

ATC: N06AA09
Use: antidepressant

RN: 4317-14-0 MF: C₂₀H₂₃NO MW: 293.41

LD₅₀: 320 mg/kg (M, i.p.); 87 mg/kg (M, i.v.); 330 mg/kg (M, p.o.);
120 mg/kg (R, i.p.); 25 mg/kg (R, i.v.); 1800 mg/kg (R, p.o.);
330-460 mg/kg (rabbit, p.o.);
330 mg/kg (dog, p.o.)

CN: 3-(10,11-dihydro-5H-dibenzo[a,d]cyclohepten-5-ylidene)-N,N-dimethyl-1-propanamine N-oxide

**Reference(s):**

DE 1 243 180 (Dumex; appl. 15.2.1964; GB-prior. 20.2.1963).
FR-M 3 222 (Dumex; appl. 20.2.1964; GB-prior. 20.2.1963).
NL-appl. 6 511 947 (Merck & Co., appl. 14.9.1965; USA-prior. 14.9.1964).

Formulation(s): tabl. 30 mg, 60 mg, 90 mg, 120 mg

Trade Name(s):

D: Equibrin (Rhône-Poulenc
Rorer)

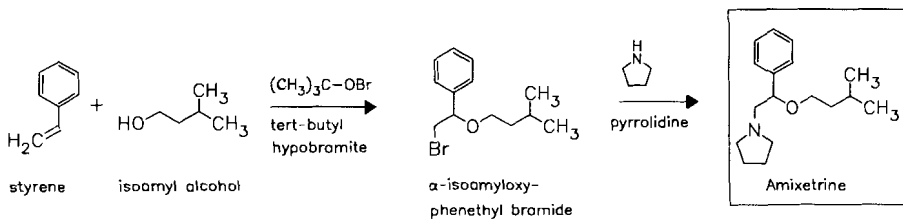
Amixetrine

ATC: N06A; R03BB
Use: anticholinergic, antidepressant,
antispasmodic

RN: 24622-72-8 MF: $\text{C}_{17}\text{H}_{27}\text{NO}$ MW: 261.41
CN: 1-[2-(3-methylbutoxy)-2-phenylethyl]pyrrolidine

hydrochloride

RN: 24622-52-4 MF: $\text{C}_{17}\text{H}_{27}\text{NO} \cdot \text{HCl}$ MW: 297.87 EINECS: 246-365-1

**Reference(s):**

DOS 1 811 767 (Mauvernay; appl. 29.11.1968; F-prior. 15.12.1967).

Formulation(s): tabl. 50 mg

Trade Name(s):

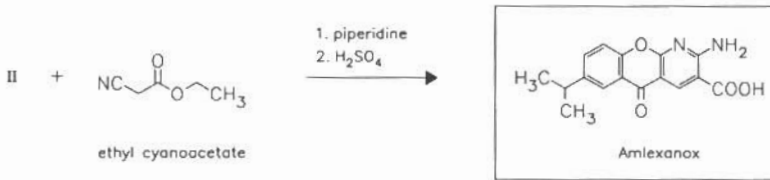
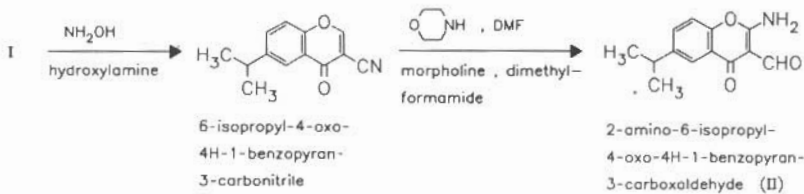
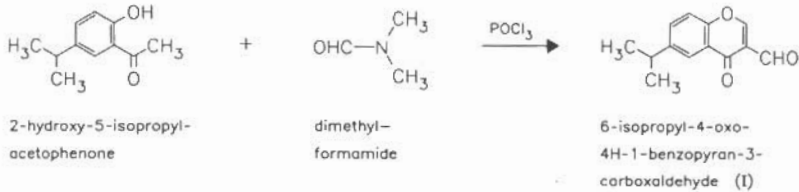
F: Somagest (Riom); wfm

Amlexanox

(AA-673)

ATC: R03DX01; R06AX
Use: antiallergic, antiasthmaticRN: 68302-57-8 MF: C₁₆H₁₄N₂O₄ MW: 298.30LD₅₀: 2320 mg/kg (M, p.o.);
10 g/kg (R, p.o.)

CN: 2-amino-7-(1-methylethyl)-5-oxo-5H-[1]benzopyrano[2,3-b]pyridine-3-carboxylic acid 3-ethyl 5-methyl ester

**Reference(s):**

DOS 2 809 720 (Takeda; appl. 7.3.1978; J-prior. 8.3.1977, 20.12.1977).
 US 4 143 042 (Takeda; 6.3.1979; J-prior. 8.3.1977, 20.12.1977).
 US 4 255 576 (Takeda; 10.3.1981; J-prior. 8.3.1977, 10.12.1977).
 US 4 299 963 (Takeda; 10.11.1981; J-prior. 8.3.1977, 10.12.1977).
 Nohara, A. et al.: J. Med. Chem. (JMCMAR) **28**, 559 (1985).

synthesis of 6-isopropyl-4H-1-benzopyran-3-carbonitrile:

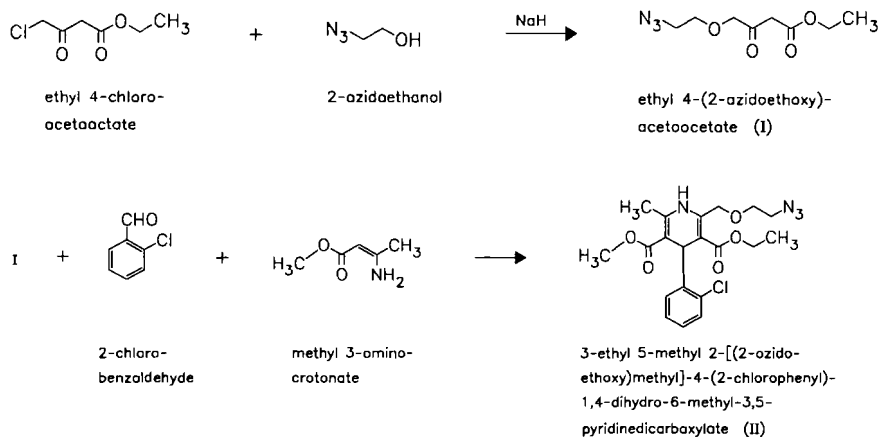
US 3 896 114 (Takeda Chemical Ind.; appl. 22.7.1975; J-prior. 12.4.1972, 14.4.1972).
 DE 2 317 899 (Takeda Chemical Ind.; appl. 25.10.1973; J-prior. 12.4.1972).

Formulation(s): cream 5 %; tabl. 100 mg**Trade Name(s):**

J: Solfa (Takeda; 1989) USA: Aphthasol (Block Drug Company)

AmlodipineATC: C02DE; C08CA01
Use: calcium antagonist, antianginal, antihypertensiveRN: 88150-42-9 MF: C₂₀H₂₅ClN₂O₅ MW: 408.88

CN: 2-[(2-aminoethoxy)methyl]-4-(2-chlorophenyl)-1,4-dihydro-6-methyl-3,5-pyridinedicarboxylic acid 3-ethyl 5-methyl ester

maleate (1:1)RN: 88150-47-4 MF: $C_{20}H_{25}ClN_2O_5 \cdot C_4H_4O_4$ MW: 524.95**Reference(s):**

EP 89 167 (Pfizer; appl. 8.3.1983; GB-prior. 11.3.1982).
 EP 599 220 (Lek; appl. 19.11.1993; SI-prior. 26.11.1992).
 CA 2 188 071 (Apotex; appl. 17.10.1996; NZ-prior. 1.11.1995).

bessylate salt:

EP 244 944 (Pfizer; appl. 31.3.1987; GB-prior. 4.4.1986).

racemate resolution:

EP 331 315 (Pfizer; appl. 16.2.1989; GB-prior. 27.2.1988).
 Arrowsmith, J.E. et al.: J. Med. Chem. (JMCMAR) **29**, 1696 (1986).

combination with ACE-inhibitors:

WO 9 628 185 (Pfizer; appl. 26.2.1996; USA-prior. 16.3.1995).

Formulation(s): cps. 5 mg, 15 mg, 20 mg; tabl. 2.5 mg, 5 mg, 10 mg

Trade Name(s):

D:	Norvasc (Mack, Illert; Pfizer)	I:	Antacal (Errekappa Euroter.; 1991)	J:	Amlodin (Sumitomo) Norvasc (Pfizer)
F:	Amlor (Pfizer)		Monopina (Bioindustria; 1991)	USA:	Lotrel (Novartis)
GB:	Istin (Pfizer; 1990)		Norvasc (Pfizer; 1990)		Norvasc (Pfizer; 1991)

Amobarbital

(Amylobarbitone)

ATC: N05CA02

Use: hypnotic

RN: 57-43-2 MF: $C_{11}H_{18}N_2O_3$ MW: 226.28 EINECS: 200-330-7LD₅₀: 345 mg/kg (M, p.o.);

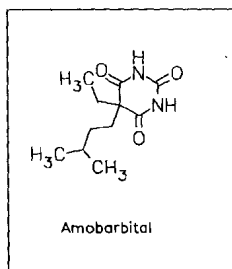
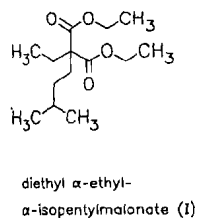
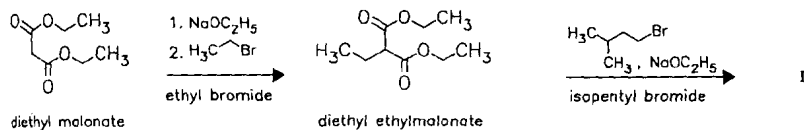
250 mg/kg (R, p.o.);

58 mg/kg (dog, i.v.)

CN: 5-ethyl-5-(3-methylbutyl)-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione**monosodium salt**RN: 64-43-7 MF: $C_{11}H_{17}N_2NaO_3$ MW: 248.26 EINECS: 200-584-9LD₅₀: 505 mg/kg (M, p.o.);

128 mg/kg (R, i.v.); 275 mg/kg (R, p.o.);

75 mg/kg (dog, i.v.); 99 mg/kg (dog, p.o.)

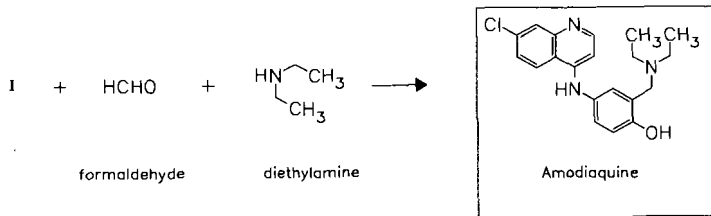
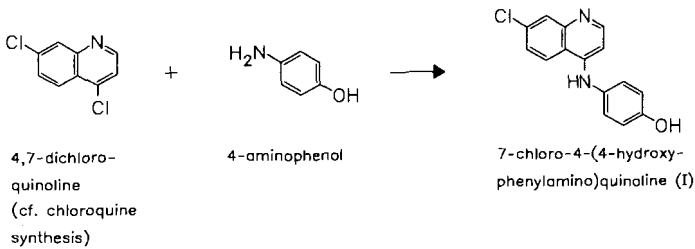
**Reference(s):**

GB 191 008 (E. Layraud; 1922; F-prior. 1921).

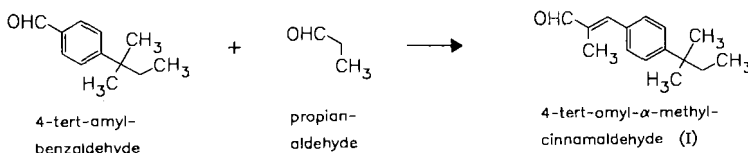
US 1 856 792 (Eli Lilly; 1932; prior. 1929).

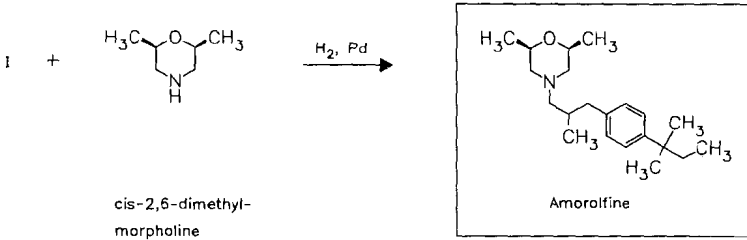
Formulation(s): tabl. 15 mg, 30 mg, 50 mg, 100 mg**Trade Name(s):**

D:	Ansudoral (Basotherm)- comb.; wfm Jalonac (Röhm Pharma)- comb.; wfm Metrotonin (Temmler)- comb.; wfm Stadadorm Tabl. (Stada); wfm	Météoxane (Gallier)- comb.; wfm Nardyl (Vernin)-comb.; wfm Noctadiol (Millot-Solac)- comb.; wfm Supponoctal (Houdé)- comb.; wfm	GB:	Amytal (Flynn) Sodium Amytal (Flynn) Tuinal (Flynn)-comb.
F:	Binooctal (Houdé)-comb.; wfm Carlytène amobarbital (Dedieu)-comb.; wfm	Tensophoril (Synlab)- comb.; wfm Viscéralgine comprimés (Riom)-comb.; wfm	I:	Amobarb (Tariff. Integrativo)
			J:	Amytal (Yamanouchi) Isomytal (Nippon Shinyaku)
			USA:	Amytal (Lilly) Amytal Sodium (Lilly) Tuinal (Lilly)

AmodiaquineATC: P01BA06
Use: antimalarialRN: 86-42-0 MF: C₂₀H₂₂ClN₃O MW: 355.87 EINECS: 201-669-3
LD₅₀: 550 mg/kg (M, p.o.)
CN: 4-[(7-chloro-4-quinolinyl)amino]-2-[(diethylamino)methyl]phenol**dihydrochloride dihydrate**RN: 69-44-3 MF: C₂₀H₂₂ClN₃O · 2HCl · 2H₂O MW: 464.82 EINECS: 200-706-0**Reference(s):**US 2 474 821 (Parke Davis; 1949; prior. 1945).
Burckhalter, J.F. et al.: J. Am. Chem. Soc. (JACSAT) **68**, 1894 (1946).**Formulation(s):** tabl. 200 mg (as dihydrochloride dihydrate)**Trade Name(s):**

F: Flavoquine (Roussel Diamant) GB: Camoquin (Parke Davis); wfm USA: Camoquin (Parke Davis); wfm

AmorolfineATC: D01AE16
Use: topical antimycoticRN: 78613-35-1 MF: C₂₁H₃₅NO MW: 317.52
CN: *cis*-(±)-4-[3-[4-(1,1-dimethylpropyl)phenyl]-2-methylpropyl]-2,6-dimethylmorpholine**hydrochloride**RN: 78613-38-4 MF: C₂₁H₃₅NO · HCl MW: 353.98

**Reference(s):**

DE 2 752 135 (Hoffmann-La Roche; appl. 22.11.1976).

EP 24 334 (Hoffmann-La Roche; appl. 7.8.1980; CH-prior. 17.8.1979, 29.5.1980).

antimycotic nail varnish:

EP 389 778 (Hoffmann-La Roche; appl. 15.2.1990; CH-prior. 9.11.1989, 24.2.1989).

Formulation(s): cream 0.25 %, sol. 5 %**Trade Name(s):**

D: Loceryl (Roche)

GB: Loceryl (Roche; 1992 as

J: Pekiron (Kyorin)

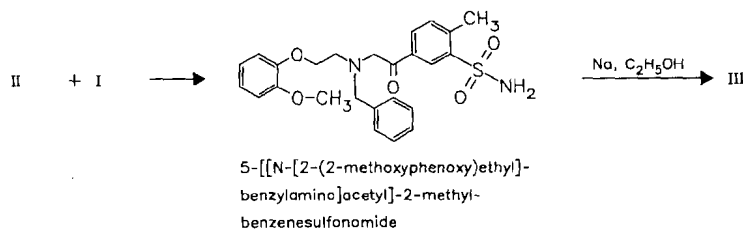
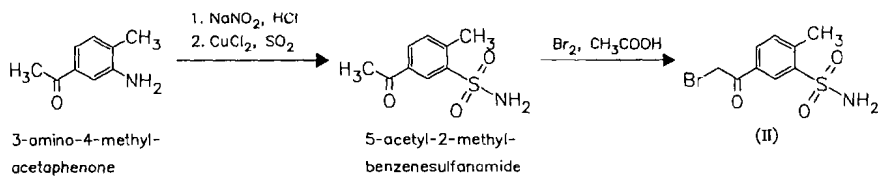
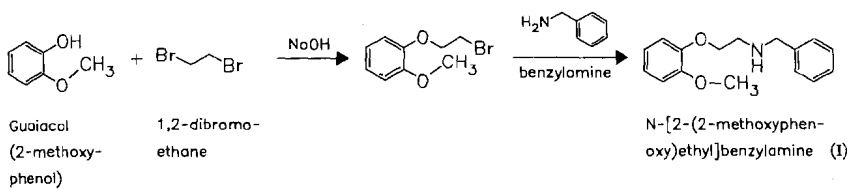
F: Loceryl (Roche)

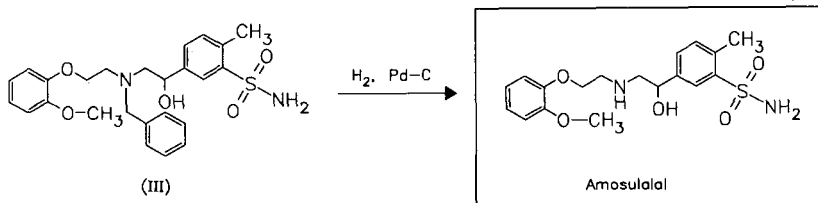
hydrochloride)

Amosulalol

(YM-09538)

ATC: C02CB

Use: α - and β -adrenoceptor blocker, antihypertensiveRN: 85320-68-9 MF: $C_{18}H_{24}N_2O_5S$ MW: 380.47CN: (\pm)-5-[1-hydroxy-2-[[2-(2-methoxyphenoxy)ethyl]amino]ethyl]-2-methylbenzenesulfonamide**monohydrochloride**RN: 70958-86-0 MF: $C_{18}H_{24}N_2O_5S \cdot HCl$ MW: 416.93

*Reference(s):*

DOS 2 843 016 (Yamanouchi; appl. 3.10.1978; J-prior. 12.10.1977, 26.10.1977, 23.12.1977, 21.6.1978).
 GB 2 006 772 (Yamanouchi; appl. 12.10.1978; J-prior. 12.10.1976, 26.10.1977, 23.12.1977, 21.6.1978).

synthesis of I:

Augstein, J. et al.: J. Med. Chem. (JMCMAR) **8**, 365 (1965).

synthesis of II:

EP 162 404 (Seitetsu Kagaku; appl. 14.5.1985; J-prior. 15.5.1984, 18.9.1984, 3.4.1985).

synthesis of ¹⁴C-amosulalol:

Arima, H.; Tamazawa, K.: J. Labelled Compd. Radiopharm. (JLCRD4) **20**, 803 (1983).

Formulation(s): tabl. 10 mg

Trade Name(s):

J: Lowgan (Yamanouchi;
 1988 as hydrochloride)

Amoxapine

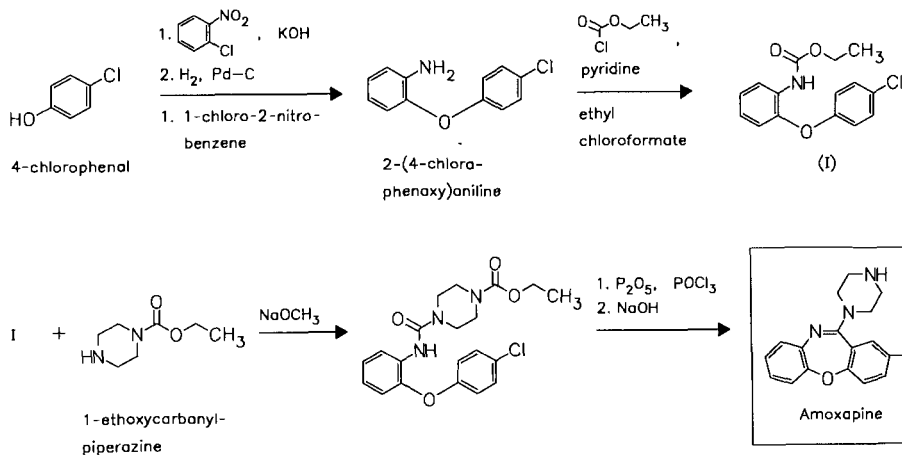
ATC: N06AA17

Use: antidepressant

RN: 14028-44-5 MF: C₁₇H₁₆ClN₃O MW: 313.79 EINECS: 237-867-1

LD₅₀: 122 mg/kg (M, i.p.); 112 mg/kg (M, p.o.)

CN: 2-chloro-11-(1-piperazinyl)dibenzo[*b,f*][1,4]oxazepine



Reference(s):

- US 3 681 357 (American Cyanamide; 16.5.1972; prior. 20.5.1966).
 US 3 444 169 (American Cyanamide; 13.5.1969; prior. 17.1.1966).
 GB 1 177 956 (American Cyanamide; prior. 23.12.1966).
 GB 1 192 812 (American Cyanamide; USA-prior. 20.5.1966).
 DE 1 645 954 (American Cyanamide; appl. 17.1.1967; USA-prior. 17.1.1966).
 GB 1 157 957 (American Cyanamide; prior. 15.9.1965).
 US 3 663 696 (American Cyanamide; 16.5.1972; prior. 28.2.1964, 20.5.1966, 22.7.1970).
 Schmutz, J. et al.: *Helv. Chim. Acta (HCACAV)* **50**, 245 (1967).
 Schmutz, J. et al.: *Chim. Ther. (CHTPBA)* **2**, 424 (1967).

preparation of 2-(4-chlorophenoxy)aniline:

- DE 216 642 (Bayer; 1908).
 Wassmundt, F.W.; Pedemonte, R.P.: *J. Org. Chem. (JOCEAH)* **60** (16), 4991 (1995).

Formulation(s): sol. 5 %; sol. 5 %; tabl. 25 mg, 50 mg, 100 mg, 150 mg

Trade Name(s):

F: Défanyl (Wyeth-Lederle) J: Amoxan (Lederle; 1981) USA: Asendin (Lederle Labs.; 1980)
 GB: Asendis (Wyeth)

Amoxicillin

(Amoxycillin)

ATC: J01CA04

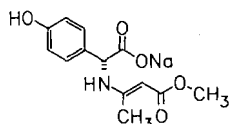
Use: antibiotic

RN: 26787-78-0 MF: C₁₆H₁₉N₃O₅S MW: 365.41 EINECS: 248-003-8LD₅₀: >25 g/kg (M, p.o.);

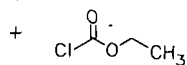
>15 g/kg (R, p.o.)

CN: [2S-[2α,5α,6β(S*)]]-6-[[amino(4-hydroxyphenyl)acetyl]amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

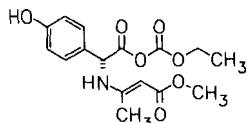
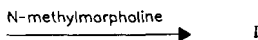
⊙



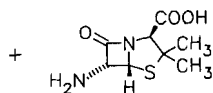
sodium D(-)-α-(4-hydroxyphenyl)-α-(2-methoxycarbonyl-1-methylethenyl-amino)acetate (DANE salt; cf. ampicillin, method (c))



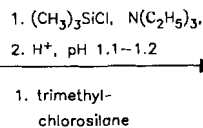
ethyl chloroformate



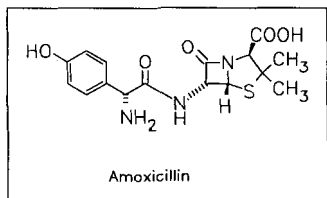
D-α-(4-hydroxyphenyl)-α-(2-methoxycarbonyl-1-methyl-ethenylamino)acetic acid anhydride with monoethyl carbonate (I)



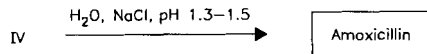
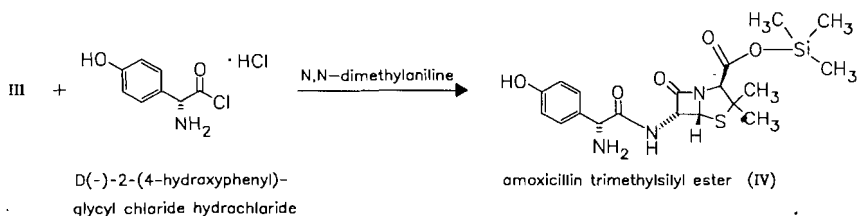
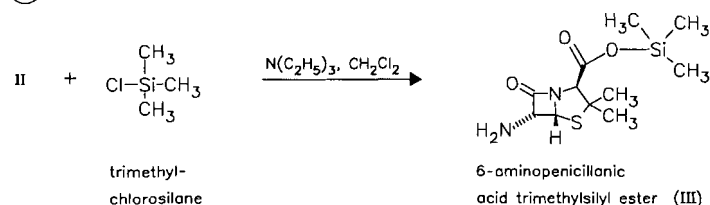
6-amino-penicillanic acid (II)



Amoxicillin



(b)

**Reference(s):****"racemic amoxicillin":**

US 3 674 776 (Beecham; 4.7.1972; prior. 23.8.1968).

GB 1 241 844 (Beecham; appl. 18.8.1969; prior. 23.8.1968).

DE 1 942 693 (Beecham; appl. 18.8.1969; GB-prior. 23.8.1968).

GB 978 178 (Beecham; appl. 2.11.1962; valid from 25.10.1963).

US 3 192 198 (Beecham; 29.6.1965; GB-prior. 2.11.1962).

amoxicillin:Long, A.A.W. et al.: J. Chem. Soc. C (JSOAX) **1971**, 1920.

US 3 674 776 (Beecham; 4.7.1972; appl. 18.8.1969; GB-prior. 23.8.1968).

DOS 1 942 693 (Beecham; appl. 21.8.1969; GB-prior. 23.8.1968).

GB 1 241 844 (Beecham; appl. 23.8.1968; valid from 20.8.1969).

a US 4 128 547 (Gist-Brocades; 5.12.1978; NL-prior. 6.9.1977).

GB 1 339 605 (Beecham; appl. 1.4.1971; valid from 28.3.1972).

preparation of "DANE salt":

DE 2 400 489 (Upjohn Co.; appl. 5.1.1974; USA-prior. 12.1.1973).

US 3 904 606 (Upjohn Co.; prior. 12.1.1973).

Dane, E. et al.: Angew. Chem. (ANCEAD) **76**, 342 (1964).Dane, E. et al.: Chem. Ber. (CHBEAM) **98**, 789 (1965).**b** DAS 2 611 286 (Bristol-Myers; appl. 17.3.1976; USA-prior. 17.3.1975).**preparation of D(-)-2-(4-hydroxyphenyl)glycyl chloride hydrochloride:**

CA 1 024 507 (Bristol Myers Co.; appl. 16.1.1974; USA-prior. 18.1.1973).

alternative syntheses:

US 4 053 360 (Bristol-Myers; 11.10.1977; GB-prior. 5.6.1974, 19.3.1975).
 DOS 2 454 841 (Archifar; appl. 19.11.1974; I-prior. 17.5.1974).
 DOS 2 755 903 (Dobfar; appl. 15.12.1977; I-prior. 16.12.1976).
 GB 1 535 291 (Bristol-Myers; appl. 5.3.1976; USA-prior. 17.3.1975).
 US 4 098 796 (Novo; 4.7.1978; appl. 7.6.1976).
 BE 867 414 (Antibioticos S.A.; appl. 24.5.1978; E-prior. 4.6.1977).

microbiologic acylation of 6-APA with methyl D-α-(4-hydroxyphenyl)-glycinate hydrochloride by means of Aphanocladium aranearum (ATCC 20453):

US 4 073 687 (Shionogi; 14.2.1978; J-prior. 14.5.1975).

sodium salt:

GB 1 543 317 (Beecham; valid from 4.8.1976; prior. 27.9.1975).
 DOS 2 729 112 (Beecham; appl. 28.6.1977; GB-prior. 7.7.1976).

trihydrate:

DAS 2 611 286 (Bristol-Myers; appl. 17.3.1976; USA-prior. 17.3.1975).
 DOS 2 732 528 (Bristol-Myers; appl. 19.7.1977; GB-prior. 20.7.1976).

water soluble salts with arginine or lysine:

GB 1 504 767 (Beecham; valid from 23.8.1976; prior. 2.7.1975, 30.9.1975; 3.11.1975).
 GB 1 539 510 (Beecham; valid from 23.8.1976; prior. 23.8.1975, 30.9.1975, 3.11.1975).

"amorphous" amoxicillin:

DAS 2 112 634 (Beecham; appl. 16.3.1971; GB-prior. 16.3.1970).

formulation for injection solutions:

GB 1 532 993 (Beecham; appl. 7.3.1975; valid from 9.2.1976).

O-acetylamoxicillin:

US 4 053 360 (Bristol-Myers; 11.10.1977; GB-prior. 5.6.1974, 19.3.1975).

Formulation(s): syrup 500 mg/5 ml, 2.5 %, 5 %, 10 %; tabl. 500 mg, 750 mg, 1 g

Trade Name(s):

D:	Amagesan (Pharbita)	Clamoxyl (SmithKline Beecham; 1974)	Pamocil (Farma Uno)
	Amoxi-Diolan (Engelhard)	Flemoxine (Yamanouchi Pharma)	Simoxil (Herdel)
	Amoxillat (Azupharma)	Gramidil (EG Labo)	Sintopen (Mitim)
	Amoxypen (Grünenthal)	Hiconcil (Bristol-Myers Squibb)	Velamox (SmithKline Beecham)
	Augmentan (SmithKline Beecham; 1982)-comb.	Zamocilline (Zambon)	Zimox (Carlo Erba)
	Clamoxyl (SmithKline Beecham; 1974)	GB: Amoran (Eastern)	generics and numerous combination preparations
	dura AX (durachemie)	Amoxil (Bencard; 1972)	J: Amolin (Takeda)
	Flanamox (Wolff)	Augmentin (SmithKline Beecham; 1984)-comb.	Clamoxyl (SmithKline Beecham; 1975)
	Sigamopen (Kytta-Siegfried)	Galenamox (Galen)	Delacillin (Sankyo)
F:	Agram (Inava)	I: Alfamox (Alfa Wassermann)	Efpenix (Toyo Jozo)
	Amodex (Bouchara)	Am-73 (Medici)	Hiconcil (Bristol)
	Amophar (Dakota)	Amoflux (Lampugnani)	Himinomax (Kaken)
	Amoxine (Negma)	Amox (Salus Research)	Pacetocin (Kyowa)
	Augmentin (SmithKline Beecham; 1984)-comb.	Amoxina (Magis)	Sawacillin (Fujisawa)
	Bactox (Innotech International)	Amoxipen (Metapharma)	Widecillin (Meiji) generics
	Bristamox (Bristol-Myers Squibb)	Cabermox (Caber)	USA: Amoxil (SmithKline Beecham; 1974)
	Ciblor (Inava)-comb.	Ibiamox (IBI; as trihydrate)	Wymox (Wyeth-Ayerst; 1978)
		Isimoxin (ISI)	
		Mopen (Firma)	

Amphetaminil

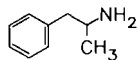
Use: psychotonic

(Amfetaminil)

RN: 17590-01-1 MF: C₁₇H₁₈N₂ MW: 250.35 EINECS: 241-560-8LD₅₀: 182 mg/kg (M, p.o.);

37.6 mg/kg (R, p.o.)

CN: α-[(1-methyl-2-phenylethyl)amino]benzeneacetonitrile

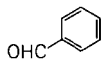


2-amino-1-phenylpropane

+

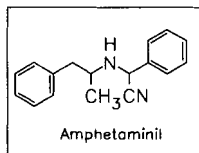
NaCN

+



benzaldehyde

→



Amphetaminil

Reference(s):

AT 223 606 (Dr. H. Voigt; appl. 25.4.1961; valid from 15.3.1962).

Klosa, J.: J. Prakt. Chem. (JPCEAO) **20**, 275 (1963).*Formulation(s):* amp. 20 mg, 60 mg*Trade Name(s):*

D: AN 1 (Voigt); wfm

Ton-O₂ (Voigt)-comb.; wfmVit-O₂ (Voigt)-comb.; wfm**Amphotericin B**

ATC: A01AB04; G01AA03; J02AA01

Use: fungicidal antibiotic

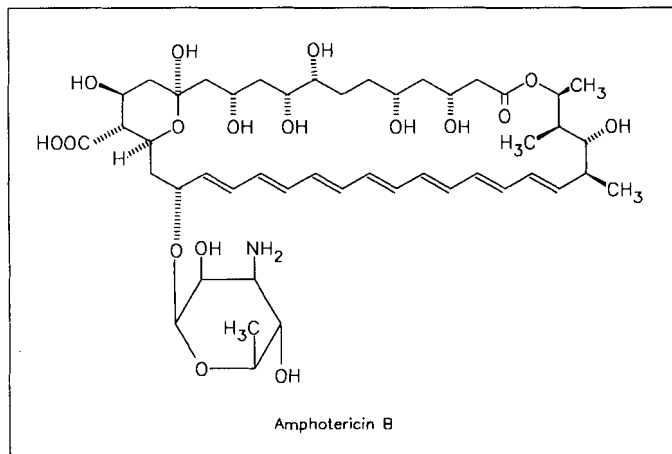
RN: 1397-89-3 MF: C₄₇H₇₃NO₁₇ MW: 924.09 EINECS: 215-742-2LD₅₀: 1200 µg/kg (M, i.v.); >8 g/kg (M, p.o.);

1600 µg/kg (R, i.v.); >5 g/kg (R, p.o.);

6 mg/kg (dog, i.v.)

CN: [1R-

(1R*,3S*,5R*,6R*,9R*,11R*,15S*,16R*,17R*,18S*,19E,21E,23E,25E,27E,29E,31E,33R*,35S*,36R*,37S*)]-33-[(3-amino-3,6-dideoxy-β-D-mannopyranosyl)oxy]-1,3,5,6,9,11,17,37-octahydroxy-15,16,18-trimethyl-13-oxo-14,39-dioxabicyclo[33.3.1]nonatriaconta-19,21,23,25,27,29,31-heptaene-36-carboxylic acid



Amphotericin B

Fermentatively from *Streptomyces nodosus*.

Reference(s):

US 2 908 611 (Olin Mathieson; 1959; prior. 1954).

Formulation(s): caramels 10 mg; cream 30 mg/g; ointment 30 mg/1 g; powder 50 mg; susp. 100 mg, 500 mg; tabl. 10 mg, 100 mg; liposome-encapsulated amphotericin B in a complex with dimyristoyl phosphatidylcholine and dimyristoyl phosphatidylglycerol, vials 20 ml

Trade Name(s):

D:	AmBisome (NeXstar; 1999)	GB:	Fungizone (Squibb)	USA:	Abelect Injection (Liposome Co.)
	Ampho-Moronal (Bristol-Myers Squibb)		Abelcet (Liposome Co.)		Amphotec for Injection (Sequus)
	Amphotericin B zur Infusion (Bristol-Myers Squibb)		Ambisone (NeXstar)		Fungizone (Bristol-Myers Squibb, Oncology/Immunology)
	Mysteclin (Bristol-Myers Squibb)-comb.	I:	Amphicol (Zeneca)		
			Fungilin r (Squibb)		
F:	Amphocycline (Bristol-Myers Squibb)-comb.	J:	Fungizone (Squibb)		
			Fungilin (Mead Johnson)		
			Fungizone (Bristol-Myers Squibb)		
			Fungizone (Bristol-Myers Squibb-Sankyo)		

Ampicillin

ATC: J01CA01; S01AA19
Use: antibiotic

RN: 69-53-4 MF: C₁₆H₁₉N₃O₄S MW: 349.41 EINECS: 200-709-7

LD₅₀: 4600 mg/kg (M, i.v.); >5 g/kg (M, p.o.);
6200 mg/kg (R, i.v.)

CN: [2S-[2α,5α,6β(S*)]]-6-[(aminophenylacetyl)amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

trihydrate

RN: 7177-48-2 MF: C₁₆H₁₉N₃O₄S · 3H₂O MW: 403.46

LD₅₀: 15.2 g/kg (M, p.o.);
10 g/kg (R, p.o.)

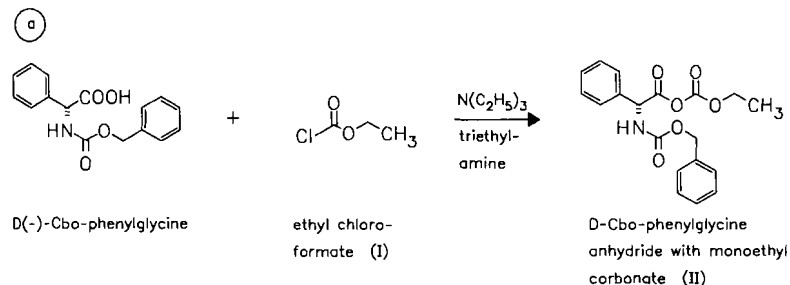
monosodium salt

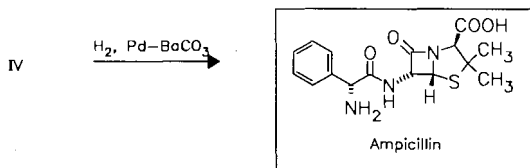
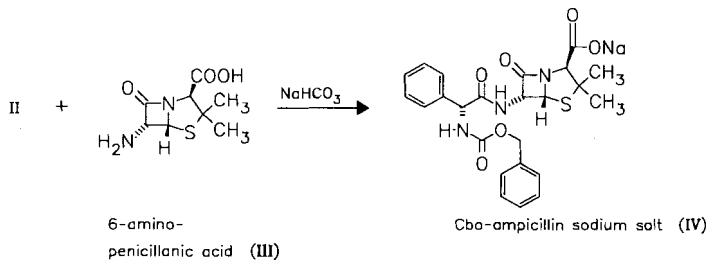
RN: 69-52-3 MF: C₁₆H₁₈N₃NaO₄S MW: 371.39 EINECS: 200-708-1

LD₅₀: >5314 mg/kg (M,R, p.o.)

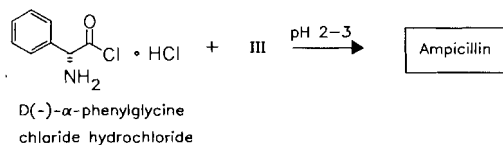
monopotassium salt

RN: 23277-71-6 MF: C₁₆H₁₈KN₃O₄S MW: 387.50 EINECS: 245-550-4

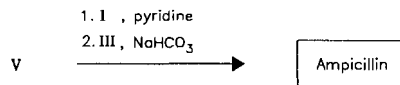
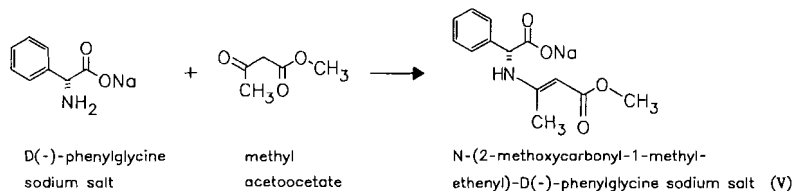




b



c

*Reference(s):*

- a** GB 893 049 (Beecham; appl. 6.10.1958, 12.5.1959).
 GB 902 703 (Beecham; valid from 19.5.1961; prior. 25.8.1960).
 US 2 985 648 (Beecham; 23.5.1961; GB-prior. 6.10.1958).
 DAS 1 139 844 (Beecham; appl. 6.10.1959; GB-prior. 6.10.1958, 12.5.1960).
 DE 1 156 078 (Beecham; appl. 29.5.1961; GB-prior. 25.8.1960).
- b** US 3 140 282 (Bristol-Myers; 7.7.1964; appl. 5.3.1962).
- c** GB 991 586 (Beecham; appl. 28.2.1963, 3.12.1963; valid from 13.2.1964).

alternative syntheses:

- DE 1 168 910 (Beecham; appl. 3.7.1962; GB-prior. 21.7.1961).
 US 3 144 445 (American Home; 11.8.1964; appl. 26.12.1962).
 DAS 1 445 506 (Bristol-Myers; appl. 24.10.1963; USA-prior. 29.10.1962).
 DAS 1 545 534 (Astra; appl. 4.3.1965; S-prior. 6.3.1964).
 DAS 2 029 195 (Yamanouchi; appl. 13.6.1970; J-prior. 16.6.1969).
 DAS 1 800 698 (American Home Products; appl. 2.10.1968; USA-prior. 2.10.1967).
 DOS 2 755 903 (Dobfar; appl. 15.12.1977; I-prior. 16.12.1976).

enzymatic and microbiological methods:

US 3 079 307 (Bayer; 26.2.1963; D-prior. 7.10.1961).
 DE 1 966 521 (Kyowa Hakko; appl. 9.9.1969; J-prior. 18.9.1968, 8.10.1968).
 DAS 1 967 074 (Kyowa Hakko; appl. 9.9.1969; J-prior. 18.9.1968, 8.10.1968).
 DAS 2 050 983 (Kyowa Hakko; appl. 16.10.1970; J-prior. 16.10.1969).
 US 4 073 687 (Shionogi; 14.2.1978; J-prior. 14.5.1975).

ampicillin salts:

DE 1 197 460 (Bayer; appl. 4.9.1962).
 DOS 1 670 111 (Bristol-Myers; appl. 16.7.1966).
 DE 1 670 191 (Beecham; appl. 24.2.1967; GB-prior. 3.3.1966).
 DAS 1 795 129 (Beecham; appl. 14.8.1968; USA-prior. 18.8.1967).
 DE 1 903 388 (American Home Products; appl. 23.1.1969; USA-prior. 23.1.1968).
 DAS 2 623 835 (Boehringer Ing.; appl. 28.5.1976).

trihydrate:

US 3 157 640 (Bristol-Myers; 17.11.1964; appl. 21.3.1963).

Formulation(s): amp. 0.5 g, 1 g, 2 g, 5 g; lyo. 532 mg, 1060 mg, 2128 mg, 5320 mg

Trade Name(s):

D:	Binotal (Grünenthal)	Amplital (Farmitalia)	Isocillin (Kanto)
	Jenampin (Jenapharm)	Amplizer (OFF)	Ohtecin (Kyowa)
	Unacid (Pfizer)	Citicil (CT)	Penbritin (Beecham-Fujisawa)
F:	Ampicilline (Arkodex; Panpharma)	Ibimicycn (IBI)	Penimic (SS Seiyaku)
	Proampi (Stafford-Miller)	Lampocillina Orale (Salus Research)	Pentrexyl (Banyu)
	Totapen (Bristol-Myers Squibb)	Pentrexyl (Bristol It. Sud)	Pharcillin (Toyo Pharmar)
	Unacim (Jouveinal)-comb.	Platocillina (Crosara)	Solcillin (Takeda)-comb.
GB:	Ampiclox (Beecham)	generics and numerous combination preparations	Synpenin (Sankyo)
	Magnapen (Beecham)-comb.	J: Acucillin (Fuji)-comb.	Tokiocillin (Isei)
	Penbritin (Beecham)	Adobacillin (Tobishi)	Totacillin (Beecham)
I:	Ampici (Formulario Naz.)	Amipenix (Toyo Jozo)	Totaclox (Beecham)-comb.
	Ampicillina (Pierrel)	Bionacillin (Takata)	Viccillin (Meiji)
	Ampilisa (Lisapharma)	Bonapicillin (Taiho)	USA: Amcill (Parke Davis)
	Ampilux (Allergan)	Cilleral (Bristre-Banyu)	Omnipen (Wyeth-Ayerst)
	Ampiplus Simplex (Menarini)	Combipenix (Toyo Jozo)-comb.	Unosyn for Injection (Pfizer)
		Domicillin (Marupi)	generics

Ampiroxicam

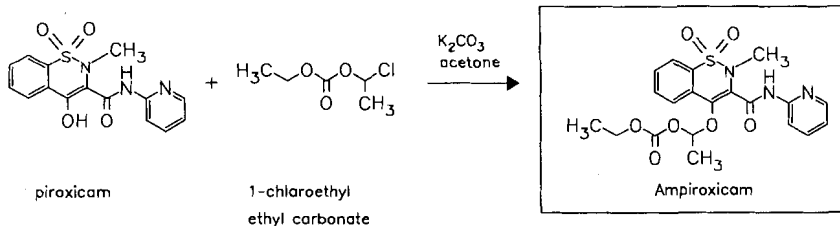
(CP-65703)

ATC: M01

Use: anti-inflammatory, prodrug of piroxicam

RN: 99464-64-9 MF: C₂₀H₂₁N₃O₇S MW: 447.47LD₅₀: 747 mg/kg (R, p.o.)

CN: carbonic acid ethyl 1-[[2-methyl-3-[(2-pyridinyl)aminocarbonyl]-2H-1,2-benzothiazin-4-yl]oxy]ethyl ester S,S-dioxide

**Reference(s):**

EP 147 177 (Pfizer Inc.; appl. 19.12.1984; USA-prior. 21.12.1983).

topical preparations:

JP 07 316 075 (Pola Kasei Kogyo; appl. 26.5.1994; J-prior. 26.5.1994).

Formulation(s): cps. 13.5 mg, 27 mg**Trade Name(s):**J: Flucam (Pfizer/Toyama) Nacyl (Toyama)
1994)**Amprenavir**

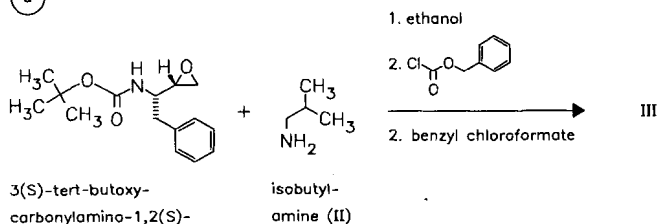
(KUX 478; UX 478; 141W94)

ATC: J05AE05

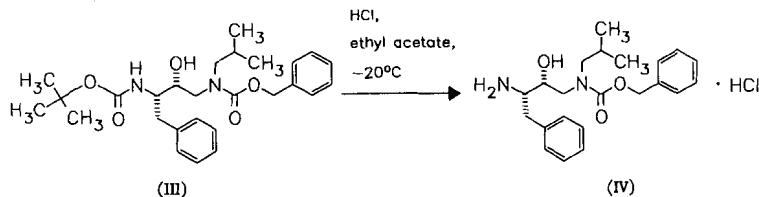
Use: antiviral, HIV protease inhibitor

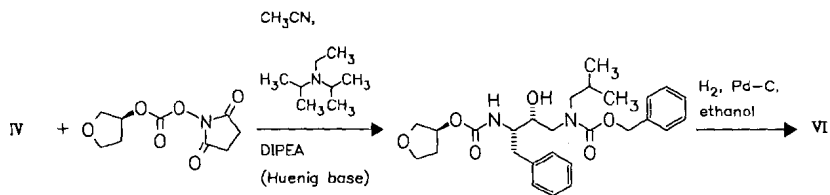
RN: 161814-49-9 MF: C₂₅H₃₅N₃O₆S MW: 505.64CN: [(1*S*,2*R*)-3-[[[4-Aminophenyl)sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]carbamic acid (3*S*)-tetrahydro-3-furanyl ester

a

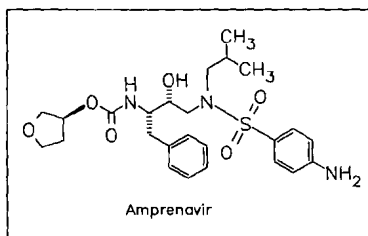
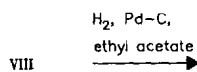
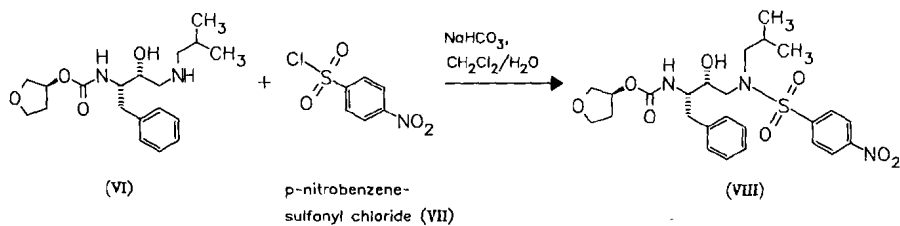
3(S)-tert-butoxy-carbonylamino-1,2(S)-epoxy-4-phenylbutane (I)
(cf. saquinavir synthesis)

isobutylamine (II)

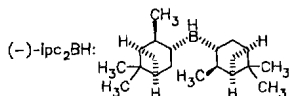
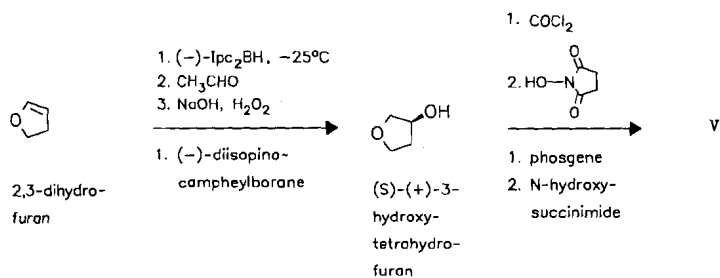




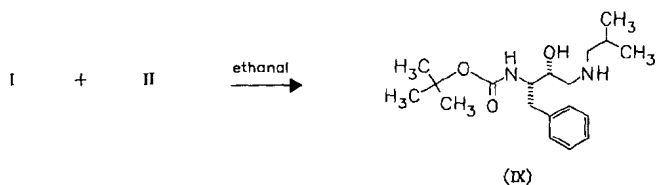
succinimido
 (S)-3-tetrahydro-
 furyl carbonate (V)

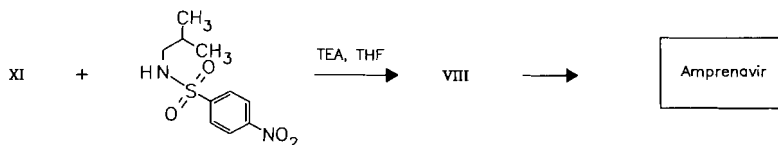
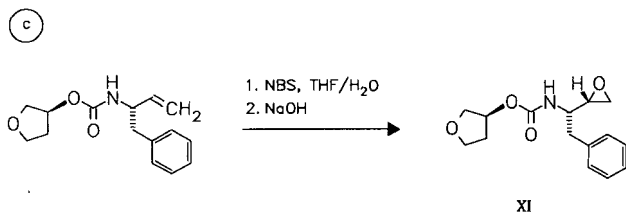
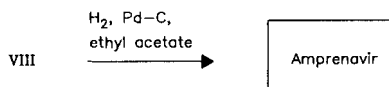
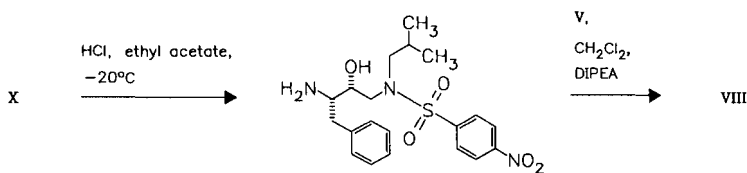
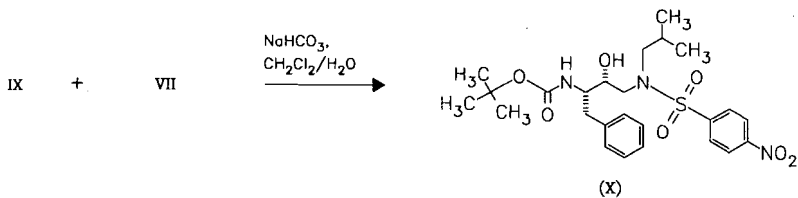


aa synthesis of V



b



*Reference(s):*

- a** WO 9 405 639 (Vertex Pharm.; appl. 7.9.1993; USA-prior. 8.9.1992).
aa Brown, H.C. et al.: J. Am. Chem. Soc. (JACSAT) **108**, 2049-2054 (1986).
b WO 9 633 184 (Vertex Pharm.; appl. 18.4.1996; USA-prior. 19.4.1995; 8.9.1992).
c JP 09 124 630 (Kissei Pharm.; appl. 26.10.1995).

nanocrystalline formulations:

WO 9 902 665 (Nanosystems; appl. 9.7.1998; USA-prior. 9.7.1997).

stable crystal polymorphs:

WO 9 857 648 (Vertex Pharm.; appl. 16.6.1998; USA-prior. 16.6.1997).

novel crystal form V:

WO 9 856 781 (Glaxo; 17.12.1998; appl. 11.6.1998; USA-prior. 13.6.1997).

combination with AZT:

WO 9 720 554 (Vertex Pharm.; 12.6.1997; appl. 5.12.1996; USA-prior. 5.12.1995).

crystallization of amprenavir:

JP 09 071 575 (Kissei Pharm.; appl. 7.9.1995).

Formulation(s): cps. 50 mg, 150mg, oral sol. 15 mg/ml

Trade Name(s):

USA: Agenerase (Glaxo
Wellcome; 1999)

Amrinone

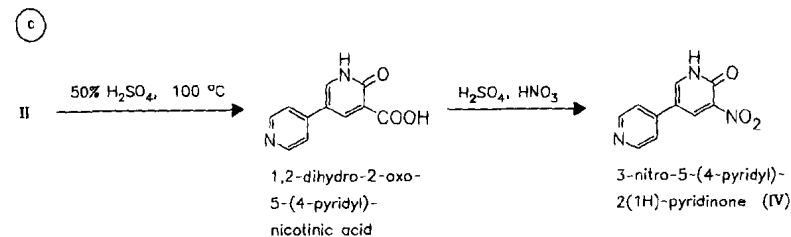
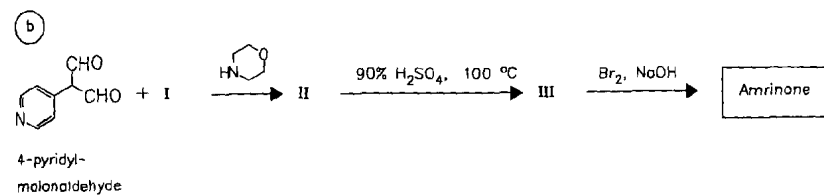
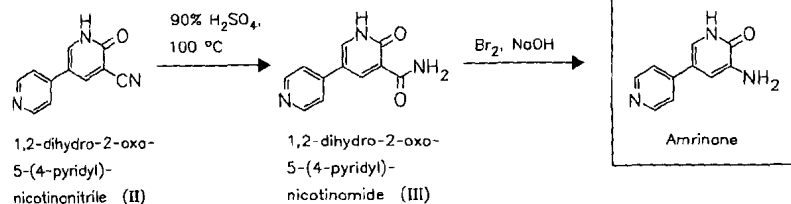
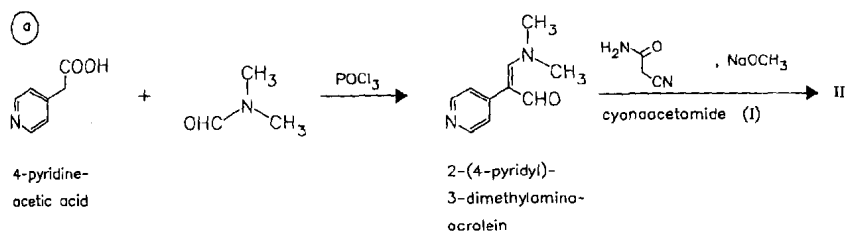
ATC: C01CE01

Use: cardiotonic (positive inotropic effect)

RN: 60719-84-8 MF: $C_{10}H_9N_3O$ MW: 187.20 EINECS: 262-390-0

LD₅₀: 150 mg/kg (M, i.v.); 288 mg/kg (M, p.o.);
75 mg/kg (R, i.v.); 102 mg/kg (R, p.o.)

CN: 5-amino[3,4'-bipyridin]-6(1H)-one



Reference(s):

US 4 072 746 (Sterling Drug; 7.2.1978; appl. 21.7.1976; prior. 14.10.1975).

GB 1 512 129 (Sterling Drug; appl. 28.9.1976; USA-prior. 14.10.1975).

DE 2 646 469 (Sterling Drug; appl. 21.7.1976; USA-prior. 14.10.1975).

US 4 004 012 (Sterling Drug; 18.1.1977; appl. 14.10.1975).

improved method analogous to a:

GB 2 070 008 (Sterling Drug; appl. 20.2.1981; USA-prior. 26.2.1980).

*preparation of 4-pyridineacetic acid from 4-acetylpyridine:*Katritzky: J. Chem. Soc. (JCSOA9) **1955**, 2586, 2592.*preparation of 4-pyridyl-malondialdehyde from 4-methylpyridine and DMF:*Niedrich,H.; Heyne,H.-U.; Schroetter,E.; Jaensch,H.-J.; Heidrich,H.-J. et al.: Pharmazie (PHARAT) **41**(3), 173 (1986).*Formulation(s):* amp. 5 mg/ml, 100 mg*Trade Name(s):*

D:	Wincoram (Sanofi Winthrop; 1984)	I:	Inocor (Maggiioni- Winthrop)	Vesistol (Inverni della Beffa)
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Amsacrine

(m-AMSA)

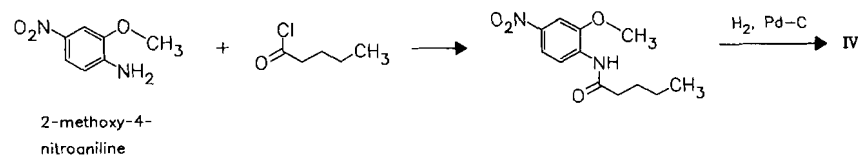
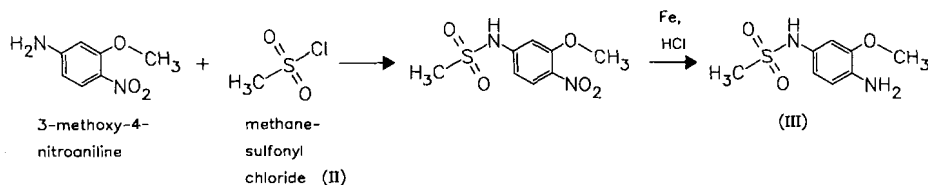
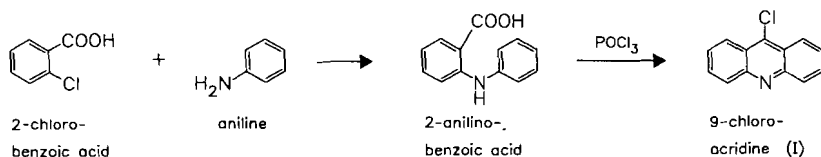
ATC: L01XX01

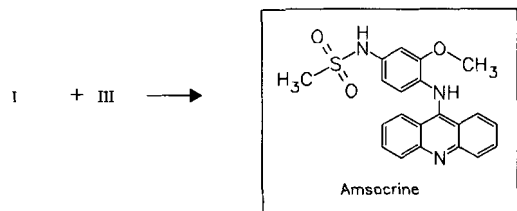
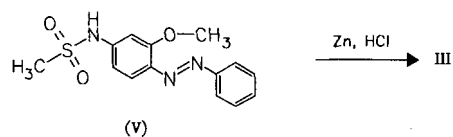
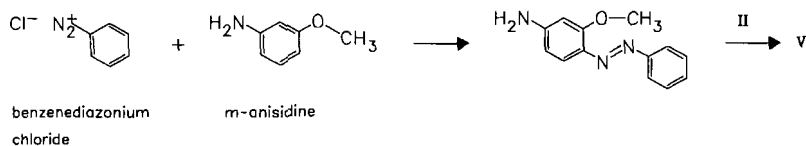
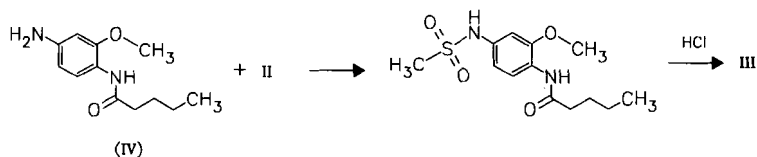
Use: antineoplastic

RN: 51264-14-3 MF: C₂₁H₁₉N₃O₃S MW: 393.47 EINECS: 257-094-3LD₅₀: 33.7 mg/kg (M, i.v.); 53.42 mg/kg (M, p.o.);

6.25 mg/kg (dog, i.v.); 50 mg/kg (dog, p.o.)

CN: N-[4-(9-acridinylamino)-3-methoxyphenyl]methanesulfonamide

monohydrochlorideRN: 54301-15-4 MF: C₂₁H₁₉N₃O₃S · HCl MW: 429.93LD₅₀: 60 mg/kg (M, i.p.)

**Reference(s):**

- Cain, B.F. et al.: J. Med. Chem. (JMCMAR) **18**, 1110 (1975); **20**, 987 (1977).
 Denny, W.A. et al.: J. Med. Chem. (JMCMAR) **21**, 5 (1978).
 Rewcastle, G.W. et al.: J. Med. Chem. (JMCMAR) **25**, 1231 (1982).

preparation of III from benzenediazonium chloride:

- Wilson, W.R. et al.: J. Med. Chem. (JMCMAR) **32**, 23 (1989).

Formulation(s): amp. 85 mg/1.7 ml, 75 mg/1.5 ml

Trade Name(s):

D: Amsidyl (Gödecke) F: Inocor (Sanofi Winthrop) GB: Amsidine (Goldshield)

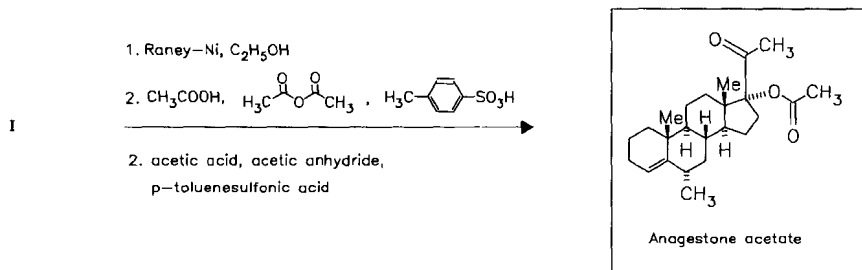
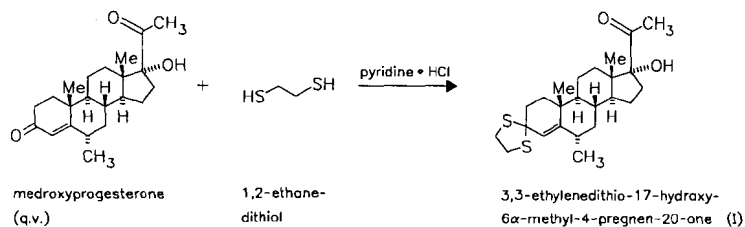
Anagestone acetate

ATC: G03DA
 Use: progestogen

RN: 3137-73-3 MF: C₂₄H₃₆O₃ MW: 372.55 EINECS: 221-535-8
 CN: (6α)-17-(acetyloxy)-6-methylpregn-4-en-20-one

anagestone

RN: 2740-52-5 MF: C₂₂H₃₄O₂ MW: 330.51

**Reference(s):**

BE 624 370 (Ortho; appl. 31.10.1962; USA-prior. 6.6.1962, 24.7.1961; F-prior. 23.7.1962).

Trade Name(s):

USA: Anotropin (Ortho); wfm

Anagrelide hydrochloride

(BL-4162A; BMY-26538-01)

ATC: B01AC14

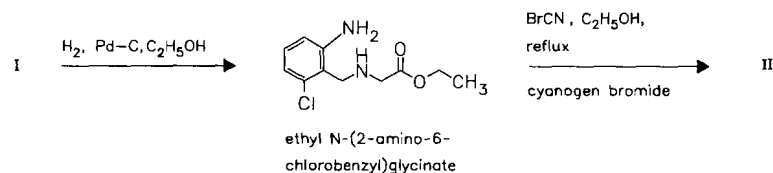
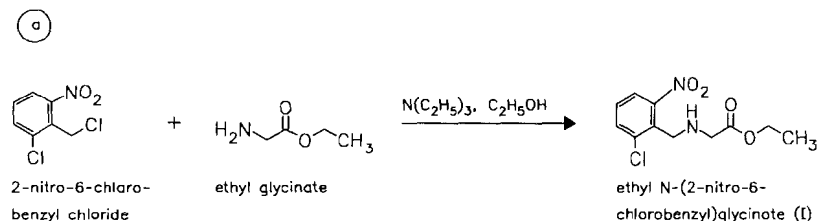
Use: antithrombotic, phosphodiesterase III (PDEIII)-inhibitor that reduces platelet counts

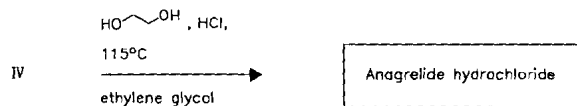
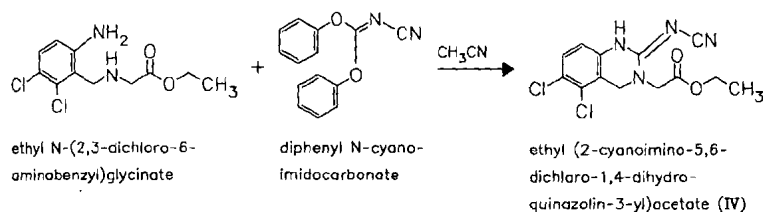
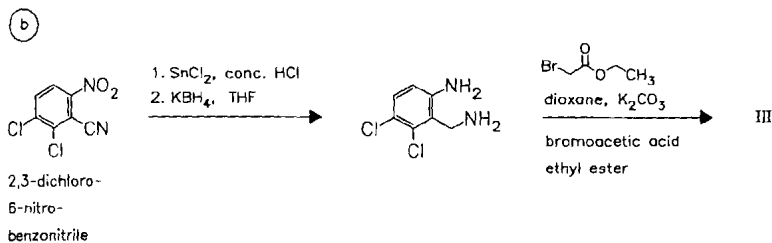
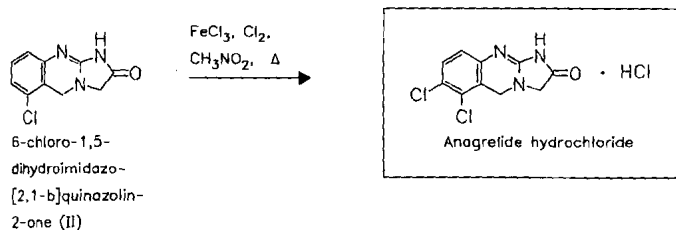
RN: 58579-51-4 MF: C₁₀H₇Cl₂N₃O · HCl MW: 292.55

CN: 6,7-Dichloro-1,5-dihydroimidazo[2,1-*b*]quinazolin-2(3*H*)-one hydrochloride

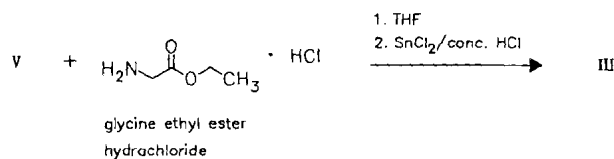
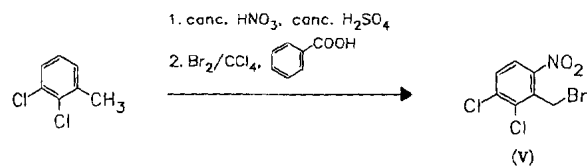
base

RN: 68475-42-3 MF: C₁₀H₇Cl₂N₃O MW: 256.09





alternative synthesis of anagrelide precursor III



Reference(s):

- a US 3 932 407 (Bristol Myers Co.; 13.1.1976; USA-prior. 4.2.1972).
alternative cyclization:
US 4 208 521 (Bristol Myers Co.; 17.6.1980; USA-prior. 31.7.1978).
alternative syntheses from 5-chloroisatine or 1,2,3-trichlorobenzene:
US 4 146 718 (Bristol Myers Co.; 27.3.1979; USA-prior. 10.4.1978).
- b EP 514 917 (EGIS Gyogyszergyar; appl. 22.5.1992; HU-prior. 22.5.1991).
Trinka, P.; Reiter, J.; J. Prakt. Chem./Chem.-Ztg. (JPCCEM) **338** (8), 750 (1997).

synthesis of ethyl N-(2,3-dichloro-6-aminobenzyl)glycinate:

HU 60 998 (Egis Gyogyszergyar; HU-prior. 22.5.1991)

Trinka, P.; Slegel, P.; Reiter, J.: J. Prakt. Chem./Chem.-Ztg. (JPCCEM) **338** (7), 675 (1996).

synthesis of 2,3-dichloro-6-nitrobenzonitrile from 1,2,3-trichlorobenzene:

Trinka, P.; Berecz, G.; Reiter, J.: J. Prakt. Chem./Chem.-Ztg. (JPCCEM) **338** (7), 679 (1996).

synthesis of anagrelide precursor

EP 778 258 (Roberts Lab.; appl. 8.3.1996; USA-prior. 4.12.1995).

pharmaceutical compositions:

US 4 357 330 (Bristol-Myers Co.; 2.11.1982; USA-prior. 30.7.1981).

Formulation(s): cps. 0.5 mg, 1 mg (as hydrochloride hydrate)

Trade Name(s):

USA: Agrylin (Roberts
Pharmaceutical; 1998)

Anastrozole

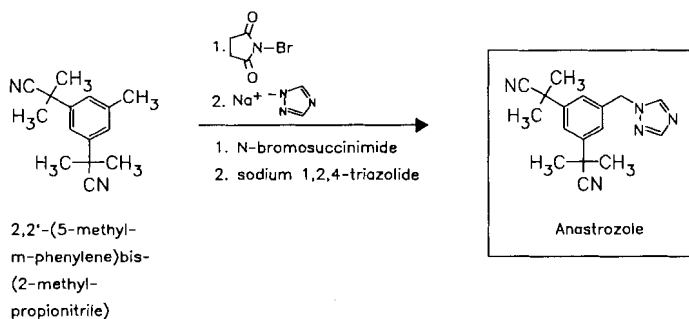
(ICI-D1033; ZD-1033)

ATC: L02BG03

Use: antineoplastic, non-steroidal
aromatase inhibitor

RN: 120511-73-1 MF: C₁₇H₁₉N₅ MW: 293.37

CN: $\alpha,\alpha,\alpha',\alpha'$ -tetramethyl-5-(1H-1,2,4-triazol-1-ylmethyl)-1,3-benzenediacetonitrile



Reference(s):

EP 296 749 (ICI; appl. 14.6.1988; GB-prior. 16.6.1987).

combination with 5 α -reductase inhibitors:

WO 9 218 132 (Merck & Co.; appl. 4.6.1992; USA-prior. 17.4.1991).

Formulation(s): tabl. 1 mg

Trade Name(s):

D: Arimidex (Zeneca)

GB: Arimidex (Zeneca)

F: Arimidex (Zeneca)

USA: Arimidex (Zeneca)

Ancitabine

(Cyclooxytidine)

ATC: L01BC

Use: antineoplastic

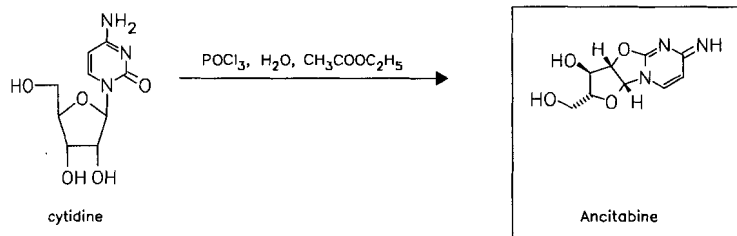
RN: 31698-14-3 MF: C₉H₁₁N₃O₄ MW: 225.20LD₅₀: 800 mg/kg (M, i.v.); 3400 mg/kg (M, p.o.);

820 mg/kg (R, i.v.); >7 g/kg (R, p.o.);

CN: [2*R*-(2α,3β,3aβ,9aβ)]-2,3,3a,9a-tetrahydro-3-hydroxy-6-imino-6*H*-furo[2',3':4,5]oxazolo[3,2-*a*]pyrimidine-2-methanol**monohydrochloride**RN: 10212-25-6 MF: C₉H₁₁N₃O₄ · HCl MW: 261.67 EINECS: 233-515-6LD₅₀: 800 mg/kg (M, i.v.); >7 g/kg (M, p.o.);

820 mg/kg (R, i.v.); >7 g/kg (R, p.o.);

344 mg/kg (dog, i.v.)

**Reference(s):**Kanai, T. et al.: Chem. Pharm. Bull. (CPBTAL) **18**, 2569 (1970).**alternative syntheses:**Walwick, E.R. et al.: Proc. Chem. Soc., London (PCSLAW) **1959**, 84.Doerr, L.L.; Fox, J.J.: J. Org. Chem. (JOCEAH) **31**, 1465 (1967).Ruyle, W.V.; Shenn, T.Y.: J. Med. Chem. (JMCMAR) **10**, 331 (1967).Kugawa, K.K.; Ichino, M.: Tetrahedron Lett. (TELEAY) **1970**, 867.

The Merck Index, 11th Ed., 663 (Rahway 1991).

Formulation(s): amp. 10 mg, 500 mg (as hydrochloride)**Trade Name(s):**

J: Cyclo-C (Kohjin; as hydrochloride)

Ancrod

ATC: C04A

Use: anticoagulant, fibrinolytic

RN: 9046-56-4 MF: unspecified MW: unspecified EINECS: 232-933-6

CN: proteinase, agkistrodon serine

Fibrinolytic effecting protease enzyme with glycoprotein structure; relative mol mass ca. 30000. Isolation from the poison secretion (venom) of *Agkistrodon rhodostoma* (malayan pit viper) with chromatographic purification.**Reference(s):**

US 3 657 416 (Natl. Res. Dev. Corp., London; 18.4.1982; GB-prior. 21.2.1964).

Formulation(s): amp. 70 iu.

Trade Name(s):

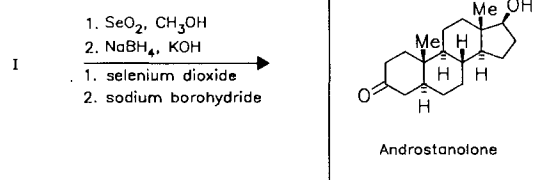
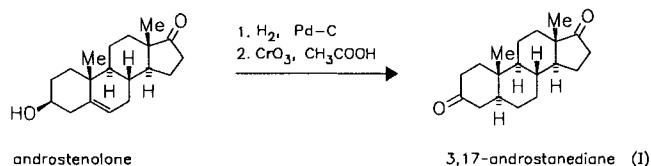
D: Arwin (Knoll); wfm GB: Arvin (Armour); wfm

Androstanolone

(Stanolone)

ATC: G03BB02

Use: androgen

RN: 521-18-6 MF: C₁₉H₃₀O₂ MW: 290.45 EINECS: 208-307-3CN: (5 α ,17 β)-17-hydroxyandrostan-3-one

Reference(s):

US 2 927 921 (Schering; 8.3.1960; prior. 19.5.1954, 24.1.1952).

alternative syntheses:

Butenandt, A. et al.: Chem. Ber. (CHBEAM) **68**, 2097 (1935).Ruzicka, L. et al.: Helv. Chim. Acta (HCACAV) **20**, 1557 (1937); **24**, 1151 (1941).

Formulation(s): amp. 2 %, 5 %; gel 2.5 %; tabl. 5 mg, 25 mg

Trade Name(s):

D: Ophthovitol (Dr. Winzer)- comb.; wfm	F: Andractim (Besins- Iscovesco)	J: Apeton (Fujisawa); wfm
	I: Anabolex (Samil); wfm	USA: Neodrel (Pfizer); wfm

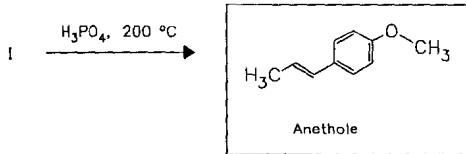
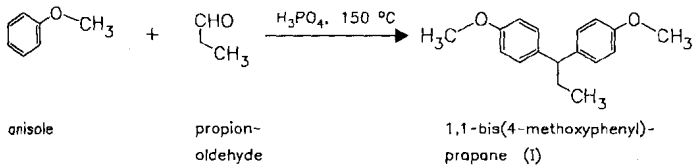
Anethole

ATC: A16AX02

Use: expectorant, carminative, aroma

RN: 4180-23-8 MF: C₁₀H₁₂O MW: 148.21 EINECS: 224-052-0CN: (*E*)-1-methoxy-4-(1-propenyl)benzene**a** Isolation from essential oils, e. g. anise oil (80-90 %), staranise oil (>90 %), fennel oil (up to 80 %).**b** From American sulfatterpentinol.

c Synthetic:



Reference(s):

review:

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 20, 241.
DE 2 418 974 (Haarmann & Reimer; appl. 19.4.1974).

Formulation(s): cps. 75 mg; sol. 4 g/100 g

Trade Name(s):

D: Pinimenthol (Spitzner)-
comb.

Rowatinex (Rowa-
Wagner)-comb.

GB: Rowatinex (Rowa)-comb.

Anethole trithione

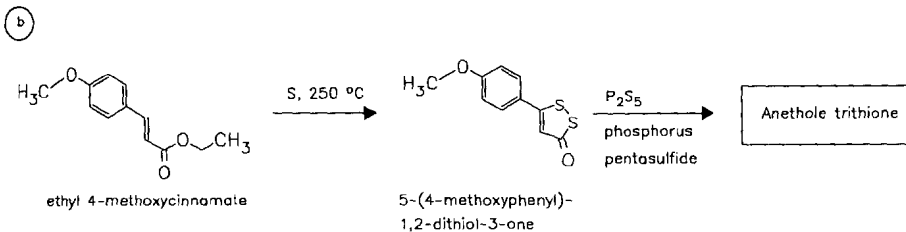
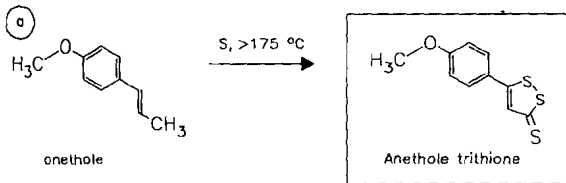
ATC: A16AX02

Use: choleric

RN: 532-11-6 MF: $C_{10}H_8OS_3$ MW: 240.37 EINECS: 208-528-5

LD₅₀: 1480 mg/kg (M, p.o.)

CN: 5-(4-methoxyphenyl)-3H-1,2-dithiole-3-thione



Reference(s):

a DE 855 865 (B. Böttcher; appl. 1942).

DE 869 799 (B. Böttcher; appl. 1940).

b DE 874 447 (B. Böttcher; appl. 1944).

Schmidt, U. et al.: Justus Liebigs Ann. Chem. (JLACBF) **631**, 129 (1960).

Formulation(s): cps. 4 mg, 75 mg; sol. 4 g/100 g

Trade Name(s):

D: Mucinol (Sanofi Winthrop)

Liverin (Sir)-comb.; wfm

J:

Felviten (Nippon

F: Sulfarlem (Solvay Pharma)

Sulfalerm (Farmades); wfm

Shinyaku)

I: Liverin (Perkins)-comb.;

Sulfalerm (Sir); wfm

wfm

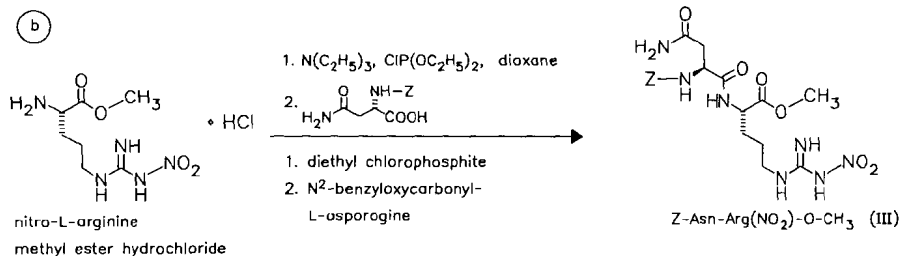
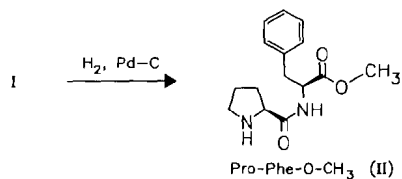
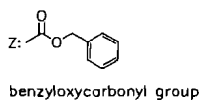
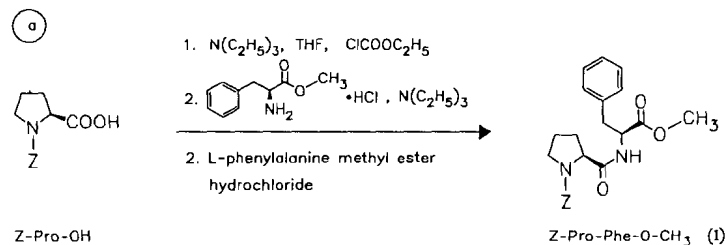
Angiotensinamide

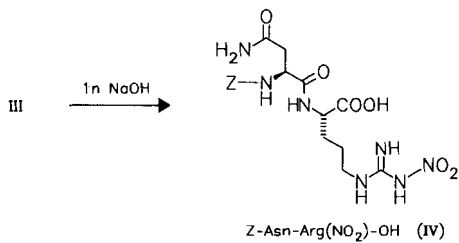
ATC: C01CX06

Use: hypertensive

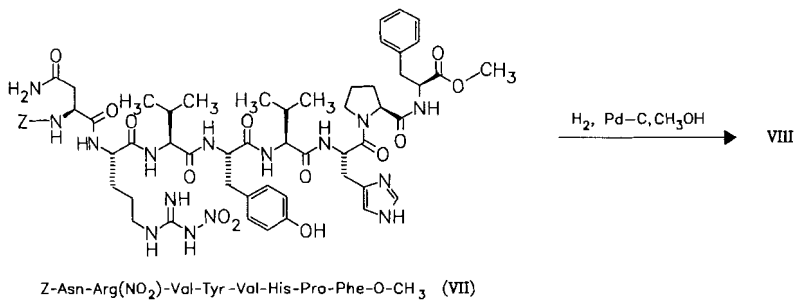
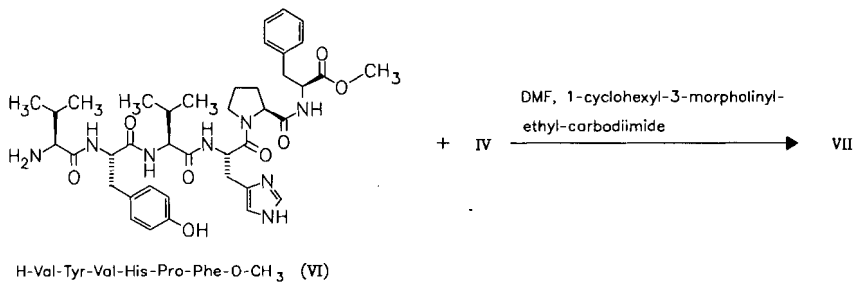
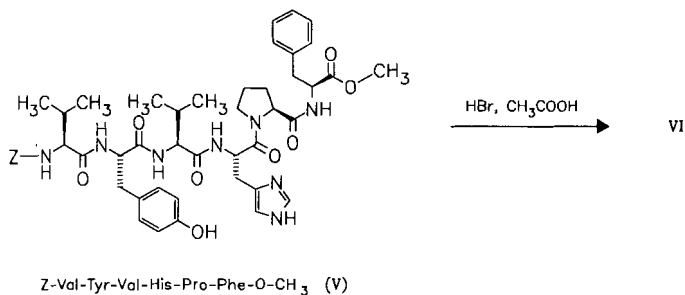
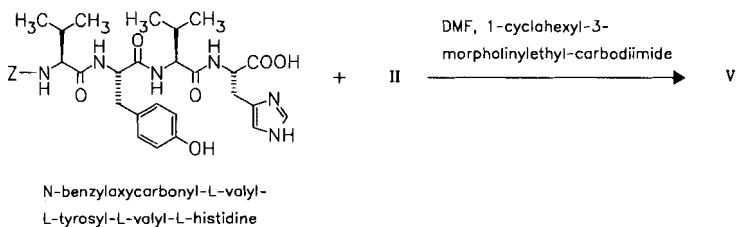
RN: 53-73-6 MF: C₄₉H₇₀N₁₄O₁₁ MW: 1031.19 EINECS: 200-182-3

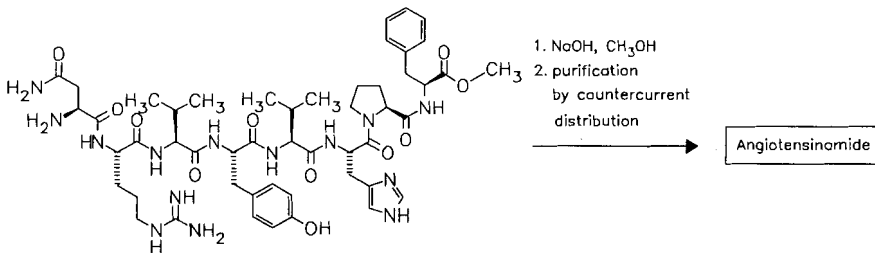
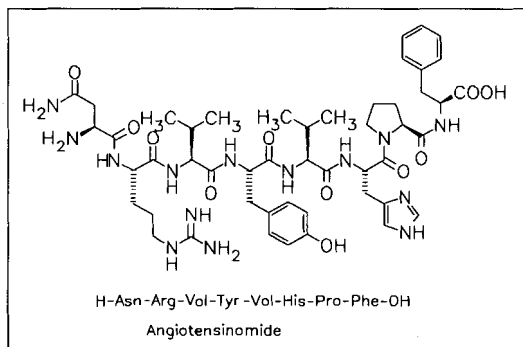
CN: 1-L-asparagine-5-L-valineangiotensin II





(c)



H-Asn-Arg-Val-Tyr-Val-His-Pro-Phe-O-CH₃ (VIII)*Reference(s):*

DE 1 125 942 (Ciba; appl. 2.9.1957; CH-prior. 6.9.1956, 8.2.1957, 6.3.1957, 31.7.1957).

Formulation(s): amp. 2.5 mg*Trade Name(s):*

D: Hypertensin (Ciba); wfm

Hypertensin CIBA (Ciba);
wfmGB: Hypertensin CIBA (Ciba);
wfm**Anileridine**

ATC: N01AH05; N01AX

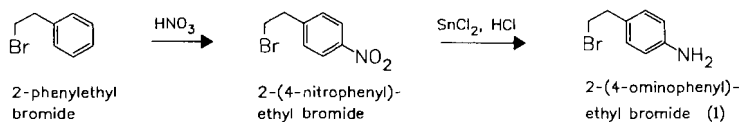
Use: analgesic

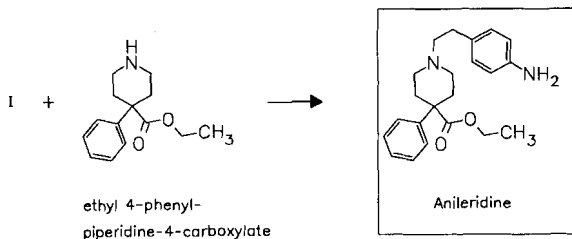
RN: 144-14-9 MF: C₂₂H₂₈N₂O₂ MW: 352.48

CN: 1-[2-(4-aminophenyl)ethyl]-4-phenyl-4-piperidinecarboxylic acid ethyl ester

dihydrochlorideRN: 126-12-5 MF: C₂₂H₂₈N₂O₂ · 2HCl MW: 425.40 EINECS: 204-770-0LD₅₀: 22 mg/kg (M, i.v.); 229 mg/kg (M, p.o.);

175 mg/kg (R, p.o.)

phosphate (1:1)RN: 4268-37-5 MF: C₂₂H₂₈N₂O₂ · H₃PO₄ MW: 450.47

**Reference(s):**

US 2 966 490 (Merck & Co.; 27.12.1960; prior. 26.5.1955).

Formulation(s): amp. 25 mg; tabl. 25 mg

Trade Name(s):

USA: Leritine (Merck Sharp & Dohme); wfm

Aniracetam

(Ro-13-5057)

ATC: N06BX11

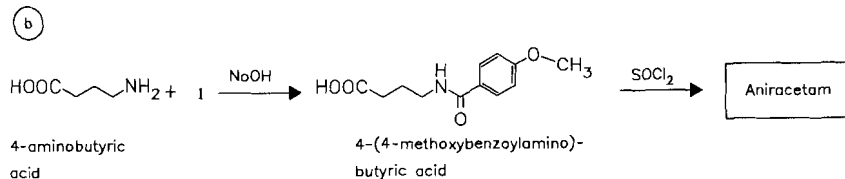
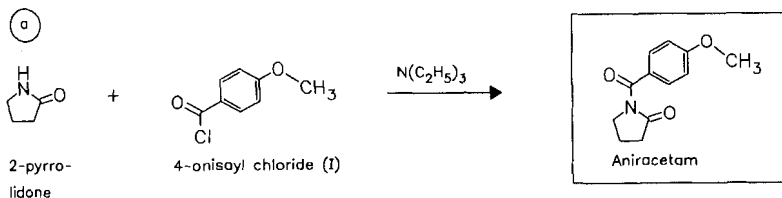
Use: nootropic (against senile dementia and cerebral insufficiency), cognition enhancer

RN: 72432-10-1 MF: C₁₂H₁₃NO₃ MW: 219.24

LD₅₀: >100 mg/kg (M, i.v.); >5000 mg/kg (M, p.o.)

>50 mg/kg (R, i.v.); 4500 mg/kg (R, p.o.)

CN: 1-(4-methoxybenzoyl)-2-pyrrolidinone

**Reference(s):**

EP 5 143 (Hoffmann-La Roche, Sparamedica; appl. 9.2.1979; CH-prior. 10.2.1978, 22.11.1978).

EP 44 088 (Hoffmann-La Roche; appl. 9.2.1979; CH-prior. 10.2.1978, 22.11.1978).

(also alternative synthesis).

medical use for treatment of claudicatio intermittens:

EP 243 336 (UCB; appl. 10.4.1987; GB-prior. 14.4.1986).

Formulation(s): powder 1.5 g; tabl. 100 mg, 200 mg, 750 mg

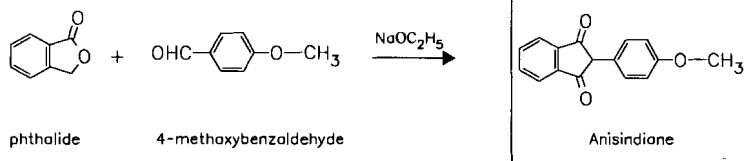
Trade Name(s):

I: Ampamet (Menarini)
Draganon (Roche; 1992)Reset (Biomedica
Foscama)J: Draganon (Nippon Roche)
Sarpul (Toyama Chem.)**Anisindione**

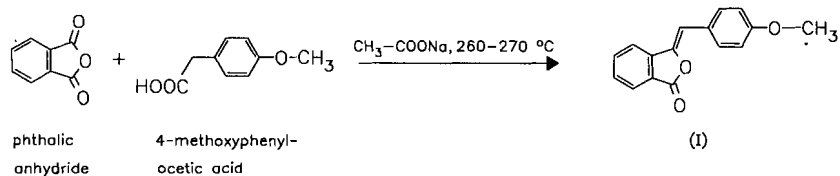
Use: anticoagulant

RN: 117-37-3 MF: C₁₆H₁₂O₃ MW: 252.27 EINECS: 204-186-6LD₅₀: 300 mg/kg (M, p.o.)CN: 2-(4-methoxyphenyl)-1*H*-indene-1,3(2*H*)-dione

a



b



Reference(s):

US 2 899 358 (Schering Corp.; 11.8.1959; prior. 23.2.1956).

Formulation(s): tabl. 75 mg, 100 mg, 300 mg

Trade Name(s):

F: Midone (Cétrane); wfm

Unidone (Unilabo); wfm

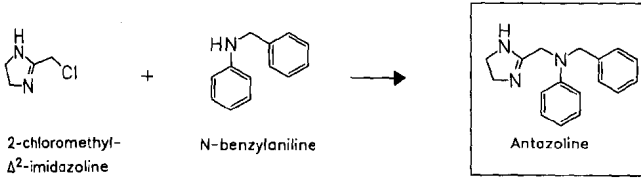
USA: Miradon (Schering)

Antazoline

ATC: R01AC04; R06AX05

Use: antihistaminic

RN: 91-75-8 MF: C₁₇H₁₉N₃ MW: 265.36 EINECS: 202-094-0LD₅₀: 61 mg/kg (M, i.v.); 398 mg/kg (M, p.o.)CN: 4,5-dihydro-*N*-phenyl-*N*-(phenylmethyl)-1*H*-imidazole-2-methanamine**monohydrochloride**RN: 2508-72-7 MF: C₁₇H₁₉N₃ · HCl MW: 301.82 EINECS: 219-719-8LD₅₀: 30 mg/kg (dog, i.v.)**sulfate (1:1)**RN: 24359-81-7 MF: C₁₇H₁₉N₃ · H₂SO₄ MW: 363.44**monomesylate**RN: 3131-32-6 MF: C₁₇H₁₉N₃ · CH₄O₃S MW: 361.47 EINECS: 221-523-2



Reference(s):
 US 2 449 241 (Ciba; 1948; CH-prior. 1944).

Formulation(s): eye drops 0.15 mg/ml, 0.5 mg/ml, 5 mg/ml

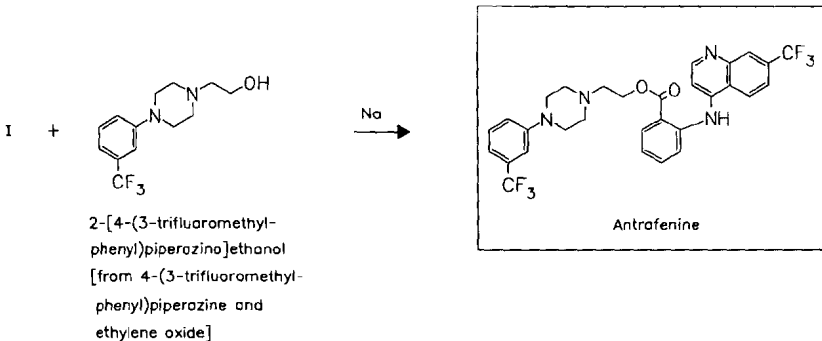
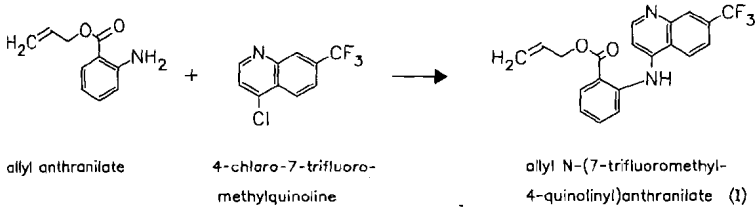
Trade Name(s):

D:	Allergopos (Ursapharm)-comb.	F:	Alcolène (Alcon)-comb.; wfm	Zincoimidazol (Allergan)-comb.
	Antistin-Privin (CIBA Vision)-comb.	GB:	Otrivine-Antistin (CIBA Vision)-comb.	USA: Arithmin (Lannett); wfm
	Ophtalmin (Winzer)-comb.	I:	Antistin Privina (Novartis)-comb.	Azolone (Smith, Miller & Patch); wfm
	Spersallerg (CIBA Vision)-comb.		Eubetal (SIFI)-comb.	

Antrafenine

ATC: S02DA
 Use: analgesic, anti-inflammatory

RN: 55300-29-3 MF: C₃₀H₂₆F₆N₄O₂ MW: 588.55
 LD₅₀: 4 g/kg (M, p.o.)
 CN: 2-[[7-(trifluoromethyl)-4-quinolinyl]amino]benzoic acid 2-[4-[3-(trifluoromethyl)phenyl]-1-piperazinyl]ethyl ester



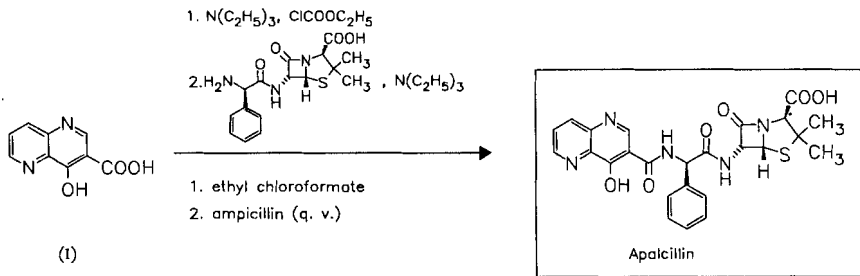
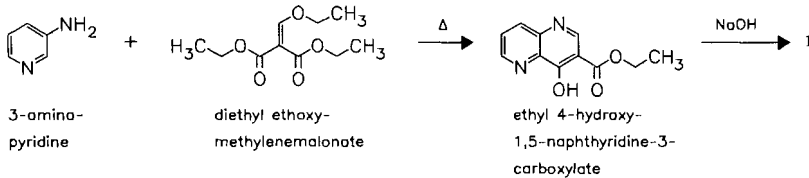
Reference(s):
 DOS 2 415 982 (Synthelabo; appl. 2.4.1974; F-prior. 6.4.1973, 9.5.1973, 17.12.1973).

Trade Name(s):

F: Stakane (Dausse); wfm

Apalcillin

ATC: J01CA

Use: semisynthetic β -lactam antibioticRN: 63469-19-2 MF: $C_{25}H_{23}N_5O_6S$ MW: 521.55LD₅₀: 1300 mg/kg (M, i.v.)CN: [2*S*-[2 α ,5 α ,6 β (*S**)]]-6-[[[(4-hydroxy-1,5-naphthyridin-3-yl)carbonyl]amino]phenylacetyl]amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

Reference(s):

US 3 864 329 (Sumitomo; 4.2.1975; J-prior. 29.12.1970).

US 4 005 075 (Sumitomo; 25.1.1977; J-prior. 5.4.1973).

DOS 2 416 449 (Sumitomo; appl. 4.4.1974; J-prior. 5.4.1973).

US 3 945 995 (Sumitomo; 23.3.1976; J-prior. 5.4.1973).

Formulation(s): lyo. 1042 mg, 3126 mg

Trade Name(s):

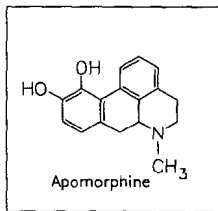
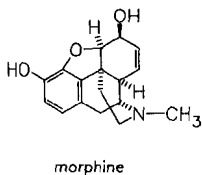
D: Lumota (Thomae); wfm

Apomorphine

ATC: N04BC07

Use: emetic, expectorant

RN: 58-00-4 MF: $C_{17}H_{17}NO_2$ MW: 267.33 EINECS: 200-360-0LD₅₀: 56 mg/kg (M, i.v.); >100 mg/kg (M, p.o.)CN: (*R*)-5,6,6a,7-tetrahydro-6-methyl-4*H*-dibenzo[*de,g*]quinoline-10,11-diol



Reference(s):

Small, L. et al.: J. Org. Chem. (JOCEAH) 5, 334 (1940).

Formulation(s): amp. 10 mg; inj. sol. 10 mg/1 ml, 5 mg/1 ml; tabl. 3 mg

Trade Name(s):

F: Apokinon (Aguettant) I: Apomor (Tariff.
 GB: Britagel (Britannia; as Integrativo; as
 hydrochloride) hydrochloride)

Apraclonidine
(Aplonidine)

ATC: S01EA03
 Use: selective α_2 -agonist (for postsurgical control of intraocular pressure)

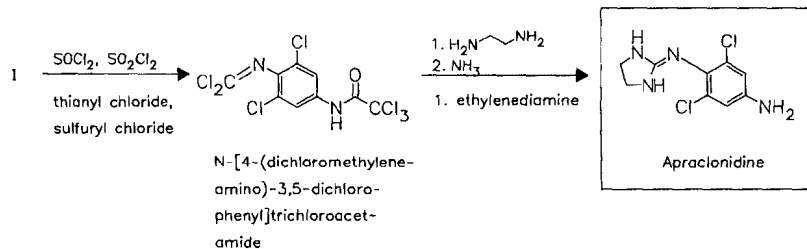
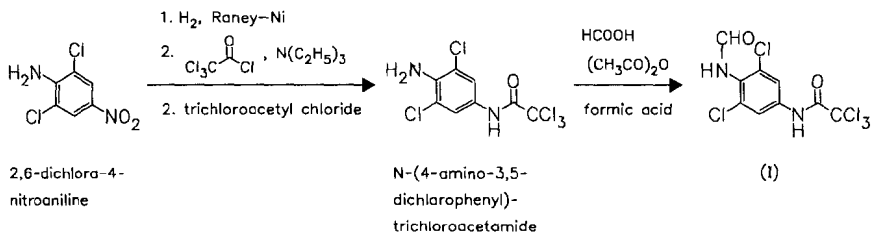
RN: 66711-21-5 MF: $C_9H_{10}Cl_2N_4$ MW: 245.11
 CN: 2,6-dichloro-N¹-2-imidazolidinylidene-1,4-benzenediamine

monohydrochloride

RN: 73218-79-8 MF: $C_9H_{10}Cl_2N_4 \cdot HCl$ MW: 281.57
 LD₅₀: 6 mg/kg (M, i.v.); 3 mg/kg (M, p.o.);
 9 mg/kg (R, i.v.); 38 mg/kg (R, p.o.)

dihydrochloride

RN: 73217-88-6 MF: $C_9H_{10}Cl_2N_4 \cdot 2HCl$ MW: 318.04



Reference(s):

EP 81 924 (Alcon; appl. 19.11.1982; USA-prior. 20.11.1981).

EP 81 923 (Alcon; appl. 19.11.1982; USA-prior. 20.11.1981).

US 4 461 904 (Alcon; 24.7.1984; prior. 20.11.1981).

Ronot, B.; Leclerc, G.: Bull. Soc. Chim. Fr. (BSCFAS) **Pt. 2**, 520 (1979).**combination with β -receptor antagonist:**

EP 365 662 (Alcon; 26.4.1989; USA-prior. 26.4.1988).

preparation of 2,6-dichloro-4-nitroaniline:Goldschmidt; Strohmenger: Ber. Dtsch. Chem. Ges. (BDCGAS) **55**, 2455 (1922).Pausadeer; Scroggie: Aust. J. Chem. (AJCHAS) **12**, 430, 432 (1959).Fluerschein: J. Chem. Soc. (JCSOA9) **93** 1774 (1908).Datta; Müller: J. Am. Chem. Soc. (JACSAT) **41**, 2036 (1919).Koerner: Gazz. Chim. Ital. (GCITA9) **4**, 376 (1874).Kohn; Pfeifer: Monatsh. Chem. (MOCMB7) **48**, 236 (1927).**Formulation(s):** eye drops 0.5 %, 1 %; ophthalmic sol. 10 mg/ml**Trade Name(s):**

D: Iopidine (Alcon)

GB: Iopidine (Alcon)

USA: Iopidine (Alcon; 1988);

F: Iopidine (Alcon)

wfm

Aprindine

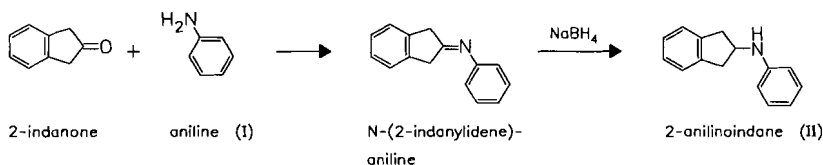
ATC: C01BB04

Use: antiarrhythmic

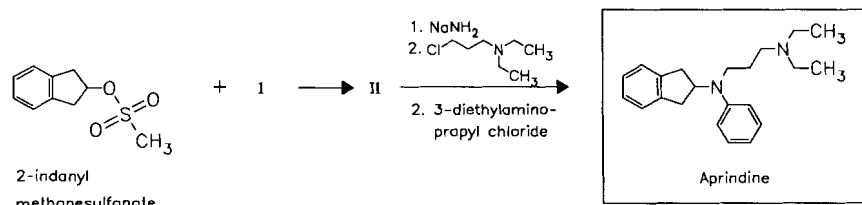
RN: 37640-71-4 MF: $C_{22}H_{30}N_2$ MW: 322.50LD₅₀: 274 mg/kg (M, p.o.)CN: *N*-(2,3-dihydro-1*H*-inden-2-yl)-*N,N*-diethyl-*N*-phenyl-1,3-propanediamine**monohydrochloride**RN: 33237-74-0 MF: $C_{22}H_{30}N_2 \cdot HCl$ MW: 358.96 EINECS: 251-418-7LD₅₀: 17.1 mg/kg (M, i.v.); 262 mg/kg (M, p.o.);

16.6 mg/kg (R, i.v.); 525 mg/kg (R, p.o.)

a



b



Reference(s):

DE 2 060 721 (Christiaens S. A.; appl. 10.12.1970; GB-prior. 19.12.1968, 26.11.1970).

Formulation(s): cps. 50 mg; inj. sol. 200 mg/20 ml**Trade Name(s):**

D: Amidonal (PCR Arzneimittel)	F: Fiboran (Nycomed) J: Aspenone (Mitsui)
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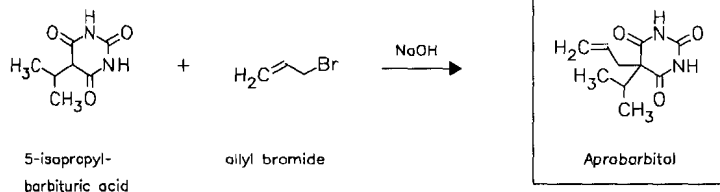
Aprobarbital

ATC: N05CA05
Use: hypnotic, sedative

RN: 77-02-1 MF: C₁₀H₁₄N₂O₃ MW: 210.23 EINECS: 200-997-4
LD₅₀: 200 mg/kg (M, i.p.); 350 mg/kg (M, s.c.)
CN: 5-(1-methylethyl)-5-(2-propenyl)-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione

monosodium salt

RN: 125-88-2 MF: C₁₀H₁₃N₂NaO₃ MW: 232.22 EINECS: 204-760-6
LD₅₀: 85 mg/kg (R, i.p.)

**Reference(s):**

US 1 444 802 (Hoffmann-La Roche; 1923; appl. 1921).

Formulation(s): elixir 40 mg; tabl. 20 mg, 40 mg, 80 mg**Trade Name(s):**

D: Allional (Hoffmann-La Roche)-comb.; wfm Mandotrilan-"forte" (Henk)-comb.; wfm Nervinum Stada (Stada)-comb.; wfm	Nervisal (Lappe)-comb.; wfm Nervolitan (Kettelhack)-comb.; wfm Resedorm (Lappe)-comb.; wfm	Vita-Dor (Steigerwald)-comb.; wfm USA: Alurate (Roche); wfm
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Aprotinine

(Trasylo; Triazinin; Zymofren)

ATC: B02AB
Use: proteinase inhibitor, kallikrein inhibitor

RN: 9087-70-1 MF: C₂₈₄H₄₃₂N₈₄O₇₉S₇ MW: 6511.55 EINECS: 232-994-9
LD₅₀: >50 ml/kg (M, i.p.); >50 ml/kg (M, s.c.);
>40 ml/kg (R, i.p.); >40 ml/kg (R, s.c.)
CN: trypsin inhibitor (ox pancreas basic)

antagosanRN: 9050-74-2 MF: C₂₈₄H₄₃₂N₈₄O₇₉S₇ MW: 6511.55**iniprol**RN: 11004-21-0 MF: C₂₈₄H₄₃₂N₈₄O₇₉S₇ MW: 6511.55

ox pancreas basicRN: 12407-79-3 MF: C₂₈₄H₄₃₂N₈₄O₇₉S₇ MW: 6511.55**ox pancreas basic reduced**RN: 11061-94-2 MF: C₂₈₄H₄₃₈N₈₄O₇₉S₇ MW: 6517.60

By extraction of animal lymph glands, parotid glands, pancreas, liver, milt and blood serum with diluted acetic acid-ethanol-mixtures upon removal of fat and proteins.

Reference(s):

US 2 890 986 (Bayer; 16.6.1959; D-prior. 29.5.1954).

Formulation(s): amp. 200000 KIU; inj. sol. 100000 KIU/10 ml, 500000 KIU/50 ml*Trade Name(s):*

D:	Antagosan (Hoechst)	Biscol (Lab. Français du Fractionnement et des Biotechnologies)-comb.	J:	Trasylool (Bayer)
	Berioplast (Centeon Pharma)-comb.	Trasylool (Bayer-Pharma)		Trasylool (Bayer-Yoshitomi; as solution)
	Tissucol (Immuno)	I:		USA: Trasylool Injection (Bayer)
	Trasylool (Bayer Vital)	Antagosan (Behring)		
F:	Antagosan (Hoechst Houdé)	Fase (Astra-Simes)		
		Kir Richter (Lepetit)		

Aranidipine

(MPC-1304)

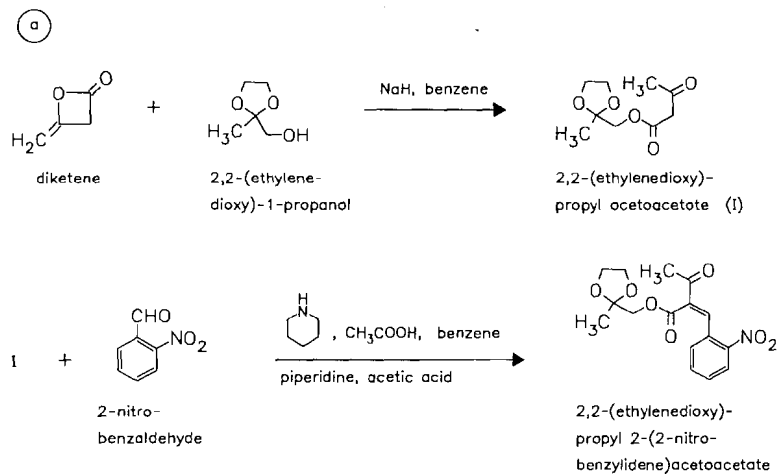
ATC: C04
Use: antihypertensive, calcium channel blocker

RN: 86780-90-7 MF: C₁₉H₂₀N₂O₇ MW: 388.38LD₅₀: 143 mg/kg (M, p.o.);

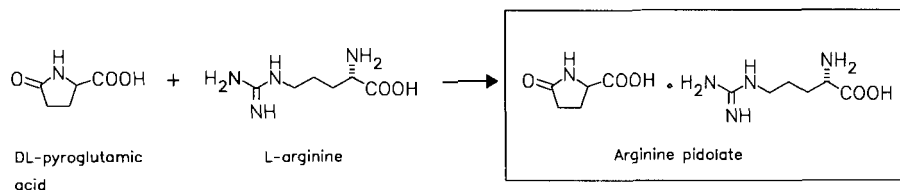
1459 mg/kg (R, p.o.);

3333 mg/kg (dog, p.o.)

CN: 1,4-dihydro-2,6-dimethyl-4-(2-nitrophenyl)-3,5-pyridinedicarboxylic acid methyl 2-oxopropyl ester



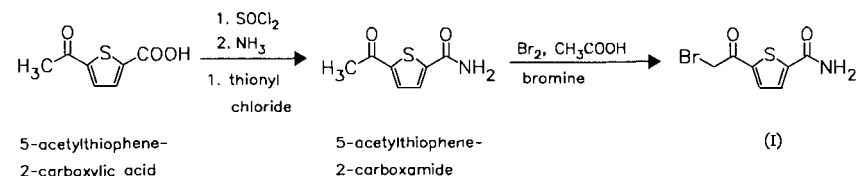
Sargenor (ASTA Medica)

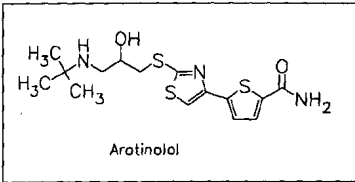
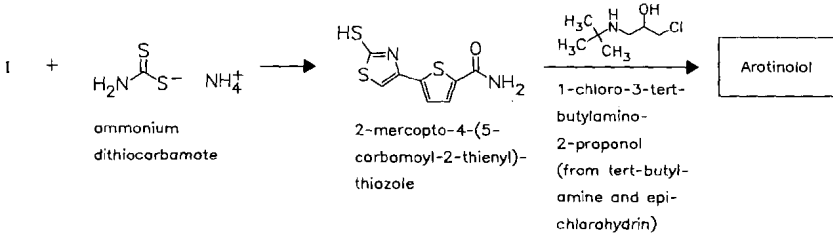
Arginine pidolate
(Arginine pyroglutamate)ATC: A13A
Use: tonic, cerebrostimulantRN: 64855-91-0 MF: C₆H₁₄N₄O₂ · C₅H₇NO₃ MW: 303.32 EINECS: 265-253-3
CN: 5-oxo-proline compd. with L-arginine (1:1)*Reference(s):*DAS 2 416 339 (Manetti Roberts; appl. 4.4.1974; I-prior. 4.4.1973).
GB 1 421 089 (Manetti Roberts; appl. 27.3.1974; I-prior. 4.4.1973).
Provenzano, P.M. et al.: *Arzneim.-Forsch. (ARZNAD)* **27**, 1553 (1977).*use as sexual tonic:*

DOS 3 125 512 (Manetti Roberts; appl. 29.6.1981; I-prior. 30.6.1980).

Formulation(s): Iyo. 500 mg, 1 g; tabl. 500 mg*Trade Name(s):*

I:	Aduvant (Manetti Roberts)	Detoxergon Polvere	Neiodarsolo (Baldacci)-
	Detoxergon Fiale	(Baldacci)-comb.	comb.
	(Baldacci)-comb.		

Arotinolol
(S-596)ATC: C07AA
Use: β-adrenoceptor blocker,
antihypertensive, antianginalRN: 52560-77-7 MF: C₁₅H₂₁N₃O₂S₃ MW: 371.55
LD₅₀: >360 mg/kg (M, i.p.); 86 mg/kg (M, i.v.); >5000 mg/kg (M, p.o.)
CN: 5-[2-[[[3-[(1,1-dimethylethyl)amino]-2-hydroxypropyl]thio]-4-thiazolyl]-2-thiophenecarboxamide**hydrochloride**RN: 80416-73-5 MF: C₁₅H₂₁N₃O₂S₃ · xHCl MW: unspecified



Reference(s):

DOS 2 341 753 (Sumitomo; appl. 17.8.1973; J-prior. 17.8.1972, 5.4.1973).
 US 3 932 400 (Sumitomo; 13.1.1976; J-prior. 17.8.1972, 5.4.1973).
 Hara, Y. et al.: J. Pharm. Sci. (JPMSAE) **67**, 1334 (1978).

Formulation(s): tabl. 10 mg

Trade Name(s):

J: Almarl (Sumitomo; 1986)

Ascorbic acid

(Acide ascorbique; Vitamin C)

ATC: A11GA01

Use: antiscorbucal vitamin, antioxidant

RN: 50-81-7 MF: C₆H₈O₆ MW: 176.12 EINECS: 200-066-2

LD₅₀: 518 mg/kg (M, i.v.); 3367 mg/kg (M, p.o.);
 >4 g/kg (R, i.v.); 11.9 g/kg (R, p.o.)

CN: L-ascorbic acid

monopotassium salt

RN: 15421-15-5 MF: C₆H₇KO₆ MW: 214.21 EINECS: 239-432-1

monosodium salt

RN: 134-03-2 MF: C₆H₇NaO₆ MW: 198.11 EINECS: 205-126-1

calcium salt (2:1)

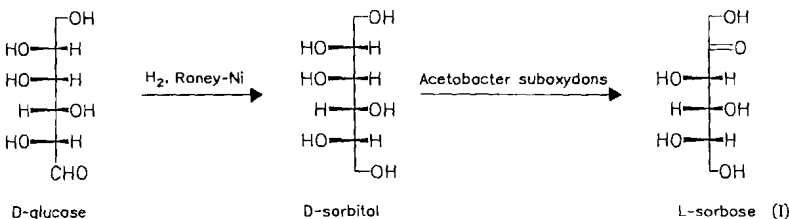
RN: 5743-27-1 MF: C₁₂H₁₄CaO₁₂ MW: 390.31 EINECS: 227-261-5

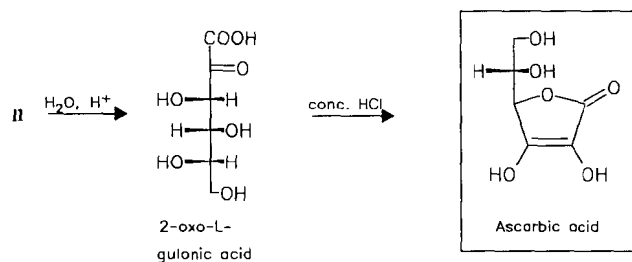
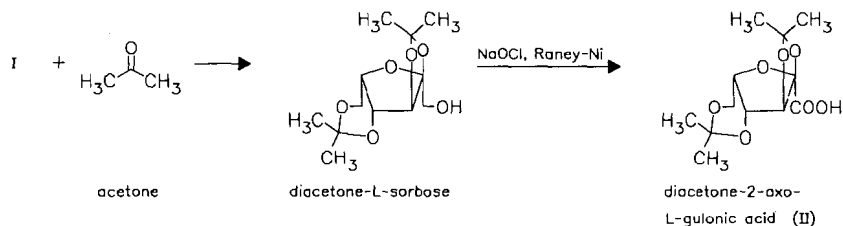
magnesium salt (2:1)

RN: 15431-40-0 MF: C₁₂H₁₄MgO₁₂ MW: 374.54 EINECS: 239-442-6

Fe(II) salt (2:1)

RN: 24808-52-4 MF: C₁₂H₁₄FeO₁₂ MW: 406.08



*Reference(s):*Reichstein, T.; Grüssner, A.: *Helv. Chim. Acta (HCACAV)* **17**, 311 (1934).Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. **18**, 223 ff.Kirk-Othmer Encycl. Chem. Technol., 2. Ed. (15SWA8), Vol. **2**, (1963-1971), p. 747 ff.*Formulation(s):* amp. 562 mg; eff. tabl. 1 g; powder 1 g; tabl. 50 mg, 200 mg, 500 mg*Trade Name(s):*

D:	Ascorvit (Jenapharm)	Agrumina (Also)	Viscorin (Daiichi); wfm
	Cebion (Merck)	Agruvit (Lepetit)	Vitacimin (Takeda); wfm
	Cetebe (SmithKline Beecham)	Ascamed (Ripari-Gero)	numerous combination preparations
	Cevitt (Hermes)	Ascorgil (Biomedica Foscam)	USA: ACES Antioxidant Soft Gels (Carlson)
	Vitamin C Phytopharma (OTW)	Aster C (Corvi)	Ce-Vi-Sol (Mead Johnson)
	numerous combination preparations	Bio-Ci (Ceccarelli)	Cevi-Bid (Geriatric Pharm.)
F:	Ascofer (Gerda; as iron-salt)	C-Lisa (Lisapharma)	Chromagen (Savage)
	Laroscobine (Roche Nicholas)	C-Tard (Eurand-Mi)	CitraDerm (Pedinol)
	Midy Vitamine C (SmithKline Beecham)	Cebion (Bracco)	Ferancee (Stuart)
	Vitascorbol (Théraplax) generics (as salts) and numerous combination preparations	Cecon (Abbott)	Fero-Folic-500 (Abbott)
GB:	Ferfolic SV (Sinclair)-comb.	Cevit (Italfarmaco)	Fero-Grad-500 (Abbott)
	Redoxon (Roche Consumer)	Duo-C (Geymonat)	Fetrin (Lunseo)
I:	Acidylina (Ist. Italiano Ferm.)	Idro-C (Blue Cross)	Irospam (Fielding)
		Lemonvit (Molteni)	Materna (Lederle Labs.)
		Redoxon (Roche)	Trinsicon (UCB)
		Vicifite (Iacopo Monico)	Vi-Daylin ADC (Ross)
		Vicitina (CT)	Vitron-C (Fisons)
		Vitamina C Vca (Bergamon)	numerous combination preparations
		Vitamina C Vita (Synthelabo)	
		combination preparations	
J:		Ascoyl (Shionogi); wfm	
		Hicee (Takeda); wfm	

Asparaginase

(L-Asparaginase)

ATC: L01XX; L01XX02

Use: antineoplastic

RN: 9015-68-3 MF: unspecified MW: unspecified EINECS: 232-765-3

LD₅₀: 136 g/kg (M, i.v.);

7568 mg/kg (R, i.v.);

227 mg/kg (dog, i.v.)

CN: asparaginase

L-Asparagine-amidohydrolase.

Relative mol mass 133000 ± 5000.

By separation from bacterial culture such as *Escherichia coli*, *Serratia marcescens*, *Erwinia aroideae*, *Erwinia atroseptica*, *Erwinia carotovora*.*Reference(s):*Ho et al.: J. Biol. Chem. (JBCHA3) **245**, 3708 (1970).

DAS 1 642 615 (Bayer; appl. 27.12.1967).

DAS 1 942 833 (Secret. of State for Social Services, London; appl. 22.8.1969; GB-prior. 23.8.1968).

DAS 1 942 900 (Secret. of State for Social Services, London; appl. 22.8.1969; GB-prior. 23.8.1968).

Formulation(s): inj. powder 10000 iu/2.5 ml*Trade Name(s):*

D: Erwinase (Ipsen Pharma)

I: Crasnitin (Bayer); wfm

USA: Elspar (Merck)

F: Kidrolase (Bellon)

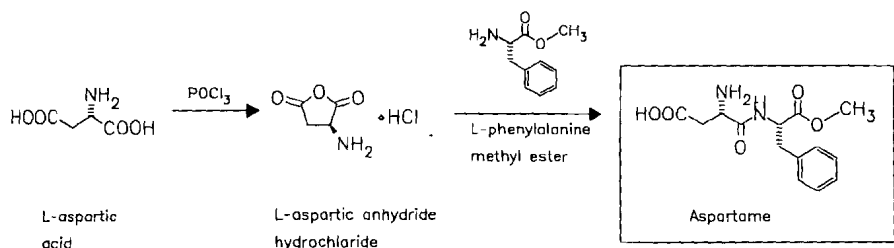
J: Leunase (Kyowa Hakko)

Aspartame

Use: sweetener (pharmaceutical agent)

RN: 22839-47-0 MF: C₁₄H₁₈N₂O₅ MW: 294.31 EINECS: 245-261-3

CN: N-L-α-aspartyl-L-phenylalanine 1-methyl ester



(along with aspartame are formed up to 20% β-isomer, separated by crystallization)

Reference(s):

DE 1 692 768 (Searle & Co.; prior. 16.2.1968).

Mazur, R.H. et al.: J. Am. Chem. Soc. (JACSAT) **91**, 264 (1969).Ariyoshi, Y. et al.: Bull. Chem. Soc. Jpn. (BCSJA8) **46**, 1893 (1973).

DE 2 104 620 (Ajinomoto; appl. 1.2.1971; J-prior. 31.1.1970, 23.2.1970, 26.6.1970).

DAS 2 152 111 (Ajinomoto; appl. 19.10.1971; J-prior. 26.10.1970).

DAS 2 233 535 (Ajinomoto; appl. 7.7.1972; J-prior. 9.7.1972).

US 3 492 131 (Searle; 27.1.1970; appl. 18.4.1966).

alternative synthesis:

US 4 238 392 (Pfizer; 9.12.1980; appl. 29.10.1979).

US 4 173 562 (Monsanto; 6.11.1979; prior. 27.12.1976, 31.3.1978).

EP 143 881 (Gema; appl. 6.7.1984; CH-prior. 7.9.1983).

fermentative preparation from L-aspartic acid and L-phenylalanine methyl ester:

US 4 506 011 (Toyo Soda; 19.3.1985; J-prior. 5.9.1981; 14.10.1981, 18.1.1982).

purification:

US 3 798 207 (Ajinomoto; 19.3.1974; J-prior. 26.10.1970).

Formulation(s): eff. tabl. 20 mg; tabl. 18 mg*Trade Name(s):*

D:	Canderel (Wander)	Bil Aspatame dolaf	Hermesetas Gold
F:	Candérel (Monsanto; 1980)	(Pietrasanta)	(Milanfarma)
I:	Aspardolce Dolafic	Dietoman aspartame	Snel Miel (Fea)
	(Ganassini)	(Sterling Midy)	Suaviter (Boehringer
	Asparel Dietason	Dolcor aspartame	Mannh.)
	(Formenti)	(Gazzoni)	Tac Aspartame (Also)
	Aspartina (Ilex)	Futura aspartame	J: Pal-Sweet (Ajinomoto)
		(Farmacologico Milanese)	

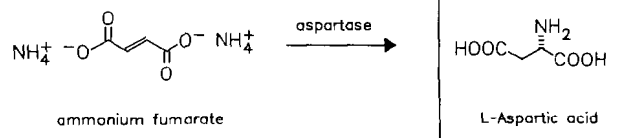
L-Aspartic acid

(L-2-Aminosuccinic acid; Acide aspartique)

Use: non-essential proteinogenic amino acid (for infusion solutions and as salt former)

RN: 56-84-8 MF: C₄H₇NO₄ MW: 133.10 EINECS: 200-291-6LD₅₀: 6 g/kg (M, i.p.)

CN: L-aspartic acid

monopotassium saltRN: 1115-63-5 MF: C₄H₆KNO₄ MW: 171.19 EINECS: 214-226-4**monosodium salt**RN: 3792-50-5 MF: C₄H₆NNaO₄ MW: 155.09 EINECS: 223-264-0**magnesium salt (2:1)**RN: 2068-80-6 MF: C₈H₁₂MgN₂O₈ MW: 288.50 EINECS: 218-191-6**magnesium salt (2:1) tetrahydrate**RN: 7018-07-7 MF: C₈H₁₂MgN₂O₈ · 4H₂O MW: 360.56*Reference(s):**with immovable aspartase:*Tosa, T. et al.: Biotechnol. Bioeng. (BIBIAU) **15**, 69 (1973).

with immovable *E. coli* (ATCC 11303):

Sato, T. et al.: *Biotechnol. Bioeng.* (BIBIAU) **17**, 1797 (1975).

US 3 791 926 (Tanabe; 12.2.1974; J.-prior. 28.10.1971).

US 4 138 292 (Tanabe; 6.2.1979; J.-prior. 2.7.1976).

Fusee, M.C. et al.: *Appl. Environ. Microbiol.* (AEMIDF) **42**, 672 (1981).

US 4 436 813 (Purification Engineering; 13.3.1984; appl. 16.3.1982).

US 4 560 653 (Grace; 24.12.1985; appl. 6.6.1983).

EP 110 422 (Tanabe; appl. 2.12.1983; J.-prior. 3.12.1982).

Formulation(s): many different formulations

Trade Name(s):

D:	Eubiol (Chephasaar)	F:	Mégamag (Mayoly-Spindler; as magnesium salt)	I:	numerous combination preparations
	numerous combination preparations		Sargenon (ASTA Medica; with arginine)		Oral K (Sclavo)-comb. Polase (Wyeth)-comb.

Aspoxicillin

(TA-058)

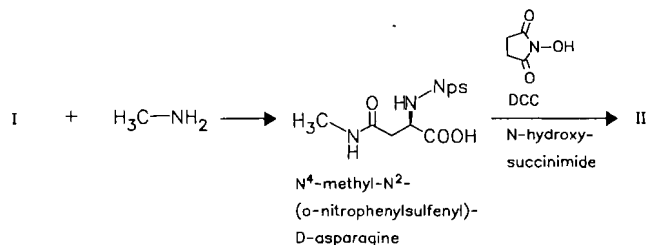
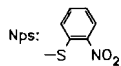
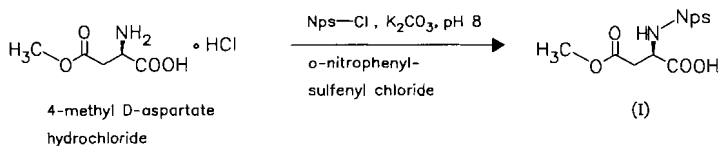
ATC: J01

Use: semisynthetic penicillin (for parenteral administration), derivative of amoxicillin

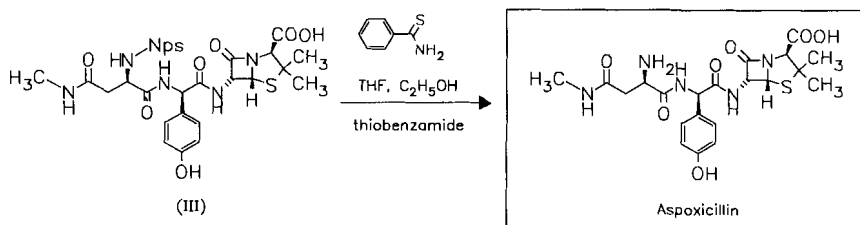
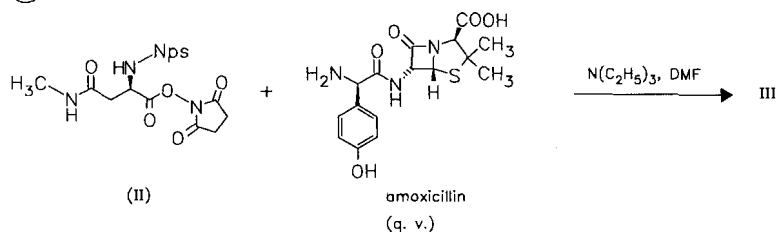
RN: 63358-49-6 MF: C₂₁H₂₇N₅O₇S MW: 493.54

LD₅₀: >10 g/kg (M, i.v.)

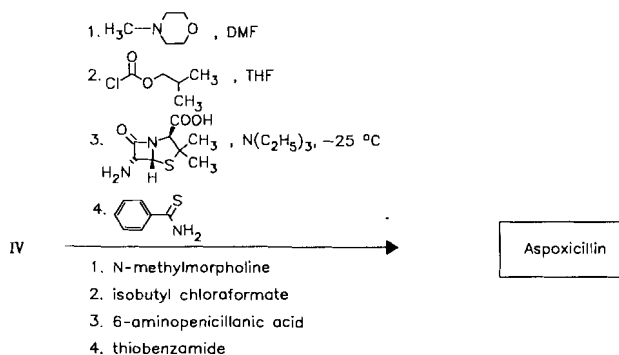
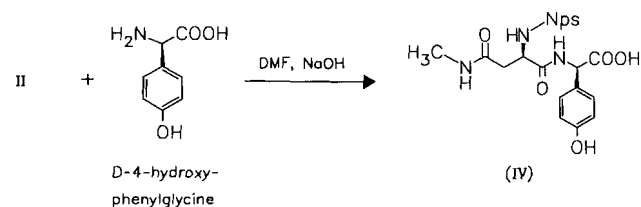
CN: [2S-(2α,5α,6β)]-N-methyl-D-asparaginyl-N-(2-carboxy-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]hept-6-yl)-D-2-(4-hydroxyphenyl)glycinamide



a



b

**Reference(s):**

- Wagatsuma, M. et al.: *J. Antibiot. (JANTAJ)* **36**, 147 (1983).
 US 4 053 609 (Tanabe Seiyaku; 11.10.1977; UK-prior. 12.9.1975; J-prior. 27.12.1975, 29.12.1975).
 GB 1 533 413 (Tanabe Seiyaku; appl. 12.9.1975 and 16.8.1976).
 GB 1 533 414 (Tanabe Seiyaku; appl. 3.12.1976; J-prior. 27.12.1975).
 DOS 2 638 067 (Tanabe Seiyaku; appl. 24.8.1976; GB-prior. 12.9.1975, 27.12.1975, 29.12.1975).

purification:

- US 4 313 875 (Tanabe Seiyaku; 2.2.1982; J-prior. 11.9.1979).
 EP 25 233 (Tanabe Seiyaku; appl. 10.9.1980; J-prior. 11.9.1979).

trihydrate:

- US 4 866 170 (Tanabe Seiyaku; 12.9.1989; J-prior. 24.9.1986).
 EP 261 823 (Tanabe Seiyaku; appl. 3.9.1987; J-prior. 24.9.1986).

lyophilized preparation:

US 4 966 899 (Tanabe Seiyaku; 30.10.1990; J-prior. 14.1.1987).

Formulation(s): powder in vial 1 g, 2 g

Trade Name(s):

J: Doyle (Tanabe; 1987)

Astemizole

(R 43512)

ATC: R06AX11

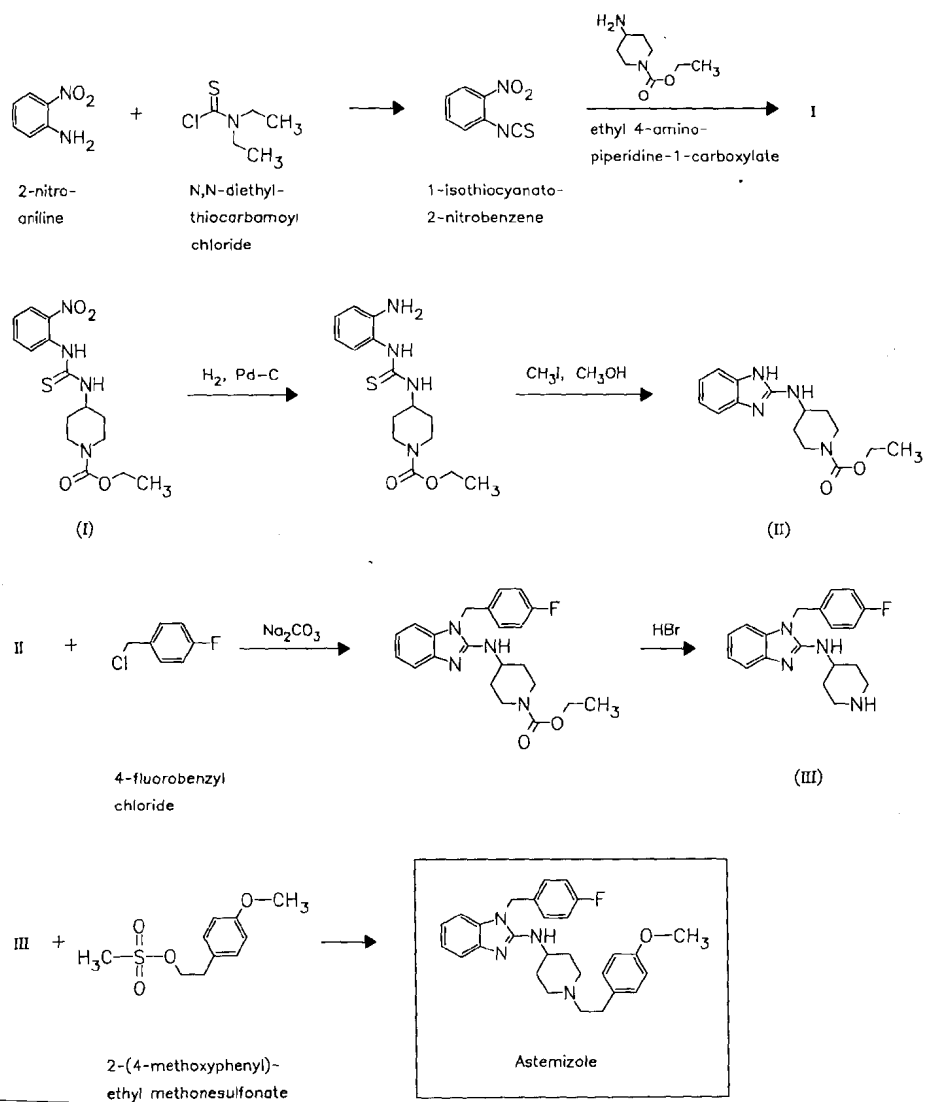
Use: antihistaminic, antiallergic

RN: 68844-77-9 MF: C₂₈H₃₁FN₄O MW: 458.58 EINECS: 272-441-9LD₅₀: 35 mg/kg (M, i.v.); 2560 mg/kg (M, p.o.);

28.2 mg/kg (R, i.v.); >2560 mg/kg (R, p.o.);

21.8 mg/kg (dog, i.v.); >320 mg/kg (dog, p.o.)

CN: 1-[(4-fluorophenyl)methyl]-N-[1-[2-(4-methoxyphenyl)ethyl]-4-piperidinyl]-1H-benzimidazol-2-amine



Reference(s):

US 4 219 559 (Janssen; 26.8.1980; prior. 10.1.1979).

EP 5 318 (Janssen; appl. 30.3.1979; USA-prior. 10.1.1979; 3.4.1978).

*synthesis of 1-isothiocyanato-2-nitrobenzene:*Sayigh, A.A.R.: J. Org. Chem. (JOCEAH) **30**, 2465 (1965).*synthesis of N,N-diethylthiocarbamoyl chloride:*Goerdeler, J.; Luedke, H.: Chem. Ber. (CHBEAM) **103**, 3393 (1970).v. Braun: Ber. Dtsch. Chem. Ges. (BDCGAS) **36**, 2274 (1903).Billeter: Ber. Dtsch. Chem. Ges. (BDCGAS) **26**, 1686 (1893).Goshorn et al.: Org. Synth. (ORSYAT) **35**, 55 (1955).

US 2 466 276 (Sharples Chemicals Inc.; 5.4.1949; appl. 2.2.1946).

Formulation(s): drops 2 mg/ml; susp. 30 ml (0.2 %); tabl. 10 mg*Trade Name(s):*

D:	Hismanal (Janssen-Cilag; 1985)	GB:	Hismanal (Janssen-Cilag; 1983)	J:	Hismanal (Mochida)
F:	Hismanal (Janssen-Cilag; 1986)	I:	Hismanal (Janssen; 1987)	USA:	Hismanal (Janssen)
			Histamen (Polifarma)		

Astromicin

(Fortimicin A)

ATC: J01G

Use: aminoglycoside antibiotic

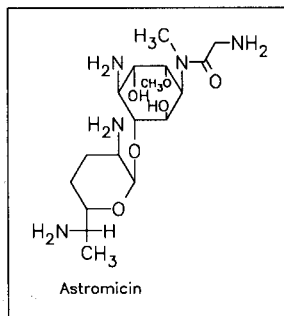
RN: 55779-06-1 MF: C₁₇H₃₅N₅O₆ MW: 405.50LD₅₀: 380 mg/kg (M, i.v.); 400 mg/kg (M, p.o.)

CN: 4-amino-1-[(aminoacetyl)methylamino]-1,4-dideoxy-3-O-(2,6-diamino-2,3,4,6,7-pentadeoxy-β-L-lyxo-heptopyranosyl)-6-O-methyl-L-chiro-inositol

sulfate (1:2)RN: 72275-67-3 MF: C₁₇H₃₅N₅O₆ · 2H₂O₄S MW: 601.65LD₅₀: 94 mg/kg (M, i.v.); 13.6 g/kg (M, p.o.);

86 mg/kg (R, i.v.); >10 g/kg (R, p.o.);

214 mg/kg (dog, i.v.)



Preparation by fermentation of *Micromonospora olivoasterospora* FERM-P1560 (identical with *Micromonospora* sp. MK-70; ATCC 31009 and ATCC 31010) and isolation/purification on ion-exchanger and column chromatography.

Reference(s):

Nara, T. et al.: *J. Antibiot. (JANTAJ)* **30**, 533 (1977).
 Okachi, R. et al.: *J. Antibiot. (JANTAJ)* **30**, 541 (1977).
 US 3 976 768 (Abbott; 24.8.1976; appl. 22.7.1974; J.-prior. 23.7.1973).
 GB 1 473 356 (Abbott; appl. 22.7.1974; J.-prior. 23.7.1973).
 FR 2 238 502 (Kyowa Hakko; appl. 22.7.1974; J.-prior. 23.7.1973).
 DE 2 435 160

structure:

Egan, R.S. et al.: *J. Antibiot. (JANTAJ)* **30**, 552 (1977).

Formulation(s): amp. 200 mg

Trade Name(s):

J: Fortimicin (Kyowa Hakko;
1985)

Atenolol

ATC: C07AA; C07AB03

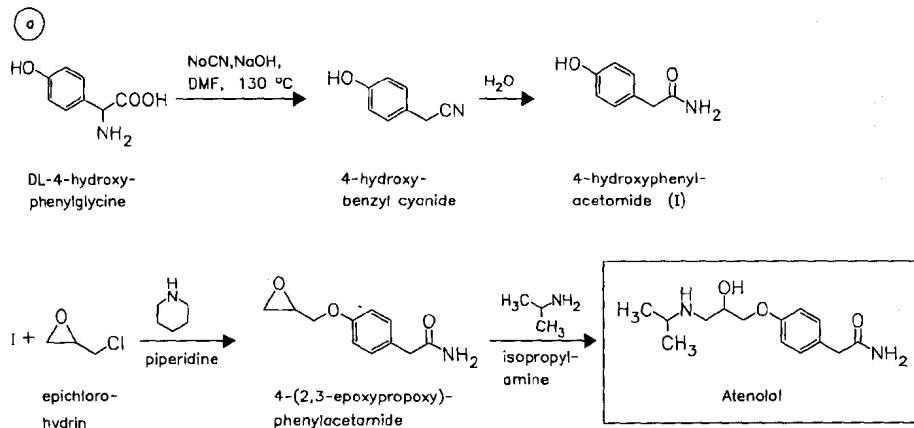
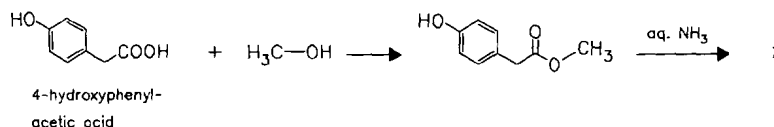
Use: antiadrenergic (β -receptor),
antihypertensive

RN: 29122-68-7 MF: $C_{14}H_{22}N_2O_3$ MW: 266.34 EINECS: 249-451-7

LD₅₀: >57 mg/kg (M, i.v.); 2 g/kg (M, p.o.);

77 mg/kg (R, i.v.); 2 g/kg (R, p.o.)

CN: 4-[2-hydroxy-3-[(1-methylethyl)amino]propoxy]benzeneacetamide.

**(b) alternative synthesis of 4-hydroxyphenylacetamide**

Reference(s):

US 3 934 032 (ICI; 20.1.1976; prior. 10.3.1972).
 US 3 663 607 (ICI; 16.5.1972; GB-prior. 21.2.1969).
 US 3 836 671 (ICI; 17.9.1974; GB-prior. 21.2.1969, 24.9.1969, 18.11.1970 and 19.11.1970).
 DOS 2 007 751 (ICI; appl. 19.2.1970; GB-prior. 21.2.1969 and 24.9.1969).
 GB 1 285 038 (ICI; appl. 21.2.1969; valid from 24.9.1969).

alternative synthesis:

GB 1 391 444 (ICI; appl. 13.7.1971; valid from 19.6.1972).

4-hydroxybenzyl cyanide:

GB 1 522 477 (ICI; appl. 13.8.1974; valid from 11.11.1975).
 US 4 154 757 (ICI; 15.5.1979; appl. 22.5.1978).

Formulation(s): amp. 5 mg/10 ml; f. c. tabl. 25 mg, 50 mg, 100 mg

Trade Name(s):

D:	Atebeta (betapharm)	Bêta-Adalate (Bayer)-	Tenoret-50 (Zeneca)-comb.
	duratenol (durachemie)	comb.	Tenoretic (Zeneca)-comb.
	Falitonsin (ASTA Medica	Tenordate (Zeneca)-comb.	Tenormin (Zeneca; 1976)
	AWD)	Ténormine (Zeneca; 1979)	Totamol (CP Pharm.)
	Tenormin (Zeneca; 1976)	GB: Beta-adalat (Bayer)-comb.	J: Tenormin (ICI-Sumitomo
	Tri-Normin (Zeneca; 1984)	Kalten (Zeneca)-comb.	Chem.; 1984)
F:	Betatap (EG Labo)	Tenben (Galen)-comb.	USA: Tenoretic (Zeneca; 1984)
		Tenif (Zeneca)-comb.	Tenormin (Zeneca; 1981)

Atorvastatin calcium

(CI-981; YM-548)

ATC: C10AA05

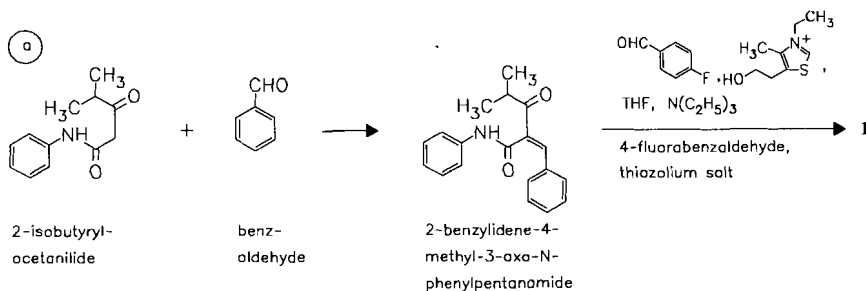
Use: hyperlipidemic, HMG-CoA-reductase inhibitor

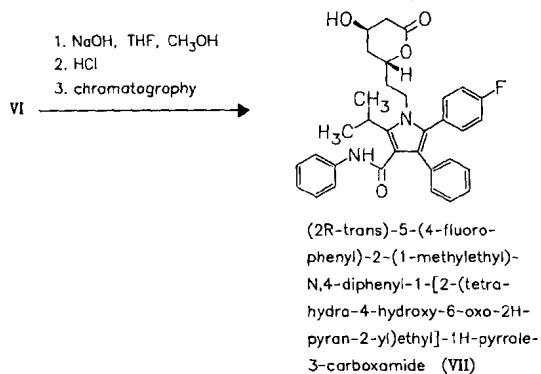
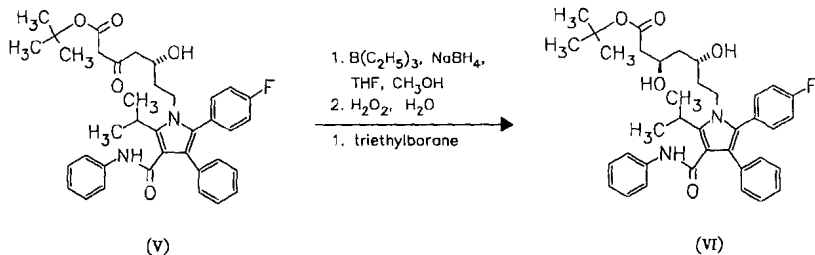
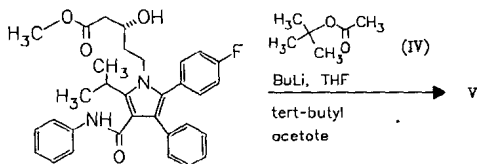
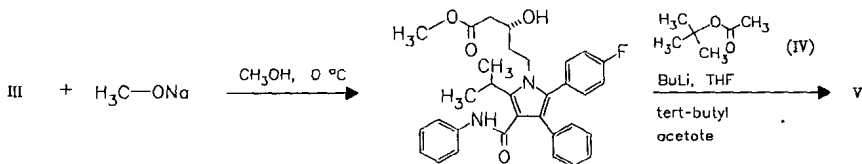
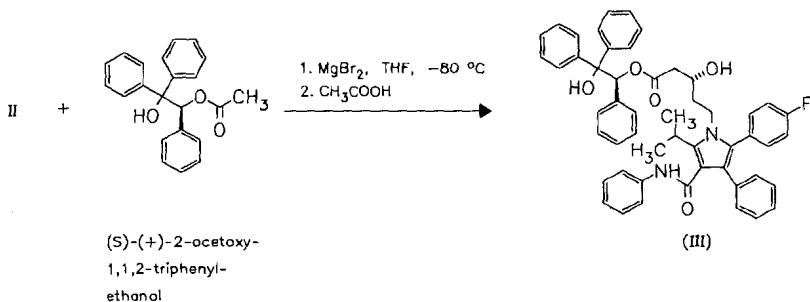
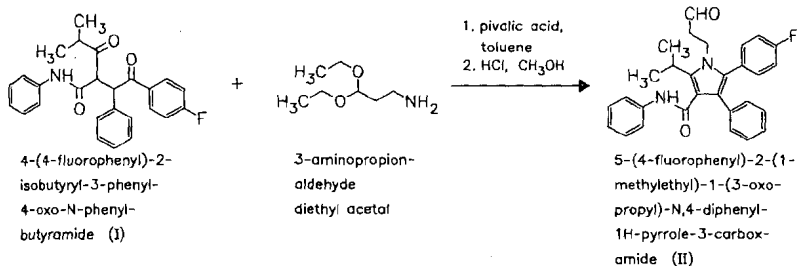
RN: 134523-03-8 MF: C₆₆H₆₈CaF₂N₄O₁₀ MW: 1155.36

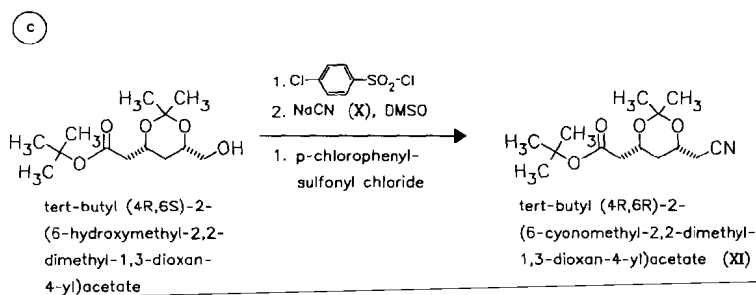
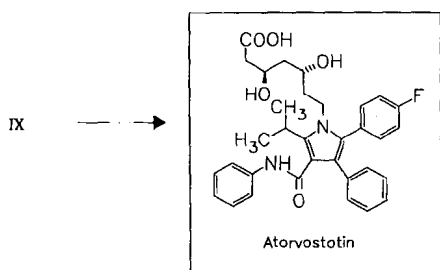
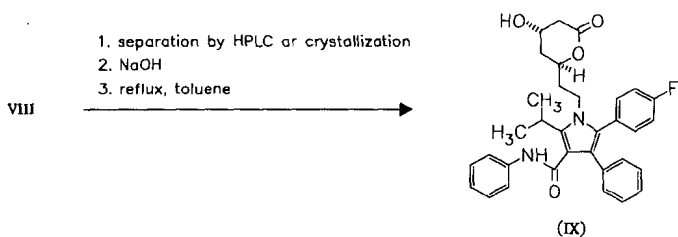
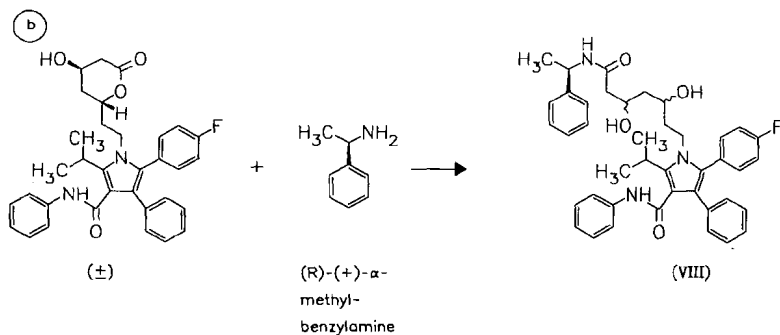
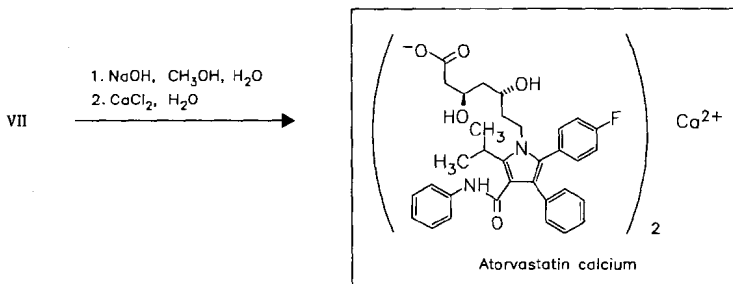
CN: [R-(R*,R*)]-2-(4-fluorophenyl)-β,δ-dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-H-pyrrole-1-heptanoic acid calcium salt (2:1)

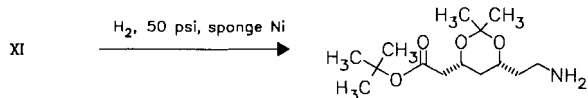
free acid

RN: 134523-00-5 MF: C₃₃H₃₅FN₂O₅ MW: 558.65

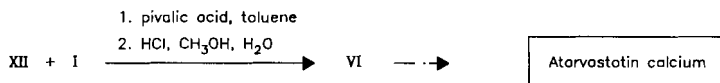




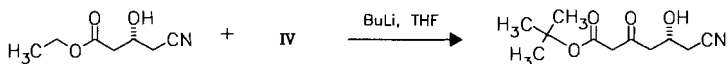




tert-butyl (4R,6R)-2-
[6-(2-aminoethyl)-2,2-
dimethyl-1,3-dioxan-4-
yl]acetate (XII)

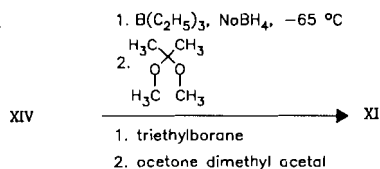


(ca) alternative synthesis of intermediate XI:

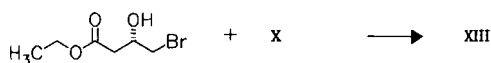


ethyl 3(R)-hydroxy-4-cyanobutyrate (XIII)

tert-butyl 5(R)-hydroxy-6-cyano-3-oxohexanoate (XIV)

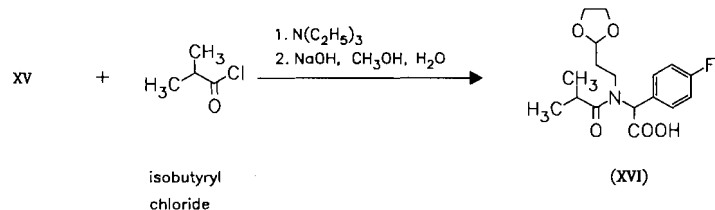
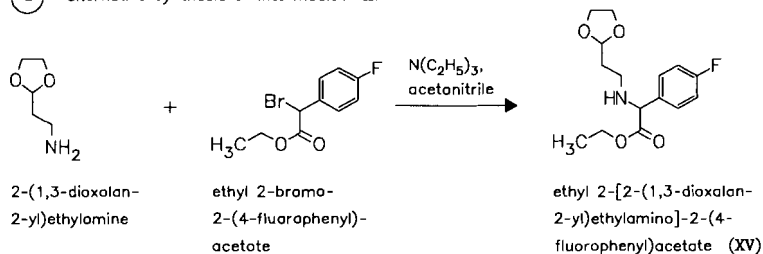


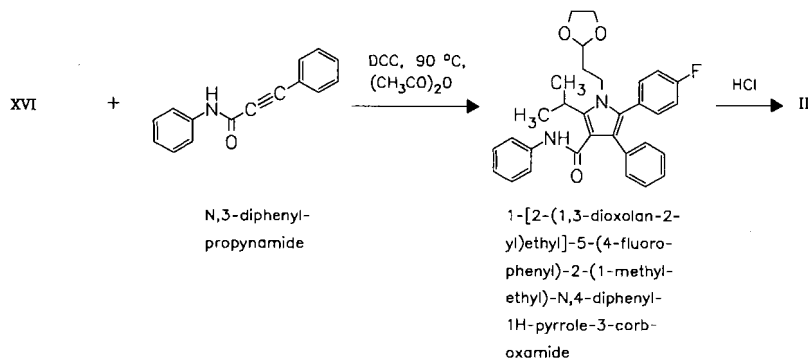
(cb) synthesis of the starting material XIII:



ethyl 4-bromo-3(S)-hydroxybutanoate

(d) alternative synthesis of intermediate II:



*Reference(s):*

- a,b** US 4 681 893 (Warner-Lambert; appl. 21.7.1987; USA-prior. 30.5.1986).
 EP 409 281 (Warner-Lambert; appl. 23.1.1991; USA-prior. 21.7.1989, 26.2.1991).
 EP 680 320 (Warner-Lambert; appl. 8.11.1995; USA-prior. 19.1.1993).
- c** Naeminga, T. et al.: *Tetrahedron Lett. (TELEAY)* **33**, 2279-2282 (1992).
 WO 9 703 960 (Warner-Lambert; appl. 6.2.1997; USA-prior. 17.7.1995).
- ca** Baumann, K.L. et al.: *Tetrahedron Lett. (TELEAY)* **33**, 2283-2284 (1992).
- cb** Isbell, H. et al.: *Carbohydr. Res. (CRBRAT)* **72**, 301-304 (1972).
- d** Roth, B.D. et al.: *J. Med. Chem. (JMCMAR)* **34**, 357-366 (1991).
preparation of N,3-diphenylpropynamide:
 Gadwhal, S. et al.: *Indian J. Chem., Sect. B: Org. Chem. Incl. Med. Chem. (IJSBDB)* **37B** (8), 725-727 (1998).

preparation of intermediates:

- WO 9 932 434 (Warner-Lambert; appl. 2.12.1998; USA-prior. 19.12.1997).
 WO 9 957 109 (Kaneka Corp.; appl. 28.4.1999; J-prior. 30.4.1998).
 WO 9 804 543 (Warner-Lambert; appl. 1.7.1997; USA-prior. 29.7.1996).
 US 5 155 251 (Warner-Lambert; appl. 13.10.1992; 11.10.1991).
 US 5 103 024 (Warner-Lambert; prior. 17.10.1990).

new crystalline forms of atorvastatin:

- WO 9 703 959 (Warner-Lambert; appl. 8.7.1996; USA-prior. 17.7.1995).
 WO 9 703 958 (Warner-Lambert; appl. 6.2.1997; USA-prior. 17.7.1995).

stable oral formulation:

- WO 9 416 693 (Warner-Lambert; appl. 4.8.1994; USA-prior. 19.1.1993).

Formulation(s): tabl. 10 mg, 20 mg, 40 mg

Trade Name(s):

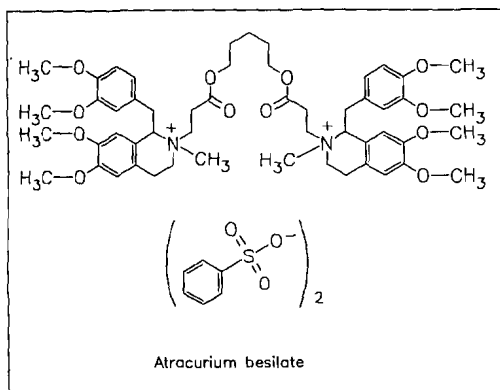
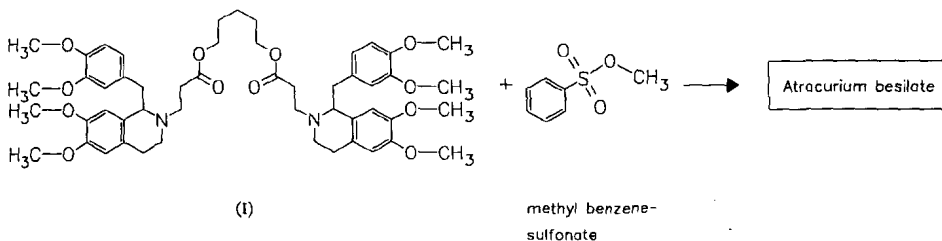
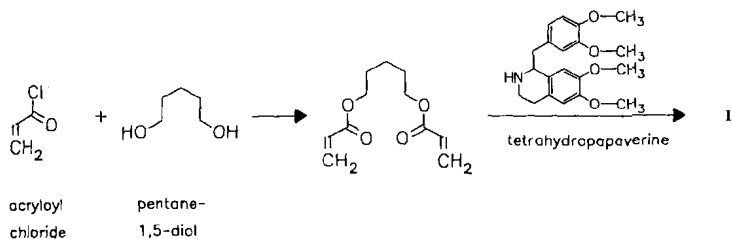
D:	Sotis (Parke Davis/ Gödecke; Mack, Illert.)	J:	Lipitor (Warner-Lambert) Torvast (Pfizer)	USA:	Xavator (Parke Davis) Lipitor (Parke Davis; Pfizer)
GB:	Lipitor (Parke Davis)		Tozalip (Guidotti)		

Atracurium besilate

ATC: M03AC04

Use: skeletal muscle relaxant

RN: 64228-81-5 MF: C₅₃H₇₂N₂O₁₂ · 2C₆H₅O₃S MW: 1243.50 EINECS: 264-743-4
 CN: 2,2'-[1,5-pentanediy]bis[oxy(3-oxo-3,1-propanediy)]bis[1-[(3,4-dimethoxyphenyl)methyl]-1,2,3,4-tetrahydro-6,7-dimethoxy-2-methylisoquinolinium] dibenzenesulfonate

**Reference(s):**

DOS 2 655 883 (Wellcome; appl. 9.12.1976; GB-prior. 10.12.1975, 29.10.1976).

US 4 179 507 (Wellcome; 18.12.1979, GB-prior. 10.12.1975, 29.10.1976).

Stenkale, J.B. et al.: Eur. J. Med. Chem. (EJMCA5) **16**, 515 (1981).

Formulation(s): amp. 25 mg/2.5 ml, 50 mg/5 ml

Trade Name(s):

D: Tracrium (Glaxo Wellcome; 1987)

F: Tracrium (Glaxo Wellcome)

GB: Tracrium (Wellcome; 1982)

I: Tracrium (Wellcome)

USA: Tracrium (Glaxo

Wellcome; 1983)

Atropine

(DL-Hyoscyamine)

ATC: A03BA01; S01FA01

Use: anticholinergic, mydriatic, antispasmodic

RN: 51-55-8 MF: C₁₇H₂₃NO₃ MW: 289.38 EINECS: 200-104-8

LD₅₀: 30 mg/kg (M, i.v.); 75 mg/kg (M, p.o.);

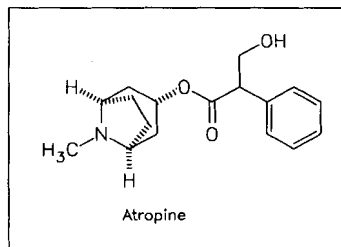
73 mg/kg (R, i.v.); 500 mg/kg (R, p.o.)

CN: *endo*-(±)- α -(hydroxymethyl)benzeneacetic acid 8-methyl-8-azabicyclo[3.2.1]oct-3-yl ester

borate (1:1)RN: 51460-78-7 MF: $C_{17}H_{23}NO_3 \cdot H_3BO_3$ MW: 351.21**sulfate (2:1)**RN: 55-48-1 MF: $C_{17}H_{23}NO_3 \cdot 1/2H_2SO_4$ MW: 676.83 EINECS: 200-235-0LD₅₀: 31 mg/kg (M, i.v.); 468 mg/kg (M, p.o.);

37 mg/kg (R, i.v.); 600 mg/kg (R, p.o.);

60 mg/kg (dog, i.v.)



By extraction of Solanacean drugs, especially *Atropa belladonna*, *Hyoscyamus niger* or other species. On careful extraction L-hyoscyamine is obtained first, which can be racemized to atropine by addition of alkali in ethanolic solution.

Reference(s):

Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. 3, 201 f.

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 7, 151.

Formulation(s): amp. for inj. 100 mg; eye drops 10 mg; inj. sol. 0.25 mg, 0.5 mg, 1 mg, 2 mg; tabl. 0.5 mg

Trade Name(s):

D:	Angiocardyl (Rhenomed)	Chibro-Atropine (Merck)	generics (Farmigea; Scfm)
	Atropin in der Ophtiole (Mann)	Sharp & Dohme-Chibret)	and combination
	Atropinol Augentropfen (Winzer)	generics and numerous combination preparations	preparations
	Atropin POS (Ursapharm)	GB: Lomotil (Searle)-comb.	J: generics
	Borotropin Augentropfen (Winzer)	I: Atropina Aolfato (Scfm)	USA: Arco-Lase Plus (Arco)
	Cansat (Sanofi Winthrop) generics and combination preparations	Atropina Lux (Allergan; as sulfate)	Atrohlist Plus (Medeva)
F:	Atropine Aguetant (Aguettant)	Atropi S (Formulario Naz.; Tariff. Nazionale; Bieffe Medital; Bioindustria; Collalto; Farge; Galenica (Senese); Jacobo Monicol; Oгна; Salf)	Bellatal (Richwood)
	Atropine Lavoisier (Caix et du Marais)	Atrop S (Sifra)	Donnatal (Robins)
	Atropine Martinet (CIBA Vision Ophthalmics)	Atro S (Farge)	Enlon-Plus (Ohmeda)
		Liotropina (SIFI; as sulfate)	Larox (Geneva)
			Lomotil (Searle)
			Motofen (Carrnrick)
			Prosed/DS (Star)
			Urised (PolyMedica)

Atropine methonitrate

(Atropinmethylnitrat; Methylatropine Nitrate; Methonitrate d'atropine)

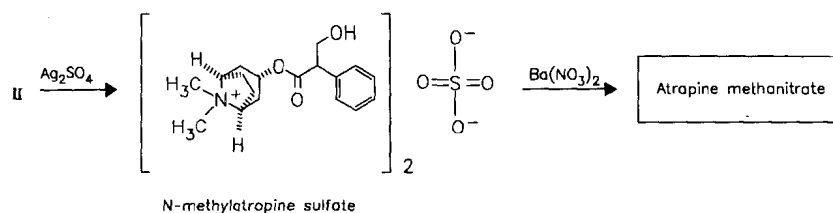
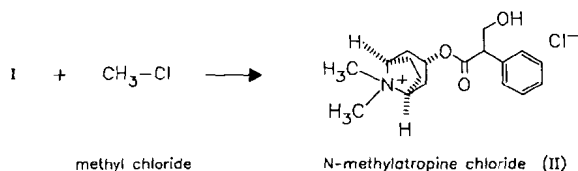
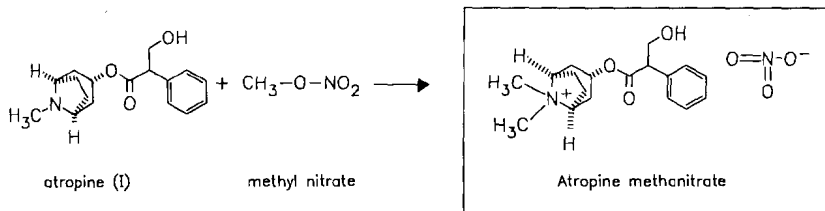
ATC: A03BB02

Use: anticholinergic, mydriatic, antispasmodic

RN: 52-88-0 MF: $C_{18}H_{26}N_2O_6$ MW: 366.41 EINECS: 200-156-1LD₅₀: 9300 µg/kg (M, i.v.); 1320 mg/kg (M, p.o.);

1902 mg/kg (R, p.o.)

CN: *endo*-(±)-3-(3-hydroxy-1-oxo-2-phenylpropoxy)-8,8-dimethyl-8-azoniabicyclo[3.2.1]octane nitrate

**Reference(s):**

DRP 137 622 (Bayer; 1901).

DRP 138 443 (Bayer; 1901).

Formulation(s): drops**Trade Name(s):**

D: Afdosa (Hefa-Frenon)-
comb.; wfm
Afpred (Hefa-Frenon)-
comb.; wfm
Ansudoral (Basotherm)-
comb.; wfm

Bronchovydrin
Inhalationslösung (Searle-
Endopharm)-comb.; wfm
Brox (Redel)-comb.; wfm
Myocardetten (Byk
Gulden)-comb.; wfm
Myocardon (Byk Gulden)-
comb.; wfm

Perphyllon (Homburg)-
comb.; wfm
Tonaton (Luitpold)-comb.;
wfm
USA: Festalan (Hoechst-
Roussel)-comb.

Auranofin

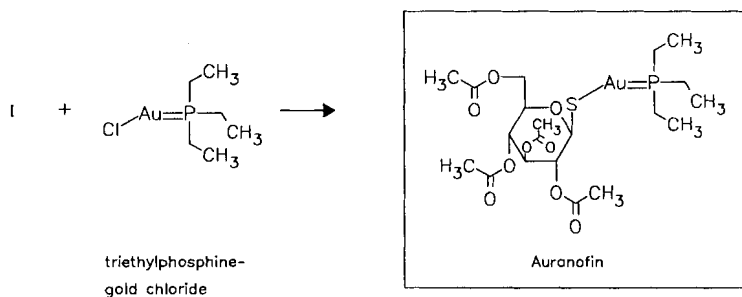
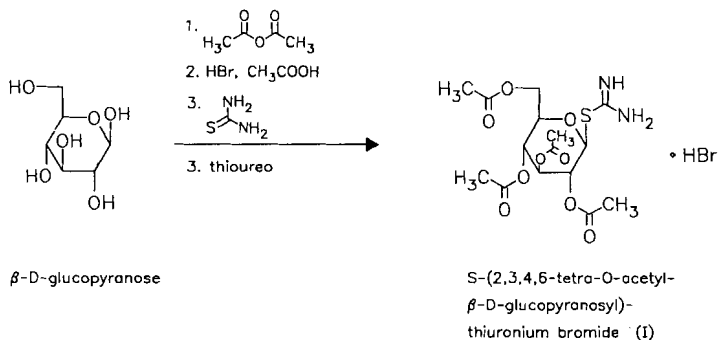
ATC: M01CB03

Use: rheumatoid arthritis therapeutic

RN: 34031-32-8 MF: C₂₀H₃₄AuO₉PS MW: 678.52 EINECS: 251-801-9

LD₅₀: 310 mg/kg (M, p.o.);
265 mg/kg (R, p.o.)

CN: (2,3,4,6-tetra-*O*-acetyl-1-thio-β-D-glucopyranosato-*S*)(triethylphosphine)gold

**Reference(s):**

- US 3 635 945 (Smith Kline & French; 18.1.1972; prior. 28.10.1969).
 DE 2 051 495 (Smith Kline & French; appl. 20.10.1970; USA-prior. 28.10.1969).
 US 3 708 579 (Smith Kline & French; 2.1.1973; prior. 28.10.1969, 1.10.1971).
 Sutton, B.M. et al.: J. Med. Chem. (JMCMAR) **15**, 1095 (1972).

synthesis of S-(2,3,4,6-tetra-O-acetyl- β -D-glucopyranosyl)thiuronium bromide:

- Bommer, W.A.; Kahn, J.R.: J. Am. Chem. Soc. (JACSAT) **73**, 2241 (1951).
 DOS 2 215 653 (Konishiroku; appl. 30.3.1972).
 Horton, D.: Methods Carbohydr. Chem. (MCACAL) **3**, 435 (1963).

Formulation(s): f. c. tabl. 3 mg

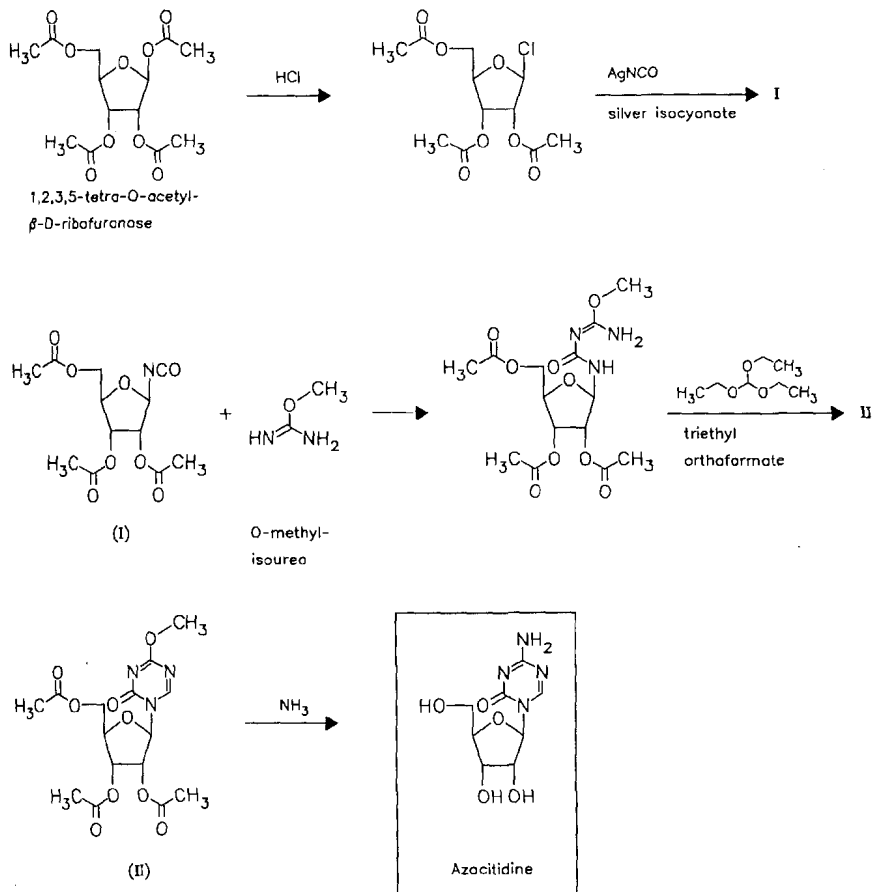
Trade Name(s):

D:	Ridaura (Yamanouchi; 1982)	GB:	Ridaura (Yamanouchi; 1987)	J:	Ridaura (Fujisawa; 1986)
F:	Ridauran (Robapharm)	I:	Ridaura (Smith Kline & French; 1984)	USA:	Ridaura (SmithKline Beecham; 1985)

Azacitidine

ATC: L01BC
 Use: antineoplastic

RN: 320-67-2 MF: C₈H₁₂N₄O₅ MW: 244.21 EINECS: 206-280-2
 LD₅₀: 1159 mg/kg (M, i.v.); 572.3 mg/kg (M, p.o.)
 CN: 4-amino-1- β -D-ribofuranosyl-1,3,5-triazin-2(1H)-one

**Reference(s):**

Piskala, A.; Sorm, F.: Collect. Czech. Chem. Commun. (CCCCAK) **29**, 2060 (1964).
 US 3 350 388 (F. Sorm, A. Piskala; 1967; prior. 1965).

formation from Streptovercillium ladakanus:

Hanka, L.J. et al.: Antimicrob. Agents Chemother. (AACHAX) **1966**, 619.

isolation and structure elucidation:

Bergy, M.E.; Herr, R.R.: Antimicrob. Agents Chemother. (AACHAX) **1966**, 625.

Trade Name(s):

USA: Mylosar (Upjohn); wfm

Azacosterol

(Diazasterol)

Use: cholesterol depressant

RN: 313-05-3 MF: C₂₅H₄₄N₂O MW: 388.64

LD₅₀: 90 mg/kg (M, p.o.)

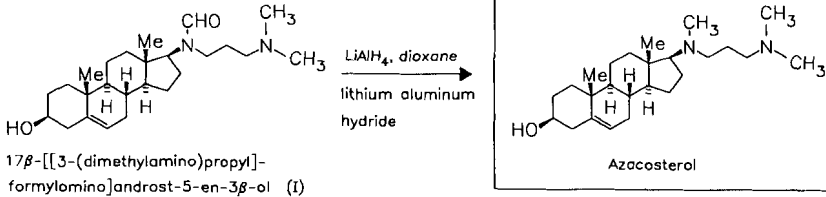
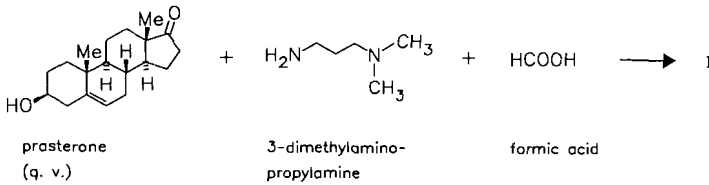
CN: (3 β ,17 β)-17-[[3-(dimethylamino)propyl]methylamino]androst-5-en-3-ol

dihydrochloride

RN: 1249-84-9 MF: C₂₅H₄₄N₂O · 2HCl MW: 461.56

LD₅₀: 380 mg/kg (M, p.o.);

470 mg/kg (R, p.o.)

**Reference(s):**

US 3 084 156 (Searle; 2.4.1963; prior. 30.11.1961, 28.3.1961).
 Counsell, R.E. et al.: J. Med. Pharm. Chem. (JMPCAS) 5, 1224 (1962).

Trade Name(s):

USA: Ornitol (Searle); wfm

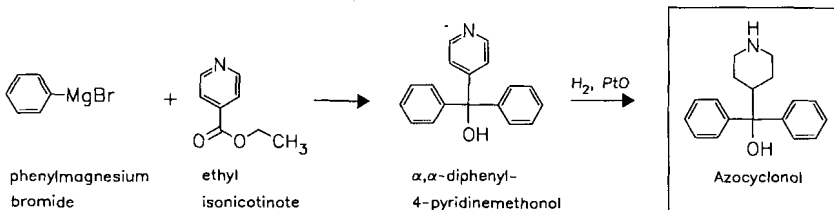
Azacyclonol

Use: anxiolytic

RN: 115-46-8 MF: C₁₈H₂₁NO MW: 267.37 EINECS: 204-092-5
 LD₅₀: 177 mg/kg (M, i.v.); 650 mg/kg (M, p.o.)
 CN: α,α-diphenyl-4-piperidinemethanol

hydrochloride

RN: 1798-50-1 MF: C₁₈H₂₁NO · HCl MW: 303.83 EINECS: 217-284-9
 LD₅₀: 121 mg/kg (M, i.v.); 650 mg/kg (M, p.o.)

**Reference(s):**

US 2 804 422 (Merrell; 1957; prior. 1954).

Formulation(s): amp. 5 mg/ml (as hydrochloride); tabl. 20 mg

Trade Name(s):

F: Frenquel (Merrell) J: Frenquel (Shionogi)

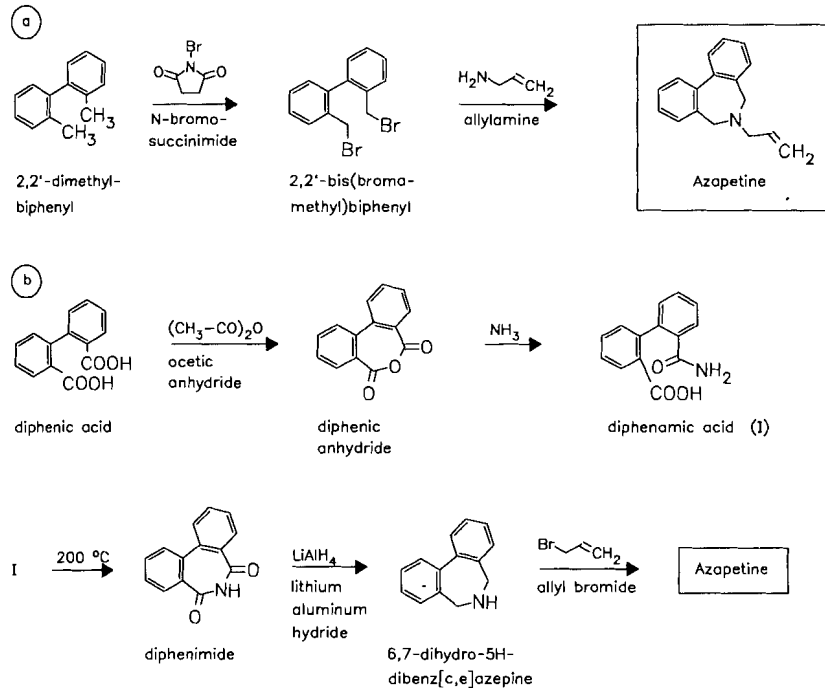
Azapetine

ATC: C04AX30
Use: sympatholytic, vasodilator

RN: 146-36-1 MF: C₁₇H₁₇N MW: 235.33 EINECS: 205-667-3
LD₅₀: 27 mg/kg (M, i.v.); 460 mg/kg (M, p.o.);
50 mg/kg (dog, i.v.)
CN: 6,7-dihydro-6-(2-propenyl)-5H-dibenz[*c,e*]azepine

phosphate (1:1)

RN: 130-83-6 MF: C₁₇H₁₇N · H₃PO₄ MW: 333.32 EINECS: 204-997-5
LD₅₀: 26 mg/kg (M, i.v.); 460 mg/kg (M, p.o.);
50 mg/kg (dog, i.v.)

**Reference(s):**

- a US 2 619 484 (Hoffmann-La Roche; 1952; appl. 1950).
b US 2 693 465 (Hoffmann-La Roche; 1954; appl. 1953).

Formulation(s): tabl. 25 mg

Trade Name(s):

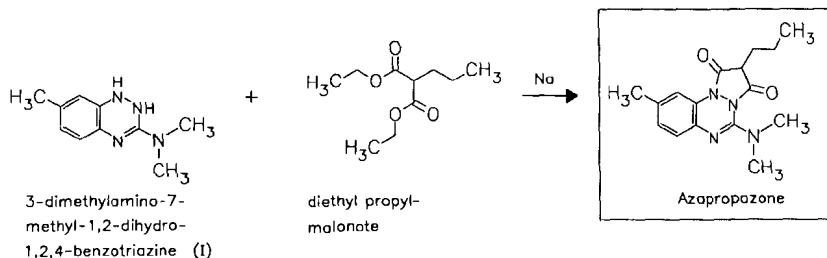
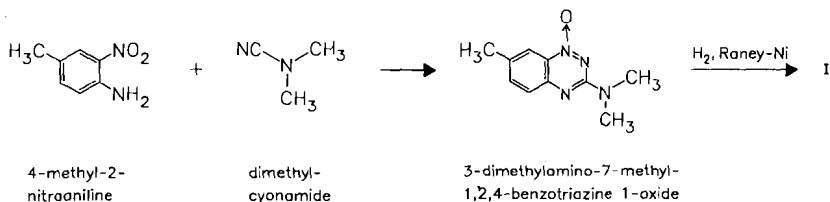
D: Ilidar (Roche); wfm

Azapropazone

(Apazone; Cinnopropazone)

ATC: M01AX04
Use: anti-inflammatory, analgesic

RN: 13539-59-8 MF: C₁₆H₂₀N₄O₂ MW: 300.36 EINECS: 236-913-8
LD₅₀: 680 mg/kg (M, i.v.); 1080 mg/kg (M, p.o.);
660 mg/kg (R, i.v.); 1800 mg/kg (R, p.o.)
CN: 5-(dimethylamino)-9-methyl-2-propyl-1H-pyrazolo[1,2-*a*][1,2,4]benzotriazine-1,3(2H)-dione

*Reference(s):*

US 3 349 088 (Siegfried AG; 24.10.1967; CH-prior. 22.10.1963).
 Mixich, G.: *Helv. Chim. Acta (HCACAV)* **51**, 532 (1968).

Formulation(s): cps. 150 mg, 200 mg, 300 mg; tabl. 600 mg

Trade Name(s):

D: Tolyprin (Du Pont Pharma) GB: Rheumox (Wyeth) J: Sinnamin (Nippon Chemiphar)
 F: Prolixan (J. Logeais); wfm I: Prolixan (Malesci); wfm

Azatadine

ATC: R06AX09
 Use: antihistaminic

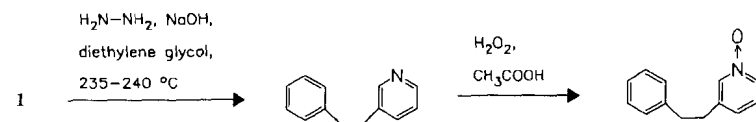
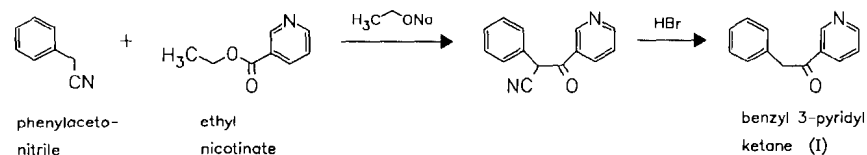
RN: 3964-81-6 MF: $\text{C}_{20}\text{H}_{22}\text{N}_2$ MW: 290.41

CN: 6,11-dihydro-11-(1-methyl-4-piperidinylidene)-5H-benzo[5,6]cyclohepta[1,2-b]pyridine

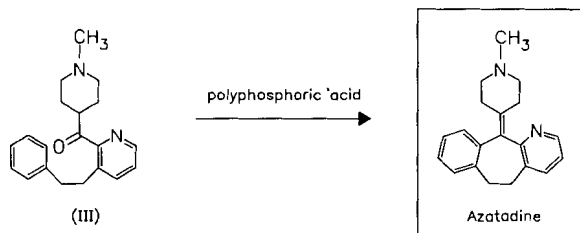
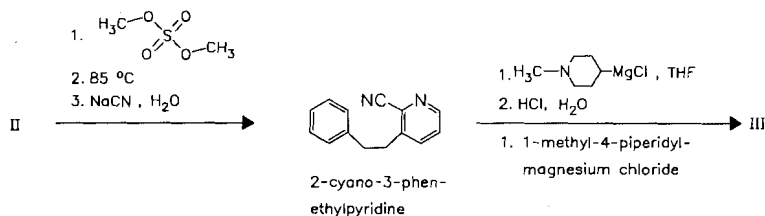
dimalate

RN: 3978-86-7 MF: $\text{C}_{20}\text{H}_{22}\text{N}_2 \cdot 2\text{C}_4\text{H}_4\text{O}_4$ MW: 522.55 EINECS: 223-615-8

LD₅₀: 165 mg/kg (M, p.o.);
 440 mg/kg (R, p.o.)



(II)

**Reference(s):**

US 3 301 863 (Schering Corp.; 31.1.1967; prior. 24.4.1963, 13.12.1963, 21.12.1964, 18.3.1965).
 US 3 326 924 (Schering Corp.; 20.6.1967; prior. 24.4.1963, 13.12.1963).
 US 3 357 986 (Schering Corp.; 12.12.1967; prior. 24.4.1963, 13.12.1963, 19.9.1966).
 US 3 366 635 (Schering Corp.; 30.1.1968; prior. 24.4.1963, 13.12.1963).
 US 3 419 565 (Schering Corp.; 31.12.1968; prior. 24.4.1963, 19.9.1966).

improved process for 2-cyano-3-phenethylpyridine:

US 4 954 632 (SmithKline Beecham Corp.; 4.9.1990; prior. 2.12.1987, 10.2.1989).
 Villani, F.J. et al.: J. Med. Chem. (JMCMAR) **15**, 750 (1972).

Formulation(s): syrup 0.5 mg (as dimaleate); tabl. 1 mg (azatadine maleate)

Trade Name(s):

GB: Optimine (Schering-Plough) USA: Trinalin (Key Pharm.-comb.)

Azathioprine

ATC: L01BB; L04AX01

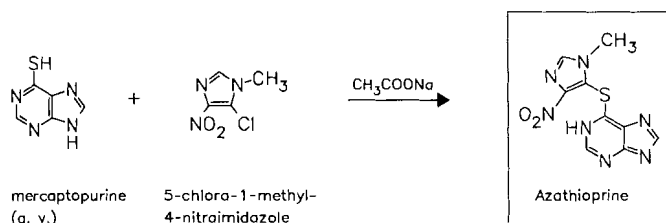
Use: antineoplastic, immunosuppressive

RN: 446-86-6 MF: C₉H₇N₇O₂S MW: 277.27 EINECS: 207-175-4

LD₅₀: 1389 mg/kg (M, p.o.);

535 mg/kg (R, p.o.)

CN: 6-[(1-methyl-4-nitro-1H-imidazol-5-yl)thio]-1H-purine

**Reference(s):**

US 3 056 785 (Burroughs Wellcome; appl. 2.10.1962; prior. 21.3.1960).

Formulation(s): amp. 50 mg; f. c. tabl. 50 mg, 25 mg; lyo. 54.1 mg

Trade Name(s):

D:	Azamedac (medac)	F:	Imurel (Glaxo Wellcome)	I:	Imuran (Wellcome)
	Imurek (Glaxo Wellcome)	GB:	Azamune (Penn)	J:	Imuran (Tanabe)
	Zytrim (Isis Puren)		Imuran (Glaxo Wellcome)	USA:	Imuran (Glaxo Wellcome)

Azelaic acid

ATC: D10AX03; D11AX
Use: topical treatment of hyperpigmentary disorders and skin cancers, acne therapeutic

RN: 123-99-9 MF: C₉H₁₆O₄ MW: 188.22 EINECS: 204-669-1

LD₅₀: >5 g/kg (R, p.o.)

CN: nonanedioic acid

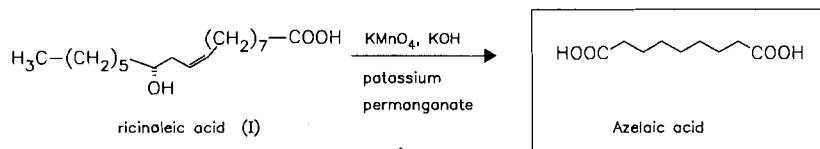
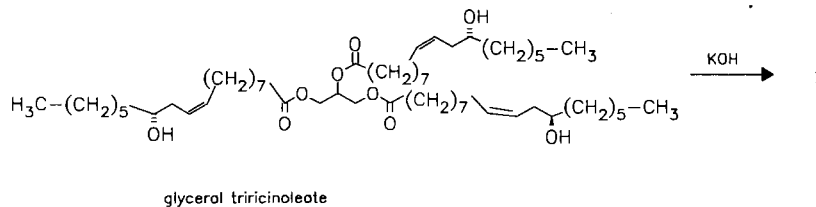
disodium salt

RN: 17265-13-3 MF: C₉H₁₄Na₂O₄ MW: 232.19 EINECS: 241-298-4

calcium salt (1:1)

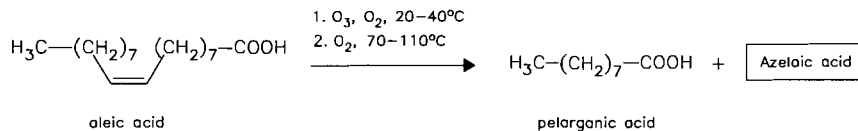
RN: 14488-58-5 MF: C₉H₁₄CaO₄ MW: 226.29

a



b

technical process



Reference(s):

- a Hill, J.W.; McEwen, W.L.: Org. Synth. (ORSYAT), Coll. Vol. 2, 53 (1943).
b Ullmann's Encyclopedia of Industrial Chemistry, 5th Ed., Vol. A8, 526.

alternative synthesis:

US 3 402 108 (Emery; 17.9.1968; appl. 7.7.1966).
 US 3 810 937 (V.P. Kucski; 14.5.1974; appl. 15.9.1970).
 JP 56 169 640 (Nippon Oil; appl. 31.5.1980).
 JP 58 140 038 (Kuraray; appl. 16.2.1982).
 DOS 2 035 558 (Degussa; appl. 17.7.1970).
 DOS 2 052 815 (Degussa; appl. 28.10.1970).
 DOS 2 106 307 (Degussa; appl. 10.2.1971).
 DOS 2 106 913 (Degussa; appl. 13.2.1971).
 DOS 2 316 203 (Henkel; appl. 31.3.1973).

topical treatment:

US 4 818 768 (Schering AG; 4.4.1989; appl. 29.1.1982; I-prior. 19.4.1977, 30.12.1977).

Formulation(s): cream 200 mg/g (20 %)

Trade Name(s):

D: Skinoren (Schering; 1988) GB: Skinoren (Schering Health Care) USA: Azelex (Allergan)
 F: Skinoren (Schering)

Azelastine

ATC: R01AC03; R03D; R06AX19;
 S01GX07

Use: antiasthmatic, antiallergic,
 antihistaminic

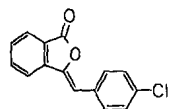
RN: 58581-89-8 MF: $C_{22}H_{24}ClN_3O$ MW: 381.91

LD₅₀: 36 mg/kg (R, i.v.); 130 mg/kg (R, p.o.)

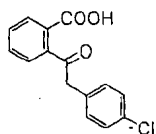
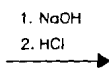
CN: 4-[(4-chlorophenyl)methyl]-2-(hexahydro-1-methyl-1*H*-azepin-4-yl)-1(2*H*)-phthalazinone

hydrochloride

RN: 37932-96-0 MF: $C_{22}H_{24}ClN_3O \cdot xHCl$ MW: unspecified EINECS: 253-720-4



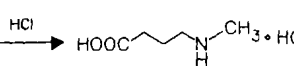
3-(4-chlorobenzylidene)-
 phthalide



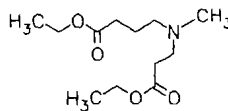
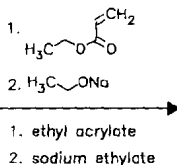
2-(4-chlorophenyl-
 acetyl)benzoic
 acid (I)



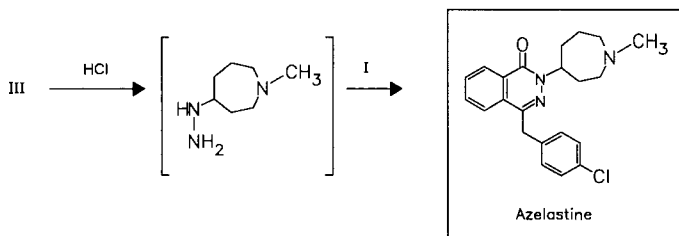
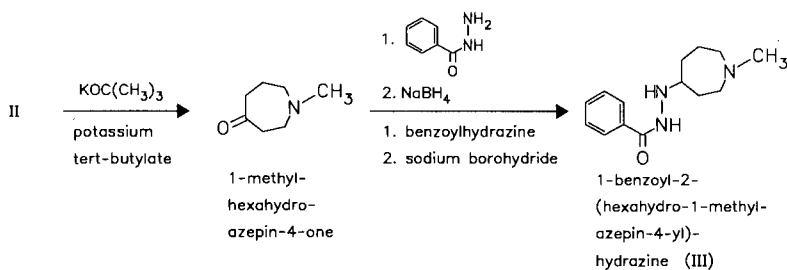
1-methyl-
 pyrrolidin-
 2-one



4-methylaminobutyric
 acid hydrochloride



(II)

*Reference(s):*

DE 2 164 058 (ASTA-Werke; appl. 23.12.1971).

US 3 813 384 (ASTA-Werke; 28.5.1974; CH-prior. 22.1.1971).

EP 316 633 (ASTA Medica AG; appl. 27.10.1988; D-prior. 13.11.1987).

Formulation(s): f. c. tabl. 1 mg, 2 mg, 4 mg; nasal spray (as hydrochloride, 0.2 mg/puff)*Trade Name(s):*D: Allergodil (ASTA Medica;
1992)Radetazin
(Arzneimittelwerk
Dresden; 1992)

F: Allergodil (ASTA Medica)

GB: Rhinolast (ASTA Medica;
1991)

J: Azeptin (Eisai; 1986)

USA: Astelin (Wallace)

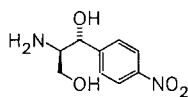
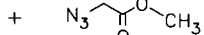
Azidamfenicol
(Azidoamphenicol)

ATC: J01BA

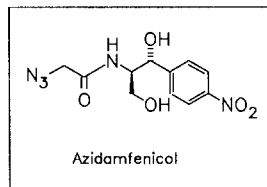
Use: antibiotic

RN: 13838-08-9 MF: $\text{C}_{11}\text{H}_{13}\text{N}_5\text{O}_5$ MW: 295.26 EINECS: 237-552-9

CN: [R-(R*,R*)]-2-azido-N-[2-hydroxy-1-(hydroxymethyl)-2-(4-nitrophenyl)ethyl]acetamide

D(-)-threo-2-amino-
1-(4-nitrophenyl)-1,3-
propanediol

methyl azidoacetate

*Reference(s):*

US 2 882 275 (Bayer; 14.4.1959, D-prior. 28.1.1955).

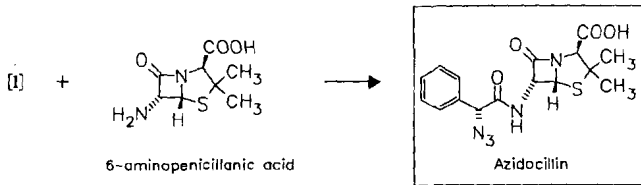
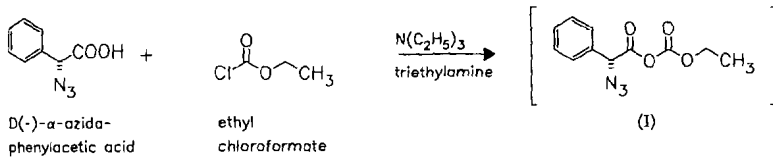
*Trade Name(s):*D: Baycuten (Bayer Vital)-
comb.Berlicetin (ankerpharm)
Posifenicol (Ursapharm)

Thilocanfol (Alcon)

Azidocillin

ATC: J01CE04; J01HA

Use: antibiotic

RN: 17243-38-8 MF: $C_{16}H_{17}N_5O_4S$ MW: 375.41 EINECS: 241-278-5CN: [2S-[2 α ,5 α ,6 β (S*)]]-6-[(azidophenylacetyl)amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid**monopotassium salt**RN: 22647-32-1 MF: $C_{16}H_{16}KN_5O_4S$ MW: 413.50**sodium salt**RN: 35334-12-4 MF: $C_{16}H_{16}N_5NaO_4S$ MW: 397.39*Reference(s):*

US 3 293 242 (Beecham; 20.12.1966; GB-prior. 21.7.1961).

DE 1 168 910 (Beecham; appl. 3.7.1962; GB-prior. 21.7.1961).

GB 940 488 (Beecham; appl. 21.7.1961; valid from 23.7.1962).

Formulation(s): gran. 250 mg; syrup 250 mg; tabl. 750 mg (as sodium salt)*Trade Name(s):*

D: Syncillin (Bayer Vital)

I: Longatren (Bayer)

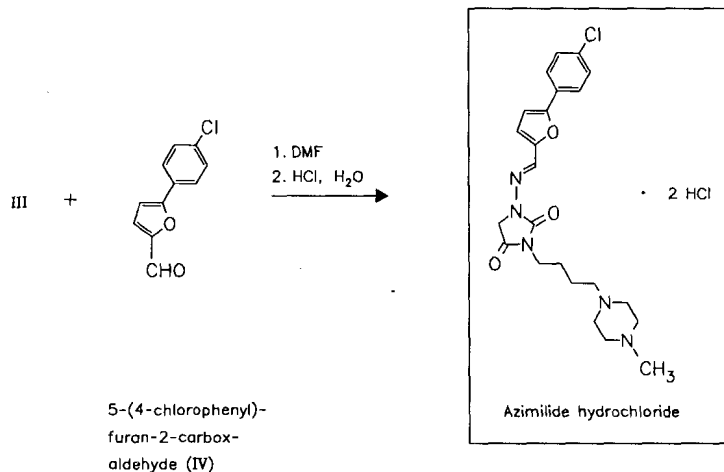
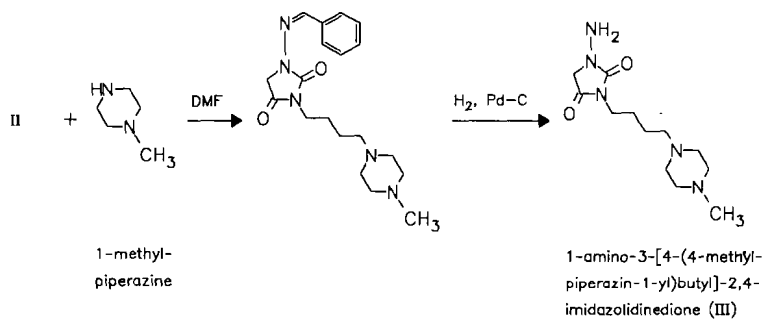
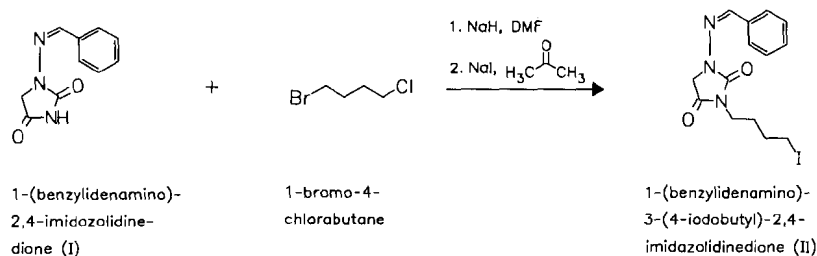
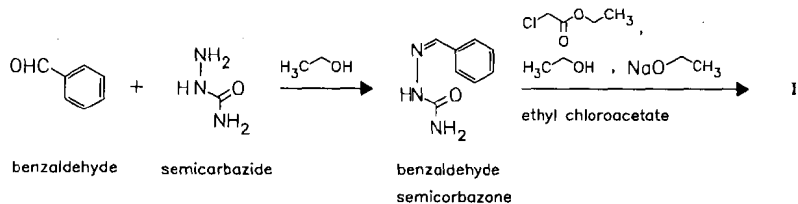
Azimilide hydrochloride

Use: class III antiarrhythmic agent

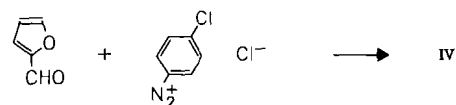
RN: 149888-94-8 MF: $C_{23}H_{28}ClN_5O_3 \cdot 2HCl$ MW: 530.88

CN: 1-[[[5-(4-Chlorophenyl)-2-furanyl]methylene]amino]-3-[4-(4-methyl-1-piperazinyl)butyl]-2,4-imidazolidinedione dihydrochloride

baseRN: 149908-53-2 MF: $C_{23}H_{28}ClN_5O_3$ MW: 457.96



preparation of intermediate IV



Reference(s):

WO 9 304 061 (Procter and Gamble Co.; appl. 10.8.1992; USA-prior. 14.8.1991).

preparation of 1-benzylidenaminoimidazoline-2,4-dione:

Jack: J. Pharm. Pharmacol. (JPPMAP) **11**, Suppl. 108, 112 (1959).

preparation of 5-(4-chlorophenyl)furan-2-carboxaldehyde:

Pong, S.F.; Pelosi, S.S.; Wessels, F.L.; Yu, C.-N.; Burns, H.: *Arzneim.-Forsch. (ARZNAD)* **33** (10), 1411 (1983).

Trade Name(s):

USA: Stedidor (Procter & Gamble; 1999)

Azintamide

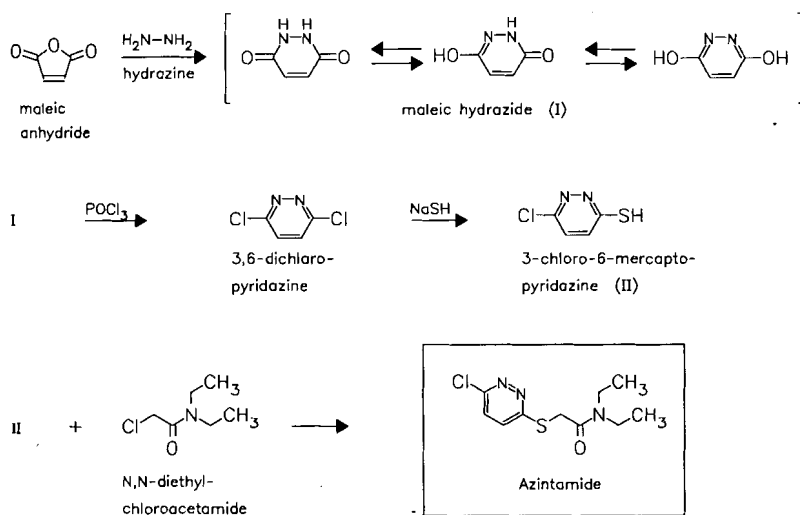
ATC: A03E; A05A1; A05AX
Use: choleric

RN: 1830-32-6 MF: C₁₀H₁₄ClN₃OS MW: 259.76 EINECS: 217-384-2

LD₅₀: 1150 mg/kg (M, p.o.);

1550 mg/kg (R, p.o.)

CN: 2-[(6-chloro-3-pyridazinyl)thio]-N,N-diethylacetamide

*Reference(s):*

DE 1 188 604 (Lentia; appl. 17.11.1961).

BE 624 848 (Österr. Stickstoffwerke; appl. 14.11.1962; A-prior. 16.11.1961).

Stormann, H.: *Arzneim.-Forsch. (ARZNAD)* **14**, 266 (1964).

Formulation(s): drg. 100 mg

Trade Name(s):

D: Oragallin (Truw)-comb.

Azithromycin

(Aritromicina)

ATC: J01FA10

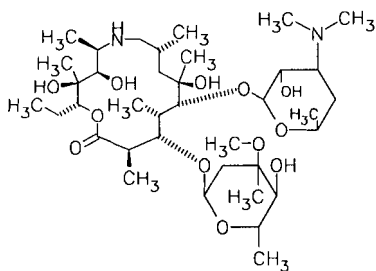
Use: macrolide antibiotic

RN: 83905-01-5 MF: $C_{38}H_{72}N_2O_{12}$ MW: 749.00LD₅₀: 1200 mg/kg (M, i.p.); 825 mg/kg (M, i.p.); 3 g/kg (M, p.o.);

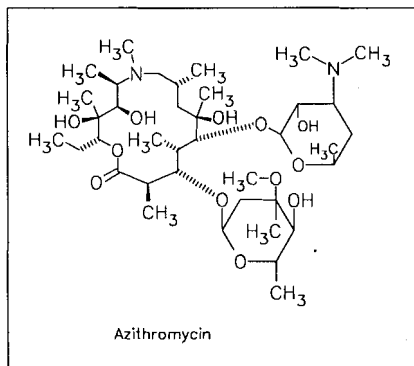
>2 g/kg (R, p.o.)

CN: [2R-(2R*,3S*,4R*,5R*,8R*,10R*,11R*,12S*,13S*,14R*)]-13-[(2,6-dideoxy-3-C-methyl-3-O-methyl- α -L-ribo-hexopyranosyl)oxy]-2-ethyl-3,4,10-trihydroxy-3,5,6,8,10,12,14-heptamethyl-11-[[3,4,6-trideoxy-3-(dimethylamino)- β -D-xyllo-hexopyranosyl]oxy]-1-oxa-6-azacyclopentadecan-15-one**monohydrochloride**RN: 90581-30-9 MF: $C_{38}H_{72}N_2O_{12} \cdot HCl$ MW: 785.46

(a)

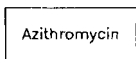
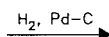
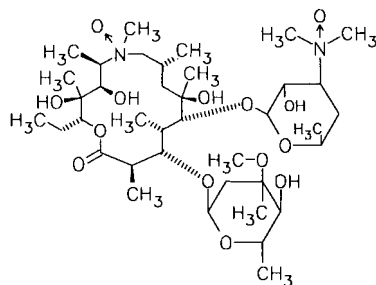
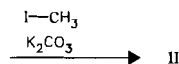
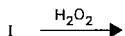
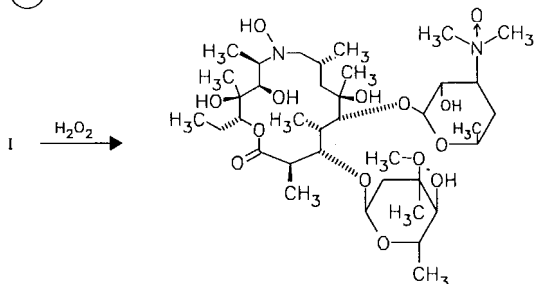


9-deoxy-9a-aza-9a-homoerythromycin A (I)
(from erythromycin A, q. v.)



Azithromycin

(b)



(II)

Reference(s):

- a DOS 3 140 449 (Pliva; appl. 12.10.1981; YU-prior. 6.3.1981).
 US 4 517 359 (Pliva; 14.5.1985; appl. 22.9.1981; YU-prior. 6.3.1981).
- b EP 101 186 (Pliva; appl. 14.7.1983; USA-prior. 19.7.1982, 15.11.1982).
 US 4 474 768 (Pliva; 2.10.1984; prior. 19.7.1982, 15.11.1982).
 Djokic, S. et al.: J. Antibiot. (JANTAJ) **40**, 1006 (1987).

stable, non-hygroscopic dihydrate:

EP 298 650 (Pfizer; appl. 28.6.1988).

medical use for treatment of protozoal infections:

US 4 963 531 (Pfizer; 16.10.1990; prior. 16.8.1988, 10.9.1987).

Formulation(s): cps. 250 mg; susp. 200 mg (as dihydrate)

Trade Name(s):

D: Zithromax (Mack)

GB: Zithromax (Richborough;

USA: Zithromax (Pfizer; as

F: Zithromax (Pfizer)

1991)

dihydrate)

Azlocillin

ATC: J01CA09

Use: antibiotic

RN: 37091-66-0 MF: $C_{20}H_{23}N_5O_6S$ MW: 461.50 EINECS: 253-348-2

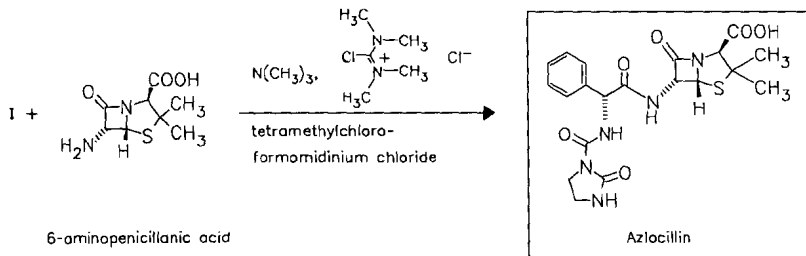
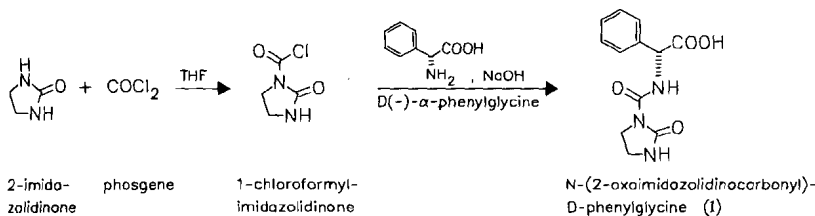
CN: [2*S*-[2 α ,5 α ,6 β (*S**)]]-3,3-dimethyl-7-oxo-6-[[[(2-oxo-1-imidazolidinyl)carbonyl]amino]phenylacetyl]amino]-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

monosodium salt

RN: 37091-65-9 MF: $C_{20}H_{22}N_5NaO_6S$ MW: 483.48 EINECS: 253-347-7

LD₅₀: 5065 mg/kg (M, i.v.);

1793 mg/kg (R, i.v.)

*Reference(s):*

- FR 2 100 682 (Bayer; appl. 25.5.1971; D-prior. 25.5.1970).
 US 3 933 795 (Bayer; 20.1.1976; D-prior. 25.5.1970).
 DOS 2 104 579 (Bayer; appl. 1.2.1971).
 US 3 978 223 (Bayer; 20.1.1976; D-prior. 25.5.1970).
 DE 2 025 415 (Bayer; prior. 25.5.1970).

combination with other semisynthetic penicillins:
DOS 2 737 673 (Bayer; appl. 20.8.1977).

Formulation(s): amp. 2 g/20 ml, 5 g, 750 ml; inf. powder 500 mg, 1 g, 2 g, 5 g; lyo. 524 mg, 1048 mg, 2096 mg, 4192 mg, 5240 mg

Trade Name(s):

D: Securopen (Bayer; 1977)

F: Securopen (Bayer-Pharma); wfm

GB: Securopen (Bayer; 1980)
I: Securopen (Bayer; 1985)

Azosemide

ATC: C03CA

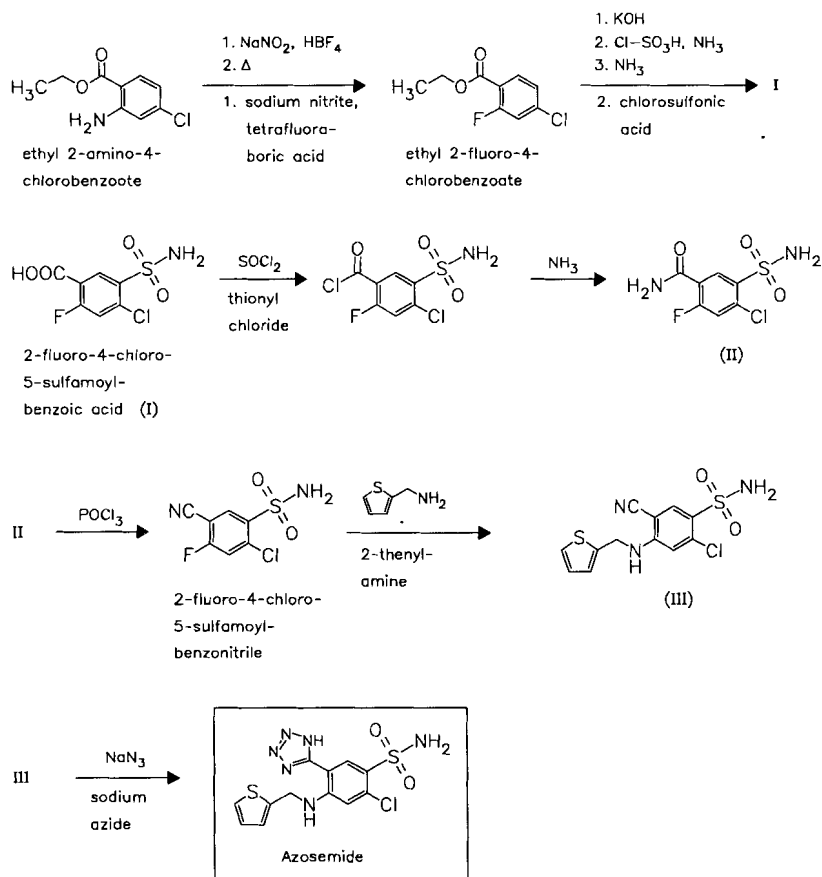
Use: diuretic

RN: 27589-33-9 MF: C₁₂H₁₁ClN₆O₂S₂ MW: 370.85 EINECS: 248-549-7

LD₅₀: 138 mg/kg (M, i.v.); 6350 mg/kg (M, p.o.);

252 mg/kg (R, i.v.); 2545 mg/kg (R, p.o.)

CN: 2-chloro-5-(1*H*-tetrazol-5-yl)-4-[(2-thienylmethyl)amino]benzenesulfonamide



Reference(s):

DOS 1 815 922 (Boehringer Mannh.; appl. 20.12.1968).

US 3 665 002 (Boehringer Mannh.; 23.5.1972; D-prior. 20.12.1968).

alternative synthesis:

DOS 3 034 664 (Boehringer Mannh.; appl. 13.9.1980).

synthesis of 2-fluoro-4-chloro-5-sulfamoylbenzoic acid:
Sturm, K. et al.: Chem. Ber. (CHBEAM) **99**, 328 (1966).

combination preparations:

DOS 2 423 550 (Boehringer Mannh.; appl. 15.5.1974).

DOS 2 423 606 (Boehringer Mannh.; appl. 15.5.1974).

DOS 2 556 001 (Boehringer Mannh.; appl. 2.12.1975).

Formulation(s): f. c. tabl. 80 mg

Trade Name(s):

D: Luret (Sanofi Winthrop)

J: Diart (Sanwa Kagaku)

Aztreonam

(Azthreonam)

ATC: J01DF01

Use: synthetic monobactam antibiotic

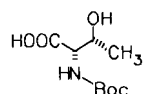
RN: 78110-38-0 MF: C₁₃H₁₇N₃O₈S₂ MW: 435.44 EINECS: 278-839-9

LD₅₀: 1963 mg/kg (M, i.v.); >10 g/kg (M, p.o.);

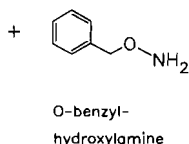
2001 mg/kg (R, i.v.); >10 g/kg (R, p.o.)

CN: [2S-[2 α ,3 β (Z)]]-2-[[[1-(2-amino-4-thiazolyl)-2-[(2-methyl-4-oxo-1-sulfo-3-azetidiny)amino]-2-oxoethylidene]amino]oxy]-2-methylpropanoic acid

ⓐ

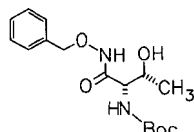


N-tert-butyloxy-
carbonyl-L-
threonine

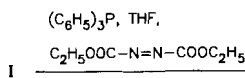
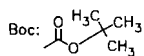


O-benzyl-
hydroxylamine

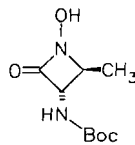
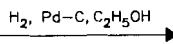
N-hydroxybenzotriazole,
DCC, THF



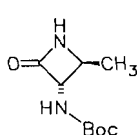
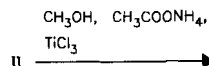
(I)



(3S-trans)-1-benzyl-
oxy-3-tert-butyl-
oxycarbonylamino-4-
methyl-2-azetidinone

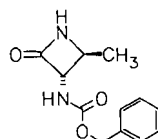


(II)

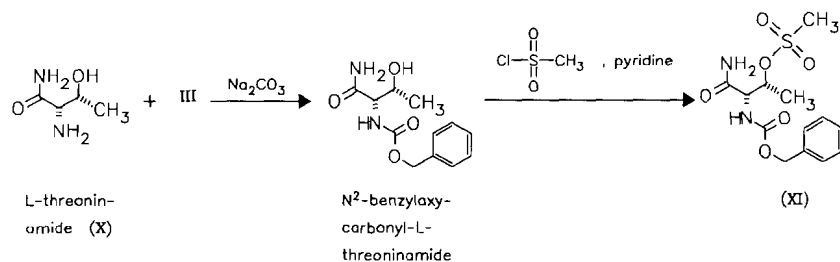
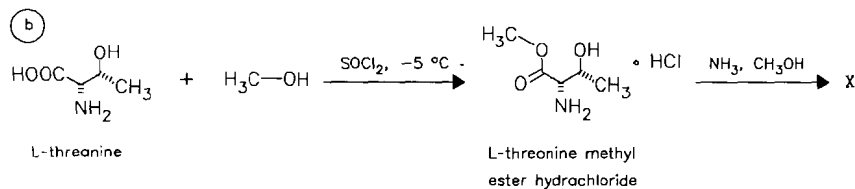
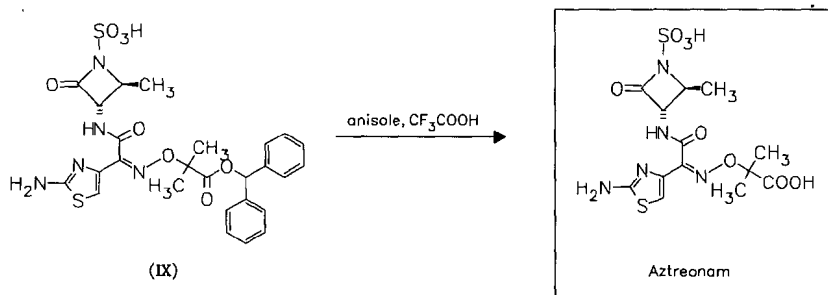
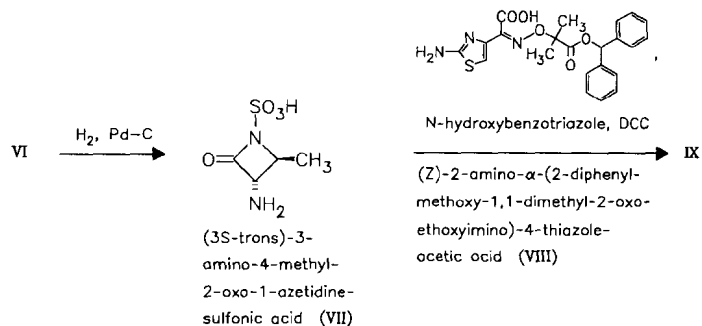
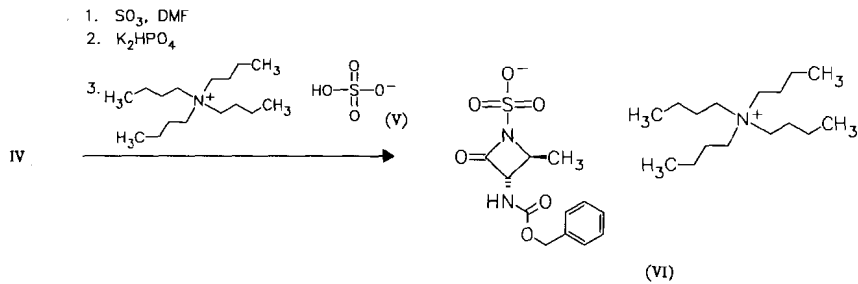


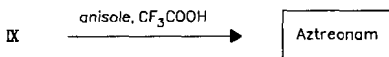
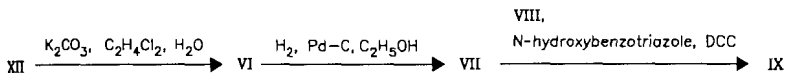
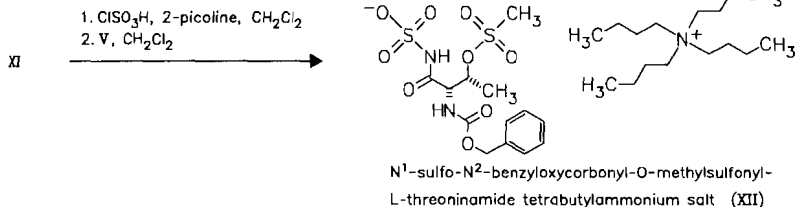
1. onisole, CF₃COOH

2. Cl-C(=O)-O-C₆H₄-CH₂-O- (III)



(3S-trans)-3-benzyl-
oxycarbonylamino-4-
methyl-2-azetidinone (IV)



*Reference(s):*

- US 4 386 034 (Squibb; 31.5.1983; prior. 10.2.1982).
 US 4 529 698 (Squibb; 16.7.1985; prior. 5.11.1984).
 US 4 625 022 (Squibb; prior. 25.11.1986; 2.2.1981).
 DOS 3 104 145 (Squibb; appl. 6.2.1981; USA-prior. 29.8.1980).
 GB 2 071 650 (Squibb; appl. 6.2.1981; USA-prior. 7.2.1980, 29.9.1980).

Formulation(s): amp. 2 g; inj. powder 500 mg, 1 g, 2 g; lyo. for inf. 2 g; vial 1 g/3 ml

Trade Name(s):

- | | | | | | |
|----|--------------------------------------|-----|--------------------------------------|------|--------------------------------------|
| D: | Azactam (Bristol-Myers Squibb; 1985) | GB: | Azactam (Bristol-Myers Squibb; 1986) | J: | Azactam (Squibb; 1987) |
| F: | Azactam (Sanofi Winthrop) | I: | Azactam (Squibb; 1984) | USA: | Azactam (Bristol-Myers Squibb; 1987) |

Bacampicillin

ATC: J01CA06

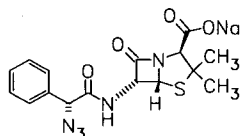
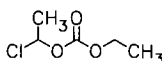
Use: antibiotic (broad spectrum penicillin)

RN: 50972-17-3 MF: C₂₁H₂₇N₃O₇S MW: 465.53

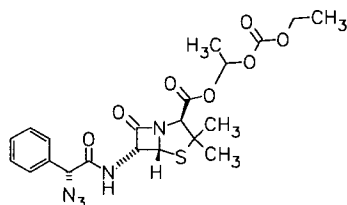
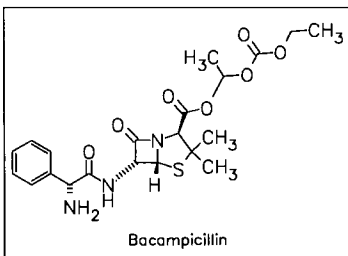
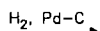
CN: [2S-[2α,5α,6β(S*)]]-6-[(aminophenylacetyl)amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid 1-[(ethoxycarbonyl)oxy]ethyl ester

monohydrochlorideRN: 37661-08-8 MF: C₂₁H₂₇N₃O₇S · HCl MW: 501.99 EINECS: 253-580-4LD₅₀: 184 mg/kg (M, i.v.); 8529 mg/kg (M, p.o.);

176 mg/kg (R, i.v.); 10 g/kg (R, p.o.)

azidocillin sodium salt
(q. v.)1-chloroethyl
ethyl carbonate

I

6-(D-α-azidaphenylacetamido)-
penicillanic acid 1-ethoxycarbonyl-
oxyethyl ester (I)

Bacampicillin

Reference(s):

DAS 2 144 457 (Astra; appl. 4.9.1971; S-prior. 17.9.1970; 20.11.1970).

US 3 873 521 (Astra; 25.3.1975; S-prior. 17.9.1970; 20.11.1970).

US 3 939 270 (Astra; 17.2.1976; S-prior. 17.9.1970; 20.11.1970).

Formulation(s): f. c. tabl. 400 g, 800 mg; susp. 125 mg (as hydrochloride)**Trade Name(s):**

D: Ambacamp (Pharmacia & Upjohn; 1981)

Penglöbe (Lematte et Boinot)

Bacacil (Pfizer)

Penglöbe (Astra; 1977)

GB: Ambaxin (Upjohn; 1980)

Penglöbe (Bracco)

F: Bacampicine (Pharmacia & Upjohn)

I: Ambaxin (Upjohn)

J: Bacacil (Pfizer Taito)

Penglöbe (Yoshitomi)

Amplibac (Schwarz)

USA: Spectrobid (Pfizer; 1981)

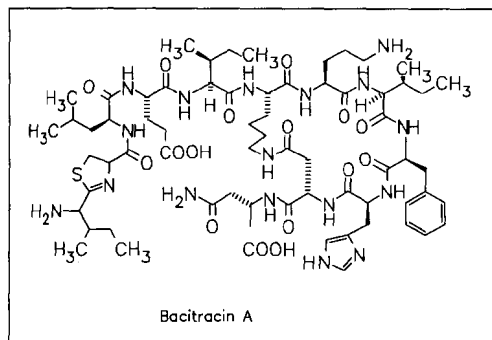
Bacitracin

ATC: D06AX05; R02AB04

Use: polypeptide antibiotic (mainly topical application)

RN: 1405-87-4 MF: C₆₆H₁₀₃N₁₇O₁₆S MW: 1422.72 EINECS: 215-786-2LD₅₀: 360 mg/kg (M, i.v.); >3750 mg/kg (M, p.o.)

CN: bacitracin

bacitracin ARN: 22601-59-8 MF: C₆₆H₁₀₃N₁₇O₁₆S MW: 1422.72 EINECS: 245-115-9

"Bacitracin" is submitted as mixture of bacitracin A with other bacitracins.
From culture of *Bacillus subtilis* and purification on ion-exchangers.

Reference(s):

US 2 498 165 (US-Secret. of War; 1950; appl. 1946).
US 2 828 246 (Commercial Solvents Corp.; 1958; appl. 1956).

purification:

US 2 457 887 (Ben Venue Labs.; 1949; appl. 1947).
US 2 609 324 (Commercial Solvents Corp.; 1952; appl. 1949).
US 2 774 712 (S. B. Penick & Co.; 1956; appl. 1955).
US 2 776 240 (Commercial Solvents Corp.; 1957; appl. 1954).
US 2 834 711 (Commercial Solvents Corp.; 1958; appl. 1956).
US 2 915 432 (Merck & Co.; 1959; appl. 1955).
US 2 960 437 (Pfizer; 1960; appl. 1955).
US 3 795 663 (Commercial Solvents Corp.; 5.3.1974; appl. 1.5.1972).
US 4 101 539 (IMC Chemical; 18.7.1978; appl. 17.10.1977).

complexes with nickel salts:

US 2 903 357 (Grain Processing Corp.; 1959; appl. 1958).

Na-bacitracin methanesulfonate:

US 3 205 137 (Warner-Lambert; 7.9.1965; appl. 19.3.1963).

complexes with zinc, cobalt or manganese sulfate resp. sulfonates:

US 3 384 631 (Spofa; 21.5.1968; appl. 23.6.1965; CSSR-prior. 26.6.1964).

complexes with metal methanesulfonates:

US 3 441 646 (Commercial Solvents; 29.4.1969; appl. 22.1.1965).

complex with calcium or magnesium alkylbenzenesulfonates:

US 3 891 615 (Commercial Solvents; 24.6.1975; appl. 25.10.1973).

Formulation(s): amp. 50000 iu; vial 5000 iu; nasal ointment 300 iu; ointment 300 iu, 500 iu; powder 300 iu.

Trade Name(s):

D:	Anginomycin (MIP Pharma)	Frubienzym (Boehringer Ing.)-comb.	Polyspectran (Alcon)-comb.
	Batrax (Gewo)-comb.	Nebacetin (Yamanouchi)-comb.	Prednitracin (CIBA Vision)-comb.
	Bivacyn (medphano)	Neobac (Dermapharm)	Tonsilase (Media)-comb.
	Cicatrex (Glaxo Wellcome)-comb.	Neotracin (CIBA Vision)	F:
			Bacicoline (Merck Sharp & Dohme-Chibret)-comb.

Collunovar (Synthelabo)-
comb.
Lysopaine ORL
(Boehringer Ing.)-comb.
Maxilase Bacitracine
(Sanofi Winthrop)-comb.
Oropivalone (Jouveinal)-
comb.
Pimafucort (Beytout)-
comb.

generics
GB: Cicatrin (Glaxo
Wellcome)-comb.
Polyfax (Dominion)-comb.
I: Bimixin (Lusofarmaco)-
comb.
Enterostop (Teafarma)-
comb.
Orobicin (Fulton)-comb.
J: Bacitracin (Ono)

USA: Betadine (Purdue
Frederick)
Cortisporin (Burroughs
Wellcome)-comb.
Neosporin (Glaxo
Wellcome; Warner-
Lambert)
Polysporin (Warner-
Lambert)
generics

Baclofen

ATC: M03BX01

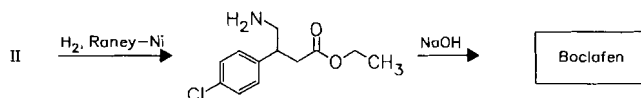
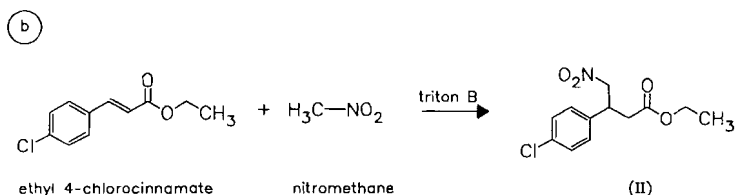
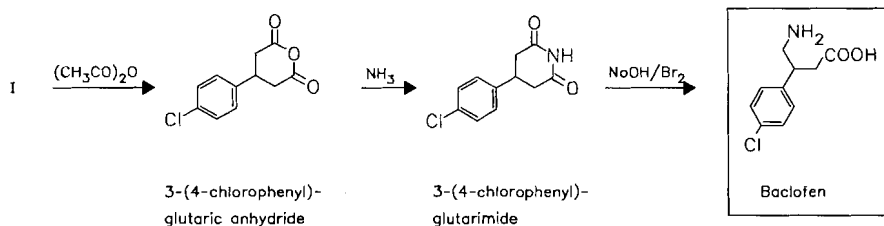
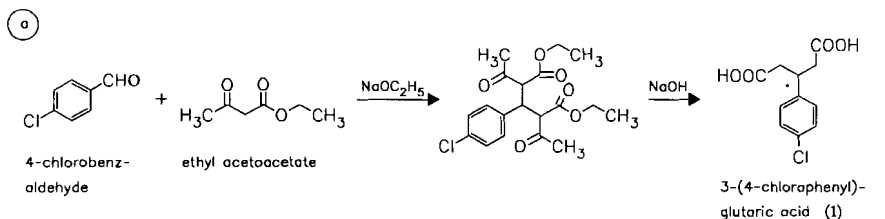
Use: muscle relaxant (antispasmodic)

RN: 1134-47-0 MF: C₁₀H₁₂ClNO₂ MW: 213.66 EINECS: 214-486-9

LD₅₀: 31 mg/kg (M, i.v.); 200 mg/kg (M, p.o.);

78 mg/kg (R, i.v.); 145 mg/kg (R, p.o.)

CN: β-(aminomethyl)-4-chlorobenzenepropanoic acid



Reference(s):

a US 3 471 548 (Ciba; 7.10.1969; CH-prior. 9.6.1963; 22.5.1964).

US 3 634 428 (Ciba; 11.1.1972; CH-prior. 9.7.1963; 22.5.1964).

b JP 45 016 692 (Uchimaru, F. et al.; Daiichi Seiyaku; appl. 10.6.1970); C.A. (CHABA8) 73, 77617w (1970).

combination with neuroleptics:

US 3 947 579 (Nelson Research & Dev.; 30.3.1976; appl. 3.6.1974).

US 3 978 216 (Nelson Research & Dev.; 31.8.1976; prior. 3.6.1974, 16.7.1975).

US 4 138 484 (Nelson Research & Dev.; 6.2.1979; prior. 3.6.1974, 16.7.1975, 16.8.1976, 25.7.1977).

Formulation(s): inj. sol. 0.05 mg/1 ml, 10 mg/20 ml, 10 mg/5 ml; intrathecal inj. 50 µg/ml, 0.05 mg/ml, 10 mg/20 ml, 10 mg/5 ml; liquid 5 mg/5 ml; tabl. 5 mg, 10 mg, 25 mg

Trade Name(s):

D:	Lebic (Isis Puren)	GB:	Lioresal (Novartis)	Lioresal (Novartis)
	Lioresal (Novartis Pharma)	I:	Lioresal (Ciba)	
F:	Liorésal (Novartis)	J:	Gabalon (Daiichi)	

Balsalazide sodium

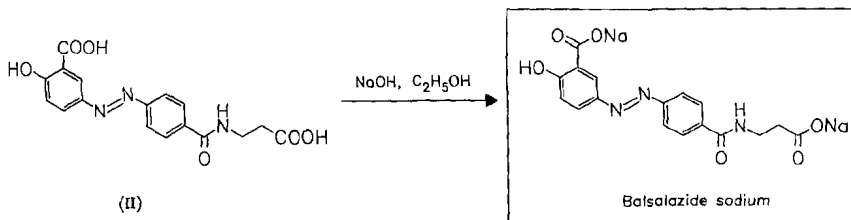
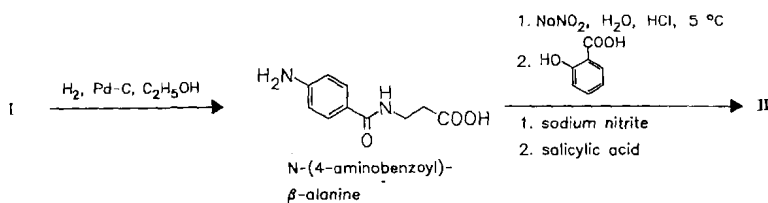
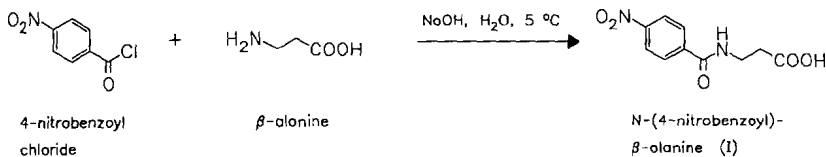
(BX-661-A)

ATC: D08

Use: anti-inflammatory

RN: 82101-18-6 MF: C₁₇H₁₃N₃Na₂O₆ MW: 401.29

CN: 5-[[4-[[2-(2-carboxyethyl)amino]carbonyl]phenyl]azo]-2-hydroxybenzoic acid disodium salt

(E)-free acidRN: 80573-04-2 MF: C₁₇H₁₅N₃O₆ MW: 357.32*Reference(s):*

DE 3 128 819 (Biorex Lab.; appl. 21.7.1981; GB-prior. 21.7.1980, 7.7.1981).

Formulation(s): cps. 750 mg (as disodium salt)*Trade Name(s):*

GB: Colazide (Astra/manuf. by Salix)

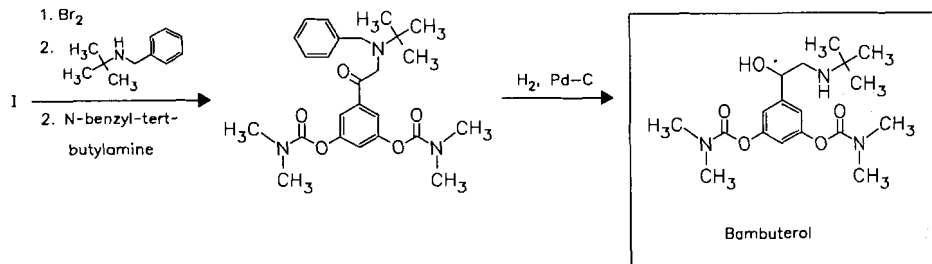
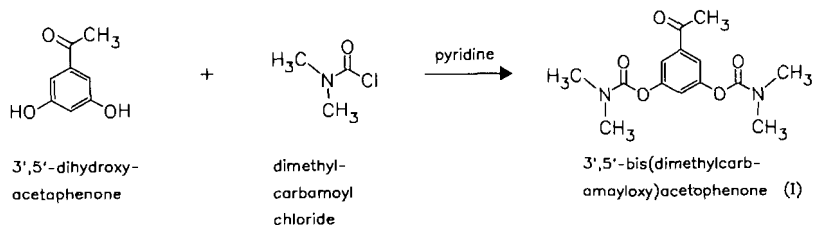
Bambuterol
(KWD-2183)

ATC: R03CC12
 Use: β_2 -receptor agonist, orally active lipophilic terbutaline ester prodrug, long lasting bronchodilator

RN: 81732-65-2 MF: $C_{18}H_{29}N_3O_5$ MW: 367.45
 CN: dimethylcarbamic acid 5-[2-[(1,1-dimethylethyl)amino]-1-hydroxyethyl]-1,3-phenylene ester

monohydrochloride

RN: 81732-46-9 MF: $C_{18}H_{29}N_3O_5 \cdot HCl$ MW: 403.91

**Reference(s):**

EP 43 807 (Draco; appl. 30.6.1981; GB-prior. 9.7.1980, 29.5.1981).
 DOS 3 163 871 (Draco; appl. 23.1.1981; GB-prior. 9.7.1980, 29.5.1981).
 (alternative synthesis given).

Formulation(s): tabl. 10 mg, 20 mg; sol. 0.1%

Trade Name(s):

D: Bambec (Astra)

Bamethan

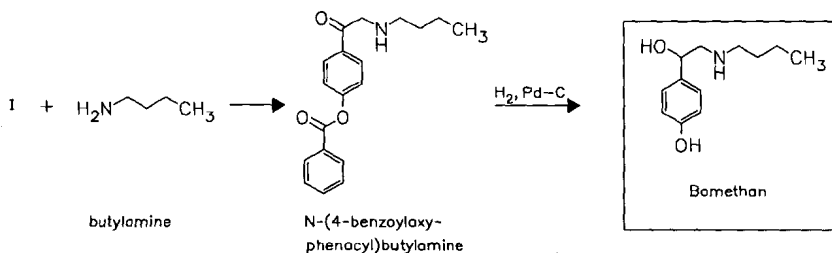
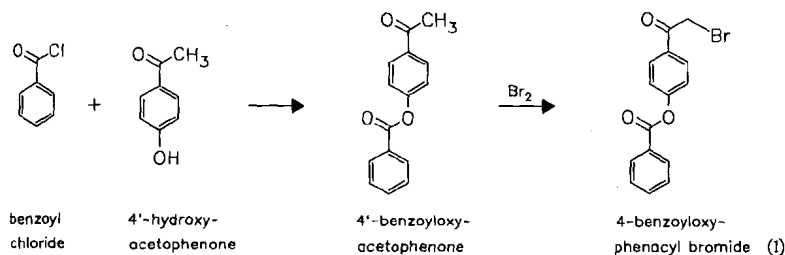
(Butylnorsynephrine; Butyloctopamine)

ATC: C04AA31
 Use: sympathomimetic, vasodilator

RN: 3703-79-5 MF: $C_{12}H_{19}NO_2$ MW: 209.29 EINECS: 223-043-9
 LD₅₀: 72 mg/kg (M, i.v.); 562 mg/kg (M, p.o.);
 80 mg/kg (R, i.v.)
 CN: α -[(butylamino)methyl]-4-hydroxybenzenemethanol

sulfate (2:1)

RN: 5716-20-1 MF: $C_{12}H_{19}NO_2 \cdot 1/2H_2SO_4$ MW: 516.66 EINECS: 227-214-9
 LD₅₀: 72 mg/kg (M, i.v.); 1600 mg/kg (M, p.o.);
 >1500 mg/kg (R, p.o.)

**Reference(s):**

Corrigan, J.R. et al.: J. Am. Chem. Soc. (JACSAT) **67**, 1894 (1945).

Formulation(s): gel 1.5 g/100 g

Trade Name(s):

D: Emasex (Eurim Pharma)-comb.	GB: Vasculit (Boehringer Ing.); wfm	Pericardin (Santen-Yamanouchi)
Heweven (Hevert)	I: Vasculat (Boehringer Ing.); as sulfate	Simpelate (Seiko Eiyo)
Medigel (Medice)-comb.	J: Bloodbin (Nakataki)	Valtolmin (Sanwa)
Theo-Hexanicit (Astra/Promed)	Butibatol (Hishiyama)	Vasculat (Tanabe; as sulfate)
Vasoforte N Kapseln (Krugmann)	Butosin (Kobayashi)	Vasolat (Kanto)
F: Escinogel (Doms-Adrian)-comb.	Cyclate (Hokuriku)	Vasolen (Toho)
	Garmin (Fuso)	Vasstol (Nichiiko)
	Pan Line (Maruishi)	Yonomol A (Sawai)

Bamifylline

ATC: R03BA; R03DA08

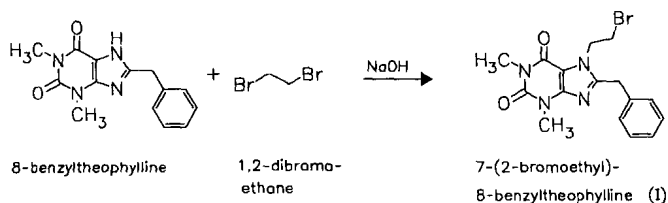
Use: bronchodilator, coronary vasodilator

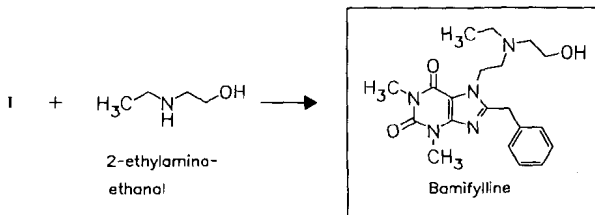
RN: 2016-63-9 MF: $\text{C}_{20}\text{H}_{27}\text{N}_5\text{O}_3$ MW: 385.47

CN: 7-[2-[ethyl(2-hydroxyethyl)amino]ethyl]-3,7-dihydro-1,3-dimethyl-8-(phenylmethyl)-1H-purine-2,6-dione

monohydrochloride

RN: 20684-06-4 MF: $\text{C}_{20}\text{H}_{27}\text{N}_5\text{O}_3 \cdot \text{HCl}$ MW: 421.93 EINECS: 243-967-6



**Reference(s):**

BE 602 888 (A. Christiaens S.A.; appl. 21.4.1961; GB-prior. 22.4.1960).

Formulation(s): inj. sol. 300 mg/5 ml; suppos. 250 mg, 750 mg; tabl. 300 mg

Trade Name(s):

D:	Trentadil (Fresenius); wfm	Trentadil injectable (Evans Medical)	I:	Bamifix (Chiesi)
F:	Trentadil (Evans Medical)	Trentadil (Sedaph); wfm	GB:	Trentadil (Armour); wfm
				Briafile (Alfa Wassermann)

Bamipine

ATC: D04AA15; R06AX01

Use: antihistaminic

RN: 4945-47-5 MF: C₁₉H₂₄N₂ MW: 280.42 EINECS: 225-587-2

LD₅₀: 250 mg/kg (M, p.o.)

CN: 1-methyl-N-phenyl-N-(phenylmethyl)-4-piperidinamine

monohydrochloride

RN: 1229-69-2 MF: C₁₉H₂₄N₂ · HCl MW: 316.88

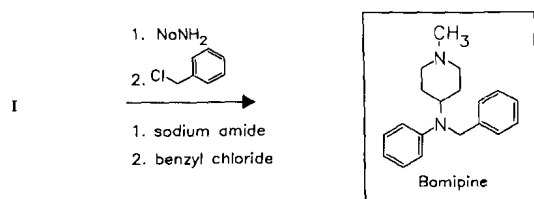
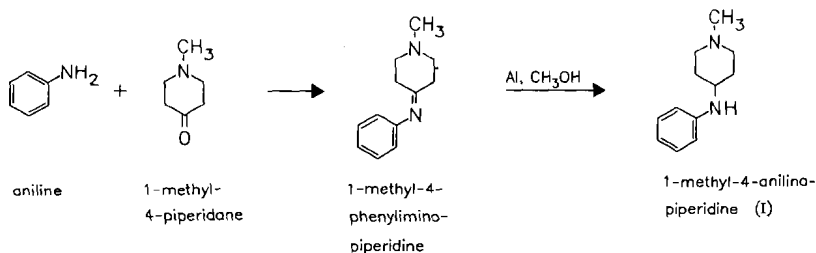
LD₅₀: 60 mg/kg (M, i.v.); 750 mg/kg (M, p.o.);

460 mg/kg (R, p.o.);

189 mg/kg (dog, p.o.)

lactate (1:1)

RN: 61670-09-5 MF: C₁₉H₂₄N₂ · C₃H₆O₃ MW: 370.49 EINECS: 262-887-2

**Reference(s):**

US 2 683 714 (Knoll AG; 1954; D-prior. 1949).

Formulation(s): cream 20 mg; drg. 20 mg; f. c. tabl. 50 mg; gel 20 mg

Trade Name(s):

D: Bamipin (ratiopharm) F: Taumidine (Knoll); wfm
Soventol (Knoll) I: Soventol (Knoll); wfm

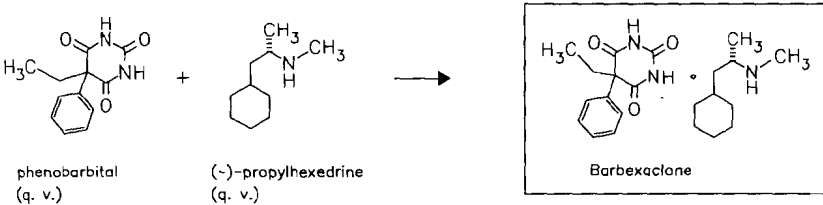
Barbexaclone

ATC: N03AA04
Use: antiepileptic

RN: 4388-82-3 MF: C₁₂H₁₂N₂O₃ MW: 232.24 EINECS: 224-504-7

LD₅₀: 334 mg/kg (M, p.o.);
306 mg/kg (R, p.o.)

CN: 5-ethyl-5-phenyl-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione, compd. with (*S*)-*N*, α -dimethylcyclohexaneethanamine (1:1)



Reference(s):

DE 1 120 452 (Knoll; appl. 16.4.1960).

Formulation(s): drg. 100 mg, 25 mg

Trade Name(s):

D: Maliasin (Knoll) I: Maliasin (Ravizza)

Barbital

ATC: N05CA04
Use: hypnotic

RN: 57-44-3 MF: C₈H₁₂N₂O₃ MW: 184.20 EINECS: 200-331-2

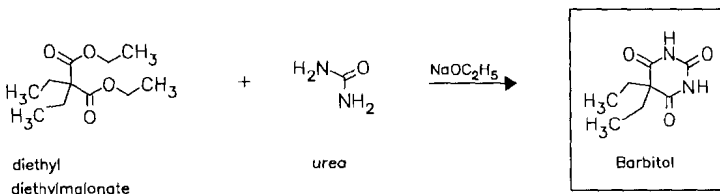
LD₅₀: 600 mg/kg (M, p.o.)

CN: 5,5-diethyl-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione

monosodium salt

RN: 144-02-5 MF: C₈H₁₁N₂NaO₃ MW: 206.18 EINECS: 205-613-9

LD₅₀: 830 mg/kg (M, i.v.); 800 mg/kg (M, p.o.);
280 mg/kg (R, i.v.); 600 mg/kg (R, p.o.)



Reference(s):

Fischer; Dilthey: Justus Liebig's Ann. Chem. (JLACBF) 335, 338 (1904).

Formulation(s): tabl. 250 mg, 500 mg

Trade Name(s):

D: Barbimetten (Hormosan);
wfm

F: combination preparations;
wfm

I: Barbitt (Tariff. Integrativo)
Veronidia (Vaillant); wfm

Barnidipine

(Mepirodipine hydrochloride)

ATC: C08CA12

Use: antihypertensive agent, long active
calcium antagonist

RN: 104757-53-1 MF: $C_{27}H_{29}N_3O_6 \cdot HCl$ MW: 528.01

CN: [S-(R*,R*)]-1,4-Dihydro-2,6-dimethyl-4-(3-nitrophenyl)-3,5-pyridinedicarboxylic acid methyl 1-(phenylmethyl)-3-pyrrolidiny ester hydrochloride

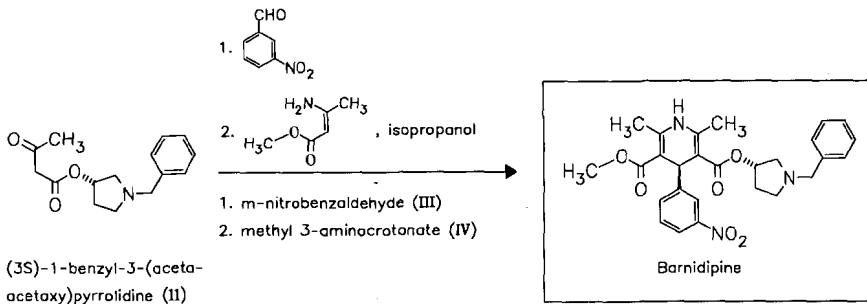
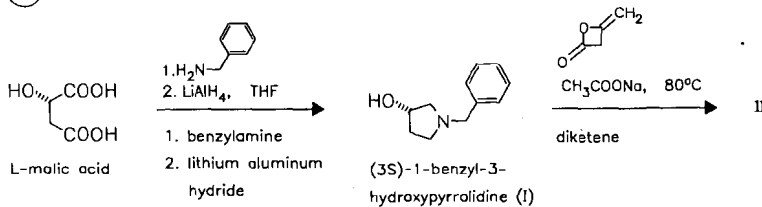
free base

RN: 104713-75-9 MF: $C_{27}H_{29}N_3O_6$ MW: 491.54

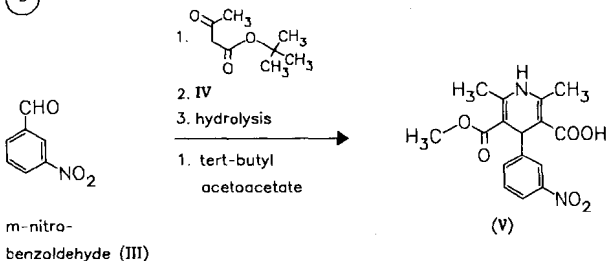
racemate

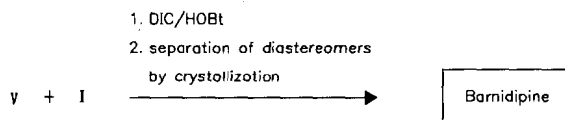
RN: 71863-55-3 MF: $C_{27}H_{29}N_3O_6$ MW: 491.54

a



b



**Reference(s):**

- a DE 2 904 552 (Yamanouchi Pharm.; appl. 7.2.1979; J-prior. 14.2.1978).
 b CN 85 107 590 (Faming Zhuanli Sheqing Gonghai S.; appl. 11.10.1985; J-prior. 24.1.1985).

alternative syntheses:

- Hirose, Y.; Kariya, K.; Sasaki, I.; Kuronom Y; Achiwa, K.: *Tetrahedron Lett. (TELEAY)* **34** (37), 5915 (1993).
 JP 6 279 409 (Mercian Corp.; J-prior. 26.3.1993).
 JP 7 070 066 (Amano Pharma Co.; prior. 3.9.1993).

alternative synthesis of optically active 1-benzyl-3-hydroxypyrrolidine:

- JP 9 263 578 (Koei Chemical Co.; appl. 29.3.1996).

X-ray structure and synthesis of all enantiomers:

- Tamazawa, K et al.: *J. Med. Chem. (JMCMAR)* **29** (12), 2504 (1986)

Formulation(s): tabl. 5 mg, 10 mg, 15 mg (as hydrochloride)

Trade Name(s):

- J: Hypoca R (Yamanouchi;
1992)

Batroxobin

ATC: B02BX03

Use: anticoagulant, fibrinolytic

RN: 9039-61-6 MF: unspecified MW: unspecified EINECS: 232-918-4

LD₅₀: 384 µg/kg (M, i.v.);

210 µg/kg (R, i.v.);

380 µg/kg (dog, i.v.)

CN: bothrops atrox serine proteinase

Fibrinolytic effecting protease enzyme from the poison secretion (venom) of *Bothrops atrox* with glycoprotein structure. It has thrombin similarly endopeptidase activity.

Purification by chromatographic methods.

Reference(s):

- US 3 849 252 (Pentapharm; 19.11.1974; CH-prior. 18.1.1971).
 DOS 2 201 993 (Pentapharm; appl. 17.1.1972; CH-prior. 18.1.1971).

Formulation(s): amp. 20 iu.

Trade Name(s):

- I: Botropase (Ravizza) J: Defibrase (Tobishi-
 Reptilase (Lepetit) Fujisawa)

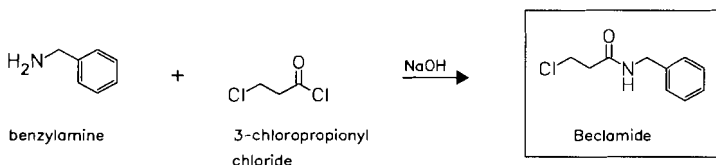
Beclamide

ATC: N03AX30

Use: antiepileptic, anticonvulsant

RN: 501-68-8 MF: C₁₀H₁₂ClNO MW: 197.67 EINECS: 207-927-1LD₅₀: 1 g/kg (M, p.o.);

770 mg/kg (R, i.v.); 3200 mg/kg (R, p.o.)

CN: 3-chloro-*N*-(phenylmethyl)propanamide*Reference(s):*

US 2 569 288 (American Cyanamid; 1951; prior. 1949).

Formulation(s): drg. 330 mg, 500 mg*Trade Name(s):*

D: Neuracen (Promonta); wfm F: Posédrine (Aron); wfm I: Posedrine (Aron); wfm
 Posedrin (Promonta); wfm GB: Nydrane (Rona); wfm

Beclobrate

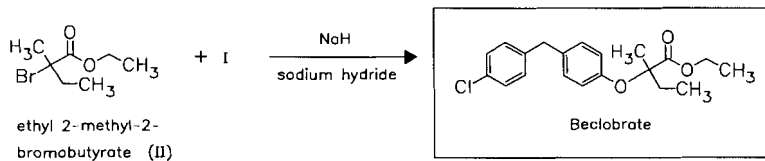
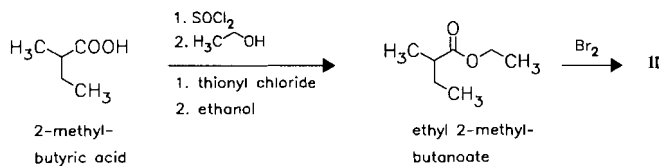
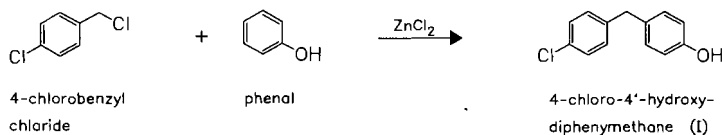
ATC: B04AC

Use: hyperlipidemic

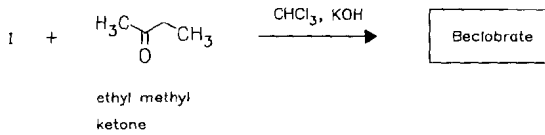
RN: 55937-99-0 MF: C₂₀H₂₃ClO₃ MW: 346.85 EINECS: 259-912-4

CN: (±)-2-[4-[(4-chlorophenyl)methyl]phenoxy]-2-methylbutanoic acid ethyl ester

ⓐ



(b)



Reference(s):

DOS 2 461 069 (Siegfried; appl. 23.12.1974; CH-prior. 27.12.1973, 28.3.1974, 3.10.1974, 18.11.1974).
 BE 823 904 (Siegfried; appl. 18.11.1974; CH-prior. 27.12.1973).
 US 4 153 803 (Siegfried; 8.5.1979; CH-prior. 27.12.1973, 28.3.1974, 18.11.1974).
 Thiele, K. et al.: *Arzneim.-Forsch. (ARZNAD)* **29**, 711 (1979).

synthesis of I:

Klamann, E. et al.: *J. Am. Chem. Soc. (JACSAT)* **54**, 3315 (1932).
 Huston, R.C. et al.: *J. Am. Chem. Soc. (JACSAT)* **55**, 4639 (1933).

synthesis of ethyl 2-methylbutanoate:

Gardner, R.: *J. Chem. Soc. (JCSOA9)* **1938**, 53.

Formulation(s): tabl. 100 mg

Trade Name(s):

CH: Beclipur (Siegfried; 1988) Beclosclerin (Siegfried; 1988) Turec (Zyma; 1988)

Beclometasone
(Beclomethasone)

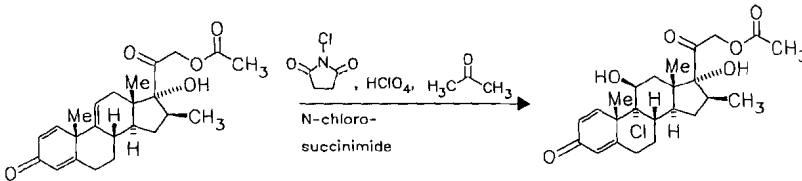
ATC: A07EA07; D07AC15; R01AD01;
R03BA01
Use: glucocorticoid

RN: 4419-39-0 MF: C₂₂H₂₉ClO₅ MW: 408.92 EINECS: 224-585-9
 CN: (11β,16β)-9-chloro-11,17,21-trihydroxy-16-methylpregna-1,4-diene-3,20-dione

dipropionate

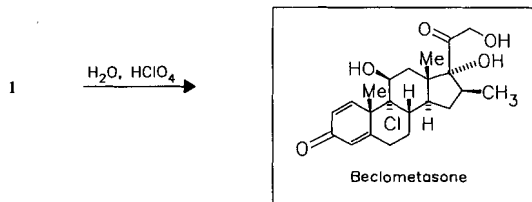
RN: 5534-09-8 MF: C₂₈H₃₇ClO₇ MW: 521.05 EINECS: 226-886-0
 LD₅₀: >5 g/kg (M, p.o.);
 >3.75 g/kg (R, p.o.)

(a)

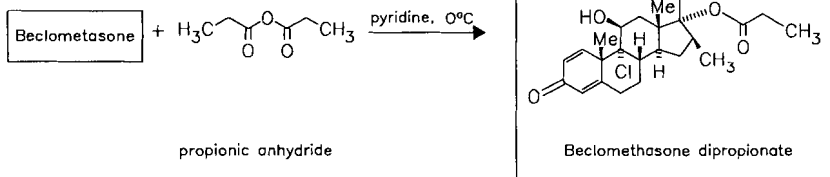


21-acetoxy-17-hydroxy-16β-methylpregna-1,4,9(11)-triene-3,20-dione
 (intermediate in syntheses of betamethasone, q.v.)

beclometasone 21-acetate (1)



b

*Reference(s):*

- a GB 912 378 (Merck & Co.; appl. 3.6.1959; USA-prior. 19.6.1958).
 GB 912 379 (Merck & Co.; appl. 3.6.1959; USA-prior. 19.6.1958).
alternative synthesis:
 GB 901 093 (Scherico; appl. 22.7.1958; USA-prior. 22.7.1957).
 US 4 041 055 (Upjohn; 9.8.1977, appl. 17.11.1975).
- b BE 649 170 (Glaxo; appl. 11.6.1964; GB-prior. 11.6.1963).
 FR 2 274 309 (Plurichemie; appl. 27.3.1975; P-prior. 27.3.1974, 10.3.1975).

medical use:

DOS 2 320 111 (Allen & Hanburys; appl. 19.4.1973; GB-prior. 20.4.1972).

Formulation(s): cream 0.025 %; dose aerosol (0.05 μg , 0.25 μg /puff); nasal spray (0.05 μg /puff); powder inhaler

Trade Name(s):

D:	AeroBec Autohaler (3M Medica/ASTA Medica AWD)	Bécotide (Glaxo Wellcome)	Cleniderm (Chiesi)
	Beclorhinol (Lindopharm)	Prolair Autohaler (3M Santé)	Clenigen (Chiesi)-comb.
	Becloturmant (Desitin)	Rhinirex (Irex)	Clenil (Chiesi)
	Beconase (Glaxo)	Spir (Inava)	Clenil spray (Chiesi)
	Beconase Aquosum (Glaxo)	GB: Aerobec (3M)	Inalone (Lampugnani)
	Beconase Dosier-Spray (Glaxo)	Asmabec (Evans)	Menaderm (Menarini)
	Sanasthmax (Glaxo)	Beclazone (Baker Norton)	Proctisone (Chiesi)-comb.
	Sanasthmyl (Glaxo)	Becloforte (Allen & Hanburys)	Propaderm (Demcan)
	Sanasthmyl Dosier-Aerosol	Becodisks (Allen & Hanburys)	Rino-Clenil (Chiesi)
	Rotadish (Glaxo)	Beconase (Allen & Hanburys)	Turbinal (Valeas)
	Viarox (Byk Essex)	Becotide (Allen & Hanburys)	J: Aldecin (Schering-Plough)
	Viarox (Byk Gulden)	Filair (3M)	Becloderm (Kobayashi)
	Viarox Dosier-Aerosol (Byk Essex)	Propaderm (Glaxo Wellcome)	Beconase (Glaxo)
F:	Beclojet (Promedica)	1: Becotide (Glaxo)	Becotide (Nippon Glaxo)
	Béconase (Glaxo Wellcome)	Bronco-Turbinal (Valeas)	Becotide (Glaxo)
			Belg (Kowa)
			Betozon (Ohta)
			Betozon (Ohta Seiyaku)
			Entyderma (Taiyo)
			Hibisterin (Nippon Zoki)
			Korbutone (Nippon Glaxo)
			Mulunet (Tatsumi)

Propaderm (Shin Nihon;
Jitsugyo-Glaxo Fuji; as
dipropionate)
Rhinocort (Fujisawa)
Salcoat (Fujisawa)
Solutroid (Nikken)

USA: Beclovent (Glaxo
Wellcome)
Beconase (Glaxo
Wellcome)
Beconase (Glaxo
Wellcome; as dipropionate)

Vancenase (Schering-
Plough; as dipropionate)
Vanceril (Schering; as
dipropionate)

Befunolol

ATC: C07AA; S01ED06

Use: β -adrenoceptor blocker

RN: 39552-01-7 MF: $C_{16}H_{21}NO_4$ MW: 291.35

LD₅₀: 100-105 mg/kg (M, i.v.)

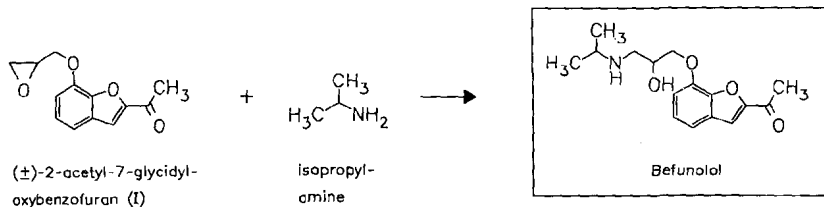
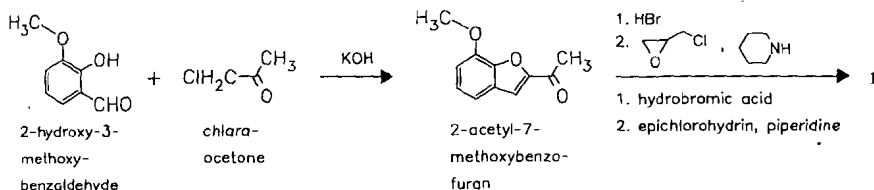
CN: (\pm)-1-[7-[2-hydroxy-3-[(1-methylethyl)amino]propoxy]-2-benzofuranyl]ethanone

hydrochloride

RN: 39543-79-8 MF: $C_{16}H_{21}NO_4 \cdot HCl$ MW: 327.81

LD₅₀: 65 mg/kg (M, i.v.); 950 mg/kg (M, p.o.);

922 mg/kg (R, p.o.)



Reference(s):

DOS 2 223 184 (Kakenyaku Kako; appl. 12.5.1972; J-prior. 13.5.1971, 14.7.1971, 28.10.1971, 6.1.1972).

US 3 853 923 (Kakenyaku Kako; 10.12.1974; J-prior. 13.5.1971, 14.7.1971, 28.10.1971, 6.1.1972).

US 4 056 626 (Kakenyaku Kako; 1.11.1977; J-prior. 6.1.1972; 13.5.1971).

synthesis of 2-acetyl-7-methoxybenzofuran:

Bergel et al.: J. Chem. Soc. (JCSOA9), 1944, 261.

Formulation(s): eye drops 2.5 mg/ml, 5 mg/ml

Trade Name(s):

D:	Glauconex (Alcon; 1984)	I:	Betaclan (Angelini)
F:	Bentos (CIBA Vision Ophthalmics; 1987)	J:	Bentos (Kaken; as hydrochloride; 1983)

Bekanamycin

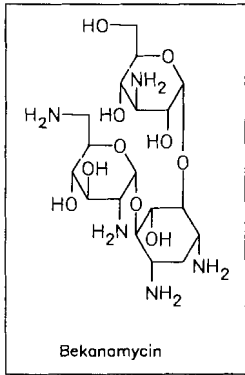
(Kanamycin B)

ATC: A07AA; J01KD; S01AA

Use: aminoglycoside antibiotic

RN: 4696-76-8 MF: C₁₈H₃₇N₅O₁₀ MW: 483.52 EINECS: 225-170-5LD₅₀: 136 mg/kg (M, i.v.)CN: O-3-amino-3-deoxy- α -D-glucopyranosyl-(1 \rightarrow 6)-O-[2,6-diamino-2,6-dideoxy- α -D-glucopyranosyl-(1 \rightarrow 4)]-2-deoxy-D-streptamine**sulfate (1:1)**RN: 29701-07-3 MF: C₁₈H₃₇N₅O₁₀ · H₂SO₄ MW: 581.60LD₅₀: 112 mg/kg (M, i.v.);

141 mg/kg (R, i.v.); >10 g/kg (R, p.o.)



Fermentation of *Streptomyces kanamyceticus* (ATCC 12853) and precipitation with sodium dodecylphenylsulfonate.

Reference(s):

DAS 1 115 413 (H. Umezawa; appl. 1958; USA-prior. 1957).

US 2 967 177 (Bristol-Myers; 1961; prior. 1958).

US 3 032 547 (Merck & Co., 15.1.1962; prior. 12.9.1958).

alternative synthesis:

US 2 931 798 (H. Umezawa et al.; 1960; J-prior. 1956).

US 2 936 307 (Bristol-Myers; 1960; prior. 1957).

*total synthesis:*Umezawa, S. et al.: Bull. Chem. Soc. Jpn. (BCSJA8) **42**, 537 (1969).*structure:*Ito, T.: J. Antibiot., Ser. A (JAJAAA) **17**, 189 (1964).*review:*Wakazawa, T. et al.: J. Antibiot., Ser. A (JAJAAA) **14A**, 180, 187 (1961).*Formulation(s):* cps. 250 mg; gran. 250 mg; powder; susp. 200 mg*Trade Name(s):*

I: Kanendos (Crinos; as sulfate)

Visumicina (Merck Sharp & Dohme)-comb.

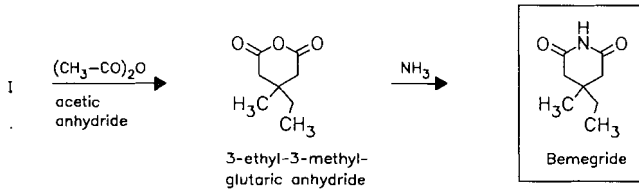
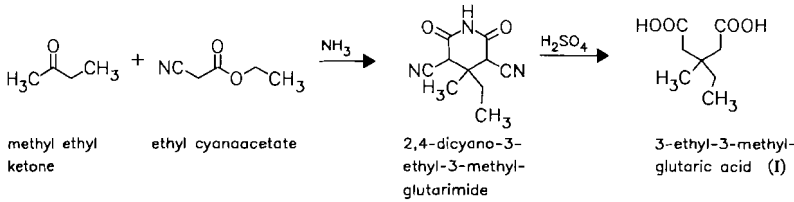
Micomplex (Schiapparelli Searle)-comb.

J: Kanendomycin (Meiji Seika; as sulfate)

Bemegrade

ATC: R07AB05
 Use: antidote for barbiturate poisoning, analeptic

RN: 64-65-3 MF: C₈H₁₃NO₂ MW: 155.20 EINECS: 200-588-0
 LD₅₀: 16 mg/kg (M, i.v.); 41 mg/kg (M, p.o.); 16 mg/kg (R, i.v.)
 CN: 4-ethyl-4-methyl-2,6-piperidinedione



Reference(s): Benica, W.S.; Wilson, C.H.O.: J. Am. Pharm. Assoc. (JPHAA3) 39, 451, 454 (1950).

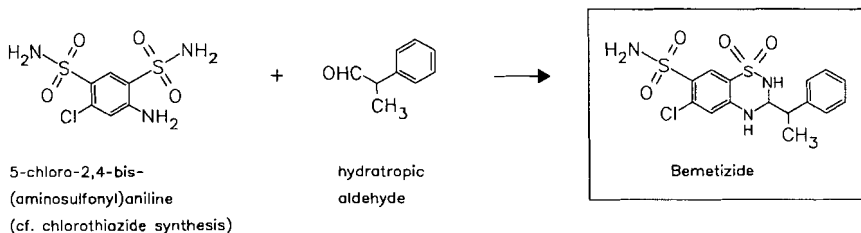
Formulation(s): amp. 5 mg/ml (5 %, 10 %)

Trade Name(s):
 D: Eukraton (Nordmark); wfm F: Mégimide (Aspros-Nicholas); wfm GB: Megimide (Nicholas); wfm J: Antibarbi (Tanabe)

Bemetizide

ATC: C03E
 Use: diuretic

RN: 1824-52-8 MF: C₁₅H₁₆ClN₃O₄S₂ MW: 401.90 EINECS: 217-357-5
 LD₅₀: 345 mg/kg (M, i.v.); >5 g/kg (M, p.o.); >5 g/kg (R, p.o.)
 CN: 6-chloro-3,4-dihydro-3-(1-phenylethyl)-2H-1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide



Reference(s):

AT 230 382 (Dr. H. Voigt; appl. 8.3.1961; D-prior. 23.2.1961).

Topliss, J.G. et al.: J. Org. Chem. (JOCEAH) **26**, 3842 (1961).Jacobi, H.; Fontaine, R.: Arzneimittel.-Forsch. (ARZNAD) **16**, 1186, 1332 (1966).*Formulation(s):* drg. 10 mg, 20 mg*Trade Name(s):*D: Dehydro sanol (Sanol)-
comb.

Diucomb (Melusin)-comb.

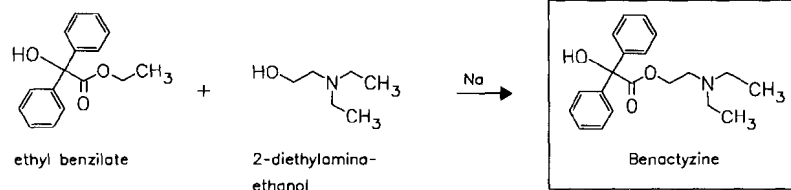
F: Tensigradyl (Oberval)-
comb.; wfm**Benactyzine**

ATC: N04A

Use: ataractic, neuroleptic, anticholinergic

RN: 302-40-9 MF: C₂₀H₂₅NO₃ MW: 327.42 EINECS: 206-123-8LD₅₀: 100 mg/kg (M, i.p.); 159 mg/kg (M, s.c.);
135 mg/kg (R, i.m.)

CN: α-hydroxy-α-phenylbenzeneacetic acid 2-(diethylamino)ethyl ester

hydrochlorideRN: 57-37-4 MF: C₂₀H₂₅NO₃ · HCl MW: 363.89 EINECS: 200-324-4LD₅₀: 14.3 mg/kg (M, i.v.); 160 mg/kg (M, p.o.);
184 mg/kg (R, p.o.)*Reference(s):*

US 2 394 770 (American Cyanamid; 1946; prior. 1942).

Formulation(s): amp. 2 mg/ml, 0.3 %; tabl. 1 mg*Trade Name(s):*D: Brondiletten (Albert-
Roussel)-comb.; wfm
Perasthman (Polypharm)-
comb.I: Pre Ciclo (Ibis)-comb.;
wfm
Sirenitas (Benvegna)-
comb.; wfmJ: Morcain (Tatsumi); wfm
Parpon (Santen); wfm**Benaprizine**

(Benapryzine)

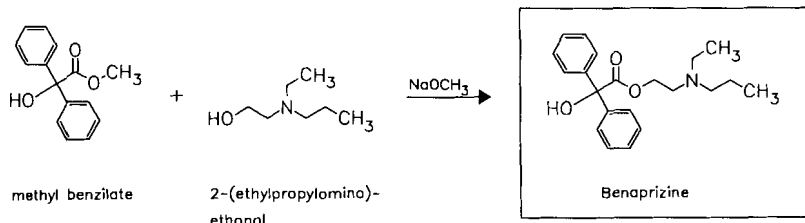
ATC: N04

Use: antiparkinsonian

RN: 22487-42-9 MF: C₂₁H₂₇NO₃ MW: 341.45

CN: α-hydroxy-α-phenylbenzeneacetic acid 2-(ethylpropylamino)ethyl ester

hydrochlorideRN: 3202-55-9 MF: C₂₁H₂₇NO₃ · HCl MW: 377.91LD₅₀: 500 mg/kg (M, p.o.)

**Reference(s):**

US 3 746 743 (Beecham; 17.7.1973; GB-prior. 22.8.1963).

Formulation(s): tabl. 10 mg (as hydrochloride), 50 mg

Trade Name(s):

GB: Brizin (Beecham); wfm I: Zinadril (Smith Kline Beecham)

Benazepril

(Benzapril)

ATC: C09AA07

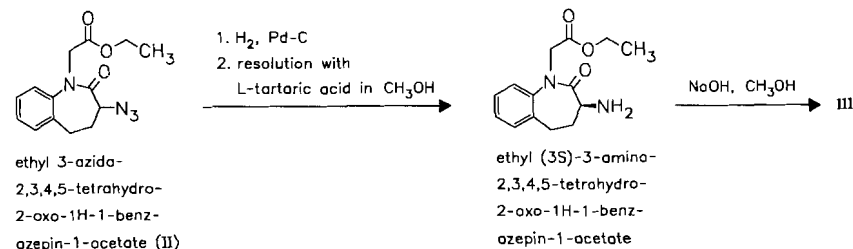
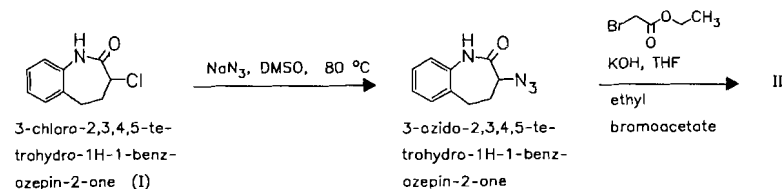
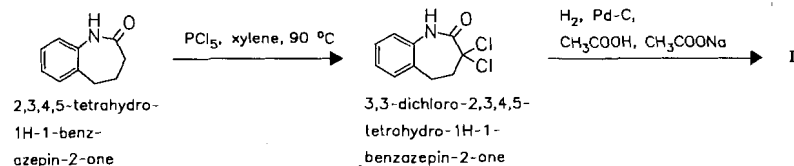
Use: antihypertensive (ACE inhibitor)

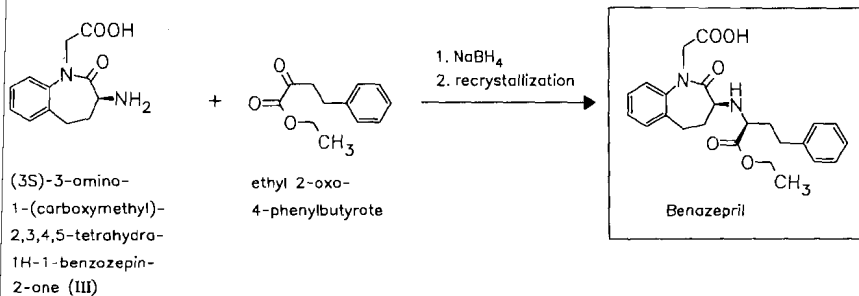
RN: 86541-75-5 MF: $\text{C}_{24}\text{H}_{28}\text{N}_2\text{O}_5$ MW: 424.50

CN: [S-(R*,R*)]-3-[[1-(ethoxycarbonyl)-3-phenylpropyl]amino]-2,3,4,5-tetrahydro-2-oxo-1H-1-benzazepine-1-acetic acid

monohydrochloride

RN: 86541-74-4 MF: $\text{C}_{24}\text{H}_{28}\text{N}_2\text{O}_5 \cdot \text{HCl}$ MW: 460.96



**Reference(s):**

Watthey, J.W.H. et al.: J. Med. Chem. (JMCMAR) **28**, 1511 (1985).
 US 4 410 520 (Ciba-Geigy; 18.10.1983; prior. 11.8.1981, 9.11.1981, 19.7.1982).
 EP 72 352 (Ciba-Geigy; appl. 5.8.1982; USA-prior. 11.8.1981, 9.11.1981).
 EP 206 993 (Ciba-Geigy; appl. 9.6.1986; CH-prior. 13.6.1985)

Formulation(s): f. c. tabl. 5 mg, 10 mg, 20 mg (as hydrochloride)

Trade Name(s):

D:	Cibacen (Novartis Pharma)	I:	Cibadrex (Novartis)-comb.	J:	Cibacen (Novartis; as hydrochloride)
	Cibadrex (Novartis Pharma)-comb.		Cibadrex (Ciba-Geigy)-comb.	USA:	Lotensin (Ciba)
F:	Briazide (Pierre Fabre)-comb.		Tensanil (Zyma)		Lotensin (Ciba)-comb. with Hydrochlorothiazide
	Briem (Pierre Fabre)		Zinadur (Smith Kline Beecham)-comb.		Lotrel (Ciba)-comb. with Amlodipine
	Cibacère (Novartis)				

Bencyclane

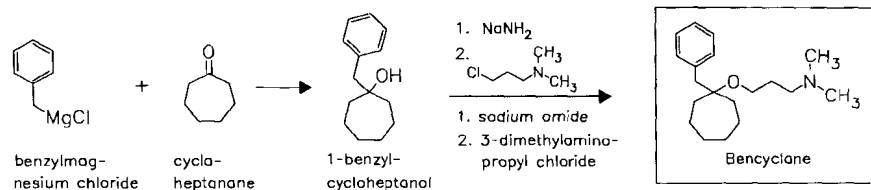
(Benciclano)

ATC: C04AX11

Use: antispasmodic, vasodilator

RN: 2179-37-5 MF: C₁₉H₃₁NO MW: 289.46 EINECS: 218-547-0CN: *N,N*-dimethyl-3-[[1-(phenylmethyl)cycloheptyl]oxy]-1-propanamine**fumarate (1:1)**RN: 14286-84-1 MF: C₁₉H₃₁NO · C₄H₄O₄ MW: 405.54 EINECS: 238-204-9LD₅₀: 45 mg/kg (M, i.v.); 446 mg/kg (M, p.o.);

41 mg/kg (R, i.v.); 414 mg/kg (R, p.o.)

**Reference(s):**

HU 151 865 (Egyesült Gyogyszer; appl. 18.8.1963).

Formulation(s): drg. 75 mg, 100 mg

Trade Name(s):

D: Card-Fludilat (Thiemann)-
comb. with digoxin
Fludilat (Thiemann)

Novo-Card-Fludilat
(Thiemann)-comb.
F: Fludilat (Organon); wfm

I: Angiociclan (Organon
Italia)
J: Halidor (Sumitomo; as
fumarate)

Bendacort

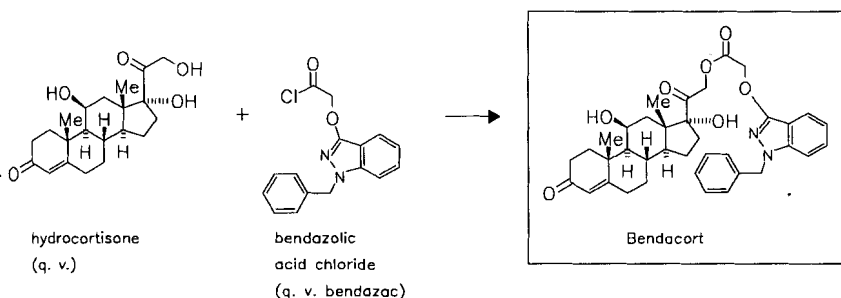
(Bendacortone)

ATC: D07XA

Use: glucocorticoid

RN: 53716-43-1 MF: C₃₇H₄₂N₂O₇ MW: 626.75 EINECS: 258-710-3

CN: (11β)-11,17-dihydroxy-21-[[[1-(phenylmethyl)-1H-indazol-3-yl]oxy]acetyl]oxy]pregn-4-ene-3,20-dione

*Reference(s):*

DOS 2 601 367 (Angelini; appl. 15.1.1976; I-prior. 13.2.1975).

Formulation(s): cream 3 %; ointment 3 %*Trade Name(s):*

I: Versacort (Angelini)

Bendazac

(Bindazac; Acido bendazolico)

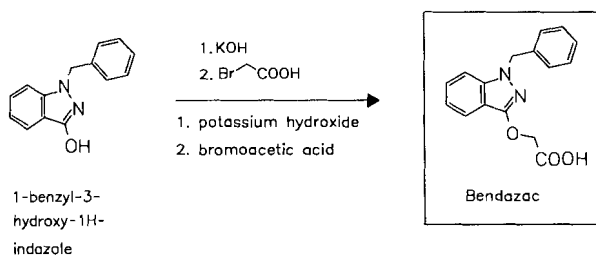
ATC: M02AA11; S01BC07

Use: anti-inflammatory

RN: 20187-55-7 MF: C₁₆H₁₄N₂O₃ MW: 282.30 EINECS: 243-569-2LD₅₀: 380 mg/kg (M, i.v.); 1105 mg/kg (M, p.o.);

304 mg/kg (R, i.v.); 1200 mg/kg (R, p.o.)

CN: [[1-(phenylmethyl)-1H-indazol-3-yl]oxy]acetic acid

sodium saltRN: 23255-99-4 MF: C₁₆H₁₃N₂NaO₃ MW: 304.28 EINECS: 245-528-4

Reference(s):

US 3 470 194 (Angelini Francesco; 30.9.1969; I-prior. 29.8.1966).

*starting material:*Palazzo, G. et al.: J. Med. Chem. (JMCMAR) **9**, 38 (1966).*use in ointments, lotions etc.:*US 3 470 298 (Angelini Francesco; 30.9.1969; prior. 29.1.1969, 24.5.1968, 3.1.1967).
(Bendacort, q. v.)*Formulation(s):* cream 1 %, 3 %; ointment 1 %, 3 %*Trade Name(s):*I: Bendaline (Angelini)-
comb. with lysine
J: Versus (Angelini)
Zildasac (Chugai)**Bendroflumethiazide**

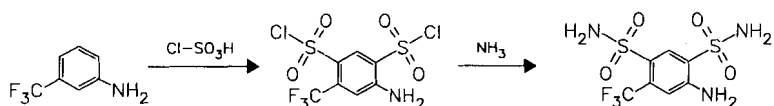
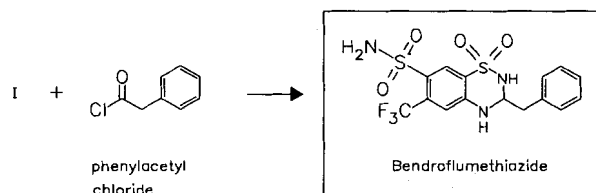
(Bendrofluazide)

ATC: C03AA01

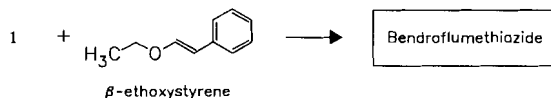
Use: diuretic, antihypertensive

RN: 73-48-3 MF: C₁₅H₁₄F₃N₃O₄S₂ MW: 421.42 EINECS: 200-800-1LD₅₀: 395 mg/kg (M, i.v.); >10 g/kg (M, p.o.)

CN: 3,4-dihydro-3-(phenylmethyl)-6-(trifluoromethyl)-2H-1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide

3-trifluoromethyl-
aniline4-amino-6-trifluoro-
methyl-1,3-benze-
disulfochloride2,4-diaminosulfonyl-
5-trifluoromethylaniline (I)phenylacetyl
chloride

Bendroflumethiazide

 β -ethoxystyrene

Bendroflumethiazide

Reference(s):

US 3 265 573 (Squibb; 9.8.1966, appl. 27.7.1962).

US 3 392 168 (Lovens Kemiske Fabrik; 9.7.1968; GB-prior. 13.8.1958).

Holdrege, C.T. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 4807 (1959).*Formulation(s):* cps. 1.25 mg, 2.5 mg; tabl. 2.5 mg, 5 mg*Trade Name(s):*D: Docidrazin (Rhein-Pharma;
Zeneca)-comb.
Dociretic (Thiemann)-
comb.
Pertenso (Fournier
Pharma)-comb.

Repicin (Boehringer Ing.)- comb. Sali-Aldopur, - forte (Hormosan)-comb. Sotaziden (Bristol-Myers Squibb) Spirostada comp. -forte (Stadapharm)-comb. Tensoflux (Hennig)-comb. F: Naturine (Leo)	GB:	Precyclan-Leo (Leo)-comb. Tensionorme (Leo)-comb. Aprinox (Knoll) Corgaretic (Sanofi Winthrop)-comb. Inderetic (Zeneca)-comb. Inderex (Zeneca)-comb. Neo-Naclax (Goldshield) Prestim (Leo)-comb. Tenben (Galen)-comb.	I: J:	Idrexin-Na (Vermont); wfm Menserene (Squibb)- comb.; wfm Notens (Farge); wfm Polidiuril (Bios); wfm Salural (Icb); wfm Sodiuretic (Squibb); wfm Centyl (Leo-Sankyo)
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Benexate (TA-903)

ATC: A02BX

Use: cytoprotective agent (for treatment of gastric ulcer), chymotrypsin inhibitor

RN: 78718-52-2 MF: $C_{23}H_{27}N_3O_4$ MW: 409.49

LD₅₀: 7600 mg/kg (M, p.o.);

8010 mg/kg (R, p.o.)

CN: *trans*-2-[[[4-[[[aminoiminomethyl]amino]methyl]cyclohexyl]carbonyl]oxy]benzoic acid phenylmethyl ester

monohydrochloride

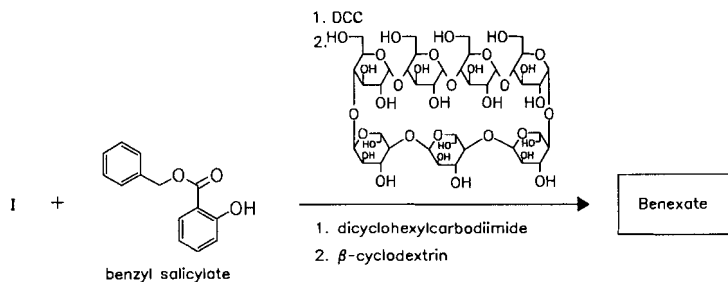
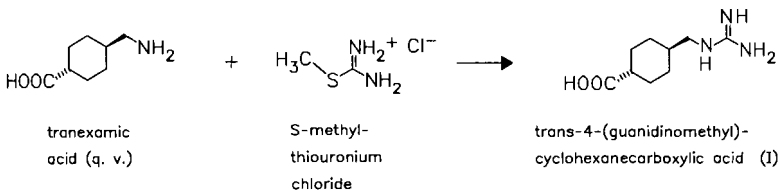
RN: 78718-25-9 MF: $C_{23}H_{27}N_3O_4 \cdot HCl$ MW: 445.95

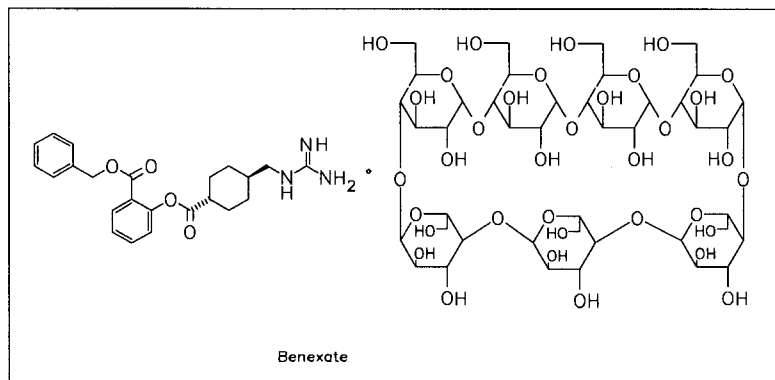
monotosylate

RN: 82576-86-1 MF: $C_{23}H_{27}N_3O_4 \cdot C_7H_8O_3S$ MW: 581.69

monohydrochloride, clathrate with β -cyclodextrin (1:1)

RN: 86157-91-7 MF: $C_{23}H_{27}N_3O_4 \cdot HCl \cdot C_{42}H_{70}O_{35}$ MW: 1580.93



**Reference(s):**

DE 3 035 086 (Nippon Chemiphar; appl. 17.9.1980; J-prior. 20.9.1979, 26.12.1979).
 US 4 348 410 (Nippon Chemiphar, Teikoku Chem.; 7.9.1982; J-prior. 20.9.1979, 26.12.1979).

preparation of the clathrate with β -cyclodextrin:

EP 78 599 (Teikoku Chem.; appl. 27.8.1982; J-prior. 1.9.1981).

alternative synthesis:

JP 57 035 556 (Nippon Chemiphar; 26.2.1982; prior. 8.8.1980).
 JP 88 051 146 (Nippon Chemiphar; 13.10.1988; prior. 8.8.1980).
 Satoh, T. et al.: Chem. Pharm. Bull. (CPBTAL) **33**, 647 (1985).

Formulation(s): cps. 200 mg

Trade Name(s):

J: Loumiel (Teikoku; as hydrochloride β -cyclodextrin clathrate) Ulgut (Shionogi)

Benfluorex

ATC: B04AA; C10AX04

Use: appetite depressant

RN: 23602-78-0 MF: $C_{19}H_{20}F_3NO_2$ MW: 351.37 EINECS: 245-777-9

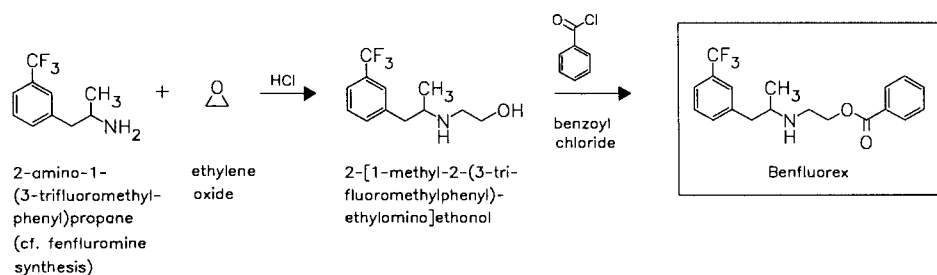
LD₅₀: 2300 mg/kg (M, p.o.)

CN: 2-[[1-methyl-2-[3-(trifluoromethyl)phenyl]ethyl]amino]ethanol benzoate (ester)

hydrochloride

RN: 23642-66-2 MF: $C_{19}H_{20}F_3NO_2 \cdot HCl$ MW: 387.83 EINECS: 245-801-8

LD₅₀: 108 mg/kg (M, i.p.)



Reference(s):

DE 1 593 991 (Science Union; appl. 14.4.1967; GB-prior. 15.4.1966).
 FR 1 517 587 (Science Union; appl. 5.4.1967; GB-prior. 15.4.1966).
 FR-M 6 564 (Science Union; appl. 3.7.1967; GB-prior. 15.4.1966).
 US 3 607 909 (Science Union; 21.9.1971; GB-prior. 15.4.1966).

Formulation(s): drg. 150 mg; tabl. 150 mg

Trade Name(s):

F: Mediator (Biopharma) I: Medialax (Servier) Minolip (Master Pharma)

Benfotiamine

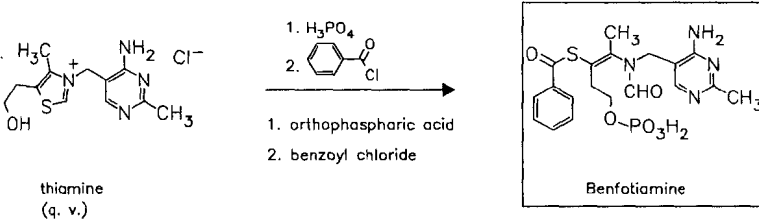
ATC: A11DB

Use: neurotropic analgesic

RN: 22457-89-2 MF: C₁₉H₂₃N₄O₆PS MW: 466.46 EINECS: 245-013-4

LD₅₀: 2200 mg/kg (M, i.v.); 15 g/kg (M, p.o.)

CN: benzenecarbothioic acid S-[2-[[[(4-amino-2-methyl-5-pyrimidinyl)methyl]formylamino]-1-[2-(phosphonooxy)ethyl]-1-propenyl] ester

*Reference(s):*

DE 1 130 811 (Sankyo Kabushiki Kaisha; appl. 14.4.1960; J-prior. 14.4.1959, 17.10.1959, 3.12.1959).

Formulation(s): tabl. 40 mg, 50 mg, 100 mg, 300 mg

Trade Name(s):

D:	Milgamma (Wörwag)- comb.	Vitalgesic (Clin-Midy)- comb.; wfm	I:	Tridodilan (Roussel)-comb.
	Milneuron (Wörwag)- comb.	Vitanevriil (Clin-Comar- Byla); wfm	J:	Biotamin (Sankyo)
F:	Vitalgesic (Clin-Comar- Byla)-comb.; wfm	Vitanevriil (Clin-Midy); wfm		

Benfurodil hemisuccinate

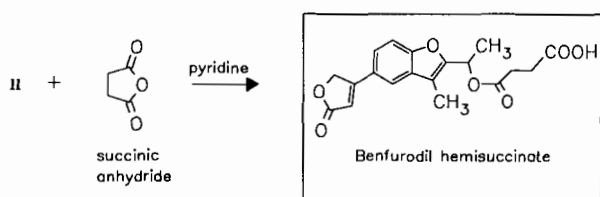
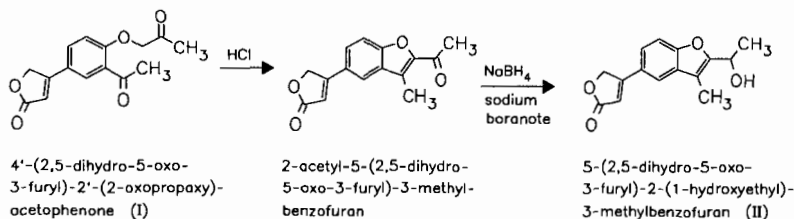
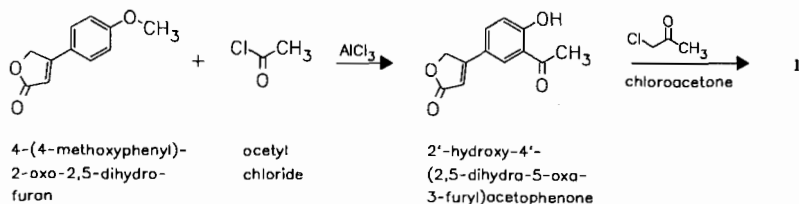
ATC: C01D

Use: cardiotoxic, vasodilator

RN: 3447-95-8 MF: C₁₉H₁₈O₇ MW: 358.35 EINECS: 222-367-8

LD₅₀: 520 mg/kg (M, p.o.)

CN: butanedioic acid mono[1-[5-(2,5-dihydro-5-oxo-3-furanyl)-3-methyl-2-benzofuranyl]ethyl] ester

**Reference(s):**

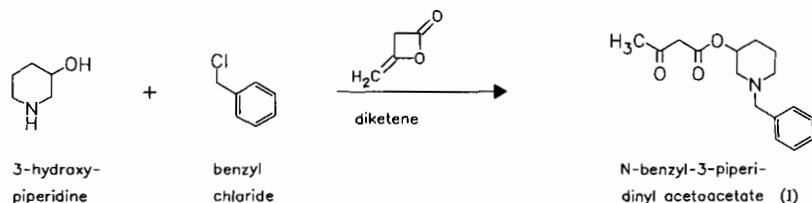
FR 1 408 721 (Clin-Byla; appl. 7.2.1964).

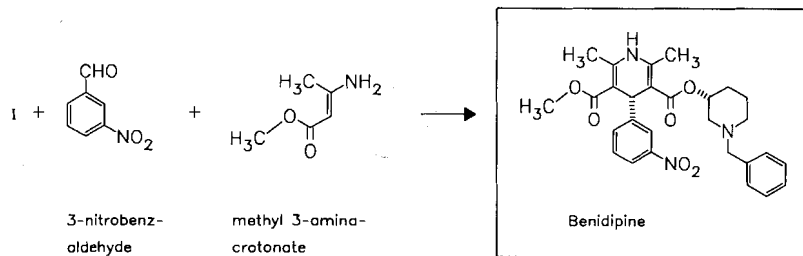
US 3 355 463 (Clin-Byla; 28.11.1967; F-prior. 7.2.1964).

Formulation(s): amp. 2.5 %/2 ml; tabl. 150 mg**Trade Name(s):**F: Eucilat (Clin-Comar-Byla);
wfm**Benidipine**

(KW-3049)

ATC: C02DE

Use: calcium antagonist, antihypertensive,
antianginalRN: 105979-17-7 MF: $\text{C}_{28}\text{H}_{31}\text{N}_3\text{O}_6$ MW: 505.57CN: (*R**,*R**)-(±)-1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-3,5-pyridinedicarboxylic acid methyl 1-(phenylmethyl)-3-piperidinyl ester**monohydrochloride**RN: 91599-74-5 MF: $\text{C}_{28}\text{H}_{31}\text{N}_3\text{O}_6 \cdot \text{HCl}$ MW: 542.03LD₅₀: 21.5 mg/kg (M, i.p.); 2.5 mg/kg (M, i.v.); 322 mg/kg (M, p.o.); 33.5 mg/kg (M, s.c.);
15.1 mg/kg (R, i.p.); 4.4 mg/kg (R, i.v.); 87.6 mg/kg (R, p.o.); 276 mg/kg (R, s.c.)

*Reference(s):*

EP 63 365 (Kyowa Hakko; appl. 15.4.1982; J-prior. 17.4.1981).

alternative synthesis:

EP 106 275 (Kyowa Hakko; appl. 5.10.1983; J-prior. 15.10.1982, 27.1.1983; 3.6.1983).

Formulation(s): tabl. 2 mg, 4 mg, 8 mg

Trade Name(s):

J: Coniel (Kyowa Hakko;
1991)

Benmoxin

ATC: N06A

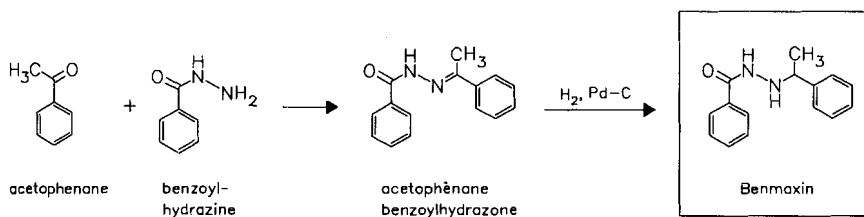
Use: antidepressant

RN: 7654-03-7 MF: C₁₅H₁₆N₂O MW: 240.31 EINECS: 231-619-6

LD₅₀: 250 mg/kg (M, p.o.);

675 mg/kg (R, p.o.)

CN: benzoic acid 2-(1-phenylethyl)hydrazide

*Reference(s):*

GB 919 491 (ICI; appl. 1958; valid from 1959).

FR 1 314 362 (ICI; appl. 1959; GB-prior. 1958).

Trade Name(s):

F: Neuralex (Millot); wfm

Benorilate

(Benorylate; Benorilato)

ATC: N02BA10

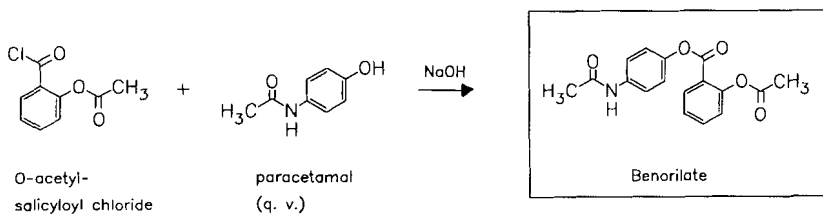
Use: analgesic, antirheumatic

RN: 5003-48-5 MF: C₁₇H₁₅NO₅ MW: 313.31 EINECS: 225-674-5

LD₅₀: 1551 mg/kg (M, p.o.);

3500 mg/kg (R, p.o.)

CN: 2-(acetyloxy)benzoic acid 4-(acetilamino)phenyl ester

**Reference(s):**

US 3 431 293 (Sterling Drug; 4.3.1969; GB-prior. 9.4.1964).

FR 1 436 870 (Sterwin; appl. 8.4.1965; GB-prior. 9.4.1964).

Formulation(s): gran. 2 g; powder 2 g; susp. 2 g, 400 mg; tabl. 750 mg**Trade Name(s):****D:** Benortan (Winthrop); wfm

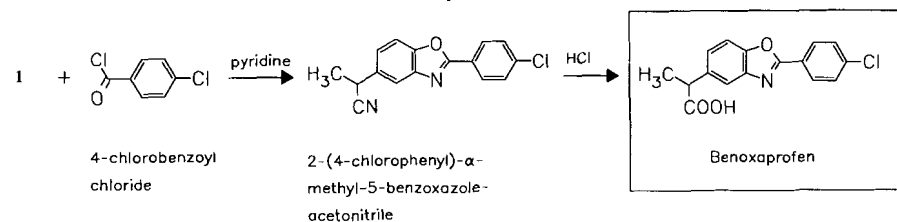
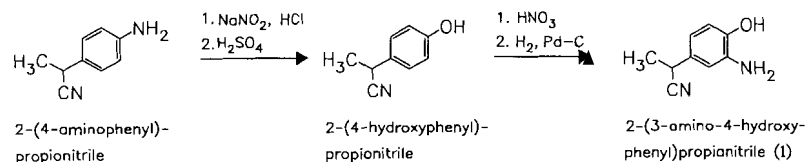
Salipran (Evans Medical)

I: Bentum (Zambon); wfm**F:** Benortan (Winthrop); wfm**GB:** Benoral (Sanofi Winthrop)

Winolate (Winthrop); wfm

Benoxaprofen**ATC:** M01AE06**Use:** non-steroidal anti-inflammatory, analgesic**RN:** 51234-28-7 **MF:** C₁₆H₁₂ClNO₃ **MW:** 301.73 **EINECS:** 257-069-7**LD₅₀:** 800 mg/kg (M, p.o.);

118 mg/kg (R, p.o.)

CN: 2-(4-chlorophenyl)- α -methyl-5-benzoxazoleacetic acid**Reference(s):**Dunwell, D.W. et al.: J. Med. Chem. (JMCMAR) **81**, 53 (1975).

DOS 2 324 443 (Lilly; appl. 15.5.1973; GB-prior. 18.5.1972).

Trade Name(s):**D:** Coxigon (Lilly); wfm**F:** Inflamid (Eli Lilly); wfm**GB:** Opren (Dista); wfm

Benperidol

(Benzperidol)

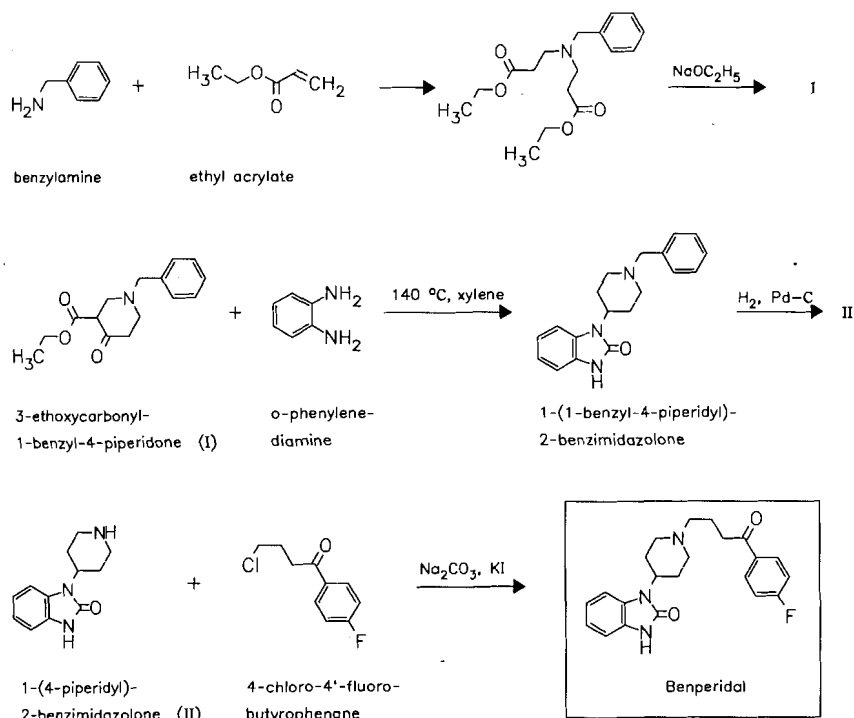
ATC: N05AD07

Use: neuroleptic

RN: 2062-84-2 MF: C₂₂H₂₄FN₃O₂ MW: 381.45 EINECS: 218-172-2LD₅₀: 20 mg/kg (M, i.v.); 432 mg/kg (M, p.o.);

21 mg/kg (R, i.v.)

CN: 1-[1-[4-(4-fluorophenyl)-4-oxobutyl]-4-piperidiny]-1,3-dihydro-2H-benzimidazol-2-one

*Reference(s):*

GB 989 755 (Janssen; appl. 24.12.1962; USA-prior. 22.12.1961).

US 3 161 645 (Janssen; 15.12.1964; prior. 22.12.1961).

DE 1 470 120 (Janssen; appl. 19.12.1962; USA-prior. 22.12.1961).

Formulation(s): amp. 2 mg; drops 2 mg; tabl. 0.25 mg, 2 mg; 5 mg; 10 mg*Trade Name(s):*

D: Glianimon (Bayer Vital)

Frenactil (Clin-Midy); wfm

F: Frenactil (Clin-Comar-Byla); wfm

GB: Anquil (Janssen-Cilag)

I: Psicoben (Ravizza); wfm

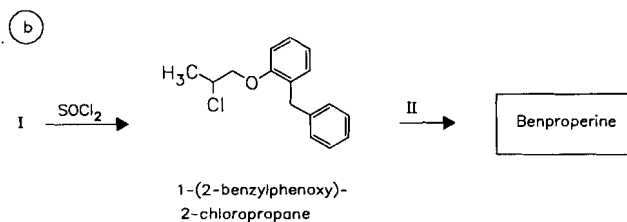
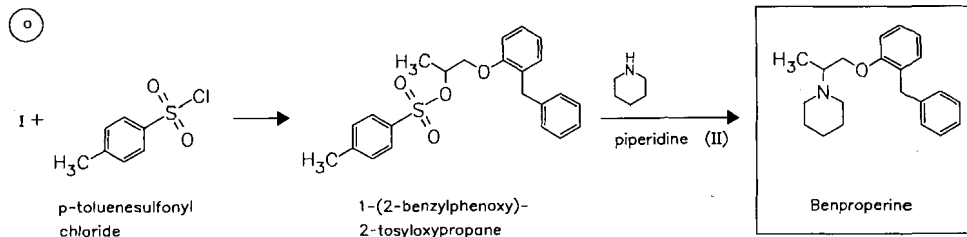
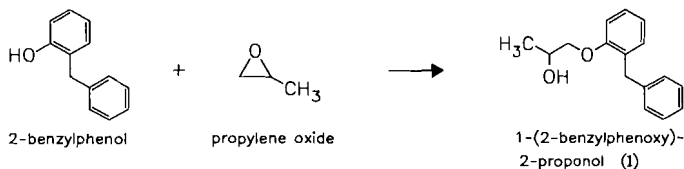
Benproperine

ATC: R05DB02

Use: antitussive

RN: 2156-27-6 MF: C₂₁H₂₇NO MW: 309.45LD₅₀: 1087 mg/kg (M, p.o.)

CN: 1-[1-methyl-2-[2-(phenylmethyl)phenoxy]ethyl]piperidine

dihydrogen phosphateRN: 19428-14-9 MF: C₂₁H₂₇NO · H₃PO₄ MW: 407.45 EINECS: 243-050-0LD₅₀: 32 mg/kg (M, i.v.); 1100 mg/kg (M, p.o.)**Reference(s):**

DAS 1 420 955 (Pharmacia; appl. 24.4.1961; DK-prior. 28.4.1960).

US 3 117 059 (Pharmacia; 7.1.1964; DK-prior. 28.4.1960).

Formulation(s): drg. 33 mg; susp. 15 mg; syrup 24.4 mg**Trade Name(s):**

D: Tussafug (Robugen)

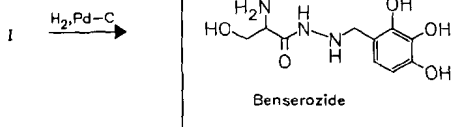
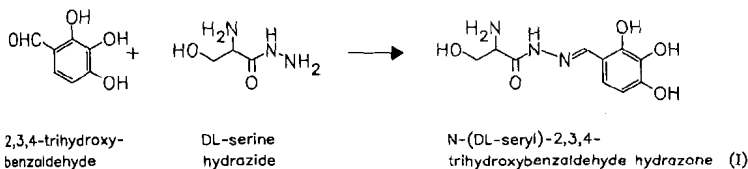
I: Blascorid Sosp. (Guidotti;
as embonate)J: Flaveric (Taito Pfizer; as
phosphate)**Benserazide**

ATC: N04BA02

Use: antiparkinsonian (in combination
with levodopa), decarboxylase
inhibitorRN: 322-35-0 MF: C₁₀H₁₅N₃O₅ MW: 257.25

CN: DL-serine 2-[(2,3,4-trihydroxyphenyl)methyl]hydrazide

monohydrochlorideRN: 14919-77-8 MF: C₁₀H₁₅N₃O₅ · HCl MW: 293.71 EINECS: 238-991-9LD₅₀: 5 g/kg (M, p.o.);
5300 mg/kg (R, p.o.)

**Reference(s):**

DE 1 165 607 (Roche; appl. 8.5.1962; CH-prior. 16.6.1961).

US 3 178 476 (Roche; 13.4.1965; CH-prior. 16.6.1961).

L-form:

US 3 557 292 (Roche; 19.1.1971; appl. 16.8.1968).

DE 1 941 284 (Roche; appl. 13.8.1969; CH-prior. 16.8.1968).

DAS 1 966 821 (Roche; appl. 13.8.1969; CH-prior. 16.8.1968).

Formulation(s): cps. 12.5 mg, 14.25 mg, 25 mg, 28.5 mg, 50 mg; dispersible tabl. 12.5 mg 25 mg; s. r. cps. 28.5 mg; tabl. 28.5 mg, 57 mg

Trade Name(s):

D:	Madopar (Roche)-comb. with levodopa	I:	Madopar (Roche)-comb.; wfm	Madopair (Roche)-comb. with levodopa
F:	Modopar (Roche)-comb. with levodopa		Madopar (Roche)-comb. with levodopa; wfm	Neodopasol (Daiichi)-comb. with levodopa
GB:	Madopar (Roche)-comb. with levodopa	J:	EC-doparl (Kyowa Hakko)-comb. with levodopa	

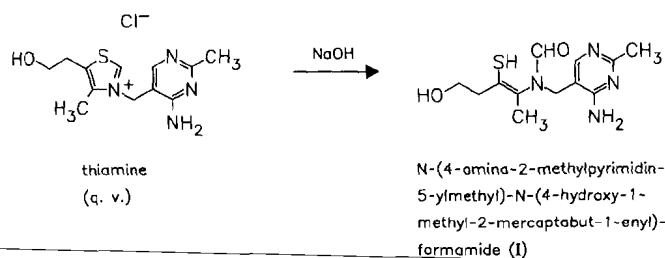
Bentiamine

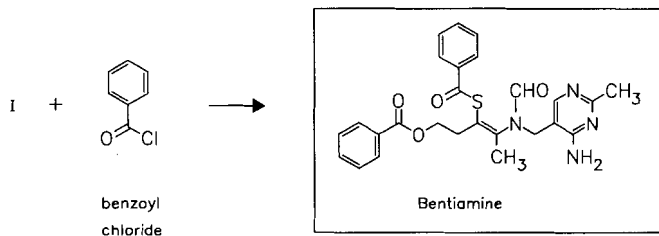
(Dibenthiamine; Dibenzoylthiamine)

ATC: A11

Use: vitamin B₁-derivative, neurotropic analgesicRN: 299-88-7 MF: C₂₆H₂₆N₄O₄S MW: 490.58 EINECS: 206-084-7LD₅₀: 7480 mg/kg (M, p.o.)

CN: benzenecarbothioic acid S-[2-[[[4-amino-2-methyl-5-pyrimidinyl)methyl]formylamino]-1-(2-benzoyloxy)ethyl]-1-propenyl] ester



**Reference(s):**

US 2 752 348 (Takeda; 1956; J-prior. 1952).

Matsukawa, T.; Kawasaki, H.: *Yakugaku Zasshi* (YKKZAJ) **23**, 705 (1953).**Trade Name(s):**

D: only combination preparations; wfm

Bentiromide

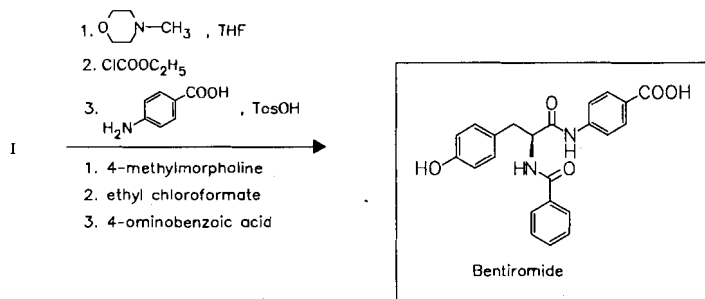
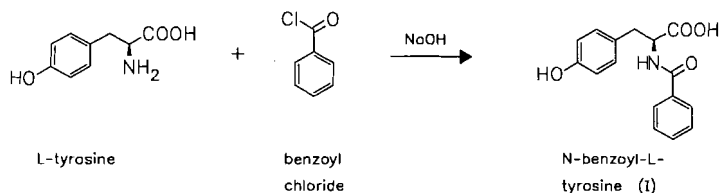
ATC: V04CK03

Use: pancreas function diagnostic

RN: 37106-97-1 MF: C₂₃H₂₀N₂O₅ MW: 404.42 EINECS: 253-349-8LD₅₀: 1020 mg/kg (M, i.v.); >6 g/kg (M, p.o.);

485 mg/kg (R, i.v.); >6 g/kg (R, p.o.)

CN: (S)-4-[[2-(benzoylamino)-3-(4-hydroxyphenyl)-1-oxopropyl]amino]benzoic acid

**Reference(s):**Benneville, P.L. de et al.: *J. Med. Chem. (JMCMAR)* **15**, 1098 (1972).

US 3 745 212 (Rohm & Haas; 10.7.1973; appl. 19.11.1970).

DE 2 156 835 (Rohm & Haas; appl. 16.11.1971; USA-prior. 19.11.1970).

Formulation(s): sol. 500 mg/10 ml; tabl. 333 mg**Trade Name(s):**

D: PFT Roche (Roche); wfm

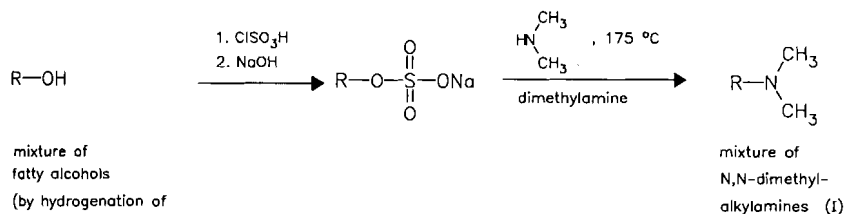
J: PFD (Eisai); wfm

USA: Chymex (Adria); wfm

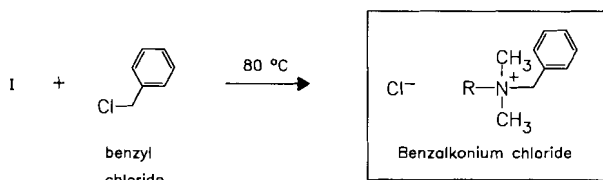
Benzalkonium chloride

ATC: D08AJ01; D09AA11; R02AA16
 Use: antiseptic, cation active tenside

RN: 8001-54-5 MF: unspecified MW: unspecified
 CN: benzalkonium chloride



R: C₈H₁₇ - C₁₈H₃₇

**Reference(s):**

Ehrhart, Ruschig **IV**, 50.

Guyer et al.: *Helv. Chim. Acta (HCACAV)* **20**, 1462 (1937).

Ralston, A.W. et al.: *J. Am. Chem. Soc. (JACSAT)* **69**, 2095 (1947).

Formulation(s): nail lacquer 1 oz.; sol. 1 oz.

Trade Name(s):

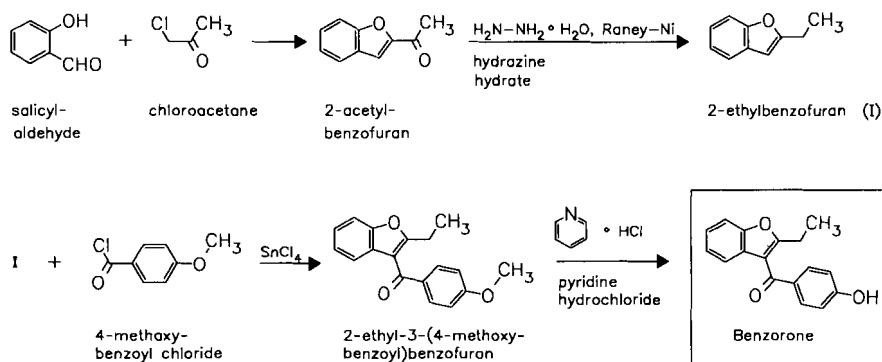
D:	Baktonium (Bode)	Conotrane (Yamanouchi)-comb.	Citrosil (Glaxo)
	Laudamonium (Henkel)	Dermol (Dermal)-comb.	Dil Mill (SIT)
	Lysoform-Killovon (Lysoform)	Drapolene (Warner-Lambert)-comb.	Herbagola propoli (Grica Chemical)
	Sagrotan Med (Schülke & Mayr)	Emulsiderm (Dermal)-comb.	Lacribase Saluzine (Allergan)
	and 100 more combination preparations	Ionil T (Alcon)-comb.	Quatersal (Ascor)
F:	Biseptine (Nicholas)-comb.	Oilatum Plus (Stiefel)-comb.	Sapocitrosil (Glaxo)
	Chlorure de benzalkonium	Timodine (Reckitt & Colman)-comb.	Steramina "G" (Formenti)
	Théramex (Théramex)	I:	Streptosil (Boehringer Ing.)
	Kenalcol (Bristol-Myers Squibb)	Alfac (Bracco)	Video bagno (Farmila)
	Pharmatex (Innothéra)	Alfafluorone (Biotekfarma)-comb.	Video gocce (Farmila)
	Rhinoftumicin (Zambon)-comb.	Atisteril (Ati)	Vittoria Lazione (Ottolenghi)
	Sparaplaie Na (Médecine Végétale)	Benzal (Tariff. Nazionale)	J:
GB:	Bradosol (Novartis)	Citralkon (Schiapparelli Salute)	USA:
			Amino-Cerv (Milex)-comb.
			Ony-Clear (Pedinol)
			Zephiran (Winthrop-Breon)

Benzarone

ATC: C05CX

Use: antihemorrhagic, antispasmodic, vein
therapeuticRN: 1477-19-6 MF: C₁₇H₁₄O₃ MW: 266.30 EINECS: 216-026-2LD₅₀: >12 g/kg (M, p.o.);
>12 g/kg (R, p.o.)

CN: (2-ethyl-3-benzofuranyl)(4-hydroxyphenyl)methanone

**Reference(s):**

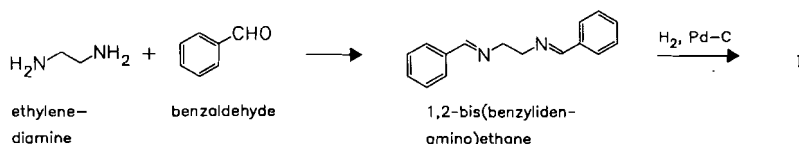
DE 1 076 702 (Labaz; appl. 20.12.1957; B-prior. 21.12.1956).

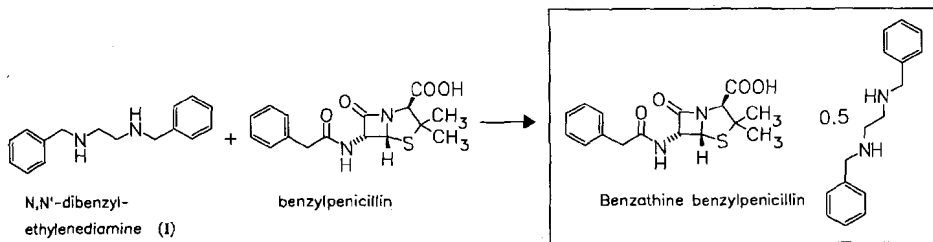
US 3 012 042 (Labaz; 5.12.1961; B-prior. 21.12.1956).

*alternative synthesis of 2-acetylbenzofuran (from benzofuran and acetic anhydride/H₃PO₄):*Buu-Hoi, N.P.: J. Chem. Soc. (JCSOA9) **1964**, 173.**Formulation(s):** tabl. 100 mg**Trade Name(s):**D: Fragivix (Sanol); wfm
Vasoc (Lindopharm); wfmF: Derol (Labaz)-comb. with
lidocaine; wfm
Fragivix (Labaz); wfmI: Fragivix (Sigma-Tau); wfm
Venagil (Logifarm); wfm
Venagil (Scalari); wfm**Benzathine benzylpenicillin**(Benethamine Penicilline; Benzilpenicillin; Penicillin G
Benzathine)

ATC: J01CE08

Use: depot antibiotic

RN: 1538-09-6 MF: C₁₆H₁₈N₂O₄S · 1/2C₁₆H₂₀N₂ MW: 909.14 EINECS: 216-260-5LD₅₀: 2 g/kg (M, p.o.)CN: [2*S*-(2α,5α,6β)]-3,3-dimethyl-7-oxo-6-[(phenylacetyl)amino]-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid compd. with *N,N'*-bis(phenylmethyl)-1,2-ethanediamine (2:1)

**Reference(s):**

US 2 627 491 (Wyeth; 1953; prior. 1950).

Formulation(s): gel 0.1 g/100 g

Trade Name(s):

D:	Depotpen (Dauelsberg)-comb.	F:	Extencilline (Specia)	Wycillina A. P. (Carlo Erba)	
	Sulfa-Tardocillin (Bayer)-comb.	GB:	Penidural (Wyeth); wfm	J:	Bicillin (Banyu)
	Tardocillin (Bayer)	I:	Benzil B (Formulario Naz.)	USA:	Bicillin (Wyeth); wfm
			Tri-Wycillina A. P. (Carlo Erba)-comb.		Permapen (Pfizer); wfm

Benzatropine

(Benztropine)

ATC: N04AC01

Use: parasympatholytic, antiparkinsonian

RN: 86-13-5 MF: C₂₁H₂₅NO MW: 307.44

LD₅₀: 25 mg/kg (M, i.v.)

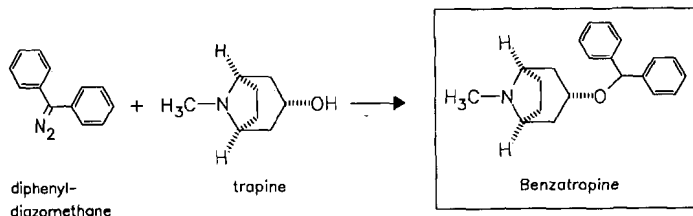
CN: *endo*-3-(diphenylmethoxy)-8-methyl-8-azabicyclo[3.2.1]octane

mesylate

RN: 132-17-2 MF: C₂₁H₂₅NO · CH₄O₃S MW: 403.54 EINECS: 205-048-8

LD₅₀: 24 mg/kg (M, i.v.); 91 mg/kg (M, p.o.);

940 mg/kg (R, p.o.)

**Reference(s):**

US 2 595 405 (Merck & Co.; 1952; prior. 1949).

Formulation(s): amp. 2 mg; tabl. 0.5 mg, 1 mg, 2 mg

Trade Name(s):

D:	Cogentinel (Astra)	GB:	Cogentin (Merck Sharp & Dohme; as mesylate)	USA:	Cogentin (Merck Sharp & Dohme; as mesylate)
F:	Cogentine (Merck Sharp & Dohme); wfm				

Benzbromarone

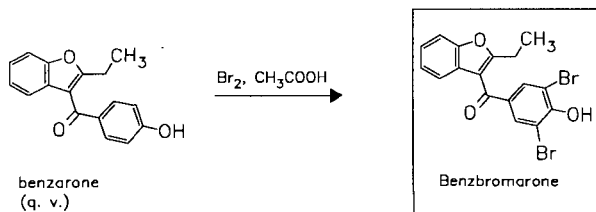
ATC: M04AB; N04AC01

Use: uricosuric agent

RN: 3562-84-3 MF: C₁₇H₁₂Br₂O₃ MW: 424.09 EINECS: 222-630-7LD₅₀: 77 mg/kg (M, i.v.); 618 mg/kg (M, p.o.);

248 mg/kg (R, p.o.)

CN: (3,5-dibromo-4-hydroxyphenyl)(2-ethyl-3-benzofuranyl)methanone

*Reference(s):*

DE 1 080 144 (Labaz; appl. 20.12.1957; B-prior. 21.12.1956).

US 3 012 042 (Labaz; 5.12.1961; B-prior. 21.12.1956).

combination with allopurinol:

GB 1 493 237 (Henning Berlin; appl. 11.5.1976; D-prior. 10.12.1975).

Formulation(s): f. c. tabl. 20 mg*Trade Name(s):*D: Acifugan (Henning Berlin)-
comb.Allomaron (Nattermann)-
comb.Azubromaron (Azupharma)
Harpagin (Merz & Co.)

Narcarin (Heumann)

F: Désuric (Sanofi Winthrop)

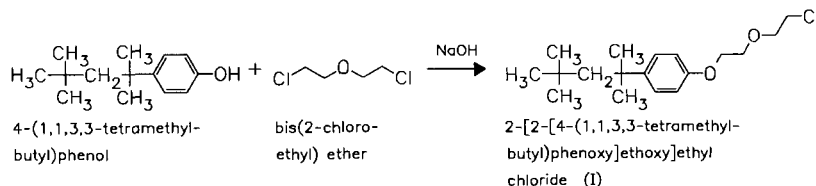
I: Desuric (Sigma-Tau); wfm
J: Urinorm (Torii)**Benzethonium chloride**

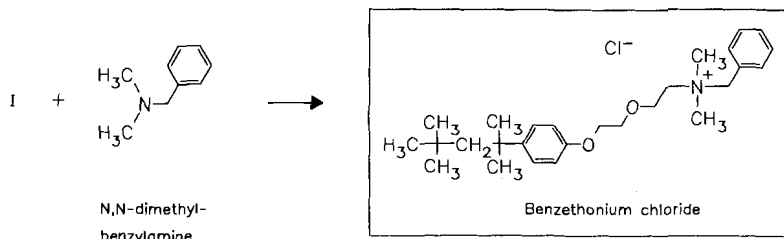
ATC: R02AA09

Use: disinfectant, antiseptic

RN: 121-54-0 MF: C₂₇H₄₂ClNO₂ MW: 448.09 EINECS: 204-479-9LD₅₀: 30 mg/kg (M, i.v.); 338 mg/kg (M, p.o.);

19 mg/kg (R, i.v.); 368 mg/kg (R, p.o.)

CN: *N,N*-dimethyl-*N*-[2-[2-[4-(1,1,3,3-tetramethylbutyl)phenoxy]ethoxy]ethyl]benzenemethanaminium chloride

**Reference(s):**

US 2 115 250 (Rohm & Haas; 1938; appl. 1936).

US 2 170 111 (Rohm & Haas; 1939; appl. 1936).

US 2 229 024 (Rohm & Haas; 1941; appl. 1939).

Formulation(s): many different formulations**Trade Name(s):**

D:	Brand- und Wundgel (Medica)-comb.	Ta-Ro-Cap (Soekami)- comb.; wfm	Ribex Gola (Formenti) Sterilix (Formenti)
F:	Alcolène (Alcon)-comb.; wfm	Vasol (Fumouze)-comb.; wfm	J: Hyamine-T (Sankyo) Neostelin-Green (Bayer- Nihonshika)
	Ineka (Soekami)-comb.; wfm	GB: Emko (Syntex)-comb. I: Air Sanitizer (Chifa)	

Benzilonium bromide

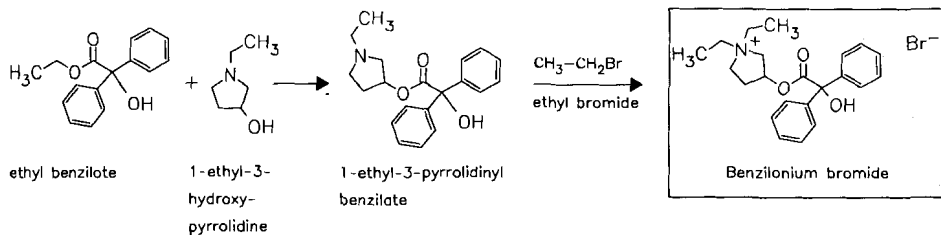
ATC: A03AB

Use: anticholinergic

RN: 1050-48-2 MF: C₂₂H₂₈BrNO₃ MW: 434.37 EINECS: 213-885-5LD₅₀: 11.2 mg/kg (M, i.v.); 363 mg/kg (M, p.o.);

760 mg/kg (R, p.o.)

CN: 1,1-diethyl-3-[(hydroxydiphenylacetyl)oxy]pyrrolidinium bromide

**Reference(s):**

GB 821 436 (Parke Davis; appl. 22.2.1956).

DE 1 136 338 (Parke Davis; appl. 12.2.1957; GB-prior. 22.2.1956, 29.1.1957).

Formulation(s): cps. 10 mg; tabl. 10 mg**Trade Name(s):**

D:	Minelcin (Parke Davis); wfm	F:	Portyn (Parke Davis); wfm	J:	Portyn (Parke Davis- Sankyo)
		GB:	Portyn (Parke Davis); wfm		

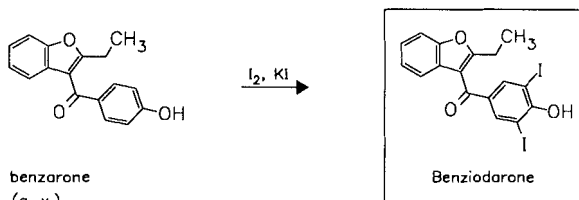
Benziodarone

ATC: C01DA; C01DX04

Use: coronary vasodilator, uricosuric agent

RN: 68-90-6 MF: C₁₇H₁₂I₂O₃ MW: 518.09 EINECS: 200-695-2LD₅₀: 450 mg/kg (M, p.o.)

CN: (2-ethyl-3-benzofuranyl)(4-hydroxy-3,5-diiodophenyl)methanone

*Reference(s):*

GB 836 272 (Labaz; appl. 17.12.1957; B-prior. 21.12.1956).

Formulation(s): cps. in comb. with allopurinol*Trade Name(s):*

F: Ampliuril pH (Labaz); wfm

Amplivix (Labaz); wfm

I: Uricodue (IFI)-comb.

Benzocaine

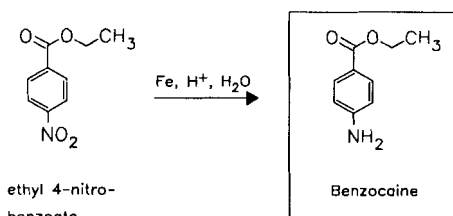
(Ethoforme)

ATC: C05AD03; D04AB04; N01BA05;
R02AD01

Use: local anesthetic

RN: 94-09-7 MF: C₉H₁₁NO₂ MW: 165.19 EINECS: 202-303-5LD₅₀: 216 mg/kg (M, i.p.)

CN: 4-aminobenzoic acid ethyl ester

*Reference(s):*

Org. Synth. (ORSYAT) 8, 66 (1928).

Formulation(s): cream 100 mg; ointment 5 %, 10 %, 20 %; pills 4 mg, 8 mg, 20 mg; powder 60 mg; suppos. 100 mg*Trade Name(s):*D: Anaesthesin (Ritsert)
Flavamed (Berlin-Chemie)
Subcutin (Ritsert)
Zahnerol (Janssen)I: Anes Par (Tariff.
Integrativo)
Gengivarium (Kemyos)

USA: Americaine (Medeva)

GB: generics

Auralgan (Wyeth-Ayerst)

Cetacaine (Cetylite)
Hurricane (Beutlich)
Tympagesic (Savage)

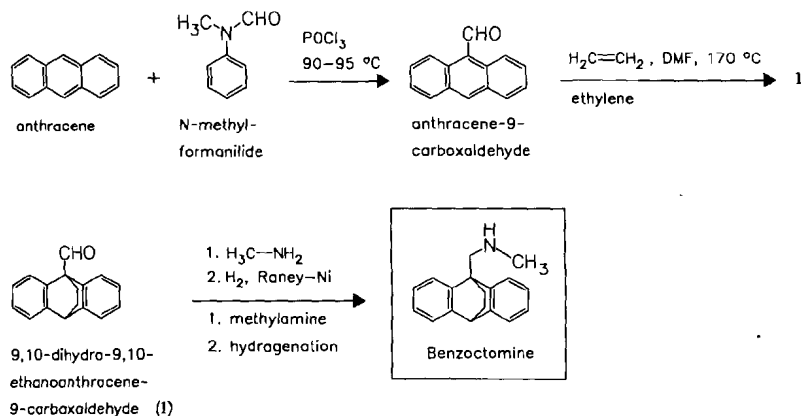
Benzoctamine

ATC: N05BD01
 Use: psychosedative, tranquilizer

RN: 17243-39-9 MF: C₁₈H₁₉N MW: 249.36
 LD₅₀: 30 mg/kg (M, i.v.); 280 mg/kg (M, p.o.);
 36 mg/kg (R, i.v.); 600 mg/kg (R, p.o.);
 >10 mg/kg (dog, i.v.); >200 mg/kg (dog, p.o.)
 CN: *N*-methyl-9,10-ethanoanthracene-9(10*H*)-methanamine

hydrochloride

RN: 10085-81-1 MF: C₁₈H₁₉N · HCl MW: 285.82 EINECS: 233-216-0
 LD₅₀: 26 mg/kg (R, i.v.); 700 mg/kg (R, p.o.)

**Reference(s):**

Wilhelm, M.; Schmidt, P.: *Helv. Chim. Acta (HCACAV)* **52**, 1385 (1969).
 BE 610 863 (Ciba; appl. 28.11.1961; CH-prior. 29.11.1960, 10.10.1961).
 US 3 399 201 (Ciba; 27.8.1968; CH-prior. 29.11.1960, 10.10.1961, 1.11.1963, 23.12.1964, 24.11.1965, 10.12.1965).
 DE 1 228 605 (Ciba; appl. 24.11.1961; CH-prior. 29.11.1960, 10.10.1961).

Formulation(s): syrup 2 mg/2 ml; tabl. 5 mg, 10 mg

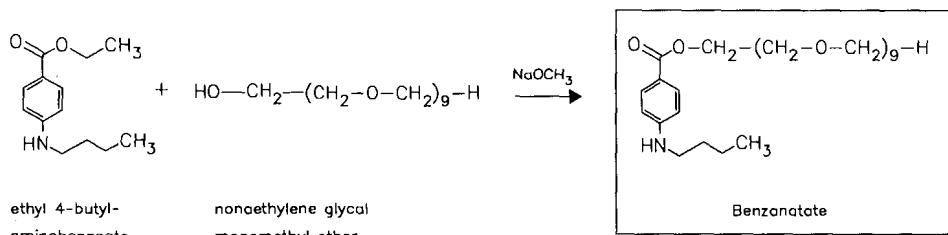
Trade Name(s):

D: Tacitin (Ciba); wfm F: Tacitine (Ciba); wfm GB: Tacitin (Ciba); wfm

Benzonatate

ATC: R05DB01
 Use: antitussive

RN: 104-31-4 MF: C₃₀H₅₃NO₁₁ MW: 603.75 EINECS: 203-194-7
 LD₅₀: 9 mg/kg (M, i.v.); 400 mg/kg (M, p.o.)
 CN: 4-(butylamino)benzoic acid 3,6,9,12,15,18,21,24,27-nonaoxaocacos-1-yl ester

*Reference(s):*

US 2 714 608 (Ciba; 1955; CH-prior. 1950).

US 2 714 609 (Ciba; 1955; CH-prior. 1950).

Formulation(s): cps. 100 mg; perls 100 mg*Trade Name(s):*

USA: Tessalon (Forest)

Benzoyl peroxide

(Peroxide de benzoyle)

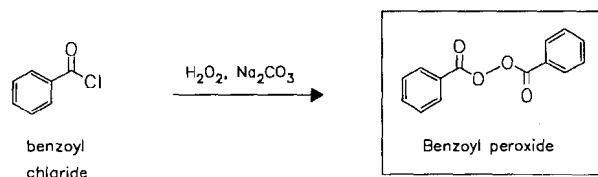
ATC: D10AE01

Use: keratolytic, antiseptic

RN: 94-36-0 MF: C₁₄H₁₀O₄ MW: 242.23 EINECS: 202-327-6LD₅₀: 5700 mg/kg (M, p.o.);

7710 mg/kg (R, p.o.)

CN: dibenzoyl peroxide

*Reference(s):*

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 17, 671.

stabilization of aqueous formulations with sodium dioctylsulfosuccinate:

US 4 387 107 (Dermik Labs.; 7.6.1983; prior. 25.7.1979, 16.12.1980).

alternative formulations:

US 3 535 422 (Stiefel Labs.; 20.10.1970; prior. 30.3.1966, 11.3.1968).

US 4 056 611 (Stiefel Labs.; 1.11.1977; appl. 16.4.1973).

US 4 545 990 (L'Oreal; 8.10.1985; appl. 21.11.1983; LU-prior. 22.11.1982).

combination with salicylic acid:

US 4 318 907 (Westwood; 9.3.1982; appl. 4.4.1978).

US 4 355 028 (Westwood; 19.10.1982; appl. 30.4.1981).

Formulation(s): cps. 100 mg; gel 5 %, 10 %*Trade Name(s):*D: Abmederm (gepepharm)
Akne-Aid-Lotion (Stiefel)
Aknefug-oxid (Wolff)
Akneroxid (Hermal)Benzaknen (Galderma)
Benzoxyl 20 Lotion
(Stiefel)
Pan Oxyl (Stiefel)Sanoxit (Galderma)
Scherogel (Asche)
Ultra Clearasil (Wick
Pharma)

F:	Cutacnyl (Galderma) Eclaran (Pierre Fabre) Effacné (Roche-Posay) Pannogel (Labs. CS) Panoxyl (Stiefel)	Quinoderm (Quinoderm)- comb. Quinoped (Quinoderm)- comb.	USA:	Benzac (Galderma) Benzagel (Dermik) Benzamycin (Dermik) Benzashave (Medicis) Brevoxyl (Stiefel)
GB:	Acnezide (Galderma) Acnidazil (Janssen-Cilag)- comb. Benzamycin (Bioglan)- comb. Nericur (Schering) Panoxyl (Stiefel)	I:	Acnidazil (Fisons Italchimici)-comb. Benoxid (Brocades) Benzac (Galderma) Benzoil Peros (Formulario Naz.) Benzomix (Savoma) Fatroxid (Fatro) Reloxyl (Rdc)	Desquam-E (Westwood- Squibb) Desquam-X (Westwood- Squibb) PanOxyl (Stiefel) Triaz (Medicis) Vanoxide-HC (Dermik)

Benzphetamine

Use: appetite depressant

RN: 156-08-1 MF: C₁₇H₂₁N MW: 239.36

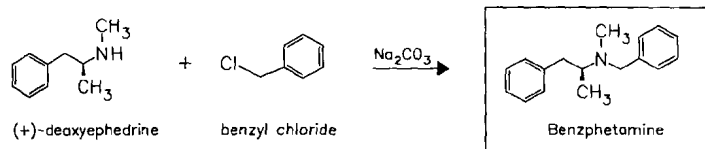
LD₅₀: 227 mg/kg (M, p.o.);

160 mg/kg (R, p.o.)

CN: (+)-N,α-dimethyl-N-(phenylmethyl)benzeneethanamine

hydrochloride

RN: 5411-22-3 MF: C₁₇H₂₁N · HCl MW: 275.82 EINECS: 226-489-2



Reference(s):

US 2 789 138 (Upjohn; 1957; prior. 1952).

Formulation(s): tabl. 25 mg, 50 mg

Trade Name(s):

F: Inapetyl (Upjohn); wfm GB: Didrex (Upjohn); wfm

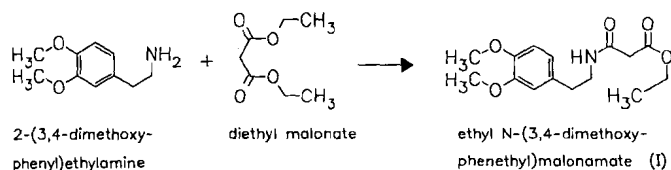
Benzquinamide

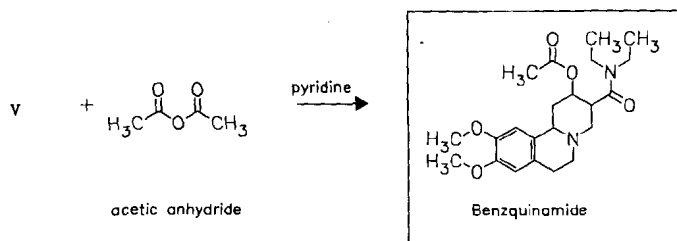
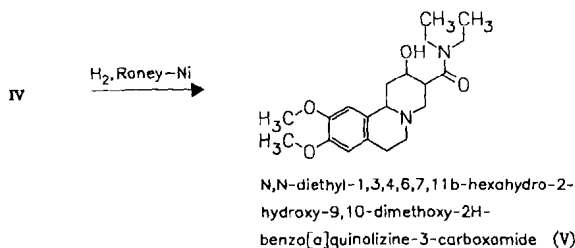
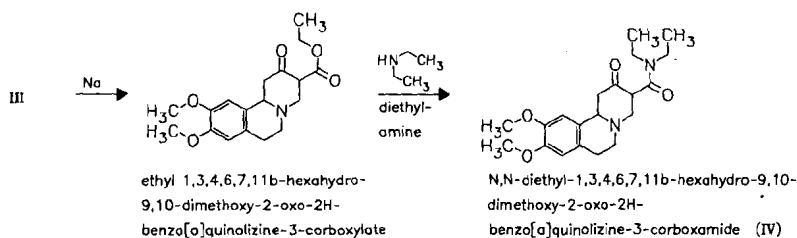
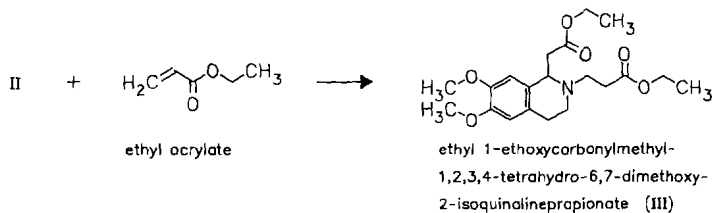
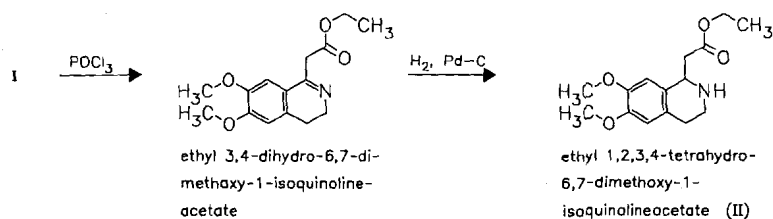
ATC: N05AK

Use: anti-emetic, tranquilizer

RN: 63-12-7 MF: C₂₂H₃₂N₂O₅ MW: 404.51

CN: 2-(acetyloxy)-N,N-diethyl-1,3,4,6,7,11b-hexahydro-9,10-dimethoxy-2H-benzo[a]quinolizine-3-carboxamide



*Reference(s):*

US 3 053 845 (Pfizer; appl. 29.8.1961).

US 3 055 894 (Pfizer; appl. 9.3.1960).

BE 621 895 (Pfizer; appl. 29.8.1962; USA-prior. 9.3.1960, 29.8.1961).

DE 1 303 628 (Pfizer; appl. 30.5.1962; USA-prior. 29.8.1961, 6.9.1961).

*starting material:*Brossi, A. et al.: *Helv. Chim. Acta (HCACAV)* **41**, 119 (1958).*Formulation(s):* amp. 50 mg

Trade Name(s):

D: Promecon (Endopharm)

Promecon (Searle)

USA: Emete-Con (Roerig)

Benzthiazide

(Benzothiazide; Benzthiazide)

ATC: C03

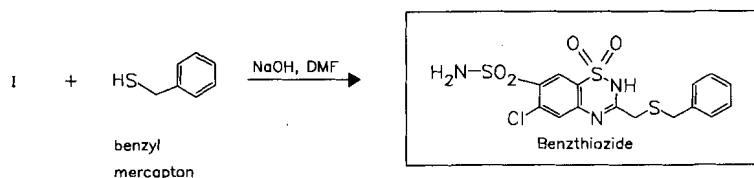
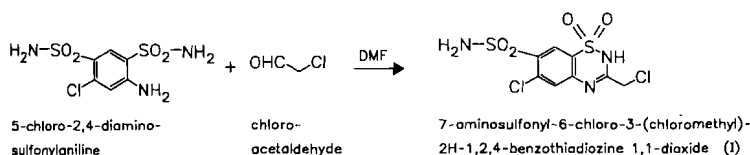
Use: diuretic, antihypertensive

RN: 91-33-8 MF: C₁₅H₁₄ClN₃O₄S₃ MW: 431.95 EINECS: 202-061-0LD₅₀: 410 mg/kg (M, i.v.); >5 g/kg (M, p.o.);

422 mg/kg (R, i.v.); >10 g/kg (R, p.o.);

>5 g/kg (dog, p.o.)

CN: 6-chloro-3-[[[(phenylmethyl)thio]methyl]-2H-1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide



Reference(s):

US 3 111 517 (Pfizer; 19.11.1963).

Formulation(s): cps. 25 mg

Trade Name(s):

D: Sali-Raufuncton (Minden)-comb.; wfm

Tensimic (Roussel); wfm

Regulon (Yamanouchi)

F: Ditériam (Roussel)-comb. with triamterene; wfm

GB: Dytide (Pharmark)-comb. with triamterene

J: Fovane (Taito Pfizer)

Benzylamine

ATC: A01AD02; G02CC03; M01AX07; M02AA05; M02AX

Use: analgesic, antipyretic, anti-inflammatory

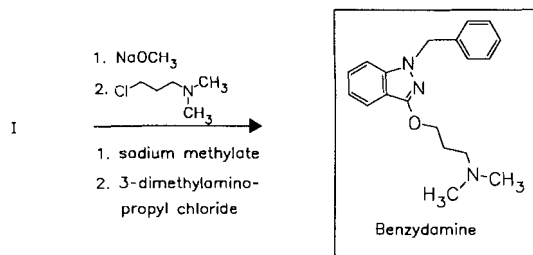
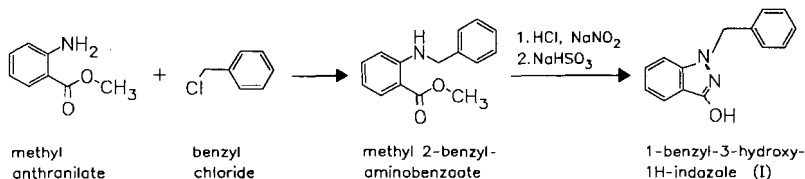
RN: 642-72-8 MF: C₁₉H₂₃N₃O MW: 309.41 EINECS: 211-388-8LD₅₀: 25 mg/kg (M, i.v.); 460 mg/kg (M, p.o.);

950 mg/kg (R, p.o.)

CN: N,N-dimethyl-3-[[[1-(phenylmethyl)-1H-indazol-3-yl]oxy]-1-propanamine

monohydrochlorideRN: 132-69-4 MF: C₁₉H₂₃N₃O · HCl MW: 345.87 EINECS: 205-076-0LD₅₀: 33 mg/kg (M, i.v.); 440 mg/kg (M, p.o.);

43.5 mg/kg (R, i.v.); 740 mg/kg (R, p.o.)

**Reference(s):**

FR 1 382 855 (Angelini Francesco; appl. 21.2.1964; I-prior. 9.8.1963).

Formulation(s): amp. 25 mg; cps. 50 mg; cream 30 mg; drg. 50 mg; drops 50 mg; liquid 1.5 mg; powder 500 mg (as hydrochloride)

Trade Name(s):

D:	Tantum (Solvay Arzneimittel)	Multum (Lampugnani)	Benzyrin (Yoshitomi)
F:	Opalgyné (Innothéra)	Saniflor (Esseti)	Enzamin (Kowa)
GB:	Difflam (3M; as hydrochloride)	Tantum Biotic (Angelini)-comb. with tetracycline	Epirotin (Nakataki)
I:	Afloben (Esseti)	Verax (Tosi-Novara)	Lilizin (Beppu)
	Berzirin (Fater)	numerous combination preparations	Riripen (Daiichi)
	Ginesal (Farmigea)	J: Antol (Seiko Eiyo)	Salzyoron (Hishiyama)
	Leucorsan (Zilliken)-comb.	Benzidan (Nikken)	Sanal (Sana)

Benzyl alcohol

(Alcoholum benzylicum; Phenylcarbinolum)

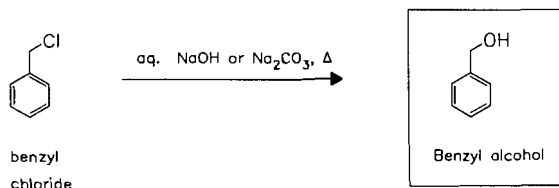
ATC: R02AD

Use: disinfectant, local anesthetic

RN: 100-51-6 MF: C₇H₈O MW: 108.14 EINECS: 202-859-9

LD₅₀: 324 mg/kg (M, i.v.); 1360 mg/kg (M, p.o.); 53 mg/kg (R, i.v.); 1230 mg/kg (R, p.o.)

CN: benzenemethanol

**Reference(s):**

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 8, 437.

Formulation(s): amp. 1 %, 2 %; cream 1 %; sol. 1 g/100 g

Trade Name(s):

D: Spitacid (Henkel)-comb. numerous combination preparations	GB: Pabrinex (Link)-comb. Sudocrem (Tosara)-comb.	Foille (Delalande Isnardi)- comb.
	I: Borocaina (Schiapparelli)	

Benzyl benzoate

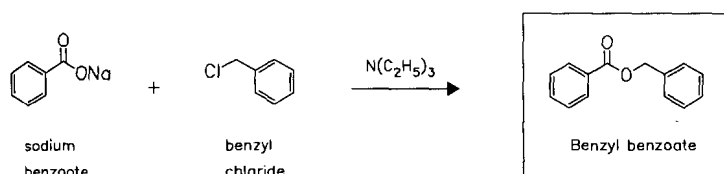
(Benzoessäurebenzylester)

ATC: P03AX01

Use: scabicide, pharmaceutical agent

RN: 120-51-4 MF: C₁₄H₁₂O₂ MW: 212.25 EINECS: 204-402-9LD₅₀: 1400 µL/kg (M, p.o.);
1700 µL/kg (R, p.o.);
>22440 mg/kg (dog, p.o.)

CN: benzoic acid phenylmethyl ester

*Reference(s):*Tharp, I.D. et al.: Ind. Eng. Chem. (IECHAD) **39**, 1300 (1947).*Formulation(s):* emulsion 250 mg*Trade Name(s):*

D: Acarosan (Allergopharma) Antiscabiosum Mago KG (Strathmann)	Anusol HC (Warner- Lambert)-comb. Ascabiol (Rhône-Poulenc Rorer)	I: Antiscabbia Candioli al D.D.T. terap. (Candioli)- comb. Benz Be (Formulario Naz.; Tariff. Integrativo)
F: Ascabiol (Evans Medical)		
GB: Anugesic HC (Parke Davis)-comb.		

Benzyl mustard oil

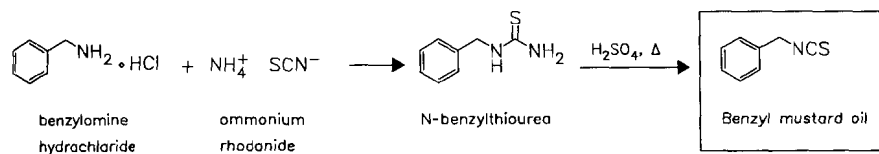
(Oleum tropaeoli)

ATC: S01AA

Use: antibiotic

RN: 622-78-6 MF: C₈H₇NS MW: 149.22 EINECS: 210-753-9LD₅₀: 150 mg/kg (M, s.c.)

CN: (isothiocyantomethyl)benzene

*Reference(s):*Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. **23**, 156.*Formulation(s):* cps. 14.4 mg

Trade Name(s):

D: Soledum (Cassella-med)-
comb.**Benzylpenicillin**

(Penicillin G)

ATC: J01CE01; J01HA; S01AA14

Use: antibiotic

RN: 61-33-6 MF: C₁₆H₁₈N₂O₄S MW: 334.40 EINECS: 200-506-3LD₅₀: 329 mg/kg (M, i.v.); >5 g/kg (M, p.o.);

8 g/kg (R, p.o.)

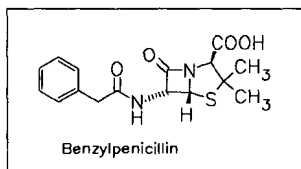
CN: [2S-(2α,5α,6β)]-3,3-dimethyl-7-oxo-6-[(phenylacetyl)amino]-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

monosodium saltRN: 69-57-8 MF: C₁₆H₁₇N₂NaO₄S MW: 356.38 EINECS: 200-710-2LD₅₀: 1500 mg/kg (M, i.v.); >4 g/kg (M, p.o.);

3020 mg/kg (R, i.v.); 6916 mg/kg (R, p.o.)

monopotassium saltRN: 113-98-4 MF: C₁₆H₁₇KN₂O₄S MW: 372.49 EINECS: 204-038-0LD₅₀: 240 mg/kg (M, i.v.); 6257 mg/kg (M, p.o.);

243 mg/kg (R, i.v.); 8900 mg/kg (R, p.o.)



From fermentation solutions of *Penicillium notatum* Westling or *Penicillium chrysogenum* Thom by addition of phenylacetic acid as precursor.

Reference(s):

Ehrhart, Ruschig **IV**, 286 ff.

Formulation(s): eff. tabl. 653.6 mg; f. c. tabl. 392.2 mg, 653.6 mg, 982.32 mg; lyo. for syrup 1986.59 mg

Trade Name(s):

D: Megacillin (Grünenthal)-
comb.

Penicillin Heyl (Heyl)

Prevecillin (Grünenthal)-
(clemizol-penicillin)Tardocillin (Bayer)-
(benzathine-
benzylpenicillin)F: Biclinocilline (Sanofi
Winthrop)-comb.Extencilline (Specia)-
(benzathine-
benzylpenicillin)Penicilline G Diamant
(Roussel Diamant)GB: Bicillin (Yamanouchi)-
comb. with procaine
penicillin GCrystapen (Britannia)
I: Benzil (Formulario Naz.)
Penicillina Icar(SmithKline Beecham)
Penicillina Sod Farm(Farmitalia)
Penicillina Squibb (Bristol-
Myers Squibb)

J: Bicillin G (Wyeth-Banyo)

USA: Bicillin (Wyeth-Ayerst)-

(benzathine-
benzylpenicillin)Pen (Wyeth-Ayerst)-
(penicillin V potassium)Pfizerpen G (Pfizer)-
(penicillin G potassium)

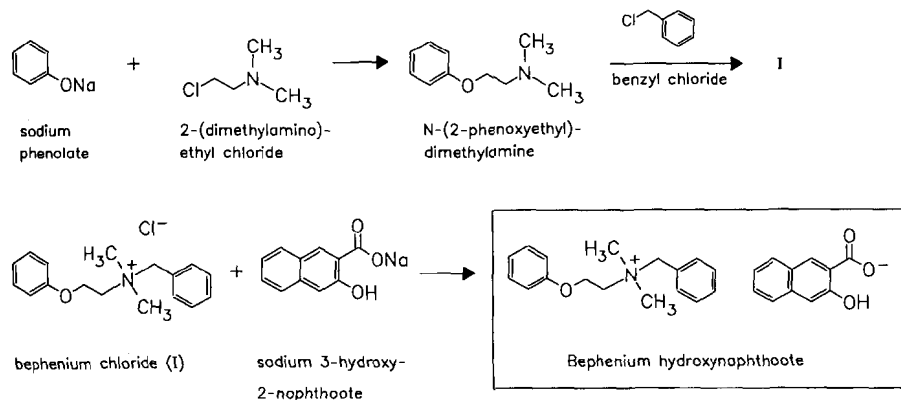
Sugracillin (Upjohn)

Wycillin (Wyeth-Ayerst)-
(procaine-benzylpenicillin)

Bephenium hydroxynaphthoate

ATC: P02CX02

Use: anthelmintic

RN: 3818-50-6 MF: $C_{17}H_{22}NO \cdot C_{11}H_7O_3$ MW: 443.54 EINECS: 223-306-8CN: *N,N*-dimethyl-*N*-(2-phenoxyethyl)benzenemethanaminium 3-hydroxy-2-naphthoate (1:1)**Reference(s):**

US 2 918 401 (Borroughs Wellcome; 22.12.1959; GB-prior. 29.3.1956).

DE 1 117 600 (Wellcome Found.; appl. 21.3.1957; GB-prior. 29.3.1956, 24.1.1957).

Formulation(s): gran. 2.5 g, 4.33 g; powder 5 g**Trade Name(s):**

D: Alcopar (Wellcome); wfm

J: Alcopar-P (Wellcome-Tanabe)

USA: Alcopara (Borroughs Wellcome); wfm

F: Alcopar (Wellcome); wfm

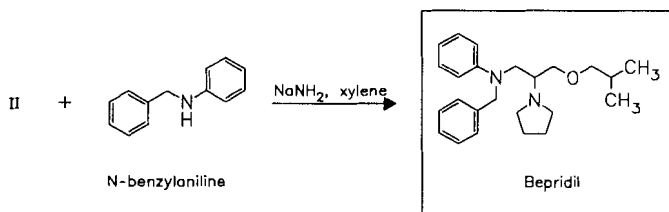
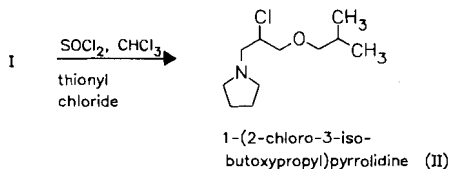
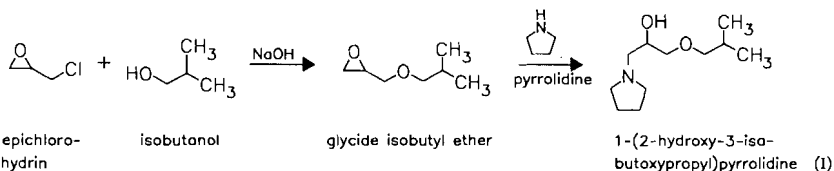
GB: Alcopar (Wellcome); wfm

Bepriidil

ATC: C02DE; C08EA02

Use: calcium channel blocker, antianginal

RN: 64706-54-3 MF: $C_{24}H_{34}N_2O$ MW: 366.55 EINECS: 256-384-7LD₅₀: 1955 mg/kg (M, p.o.); 23,5 mg/kg (M, i.v.)CN: α -[(2-methylpropoxy)methyl]-*N*-phenyl-*N*-(phenylmethyl)-1-pyrrolidineethanamine**monohydrochloride**RN: 68099-86-5 MF: $C_{24}H_{34}N_2O \cdot HCl$ MW: 403.01 EINECS: 268-472-2**monohydrochloride monohydrate**RN: 74764-40-2 MF: $C_{24}H_{34}N_2O \cdot HCl \cdot H_2O$ MW: 421.03LD₅₀: 23.5 mg/kg (M, i.v.); 1955 mg/kg (M, p.o.); >21.3 mg/kg (R, i.v.); 6850 mg/kg (R, p.o.)**(+)-form**RN: 110143-74-3 MF: $C_{24}H_{34}N_2O$ MW: 366.55**(-)-form**RN: 110143-75-4 MF: $C_{24}H_{34}N_2O$ MW: 366.55**(±)-form**RN: 89035-90-5 MF: $C_{24}H_{34}N_2O$ MW: 366.55

**Reference(s):**

DOS 2 310 918 (CERM; appl. 5.3.1973; F-prior. 6.3.1972).
 DE 2 802 864 (CERM; appl. 13.1.1978; F-prior. 25.1.1977).
 US 3 962 238 (CERM; 8.6.1976; appl. 27.2.1973; F-prior. 6.3.1972).
 GB 1 377 327 (CERM; appl. 27.2.1973; F-prior. 6.3.1972).
 GB 1 595 031 (CERM; appl. 13.1.1978; F-prior. 25.1.1977).

Formulation(s): tabl. 100 mg

Trade Name(s):

F: Cordium (Riom; 1981) J: Bepricor (Nippon Organon; Sankyo; as hydrochloride hydrate) USA: Vascor (Ortho-McNeil; as hydrochloride)

Betacarotene

(β -Carotene; Betacarotin; β -Carotin)

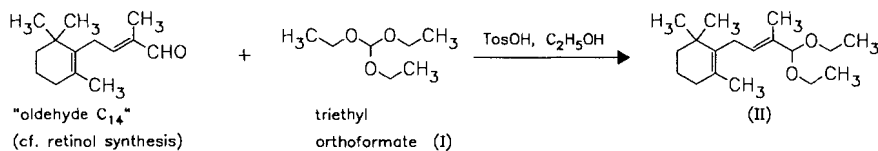
ATC: D02BB01

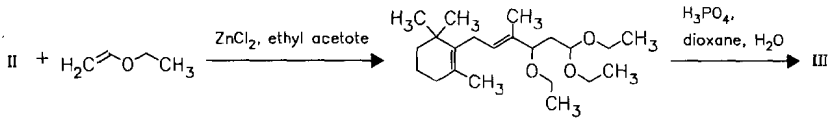
Use: provitamin A

RN: 7235-40-7 MF: $\text{C}_{40}\text{H}_{56}$ MW: 536.89 EINECS: 230-636-6

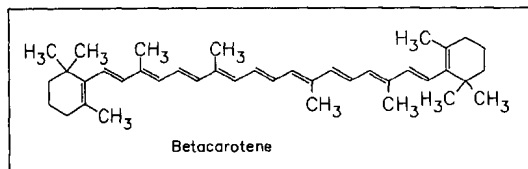
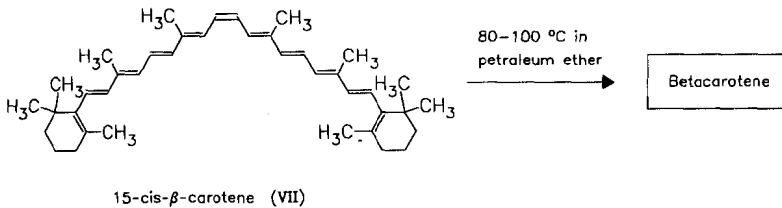
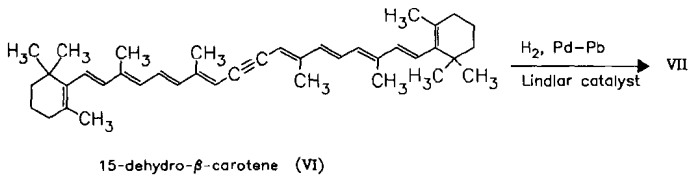
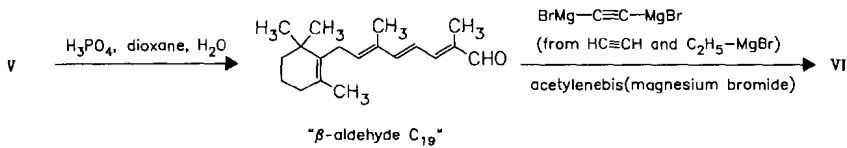
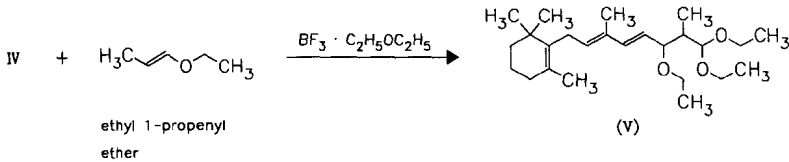
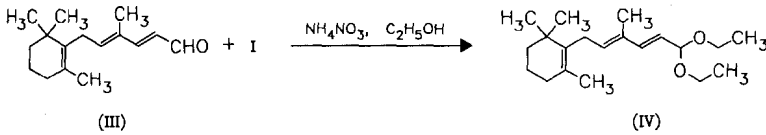
CN: (*all-E*)-1,1'-(3,7,12,16-tetramethyl-1,3,5,7,9,11,13,15,17-octadecanonaene-1,18-diyl)bis[2,6,6-trimethylcyclohexene]

1 Roche:

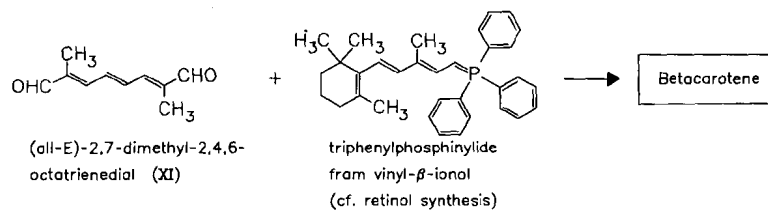
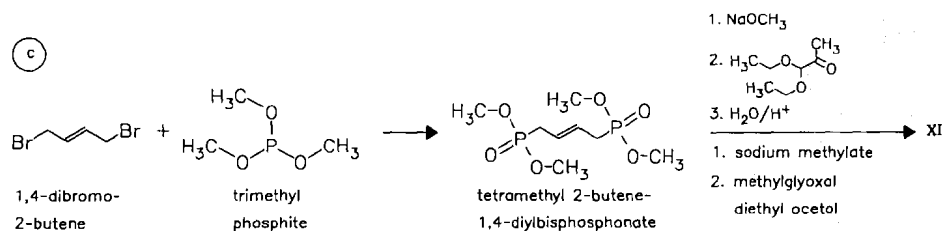
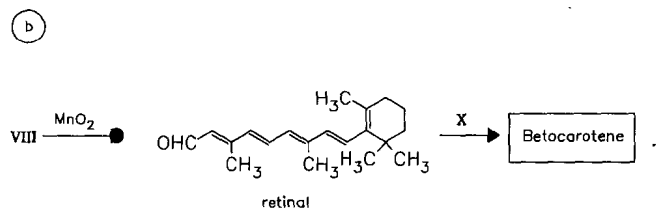
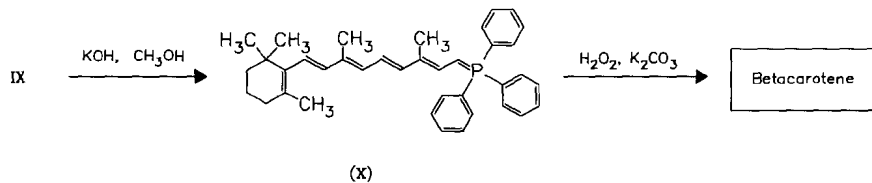
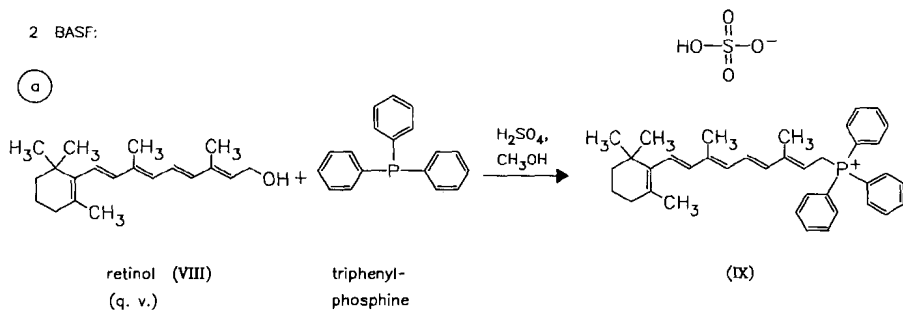




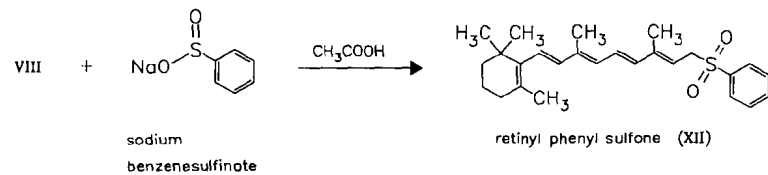
ethyl vinyl ether

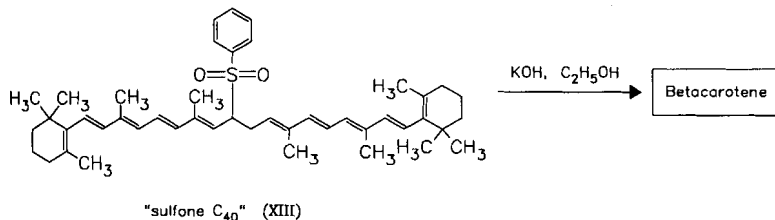
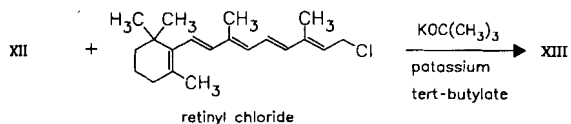


2 BASF:



3 Rhone-Poulenc:



**Reference(s):***review:*

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 23, 633 ff.

1 Isler, O. et al.: *Helv. Chim. Acta (HCACAV)* **39**, 249 (1956).Isler, O.: *Angew. Chem. (ANCEAD)* **68**, 547 (1956).

DE 855 399 (Roche; appl. 26.5.1950).

DE 858 095 (Roche; appl. 1.10.1950).

DE 953 073 (Roche; appl. 23.5.1954; CH-prior. 29.6.1953).

DE 953 074 (Roche; appl. 5.6.1954; CH-prior. 1.7.1953).

isomerization to all-trans-form:

US 3 367 985 (Roche; 6.2.1968; appl. 18.4.1966).

DE 2 440 747 (Roche; appl. 26.8.1974; USA-prior. 29.8.1973).

2 review:Pommer, H.: *Angew. Chem. (ANCEAD)* **72**, 911 (1960).Pommer, H.: *Angew. Chem. (ANCEAD)* **89**, 437 (1977).

a DE 2 505 869 (BASF; appl. 12.2.1975).

b DE 1 068 709 (BASF; appl. 6.6.1958).

DE 1 158 505 (BASF; appl. 23.5.1962).

c DE 954 247 (BASF; appl. 20.10.1954).

DE 1 068 705 (BASF; appl. 22.3.1958).

DE 1 068 703 (BASF; appl. 14.3.1958).

"C₁₀-dialdehyde":

DE 1 092 472 (BASF; appl. 2.10.1958).

3 DE 2 224 606 (Rhône-Poulenc; appl. 19.5.1972; F-prior. 19.5.1971).

isolation from carrots and similar material:

US 2 848 508 (H. M. Harnett et al.; 1958; appl. 1954).

fermentative production:

US 2 959 521 (Grain Processing Corp.; 1960; appl. 1959).

US 2 959 522 (Grain Processing Corp.; 1960; appl. 1959).

US 3 001 912 (Commercial Solvents Corp.; 1961; appl. 1958).

US 3 128 236 (Grain Processing Corp.; 1964; appl. 1961).

Formulation(s): cps. 25 mg**Trade Name(s):**

D: Bella Carotin (3M Medica)

Carotaben (Hermal)

combination preparations

F: Azinc complexe

(Arkopharma)-comb.

Bétasellen (Arkopharma)-
comb.

Dijrarel 100 (Leurquin)-

comb.

Phénoro Roche (Roche)-
comb.

I: Fotoretin (Farmila)-comb.

Mirtilene (SIFI)-comb.

USA: Aces (Carlson)

Betahistine

ATC: C04AX; N07CA01
 Use: diaminoxidase inhibitor

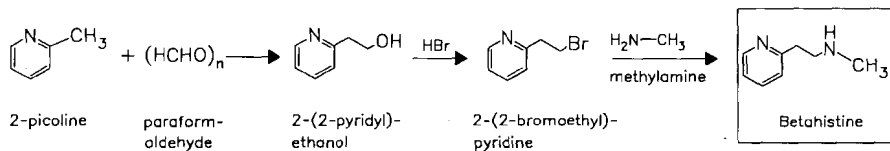
RN: 5638-76-6 MF: C₈H₁₂N₂ MW: 136.20 EINECS: 227-086-4
 LD₅₀: 2920 mg/kg (M, p.o.);
 6110 mg/kg (R, p.o.)
 CN: *N*-methyl-2-pyridineethanamine

dihydrochloride

RN: 5579-84-0 MF: C₈H₁₂N₂ · 2HCl MW: 209.12 EINECS: 226-966-5

dimesylate

RN: 54856-23-4 MF: C₈H₁₂N₂ · 2CH₄O₃S MW: 328.41 EINECS: 259-377-7
 LD₅₀: 505 mg/kg (M, i.v.); 500 mg/kg (M, p.o.);
 604 mg/kg (R, i.v.); 3030 mg/kg (R, p.o.)

**Reference(s):**

Löffler, K.: Ber. Dtsch. Chem. Ges. (BDCGAS) **37**, 161 (1904).
 Walter, L.A. et al.: J. Am. Chem. Soc. (JACSAT) **63**, 2771 (1941).

Formulation(s): drops 1.25 % (as dihydrochloride); s. r. tabl. 20 mg; tabl. 6 mg, 12 mg (as dimesylate), 8 mg, 16 mg (as dihydrochloride)

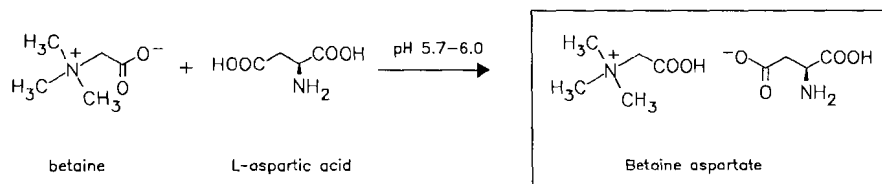
Trade Name(s):

D:	Aequamen (Promonta Lundbeck)	Vasomotal (Solvay Arzneimittel)	GB:	Serc (Solvay; as hydrochloride)	
	Betavert (Henning)	F:	Extovyl (Marion Merrell)	I:	Microser (Formenti)
	Melopat (Pharmasal)		Lectil (Bouchara)	J:	Merislon (Eisai)
	Ribrain (Searle-Endopharm; Yamanouchi)		Serc (Solvay Pharma)	USA:	Serc (Unimed); wfm

Betaine aspartate

ATC: A05BA; A09AB; A12BA
 Use: liver therapeutic, stomach therapeutic

RN: 52921-08-1 MF: C₅H₁₁NO₂ · C₄H₆NO₄ MW: 249.24 EINECS: 258-258-7
 CN: 1-carboxy-*N,N,N*-trimethylmethanaminium hydrogen L-aspartate

**Reference(s):**

FR 1 356 945 (M. R. Cote; appl. 5.12.1962; MC-prior. 14.12.1961).
 FR-M 2 462 (Albert Rolland; appl. 9.10.1962).

Formulation(s): amp. 2 g/dose; sol. 10 ml

Trade Name(s):

F:	Somatyl (Anphar-Rolland); wfm Somatyl (L'Hépatrol); wfm	Ciatox (Ibirm)-comb. Citroepatina (Roussel- Maestretti)-comb.	Glution (Boniscontro & Gazzone)-comb. Inobetin (Boniscontro & Gazzone)-comb.
I:	Betaina Manzoni (Manzoni)-comb. Betascor (Manetti Roberts)-comb. Bios Liver (Ausonia)- comb.	Eparbolic (Carlo Erba)- comb. Equipar (Lampugnani)- comb. Glicobil (Medici Domus)- comb.	Kloref (Samil)-comb. Somatyl (Prophin)-comb.

Betaine hydrate

ATC: A09AB02

Use: liver therapeutic, gastric therapeutic

RN: 590-47-6 MF: C₅H₁₃NO₃ MW: 135.16 EINECS: 209-684-7

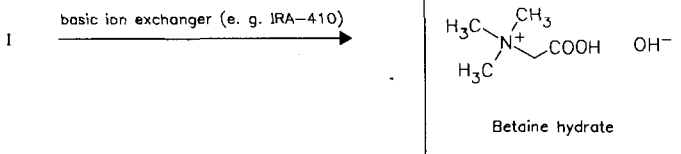
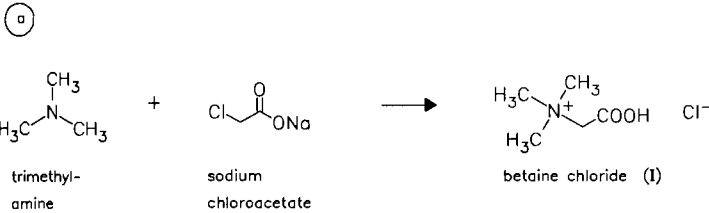
CN: 1-carboxy-*N,N,N*-trimethylmethanaminium hydroxide inner salt

hydrochloride

RN: 590-46-5 MF: C₅H₁₂ClNO₂ MW: 153.61 EINECS: 209-683-1

dihydrogen citrate (1:1)

RN: 17671-50-0 MF: C₆H₇O₇ · C₅H₁₂NO₂ MW: 309.27 EINECS: 241-648-6



⊖ by-product of beet-sugar production; isolation by acidic precipitation or by ion-exchange methods from the mash

Reference(s):

Stoltzenberg, H.: Z. Physiol. Chem. (ZPCHA5) **92**, 445 (1914).

a DRP 269 701 (AG für Anilin-Fabrikation; appl. 1912).

US 2 800 502 (Internat. Minerals & Chem. Corp.; 1957; appl. 1953).

b US 1 685 758 (D. K. Tressler; 1928; appl. 1925).

Formulation(s): gran. 400 mg

Trade Name(s):

D:	Flacar (Schwabe)-comb.	F:	Citrarginine (Laphal)- comb.	Citrate de bétaine Beaufour (Beaufour)
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Citrate de
bétaineeffervescent Upsa
(UPSA)-comb.
Gastrobul (Guerbet)-comb.
Hépagrume (Synthélabo)-
comb.
Ornitaine (Schwarz)-comb.

GB: Kloref (Cox; as
hydrochloride)-comb.
I: Betaina Manzoni
(Gaymonat; as citrate)
Citroepatina (Roussel)-
comb.

J: Somatyl (Teofarma; as
aspartate)
Apellet-BT (Ono)-comb.
Molmagen (Toa Yakuhin-
Torii)-comb.

Betamethasone

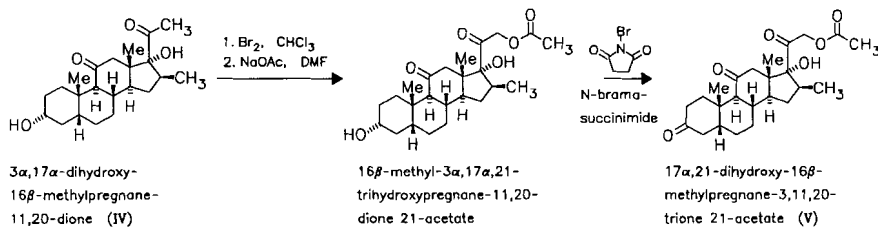
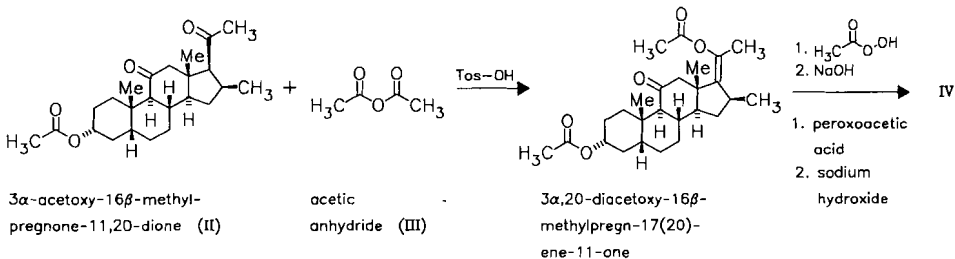
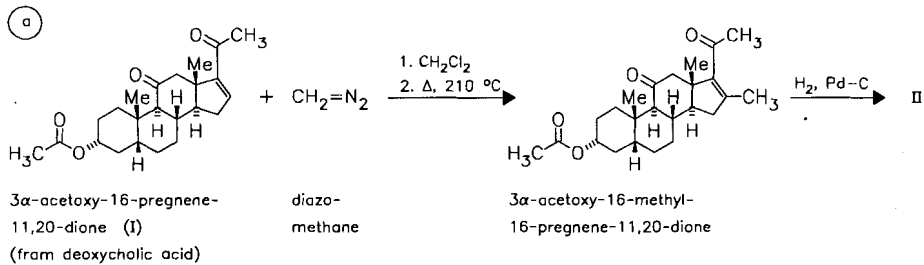
ATC: A07EA04; D07AC01; C05AA05;
D07XC01; H02AB01; R01AD06;
R03BA04; S01BA06; S01CB04;
S03CA06

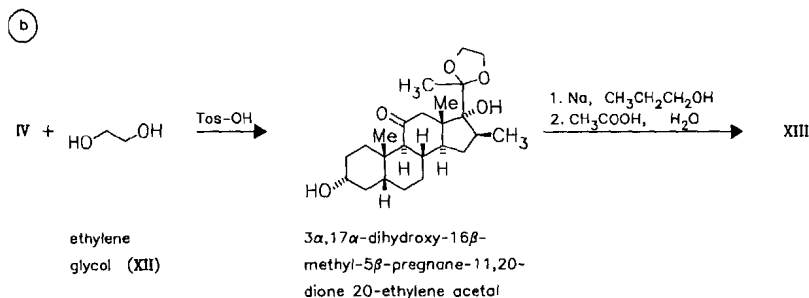
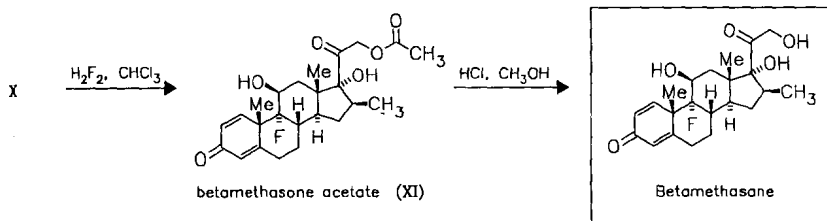
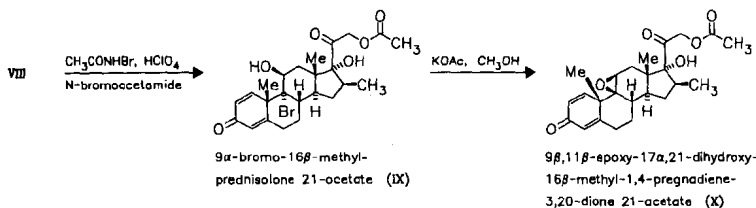
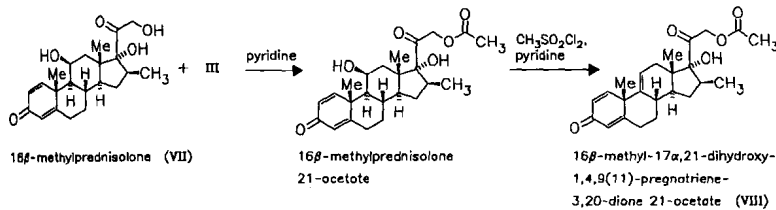
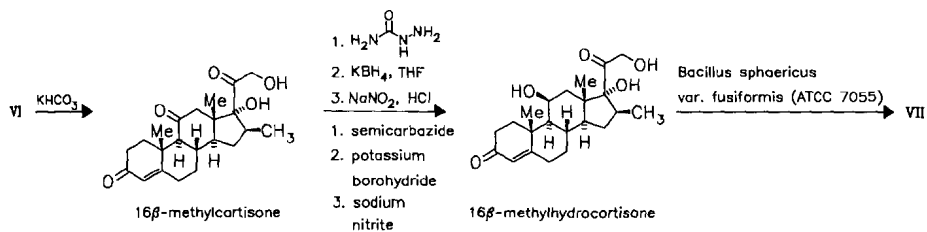
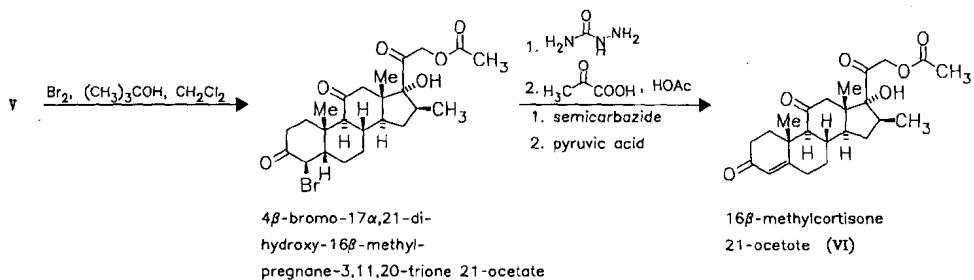
Use: glucocorticoid

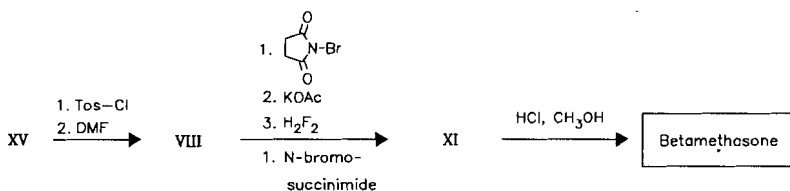
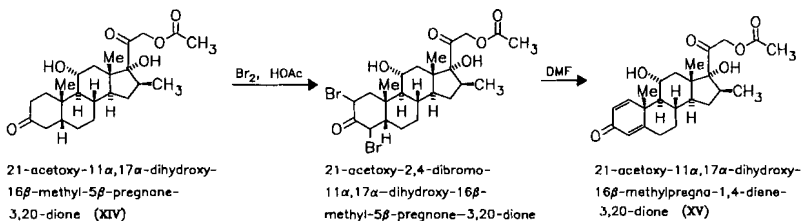
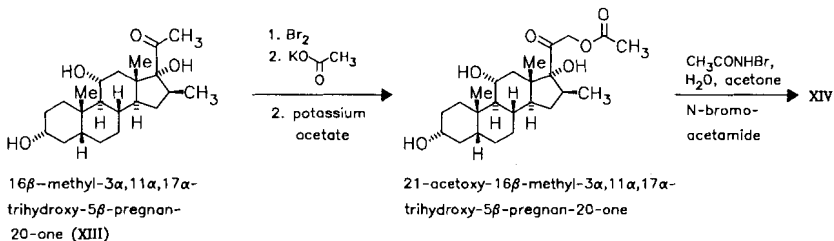
RN: 378-44-9 MF: C₂₂H₂₉FO₅ MW: 392.47 EINECS: 206-825-4

LD₅₀: >4.5 g/kg (M, p.o.)

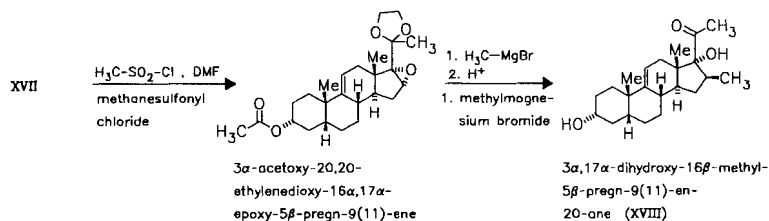
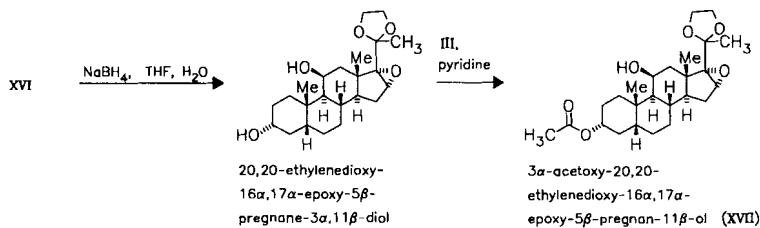
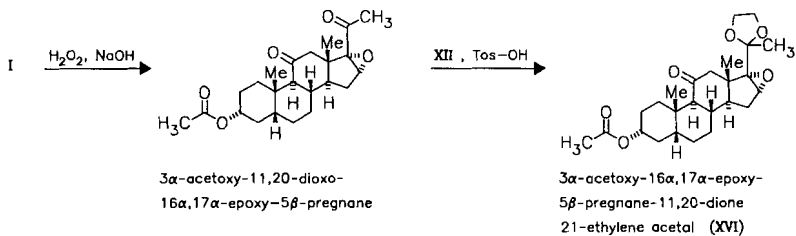
CN: (11β,16β)-9-fluoro-11,17,21-trihydroxy-16-methylpregna-1,4-diene-3,20-dione

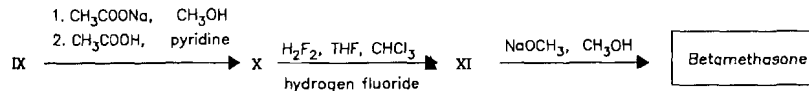
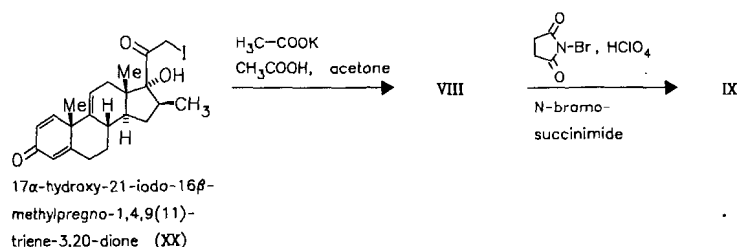
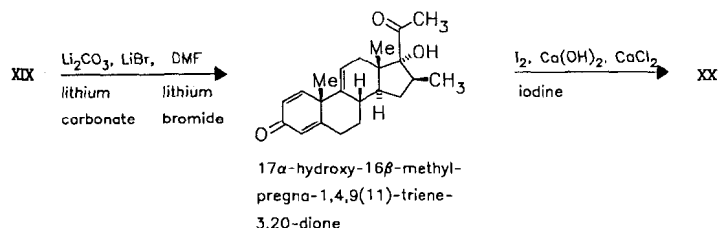
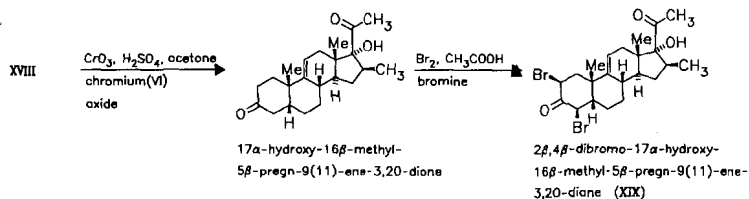






C



**Reference(s):**

- a US 3 164 618 (Schering Corp.; 5.1.1965; prior. 23.7.1957, 8.5.1958).
 b Oliveto, E.P. et al.: J. Am. Chem. Soc. (JACSAT) **80**, 4428 (1958).
 Oliveto, E.P. et al.: J. Am. Chem. Soc. (JACSAT) **80**, 6687 (1958).
 c US 3 104 246 (Roussel-Uclaf; 17.9.1963; appl. 26.7.1962; F-prior. 18.8.1961).
 Julian, P.L. et al.: J. Am. Chem. Soc. (JACSAT) **77**, 4601 (1955).

alternative syntheses:

- US 3 053 865 (Merck & Co.; 11.9.1962; prior. 19.3.1958, 1.3.1960).
 Taub, D. et al.: J. Am. Chem. Soc. (JACSAT) **80**, 4435 (1958); **28**, 4012 (1960).
 US 4 041 055 (Upjohn; 9.8.1977; appl. 17.1.1975).

Formulation(s): syrup 0.6 mg/5 ml; tabl. 0.5 mg, 0.6 mg, 1 mg

Trade Name(s):

D:	Beta-Creme (Lichtenstein)	Diprosis (Essex Pharma)	Célestène (Schering-Plough)
	Betagen (Pharmagen)	Diprosone (Essex Pharma)	Célestoderm (Schering-Plough)
	Betam-Ophthal (Winzer)	Euvaderm (Parke Davis)	
	Beta-Stulln (Pharma Stulln)	F: Betnesalic (Glaxo Wellcome)-comb.	Diprolène (Schering-Plough)
	Betnesol (Glaxo Wellcome)	Betnesol (Glaxo Wellcome)	Diprosalic (Schering-Plough)-comb.
	Betnesol-V (Glaxo Wellcome/Cascan)	Betneval (Glaxo Wellcome)	Diprosept (Schering-Plough)-comb.
	Celestamine N (Essex Pharma)	Betneval néomycine (Glaxo Wellcome)-comb.	
	Celestan (Essex Pharma)	Célestamine (Schering-Plough)-comb.	
	Cordes Beta (Ichthyol)		

	Diprosone néomycine (Schering-Plough)-comb.	Brumeton coll. (Bruschettini)-comb.	Micutrin Beta crema (Schiapparelli Searle)- comb.
	Gentasone (Schering- Plough)-comb.	Celestoderm (Schering- Plough; as valerate)	Minisone (IDI)
GB:	Betnelan (Evans)	Celestone (Schering- Plough)	Stranoval pom. derm.
	Betnesol (Evans)	Deltavagin (Farma- Biagini)-comb.	Viobeta (IDI)-comb.
	Vista-Metasone (Martindale)	Dermatar (IDI)-comb.	Visublefarite sosp. oft.
I:	Alfaflor (Intes)-comb.	Diproform (Schering- Plough)-comb.	(Merck Sharp & Dohme)- comb.
	Apsor pom. derm. (IDI)- comb.	Diprogenta (Sca)-comb.	Visumetazone Antib.
	Beben (Parke Davis; as benzoate)	Diprorecto (Schering- Plough)-comb.	(Merck Sharp & Dohme)- comb.
	Bentelan (Glaxo; as phosphate)	Diprosalic (Schering- Plough)-comb.	several combination preparations
	Beta (IDI; as valeroacetate)	Diprosone (Schering- Plough; as dipropionate)	J: Betamamallet (Showa Yakuhin)
	Betabiophtal (Farmila)- comb.	Ecoval (Glaxo; as valerate)	Betametha (Dojin)
	Betameta (Formulario Naz.; as dipropionate)- comb.	Eubetal (SIFI)-comb.	Betnelan (Daiichi)
	Biorinil (Farmila)-comb.	Fluororinil (Farmila)-comb.	Dabbeta (Zenyaku)
		Gentalyn Beta (Schering- Plough)-comb.	Rinderon (Shionogi)
			Rinesteron (Fuso)
			USA: Celestone (Schering)

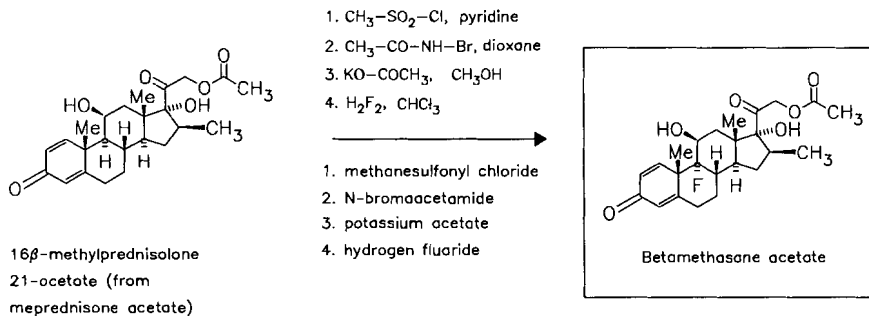
Betamethasone acetate

ATC: H02AB

Use: glucocorticoid

RN: 987-24-6 MF: C₂₄H₃₁FO₆ MW: 434.50 EINECS: 213-578-6

CN: (11β,16β)-21-(acetyloxy)-9-fluoro-11,17-dihydroxy-16-methylpregna-1,4-diene-3,20-dione

*Reference(s):*

US 3 164 618 (Schering Corp., 5.1.1965; prior. 8.5.1958, 23.7.1957).

additional literature:

betamethasone, q. v.

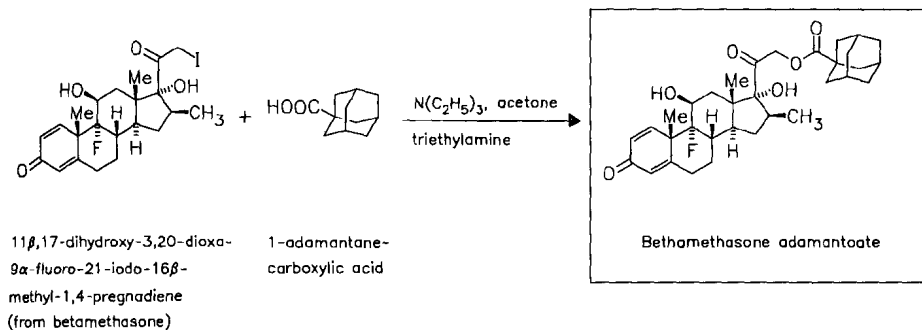
Formulation(s): amp. 3 mg/ml, 3 mg/ml (in combination with betamethasone dihydrogen phosphate)*Trade Name(s):*

D:	Celestan Depot (Essex Pharma)-comb.	Célestane chronodose (Schering-Plough)-comb.;	I:	Celestone Cronodose (Schering-Plough)-comb.
F:	Betafluorene (Lepetit); wfm	wfm	USA:	Celestone Soluspan (Schering)-comb.

Betamethasone adamantoate

ATC: H02AB

Use: glucocorticoid

RN: 40242-27-1 MF: C₃₃H₄₃FO₆ MW: 554.70 EINECS: 254-855-1CN: (11β,16α)-9-fluoro-11,17-dihydroxy-16-methyl-21-[(tricyclo[3.3.1.1^{3,7}]dec-1-ylcarbonyl)oxy]pregna-1,4-diene-3,20-dione*Reference(s):*

DOS 2 232 827 (Glaxo; appl. 4.7.1972; GB-prior. 5.7.1971).

(also alternative syntheses).

Trade Name(s):

GB: Betsovet (Glaxo); wfm

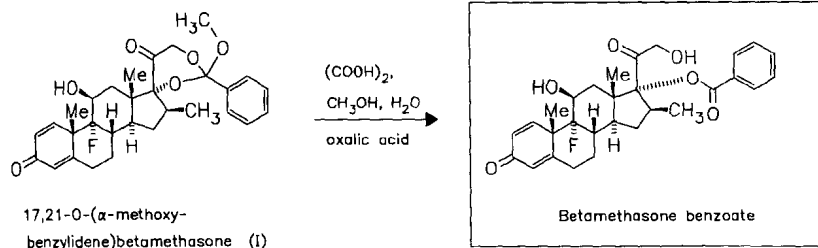
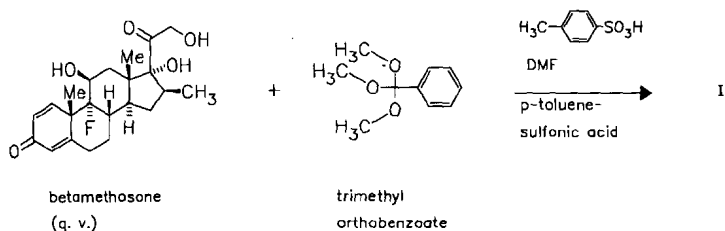
Betamethasone benzoate

ATC: D07AC

Use: glucocorticoid

RN: 22298-29-9 MF: C₂₉H₃₃FO₆ MW: 496.58 EINECS: 244-897-9

CN: (11β,16β)-17-(benzoyloxy)-9-fluoro-11,21-dihydroxy-16-methylpregna-1,4-diene-3,20-dione



Reference(s):

US 3 529 060 (Warner-Lambert; 15.9.1970; I-prior. 1.3.1967).

Ercoli, A. et al.: J. Med. Chem. (JMCMAR) **15**, 783 (1972).*alternative synthesis:*

DOS 2 340 591 (Glaxo; appl. 10.8.1973; GB-prior. 11.8.1972).

pharmaceutical formulation:

US 3 749 773 (Warner-Lambert; 31.7.1973; prior. 25.2.1971).

Formulation(s): cream 1 g/0.25 mg, 1 g/1 mg; gel 1 g/1 mg; lotion 0.1 %; ointment 0.1 %*Trade Name(s):*

D:	Euvaderm (Parke Davis)	I:	Beben crema derm. (Parke Davis)	J:	combination preparations
GB:	Bebate (Warner); wfm		Beben Sid (Parke Davis)		Asakin (Mikasa)

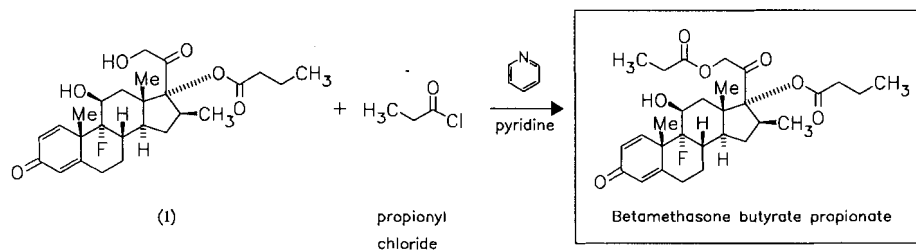
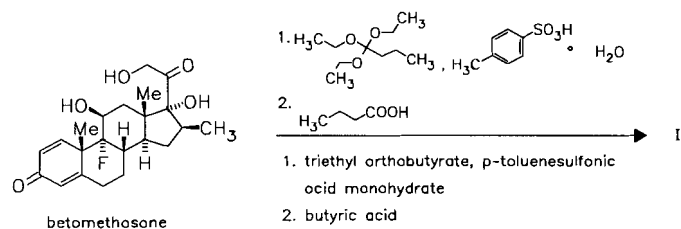
Betamethasone butyrate propionate

(BBP; TO-186)

Use: topical anti-inflammatory, steroidal agent

RN: 5534-02-1 MF: C₂₉H₃₉FO₇ MW: 518.62

CN: (11β,16β)-9-fluoro-11-hydroxy-16-methyl-17-(1-oxobutoxy)-21-(1-oxopropoxy)pregna-1,4-diene-3,20-dione

*Reference(s):*Imai, S. et al.: Clin. Rep. **24**(11), 113 (1990).Shue, H.-J. et al.: J. Med. Chem. (JMCMAR) **23**(4), 430 (1980).*Trade Name(s):*

J: Antebrate (Torii)

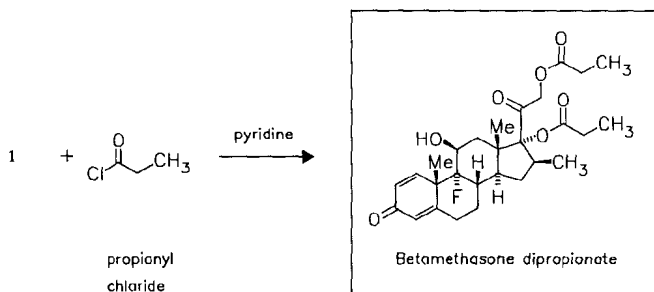
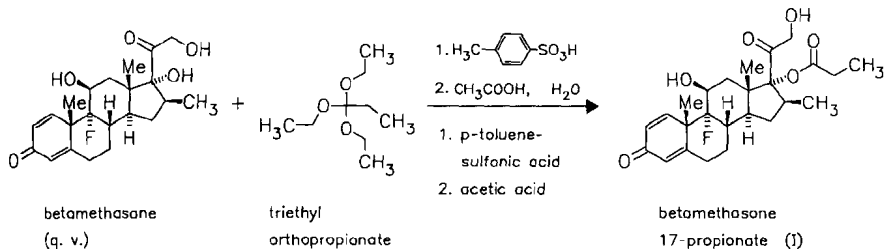
Betamethasone dipropionate

ATC: D07AC; D07BC; D07CC; H02AB
 Use: glucocorticoid

RN: 5593-20-4 MF: C₂₈H₃₇FO₇ MW: 504.60 EINECS: 227-005-2

LD₅₀: >5 g/kg (M, p.o.);
 >4 g/kg (R, p.o.)

CN: (11β,16β)-9-fluoro-11-hydroxy-16-methyl-17,21-bis(1-oxopropoxy)pregna-1,4-diene-3,20-dione

**Reference(s):**

US 3 312 591 (Glaxo; 4.4.1967; GB-prior. 10.5.1963, 28.1.1964).

US 3 312 590 (Glaxo; 4.4.1967; GB-prior. 11.6.1963, 28.1.1964).

DE 1 443 957 (Glaxo; appl. 10.6.1964; GB-prior. 11.6.1963, 28.1.1964).

review:

Ferrante, M.C.; Rudy, B.C.: Anal. Profiles Drug Subst. (APDSB7) **6**, 43 (1977).

Formulation(s): aerosol 0.1 %; amp. 5 mg/ml; cream 0.05 %; ointment 0.05 %

Trade Name(s):

D:	Diprogenta (Essex Pharma)-comb.	Diprosone (Schering-Plough)	numerous combination preparations
	Diprosalic (Essex Pharma)-comb.	Diprosone Neomycin (Schering-Plough)-comb.	J: Dermosol-DP (Iwaki)
	Diprosis (Essex Pharma)	Diprostène (Schering-Plough)-comb.	Diprocet (Schering-Plough)
	Diprosone (Essex Pharma)		Etynderon-DP (Taiyo)
	Diprosone depot (Essex Pharma)-comb.	GB: Diprosalic (Schering-Plough)-comb.	Floderon (Ohta)
F:	Diprolène (Schering-Plough)	Diprosone (Schering-Plough)	Ijilone-DP (Maeda)
	Diprosalic (Schering-Plough)-comb.	I: Betameta Diprop (Formulario Naz.)	Rinderon-DP (Shionogi)
	Diprosept (Schering-Plough)-comb.	Diprosone (Schering-Plough)	USA: Diprolene (Schering)
			Diprosone (Schering)
			Lotrisane (Schering)

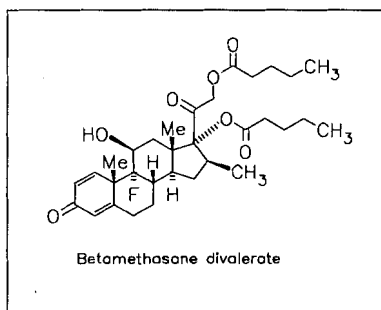
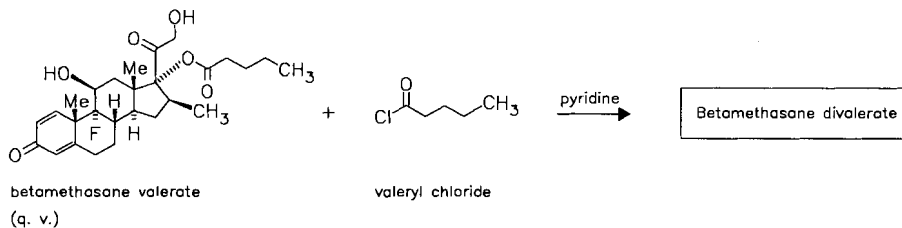
Betamethasone divalerate

ATC: D07AC

Use: glucocorticoid

RN: 38196-44-0 MF: C₃₂H₄₅FO₇ MW: 560.70 EINECS: 253-820-8

CN: (11β,16β)-9-fluoro-11-hydroxy-16-methyl-17,21-bis[(1-oxopentyl)oxy]pregna-1,4-diene-3,20-dione

*Reference(s):*

US 3 312 591 (Glaxo; 4.4.1967; GB-prior. 10.5.1963, 28.1.1964).

US 3 312 590 (Glaxo; 4.4.1967; GB-prior. 11.6.1963, 28.1.1964).

DE 1 443 957 (Glaxo; 10.6.1964; GB-prior. 11.6.1963, 28.1.1964).

cf. also betamethasone dipropionate.

Formulation(s): cream 0.1 %; lotion 0.1 %; ointment 0.1 %; rectal ointment 0.05 %*Trade Name(s):*

I: Betadival (Fardeco); wfm

Diprosone Creme (Essex);
wfm**Betamethasone phosphate**

ATC: H02AB; D07AC

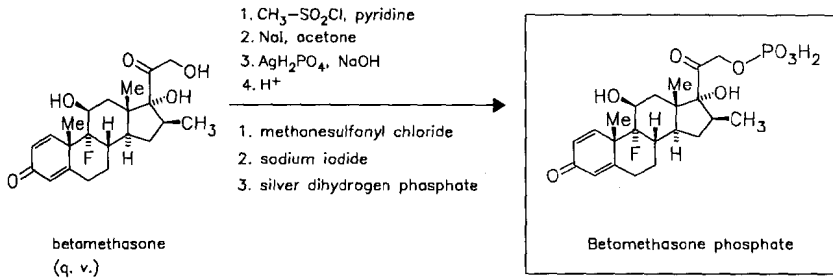
Use: glucocorticoid

RN: 360-63-4 MF: C₂₂H₃₀FO₈P MW: 472.45 EINECS: 206-636-7LD₅₀: 700 mg/kg (M, i.p.)

CN: (11β,16β)-9-fluoro-11,17-dihydroxy-16-methyl-21-(phosphonoxy)pregna-1,4-diene-3,20-dione

disodium saltRN: 151-73-5 MF: C₂₂H₂₈FNa₂O₈P MW: 516.41 EINECS: 205-797-0LD₅₀: 1304 mg/kg (M, i.v.); 1607 mg/kg (M, p.o.);

1276 mg/kg (R, i.v.); 1877 mg/kg (R, p.o.)

*Reference(s):*

GB 913 941 (Merck & Co.; valid from 1959; USA-prior. 1958).

alternative syntheses:

US 2 939 873 (Merck & Co.; 1960; prior. 1959).

DOS 2 225 658 (I. Villax; appl. 14.12.1972; P-prior. 5.6.1971).

DE 1 134 075 (Merck AG; appl. 1959).

aqueous solution stabilized by 1-mercapto-2,3-propanediol:

DE 2 021 446 (Gruppo Lepetit; appl. 2.5.1970; I-prior. 7.5.1969).

Formulation(s): amp. 2.63 mg/ml, 5.3 mg/ml; sol. 6.6 mg/100 g

Trade Name(s):

D:	Betnesol Past. (Glaxo Wellcome)	Célestène (Schering-Plough)	Vista-Methasone (Daniels)-comb.
	Betnesol Rekt. (Glaxo Wellcome/Cascan)	Célestène Chronodose (Schering-Plough)-comb.	I: Bentelan (Glaxo)
	Betnesol WL (Glaxo Wellcome/Cascan)	Diprostène (Schering-Plough)-comb.	Celestone Ar. and im (Schering-Plough)
	Celestan depot (Essex Pharma)-comb.	Gentasone (Schering-Plough)	J: Barbesolone (Nihon Tenganyaku)
	Diprosone depot (Essex Pharma)-comb.	GB: Betnesol (Glaxo)	Betnesol (Daiichi)
	F: Betnesol (Glaxo Wellcome)	Betnesol N (Glaxo)-comb.	Linolosal (Wakamoto)
		Vista-Methasone (Daniels)	Linosal (Wakamoto)
			Rinderon (Shionogi)
			Sanbetason (Santen)

Betamethasone valerate

ATC: D07AC

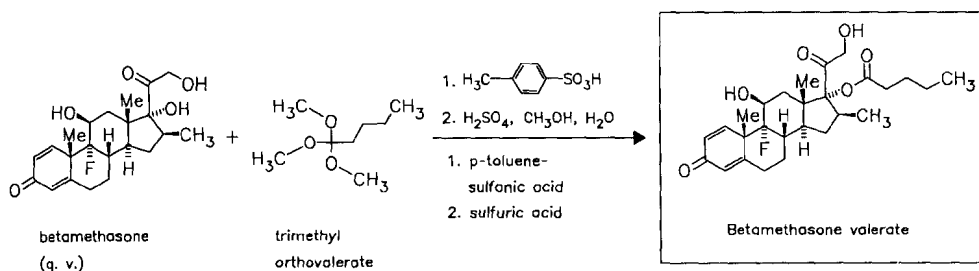
Use: glucocorticoid

RN: 2152-44-5 MF: $\text{C}_{27}\text{H}_{37}\text{FO}_6$ MW: 476.59 EINECS: 218-439-3

LD_{50} : >3 g/kg (M, p.o.);

>3 g/kg (R, p.o.)

CN: (11 β ,16 β)-9-fluoro-11,21-dihydroxy-16-methyl-17-[(1-oxopentyl)oxy]pregna-1,4-diene-3,20-dione



Reference(s):

US 3 312 590 (Glaxo; 4.4.1967; GB-prior. 11.6.1963, 28.1.1964).

US 3 312 591 (Glaxo; 4.4.1967; GB-prior. 10.5.1963, 28.1.1964).

alternative synthesis:

DOS 2 055 221 (Lab. Chim. Farm. Blasina; appl. 10.11.1970).

DOS 2 340 591 (Glaxo; appl. 10.8.1973; GB-prior. 11.8.1972).

DOS 2 431 377 (Lark; appl. 29.6.1974; I-prior. 4.1.1974).

dermatological use:

ZA 7 700 678 (S. Fourie et al.; appl. 7.2.1977).

FR-M 5 399 (P. Temime; appl. 14.10.1965).

BE 829 197 (L. Grosjean; appl. 16.5.1975).

Formulation(s): cream 0.1 %; lotion 0.1 %; ointment 0.1 %; tabl. 0.1 mg*Trade Name(s):*

D:	Betamethason Wolff (Wolff)	Betnovate (Glaxo Wellcome)	Hormeton (Tobishi)
	Betnesol V, -"mite" (Glaxo Wellcome/Cascan)-comb.	Betnovate Rectal (Glaxo Wellcome)-comb.	Hormezon (Tobishi Jakuhin Kogyo)
	Celestan V, -"mite", - crinale (Essex Pharma)	Bettamousse (Evans)	Ijilone V (Maeda Kyowa; Ahishin)
	Celestan V mit Neomycin I:	Fucibet (Leo)-comb.	Keligroll (Kaigai Horita)
	(Essex Pharma)-comb.	Celestoderm-V (Schering- Plough)	Muhibeta V (Ikeda Mohando)
	Celestan V mit Sulmycin (Essex Pharma)-comb.	Dermovaleas (Valeas)	Muhibeta V (Nippon Shoji)
	Cordes Beta (Ichthyol)	Ecoval (Glaxo)-comb.	Nolcart (Tatsumi)
	Sulmycin (Essex Pharma)- comb. J:	Ecoval-70 (Glaxo)	Otumazon (Fukuchi)
F:	Betnesalic (Glaxo Wellcome)-comb.	Ain V (Kobayashi)	Rapoletin (Zeria)
	Betneval (Glaxo Wellcome)	Asdesolon (Maruishi)	Rinderon-V (Shionogi)
	Betneval Néomycin (Glaxo Wellcome)-comb.	Bectmiran (Towa)	Rinderon V (Shionogi)- comb.
	Célestoderm (Schering- Plough)	Betaclin (Sawai)	Rinderon VA (Shionogi)- comb.
	Célestoderm Relais (Schering-Plough)	Betnevate (Glaxo-Daiichi)	Rinderon VG (Shionogi)- comb.
		Betnevate N (Daiichi)- comb.	Tochiprobetasone (Shinsei Kowa)
GB:	Betacap (Dermal)	Calamiraderon V (Fukuchi)	USA: Beta-Val (Teva)
		Cordel (Taisho)	
		Dermitt (Mitgamitsu Mitsui)	
		Dermosol (Iwaki)	

Betanidine

(Bethanidine)

ATC: C02CC01

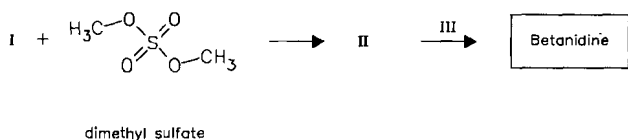
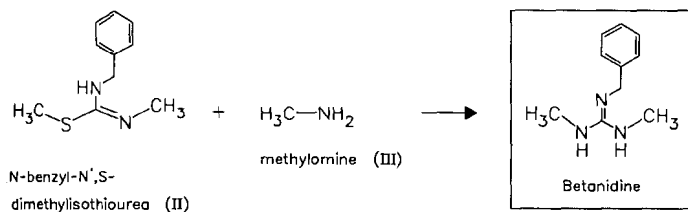
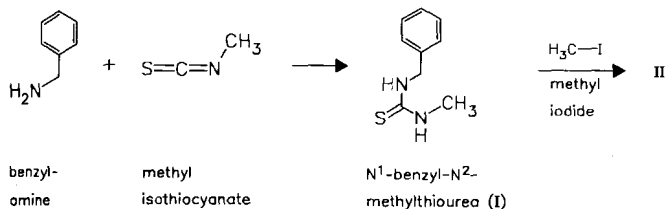
Use: antihypertensive

RN: 55-73-2 MF: C₁₀H₁₅N₃ MW: 177.25LD₅₀: 16.307 mg/kg (M, i.v.)

CN: N,N'-dimethyl-N''-(phenylmethyl)guanidine

sulfate (2:1)RN: 114-85-2 MF: C₁₀H₁₅N₃ · 1/2H₂SO₄ MW: 452.58 EINECS: 204-056-9LD₅₀: 12 mg/kg (M, i.v.); 520 mg/kg (M, p.o.);

20 mg/kg (R, i.v.)

**Reference(s):**

GB 973 882 (Wellcome Found.; appl. 15.12.1960; prior. 23.12.1959).

alternative synthesis:

DAS 1 568 057 (GEA; appl. 9.12.1966).

Formulation(s): tabl. 10 mg, 50 mg

Trade Name(s):

F:	Esbatal (Wellcome); wfm	I:	Esbatal (Wellcome); wfm	Hypersin (Zeria)
GB:	Bendogen (Lagap); wfm	J:	Benzoxine (Sanwa)	
	Esbatal (Calmic); wfm		Betaindol (Tanabe)	

Betaxolol

ATC: C07AB05; S01ED02
 Use: selective β-adrenoceptor blocker, antihypertensive

RN: 63659-18-7 MF: C₁₈H₂₉NO₃ MW: 307.43

LD₅₀: 37 mg/kg (M, i.v.); 944 mg/kg (M, p.o.)

CN: (±)-1-[4-[2-(cyclopropylmethoxy)ethyl]phenoxy]-3-[(1-methylethyl)amino]-2-propanol

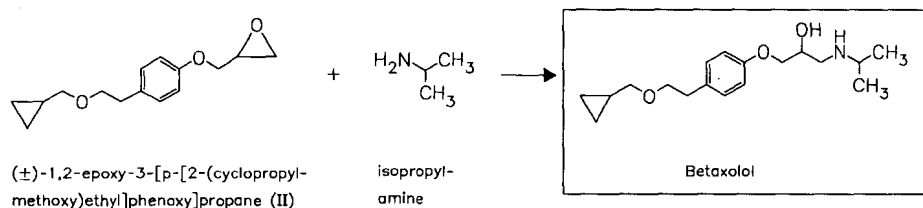
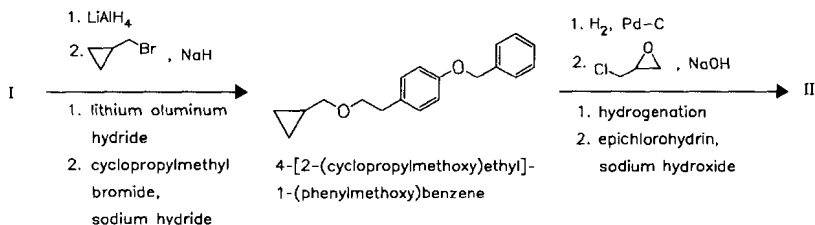
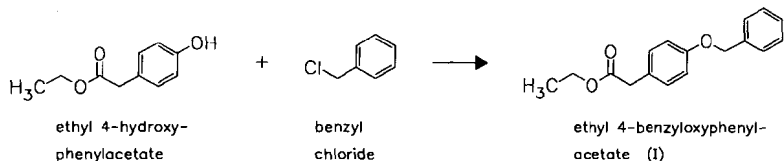
hydrochloride

RN: 63659-19-8 MF: C₁₈H₂₉NO₃ · HCl MW: 343.90 EINECS: 264-384-3

LD₅₀: 37 mg/kg (M, i.v.); 48 mg/kg (M, p.o.);

27.4 mg/kg (R, i.v.); 998 mg/kg (R, p.o.);

30 mg/kg (dog, p.o.)

**Reference(s):**

DOS 2 649 605 (Synthelabo; appl. 29.10.1976; F-prior. 6.11.1975).
 US 4 252 984 (Synthelabo; 24.2.1981; appl. 20.10.1976; F-prior. 6.11.1975).
 US 4 311 708 (Synthelabo; 24.2.1981, F-prior. 6.11.1975).
 US 4 342 783 (Synthelabo; 3.8.1983; prior. 30.6.1980).

Formulation(s): eye drops 0.25 %, 0.5 %; f. c. tabl. 20 mg; tabl. 10 mg, 20 mg, 25 mg (as hydrochloride)

Trade Name(s):

D:	Betoptima (Alcon; 1985) Kerlone (Synthelabo; 1984)	Kerlone (Robert et Carrière; Synthelabo/ Schwarz; 1983)	I:	Betoptic coll. (Alcon; 1986) Kerlon (Synthelabo; 1987)
F:	Betoptic (Alcon; 1987)	GB: - Betoptic (Alcon; 1986) Kerlone (Lorex; 1984)	USA:	Betoptic (Alcon; 1985) Kerlone (Searle)

Betazole

(Ametazole)

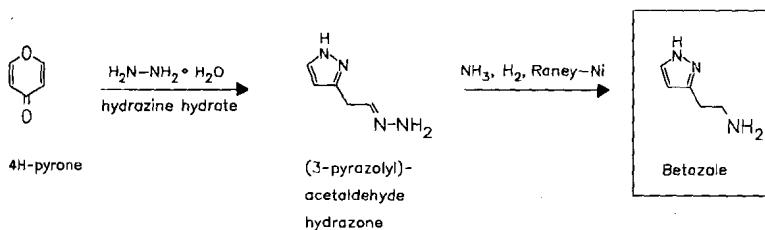
ATC: V04CG02

Use: gastric acid diagnostic, gastric acid stimulant

RN: 105-20-4 MF: $\text{C}_5\text{H}_9\text{N}_3$ MW: 111.15 EINECS: 203-278-3

CN: 1H-pyrazole-3-ethanamine

dihydrochlorideRN: 138-92-1 MF: $\text{C}_5\text{H}_9\text{N}_3 \cdot 2\text{HCl}$ MW: 184.07 EINECS: 205-345-2LD₅₀: 803 mg/kg (M, i.v.); 860 mg/kg (M, p.o.)

**Reference(s):**

US 2 785 177 (Eli Lilly; 12.3.1957; prior. 7.1.1952).

Formulation(s): amp. 50 mg (5 %, as dihydrochloride)

Trade Name(s):

D: Bethazole "Lilly"; wfm

J: Histimin (Shionogi)

GB: Histalog (Lilly); wfm

USA: Histalog (Lilly); wfm

Bethanechol chloride

ATC: N07AB02

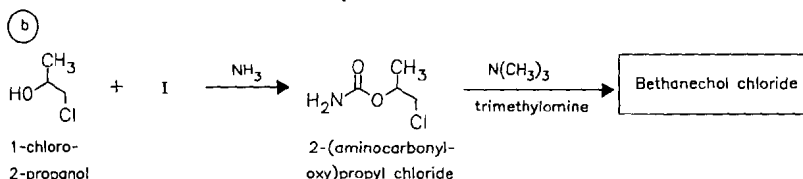
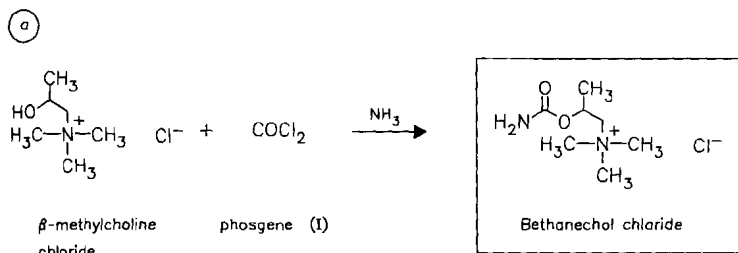
Use: parasymphathomimetic

RN: 590-63-6 MF: $\text{C}_7\text{H}_{17}\text{ClN}_2\text{O}_2$ MW: 196.68 EINECS: 209-686-8

LD₅₀: 10 mg/kg (M, i.v.); 250 mg/kg (M, p.o.);

21 mg/kg (R, i.v.); 1500 mg/kg (R, p.o.)

CN: 2-[(aminocarbonyl)oxy]-N,N,N-trimethyl-1-propanaminium chloride

**Reference(s):**

a US 2 322 375 (Merck & Co.; 1943; prior. 1940).

b US 1 894 162 (O. Dahner, C. Dichl; 1933; D-prior. 1930).

Formulation(s): amp. 5 mg; tabl. 5 mg, 10 mg, 25 mg, 50 mg

Trade Name(s):

GB: Myotonine (Glenwood)

J: Besacolin (Eisai)

Perista (Nissin)

I: Urecholine (Merck Sharp

Bethachorol (Nichiiko)

USA: Urecholine (Merck)

& Dohme)

Paracholin (Kanto)

Bevantolol

ATC: C07AB06

Use: long acting cardioselective β_1 -
adrenoceptor blockerRN: 59170-23-9 MF: $C_{20}H_{27}NO_4$ MW: 345.44LD₅₀: 419 mg/kg (M, p.o.);

38 mg/kg (R, i.v.)

CN: 1-[[2-(3,4-dimethoxyphenyl)ethyl]amino]-3-(3-methylphenoxy)-2-propanol

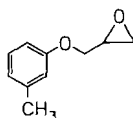
hydrochlorideRN: 42864-78-8 MF: $C_{20}H_{27}NO_4 \cdot HCl$ MW: 381.90LD₅₀: 419 mg/kg (M, p.o.);

25.1 mg/kg (R, i.v.); 460 mg/kg (R, p.o.)

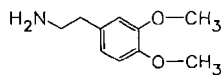
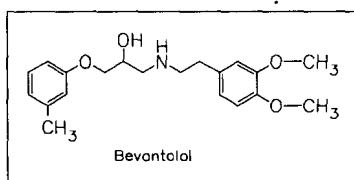
a

3-methyl-
phenol (I)

+

epichloro-
hydrin (II)2,3-epoxypropyl
m-tolyl ether (III)

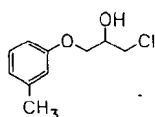
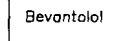
III +

3,4-dimethoxy-
phenethylamine (IV)

Bevantolol

b

I + II

1-chloro-3-(m-tolyloxy)-
2-propanol

Bevantolol

Reference(s):

DE 2 259 489 (Parke Davis; appl. 5.12.1972; USA-prior. 14.12.1971).

US 3 857 891 (Parke Davis; 31.12.1974; appl. 14.2.1971).

US 3 929 856 (Parke Davis; 30.12.1975; appl. 3-9-1974; prior. 3.9.1974, 14.12.1971).

Crowther, A.F. et al.: J. Med. Chem. (JMCMAR) **12**, 638 (1979).Hoetle, M.L. et al.: J. Med. Chem. (JMCMAR) **18**, 148 (1975).**Formulation(s):** tabl. 100 mg, 200 mg**Trade Name(s):**J: Calvan (Nippon
Chemiphar; Torii; as
hydrochloride)USA: Vantol (Parke Davis; as
hydrochloride); wfm

Bevonium metilsulfate

(Bevonium methylsulfate; Piribenzil; Pyribenzil)

ATC: A03AB13

Use: anticholinergic, antispasmodic

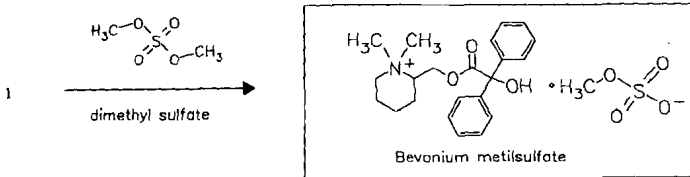
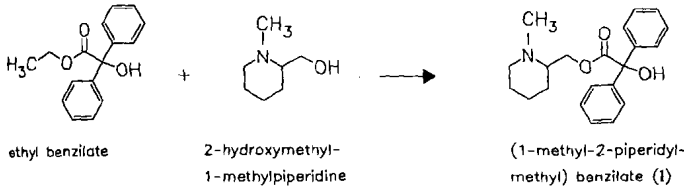
RN: 5205-82-3 MF: C₂₂H₂₈NO₃ · CH₃O₄S MW: 465.57 EINECS: 226-001-8

LD₅₀: 17.4 mg/kg (M, i.v.); 1360 mg/kg (M, p.o.);

26 mg/kg (R, i.v.); 5080 mg/kg (R, p.o.);

1 g/kg (dog, p.o.)

CN: 2-[[[(hydroxydiphenylacetyl)oxy]methyl]-1,1-dimethylpiperidinium methyl sulfate



Reference(s):

BE 616 951 (Grünenthal; appl. 26.4.1962; D-prior. 29.4.1961).

piribenzil:

DE 1 188 081 (Grünenthal; appl. 19.2.1960).

Formulation(s): amp. 10 mg (0.25 %); tabl. 50 mg

Trade Name(s):

D: Acabel (Grünenthal); wfm J: Acabel (Dainippon)

Bezafibrate

ATC: B04AA; C01AB02

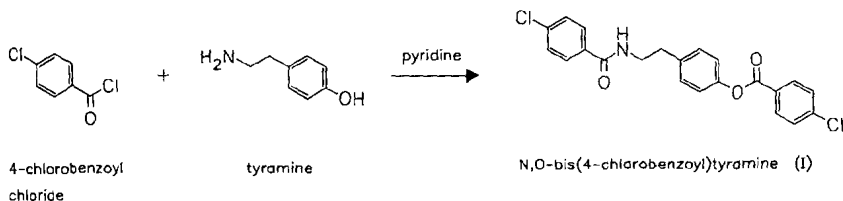
Use: antiarteriosclerotic (antihyperlipidemic)

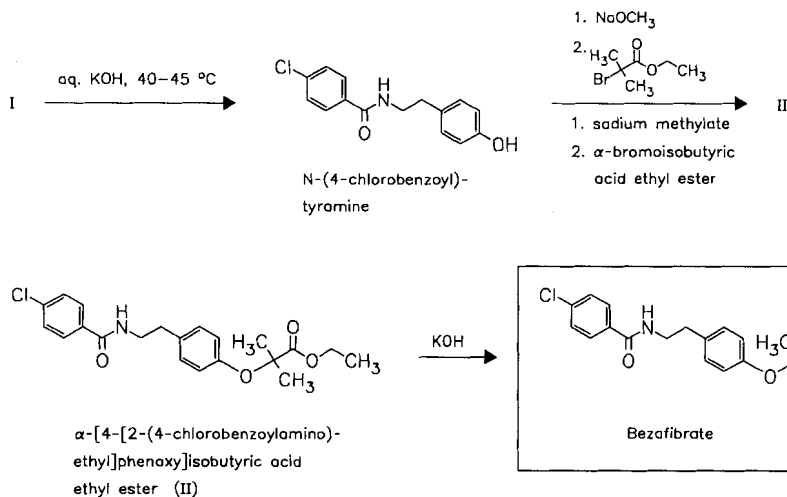
RN: 41859-67-0 MF: C₁₉H₂₀ClNO₄ MW: 361.83 EINECS: 255-567-9

LD₅₀: 723 mg/kg (M, p.o.);

1082 mg/kg (R, p.o.)

CN: 2-[4-[2-[(4-chlorobenzoyl)amino]ethyl]phenoxy]-2-methylpropanoic acid



**Reference(s):**

DOS 2 149 070 (Boehringer Mannh.; appl. 1.10.1971).

FR-appl. 2 154 739 (Boehringer Mannh.; appl. 29.9.1972; D-prior. 1.10.1971, 22.6.1972).

Formulation(s): drg. 200 mg; f. c. tabl. 200 mg; s. r. drg. 400 mg; tabl. 200 mg**Trade Name(s):**

D: Azufibrate (Azupharma)

Befibrate (Henning)

Bezacur (Hexal)

Cedur (Boehringer Mannh.)

Lipox (TAD)

Pegradin (Berlin-Chemie)

Sklerofibrate (Merckle)

F: Béfizal (Boehringer

Mannh.)

GB: Bezalip (Bristol-Myers

Squibb)

I: Bezalip (Boehringer

Mannh.)

Bibrocathol

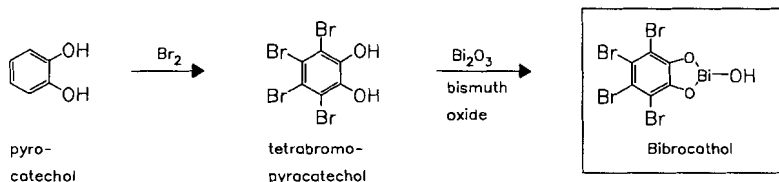
(Bibrocathin; Bismucatebrol)

ATC: S01AX05

Use: antiseptic

RN: 6915-57-7 MF: $\text{C}_6\text{H}_4\text{BiBr}_4\text{O}_3$ MW: 649.67 EINECS: 230-023-3

CN: 4,5,6,7-tetrabromo-2-hydroxy-1,3,2-benzodioxabismole

**Reference(s):**

DRP 207 544 (Chem. Fabrik von Heyden; appl. 1908).

Hundrup: Arch. Pharm. Chemi (APCEAR) 54, 537 (1947).

Formulation(s): eye ointment 1 %, 2 %, 3 %, 5 %**Trade Name(s):**

D: Noviform (CIBA Vision)

Novifort (Dispersa)-comb.

Posiformin (Ursapharm)

Bicalutamide

(ICI-176334)

ATC: L02BB03

Use: non-steroidal antiandrogen,
antineoplastic, anti(prostate)cancer

RN: 90357-06-5 MF: C₁₈H₁₄F₄N₂O₄S MW: 430.38

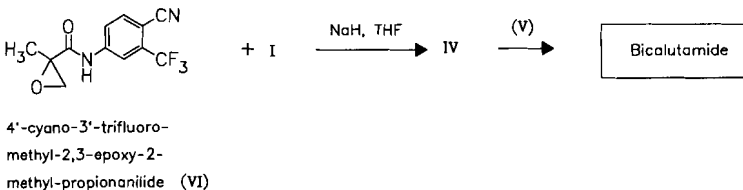
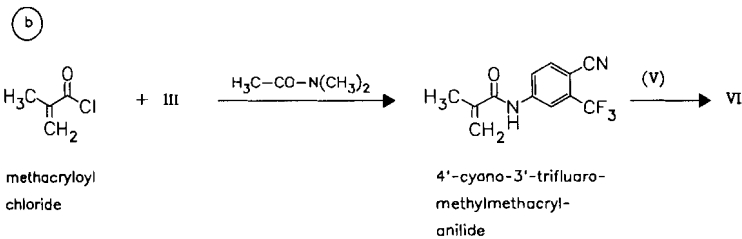
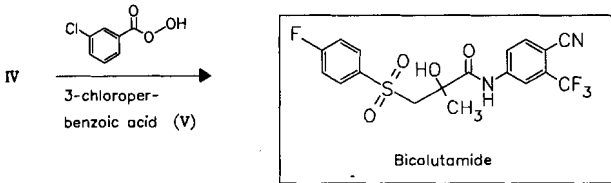
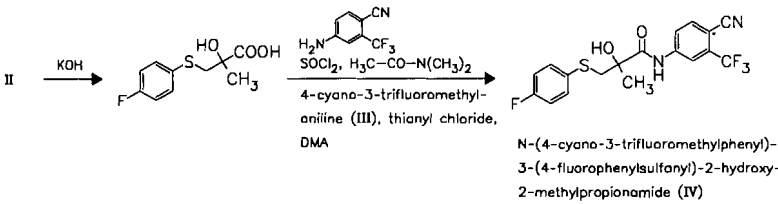
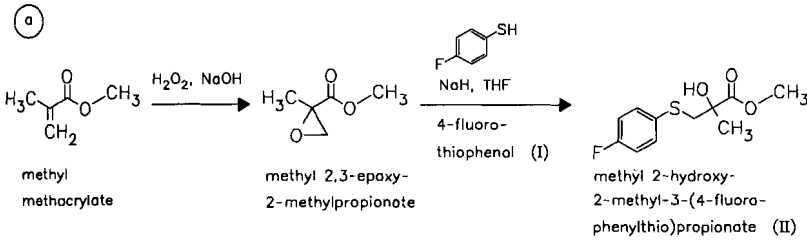
CN: (±)-N-[4-cyano-3-(trifluoromethyl)phenyl]-3-[(4-fluorophenyl)sulfonyl]-2-hydroxy-2-methylpropanamide

R-enantiomer

RN: 113299-40-4 MF: C₁₈H₁₄F₄N₂O₄S MW: 430.38

S-enantiomer

RN: 113299-38-0 MF: C₁₈H₁₄F₄N₂O₄S MW: 430.38



Reference(s):

EP 100 172 (ICI; appl. 8.7.1983; UK-prior. 23.7.1982).

active enantiomer (R(-)-bicalutamide) for treating e. g. prostate cancer; acne:
WO 9 519 770 (Sepracor Inc.; appl. 27.7.1995; USA-prior. 21.1.1994).*combination with progesterone antagonists:*

DE 4 318 371 (Schering AG; 1.12.1994; D-prior. 28.5.1993).

combination with sex steroid biosynthesis inhibitors:

WO 9 100 733 (Endorecherche Inc.; 24.1.1994; USA-prior. 7.7.1989).

Formulation(s): tabl. 50 mg**Trade Name(s):**

D: Casodex (Zeneca)

GB: Casodex (Zeneca)

USA: Casodex (Zeneca)

Bietamiverine

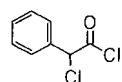
ATC: A03AA

(Dietamiverin)

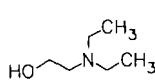
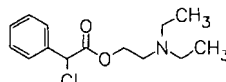
Use: antispasmodic

RN: 479-81-2 MF: C₁₉H₃₀N₂O₂ MW: 318.46 EINECS: 207-538-7

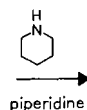
CN: α-phenyl-1-piperidineacetic acid 2-(diethylamino)ethyl ester

dihydrochlorideRN: 2691-46-5 MF: C₁₉H₃₀N₂O₂ · 2HCl MW: 391.38 EINECS: 220-262-1LD₅₀: 55 mg/kg (M, i.v.); 1247 mg/kg (M, p.o.)α-chlorophenyl-
acetyl chloride

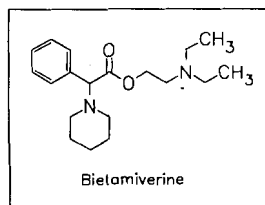
+

2-diethylamino-
ethanol2-phenyl-2-chloroacetic acid
2-(diethylamino)ethyl ester (I)

I



piperidine



Bietamiverine

Reference(s):

DE 859 892 (Nordmark; appl. 1950).

Trade Name(s):D: Spasmaparid (Nordmark);
 wfm

J: Sparine A (Tokyo Tanabe)

Bietaserpine

ATC: C02AA07

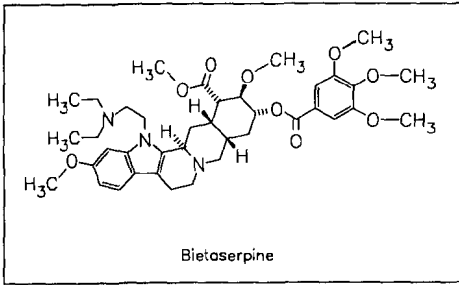
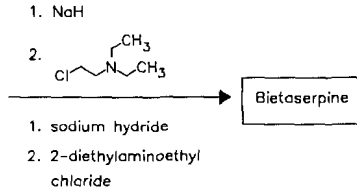
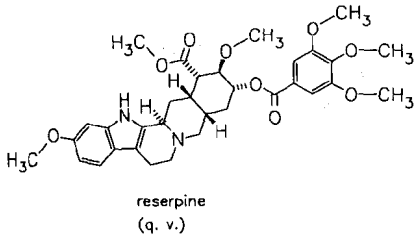
Use: antihypertensive

RN: 53-18-9 MF: C₃₉H₅₃N₃O₉ MW: 707.87 EINECS: 200-165-0

CN: (3β,16β,17α,18β,20α)-1-[2-(diethylamino)ethyl]-11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]yohimban-16-carboxylic acid methyl ester

bitartrate (1:1)

RN: 1111-44-0 MF: $C_{39}H_{53}N_3O_9 \cdot C_4H_6O_6$ MW: 857.95 EINECS: 214-180-5



Reference(s):

FR 1 256 524 (Dautreville et Lebas et A. Buzas; appl. 13.2.1959).
FR-M 102 (Soc. Nogentaise de Prod. Chim. et A. Buzas; appl. 3.8.1960).

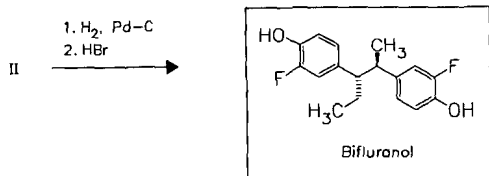
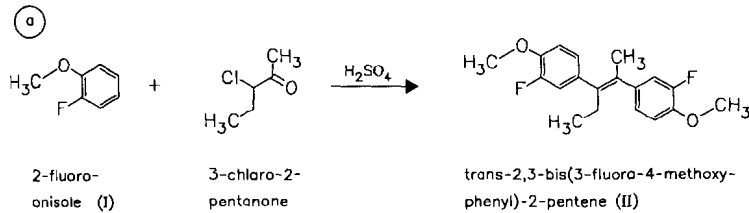
Trade Name(s):

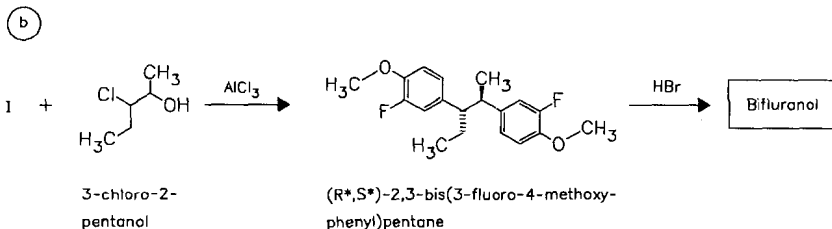
F: Tensibar (Lefranca); wfm I: Pleiantensin simplex (Guidotti); wfm

Bifluranol

ATC: G03HA
Use: antiandrogen, treatment of benign prostatic hypertrophy

RN: 34633-34-6 MF: $C_{17}H_{18}F_2O_2$ MW: 292.33
CN: (*R*,S**)-4,4'-(1-ethyl-2-methyl-1,2-ethanediyl)bis[2-fluorophenol]



**Reference(s):**

DE 2 110 428 (Biorex; appl. 4.3.1971; GB-prior. 16.3.1970).

US 4 051 263 (Biorex; 27.9.1977; GB-prior. 16.3.1970).

Formulation(s): amp.**Trade Name(s):**

GB: Prostarex (Biorex); wfm

Bifonazole

(Bifonazolium)

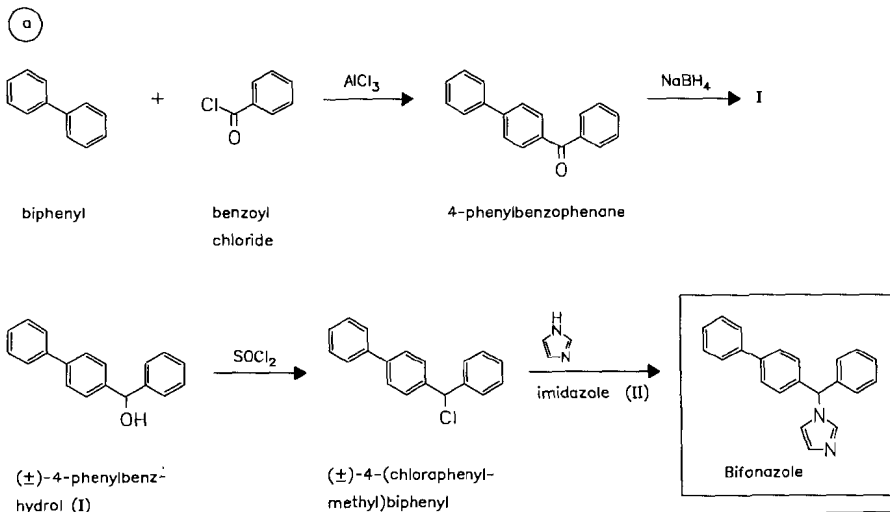
ATC: D01AC10

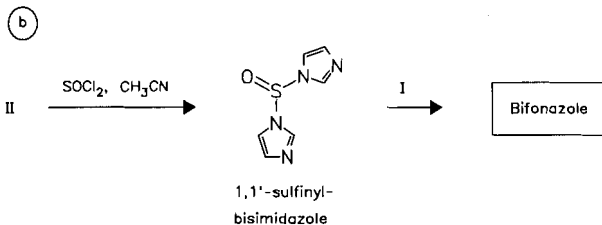
Use: topical antimycotic (inhibitor of ergosterin biosynthesis in yeasts and dermatophytes)

RN: 60628-96-8 MF: $\text{C}_{22}\text{H}_{18}\text{N}_2$ MW: 310.40 EINECS: 262-336-6LD₅₀: 57 mg/kg (M, i.v.); 2629 mg/kg (M, p.o.);

63 mg/kg (R, i.v.); 1463 mg/kg (R, p.o.);

>500 mg/kg (dog, p.o.)

CN: 1-([1,1'-biphenyl]-4-ylphenylmethyl)-1*H*-imidazole**monohydrochloride**RN: 60629-09-6 MF: $\text{C}_{22}\text{H}_{18}\text{N}_2 \cdot \text{HCl}$ MW: 346.86**sulfate**RN: 60629-08-5 MF: $\text{C}_{22}\text{H}_{18}\text{N}_2 \cdot \text{xH}_2\text{O}_4\text{S}$ MW: unspecified

**Reference(s):**

DOS 2 461 406 (Bayer; appl. 5.12.1975; USA-prior. 24.12.1974).
US 4 118 487 (Bayer; 3.11.1978; appl. 5.12.1975; prior. 24.12.1974).

effective mechanism:

Berg, D. et al.: *Arzneim.-Forsch. (ARZNAD)* **34** (I), 139 (1984).

Formulation(s): cream 10 mg (1 %); gel 10 mg; lotion 1 %; powder 10 mg (1 %); sol. 10 mg (1 %)

Trade Name(s):

D:	Bifomyk (Hexal)	F:	Amycor (Lipha Santé); 1987	I:	Azolmen (Menarini; 1987)
	Bifon (Dermapharm)		Amycor onychoset (Lipha Santé)-comb.		Bifazol (Bayropharm; 1986)
	Mycospor (Bayer; 1983)				

Binedaline

(Binodaline)

ATC: N06AB

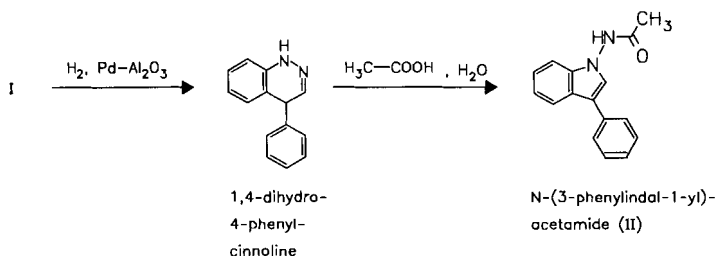
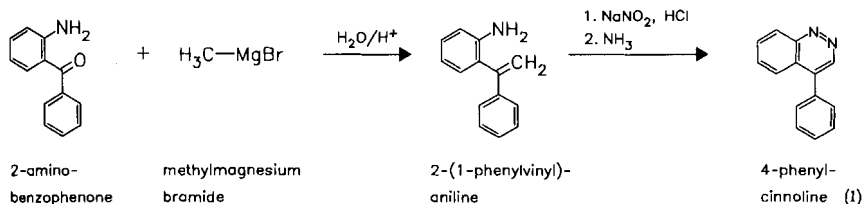
Use: antidepressant

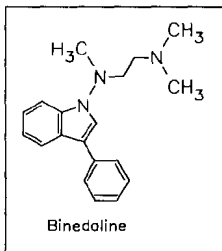
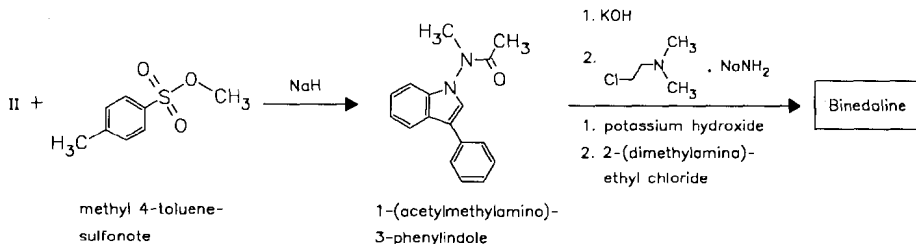
RN: 60662-16-0 MF: C₁₉H₂₃N₃ MW: 293.41

LD₅₀: 54 mg/kg (M, i.v.); 770 mg/kg (M, p.o.);
27 mg/kg (R, i.v.)

CN: *N,N,N'*-trimethyl-*N'*-(3-phenyl-1*H*-indol-1-yl)-1,2-ethanediamine**monohydrochloride**RN: 57647-35-5 MF: C₁₉H₂₃N₃ · HCl MW: 329.88 EINECS: 260-877-2

LD₅₀: 54 mg/kg (M, i.v.); 760 mg/kg (M, p.o.);
26 mg/kg (R, i.v.); 1160 mg/kg (R, p.o.);
>20 mg/kg (dog, i.v.)





Reference(s):

DOS 2 512 702 (Siegfried AG; appl. 22.3.1975; CH-prior. 29.3.1974).
 US 4 204 998 (Siegfried AG; 27.5.1980; CH-prior. 29.3.1974).
 Schatz, F. et al.: *Arzneim.-Forsch. (ARZNAD)* **30**, 919 (1980).

synthesis of 1,4-dihydro-4-phenylcinnoline:

Simpson, J.C.F. et al.: *J. Chem. Soc. (JCSOA9)* **1945**, 646.
 Scheifele, H.J. Jr. et al.: *Org. Synth. (ORSYAT)* **32**, 8 (1952).
 Sternbach, L.H. et al.: *J. Org. Chem. (JOCEAH)* **26**, 4488 (1961).

Formulation(s): tabl. 25.5 mg

Trade Name(s):

J: Ixprim (Roussel-Uclaf)

Biotin

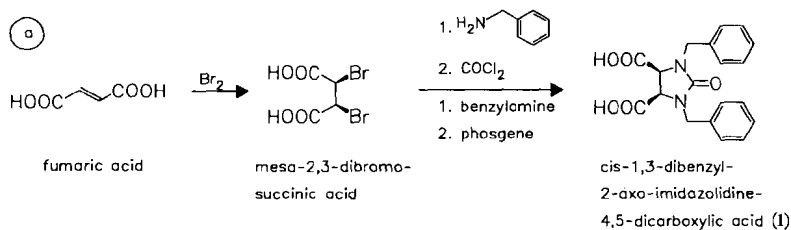
(Vitamin B₇; Vitamin H)

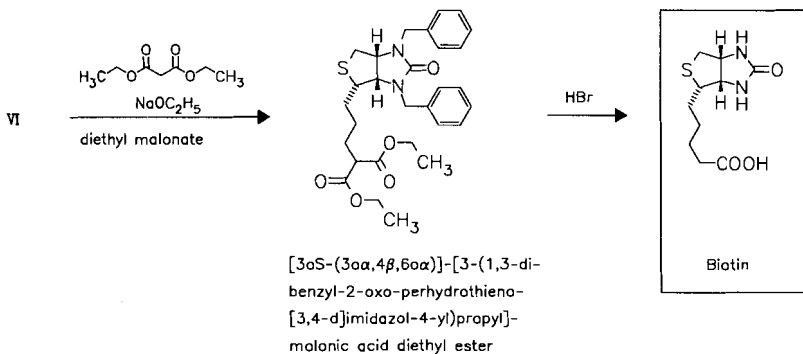
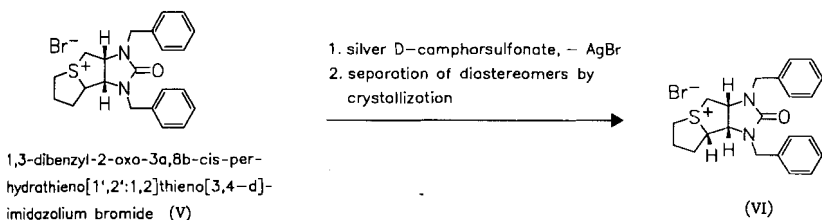
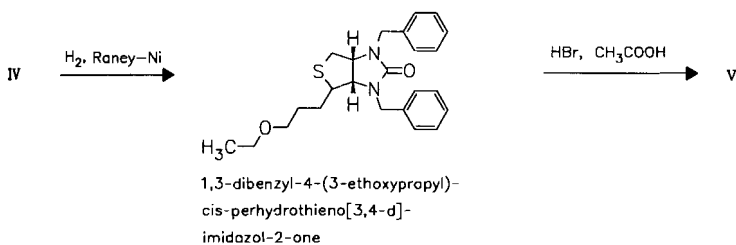
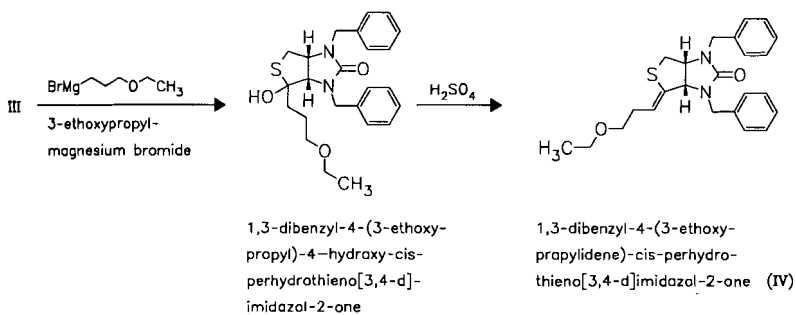
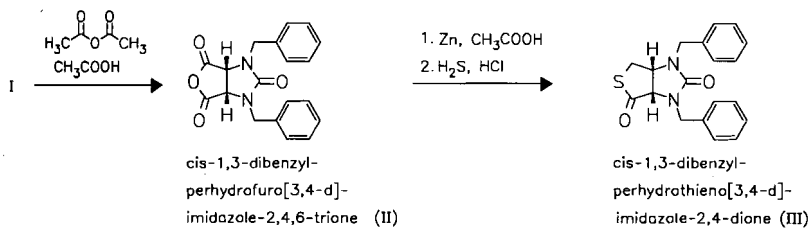
ATC: A11HA05

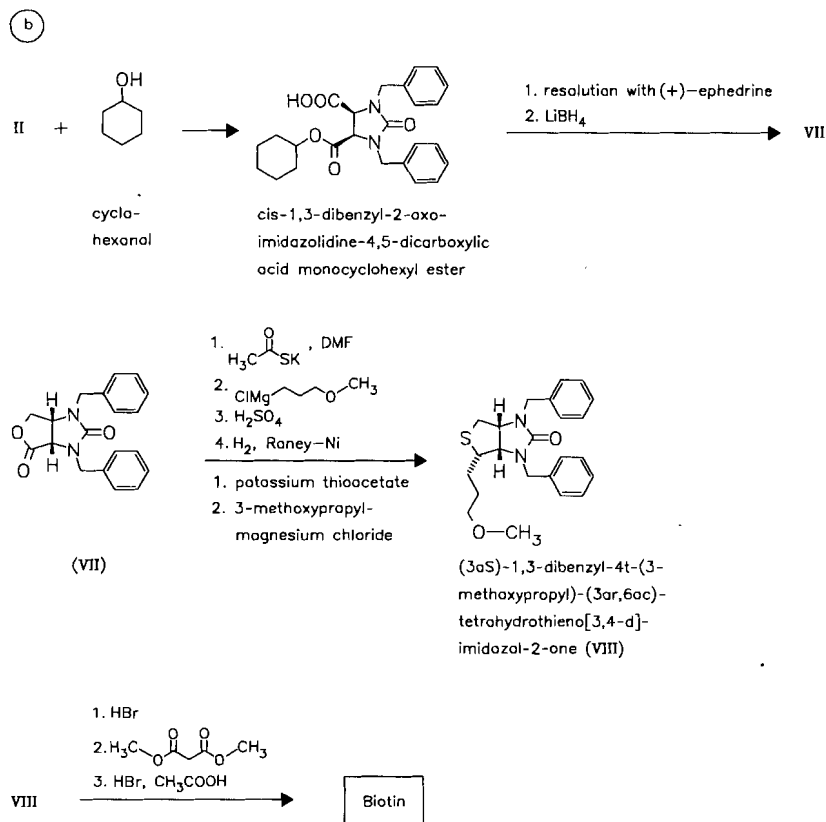
Use: growth factor, vitamin

RN: 58-85-5 MF: C₁₀H₁₆N₂O₃S MW: 244.32 EINECS: 200-399-3

CN: [3αS-(3α,4β,6α)]-hexahydro-2-oxo-1H-thieno[3,4-d]imidazole-4-pentanoic acid





*Reference(s):*

- US 2 489 232 (Roche; 1949; appl. 1946).
 US 2 489 233 (Roche; 1949; appl. 1947).
 US 2 489 234 (Roche; 1949; appl. 1947).
 US 2 489 235 (Roche; 1949; appl. 1947).
 US 2 489 236 (Roche; 1949; appl. 1947).
 US 2 489 237 (Roche; 1949; appl. 1948).
 US 2 489 238 (Roche; 1949; appl. 1948).
 US 2 519 720 (Roche; 1950; appl. 1948).
 US 3 740 416 (Roche; 1973; CH-prior. 29.11.1969).

newer syntheses:

- DAS 2 331 244 (Sumitomo; appl. 19.6.1973; J-prior. 22.6.1972, 23.3.1973).
 DAS 2 534 962 (Teikoku; appl. 5.8.1975; J-prior. 5.8.1974, 6.8.1974, 8.8.1974).
 DOS 2 730 341 (Roche; appl. 5.7.1977; USA-prior. 12.7.1976).
 DOS 2 807 200 (Roche; appl. 20.2.1978; USA-prior. 23.2.1977).
 US 4 054 740 (Roche; 18.10.1977; prior. 24.12.1974, 5.9.1975).
 US 4 130 712 (Roche; 19.12.1978; prior. 12.7.1976, 17.6.1977).
 US 4 130 713 (Roche; 19.12.1978; prior. 5.8.1977).
 Lavielle, S. et al.: J. Am. Chem. Soc. (JACSAT) **100**, 1558 (1978).

Formulation(s): amp. 0.5 mg, 5 mg; cps. 0.06 mg, 0.1 mg; drg. 0.15 mg, 0.5 mg; tabl. 5 mg, 10 mg

Trade Name(s):

- | | | | |
|----|-----------------------------------|---------------------------|-----------------------------------|
| D: | Bio-H-Tin (Engelfried & Bartel) | Deacura (Dermapharm) | Polybion (Merck)-comb. |
| | Brodermatin (Engelfried & Bartel) | Mediobiotin (Medopharm) | Rombellin (Simons) |
| | | Multibionta (Merck)-comb. | numerous combination preparations |
| | | Piorin (Roche Nicholas) | |

F:	Alvityl (Solvay Pharma)- comb. Azedavit (Whitehall)- comb. Azinc complexe (Arkopharma)-comb. Berocca (Nicholas) Biotine (Roche) Cernévit (Baxtersa/Clintel Parentéral)-comb.	Élévit Vitamine B9 (Nicholas)-comb. Lofenalac (Bristol-Myers Squibb)-comb. Plènyl (Oberlin)-comb. Soluvit (Pharmacia & Upjohn)-comb. Supradyne (Roche Nicholas)-comb. Survitine (Roche Nicholas)-comb.	Vivamyne (Whitehall)- comb. generics GB: Ketovite (Paines & Byrne)- comb. I: Biodermatin (Lafare) Diathymil (Dermalife) J: Havita (Kakenyaku) USA: Mega-B (Arco) Megadose (Arco) combination preparations
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Biperidene

ATC: N04AA

Use: antiparkinsonian

RN: 514-65-8 MF: $C_{21}H_{29}NO$ MW: 311.47 EINECS: 208-184-6LD₅₀: 56 mg/kg (M, i.v.); 530 mg/kg (M, p.o.);

750 mg/kg (R, p.o.);

340 mg/kg (dog, p.o.)

CN: α -bicyclo[2.2.1]hept-5-en-2-yl- α -phenyl-1-piperidinepropanol

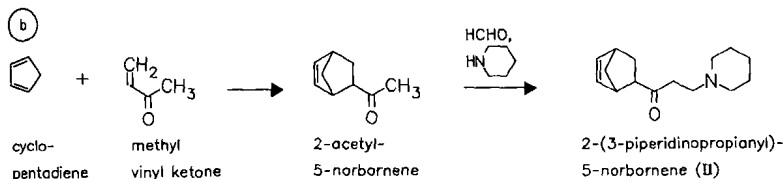
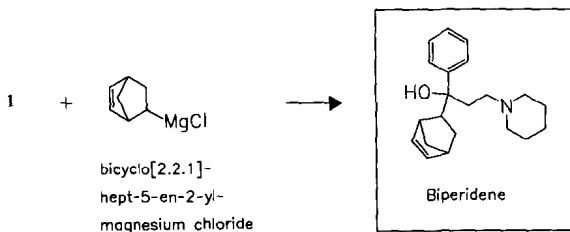
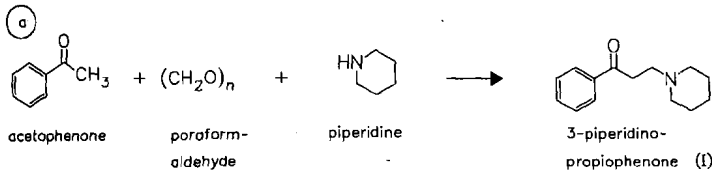
hydrochloride

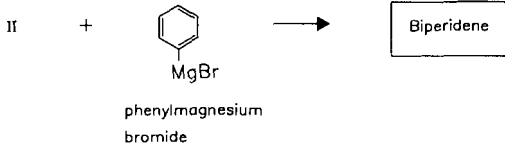
RN: 1235-82-1 MF: $C_{21}H_{29}NO \cdot HCl$ MW: 347.93 EINECS: 214-976-2LD₅₀: 56 mg/kg (M, i.v.); 530 mg/kg (M, p.o.);

750 mg/kg (R, p.o.);

340 mg/kg (dog, p.o.)

lactate (1:1)

RN: 7085-45-2 MF: $C_{21}H_{29}NO \cdot C_3H_6O_3$ MW: 401.55 EINECS: 230-388-9LD₅₀: 61 mg/kg (M, i.v.)



Reference(s):

US 2 789 110 (Knoll; 1957; D-prior. 1953).
DE 1 005 067 (Knoll; appl. 1953).

Formulation(s): amp. 5 mg/ml; powder 1 %; s. r. drg. 4 mg; tabl. 2 mg

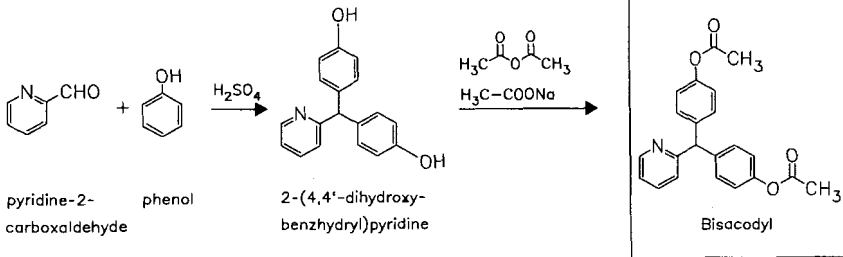
Trade Name(s):

D:	Akineton (Knoll)	GB:	Akineton (Abbott); wfm	J:	Akineton (Dainippon)
	Desiperiden (Desitin)	I:	Akineton (Ravizza; as chloride)		Tasmofin (Yoshitomi)
	Norakin (Neuro Hexal)				Tasmolin (Yoshitomi)
F:	Akineton retard (Knoll)		Akineton (Knoll; as lactate)	USA:	Akineton (Knoll Labs.)

Bisacodyl

ATC: A06AB02; A06AG02
Use: laxative

RN: 603-50-9 MF: C₂₂H₁₉NO₄ MW: 361.40 EINECS: 210-044-4
LD₅₀: 17.5 g/kg (M, p.o.);
4.32 g/kg (R, p.o.);
>15 g/kg (dog, p.o.)
CN: 4,4'-(2-pyridinylmethylene)bis[phenol] diacetate (ester)



Reference(s):

DE 951 987 (Thomae; appl. 1952).
US 2 764 590 (Thomae; 1956; D-prior. 1952).

alternative synthesis:

DE 951 988 (Thomae; appl. 1952).

Formulation(s): drg. 5 mg; suppos. 10 mg; tabl. 5 mg

Trade Name(s):

D:	Agarolletten (Warner-Lambert)	Drix (Hermes)	Laxbene (Merckle)
	Bekunis (roha)	Dulcolax (Boehringer Ing.)	Laxoberal (Boehringer Ing.)
	Bisco-Zifron extra stark (Biscova)	Florisan (Boehringer Ing.)	Mandrolax (Dolorgiet)
	Bisco (Biscova)	Laxagetten (ct-Arzneimittel)	Marienbader (RIAM)
	Darmol (Omegin)	Laxanin (Schwarzhaupt)	Mediolax (Medice)
		Laxanin N (Schwarzhaupt)	Pyrilax (Berlin-Chemie)

Stadalax (Stada Chemie)		Prépacol (Guerbet)-comb.	Lax (Kanto)-comb.
Tempolax (Hommel)	GB:	Dulcolax (Boehringer Ing.)	Satolax-10 (Sato)
Tirgon (Woelm)	I:	Alaxa (Angelini)	Telemin Soft (Funai)-comb.
Vinco (OTW)		Dulcolax (Fher)	Vemas (Nippon Zoki)-comb.
Vinco-Abführperlen (OTW)-comb.		Fisiolax (Manetti Roberts)-comb.	Vencoll (Maruko)-comb.
numerous combination preparations		Normalene (Montefarmaco)	USA: Dulcolax (Novartis Consumer)
F: Contalax (3M Santé)	J:	Anan (Ono)	Evac-Q-Kwik (Savage)
Dulcolax (Boehringer Ing.)		Biomit (Sampo)-comb.	Fleet Prep Kits (Fleet)
Pilules Dupuis (Synthélabo)-comb.		Cathalin (Hokuriku)-comb.	
		Ethanis (Taisho)-comb.	

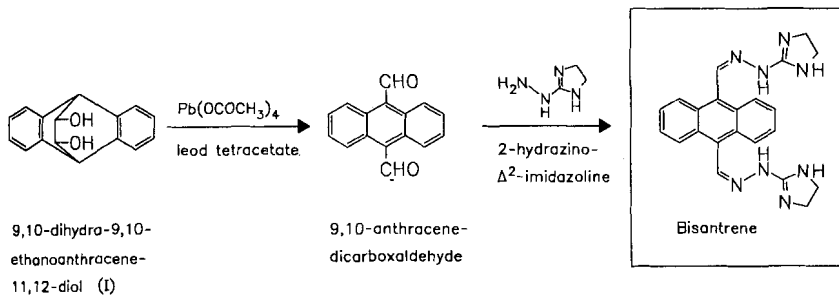
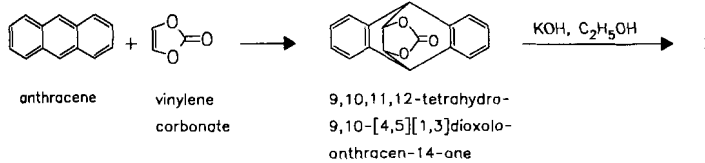
Bisantrene
(CL-216942)

ATC: L01
Use: intercalating antineoplastic (against adult acute non-lymphocytic leucemia)

RN: 78186-34-2 MF: C₂₂H₂₂N₈ MW: 398.47
LD₅₀: 245 mg/kg (M, route unreported)
CN: 9,10-anthracenedicarboxaldehyde bis(4,5-dihydro-1H-imidazol-2-ylhydrazone)

dihydrochloride

RN: 71439-68-4 MF: C₂₂H₂₂N₈ · 2HCl MW: 471.40



Reference(s):

DOS 2 850 822 (American Cyanamid; appl. 23.11.1978; USA-prior. 28.11.1977, 5.5.1978, 19.9.1978, 2.10.1978).
US 4 187 373 (American Cyanamid; 5.2.1980; appl. 2.10.1978).
Murdock, K.L. et al.: J. Med. Chem. (JMCMAR) **25**, 505 (1982).

Formulation(s): vial 50 mg, 250 mg, 500 mg

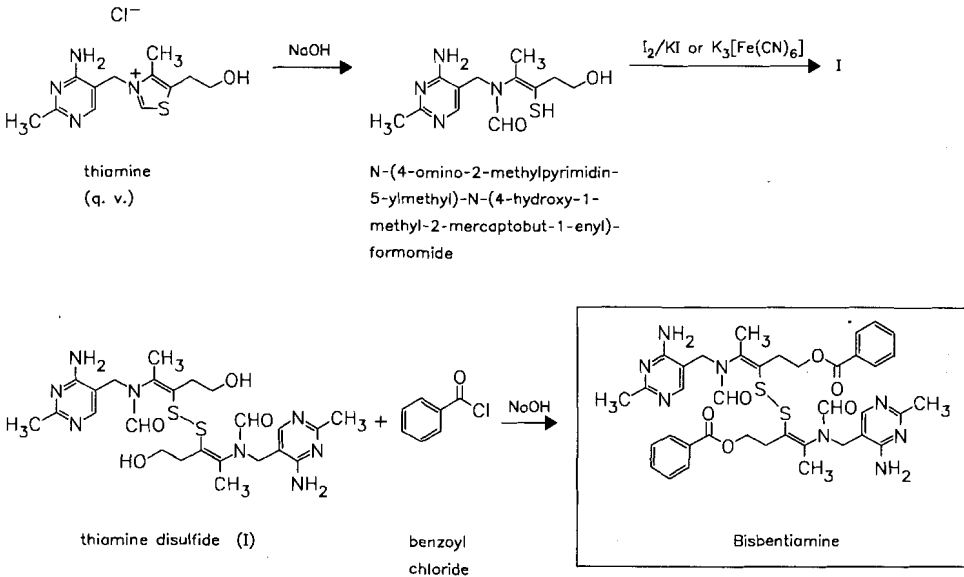
Trade Name(s):

F: Zantrene (Lederle; 1990 as dihydrochloride); wfm
USA: Cyabin (Lederle; as dihydrochloride); wfm

Bisbentiamine

(Benzoylthiamine disulfide)

ATC: A11

Use: neurotropic analgesic, vitamin B₁-
derivativeRN: 2667-89-2 MF: C₃₈H₄₂N₈O₆S₂ MW: 770.94 EINECS: 220-206-6LD₅₀: 194 mg/kg (M, i.v.); 9 g/kg (M, p.o.)CN: *N,N'*-[dithiobis[2-[2-(benzoyloxy)ethyl]-1-methyl-2,1-ethenediyl]]-bis[*N*-[(4-amino-2-methyl-5-pyrimidinyl)methyl]formamide]*Reference(s):*

US 3 109 000 (Tanabe; 1963; J-prior. 1960).

GB 922 444 (Tanabe; appl. 1961; J-prior. 1960).

similar method:

DOS 1 954 519 (Hitachi; appl. 29.10.1969).

Formulation(s): cps. 50 mg*Trade Name(s):*D: Neuro-Fortamin (Asche)-
comb.; wfm

J: Beston (Tanabe)

Bisoprolol

ATC: C07AB07

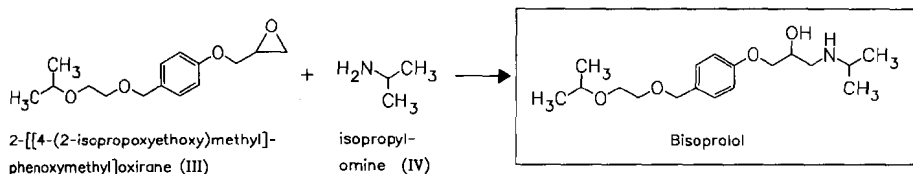
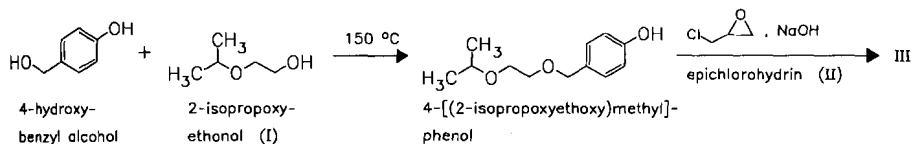
Use: beta blocking agent

RN: 66722-44-9 MF: C₁₈H₃₁NO₄ MW: 325.45

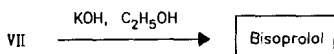
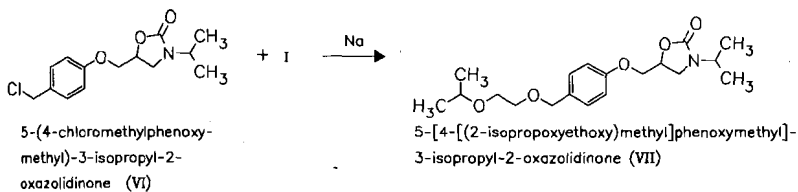
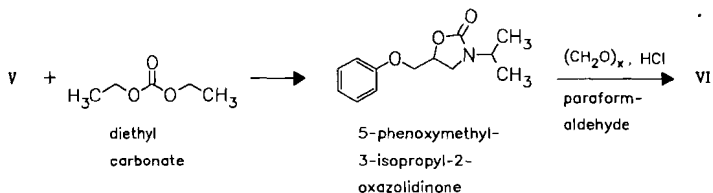
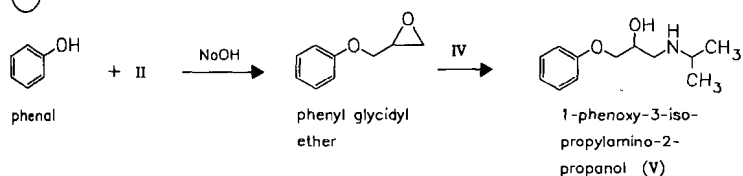
CN: (±)-1-[4-[[2-(1-methylethoxy)ethoxy]methyl]phenoxy]-3-[(1-methylethyl)amino]-2-propanol

fumarateRN: 104344-23-2 MF: C₁₈H₃₁NO₄ · 1/2C₄H₄O₄ MW: 766.97

a



b



Reference(s):

Harting, J. et al.: *Arzneim.-Forsch. (ARZNAD)* **36**, 200 (1986).

a DOS 2 645 710 (Merck Patent GmbH; appl. 9.10.1976).

US 4 258 062 (Merck Patent GmbH; 24.3.1981; appl. 30.5.1979; D-prior. 9.10.1976).

b DOS 3 205 457 (Merck Patent GmbH; appl. 16.2.1982).

Formulation(s): f. c. tabl. 10 mg; f. c. tabl. 5 mg, 10 mg (as fumarate)

Trade Name(s):

D: Bisobloc (Azupharma)

Concor (Merck; 1986)

Fondril (Procter & Gamble)

F: Détensiel (Lipha Santé;

1987)

Soprol (Wyeth-Lederle;

1988)

GB: Emcor (Merck)

Monocor (Wyeth)

Monozide 10 (Wyeth)-

comb.

I: Concor (Bracco)

USA: Zebeta (Lederle)

Ziac (Lederle)-comb.

Bitolterol

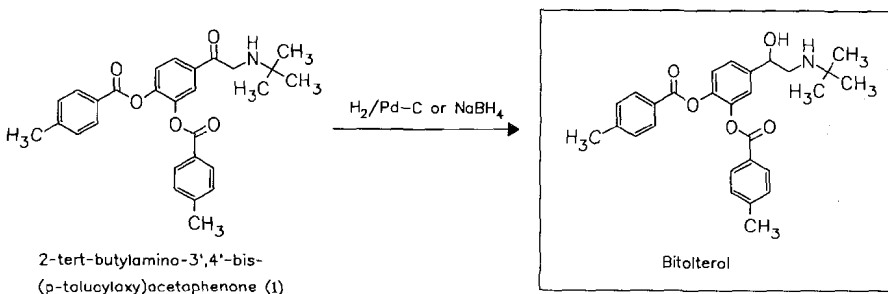
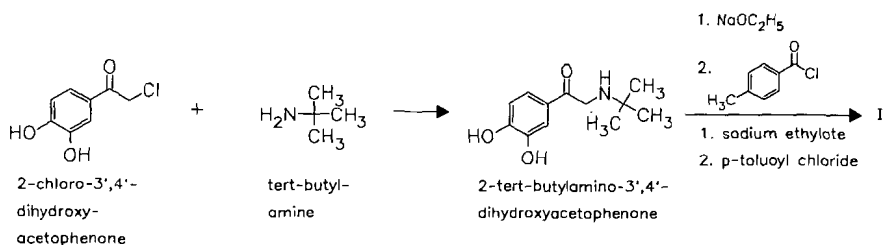
ATC: R03AC17

Use: selective β_2 -adrenoceptor agonist,
bronchodilatorRN: 30392-40-6 MF: $C_{28}H_{31}NO_5$ MW: 461.56

CN: 4-methylbenzoic acid 4-[2-[(1,1-dimethylethyl)amino]-1-hydroxyethyl]-1,2-phenylene ester

mesylateRN: 30392-41-7 MF: $C_{28}H_{31}NO_5 \cdot CH_4O_3S$ MW: 557.66 EINECS: 250-177-5LD₅₀: 31.4 mg/kg (M, i.v.); 4116 mg/kg (M, p.o.);

44 mg/kg (R, i.v.); >6221 mg/kg (R, p.o.)

**Reference(s):**

DOS 2 015 573 (Sterling Drug; appl. 1.4.1970; USA-prior. 1.4.1969).

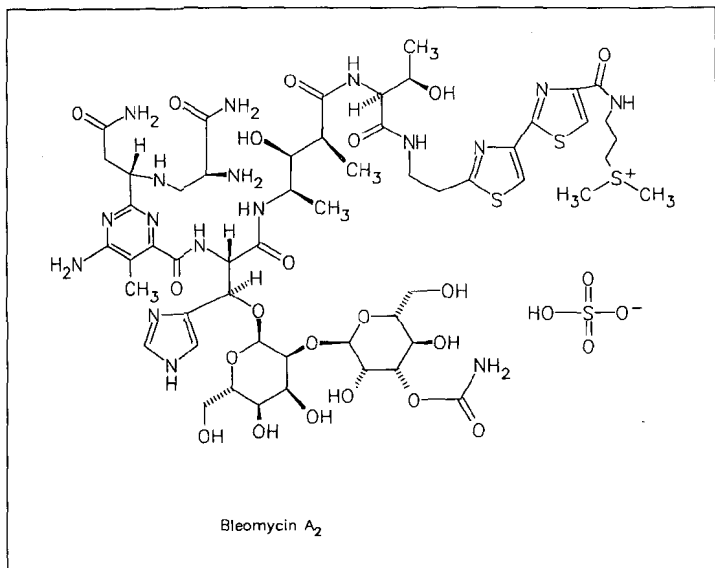
Corrigan, J.R. et al.: *J. Am. Chem. Soc. (JACSAT)* **71**, 530 (1949).Fuller, B.F. et al.: *J. Med. Chem. (JMCMAR)* **19**, 834 (1976).**Formulation(s):** aerosol 10 ml (0.8 %); tabl. 4 mg**Trade Name(s):**I: Asmalene (Firma)
Tolbet (Corvi)J: Effectin (Shionogi-
Winthrop; as mesylate)**Bleomycin**

ATC: L01DC01

Use: antineoplastic (peptide antibiotic)

RN: 11116-31-7 MF: $C_{55}H_{84}N_{17}O_{21}S_3$ MW: 1415.57 EINECS: 234-356-5LD₅₀: 100 mg/kg (M, i.v.)CN: N¹-[3-(dimethylsulfonio)propyl]bleomycinamide

50 % Bleomycin A₂, 20 % Bleomycin B₂.



From culture of *Streptomyces verticillus* by ion-exchange adsorption and column chromatographic purification (on alumina) via the copper complex.

Reference(s):

DE 1 217 549 (Zaidan Hojin Biseibutsu Kagaku Kenkyu Kai = Microbial Chemistry Research Foundation; Tokyo; appl. 5.3.1964; J-prior. 5.3.1963).

Formulation(s): amp. 15 mg (as sulfate)

Trade Name(s):

D:	BLEO-cell (cell pharm) Bleomycinum-Mack (Mack, Illert.)	I:	Bleomicina (Rhône- Poulenc Rorer) generics	Bleo S (Nippon Kayaku; as sulfate)
F:	Bleomycine Roger Bellon (Roger Bellon) generics	J:	Bleo (Nippon Kayaku; as hydrochloride)	USA: Blenoxane (Bristol-Myers Squibb Oncology/ Immunology; as sulfate)

Bluensomycin

ATC: A07AA

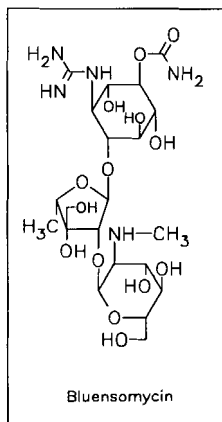
Use: antibiotic

RN: 11011-72-6 MF: C₂₁H₃₉N₅O₁₄ MW: 585.56

LD₅₀: 2250 mg/kg (M, i.v.);

>2500 mg/kg (R, p.o.)

CN: O-2-deoxy-2-(methylamino)-α-L-glucopyranosyl(1→2)-O-5-deoxy-3-C-(hydroxymethyl)-α-L-lyxofuranosyl-(1→2)-1-[(aminoiminomethyl)amino]-1-deoxy-D-scyllo-inositol 5-carbamate



From fermentation solutions of *Streptomyces bluensis* NRRL 2876.

Reference(s):

Mason, O.J. et al.: *Antimicrob. Agents Chemother. (AACHAX)* **1963**, 607.

Bergy, M.E. et al.: *Antimicrob. Agents Chemother. (AACHAX)* **1963**, 614.

DAS 1 183 631 (Upjohn; appl. 19.7.1962; USA-prior. 7.8.1961).

structure:

Bannister, B.; Argoudelis, A.D.: *J. Am. Chem. Soc. (JACSAT)* **85**, 119, 234 (1963).

McGilveray, I.J.; Rinehart, U.L.: *J. Am. Chem. Soc. (JACSAT)* **87**, 4003 (1965).

Trade Name(s):

USA: Bluensomycin "Upjohn"
(Upjohn); wfm

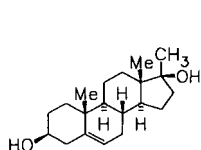
Bolasterone

ATC: G03BA

Use: anabolic

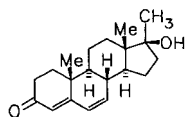
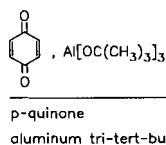
RN: 1605-89-6 MF: $C_{21}H_{32}O_2$ MW: 316.49 EINECS: 216-519-2

CN: (7 α ,17 β)-17-hydroxy-7,17-dimethylandrosta-4-en-3-one

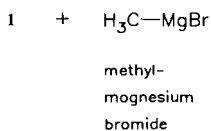


3 β ,17 β -dihydroxy-17 α -methyl-5-androstene

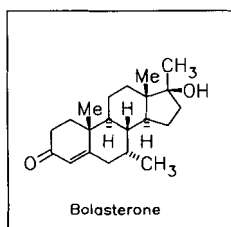
(cf. methyltestosterone synthesis)



17 β -hydroxy-17-methyl-androsta-4,6-dien-3-one (I)



1. $CuCl_2$
2. isomer resolution



Reference(s):

US 3 341 557 (Upjohn; 12.9.1967; prior. 5.6.1961, 6.11.1960, 6.6.1958).
Campbell, J.A.; Babcock, J.C.: J. Am. Chem. Soc. (JACSAT) **81**, 4069 (1959).

Trade Name(s):

USA: Myagen (Upjohn); wfm

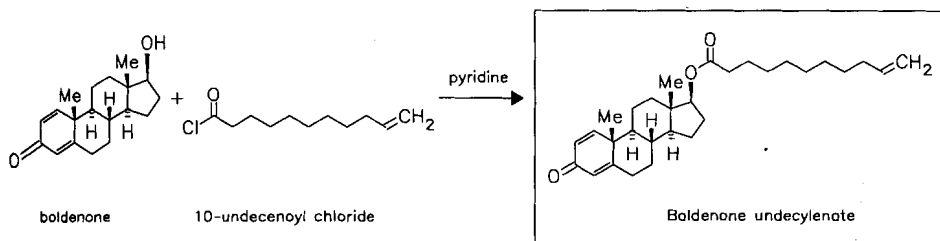
Boldenone undecenylate

ATC: G03B
Use: anabolic

RN: 13103-34-9 MF: C₃₀H₄₄O₃ MW: 452.68 EINECS: 236-024-5
CN: (17β)-17-[(1-oxo-10-undecenyl)oxy]androsta-1,4-dien-3-one

boldenone

RN: 846-48-0 MF: C₁₉H₂₆O₂ MW: 286.42 EINECS: 212-686-0

*Reference(s):*

BE 623 277 (Merck AG; appl. 5.10.1962; D-prior. 5.10.1961).

starting material:

CA 803 490 (Upjohn; appl. 1956; USA-prior. 1955).
GB 922 525 (Loevens Kemiske Fabrik; valid from 6.11.1961; prior. 9.11.1960).
US 2 837 464 (Schering; 1958; prior. 1955).
US 2 875 196 (Olin Mathieson; 1959; prior. 1956, 1955).
Meystre, Ch. et al.: Helv. Chim. Acta (HCACAV) **39**, 734 (1956).

Trade Name(s):

D: Vebonol (Ciba); wfm USA: Parenabol (Ciba); wfm

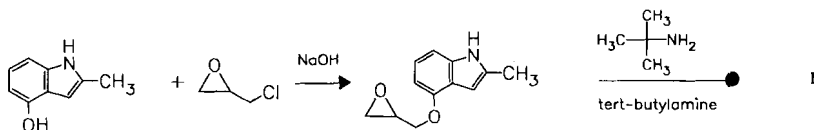
Bopindolol

ATC: C07AA17
Use: β-adrenoceptor antagonist,
antihypertensive

RN: 62658-63-3 MF: C₂₃H₂₈N₂O₃ MW: 380.49
LD₅₀: 17 mg/kg (M, i.v.)
CN: (±)-1-[(1,1-dimethylethyl)amino]-3-[(2-methyl-1H-indol-4-yl)oxy]-2-propanolbenzoate (ester)

(E)-2-butenedioate (1:1)

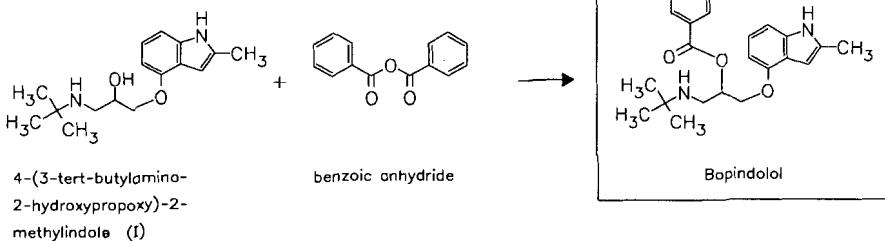
RN: 62658-64-4 MF: C₂₃H₂₈N₂O₃ · C₄H₄O₄ MW: 496.56
LD₅₀: 17mg/kg (M, i.v.)



4-hydroxy-2-methylindole
(cf. mepindolol synthesis)

epichlorohydrin

2-methyl-4-oxiranylmethoxyindole



4-(3-tert-butylamino-2-hydroxypropoxy)-2-methylindole (I)

benzoic anhydride

Bopindolol

Reference(s):

DOS 2 635 209 (Sandoz; appl. 5.8.1976; CH-prior. 15.8.1975).

GB 1 575 509 (Sandoz; appl. 13.8.1976; CH-prior. 15.8.1975).

GB 1 575 510 (Sandoz; appl. 13.8.1976; CH-prior. 15.8.1975).

Formulation(s): tabl. 1 mg

Trade Name(s):

D: Wandonorm (Novartis Pharma; 1989 as hydrogen malonate) J: Sandonorm (Novartis; as malonate)

Bornaprine

ATC: N04AA11
Use: antiparkinsonian

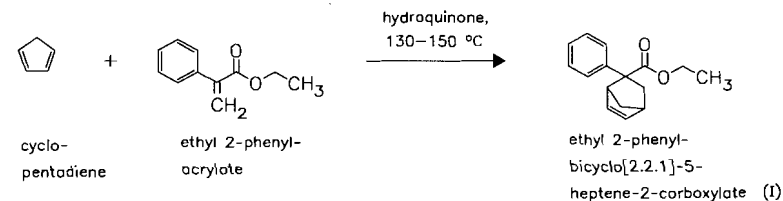
RN: 20448-86-6 MF: $\text{C}_{21}\text{H}_{31}\text{NO}_2$ MW: 329.48

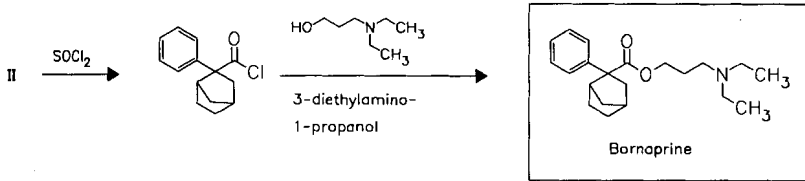
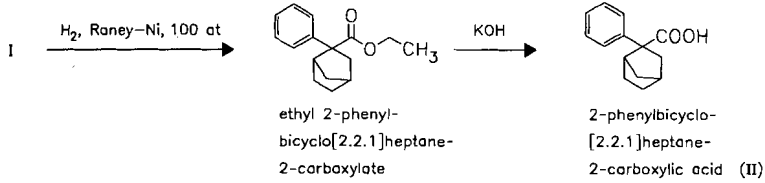
LD_{50} : 26 mg/kg (M, i.v.)

CN: 2-phenylbicyclo[2.2.1]heptane-2-carboxylic acid 3-(diethylamino)propyl ester

hydrochloride

RN: 26908-91-8 MF: $\text{C}_{21}\text{H}_{31}\text{NO}_2 \cdot \text{HCl}$ MW: 365.95 EINECS: 248-100-5



**Reference(s):**

DE 1 044 809 (Knoll; appl. 16.6.1956).

Formulation(s): tabl. 4 mg (as hydrochloride)**Trade Name(s):**

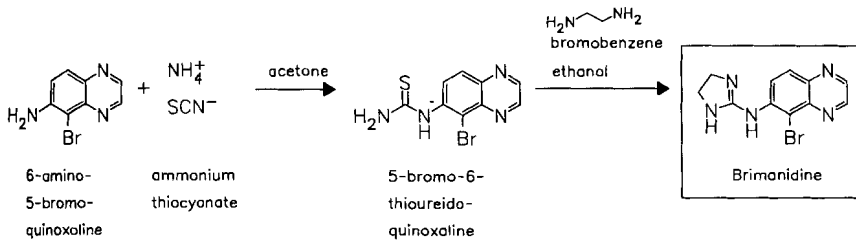
D: Sormodren (Knoll)

I: Sormodren (Ravizza)

Brimonidine

(UK-14304; UK-14304-08; AGN-190342LF (tartrate))

ATC: N07

Use: antihypertensive, α_2 -receptor antagonistRN: 59803-98-4 MF: $\text{C}_{11}\text{H}_{10}\text{BrN}_5$ MW: 292.14LD₅₀: 160 mg/kg (M, p.o.)CN: 5-bromo-*N*-(4,5-dihydro-1*H*-imidazol-2-yl)-6-quinoxalinamine**tartrate (1:1)**RN: 70359-46-5 MF: $\text{C}_{11}\text{H}_{10}\text{BrN}_5 \cdot \text{C}_4\text{H}_6\text{O}_6$ MW: 442.23**Reference(s):**

DE 2 538 620 (Pfizer; appl. 29.8.1975; GB-prior. 6.9.1974).

use:

WO 9 510 280 (Allergan; appl. 19.9.1994; USA-prior. 13.10.1993).

WO 9 701 339 (Allergan; appl. 17.6.1996; USA-prior. 28.6.1995).

WO 9 635 424 (Allergan; appl. 5.9.1996; USA-prior. 12.5.1995).

combinations:

WO 9 613 267 (Allergan; appl. 20.10.1995; USA-prior. 27.10.1994).

US 5 215 991 (Allergan; appl. 20.12.1990; USA-prior. 26.1.1990).

suspension formulations for controlled delivery:

WO 9 211 871 (Allergan; appl. 17.12.1991; USA-prior. 27.12.1990).

WO 9 205 770 (Allergan; appl. 10.9.1991; USA-prior. 27.9.1990).

Formulation(s): eye drops 0.2 %

Trade Name(s):

GB: Alphagan (Allergan; as tartrate)

USA: Alphagan (Allergan; as tartrate)

Brinzolamide

(AL-4862)

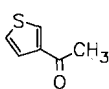
ATC: S01EC04

Use: antiglaucoma, topical carbonic anhydrase inhibitor

RN: 138890-62-7 MF: C₁₂H₂₁N₃O₅S₃ MW: 383.51

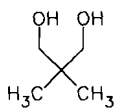
CN: (4R)-4-(Ethylamino)-3,4-dihydro-2-(3-methoxypropyl)-2H-thieno[3,2-e]-1,2-thiazine-6-sulfonamide 1,1-dioxide

(a)

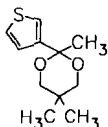


3-acetylthiophene

+



2,2-dimethyl-1,3-propanediol



3-(2,5,5-trimethyl-1,3-dioxan-2-yl)thiophene (I)

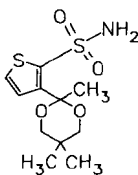
1. BuLi, hexane

2. SO₂

3. H₂N-O-SO₃H


3. hydroxylamine-O-sulfonic acid, HOSA

II



3-(2,5,5-trimethyl-1,3-dioxan-2-yl)-2-thiophene-sulfonamide (II)

1. HCl, THF

2.  Br₃⁻, THF

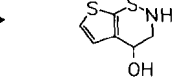
3. NaBH₄, ethanol

2. pyridinium

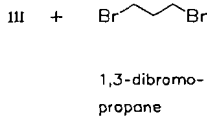
perbromide

3. sodium

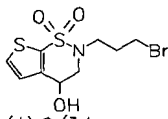
borohydride



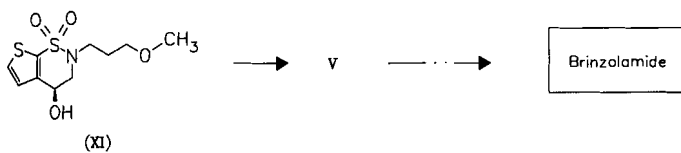
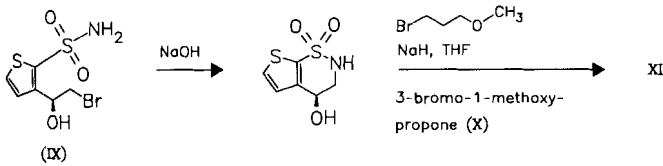
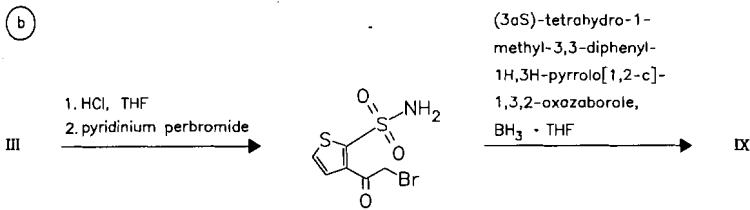
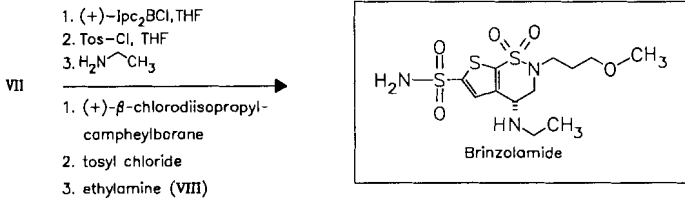
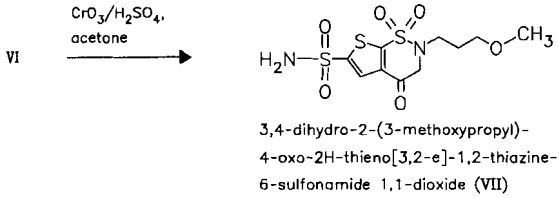
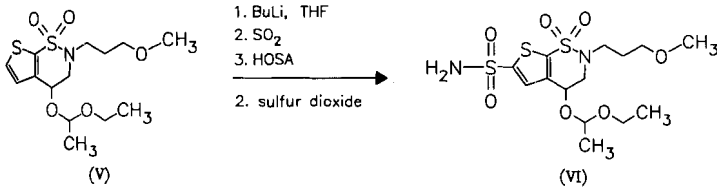
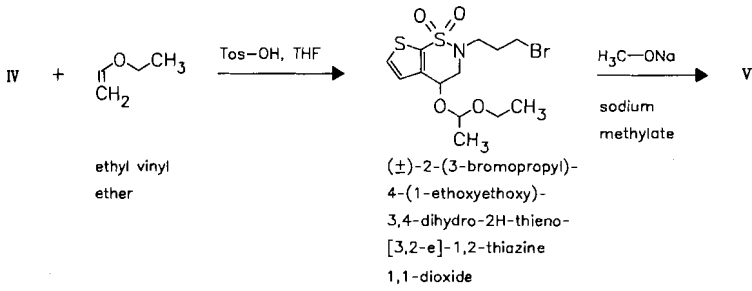
(±)-3,4-dihydro-4-hydroxy-2H-thieno[3,2-e]-1,2-thiazine 1,1-dioxide (III)



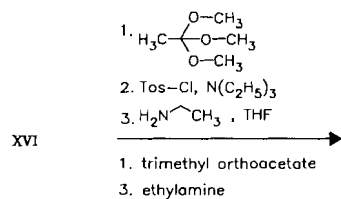
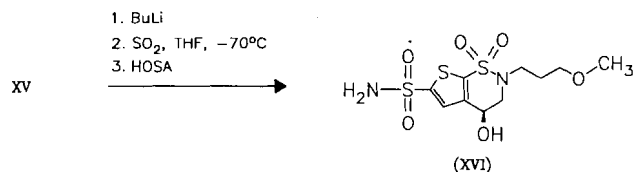
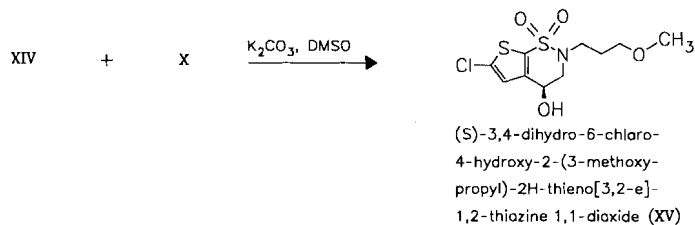
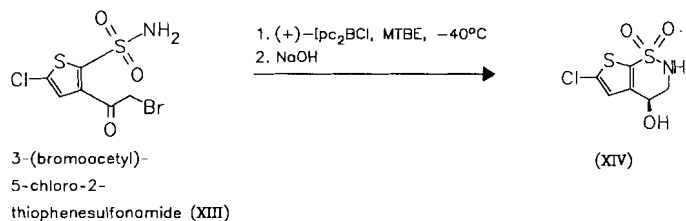
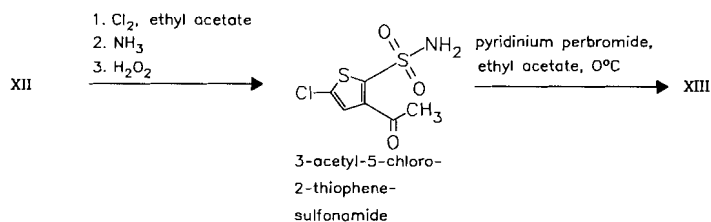
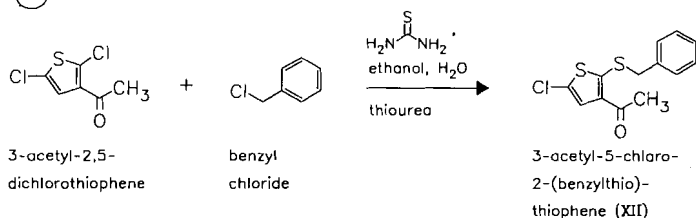
NaH, DMF
sodium hydride



(±)-2-(3-bromopropyl)-3,4-dihydro-4-hydroxy-2H-thieno[3,2-e]-1,2-thiazine 1,1-dioxide (IV)



C



Reference(s):

- a US 5 378 703 (Alcon; 3.1.1995; USA-prior. 9.4.1990).
 b US 5 470 973 (Alcon; 28.11.1995; USA-prior. 3.10.1994).
 c Conrow, R.E. et al.: Org. Process Res. Dev. (OPRDFK) **3** 114-120 (1999).

ophthalmic compositions with prostaglandins:

WO 9 853 809 (Merck + Co.; 3.12.1998; appl. 26.5.1998; USA-prior. 30.5.1997).

WO 9 819 680 (Alcon; appl. 5.9.1997; USA-prior. 1.11.1996).

process for manufacturing ophthalmic suspensions:

WO 9 825 620 (Alcon; appl. 5.9.1997; USA-prior. 11.12.1996).

pharmaceutical compositions:

WO 9 702 825 (Alcon; appl. 12.7.1995).

WO 9 115 486 (Alcon; appl. 3.4.1991; USA-prior. 9.4.1990).

Formulation(s): ophth. susp. 1% in dispensers (2.5, 5, 10 and 15 ml)**Trade Name(s):**

USA: Azopt (Alcon; 1998)

Brodimoprim

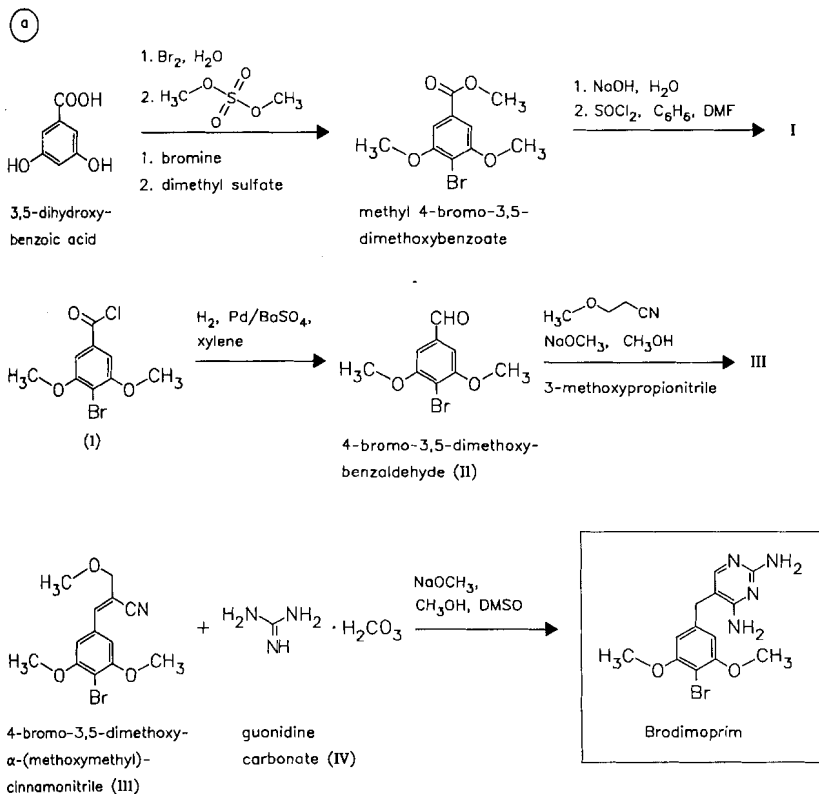
(Ro-10-5970)

ATC: J01EA02

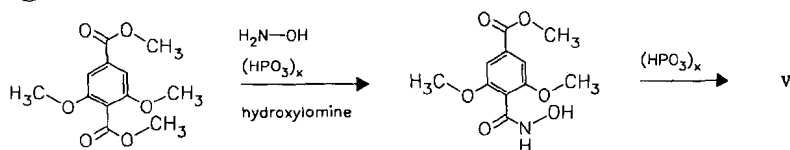
Use: antibacterial

RN: 56518-41-3 MF: $C_{13}H_{15}BrN_4O_2$ MW: 339.19 EINECS: 260-238-8

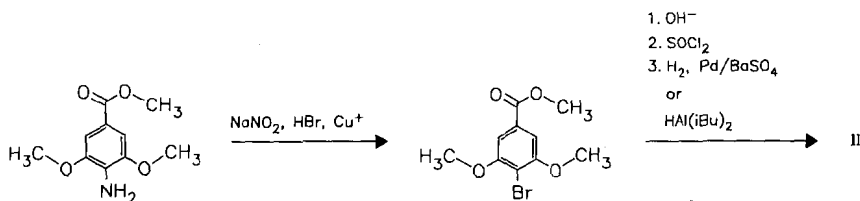
CN: 5-[(4-Bromo-3,5-dimethoxyphenyl)methyl]-2,4-pyrimidinediamine

hydrochlorideRN: 56518-40-2 MF: $C_{13}H_{15}BrN_4O_2 \cdot HCl$ MW: 375.65

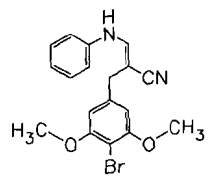
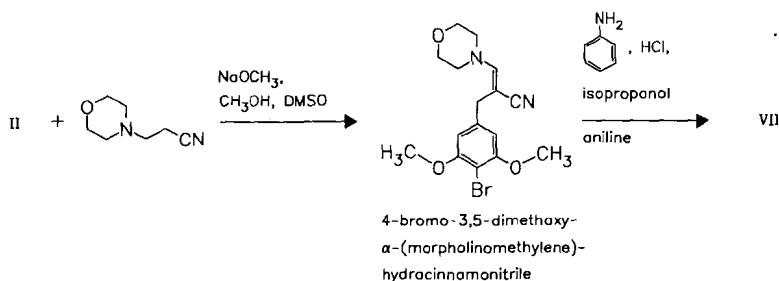
(b)



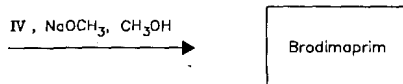
dimethyl 2,6-dimethoxyterephthalate (V)



methyl 4-amino-3,5-dimethoxybenzoate (V)



4-bromo-3,5-dimethoxy- α -(anilinomethylene)hydracinnamonitrile (VII)



Reference(s):

- a CA 1 017 743 (Hoffmann-La Roche; CH-prior. 8.11.1973).
 DE 2 452 889 (Hoffmann-La Roche; appl. 7.11.1974; CH-prior. 8.11.1973).
 b Kompis, I., Wick, A.: *Helv. Chim. Acta (HCACAV)* **60** (8), 3025 (1977).

alternative preparation of 4-bromo-3,5-dimethoxybenzaldehyde:

Barfknecht, C.F.; Nichols, D.E.: *J. Med. Chem. (JMCMAR)* **14**, 370 (1971).

Formulation(s): gran. 200 mg; susp. 1%, 50 mg; tabl. 200 mg

Trade Name(s):

I: Hyprim (Fisons)

Unitrim (Fisons; 1993)

Bromazepam

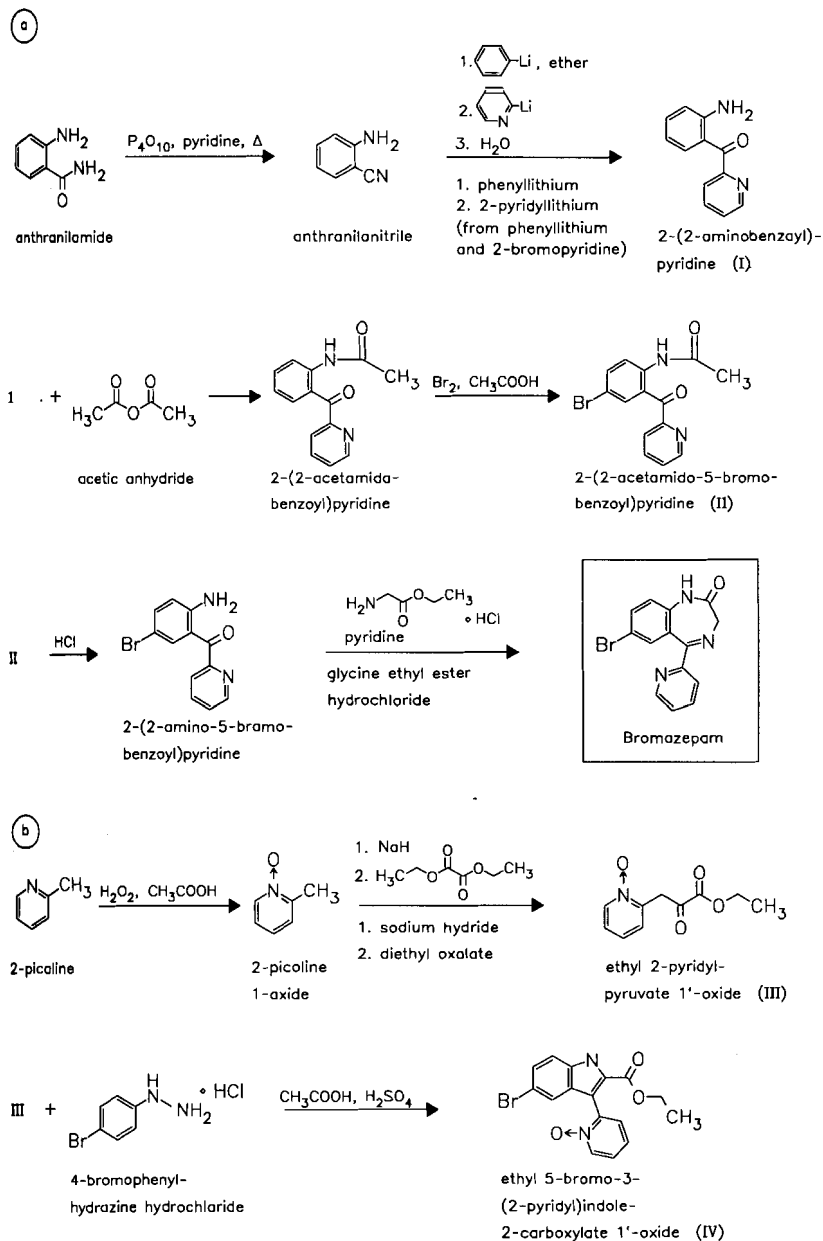
ATC: N05BA08
Use: tranquilizer

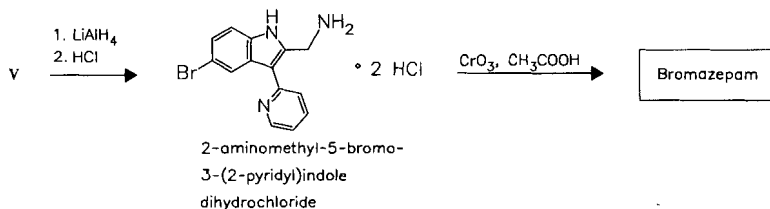
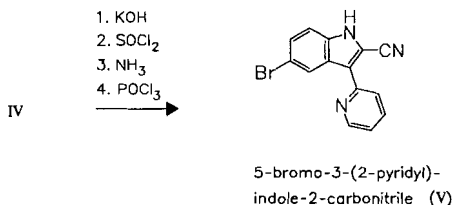
RN: 1812-30-2 MF: C₁₄H₁₀BrN₃O MW: 316.16 EINECS: 217-322-4

LD₅₀: 879 mg/kg (M, p.o.);

1950 mg/kg (R, p.o.)

CN: 7-bromo-1,3-dihydro-5-(2-pyridinyl)-2H-1,4-benzodiazepine-2-one



*Reference(s):*

- a** US 3 100 770 (Roche; 13.8.1963; appl. 11.8.1961).
 US 3 182 065 (Roche; 4.5.1965; appl. 9.4.1964; prior. 19.4.1963).
 US 3 182 066 (Roche; 4.5.1965; appl. 9.4.1964; prior. 19.4.1963).
 US 3 182 067 (Roche; 4.5.1965; appl. 9.4.1964).
 Fryer, R.I. et al.: J. Pharm. Sci. (JPMSAE) **53**, 264 (1964).
modified methods:
 DAS 2 233 483 (Roche; appl. 7.7.1972; GB-prior. 8.7.1971, 7.10.1971).
 DOS 2 252 378 (Roche; appl. 25.10.1972; CH-prior. 18.11.1971).
alternative synthesis of 2-(2-amino-5-bromobenzoyl)pyridine:
 DAS 2 256 614 (Roche; appl. 17.11.1972).
- b** DAS 1 813 241 (Roche; appl. 6.12.1968; J-prior. 8.12.1967, 9.12.1967, 12.12.1967, 25.4.1968).

combination with sulphiride:

DAS 2 342 214 (Roche; appl. 21.8.1973; CH-prior. 21.9.1972).

Formulation(s): tabl. 3 mg, 6 mg

Trade Name(s):

D:	Bromazenil (Neuro Hexal)	neo OPT (Optimed)	I:	Compendium (Polifarma)	
	Bromazepam (Heumann)	Normoc (Merckle)		Lexotan (Roche)	
	Durazanil (durachemie)	F:	Anxyrex (Irex)	J:	Lexotan (Nippon Roche)
	Gityl (Krewel Meuselbach)		Lexomil Roche (Roche)	USA:	Lectopam (Roche); wfm
	Lexotanil (Roche)	GB:	Lexotan (Roche)		

Bromazine

(Bromdiphenhydramine)

ATC: R06AA01

Use: antihistaminic

RN: 118-23-0 MF: C₁₇H₂₀BrNO MW: 334.26 EINECS: 204-238-8

CN: 2-[(4-bromophenyl)phenylmethoxy]-N,N-dimethylethanamine

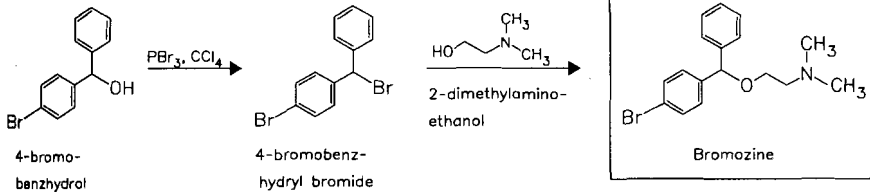
hydrochloride

RN: 1808-12-4 MF: C₁₇H₂₀BrNO · HCl MW: 370.72 EINECS: 217-310-9

LD₅₀: 63 mg/kg (M, i.v.); 366 mg/kg (M, p.o.);

55 mg/kg (R, i.v.); 602 mg/kg (R, p.o.);

21 mg/kg (dog, i.v.)

**Reference(s):**

GB 670 622 (Parke Davis; appl. 1948; CH-prior. 1947).

Formulation(s): cps. 25 mg

Trade Name(s):

D:	Ambodryl (Parke Davis); wfm	I:	Ambodryl (Parke Davis); wfm
F:	Ambodryl (Parke Davis); wfm	USA:	Ambodryl (Parke Davis); wfm

Bromelain

(Bromelin)

ATC: B06AA11; J01AA

Use: anti-inflammatory, antineoplastic

RN: 9001-00-7 MF: unspecified MW: unspecified EINECS: 232-572-4

LD₅₀: 30 mg/kg (M, i.v.); >10 g/kg (M, p.o.); >10 g/kg (R, p.o.)

CN: bromelain, juice

A concentrate of proteolytic enzymes derived from *Ananas comosus* Merr.

proteolytic enzyme (glycoprotein)

relative molecular mass \approx 33000

By extraction from pineapple stems with water and precipitation with acetone or ammonium sulfate.

Reference(s):

Heinicke, R.M.: Science (Washington, D.C.) (SCIEAS) **118**, 753 (1953).

US 3 002 891 (Pineapple Research Inst. Hawaii; 3.10.1961; appl. 12.12.1958).

purification:

US 2 950 227 (Schering AG; 1960; prior. 1956, 1959).

Formulation(s): drg. 4.5 mg, 8 mg, 20 mg, 40 mg, 45 mg, 90 mg; tabl. 500 F.I.P.-E.

Trade Name(s):

D:	Bromelain 200 (Ursapharm)	Phlogenzym (Mucos)	Tetranase (Rottapharm)-comb.
	Enzym-Wied (Wiedemann)-comb.	Proteozym (Wiedemann)	
	Floradix (Salushaus)-comb.	Traumanase (Nattermann)	I: Ananase (Rottapharm)
	Mulsal (Mucos)-comb.	Wobenzym (Mucos)-comb.	J: Kimotab (Mochida)
F:		Extranase (Rottapharm)	USA: Ananase (Rorer); wfm

Bromfenac sodium

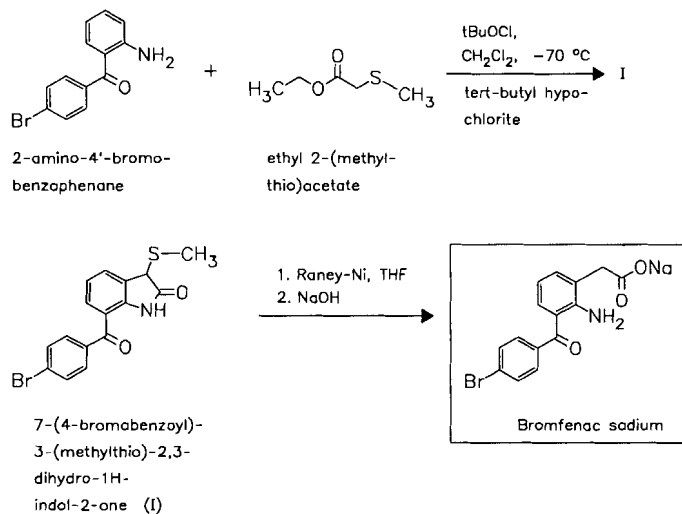
(AHR-10282)

ATC: N02

Use: anti-inflammatory

RN: 91714-93-1 MF: $C_{15}H_{11}BrNNaO_3$ MW: 356.15

CN: 2-amino-3-(4-bromobenzoyl)benzeneacetic acid monosodium salt

sesquihydrateRN: 120638-55-3 MF: $C_{15}H_{11}BrNNaO_3 \cdot 3/2H_2O$ MW: 766.35**free acid**RN: 91714-94-2 MF: $C_{15}H_{12}BrNO_3$ MW: 334.17**Reference(s):**

US 4 126 635 (Robins Co.; appl. 15.4.1977; USA-prior. 17.5.1972, 25.4.1973).

US 4 568 695 (Robins Co.; USA-prior. 7.12.1983).

Welsh, D.A. et al.: J. Med. Chem. (JMCMAR) **27**, 1379-1388 (1984).**Formulation(s):** cps. 25 mg (as sodium salt)**Trade Name(s):**

USA: Duract (Wyeth-Ayerst)

Bromhexine

(Bromexina)

ATC: R05CB02

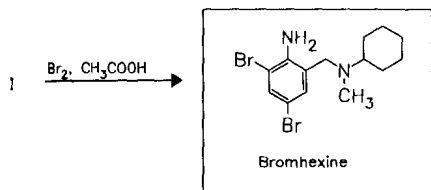
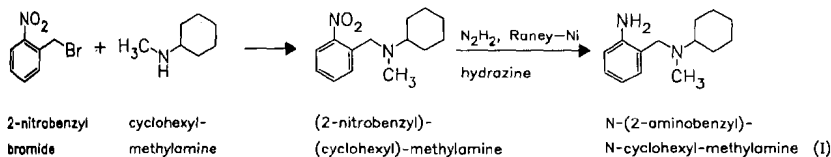
Use: expectorant

RN: 3572-43-8 MF: $C_{14}H_{20}Br_2N_2$ MW: 376.14 EINECS: 222-684-1

CN: 2-amino-3,5-dibromo-N-cyclohexyl-N-methylbenzenemethanamine

monohydrochlorideRN: 611-75-6 MF: $C_{14}H_{20}Br_2N_2 \cdot HCl$ MW: 412.60 EINECS: 210-280-8LD₅₀: 44 mg/kg (M, i.v.); 3 g/kg (M, p.o.);

6 g/kg (R, p.o.)

**Reference(s):**

- DE 1 169 939 (Thomae; appl. 20.11.1961).
 US 3 336 308 (Boehringer Ing.; 15.8.1967; D-prior. 14.10.1963).
 Keck, J.: Justus Liebigs Ann. Chem. (JLACBF) **662**, 171 (1963).
 Engelhom, R.; Püschmann, S.: Arzneim.-Forsch. (ARZNAD) **13**, 464 (1963).
 Arch, F.: Arzneim.-Forsch. (ARZNAD) **13**, 480 (1963).

alternative syntheses:

- DAS 2 311 637 (Thomae; appl. 9.3.1973).
 DAS 2 365 624 (Thomae; appl. 27.3.1973; J-prior. 30.3.1972, 4.7.1972).
 DAS 2 315 310 (Thomae; appl. 27.3.1973; J-prior. 30.3.1972, 4.7.1972).
 DAS 2 443 712 (Thomae; appl. 12.9.1974).
 DOS 2 633 518 (Egypt; appl. 26.7.1976; H-prior. 28.10.1975).
 DOS 2 412 119 (Huhtamäki; appl. 13.3.1974; SF-prior. 15.3.1973, 2.7.1973, 9.1.1974, 8.2.1974).

use as mucous membrane local anesthetic:

- DOS 2 729 786 (Thomae; appl. 1.7.1977).

Formulation(s): amp. 8 mg/4 ml; drg. 8 mg, 12 mg; drops 8 mg/4 ml; syrup 4 mg (as hydrochloride);
 tabl. 4 mg, 8 mg, 10 mg, 20 mg

Trade Name(s):

D:	Aparonin (Merckle)	Customed (Chefaro)	I:	Bertabronc (Berta-Mi)-comb.	
	Berotec solvens (Boehringer Ing.)-comb.	Lubrirhin (Alcon)		Bisolvon (Boehringer Ing.)	
	Bisolvomycin (Boehringer Ing.)-comb.	Omniapharm (Merckle)		Broncokin (Geymonat)	
	Bisolvon (Boehringer Ing.)	Synergomycin (Abbott)	F:	Tauglicolo (SIT)-comb.	
	Bisolvonat (Boehringer Ing.)-comb.		GB:	combination preparations	
				J:	Bisolvon (Tanabe; as hydrochloride)

Bromindione

(Bromophenindione; Brophenadione)

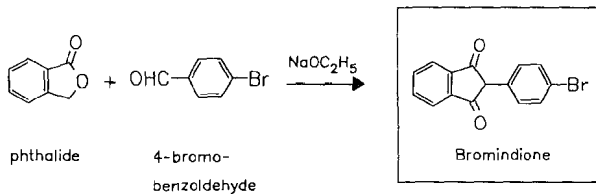
ATC: M04

Use: anticoagulant

RN: 1146-98-1 MF: C₁₅H₉BrO₂ MW: 301.14

LD₅₀: 200 mg/kg (M, p.o.)

CN: 2-(4-bromophenyl)-1H-indene-1,3(2H)-dione

*Reference(s):*

US 2 847 474 (USV; 1958; appl. 1954).
cf. also anisindione

Formulation(s): amp. 8 mg/4 ml

Trade Name(s):

F: Fluidane (Metadier-Tours);
wfm

Bromisoval

ATC: N05CM03

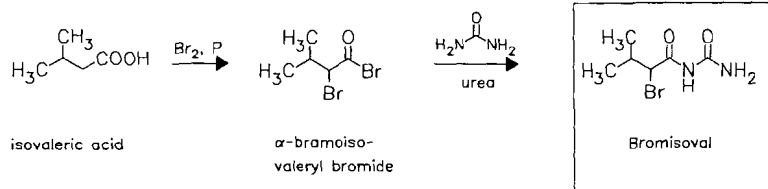
Use: sedative, slightly hypnotic

RN: 496-67-3 MF: $\text{C}_6\text{H}_{11}\text{BrN}_2\text{O}_2$ MW: 223.07 EINECS: 207-825-7

LD₅₀: 2 g/kg (M, p.o.);

1 g/kg (R, p.o.)

CN: *N*-(aminocarbonyl)-2-bromo-3-methylbutanamide

*Reference(s):*

DRP 185 962 (Knoll; 1906).

Formulation(s): drg. 20 mg, 50 mg

Trade Name(s):

D: Brom-Nervacit (Herbert)-
comb.; wfm
Bromural (Knoll)-comb.;
wfm
Diffucord, -N (Dolorgiet)-
comb.; wfm
Rebuso Tabletten
(Ravensberg)-comb.; wfm

Sekundal (Woelm)-comb.;
wfm
Steno-Valocordin
(Promonta)-comb.; wfm
Tempidorm N (Roland)-
comb.; wfm
Valocordin (Promonta)-
comb.; wfm

Ventrivert Tabletten
(Dolorgiet)-comb.; wfm
F: Beneural (Chantereau);
wfm
J: Brovarin (Nippon
Shinyaku)
USA: Bromural (Knoll); wfm

Bromocriptine

(2-Bromoergocryptine)

ATC: G02CB01; N04BC01

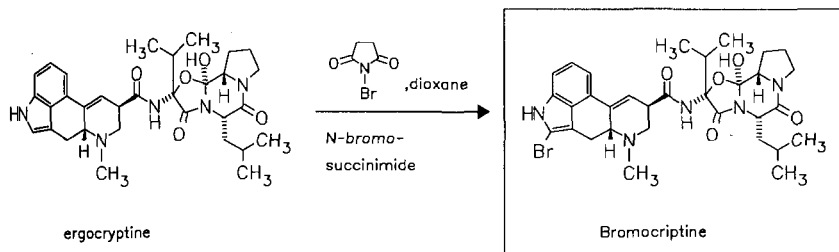
Use: prolactin inhibitor

RN: 25614-03-3 MF: $C_{32}H_{40}BrN_5O_5$ MW: 654.61 EINECS: 247-128-5LD₅₀: >800 mg/kg (M, p.o.);

72 mg/kg (R, i.v.)

CN: (5' α)-2-bromo-12'-hydroxy-2'-(1-methylethyl)-5'-(2-methylpropyl)ergotaman-3',6',18-trione**monomesylate**RN: 22260-51-1 MF: $C_{32}H_{40}BrN_5O_5 \cdot CH_4O_3S$ MW: 750.71 EINECS: 244-881-1LD₅₀: 189 mg/kg (M, i.v.); 2502 mg/kg (M, p.o.);

10.5 mg/kg (R, i.v.); >2 g/kg (R, p.o.)

**Reference(s):**

US 3 752 814 (Sandoz; 14.8.1973; CH-prior. 31.5.1968).

DAS 1 926 045 (Sandoz; appl. 22.5.1969; CH-prior. 31.5.1968).

medical use:

US 3 752 888 (Sandoz; 14.8.1973; CH-prior. 31.5.1968).

nasal formulation:

DOS 2 802 113 (Sandoz; appl. 19.1.1978).

Formulation(s): cps. 5 mg, 10 mg; tabl. 2.5 mg (as mesylate)**Trade Name(s):**

D:	Kirim (Hormosan)	Parlodel (Novartis; 1978)	J:	Parlodel (Novartis; 1979)
	Pravidel (Novartis Pharma; 1977)	GB: Parlodel (Novartis; 1976)	USA:	Parlodel (Novartis; 1976)
F:	Bromo-Kin (Irex)	I: Parlodel (Sandoz; 1979)		
		Serocryptin (Serono)		

Bromopride

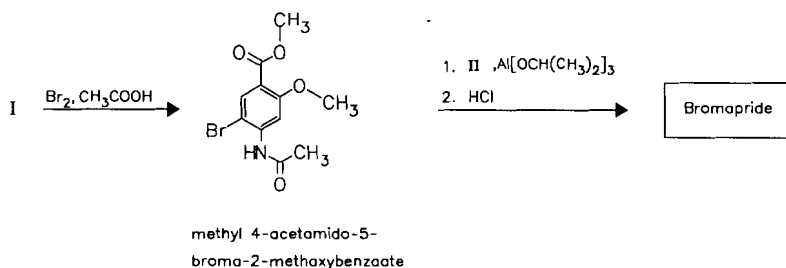
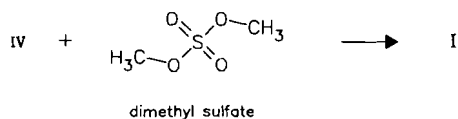
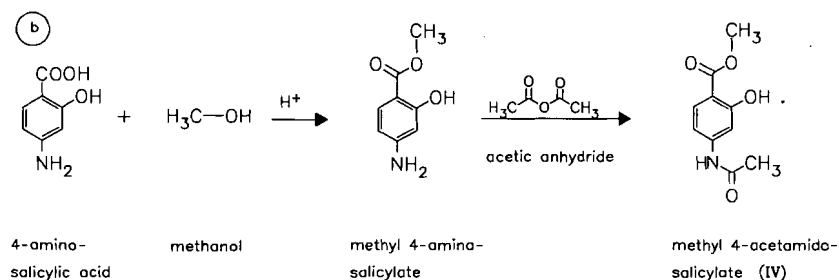
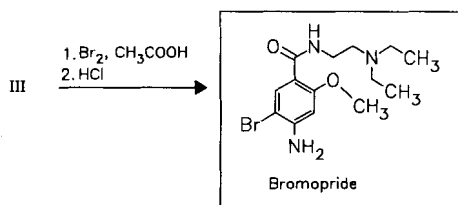
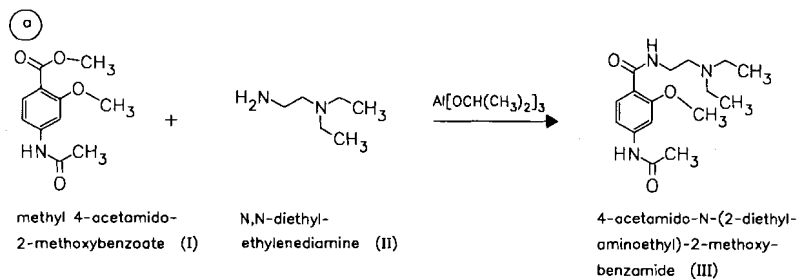
ATC: A03FA04

Use: anti-emetic, gastric therapeutic

RN: 4093-35-0 MF: $C_{14}H_{22}BrN_3O_2$ MW: 344.25 EINECS: 223-842-2LD₅₀: 310 mg/kg (M, p.o.);

545 mg/kg (R, p.o.)

CN: 4-amino-5-bromo-N-[2-(diethylamino)ethyl]-2-methoxybenzamide



Reference(s):

- US 3 177 252 (Soc. d'Etudes Scientifiques et Industrielles de l'Ile-de-France; 6.4.1965; F-prior. 25.7.1961).
 US 3 219 528 (Soc. d'Etudes Scientifiques et Industrielles de l'Ile-de-France; 23.11.1965; F-prior. 5.8.1960, 4.11.1960, 25.7.1961).
 US 3 357 978 (Soc. d'Etudes Scientifiques et Industrielles de l'Ile-de-France; 12.12.1967; F-prior. 5.3.1963).
 DE 1 233 877 (Soc. d'Etudes Scientifiques et Industrielles de l'Ile-de-France; appl. 14.7.1962; F-prior. 25.7.1961).

alternative synthesis:

DAS 2 102 848 (Delmar; appl. 21.1.1971; USA-prior. 21.1.1970).

DAS 2 119 724 (Teikoku Hormone Mfg.; appl. 22.4.1971; J-prior. 24.4.1970).

DAS 2 162 917 (Soc. d'Etudes Scientifiques et Industrielles de l'Ile-de-France; appl. 17.12.1971; J-prior. 21.12.1970).

DAS 2 166 118 (Teikoku Hormone Mfg.; appl. 22.4.1971; J-prior. 24.4.1970).

DOS 2 435 222 (Soc. d'Etudes Scientifiques et Industrielles de l'Ile-de-France; appl. 22.7.1974; J-prior. 24.7.1973).

Formulation(s): amp. 10 mg; cps. 10 mg; drops 13.3 mg*Trade Name(s):*

D: Cascapride (Merck)

I: Opridan (Locatelli; as dihydrochloride monohydrate)

Valopride (Synthelabo)

Bromperidol

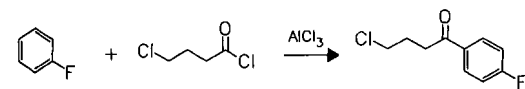
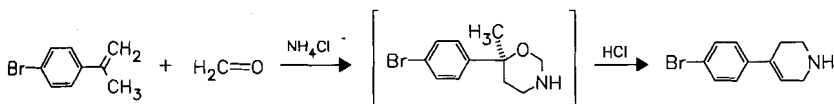
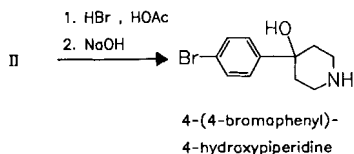
ATC: N05AD06

Use: antipsychotic, neuroleptic

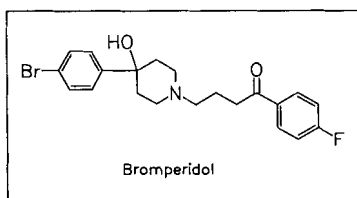
RN: 10457-90-6 MF: $C_{21}H_{23}BrFNO_2$ MW: 420.32 EINECS: 233-943-3LD₅₀: 18.9 mg/kg (M, i.v.); 174 mg/kg (M, p.o.);

10 mg/kg (R, i.v.); 359 mg/kg (R, p.o.)

CN: 4-[4-(4-bromophenyl)-4-hydroxy-1-piperidinyl]-1-(4-fluorophenyl)-1-butanone

monohydrochlorideRN: 59453-24-6 MF: $C_{21}H_{23}BrFNO_2 \cdot HCl$ MW: 456.78LD₅₀: 18.9 mg/kg (R, i.v.); 174 mg/kg (R, p.o.)fluorobenzene
4-chlorobutyryl
chloride4-chloro-4'-fluoro-
butyrophenone (I)
(cf. haloperidol)4-bromo- α -methyl-
styreneform-
aldehyde4-(4-bromophenyl)-
1,2,3,6-tetrahydro-
pyridine (II)

I



Reference(s):

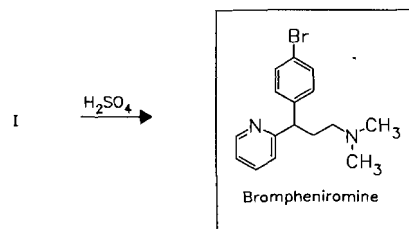
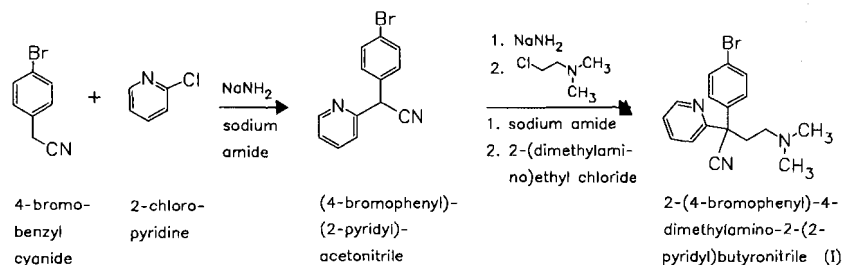
US 3 438 991 (Janssen; appl. 15.4.1969; GB-prior. 18.11.1959).

DE 1 289 845 (Janssen; appl. 18.4.1959; GB-prior. 22.4.1958).

Niemegeers, C.J.E.; Janssen, P.A.J.: *Arzneim.-Forsch. (ARZNAD)* **24**, 45 (1974).*Formulation(s):* amp. 5 mg/ml; drops 2 mg/ml; tabl. 1 mg, 5 mg, 10 mg*Trade Name(s):*D: Impromen (Janssen; 1983)
Tesoprel (Organon; 1984)I: Impromen (Formenti;
1989)J: Impromen (Yoshitomi;
1986)**Brompheniramine**

ATC: R06AB01

Use: antihistaminic

RN: 86-22-6 MF: C₁₆H₁₉BrN₂ MW: 319.25 EINECS: 201-657-8CN: γ -(4-bromophenyl)-*N,N*-dimethyl-2-pyridinepropanamine**maleate (1:1)**RN: 980-71-2 MF: C₁₆H₁₉BrN₂ · C₄H₄O₄ MW: 435.32 EINECS: 213-562-9LD₅₀: 318 mg/kg (R, p.o.)*Reference(s):*

US 2 567 245 (Schering Corp.; 1951; prior. 1948).

US 2 676 964 (Schering Corp.; 1954; prior. 1950).

Formulation(s): elixir 4 mg, 2 mg/5 ml; cps. 12 mg*Trade Name(s):*

D: Dimegan (Kreussler)

F: Chronotrophir (Sanofi)
Winthrop

Dimégan (Dexo)

Dimetane Expectorant
(Whitehall)

Martigène (CIBA Vision)

Ophthalmics)-comb.

Rupton Chronules (Dexo)-
comb.GB: Dimotane (Wyeth)
Dimotane Plus (Wyeth)-
comb.

I: Ilvin (Bracco; as maleate)

J: Bromrun (Hokuriku)

USA: Bromfed (Muro; as
maleate)Dallergy (Laser; as
maleate)

Dimetane (Robins)

Ladrame (ECR; as maleate)

Poly-Histine (Sanofi; as
maleate)

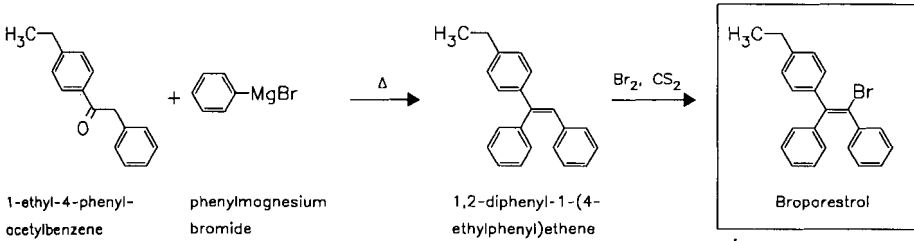
Respahist (Respa; as maleate)

Rondec (Dura; as maleate)
Ultrabrom (We; as maleate)

Broparestrol

ATC: G03
Use: estrogen (synthetic)

RN: 479-68-5 MF: C₂₂H₁₉Br MW: 363.30 EINECS: 207-537-1
CN: 1-(2-bromo-1,2-diphenylethenyl)-4-ethylbenzene



Reference(s):
Dvolaitzky, M.; Jacques, J.: Bull. Soc. Chim. Biol. (BSCIA3) **40**, 939 (1958).

Formulation(s): cream 10 %; emulsion 5 %

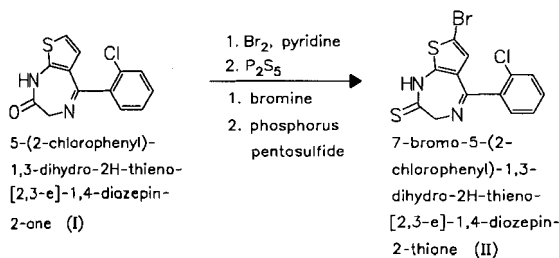
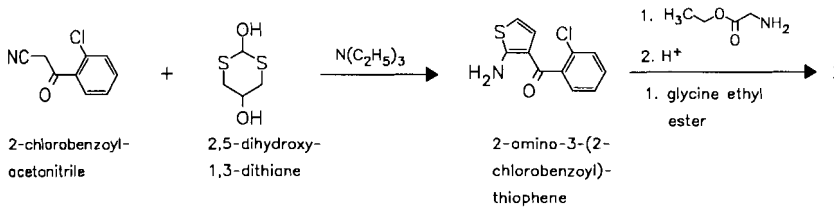
Trade Name(s):

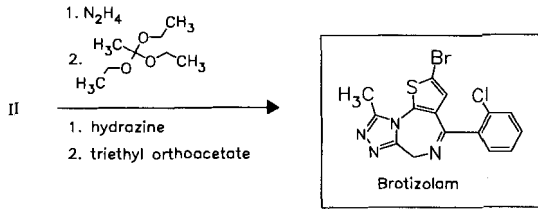
F: Acnestrol (Devimy)-comb.; wfm
Longestrol (Laroche Navarron); wfm
I: Acnestrol (Scharper); wfm

Brotizolam

ATC: N05CD09
Use: tranquilizer, hypnotic

RN: 57801-81-7 MF: C₁₅H₁₀BrClN₄S MW: 393.70 EINECS: 260-964-5
LD₅₀: 920 mg/kg (M, i.p.); >10000 mg/kg (M, p.o.);
1000 mg/kg (R, i.p.); >10000 mg/kg (R, p.o.)
CN: 2-bromo-4-(2-chlorophenyl)-9-methyl-6H-thieno[3,2-f][1,2,4]triazolo[4,3-a][1,4]diazepine



**Reference(s):**

DOS 2 410 030 (Boehringer Ing.; appl. 2.3.1974).
Weber, K.H. et al.: *Arzneim.-Forsch. (ARZNAD)* **36**, 518 (1986).

alternative synthesis:

DOS 2 503 235 (Boehringer Ing.; appl. 27.1.1975).
DOS 2 533 924 (Boehringer Ing.; appl. 30.7.1975).

synthesis of 5-(2-chlorophenyl)-1,3-dihydro-2H-thieno[2,3-e]-1,4-diazepin-2-one:

DOS 2 221 623 (Hoffmann-La Roche; appl. 3.5.1972; CH-prior. 14.5.1971).
Gewald, K.: *Chem. Ber. (CHBEAM)* **98**; 3571 (1965).

Formulation(s): tabl. 0.25 mg

Trade Name(s):

D:	Lendormin (Boehringer Ing.)	I:	Lendormin (Boehringer Ing.)	J:	Lendormin (Nippon Boehringer)
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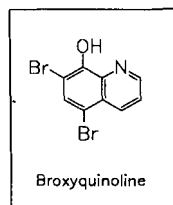
Broxyquinoline

ATC: A07AX01; G01AC06; P01AA01
Use: intestinal antiseptic

RN: 521-74-4 MF: $\text{C}_9\text{H}_5\text{Br}_2\text{NO}$ MW: 302.95 EINECS: 208-317-8
LD₅₀: 7420 mg/kg (M, p.o.)
CN: 5,6-dibromo-8-quinolinol



oxyquinoline
(q. v.)

**Reference(s):**

Bedall, K; Fischer, O. et al.: *Ber. Dtsch. Chem. Ges. (BDCGAS)* **14**, 1367 (1881).
Zinnei; Fiedler: *Arch. Pharm. Ber. Dtsch. Pharm. Ges. (APBDJ)* **291**, 493 (1958).
DOS 2 515 476 (Chem. Fabrik Kalk; appl. 9.4.1975).

Formulation(s): ointment 1.5 %

Trade Name(s):

D:	Dysentrocym (Sanol)-comb.; wfm Fenilor Lutschtabletten (UCB); wfm	Intestopan (Sandoz)-comb.; wfm Sandoim/-C (Sandoz)-comb.; wfm	F:	Colipar (Ucépha); wfm Entericine (Robapharm); wfm
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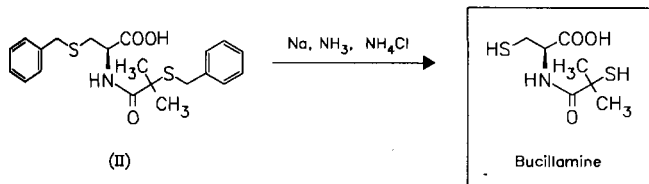
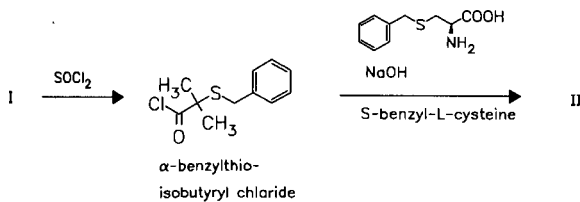
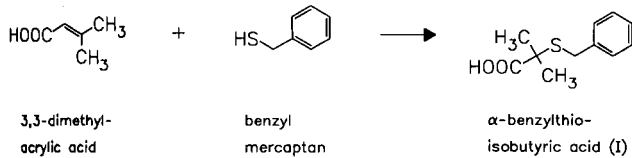
Intestopan (Sandoz)-comb.;
wfmNorquinol (Norgan)-comb.;
wfm**Bucillamine**

(DE-019; SA-96; Tiobutarit)

ATC: M01CC02

Use: immunomodulator, treatment of
rheumatoid arthritisRN: 65002-17-7 MF: C₇H₁₃NO₃S₂ MW: 223.32LD₅₀: 2285 mg/kg (M, i.p.); 989 mg/kg (M, i.v.)

CN: N-(2-mercapto-2-methyl-1-oxopropyl)-L-cysteine

**Reference(s):**

US 4 137 420 (Santen; 30.1.1979; J-prior. 8.3.1976).

DE 2 709 820 (Santen; appl. 7.3.1977; J-prior. 8.3.1976).

medical use as mucolytic:

US 4 305 958 (Santen; 15.12.1981; J-prior. 8.3.1976).

Formulation(s): tabl. 100 mg (sugar coated)**Trade Name(s):**

J: Rimatil (Santen)

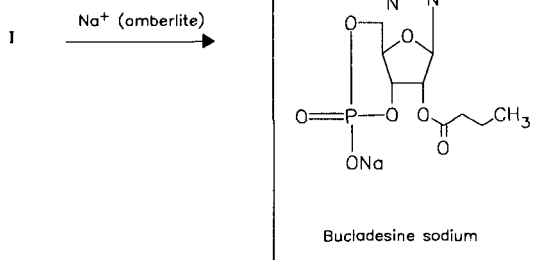
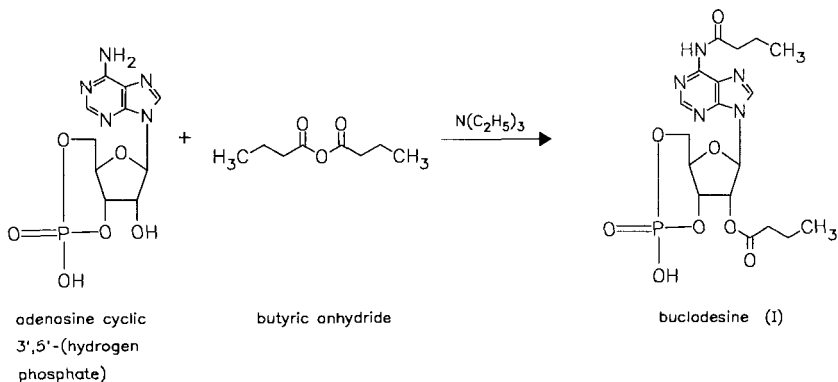
Bucladesine sodium

ATC: C01CE04

Use: cardiotonic, phosphodiesterase
inhibitor, positive inotropic acting
drugRN: 16980-89-5 MF: C₁₈H₂₃N₅NaO₈P MW: 491.37 EINECS: 241-059-4LD₅₀: 543 mg/kg (M, i.v.); >5 g/kg (M, p.o.);

448 mg/kg (R, i.v.); >5 g/kg (R, p.o.)

CN: N-(1-oxybutyl)adenosine cyclic 3',5'-(hydrogen phosphate) 2'-butanoate monosodium salt

bucladesineRN: 362-74-3 MF: C₁₈H₂₄N₅O₈P MW: 469.39 EINECS: 206-649-8**Reference(s):**

- JP 5 195 096 (Daiichi Seiyaku; appl. 14.2.1975).
 JP 51 113 896 (Daiichi Seiyaku; appl. 31.3.1975).
 JP 5 239 699 (Daiichi Seiyaku; appl. 26.9.1975).

Formulation(s): amp. 0.05 mg, 0.2 mg; tabl. 200 mg, 400 mg

Trade Name(s):

J: Actocin (Daiichi)

Buclizine
 (Histabutizine)

ATC: R06AE01

Use: antiallergic, antihistaminic

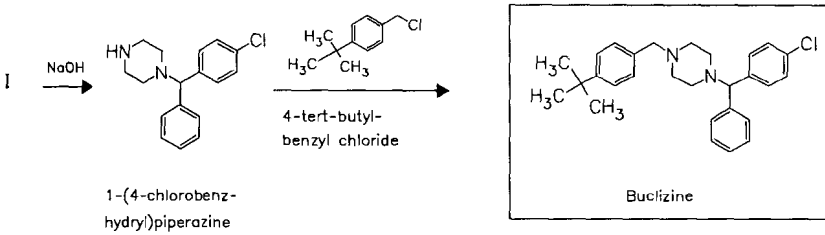
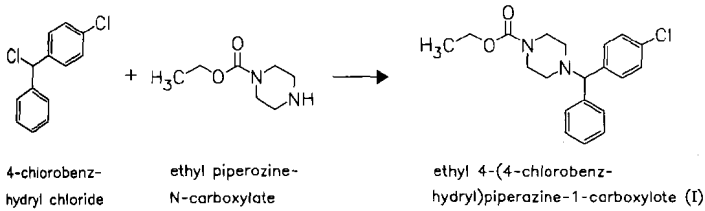
RN: 82-95-1 MF: C₂₈H₃₃ClN₂ MW: 433.04 EINECS: 201-448-1

CN: 1-[(4-chlorophenyl)phenylmethyl]-4-[[4-(1,1-dimethylethyl)phenyl]methyl]piperazine

dihydrochloride

RN: 129-74-8 MF: C₂₈H₃₃ClN₂ · 2HCl MW: 505.96 EINECS: 204-962-4

LD₅₀: 2100 mg/kg (M, p.o.)



Reference(s):
DE 964 048 (H. Morren; appl. 1952; B-prior. 1951).

Formulation(s): tabl. 25 mg

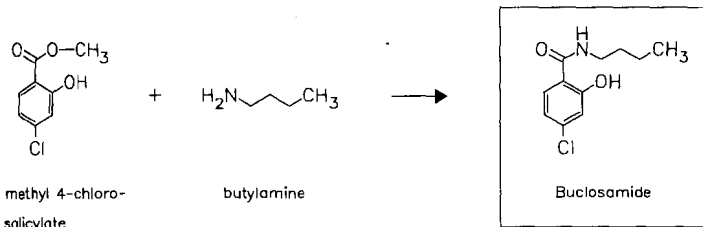
Trade Name(s):

D: Migralave (Temmler)-comb. with paracetamol F: Aphilan (Darcy) GB: Migraleve (Pfizer Consumer)-comb.

Buclosamide

ATC: D01AE12
Usc: fungicide

RN: 575-74-6 MF: C₁₁H₁₄ClNO₂ MW: 227.69 EINECS: 209-390-9
CN: N-butyl-4-chloro-2-hydroxybenzamide



Reference(s):
US 2 923 737 (Hoechst; 2.2.1960; D-prior. 26.1.1956).

Formulation(s): ointment 10 g/100 g; sol. 10 g/100 ml

Trade Name(s):

D: Jadit (Hoechst)-comb.; wfm Jadit-Hydrocortisone (Hoechst)-comb.; wfm I: Jadit (Hoechst)-comb.; wfm
F: Jadit (Hoechst); wfm

Bucloxic acid

(Acide bucloxiqque)

ATC: N02

Use: anti-inflammatory

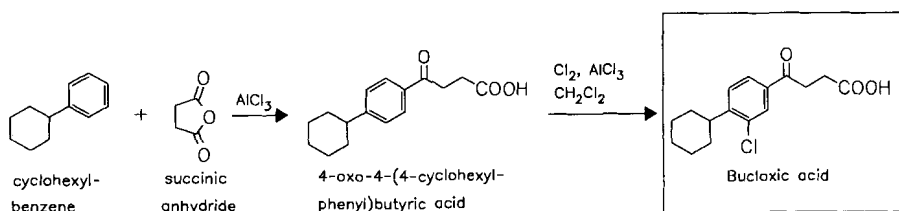
RN: 32808-51-8 MF: C₁₆H₁₉ClO₃ MW: 294.78 EINECS: 251-231-0LD₅₀: 852 mg/kg (M, p.o.);

120 mg/kg (R, p.o.)

CN: 3-chloro-4-cyclohexyl-γ-oxobenzenebutanoic acid

calcium saltRN: 32808-53-0 MF: C₃₂H₃₆CaCl₂O₆ MW: 627.62 EINECS: 251-232-6LD₅₀: 1700 mg/kg (M, p.o.);

175 mg/kg (R, p.o.)

**Reference(s):**

DE 2 021 445 (Clin-Byla; appl. 2.5.1970; F-prior. 12.5.1969).

GB 1 315 542 (Clin-Byla; appl. 7.5.1970; F-prior. 12.5.1969).

Trade Name(s):

F: Esfar (Midy); wfm

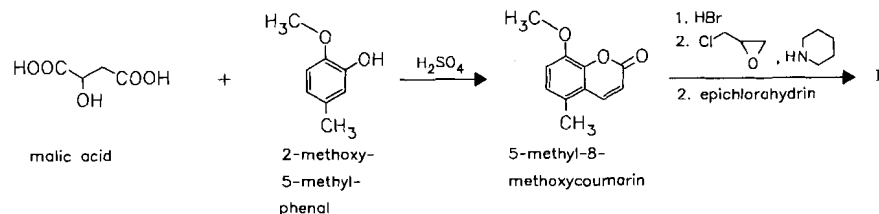
Bucumolol

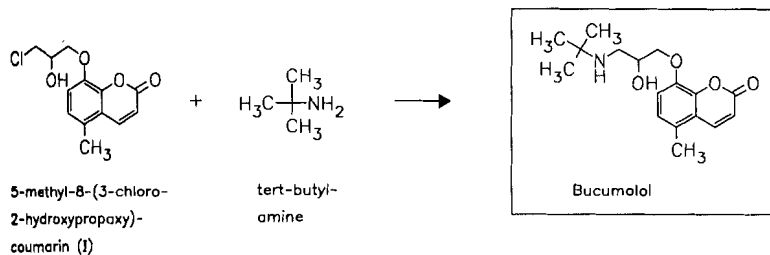
ATC: C07A

Use: β-adrenoceptor blocker

RN: 58409-59-9 MF: C₁₇H₂₃NO₄ MW: 305.37LD₅₀: 31 mg/kg (M, i.v.); 680 mg/kg (M, p.o.)

CN: 8-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-5-methyl-2H-1-benzopyran-2-one

hydrochlorideRN: 30073-40-6 MF: C₁₇H₂₃NO₄ · HCl MW: 341.84

**Reference(s):**

DOS 2 021 958 (Sankyo; appl. 27.4.1970; J-prior. 28.4.1969).
 US 3 663 570 (Sankyo; 16.5.1972; J-prior. 28.4.1969; 27.10.1969).
 Sato, Y. et al.: Chem. Pharm. Bull. (CPBTAL) **20**, 905 (1972).

Formulation(s): tabl. 5 mg, 10 mg

Trade Name(s):

J: Bucumarol (Sankyo)

Budesonide

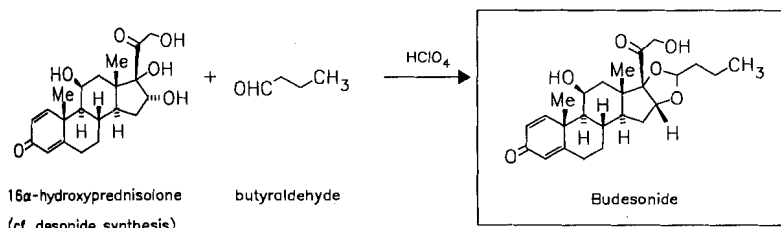
ATC: A07EA06; D07AC09; H02AB16;
 R01AD05; R03AB; R03BA02

Use: topical glucocorticoid, antiasthmatic

RN: 51333-22-3 MF: C₂₅H₃₄O₆ MW: 430.54 EINECS: 257-139-7

LD₅₀: 124 mg/kg (M, i.v.); 4750 mg/kg (M, p.o.);
 98.9 mg/kg (R, i.v.); >3200 mg/kg (R, p.o.)

CN: (11β,16α)-16,17-[butylidenebis(oxy)]-11,21-dihydroxypregna-1,4-diene-3,20-dione

**Reference(s):**

US 3 929 768 (Bofors; 30.12.1975; appl. 14.5.1973; S-prior. 19.5.1972).
 DOS 2 323 215 (Bofors; appl. 19.5.1973; S-prior. 19.5.1972).
 US 3 983 233 (Bofors; prior. 14.5.1973).
 US 4 835 145 (Sicor; 30.5.1989; I-prior. 11.6.1984, 2.1.1987).

separation of diastereomers:

DOS 2 323 216 (Bofors; appl. 19.5.1973; S-prior. 19.5.1972).

Formulation(s): aerosol 0,2 mg/puff; cream 0.025 %; nasal aerosol 0.05 mg/puff; ointment 0.025 mg;
 pumpspray 0.05 mg/puff; susp. 0.5 mg/2 ml, 1 mg/2 ml

Trade Name(s):

D: Benosid (Farmanan)
 Bronchocux (TAD)
 Budecort (Klinge)
 Budegat (Fatol)

Entocort (Astra)
 Pulmicort (Astra/pharma-
 stern; 1983)
 Respicort (Mundipharma)

F: Pulmicort (Astra)
 GB: Entocort CR (Astra)
 Pulmicort (Astra; 1983)

	Rhinocort Aqua (Astra; 1984)	Prefenid lipocrema (Brocades)	USA: Pulmicort (Astra)
I:	Bidien (IDI)	J: Budeson (Fujisawa)	Rhinocort (Astra)

Budipine

(BY-701)

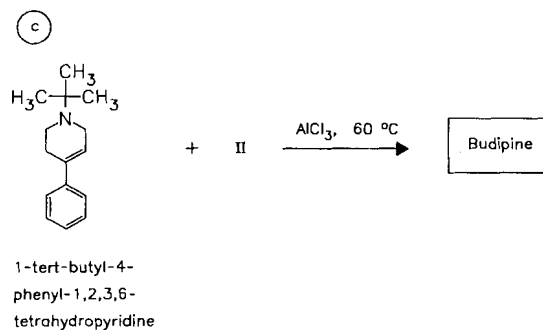
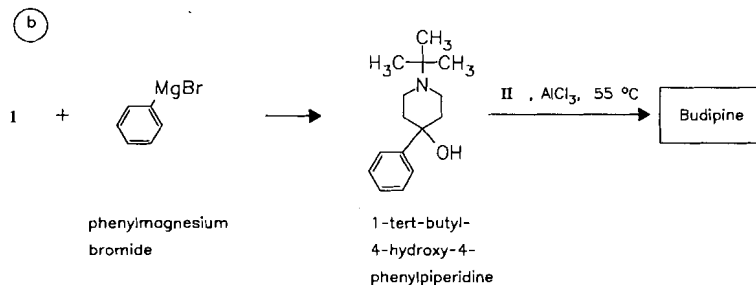
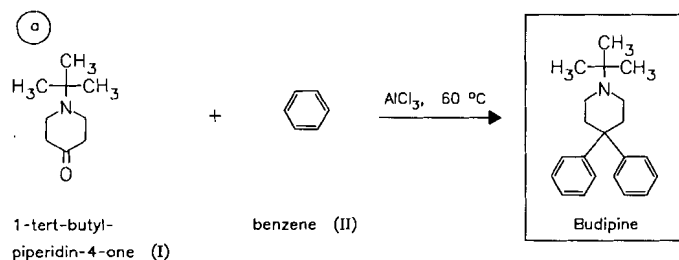
ATC: N04AA

Use: antiparkinsonian

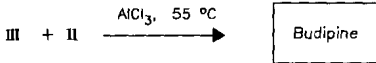
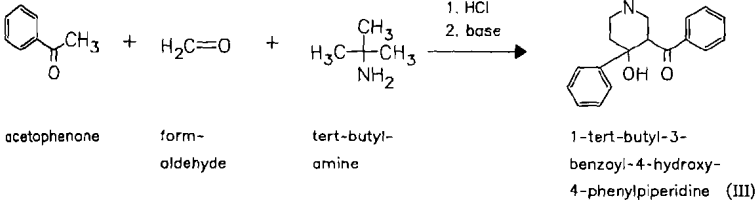
RN: 57982-78-2 MF: C₂₁H₂₇N MW: 293.45 EINECS: 261-062-4LD₅₀: 33 mg/kg (M, i.v.); 120 mg/kg (M, p.o.);

28 mg/kg (R, i.v.); 165 mg/kg (R, p.o.)

CN: 1-(1,1-dimethylethyl)-4,4-diphenylpiperidine

hydrochlorideRN: 63661-61-0 MF: C₂₁H₂₇N · HCl MW: 329.92 EINECS: 264-388-5

d

*Reference(s):*

a-dSchaefer, H. et al.: *Arzneim.-Forsch. (ARZNAD)* **34**, 233-240 (1984).
DE 2 825 322 (Byk Gulden; appl. 11.1.1979; LU-prior. 30.6.1977).

Formulation(s): tabl. 10 mg, 20 mg, 30 mg (as hydrochloride)

Trade Name(s):

D: Parkinsan (Promonta
Lundbeck)

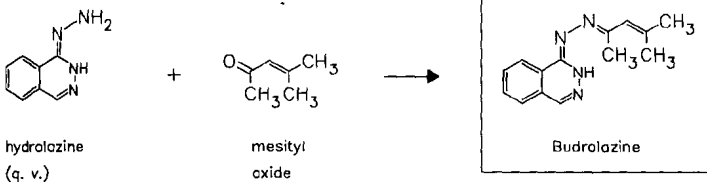
Budralazine

ATC: C02DB
Use: antihypertensive

RN: 36798-79-5 MF: C₁₄H₁₆N₄ MW: 240.31

LD₅₀: 4020 mg/kg (M, i.p.); 1820 mg/kg (M, p.o.);
3570 mg/kg (R, i.p.); 620 mg/kg (R, p.o.)

CN: 1(2*H*)-phthalazinone (1,3-dimethyl-2-butenylidene)hydrazone

*Reference(s):*

Ueno, K. et al.: *Chem. Pharm. Bull. (CPBTAL)* **24**, 1068 (1976).
DOS 2 145 359 (Daiichi Seiyaku; appl. 13.9.1971; J-prior. 14.9.1970).
US 3 840 539 (Daiichi Seiyaku; 8.10.1974; appl. 2.9.1971; J-prior. 14.9.1970).

Formulation(s): gran. 1 %; tabl. 30 mg, 60 mg

Trade Name(s):

J: Buterazine (Daiichi; 1983)

Bufetolol

(Bufetrol)

ATC: C07AA

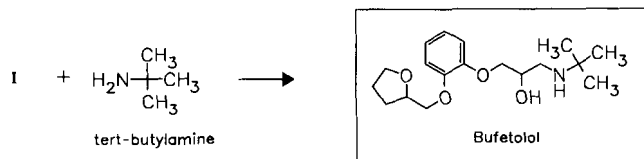
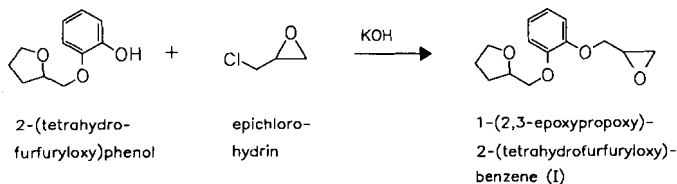
Use: beta blocking agent

RN: 53684-49-4 MF: $C_{18}H_{29}NO_4$ MW: 323.43

CN: 1-[(1,1-dimethylethyl)amino]-3-[2-[(tetrahydro-2-furanyl)methoxy]phenoxy]-2-propanol

hydrochlorideRN: 35108-88-4 MF: $C_{18}H_{29}NO_4 \cdot HCl$ MW: 359.89 EINECS: 252-369-4LD₅₀: 50.3 mg/kg (M, i.v.); 402 mg/kg (M, p.o.);

59.4 mg/kg (R, i.v.); 1088 mg/kg (R, p.o.)

**Reference(s):**

DOS 2 024 001 (Yoshitomi; appl. 15.5.1970; J-prior. 16.5.1969, 2.10.1969, 3.4.1970).

US 3 723 476 (Yoshitomi; 27.3.1973; J-prior. 16.5.1969, 2.10.1969, 3.4.1970).

Formulation(s): f. c. tabl. 5 mg, 10 mg (as hydrochloride)**Trade Name(s):**

I: Adobiol (Menarini)

J: Adobiol (Yoshitomi; as hydrochloride)

Bufexamac

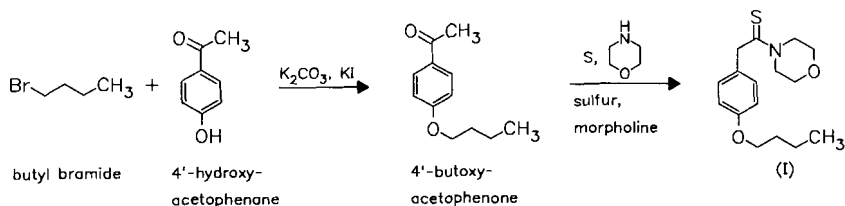
ATC: M01AB17

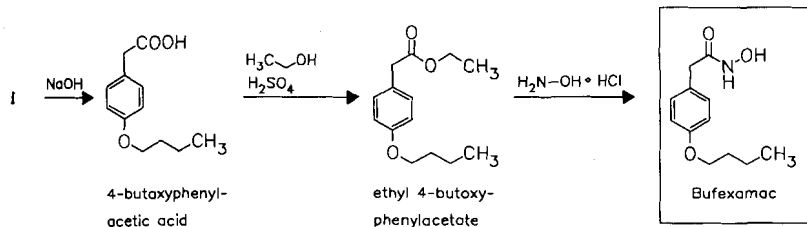
Use: anti-inflammatory

RN: 2438-72-4 MF: $C_{12}H_{17}NO_3$ MW: 223.27 EINECS: 219-451-1LD₅₀: 8 g/kg (M, p.o.);

3370 mg/kg (R, p.o.)

CN: 4-butoxy-N-hydroxybenzeneacetamide





Reference(s):

Buu-Hoi, N.P. et al.: C. R. Hebd. Seances Acad. Sci. (COREAF) **261**, 2259 (1965).
 BE 661 226 (Madan; appl. 17.3.1965).
 US 3 479 396 (Madan; 18.11.1969; B-prior. 5.6.1964, 17.3.1965).
 DAS 1 768 406 (Madan; appl. 1.6.1965; B-prior. 5.6.1964, 17.3.1965).

Formulation(s): ointment 50 mg/g; suppos. 250 mg

Trade Name(s):

D: Bufederm (Pharmagalen)	Parfenac (Novalis; Lederle; 1976)	Calmaderm (Whitehall)
Duradermal (durachemie)	Proctoparf (Novalis; 1984)- comb.	Parfenac (Whitehall; 1975)
Ekzemase (Azupharma)	F: Bufal (Pierre Fabre)	I: Parfenal (Cyanamid)
Jomax (Hexal)		Viafen (Zyama)
Malipuran (Heumann)		J: Anderm (Lederle)

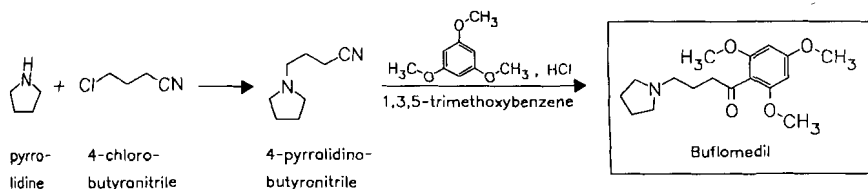
Buflofmedil

ATC: C04AX20
 Use: vasodilator, antispasmodic

RN: 55837-25-7 MF: C₁₇H₂₅NO₄ MW: 307.39 EINECS: 259-851-3
 CN: 4-(1-pyrrolidiny)-1-(2,4,6-trimethoxyphenyl)-1-butanone

hydrochloride

RN: 35543-24-9 MF: C₁₇H₂₅NO₄ · HCl MW: 343.85 EINECS: 252-611-9
 LD₅₀: 40 mg/kg (M, i.v.); 275 mg/kg (M, p.o.);
 58.5 mg/kg (R, i.v.); 410 mg/kg (R, p.o.)



Reference(s):

GB 1 325 192 (Orsymonde; appl. 6.5.1970; valid from 6.5.1971).
 DE 2 122 144 (Orsymonde; appl. 3.5.1971; GB-prior. 6.5.1970).
 US 3 895 030 (Orsymonde; 15.7.1975; appl. 5.5.1971; GB-prior. 6.5.1970).

Formulation(s): amp. 0.4 g/40 ml, 0.4 g/120 ml, 50 mg/5 ml; s. r. tabl. 600 mg; tabl. 150 mg, 300 mg (as hydrochloride)

Trade Name(s):

D: Bufedil (Abbott; 1982)	Loftyl (Abbott)	Buflan (Pierrel; 1982)
Buflo (AbZ-Pharma)	F: Fonzylane (Lafon; 1976)	Buflocit (CT)
Defluina (Nattermann)	I: Bufene (Ist. Chim. Inter.)	Buflofar (Farge)

Emoflux (Metapharma)
Flomed (Pulitzer)
Flupress (Drug Research)

Irrodan (Biomedica)
Foscama)
Loftyl (Abbott; 1982)

Medil (Crosara)
Perfudan (Piam)
Pirxane (Lisapharma)

Bumadizone

ATC: M01AB07

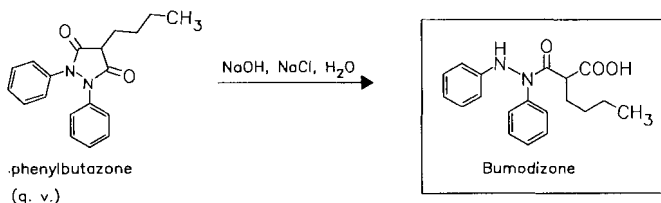
Use: anti-inflammatory, antipyretic

RN: 3583-64-0 MF: $C_{19}H_{22}N_2O_3$ MW: 326.40 EINECS: 222-710-1LD₅₀: 1350 mg/kg (M, p.o.)

CN: butylpropanedioic acid mono(1,2-diphenylhydrazide)

calcium salt (2:1)RN: 34461-73-9 MF: $C_{38}H_{42}CaN_4O_6$ MW: 690.85 EINECS: 252-048-9LD₅₀: 1500 mg/kg (M, p.o.);

750 mg/kg (R, p.o.)

**Reference(s):**

US 3 455 999 (Geigy; 15.7.1969; CH-prior. 7.6.1963).

DE 1 235 936 (Geigy; appl. 5.6.1964; CH-prior. 7.6.1963).

DE 2 055 845 (Byk Gulden; appl. 13.11.1970).

Formulation(s): tabl. 110 mg**Trade Name(s):**D: Eumotol (Byk Gulden);
wfmF: Rheumatol (Tosse); wfm
Eumotol (Valpan); wfmI: Eumotol (Byk Gulden);
wfm**Bumetanide**

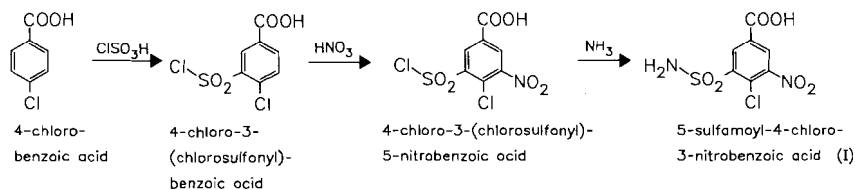
ATC: C03CA02

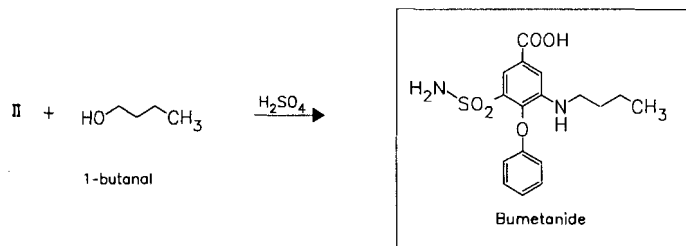
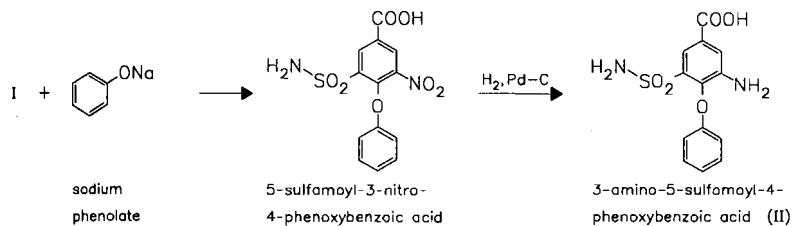
Use: diuretic

RN: 28395-03-1 MF: $C_{17}H_{20}N_2O_5S$ MW: 364.42 EINECS: 249-004-6LD₅₀: >200 mg/kg (M, i.v.); 4624 mg/kg (M, p.o.);

>200 mg/kg (R, i.v.); >6 g/kg (R, p.o.)

CN: 3-(aminosulfonyl)-5-(butylamino)-4-phenoxybenzoic acid





Reference(s):

GB 1 249 490 (Loevens Kemiske Fabr.; valid from 22.12.1969; prior. 24.12.1968, 18.6.1969, 29.7.1969).
 DOS 1 964 503 (Loevens Kemiske Fabr.; appl. 23.12.1969; GB-prior. 24.12.1968, 18.6.1969, 29.7.1969).
 DE 1 964 504 (Loevens Kemiske Fabr.; appl. 23.12.1969; GB-prior. 24.12.1968, 18.6.1969, 29.7.1969; USA-prior. 24.7.1969).
 DAS 1 966 878 (Loevens Kemiske Fabr.; appl. 23.12.1969; GB-prior. 24.12.1968, 18.6.1969, 29.7.1969).
 US 3 634 583 (Loevens Kemiske Fabr.; 11.1.1972; appl. 24.7.1969).
 US 3 806 534 (Leo Pharm.; 23.4.1974; appl. 22.12.1969; GB-prior. 24.12.1968).

Formulation(s): amp. 1 mg/2 ml, 5 mg/10 ml; tabl. 1 mg

Trade Name(s):

D:	Burinex (Leo)	Burinex A (Leo)-comb.	1:	Fontego (Polifarma)
F:	Burinex (Leo; 1987)	with amiloride	J:	Lunetoron (Sankyo)
	Lixil (Leo); wfm	Burinex K (Leo)-comb.	USA:	Bumex (Roche; 1983)
GB:	Burinex (Leo; 1973)	with potassium chloride		

Bunamiodyl

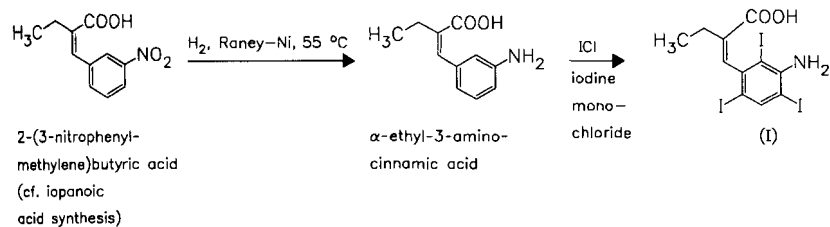
(Buniodyl)

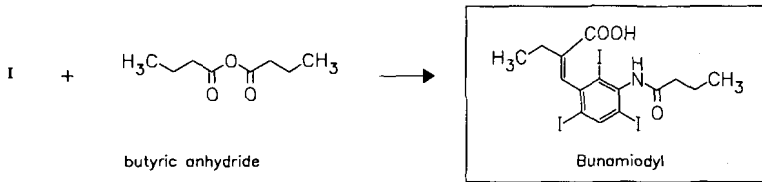
ATC: V08
 Use: X-ray contrast medium

RN: 1233-53-0 MF: C₁₅H₁₆I₃NO₃ MW: 639.01
 CN: 2-[[2,4,6-triiodo-3-[(1-oxobutyl)amino]phenyl]methylene]butanoic acid

monosodium salt

RN: 1923-76-8 MF: C₁₅H₁₅I₃NNaO₃ MW: 660.99
 LD₅₀: 418 mg/kg (M, i.v.); 2690 mg/kg (M, p.o.);
 480 mg/kg (R, i.v.); 2800 mg/kg (R, p.o.)



**Reference(s):**

Cassebaum, H.; Dierbach, K.: Pharmazie (PHARAT) **16**, 392 (1961).

Formulation(s): sol. 4.5 g

Trade Name(s):

D:	Orabilix (Hefa-Frenon); wfm	F:	Orabilix (Guerbet); wfm
		J:	Orabilix (Kodama); wfm

Bunazosin

ATC: C02

Use: antihypertensive

RN: 80755-51-7 MF: C₁₉H₂₇N₅O₃ MW: 373.46

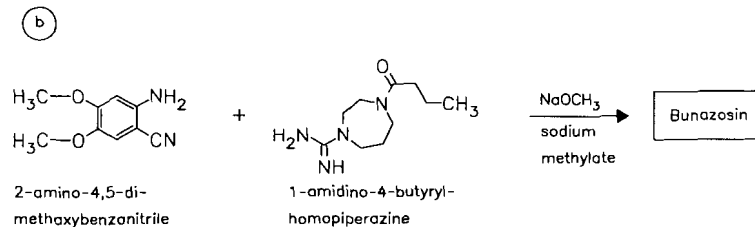
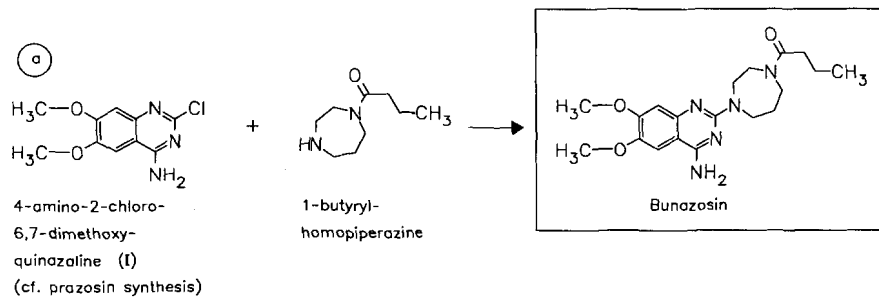
CN: 1-(4-amino-6,7-dimethoxy-2-quinazolinyl)hexahydro-4-(1-oxobutyl)-1H-1,4-diazepine

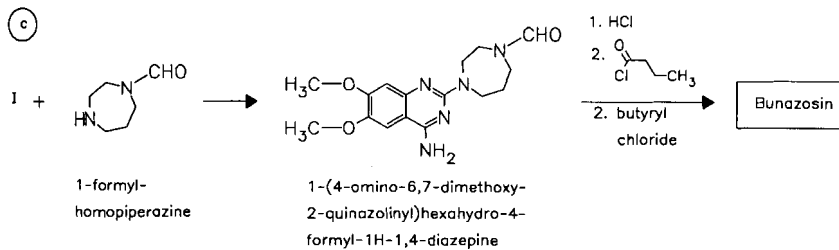
monohydrochloride

RN: 52712-76-2 MF: C₁₉H₂₇N₅O₃ · HCl MW: 409.92

LD₅₀: 57 mg/kg (M, i.v.); 1201 mg/kg (M, p.o.);

50 mg/kg (R, i.v.); 980 mg/kg (R, p.o.)





Reference(s):

- a JP 7 682 285 (Eisai; appl. 16.4.1974).
- b JP 75 140 474 (Eisai; appl. 16.4.1974).
- c DOS 2 354 389 (Eisai; appl. 30.10.1973; J-prior. 30.10.1972).
US 3 920 636 (Eisai; 18.11.1975; appl. 29.10.1973; J-prior. 30.10.1972).

Formulation(s): gran. 0.5 %; tabl. 0.5 mg, 1 mg, 3 mg

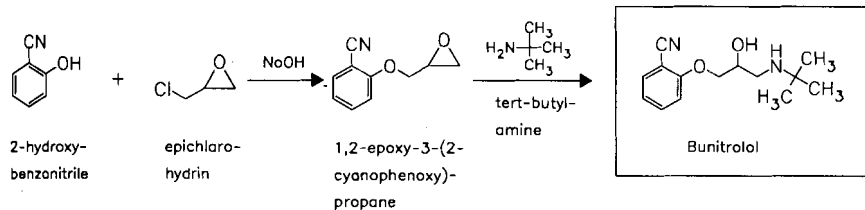
Trade Name(s):

J: Detantol (Eisai; 1985)

Bunitrolol

ATC: C07AA
Use: beta blocking agent

RN: 34915-68-9 MF: C₁₄H₂₀N₂O₂ MW: 248.33
LD₅₀: 46 mg/kg (M, i.v.)
CN: 2-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]benzonitrile



Reference(s):

- DAS 1 593 782 (Boehringer Ing.; appl. 15.6.1967).
- US 3 541 130 (Boehringer Ing.; 17.11.1970; D-prior. 6.2.1967, 15.6.1967, 25.7.1967).
- US 3 868 460 (Boehringer Ing.; 25.2.1975; appl. 23.10.1973; D-prior. 6.2.1967).

alternative synthesis:

DOS 2 503 222 (Boehringer Ing.; appl. 27.1.1975).

Formulation(s): tabl. 5 mg (as hydrochloride)

Trade Name(s):

D: Stresson (Boehringer Ing.; 1977); wfm

I: Betrilol (Boehringer Ing.); wfm

J: Betrilol (Boehringer; 1983)

Buphenine

(Nylidrine)

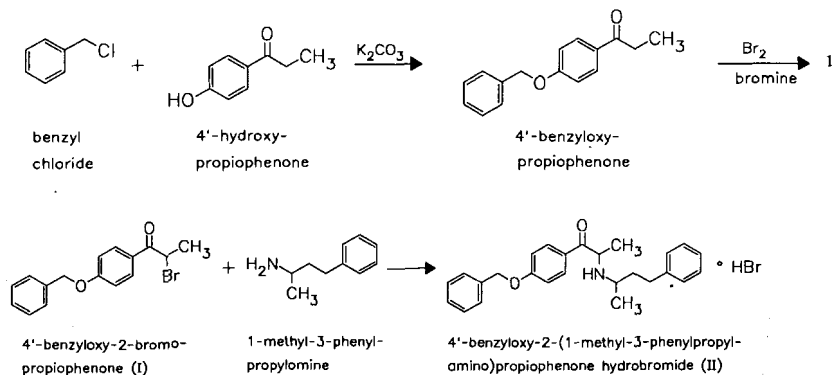
ATC: C04AA02; G02CA02

Use: vasodilator, sympathomimetic

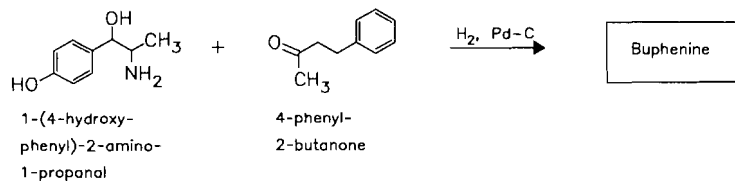
RN: 447-41-6 MF: C₁₉H₂₅NO₂ MW: 299.41 EINECS: 207-182-2CN: 4-hydroxy- α -[1-[(1-methyl-3-phenylpropyl)amino]ethyl]benzenemethanol**hydrochloride**RN: 849-55-8 MF: C₁₉H₂₅NO₂ · HCl MW: 335.88 EINECS: 212-701-0LD₅₀: 40 mg/kg (M, i.v.); 250 mg/kg (M, p.o.);

37.4 mg/kg (R, i.v.); >4800 mg/kg (R, p.o.)

a



b

**Reference(s):**

- a US 2 661 373 (F. Külz, C. Schöpf; 1953; prior. 1953).
 DE 815 043 (Troponwerke; 1948).
 DAS 1 182 245 (Philips; appl. 19.1.1962; NL-prior. 23.1.1961).
- b US 2 661 372 (Troponwerke; 1953; prior. 1949).

Formulation(s): amp. 5 mg; drops 4 mg; tabl. 6 mg**Trade Name(s):**

D: Apoplectal (Klinge)-comb.

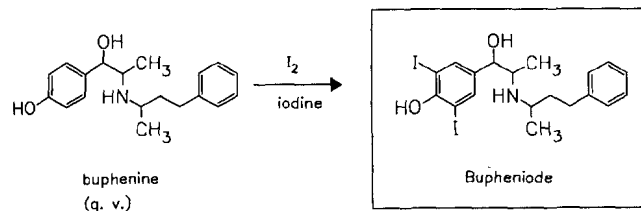
opino N gel (biomo; as hydrochloride)

F: Ophtadil (Chauvin)-comb.

Phlébogel (Lipha Santé)-
comb.I: Opino (Bayropharm)-
comb.; wfmUSA: Adrin (Major); wfm
Arlidin (USV); wfm**Bupheniode**

ATC: C02

Use: antihypertensive, vasodilator

RN: 22103-14-6 MF: $C_{19}H_{23}I_2NO_2$ MW: 551.21 EINECS: 244-781-8LD₅₀: >600 mg/kg (M, i.p.); >2 g/kg (M, p.o.)CN: 4-hydroxy-3,5-diiodo- α -[1-[(1-methyl-3-phenylpropyl)amino]ethyl]benzenemethanol*Reference(s):*

ZA 680 046 (Houdé; appl. 29.12.1967; F-prior. 10.1.1967, 21.12.1967).

Formulation(s): amp. 4 mg, 6 mg; tabl. 4 mg, 6 mg*Trade Name(s):*

F: Proclival (Houdé); wfm

Bupivacaine

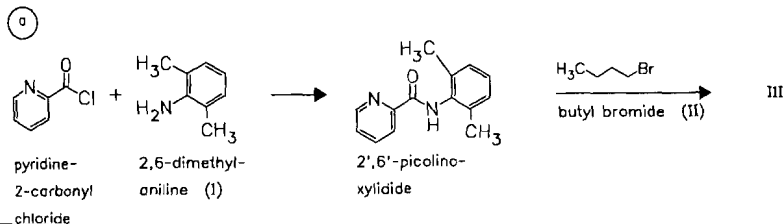
(Marcain)

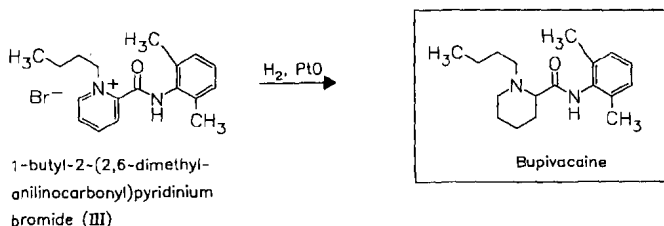
ATC: N01BB01

Use: local anesthetic

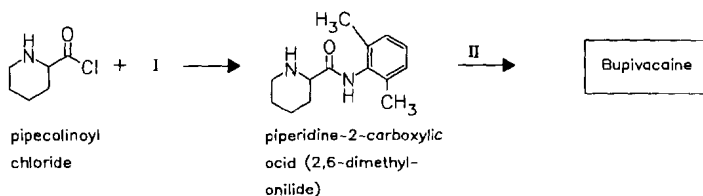
RN: 2180-92-9 MF: $C_{18}H_{28}N_2O$ MW: 288.44 EINECS: 218-553-3LD₅₀: 7100 μ g/kg (M, i.v.);5600 μ g/kg (R, i.v.)

CN: 1-butyl-N-(2,6-dimethylphenyl)-2-piperidinecarboxamide

monohydrochlorideRN: 18010-40-7 MF: $C_{18}H_{28}N_2O \cdot HCl$ MW: 324.90 EINECS: 241-917-8



(b)

**Reference(s):**

DE 1 161 900 (AB Bofors; appl. 19.7.1955; S-prior. 6.4.1955).
 DE 1 169 941 (AB Bofors; appl. 19.7.1955; S-prior. 28.4.1955).
 GB 869 978 (AB Bofors; appl. 13.2.1959; S-prior. 13.3.1958).
 Ekenstam, B. af et al.: Acta Chem. Scand. (ACHSE7) **11**, 1183 (1957).

alternative syntheses:

US 2 792 399 (AB Bofors; 1957; S-prior. 1954).
 US 2 955 111 (AB Bofors; 1960; appl. 1957).

Formulation(s): amp. 0.25 %, 0.5 %; inj. flask 0.25 %, 0.5 %, 0.75 %

Trade Name(s):

D:	Bupivacain (Rhône-Poulenc Rorer)	GB:	Marcain (Astra)	Marcaina iperberica (Pierrel)	
	Carbostesin (Astra)		Marcain with Adrenaline (Astra)-comb.	J:	Marcain (Yoshimoti-Takeda; as hydrochloride)
	Dolanaest (Strathmann)	I:	Bupiforan (Bieffe Medital)	USA:	Sensocraïne (Astra; as hydrochloride)
F:	Marcaine (Astra)		Marcaina (Pierrel)		
	Marcaine adrénaline (Astra)-comb.		Marcaina adrenalina (Pierrel)-comb.		

Bupranolol

ATC: C07AA19
 Use: beta blocking agent

RN: 14556-46-8 MF: C₁₄H₂₂ClNO₂ MW: 271.79

LD₅₀: 45 mg/kg (M, i.v.)

CN: 1-(2-chloro-5-methylphenoxy)-3-[(1,1-dimethylethyl)amino]-2-propanol

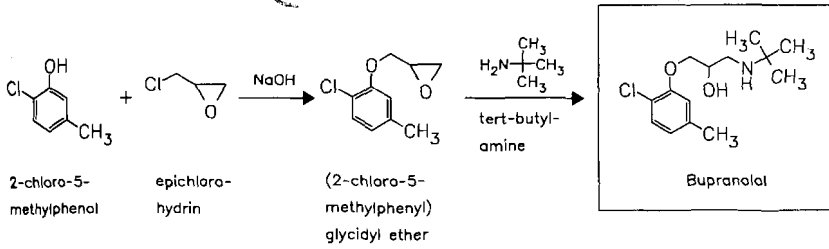
hydrochloride

RN: 15148-80-8 MF: C₁₄H₂₂ClNO₂ · HCl MW: 308.25 EINECS: 239-208-3

LD₅₀: 39.3 mg/kg (M, i.v.); 329 mg/kg (M, p.o.);

15.3 mg/kg (R, i.v.); 518 mg/kg (R, p.o.);

438 mg/kg (dog, p.o.)

**Reference(s):**

DE 1 236 523 (Sanol-Arzneimittel; appl. 15.2.1962).

US 3 309 406 (Sanol; 14.3.1967; appl. 24.3.1965).

Formulation(s): tabl. 50 mg, 100 mg, 200 mg**Trade Name(s):**

D:	Betadrenol (Schwarz)	J:	Bupranolol Hydrochloride	Looser (Kaken; as hydrochloride)
F:	Bétadran (J. Logeais); wfm		(Shin Nihon Jitsugyo; as hydrochloride)	
I:	Betadrenol (Schwarz)			

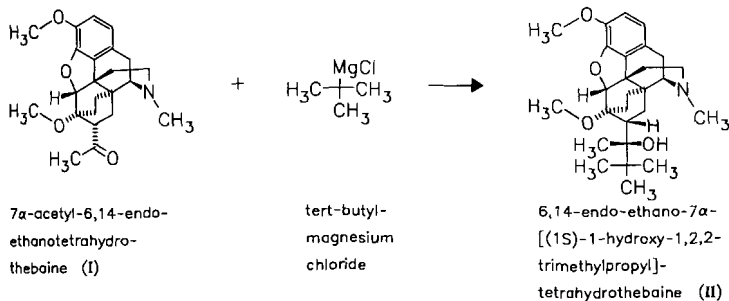
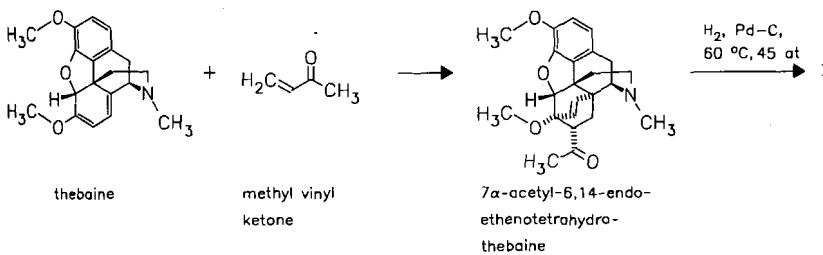
Buprenorphine

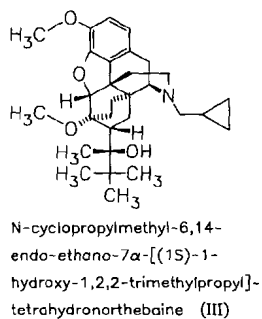
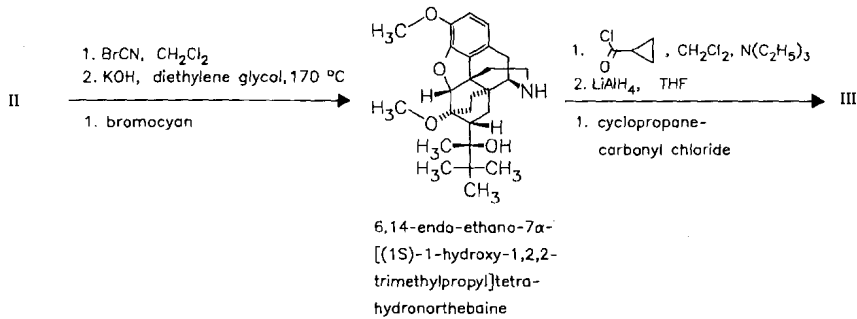
ATC: N02AE01

Use: analgesic

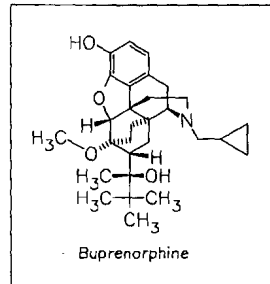
RN: 52485-79-7 MF: $\text{C}_{29}\text{H}_{41}\text{NO}_4$ MW: 467.65 EINECS: 257-950-6LD₅₀: 24 mg/kg (M, i.v.); 260 mg/kg (M, p.o.);

31 mg/kg (R, i.v.)

CN: [$5\alpha,7\alpha(S)$]-17-(cyclopropylmethyl)- α -(1,1-dimethylethyl)-4,5-epoxy-18,19-dihydro-3-hydroxy-6-methoxy- α -methyl-6,14-ethenomorphinan-7-methanol**hydrochloride**RN: 53152-21-9 MF: $\text{C}_{29}\text{H}_{41}\text{NO}_4 \cdot \text{HCl}$ MW: 504.11 EINECS: 258-396-8



KOH, diethylene glycol, 210–220 °C



Reference(s):

DE 1 620 206 (Reckitt & Colman; appl. 15.6.1966; GB-prior. 15.6.1965).
US 3 433 791 (Reckitt & Sons Ltd; 18.3.1969; GB-prior. 15.6.1965).

formulation with naloxone:

EP 144 243 (Reckitt & Colman; appl. 5.12.1984; GB-prior. 6.12.1983).

Formulation(s): amp. 0.3 mg/ml; sublingual tabl. 0.4 µg 200 µg (as hydrochloride)

Trade Name(s):

D:	Temgesic (Roche; 1981)	GB:	Temgesic (Reckitt & Colman; 1978)	J:	Lepetan (Otsuka; 1984)
F:	Subutex (Schering-Plough)	I:	Temgesic (Boehringer Mannh.)	USA:	Buprenex (Reckitt & Colman; 1985)

Buserelin

ATC: L02AE01

Use: synthetic nonapeptide agonist analog of gonadorelin (LH-RH), gonad stimulating principle for treatment of hormone sensitive prostatic carcinoma and endometriosis

RN: 57982-77-1 MF: C₆₀H₈₆N₁₆O₁₃ MW: 1239.45 EINECS: 261-061-9

CN: 6-[O-(1,1-dimethylethyl)-D-serine]-9-(N-ethyl-L-prolinamide)-10-deglycinamideluteinizing hormone-releasing factor (pig)

monoacetate

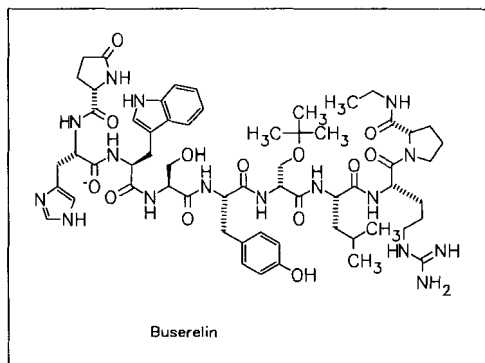
RN: 68630-75-1 MF: C₆₀H₈₆N₁₆O₁₃ · C₂H₄O₂ MW: 1299.50

LD₅₀: 56 mg/kg (M, i.v.); >1 g/kg (M, p.o.);
36 mg/kg (R, i.v.); >400 mg/kg (R, p.o.)

diacetateRN: 59179-42-9 MF: $C_{60}H_{86}N_{16}O_{13} \cdot 2C_2H_4O_2$ MW: 1359.55

5-oxo-Pro ¹	His ²	Trp ³	Ser ⁴	Tyr ⁵	D-Ser ⁶	Leu ⁷	Arg ⁸	Pro ⁹
						Z-ONSu	H	NHEt
						Z		NHEt
					Bu ^t			NHEt
					Z-OTcp	H		NHEt
				Bzl	Bu ^t			NHEt
			Z-OBt	H-OH	Z			NHEt
				Bzl	Bu ^t			NHEt
			Z	H-OH	H			NHEt
				Bzl	Bu ^t			NHEt
		N ₂ H ₃	Z		Bu ^t			NHEt
		N ₃	H		Bu ^t			NHEt
					Bu ^t			NHEt

abbreviations: OBt: 3-hydroxy-4-oxo-3,4-dihydro-1,2,3-benzotriazinyl ester
 Z: benzyloxycarbonyl
 Bzl: benzyl ether
 OTcp: 2,4,5-trichlorophenyl ester
 ONSu: N-hydroxysuccinimidyl ester
 N₃: azide
 N₂H₃: hydrazide
 Bu^t: tert-butyl ether

**Reference(s):**

DE 2 438 350 (Hoechst; appl. 9.8.1974).

US 4 024 248 (Hoechst; 17.5.1977; D-prior. 9.8.1974).

alternative synthetic methods:

DE 2 905 502 (Hoechst; appl. 14.2.1979).

parenteral depot formulations:1) *microcapsules with poly-D-(-)-3-hydroxybutyric acid as carrier:*

DE 3 428 372 (Hoechst; appl. 1.8.1984).

EP 172 422 (Hoechst; appl. 20.7.1985; D-prior. 1.8.1984).

EP 262 583 (Hoechst; appl. 24.9.1987; D-prior. 2.10.1986, 13.12.1986).

2) *with biodegradable poly(hydroxyalkyl)aminodicarboxylic acid derivatives:*

EP 274 127 (Hoechst; appl. 29.12.1987; D-prior. 3.1.1987).

medical use as contraceptive:

DOS 2 735 515 (Hoechst; appl. 6.8.1977).

EP 764 (Hoechst; appl. 1.8.1978; D-prior. 6.8.1977).

Formulation(s): nasal spray 10 mg/10 ml; sol. for s. c. amp. 15 mg/10 g; sol. 5.5 mg/5.5 ml for s. c. inj. with 6.6 mg busserelin acetate on polyglycolide matrix

Trade Name(s):

D:	Profact (Hoechst; 1984)	Suprefact (Hoechst Houdé; 1986)	I:	Suprefact (Hoechst Italia)
	Suprecur (Hoechst)		J:	Suprecur (Hoechst Japan)
F:	Bigonist (Cassenne)	GB:	Suprecur (Shire)	

Buspirone

ATC: N05BE01

Use: tranquilizer

RN: 36505-84-7 MF: $C_{21}H_{31}N_5O_2$ MW: 385.51 EINECS: 253-072-2

LD₅₀: 136 mg/kg (R, i.p.)

CN: 8-[4-[4-(2-pyrimidinyl)-1-piperazinyl]butyl]-8-azaspiro[4.5]decane-7,9-dione

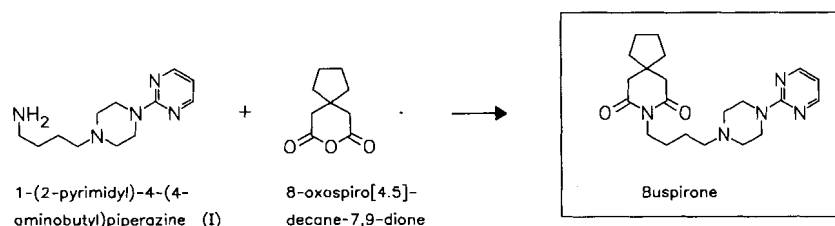
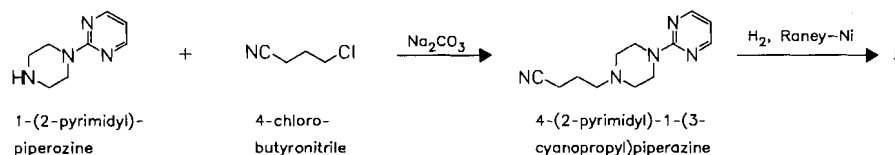
monohydrochloride

RN: 33386-08-2 MF: $C_{21}H_{31}N_5O_2 \cdot HCl$ MW: 421.97 EINECS: 251-489-4

LD₅₀: 655 mg/kg (M, p.o.);

196 mg/kg (R, p.o.);

586 mg/kg (dog, p.o.)



Reference(s):

DOS 2 057 845 (Bristol-Myers; appl. 24.11.1970; USA-prior. 24.11.1969).

US 3 976 776 (Mead Johnson; 24.8.1976; prior. 24.11.1969).

Wu, Y.H. et al.: J. Med. Chem. (JMCMAR) **15**, 477 (1972).

US 3 907 801 (Mead Johnson; 23.9.1975; prior. 24.11.1969).

US 3 717 634 (Mead Johnson; 20.2.1973; prior. 24.11.1969).

Formulation(s): tabl. 5 mg, 10 mg

Trade Name(s):

D:	Bespar (Bristol-Myers; 1985)	F:	Buspar (Bristol-Myers Squibb; 1988)	GB:	Buspar (Bristol-Myers Squibb; 1987)
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I: Axoren (Glaxo Wellcome)
Buspar (Bristol It. Sud)

Buspimen (Menarini)

USA: Buspar (Bristol-Myers Squibb; 1986)

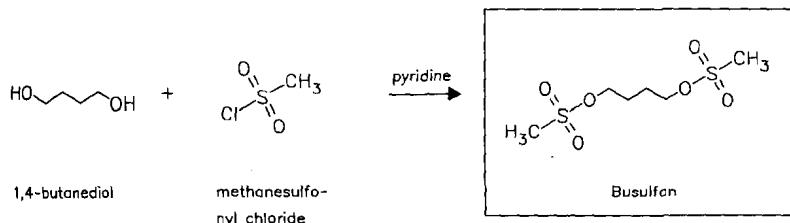
Busulfan

ATC: L01AB01
Use: antineoplastic

RN: 55-98-1 MF: C₆H₁₄O₆S₂ MW: 246.30 EINECS: 200-250-2

LD₅₀: 110 mg/kg (M, p.o.);
1800 µg/kg (R, i.v.)

CN: 1,4-butanediol dimethanesulfonate



Reference(s):

GB 700 677 (Wellcome Found.; appl. 1950).
US 2 917 432 (Burroughs Wellcome; 15.12.1959; prior. 5.10.1954).

Formulation(s): tabl. 0.5 mg, 2 mg

Trade Name(s):

D: Myleran (Glaxo Wellcome) GB: Myleran (Glaxo Wellcome) J: Mablin (Takeda)
F: Misulban (Techni-Pharma); I: Misulban (Nuovo ISM) USA: Myleran (Glaxo Wellcome)
wfm Myleran (Wellcome)

Butacaine

ATC: D04AB
Use: local anesthetic

RN: 149-16-6 MF: C₁₈H₃₀N₂O₂ MW: 306.45 EINECS: 205-734-7

CN: 3-(dibutylamino)-1-propanol 4-aminobenzoate (ester)

monohydrochloride

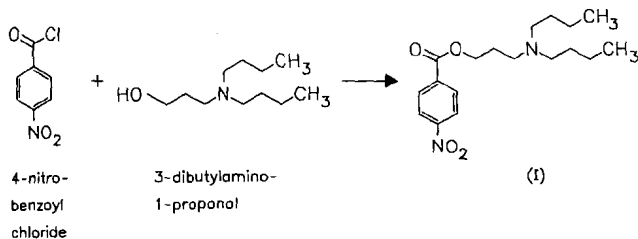
RN: 5892-15-9 MF: C₁₈H₃₀N₂O₂ · HCl MW: 342.91 EINECS: 227-568-4

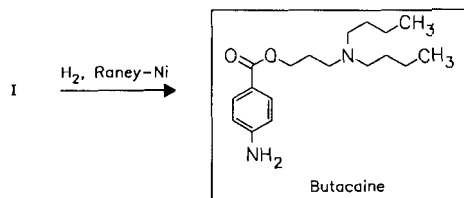
LD₅₀: 21 mg/kg (M, i.v.)

sulfate (2:1)

RN: 149-15-5 MF: C₁₈H₃₀N₂O₂ · 1/2H₂SO₄ MW: 710.98 EINECS: 205-733-1

LD₅₀: 12 mg/kg (M, i.v.)



*Reference(s):*

US 1 358 751 (Abbott; 1920; appl. 1920).

US 1 676 470 (Abbott; 1928; GB-prior. 1921).

preparation of 3-dibutylamino-1-propanol from allyl alcohol and dibutylamine:

US 2 437 984 (Abbott; 1948; appl. 1945).

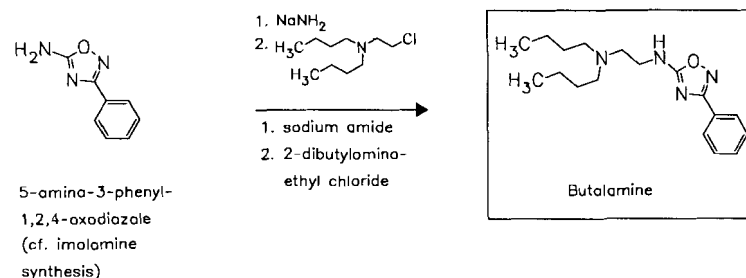
butacaine-pamoate:

DAS 2 401 605 (Rocador; appl. 14.1.1974; E-prior. 18.1.1973).

Formulation(s): cps. 50 mg*Trade Name(s):*F: Relaxoddi (Leurquin)-
comb.USA: Butyn Metaphen (Abbott);
wfmButyn Sulfate (Abbott);
wfm**Butalamine**

ATC: C04AX23

Use: vasodilator

RN: 22131-35-7 MF: $\text{C}_{18}\text{H}_{28}\text{N}_4\text{O}$ MW: 316.45 EINECS: 244-794-9CN: *N,N*-dibutyl-*N'*-(3-phenyl-1,2,4-oxadiazol-5-yl)-1,2-ethanediamine**hydrochloride**RN: 28875-47-0 MF: $\text{C}_{18}\text{H}_{28}\text{N}_4\text{O} \cdot x\text{HCl}$ MW: unspecified EINECS: 249-279-2*Reference(s):*

DAS 1 445 409 (J.M.D. Aron-Samuel, J.J. Sterne; appl. 6.7.1962; GB-prior. 11.7.1961, 12.6.1962).

US 3 338 899 (Aron-Samuel; 29.8.1967; prior. 9.7.1962).

Formulation(s): f. c. tabl. 40 mg, 80 mg*Trade Name(s):*

D: Adrevil (Novartis)

Surheme (Aron)

F: Oxadilène (Leurquin)-
comb.

I: Surheme (Lipha); wfm

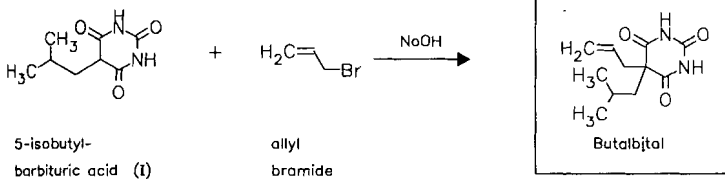
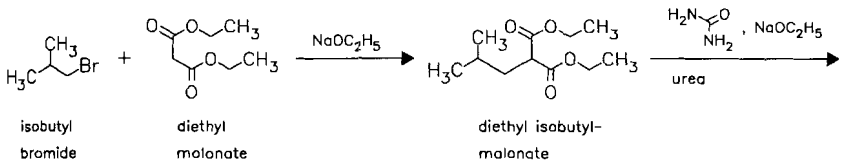
Surheme (Spemsa); wfm

Butalbital

(Allylbarbituric acid)

ATC: N05C

Use: sedative

RN: 77-26-9 MF: C₁₁H₁₆N₂O₃ MW: 224.26 EINECS: 201-017-8LD₅₀: 160 mg/kg (R, s.c.)CN: 5-(2-methylpropyl)-5-(2-propenyl)-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione*Reference(s):*Volwiler, E.H.: J. Am. Chem. Soc. (JACSAT) **47**, 2236 (1925).*Formulation(s):* f. c. tabl. 300 mg*Trade Name(s):*

D:	Aequiton (Südmedica)-comb.	Bupap (FCR)	Pacaps (Lunsco)
	Optalidon (Sandoz)-comb.	Esgic (Forest)-comb.	Phrenilin (Carnrick)
F:	Optalidon (Sandoz)-comb.	Fioricet (Novartis)	Repan (Everett)
I:	Optalidon (Sandoz)-comb.	Fiorinal (Novartis)-comb.	Sedapap (Merz)
USA:	Anolor (Blansett)	Fiortal w/Codeine (Genera)	Tenake (Seatrace)
	Axocet (Savage)	Medigesic (U.S. Pharmaceutical)	

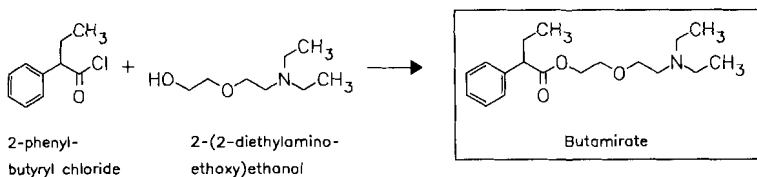
Butamirate

ATC: R05DB13

Use: antitussive

RN: 18109-80-3 MF: C₁₈H₂₉NO₃ MW: 307.43 EINECS: 242-005-2CN: α -ethylbenzeneacetic acid 2-[2-(diethylamino)ethoxy]ethyl ester**citrate (1:1)**RN: 18109-81-4 MF: C₁₈H₂₉NO₃ · C₆H₈O₇ MW: 499.56 EINECS: 242-006-8LD₅₀: 47.2 mg/kg (M, i.v.); 865 mg/kg (M, p.o.);

37.2 mg/kg (R, i.v.); 4164 mg/kg (R, p.o.)



Reference(s):

DE 1 151 515 (Hommel AG; appl. 9.3.1960; CH-prior. 12.3.1959).

US 3 349 114 (Hommel AG; 24.10.1967; appl. 17.5.1963).

Formulation(s): drops 30 mg; syrup 1.772 mg; suppos. 20 mg; syrup 10.65 mg*Trade Name(s):*

D: Pertix-Hommel (Hommel)

Sinecod (Zyma)

Sinecod (Zyma)

Sinecod (Karlspharma)

I: Butiran (Ecobi)

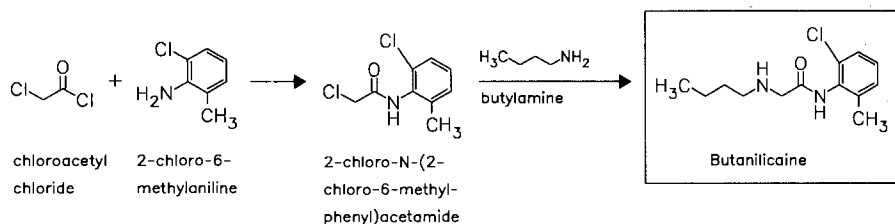
Butanilicaine

ATC: N01BB05

Use: local anesthetic

RN: 3785-21-5 MF: C₁₃H₁₉ClN₂O MW: 254.76

CN: 2-(butylamino)-N-(2-chloro-6-methylphenyl)acetamide

monohydrochlorideRN: 6027-28-7 MF: C₁₃H₁₉ClN₂O · HCl MW: 291.22 EINECS: 227-893-1LD₅₀: 30 mg/kg (M, i.v.)**phosphate (1:1)**RN: 2081-65-4 MF: C₁₃H₁₉ClN₂O · H₃PO₄ MW: 352.76 EINECS: 218-211-3*Reference(s):*

DE 939 633 (Hoechst; 1953).

DE 1 005 075 (Hoechst; 1952).

process variant:

DE 1 009 633 (Hoechst; 1953).

Formulation(s): amp. 51 mg/1.7 ml; vial 1 % sol.*Trade Name(s):*

D: Hostacain (Hoechst); wfm

J: Hostacain (Hoechst); wfm

Butaperazine

ATC: N05AB09

Use: neuroleptic

RN: 653-03-2 MF: C₂₄H₃₁N₃OS MW: 409.60 EINECS: 211-493-9LD₅₀: 67 mg/kg (M, i.v.);

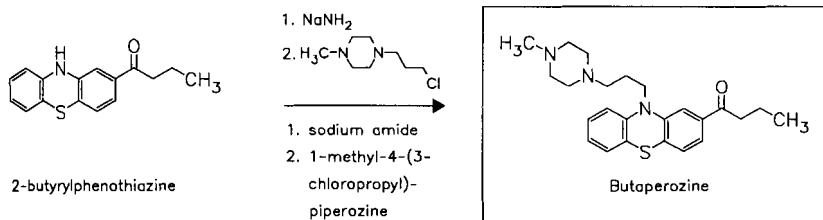
413 mg/kg (R, p.o.)

CN: 1-[10-[3-(4-methyl-1-piperazinyl)propyl]-10H-phenothiazin-2-yl]-1-butanone

diphosphateRN: 7389-45-9 MF: C₂₄H₃₁N₃OS · 2H₃PO₄ MW: 605.59 EINECS: 230-972-3

dimalate

RN: 1063-55-4 MF: $C_{24}H_{31}N_3OS \cdot 2C_4H_4O_4$ MW: 641.74 EINECS: 213-900-5
 LD₅₀: 17.6 mg/kg (M, i.v.); 296 mg/kg (M, p.o.);
 63 mg/kg (R, i.v.); 264 mg/kg (R, p.o.);
 >50.7 mg/kg (dog, i.v.)

**Reference(s):**

DE 1 120 451 (Bayer; appl. 30.5.1956).
 US 2 985 654 (Schering Corp.; 23.5.1961; appl. 21.9.1956).

Formulation(s): tabl. 0.1 mg, 0.25 mg, 0.5 mg

Trade Name(s):

D: Östrogynal (Asche)-comb.; USA: Repoise (Robins); wfm
 wfm

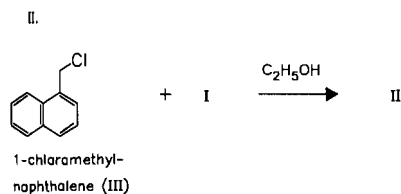
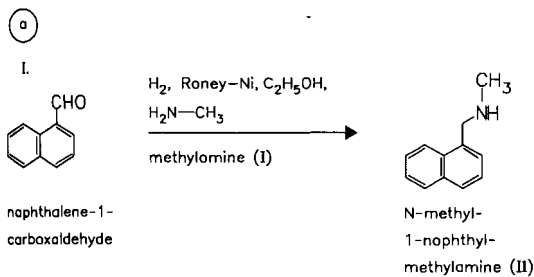
Butenafine

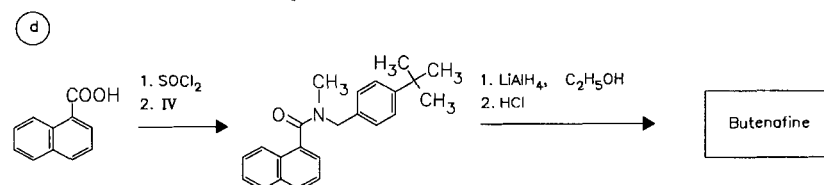
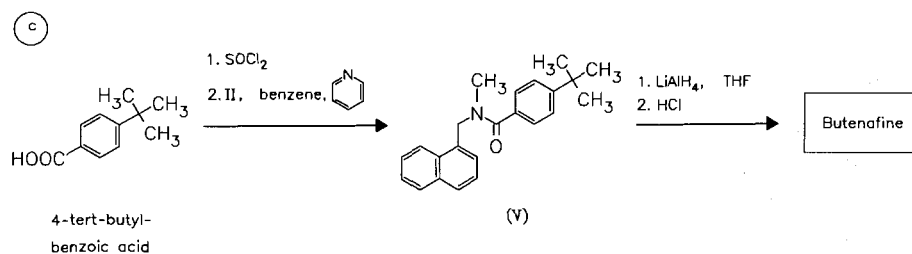
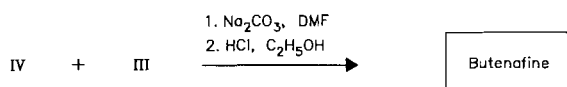
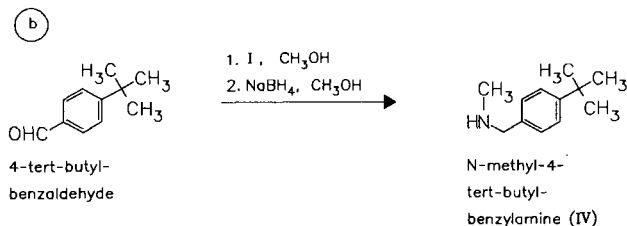
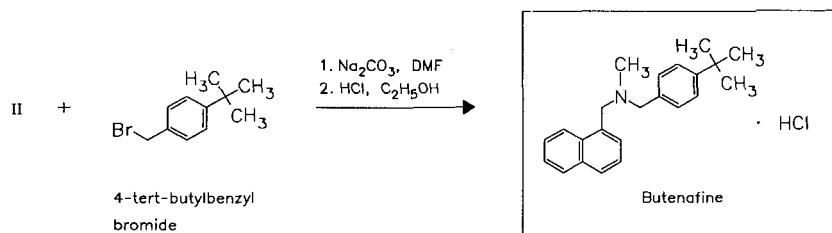
Use: antifungal for topical use

RN: 101828-21-1 MF: $C_{23}H_{27}N$ MW: 317.48
 CN: *N*-[[4-(1,1-Dimethylethyl)phenyl]methyl]-*N*-methyl-1-naphthalenemethanamine

hydrochloride

RN: 101827-46-7 MF: $C_{23}H_{27}N \cdot HCl$ MW: 353.94





Reference(s):

- a EP 221.781 (Mitsui Toatsu Chem.; appl. 31.10.1986; J-prior. 1.11.1985).
 b JP 03 200 747 (Kokai Tokkyo Koho; appl. 28.12.1989; J-prior. 2.9.1991).
 c,d EP 164 697 (Kaken Pharmaceutical Co.; appl. 6.6.1985; J-prior. 9.6.1984).

preparation of N-methyl-1-naphthylmethylamine:

- Dalm, Zoller; *Helv. Chim. Acta* (HCACAV) **35** 1348, 1353 (1952).
 Elslager, E.F.; Johnson, J.L.; Werbel, L.M.; *J. Med. Chem. (JMCMAR)* **24** (2), 140 (1981).
 Baltzly, I.; *J. Am. Chem. Soc. (JACSAT)* **65** 1984 (1943)
 Lutz et al.; *J. Org. Chem. (JOCEAH)* **12** 760 (1947)

Formulation(s): cream 1%; sol. 1% (als hydrochloride)

Trade Name(s):

J: Mentax (Kaken; 1992)

Volley (Hisamitsu)

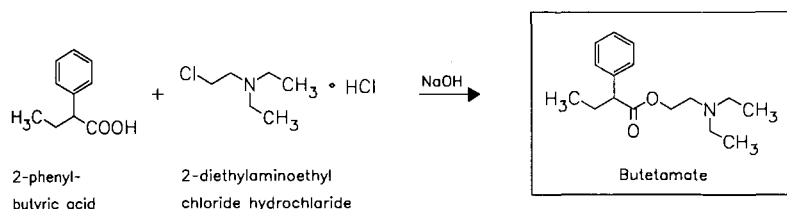
USA: Mentax (Bertek Pharms.)

Butetamate

(Butethamate)

ATC: S01FA

Use: antispasmodic

RN: 14007-64-8 MF: C₁₆H₂₅NO₂ MW: 263.38 EINECS: 237-817-9CN: α -ethylbenzeneacetic acid 2-(diethylamino)ethyl ester**citrate**RN: 13900-12-4 MF: C₁₆H₂₅NO₂ · xC₆H₈O₇ MW: unspecified EINECS: 237-671-6*Reference(s):*

CH 291 375 (Hommel; appl. 1950).

Engelhardt, A.: *Arzneim.-Forsch. (ARZNAD)* **11**, 217 (1957).*Formulation(s):* sol. 14.5 mg/5 ml*Trade Name(s):*

D: Baldicap (Giulini)-comb.; wfm

numerous combination preparations; wfm

I: Pertix (Bonomelli Farm.)-comb.; wfm

Pertix-Hommel Liquidum (Hommel); wfm

GB: Cam (Rybar); wfm

Butethamine

ATC: N01B

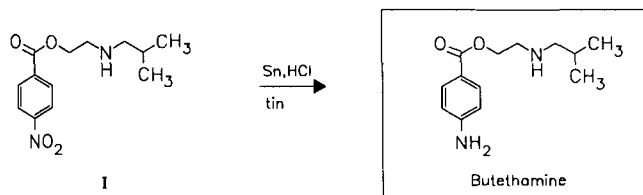
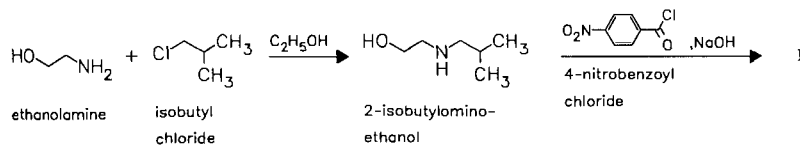
Use: local anesthetic

RN: 2090-89-3 MF: C₁₃H₂₀N₂O₂ MW: 236.32

CN: 2-[(2-methylpropyl)amino]ethanol 4-aminobenzoate (ester)

monohydrochlorideRN: 553-68-4 MF: C₁₃H₂₀N₂O₂ · HCl MW: 272.78LD₅₀: 36 mg/kg (M, i.v.);

28 mg/kg (R, i.v.)



Reference(s):

US 2 139 818 (Novocol Chem.; 1938; prior. 1935).

Formulation(s): amp.*Trade Name(s):*USA: Dentocaine (Amer. Chem.);
wfmMonocaine formate
(Novocol); wfmMonocaine hydrochloride
(Philadelphia Labs.); wfm**Butibufen**

ATC: M02A

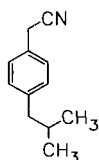
Use: non-steroidal anti-inflammatory

RN: 55837-18-8 MF: C₁₄H₂₀O₂ MW: 220.31 EINECS: 259-849-2LD₅₀: 810 mg/kg (M, p.o.);

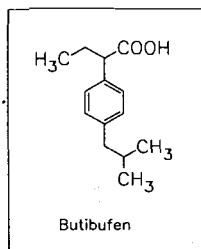
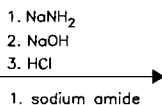
1600 mg/kg (R, p.o.)

CN: α -ethyl-4-(2-methylpropyl)benzeneacetic acid**sodium salt**RN: 60682-24-8 MF: C₁₄H₁₉NaO₂ MW: 242.29 EINECS: 262-374-3

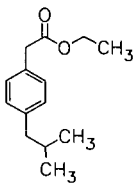
(a)

2-(4-isobutyl-
phenyl)aceto-
nitrile
(cf. ibuprofen
synthesis)

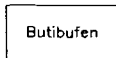
+

ethyl
iodide (I)

(b)

ethyl 4-isobutyl-
phenylacetate

+ 1

*Reference(s):*

DE 2 505 813 (Juste; appl. 12.2.1975).

CH 573 891 (Juste; appl. 16.6.1975).

US 4 031 243 (Juste; 21.6.1977; appl. 25.2.1975).

alternative synthesis:

EP 184 573 (Sanofi; appl. 28.11.1985; F-prior. 29.11.1985).

Formulation(s): cps. 350 mg; sachets 500 mg; suppos. 500 mg; tabl. 500 mg

Trade Name(s):

E: Mijal (Juste; 1992)

Butizide

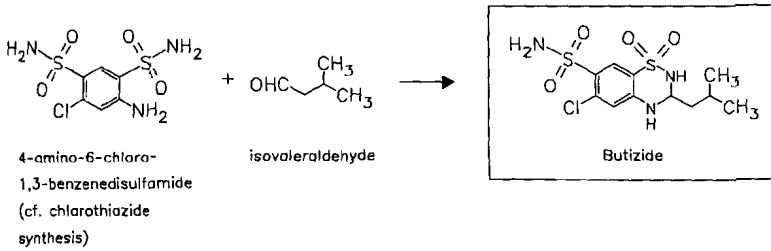
(Buthiazide; Thiabutazide)

ATC: C03E

Use: diuretic, antihypertensive

RN: 2043-38-1 MF: C₁₁H₁₆ClN₃O₄S₂ MW: 353.85 EINECS: 218-048-8

CN: 6-chloro-3,4-dihydro-3-(2-methylpropyl)-2H-1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide



Reference(s):

GB 861 367 (Ciba; appl. 2.3.1959; USA-prior. 9.4.1958, 9.6.1958, 29.7.1958, 29.9.1958).

Werner, I.H. et al.: J. Am. Chem. Soc. (JACSAT) **82**, 1161 (1960).

Formulation(s): cps. 50 mg; drg. 50 mg

Trade Name(s):

D: Aldactone 50-Saltucin (Boehringer Mannh.)-comb.

Modenol (Boehringer Mannh.)-comb.

Saltucin (Boehringer Mannh.)

Torrat (Boehringer Mannh.)-comb.

Tri-Torrat (Boehringer Mannh.)-comb.

F: Eunéphran (Servier); wfm

I: Kadiur (Boots Italia)-comb.

Saludopin (SIT)-comb.

Butoconazole

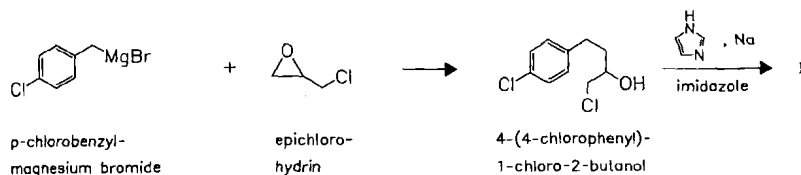
ATC: G01AF15

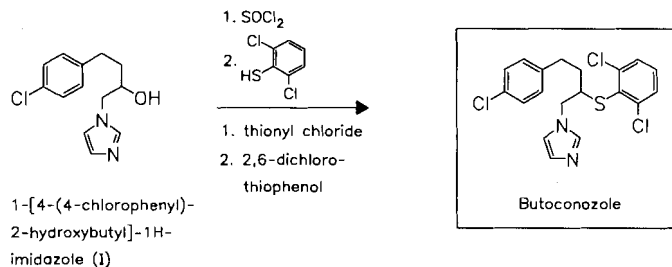
Use: topical antifungal

RN: 64872-76-0 MF: C₁₉H₁₇Cl₃N₂S MW: 411.78LD₅₀: >1600 mg/kg (M, i.p.); >3200 mg/kg (M, p.o.); 940 mg/kg (R, i.p.)

CN: (±)-1-[4-(4-chlorophenyl)-2-[(2,6-dichlorophenyl)thio]butyl]-1H-imidazole

mononitrate

RN: 64872-77-1 MF: C₁₉H₁₇Cl₃N₂S · HNO₃ MW: 474.80LD₅₀: >3200 mg/kg (M, p.o.); 1720 mg/kg (R, p.o.)

**Reference(s):**Walker, K.A.M. et al.: J. Med. Chem. (JMCMAR) **21**, 840 (1978).

US 4 078 071 (Syntex; USA-prior. 28.7.1975).

DOS 2 800 755

Formulation(s): vaginal cream 2 %**Trade Name(s):**

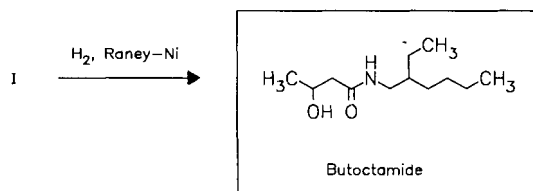
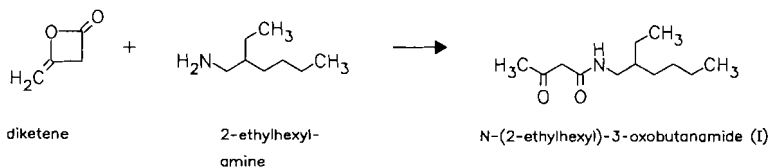
F: Gynomyk (Cassenne)

USA: Femstat (Syntex; 1986);
wfm**Butoctamide**

Use: hypnotic, antineoplastic

RN: 32838-26-9 MF: $\text{C}_{12}\text{H}_{25}\text{NO}_2$ MW: 215.34LD₅₀: 476 mg/kg (M, i.p.); 2000 mg/kg (M, p.o.)

CN: N-(2-ethylhexyl)-3-hydroxybutanamide

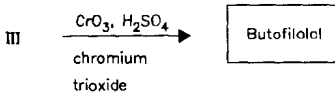
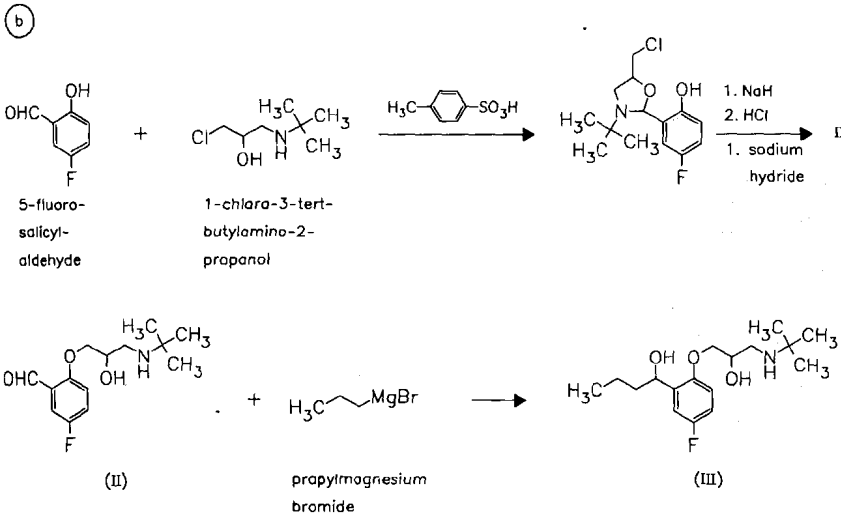
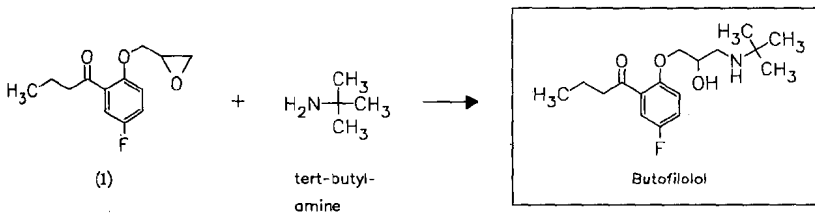
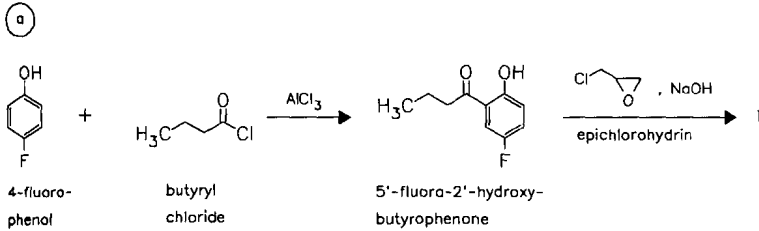
**Reference(s):**

DOS 1 768 445 (Lion Hamigaki; appl. 15.5.1968; J-prior. 15.5.1967).

US 3 639 457 (A. Sakuma et al.; 1.2.1972; J-prior. 15.5.1967).

Formulation(s): 600 mg**Trade Name(s):**J: Listomine (Lion; as
hemisuccinate)

Butofilolol

Use: β -adrenoceptor blockerRN: 64552-17-6 MF: $C_{17}H_{26}FNO_3$ MW: 311.40CN: (\pm)-1-[2-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-5-fluorophenyl]-1-butanone

Reference(s):

DOS 2 528 147 (CM Industries; appl. 24.6.1975; GB-prior. 28.6.1974).

Trade Name(s):

F: Cafide (Lab. Labaz); wfm

Butorphanol

ATC: N02AF01

Use: analgesic

RN: 42408-82-2 MF: $C_{21}H_{29}NO_2$ MW: 327.47 EINECS: 255-808-8

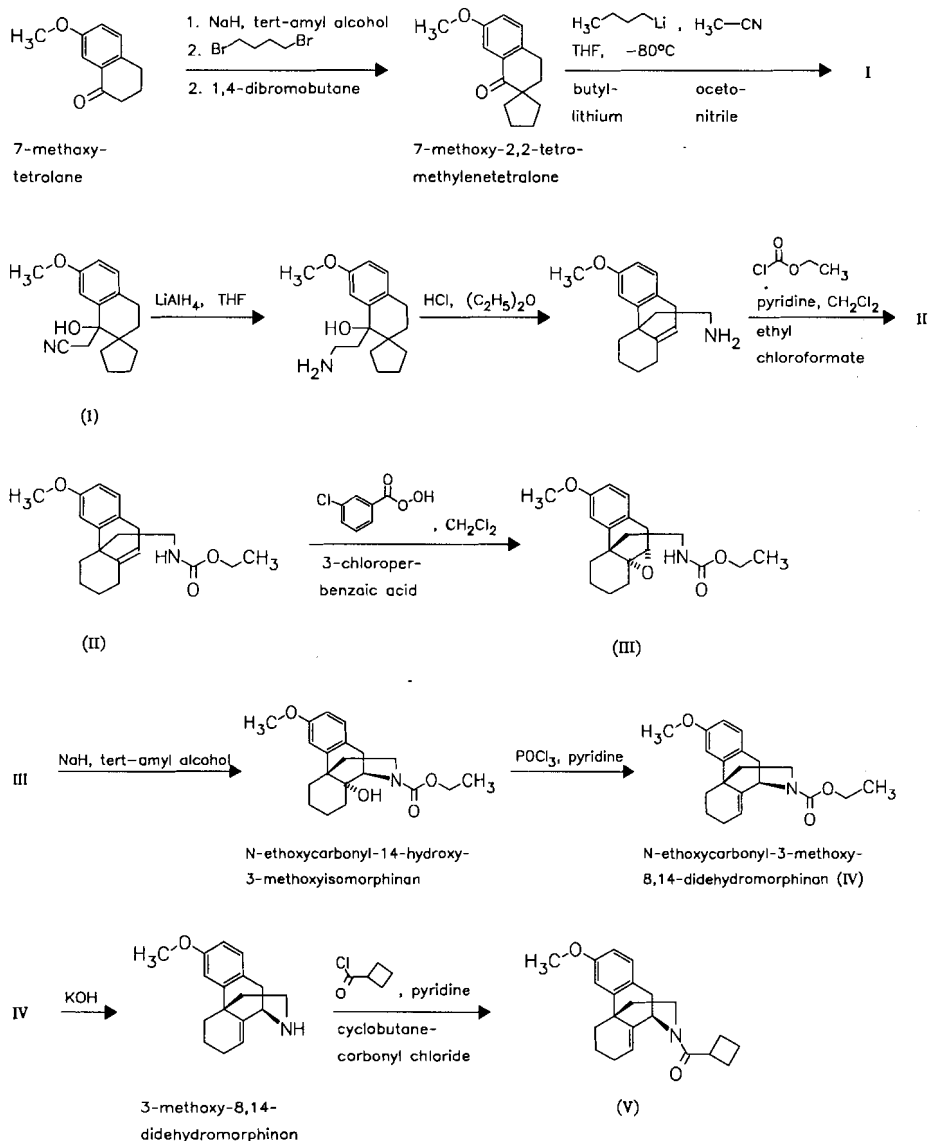
CN: 17-(cyclobutylmethyl)morphinan-3,14-diol

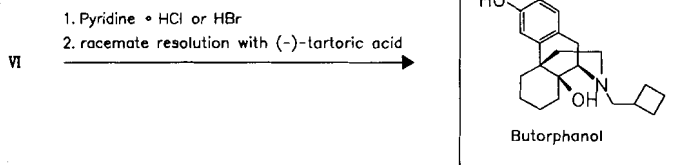
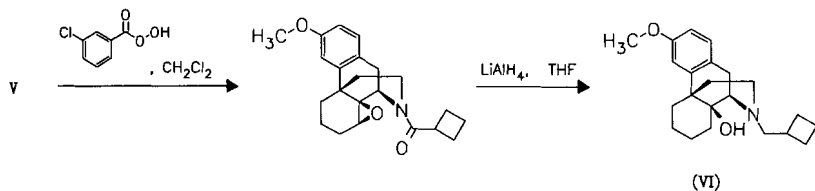
tartrate (1:1)

RN: 58786-99-5 MF: $C_{21}H_{29}NO_2 \cdot C_4H_6O_6$ MW: 477.55 EINECS: 261-443-5LD₅₀: 36 mg/kg (M, i.v.); 395 mg/kg (M, p.o.);

17 mg/kg (R, i.v.); 315 mg/kg (R, p.o.);

10 mg/kg (dog, i.v.); >50 mg/kg (dog, p.o.)





Reference(s):

- US 3 775 414 (Bristol-Myers; 27.11.1973; appl. 10.5.1972).
- US 3 819 635 (Bristol-Myers; 25.6.1974; prior. 8.9.1971, 13.1.1972).
- DOS 2 243 961 (Bristol-Myers; appl. 7.9.1972; USA-prior. 8.9.1971, 13.1.1972).
- DOS 2 265 255 (Bristol-Myers; appl. 7.9.1972; USA-prior. 8.9.1971, 13.1.1972).
- DOS 2 265 256 (Bristol-Myers; appl. 7.9.1972; USA-prior. 8.9.1971, 13.1.1972).
- US 3 980 641 (Bristol-Myers; 14.9.1976; appl. 31.7.1975).
- Monkovic, J. et al.: J. Am. Chem. Soc. (JACSAT) **95**, 7910 (1973).

alternative syntheses:

from 7-methoxy-2-tetralone:

- US 4 017 497 (Bristol-Myers; 12.4.1977; appl. 18.11.1975).

from (-)-1-(4-methoxybenzyl)-2-methyl-1,2,3,4,5,6,7,8-octahydroisoquinoline:

- US 4 115 389 (Bristol-Myers; 19.9.1978; appl. 2.5.1977).

Formulation(s): nasal spray 15 mg/2.5 ml

Trade Name(s):

- | | | |
|--|---------------------------|--|
| I: Stadole (Bristol Europe; 1984); wfm | J: Stadol (Bristol; 1986) | USA: Stadol (Bristol-Myers Squibb; 1978) |
|--|---------------------------|--|

Butriptyline

ATC: N06AA15
Use: antidepressant

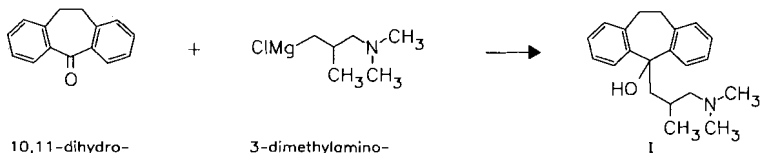
RN: 35941-65-2 MF: $\text{C}_{21}\text{H}_{27}\text{N}$ MW: 293.45

CN: (\pm)-10,11-dihydro-*N,N,\beta*-trimethyl-5*H*-dibenzo[*a,d*]cycloheptene-5-propanamine

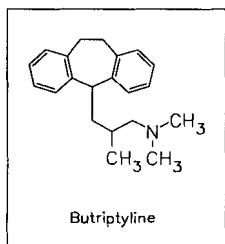
hydrochloride

RN: 5585-73-9 MF: $\text{C}_{21}\text{H}_{27}\text{N} \cdot \text{HCl}$ MW: 329.92 EINECS: 226-983-8

LD₅₀: 48 mg/kg (M, i.v.); 345 mg/kg (M, p.o.);
700 mg/kg (R, p.o.)

10,11-dihydro-
5H-dibenzo[a,d]-
cyclohept-5-one3-dimethylamino-
2-methylpropyl-
magnesium chloride

I

*Reference(s):*

BE 613 750 (Ayerst; appl. 9.2.1962; CDN-prior. 10.2.1961).
US 3 409 640 (Schering Corp.; 5.11.1968; appl. 22.7.1959).

Formulation(s): tabl. 25 mg (as hydrochloride)

Trade Name(s):

GB: Evadyne (Ayerst); wfm I: Evadene (Wyeth-Ayerst)

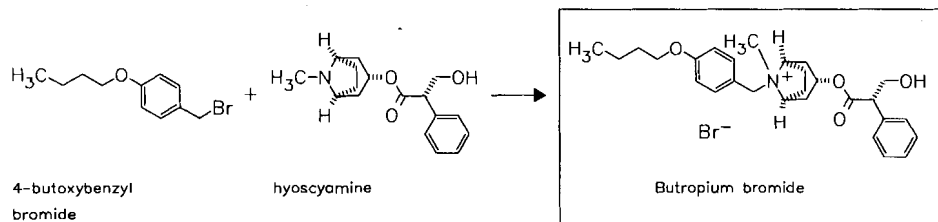
Butropium bromide

Use: antispasmodic

RN: 29025-14-7 MF: $C_{28}H_{38}BrNO_4$ MW: 532.52 EINECS: 249-375-4

LD₅₀: 6400 µg/kg (M, i.v.); 1500 mg/kg (M, p.o.);
21 mg/kg (R, i.v.)

CN: [3(*S*)-*endo*]-8-[(4-butoxyphenyl)methyl]-3-(3-hydroxy-1-oxo-2-phenylpropoxy)-8-methyl-8-azoniabicyclo[3.2.1]octane bromide

4-butoxybenzyl
bromide

hyoscyamine

Butropium bromide

Reference(s):

DOS 1 950 378 (Eisai Kabushiki Kaisha; appl. 6.10.1969; J-prior. 18.2.1969).
US 3 696 110 (Eisai Kabushiki Kaisha; 3.10.1972; J-prior. 18.2.1969).

Formulation(s): amp. 4 mg

Trade Name(s):

J: Coliopan (Eisai; 1974)

Butylscopolammonium bromide

(Butylscopolamine bromide; Scopolamine butyl bromide;
Hyoscin butyl bromide)

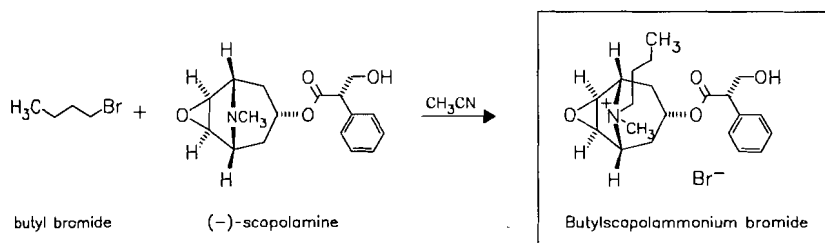
ATC: A03BB01
Use: antispasmodic

RN: 149-64-4 MF: C₂₁H₃₀BrNO₄ MW: 440.38 EINECS: 205-744-1

LD₅₀: 10.3 mg/kg (M, i.v.); 1170 mg/kg (M, p.o.);

24 mg/kg (R, i.v.); 1040 mg/kg (R, p.o.)

CN: [7(S)-(1 α ,2 β ,4 β ,5 α ,7 β)]-9-butyl-7-(3-hydroxy-1-oxo-2-phenylpropoxy)-9-methyl-3-oxa-9-azoniatricyclo[3.3.1.0^{2,4}]nonane bromide

*Reference(s):*

DE 856 890 (Boehringer Ing.; appl. 1950).

Formulation(s): amp. 20 mg/ml; drg. 10 mg; f. c. tabl. 10 mg; suppos. 7.5 mg, 10 mg; tabl. 20 mg;
vial 200 mg/10 ml

Trade Name(s):

D: Buscopan (Boehringer Ing.)-comb.

F: Génoscolamine (Amino) Scopoderm (Novartis)

GB: Buscopan (Boehringer Ing.)

I: Buscopan (Boehringer Ing.) Buscopan composto (Boehringer Ing.)-comb.

Tranquo-Buscopan (Boehringer Ing.)-comb.

J: Antispasmin (Green Cross)

Bususco-S (Sawai)

Buscopan (Boehringer-Tanabe)

Buscoridin (Kanebo)

Buscote (Kotani)

Buspon (Toyo Pharmar)

Butibol (Towa)

Butylpan (Hokuriku)

Butymide (Ohta)

Butysco (Kobayashi)

Diaste-M (Fukuchi-

Fujizoki)

Hyoscomin (Vitacain)

Hyospan (Toiyo)

Moryspan (Beppu)

Reladan (Isei)

Scobro (Ono)

Scobron (Mohan)

Scobutylamin (Horii)

Scordin-B (Ono)

Scorpan (Kanto)

Sparicon (Yamanouchi)

Spasmopan (Nichiiko)

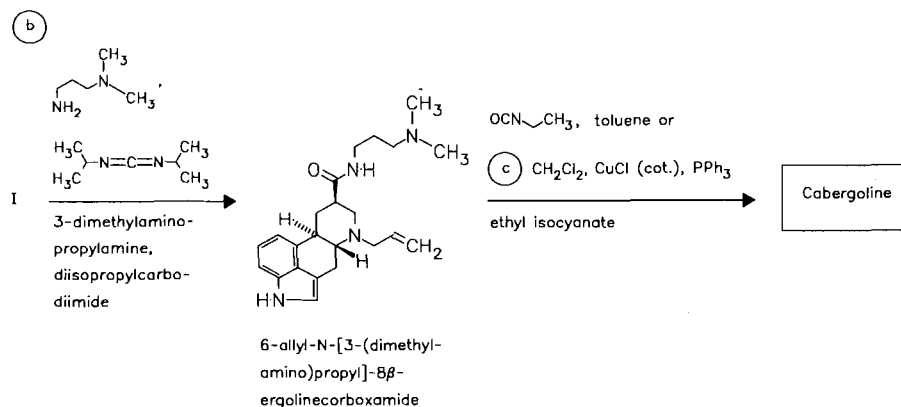
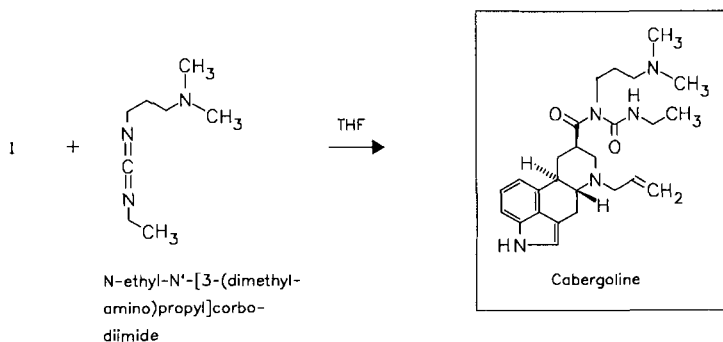
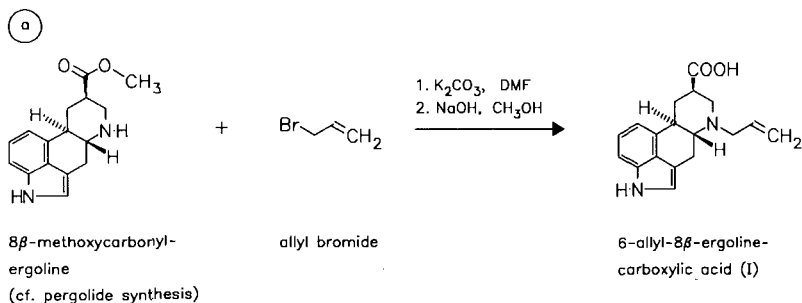
Stibron (Iwaki)

Cabergoline

ATC: G02CB03

Use: dopamine D₂ receptor antagonist,
prolactin inhibitor for prevention or
suppression of puerperal lactationRN: 81409-90-7 MF: C₂₆H₃₇N₃O₂ MW: 451.62

CN: (8β)-N-[3-(Dimethylamino)propyl]-N-[(ethylamino)carbonyl]-6-(2-propenyl)ergoline-8-carboxamide



Reference(s):

- a** GB 2 074 566 (Farmitalia Carlo Erba S.p.A.; appl. 31.3.1981; GB-prior. 3.4.1980).
b US 4 526 892 (Farmitalia Carlo Erba S.p.A.; 2.7.1985; USA-prior. 3.3.1981).
 BE 894 060 (Farmitalia Carlo Erba S.p.A.; appl. 9.8.1982; GB-prior. 11.8.1981).
b,c WO 9 318 034 (Farmitalia Carlo Erba S.p.A.; appl. 15.2.1993; GB-prior. 12.3.1982).
 Candiani; Cabri, W.; Zarini, F.; Bedeschi, A.; Synlett (SYNLES) **1995** (6), 605.

synthesis and nidation inhibitory activity of a new class of ergoline derivatives:

Brambillà, E.; Disalle, E.; Briatico, G.; Mantegani, S.; Temperilli, A.: Eur. J. Med. Chem. (EJMCA5) **24**, 421 (1989)

Formulation(s): tabl. 0.5 mg, 1 mg, 2 mg, 4 mg

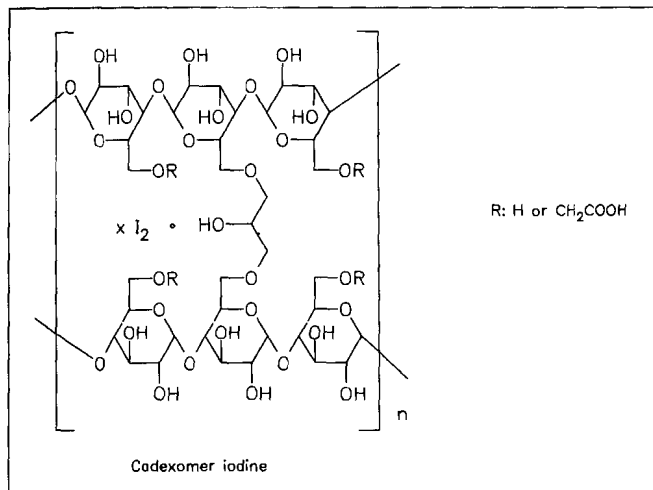
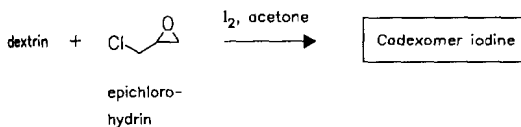
Trade Name(s):

D: CABASERIL (Pharmacia & Upjohn)	GB: Cabaser (Pharmacia & Upjohn)	I: Dostinex (Pharmacia & Upjohn)
Dostinex (Pharmacia & Upjohn)	Dostinex (Pharmacia & Upjohn)	USA: Dostinex (Pharmacia & Upjohn)

Cadexomer iodine

ATC: D03AX01; D08AG
 Use: antiseptic for treatment of decubitus and venous leg ulcers

RN: 94820-09-4 MF: unspecified MW: unspecified
 LD₅₀: >2 g/kg (R, i.p.); >2 g/kg (R, s.c.)
 CN: cadexomer iodine



Reference(s):

- DE 2 533 159 (A. O. Johansson; appl. 24.7.1975).
- US 4 010 259 (A. O. Johansson; 1.3.1977; appl. 17.7.1975).
- FR 2 320 112 (A. O. Johansson; appl. 5.8.1975).

Formulation(s): dry sterile powder, micropellets, sachet 3 g, 1 % bioavailable iodine

Trade Name(s):

D: Iodosorb (Strathmann)	F: Iodosorb (Millot; 1984); wfm
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GB: Iodoflex (Perstorp)

Iodosorb (Perstorp; 1983)

I: Iodosorb (Valeas; 1989)

Cadralazine

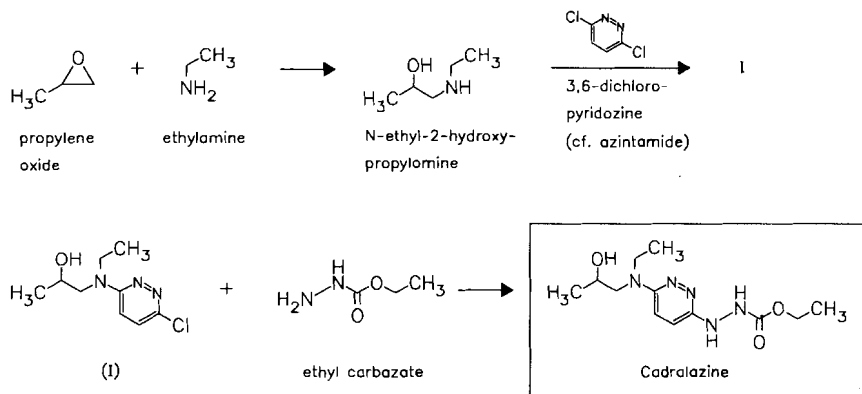
ATC: C02DB04

Use: antihypertensive, vasodilator

RN: 64241-34-5 MF: C₁₂H₂₁N₅O₃ MW: 283.33LD₅₀: 700 mg/kg (M, i.p.);

269 mg/kg (R, i.v.); 2060 mg/kg (R, p.o.)

CN: 2-[6-[ethyl(2-hydroxypropyl)amino]-3-pyridazinyl]hydrazinecarboxylic acid ethyl ester

*Reference(s):*

US 4 002 753 (I.S.F.; 11.1.1977; I-prior. 7.3.1973).

alternative syntheses:

US 4 575 552 (I.S.F.; 11.3.1986; I-prior. 28.4.1983).

US 4 632 982 (I.S.F.; 30.12.1986; I-prior. 28.4.1983).

US 4 757 142 (I.S.F.; 12.7.1988; I-prior. 13.5.1985).

cf. also synthesis of pildralazine

Formulation(s): cps. 10 mg, 15 mg, 20 mg*Trade Name(s):*I: Cadraten (SmithKline
Beecham)

Cadrikan (Novartis)

J: Cadral (Novartis)

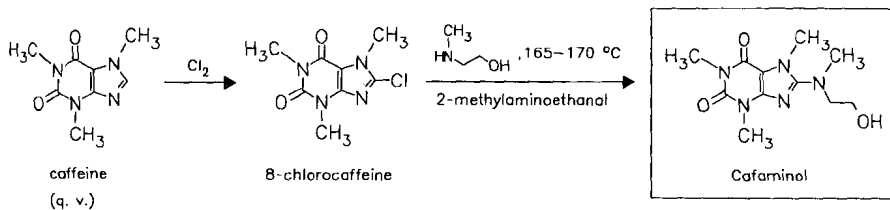
Cafaminol

Use: rhinological therapeutic

(Mecoffaminum; Methylcoffanolamine)

RN: 30924-31-3 MF: C₁₁H₁₇N₅O₃ MW: 267.29 EINECS: 250-390-3LD₅₀: 700 mg/kg (M, s.c.)

CN: 3,7-dihydro-8-[(2-hydroxyethyl)methylamino]-1,3,7-trimethyl-1H-purine-2,6-dione

**Reference(s):**

DE 1 085 530 (J. Klosa; appl. 15.8.1958).

US 3 094 531 (Delmar Chemicals; appl. 30.4.1959).

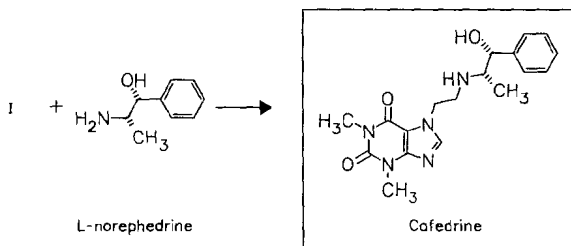
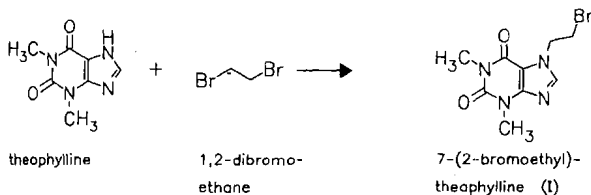
Formulation(s): drg. 50 mg**Trade Name(s):**

D: Rhinoptil (Promonta); wfm I: Katasma balsamico (Bruschettini)

Cafedrine

ATC: C01CA21

Use: circulatory analeptic

RN: 58166-83-9 MF: $C_{18}H_{23}N_5O_3$ MW: 357.41CN: 3,7-dihydro-7-[2-[(2-hydroxy-1-methyl-2-phenylethyl)amino]ethyl]-1,3-dimethyl-1*H*-purine-2,6-dione**[R-(R*,S*)]-cafedrine**RN: 78396-34-6 MF: $C_{18}H_{23}N_5O_3$ MW: 357.41**[R-(R*,S*)]-monohydrochloride**RN: 3039-97-2 MF: $C_{18}H_{23}N_5O_3 \cdot HCl$ MW: 393.88 EINECS: 221-243-0LD₅₀: 525 mg/kg (M, i.p.)**Reference(s):**

DE 1 095 285 (Degussa; appl. 25.9.1956).

US 3 029 239 (Degussa; 10.4.1962; D-prior. 17.4.1954).

Formulation(s): amp. 200 mg; f. c. tabl. 100 mg

Trade Name(s):

D: Akrinor (Homburg)-comb. with theodrenaline F: Praxinor (Lipha Santé)-comb. with théodrénaline I: Akrinor (ASTA Medica; as hydrochloride)

Caffeine

(Caféine; Coffein)

ATC: N06BC01

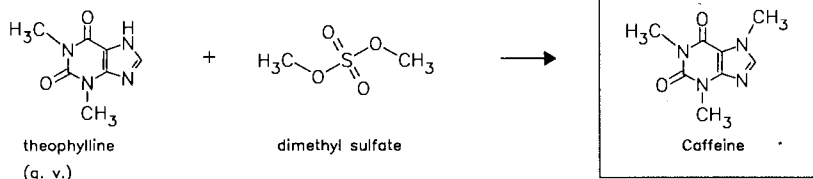
Use: analeptic, diuretic

RN: 58-08-2 MF: C₈H₁₀N₄O₂ MW: 194.19 EINECS: 200-362-1LD₅₀: 62 mg/kg (M, i.v.); 127 mg/kg (M, p.o.);

105 mg/kg (R, i.v.); 192 mg/kg (R, p.o.);

140 mg/kg (dog, p.o.)

CN: 3,7-dihydro-1,3,7-trimethyl-1H-purine-2,6-dione

*Reference(s):*

DE 834 105 (Boehringer Ing.; appl. 1949).

Formulation(s): tabl. 200 mg*Trade Name(s):*

D: Coffeinum (Merck) Percoffedrinol N (Passauer) numerous combination preparations	GB: Cefergot.(Novartis)-comb. Doloxene (Lilly)-comb. Migril (Glaxo Wellcome)- comb.	J: numerous generics and combination preparations USA: Darvon (Lilly) DHCplus (Purdue Frederick)
F: Caféine Aguetant (Aguettant) Percutaféine (Fabre) generics and combination preparations	I: Caffaina (Tariff. Nazionale; as citrate) numerous combination preparations	Esgic-plus (Forest)-comb. numerous combination preparations

Caffeine acetyltryptophanate

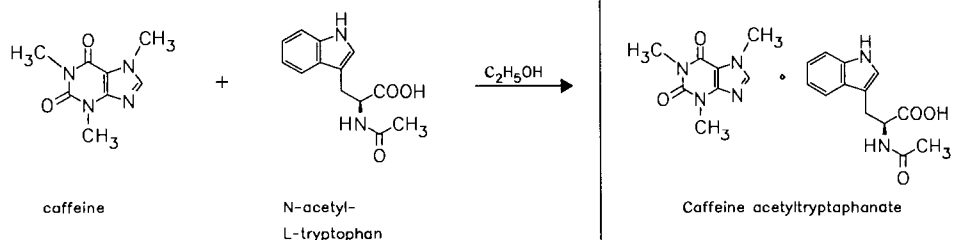
(A 50; Coftrinum)

ATC: N06BC01

Use: psychotonic

RN: 60364-24-1 MF: C₁₃H₁₄N₂O₃ · C₈H₁₀N₄O₂ MW: 440.46

CN: 1-acetyl-L-tryptophan compd. with 3,7-dihydro-1,3,7-trimethyl-1H-purine-2,6-dione (1:1)



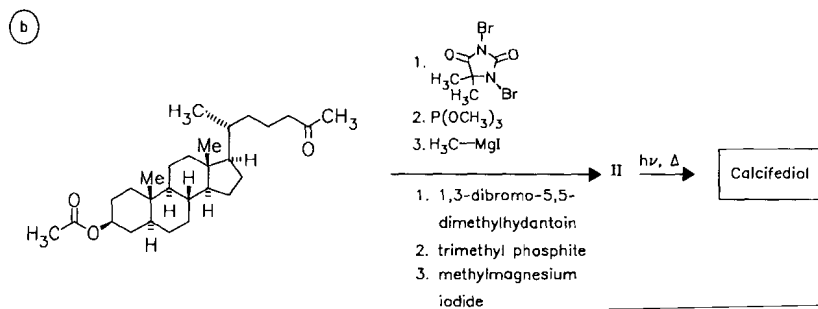
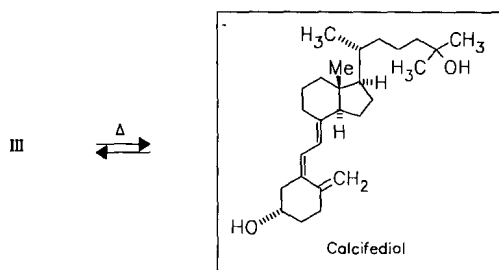
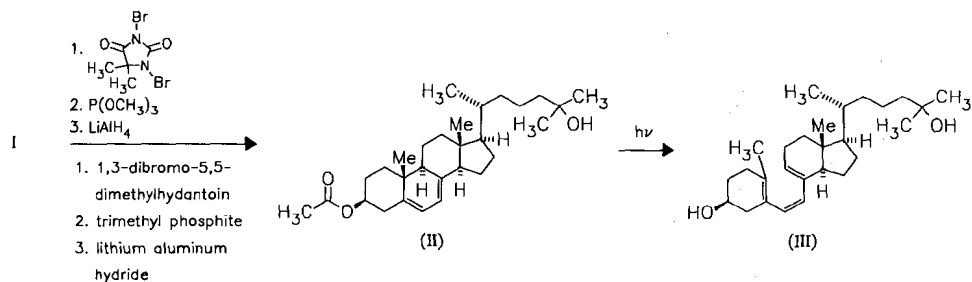
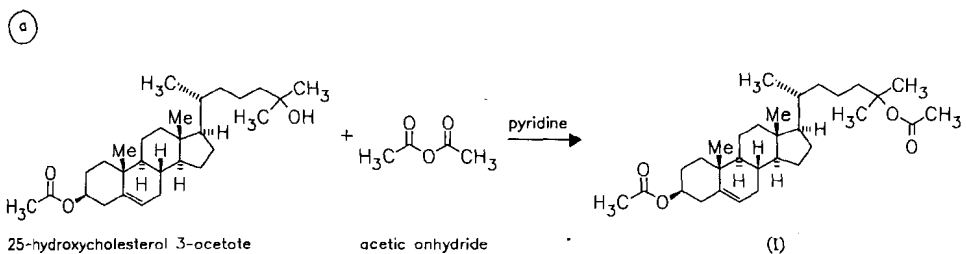
Reference(s):
FR-M 1 759 (A. E. C.; appl. 22.2.1962).

Trade Name(s):
F: Adrifane (Adrian, Paris);
wfm

Calcifediol

ATC: A11CC06
Use: calcium regulator

RN: 19356-17-3 MF: C₂₇H₄₄O₂ MW: 400.65 EINECS: 242-990-9
CN: (3β,5Z,7E)-9,10-secocholesta-5,7,10(19)-triene-3,25-diol



Reference(s):

a,b Blunt, J.W.; DeLuca, H.F.: *Biochemistry (BICHAW)* **8**, 671 (1969).

DeLuca, H.F.: *Am. J. Clin. Nutr. (AJCNAC)* **22**, 412 (1969).

Halkes, S.J.; Vliet, N.P. van: *Recl. Trav. Chim. Pays-Bas (RTCPA3)* **88**, 1080 (1969).

alternative syntheses:

Sodano, Ch. S.: *Vitamins, Synthesis, Production and Use*, p. 131, 159 (New Jersey 1979).

US 4 001 096 (Upjohn; 4.1.1977; prior. 21.2.1975).

US 3 833 622 (Upjohn; 3.9.1974; prior. 17.3.1969).

structure and isolation:

DeLuca, H.F.: *Am. J. Clin. Nutr. (AJCNAC)* **22**, 412 (1969).

Formulation(s): drops 0.15 mg/ml, 0.45 mg/ml

Trade Name(s):

D: Dedrogyl (Albert-Roussel,
Hoechst)

F: Dédrogyl (Roussel)
Un-Alfa (Léo)

I: Didrogyl (Roussel)
USA: Calderol (Organon)

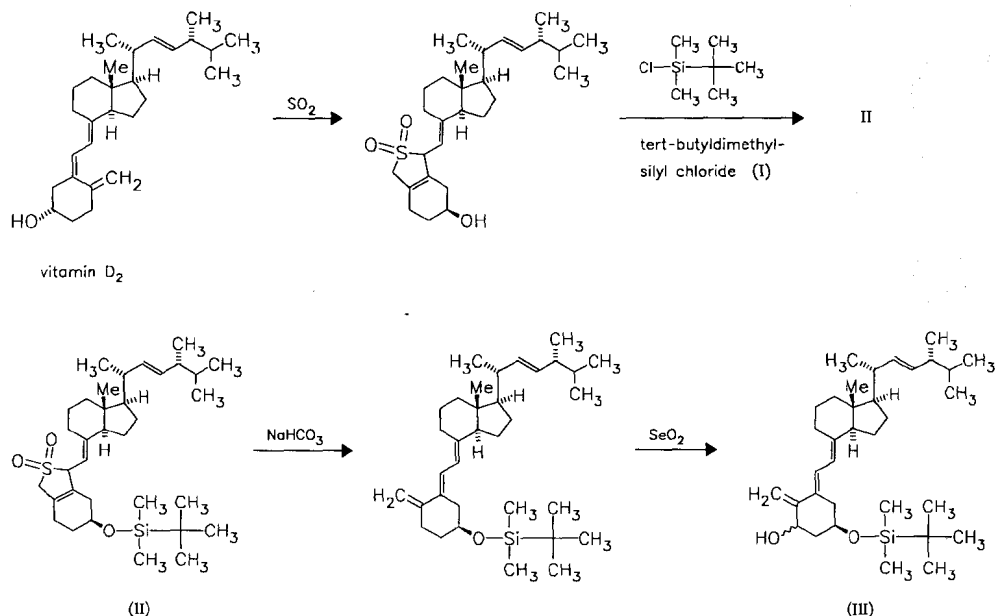
Calcipotriol

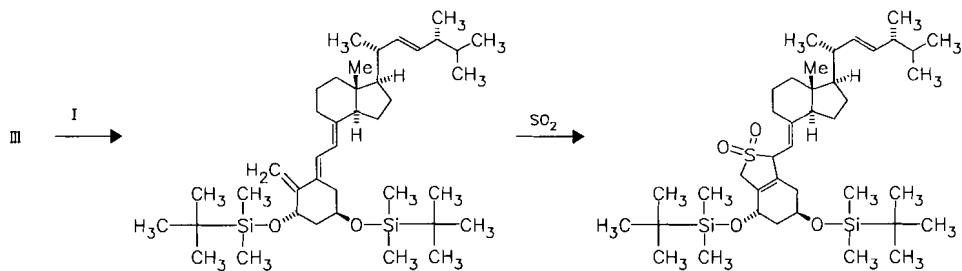
ATC: A11CC; D05AX02

Use: antipsoriatic, topical vitamin D₃-
analog

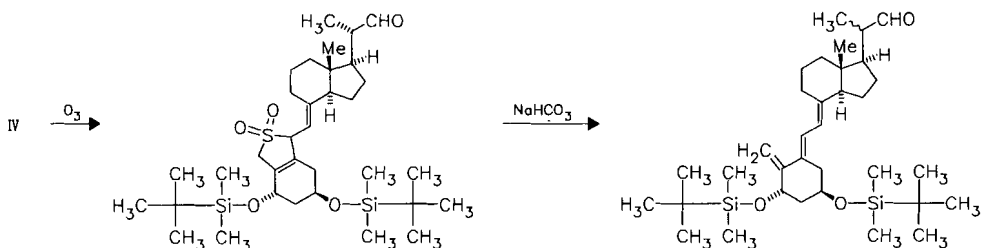
RN: 112828-00-9 MF: C₂₇H₄₀O₃ MW: 412.61

CN: (1 α ,3 β ,5Z,7E,22E,24S)-24-cyclopropyl-9,10-secochola-5,7,10(19),22-tetraene-1,3,24-triol

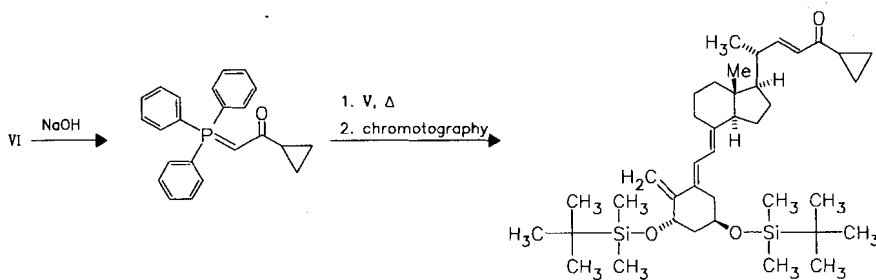
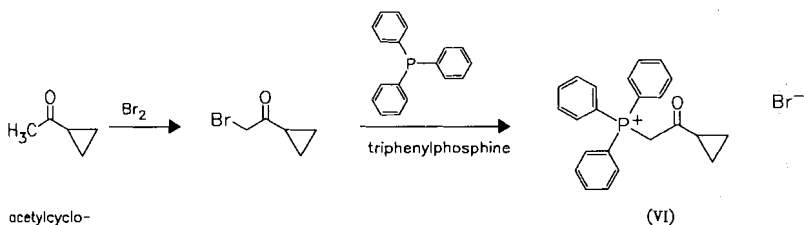




(IV)

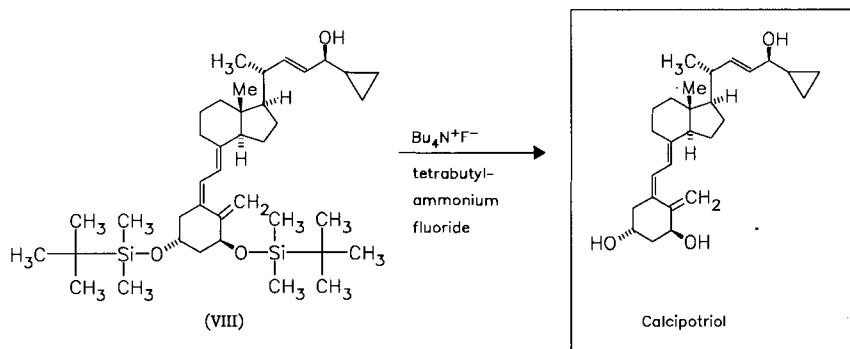
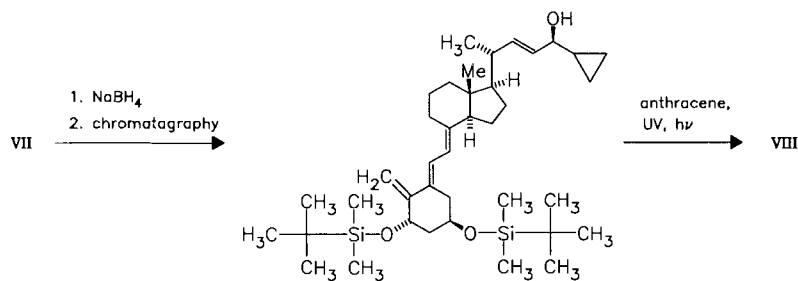


(V)



(cyclopropylcarbo-
nylmethylene)tri-
phenylphosphorane

(VII)

**Reference(s):**

EP 227 826 (Leo; appl. 14.7.1986; GB-prior. 2.8.1985).
 WO 8 700 834 (Leo; appl. 14.7.1986; GB-prior. 2.8.1985).
 Calverley, M.J.: Tetrahedron (TETRAB) **43**, 4609 (1987).

Formulation(s): ointment 50 µg/g

Trade Name(s):

D:	Daivonex (Leo)	F:	Daivonex (Léo)	I:	Daivonex (Formenti)
	Psorcutan (Schering AG)	GB:	Daivonex (Leo; 1991)		Psorcutan (Schering)

Calcitriol

(1 α ,25-Dihydroxy-vitamin D₃)

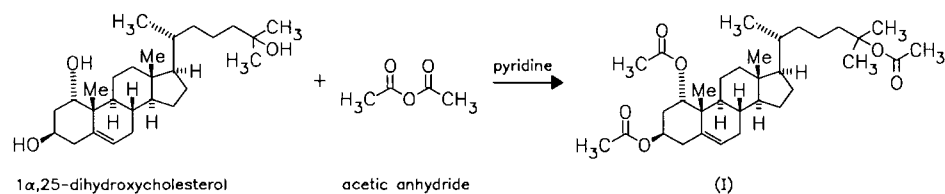
ATC: A11CC04; D05AX03

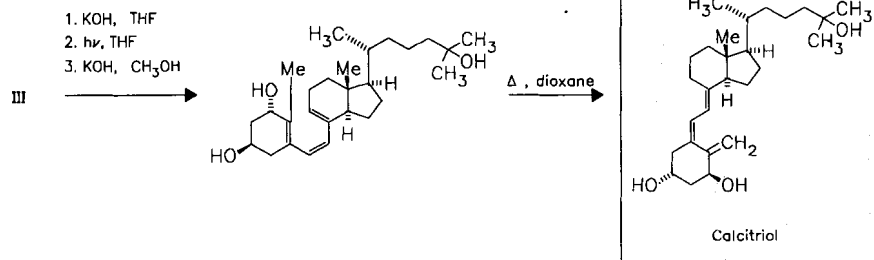
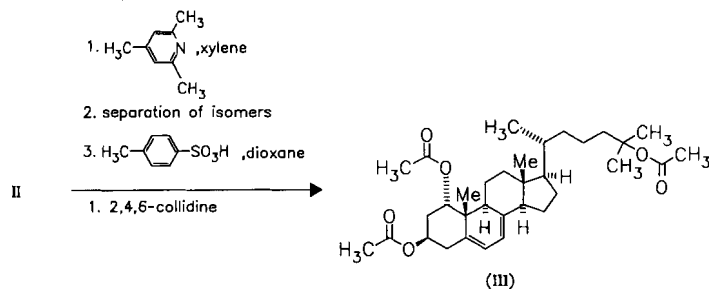
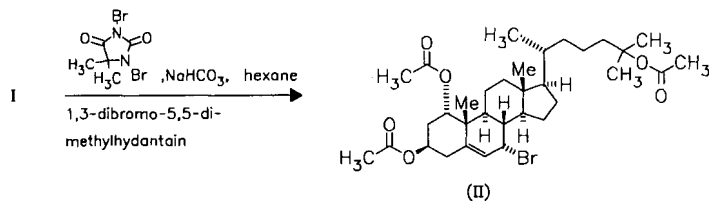
Use: calcium regulator

RN: 32222-06-3 MF: C₂₇H₄₄O₃ MW: 416.65 EINECS: 250-963-8

LD₅₀: 1350 µg/kg (M, p.o.);
 105 µg/kg (R, i.v.); 620 µg/kg (R, p.o.)

CN: (1 α ,3 β ,5Z,7E)-9,10-secocholesta-5,7,10(19)-triene-1,3,25-triol



**Reference(s):**

US 3 993 675 (Hoffmann-La Roche Inc.; 23.11.1976; prior. 12.11.1973, 24.2.1975).

alternative synthesis:

DOS 2 754 759 (Chugai Seiyaku; appl. 8.12.1977; J-prior. 8.12.1976).

Semmler, E.J. et al.: Tetrahedron Lett. (TELEAY) **1972**, 4147.

Barton, D.R. et al.: J. Chem. Soc., Chem. Commun. (JCCCAT) **1974**, 203.

synthesis of $1\alpha,25$ -dihydroxycholesterol:

DOS 2 453 648 (Hoffmann-La Roche; appl. 12.11.1974; USA-prior. 18.11.1973).

Formulation(s): amp. 1 $\mu\text{g/ml}$, 2 $\mu\text{g/ml}$; cps. 0.25 μg , 0.5 μg

Trade Name(s):

D: Rocaltrol (Roche)

I: Calcijex (Abbott)

USA: Calcijex (Abbott)

F: Rocaltrol (Roche)

Rocaltrol (Roche)

Rocaltrol (Roche Labs.)

GB: Rocaltrol (Roche)

J: Rocaltrol (Roche-Kyorin)

Calcium dobesilate

(Dobesilate de calcium)

ATC: C05BX01

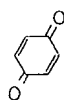
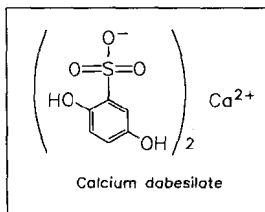
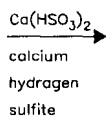
Use: hemostatic (capillary protective)

RN: 20123-80-2 MF: $\text{C}_{12}\text{H}_{10}\text{CaO}_{10}\text{S}_2$ MW: 418.41 EINECS: 243-531-5

LD₅₀: 775 mg/kg (M, i.v.); 7549 mg/kg (M, p.o.);

7061 mg/kg (R, p.o.)

CN: 2,5-dihydroxybenzenesulfonic acid calcium salt (2:1)

1,4-benzo-
quinone*Reference(s):*

US 3 509 207 (Lab. Om; 28.4.1970; CH-prior. 20.1.1966).

Formulation(s): cps. 250 mg; tabl. 250 mg*Trade Name(s):*

D:	Dexium (Synthelabo)	I:	Dobesifar (Farmila)	Doxium (Delalande
	Dobica (OPW)		Doxiproct-Plus (Delalande	Isnardi)
F:	Doxium (Synthelabo)		Isnardi)-comb.	

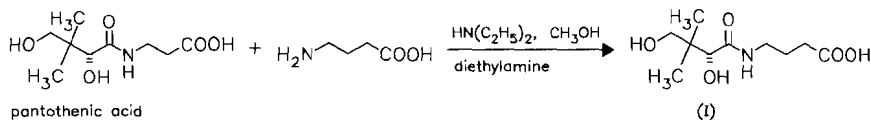
Calcium hopantenate

ATC: N06B

Use: cerebral activator

RN: 17097-76-6 MF: C₂₀H₃₆CaN₂O₁₀ MW: 504.59

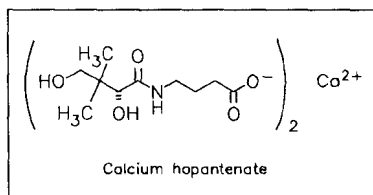
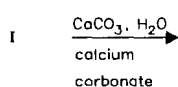
CN: (R)-4-[(2,4-dihydroxy-3,3-dimethyl-1-oxobutyl)amino]butanoic acid calcium salt (2:1)

hopantenic acidRN: 18679-90-8 MF: C₁₀H₁₉NO₅ MW: 233.26LD₅₀: 2250 mg/kg (M, i.p.); 5720 mg/kg (M, route unreported)

pantothenic acid

(cf. calcium pantothenate)

(I)

*Reference(s):*

Kopelevich, V.M. et al.: Khim. Farm. Zh. (KHFZAN) 5, 21 (1971).

JP 26 189 (64) (Takeda; appl. 23.10.1962).

alternative syntheses:

McFall Desha, C.; Fuerst, R.: Biochim. Biophys. Acta (BBACAQ) 86, 33 (1964).

JP 732 (66) (Tanabe; appl. 25.2.1964).

review:

Nishizawa, Y.; Kodama, T.: Proc. Jpn. Acad. (PCACAW) 42, 841 (1966).

Trade Name(s):

J: Hopate (Tanabe)

Calcium pantothenate(Vitamin B₅)

ATC: A11HA31; D03AX04

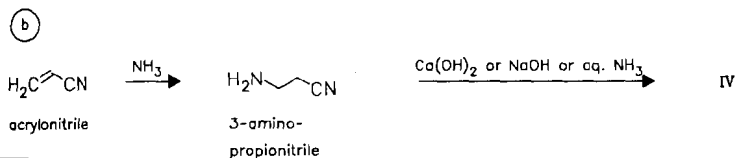
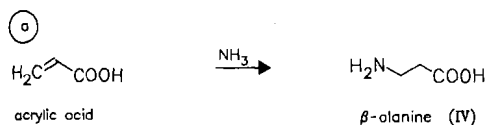
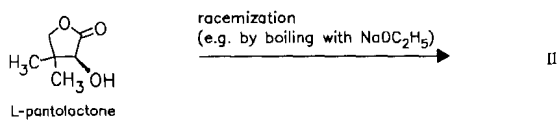
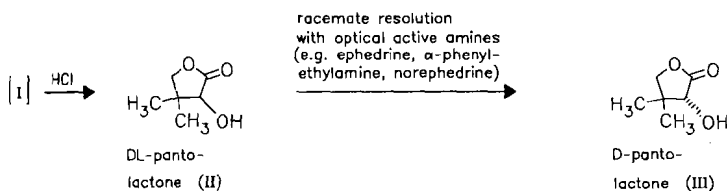
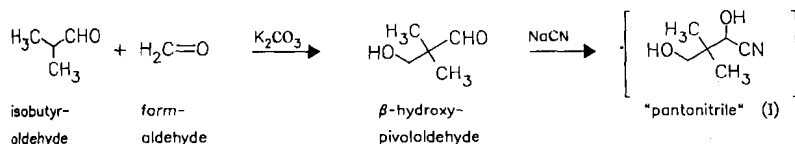
Use: growth factor

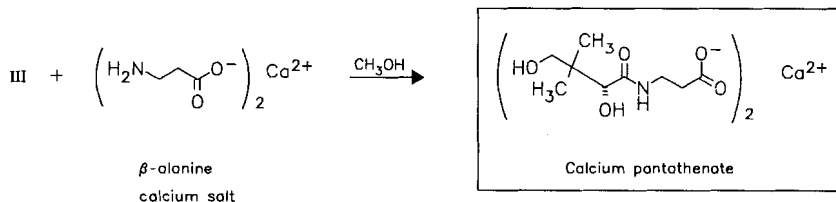
RN: 137-08-6 MF: C₁₈H₃₂CaN₂O₁₀ MW: 476.54 EINECS: 205-278-9LD₅₀: 1443 mg/kg (M, i.p.); 2490 mg/kg (M, route unreported); 2500 mg/kg (M, s.c.);
3500 mg/kg (R, s.c.)

CN: (R)-N-(2,4-dihydroxy-3,3-dimethyl-1-oxobutyl)-β-alanine calcium salt (2:1)

Pantothenic acidRN: 79-83-4 MF: C₉H₁₇NO₅ MW: 219.24 EINECS: 201-229-0LD₅₀: 910 mg/kg (M, i.v.); 10 g/kg (M, p.o.);
830 mg/kg (R, i.v.); >10 g/kg (R, p.o.)

CN: (R)-N-(2,4-dihydroxy-3,3-dimethyl-1-oxobutyl)-β-alanine

monosodium saltRN: 867-81-2 MF: C₉H₁₆NNaO₅ MW: 241.22 EINECS: 212-768-6

*Reference(s):*

DL-pantolactone:

- Glaser: Monatsh. Chem. (MOCMB7) **25**, 46 (1904).
 Stiller et al.: J. Am. Chem. Soc. (JACSAT) **62**, 1785 (1940).
 Reichstein, Grüssner: Helv. Chim. Acta (HCACAV) **23**, 650 (1940).
 Carter; Ney: J. Am. Chem. Soc. (JACSAT) **63**, 312 (1941).
 US 2 552 530 (Upjohn; 1958; appl. 1954).
 US 2 863 878 (Union Carbide; 1958; appl. 1954).
 GB 857 128 (Nopco; appl. 1958; USA-prior. 1958).
 US 2 967 869 (Nopco; 1961; appl. 1958).
 US 3 024 250 (Nopco; 1962; appl. 1958).
 DOS 2 758 883 (BASF; appl. 30.12.1977).
 US 4 082 775 (Soc. Chim. des Charbonnages; 4.4.1978; F-prior. 7.7.1975).
 GB 1 490 680 (Soc. Chim. des Charbonnages; appl. 21.6.1976; F-prior. 7.7.1975).
 US 4 095 952 (VEB Jenapharm; 20.6.1978; prior. 19.10.1972, 4.6.1974, 16.3.1976, 15.10.1976).

extraction of pantolactone from aqueous solutions with methyl tert-butyl ether:

- DOS 2 809 179 (BASF; appl. 3.3.1978).

D-pantolactone:

racemate resolution with ephedrine:

- US 2 460 239 (Nopco; 1949; appl. 1945).
 US 2 460 240 (Nopco; 1949; appl. 1945).

with L-(+)-1-(4-nitrophenyl)-2-aminopropane-1,3-diol:

- DD 16 982 (R. Ring; appl. 1957).
 DD 32 628 (W. Braune et al.; appl. 25.3.1963).

with 1- α -phenylethylamine:

- US 3 185 710 (Nopco; 25.5.1965; appl. 6.9.1961).

with d-3-aminomethylpinane:

- GB 1 495 162 (BASF; appl. 29.1.1975; D-prior. 30.1.1974, 9.11.1974).

with d-norephedrine and derivatives:

- DAS 2 558 508 (Alps; appl. 24.12.1975; J-prior. 19.2.1975).
 US 4 045 450 (Alps; 30.8.1977; J-prior. 19.2.1975).

by fractional crystallization of ammonium pantoate:

- FR 1 522 111 (Fuji Chemical; appl. 9.5.1967; J-prior. 10.5.1966).

of guanidinium pantoate:

- DOS 2 838 689 (A. E. C.; appl. 5.9.1978; F-prior. 5.9.1977).

of lithium pantoate:

- US 4 115 443 (VEB Jenapharm; 19.9.1978; prior. 17.10.1973, 10.1.1975, 25.3.1976).
 FR-appl. 2 231 638 (VEB Jenapharm; appl. 31.5.1974; DDR-prior. 4.6.1973).

racemization of L-pantolactone:

- US 2 976 298 (Nopco; 1961; appl. 1958).
 US 2 434 061 (Merck & Co.; 1948; appl. 1945).
 US 2 463 734 (Nopco; 1949; appl. 1945).
 US 2 967 869 (Nopco; 1961; appl. 1958).

β -alanine:

- a** US 2 376 334 (Univ. of California; 1945; appl. 1941).
DAS 2 232 090 (Tokyo Fine Chem.; appl. 30.6.1972).
- b** US 2 336 067 (Lederle; 1943; appl. 1942).
US 2 377 401 (Lederle; 1945; appl. 1942).
US 2 461 842 (Sharpies Chemicals; 1949; appl. 1943).
US 2 819 303 (Nopco; 1958; appl. 1953).
US 2 935 524 (Nopco; 1960; appl. 1957).
DE 1 084 730 (Degussa; appl. 1959).
US 2 956 080 (Merck & Co.; 1960; appl. 1953).
DAS 2 223 236 (VEB Jenapharm; appl. 12.5.1972; DDR-prior. 4.6.1971).
DAS 2 232 090 (Tokyo Fine Chemical; appl. 30.6.1972).

calcium pantothenate:

- DE 875 359 (Roche; appl. 1941; CH-prior. 1940).
DE 873 089 (E. Merck AG; appl. 1941; USA-prior. 1940).
GB 571 915 (Lederle; appl. 1943; USA-prior. 1942).
US 2 809 213 (Chemlek Labs.; 1957; appl. 1954).
DAS 1 041 967 (Pfizer; appl. 1954; USA-prior. 1953).
US 2 957 025 (Pfizer; 1960; appl. 1953).
US 2 780 645 (Comm. Solvents Corp.; 1957; appl. 1954).
US 2 935 528 (Nopco; 1960; appl. 1957).

purification:

- US 2 390 499 (Lederle; 1945; appl. 1942).
US 2 496 363 (Merck & Co.; 1950; appl. 1948).
US 2 957 025 (Pfizer; 1960; appl. 1953).
GB 1 511 216 (Diamond Shamrock; appl. 1.2.1977).
DOS 2 708 016 (Diamond Shamrock; appl. 24.2.1977).

Formulation(s): cps. 6 mg, 10 mg, 50 mg; ophthalmic ointment 25 mg/g

Trade Name(s):

D:	Kerato Biciron (S & K Pharma)	numerous combination preparations	J:	Lasonil H (Bayer)-comb. Panto (Daiichi)
F:	Modane (RPR Cooper)-comb.	GB: combination preparations		numerous combination preparations
		I: Fisiolax (Manetti Roberts)-comb.	USA:	Mega-B (Arco)
		Lasaproct (Bayer)-comb.		

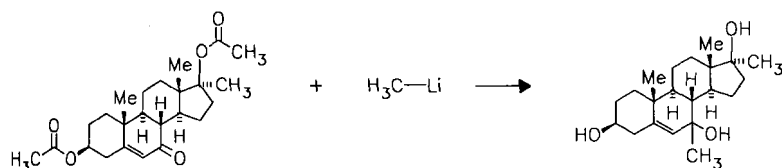
Calusterone

ATC: G03BA; L02A

Use: androgen, antineoplastic (mamma carcinoma)

RN: 17021-26-0 **MF:** C₂₁H₃₂O₂ **MW:** 316.49

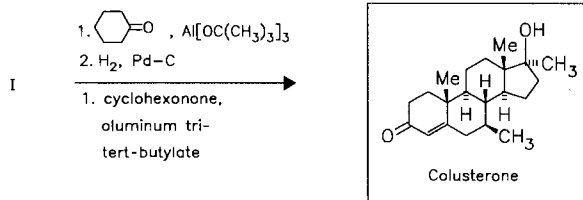
CN: (7 β ,17 β)-17-hydroxy-7,17-dimethylandrost-4-en-3-one



3 β ,17 β -diacetoxy-17 α -methyl-7-oxo-5-androstene

methyl-lithium

(1)

*Reference(s):*

US 3 029 263 (Upjohn; 10.4.1962; prior. 22.12.1958, 6.6.1958)
 (synthesis of starting material is also described).

alternative synthesis:

US 3 341 557 (Upjohn; 12.9.1967; prior. 5.6.1961, 6.11.1960, 6.6.1958).

Formulation(s): tabl. 50 mg

Trade Name(s):

USA: Methosarb (Upjohn); wfm

Camazepam

ATC: N05BA15

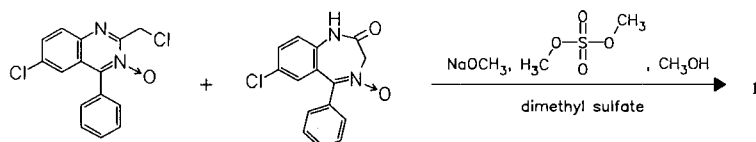
Use: sedative, tranquilizer

RN: 36104-80-0 MF: $\text{C}_{19}\text{H}_{18}\text{ClN}_3\text{O}_3$ MW: 371.82 EINECS: 252-866-6

LD_{50} : 970 mg/kg (M, p.o.);

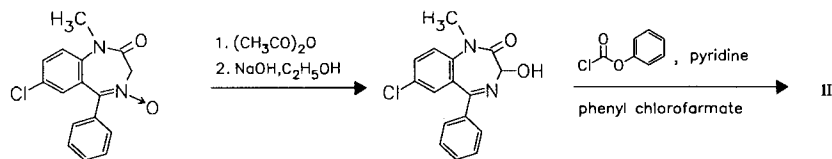
>4 g/kg (R, p.o.)

CN: dimethylcarbamic acid 7-chloro-2,3-dihydro-1-methyl-2-oxo-5-phenyl-1*H*-1,4-benzodiazepin-3-yl ester



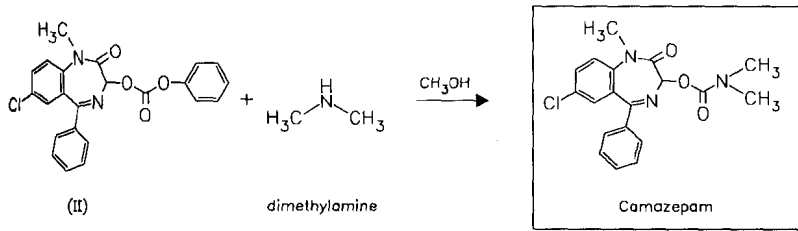
6-chloro-2-chloro-
methyl-4-phenyl-
quinazoline 3-oxide
(cf. chlordiazepoxide
synthesis)

7-chloro-5-phenyl-
1,3-dihydro-2*H*-1,4-
benzodiazepin-2-one
4-oxide



7-chloro-1-methyl-
5-phenyl-1,3-dihydro-
2*H*-1,4-benzodiazepin-
2-one 4-oxide (I)

7-chloro-3-hydroxy-
1-methyl-5-phenyl-
1,3-dihydro-2*H*-
1,4-benzodiazepin-2-one

**Reference(s):**

DOS 2 142 181 (Siphar; appl. 23.8.1971; CH-prior. 24.8.1970).
 US 3 799 920 (Siphar; 26.3.1974; CH-prior. 24.8.1970).
 US 3 867 529 (Siphar; 18.2.1975; CH-prior. 24.8.1970).

alternative synthesis (reaction of the 3-hydroxy-compd. with dimethylcarbamoyl chloride):

DOS 2 558 015 (Siphar; appl. 22.12.1975; CH-prior. 6.3.1975).

precursors:

GB 972 968 (Roche; appl. 9.12.1960; USA-prior. 10.12.1959, 15.1.1960, 26.4.1960, 27.6.1960).
 Sternbach, L.H.; Reeder, E.: J. Org. Chem. (JOCEAH) **26**, 4936 (1961).
 Bell, S.C.; Childress, S.J.: J. Org. Chem. (JOCEAH) **27**, 562, 1691 (1962).

Formulation(s): drg. 10 mg, 20 mg

Trade Name(s):

D: Albego (Boehringer Ing.); I: Albego (Simes); wfm
 wfm Limpidon (Crinos); wfm

Camostat

ATC: B02AB04

Use: trypsin inhibitor (for treatment of chronic pancreatitis)

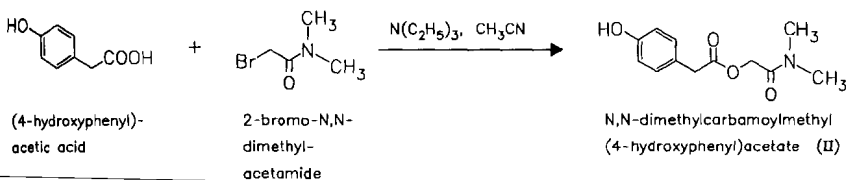
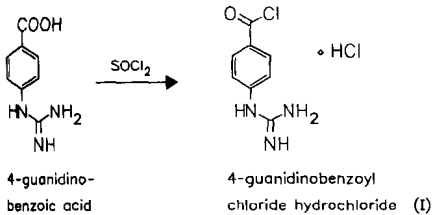
RN: 59721-28-7 MF: $\text{C}_{20}\text{H}_{22}\text{N}_4\text{O}_5$ MW: 398.42

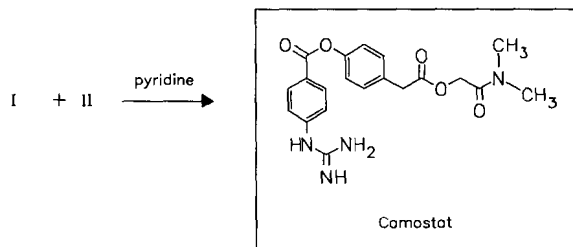
CN: 4-[[4-(aminoiminomethyl)amino]benzoyl]oxy]benzeneacetic acid 2-(dimethylamino)-2-oxoethyl ester

monomesylate

RN: 59721-29-8 MF: $\text{C}_{20}\text{H}_{22}\text{N}_4\text{O}_5 \cdot \text{CH}_4\text{O}_3\text{S}$ MW: 494.53

LD₅₀: 200 mg/kg (M, i.v.); 3 g/kg (M, p.o.);
 152 mg/kg (R, i.v.); 3 g/kg (R, p.o.)



*Reference(s):*

DOS 2 548 886 (Ono Pharmac.; appl. 31.10.1975; J-prior. 1.11.1974, 17.12.1974, 27.5.1975).

US 4 021 472 (Ono Pharmac.; 3.5.1977; J-prior. 1.11.1974, 17.12.1974, 27.5.1975).

GB 1 472 700 (Ono Pharmac.; appl. 23.10.1975; J-prior. 1.11.1974; 17.12.1974, 27.5.1975).

FR 2 289 181 (Ono Pharmac.; appl. 30.10.1975; J-prior. 1.11.1974, 17.12.1974, 27.5.1975).

Formulation(s): gran. 200 mg*Trade Name(s):*

J: Foipan (Ono; 1985)

Camphotamide

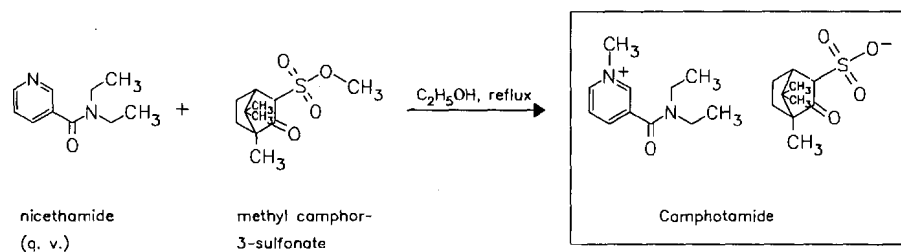
(Camphetamide)

ATC: N06

Use: analeptic

RN: 4876-45-3 MF: $C_{11}H_{17}N_2O \cdot C_{10}H_{15}O_4S$ MW: 424.56 EINECS: 225-484-2LD₅₀: 422 mg/kg (M, i.v.)

CN: 3-[(diethylamino)carbonyl]-1-methylpyridinium salt with 4,7,7-trimethyl-3-oxobicyclo[2.2.1]heptane-2-sulfonic acid (1:1)

*Reference(s):*

FR 812 032 (Soc. Franc. de Rech. Biochimiques; appl. 1936).

*Trade Name(s):*F: Tonicorine (Lemaitte et
Boinot); wfm**Camylofin**

(Acamylophenin)

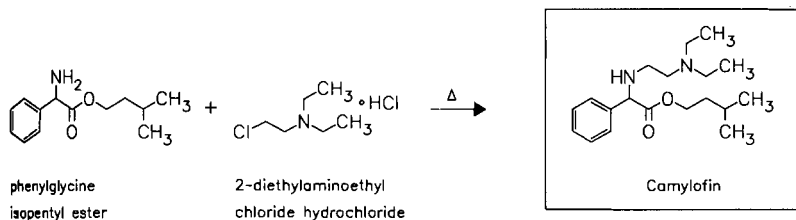
ATC: A03AA03

Use: antispasmodic

RN: 54-30-8 MF: $C_{19}H_{32}N_2O_2$ MW: 320.48 EINECS: 200-202-0LD₅₀: 760 mg/kg (M, p.o.) 2CN: α -[[2-(diethylamino)ethyl]amino]benzeneacetic acid 3-methylbutyl ester

dihydrochlorideRN: 5892-41-1 MF: $C_{19}H_{32}N_2O_2 \cdot 2HCl$ MW: 393.40 EINECS: 227-571-0LD₅₀: 49.2 mg/kg (M, i.v.); 760 mg/kg (M, p.o.);

>.15 g/kg (R, p.o.)

**Reference(s):**

DE 842 206 (ASTA; appl. 1950).

Formulation(s): amp. 24 mg/ml; drg. 60 mg; suppos. 40 mg**Trade Name(s):**

D: Avacan (ASTA Medica);

wfm

Avafortan (ASTA Medica)-

comb.; wfm

Avamigran (Degussa

Pharma/ASTA)-comb.;

wfm

Spasmo-Urolong

(Thiemann)-comb.; wfm

Ullus Apotheker Vetter

(Vetter)-comb.; wfm

F: Avafortan (Lucien)-comb.

I: Avacan (Schering); wfm

J: Adopon (Kowa); wfm

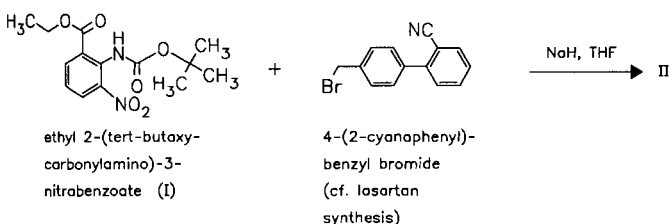
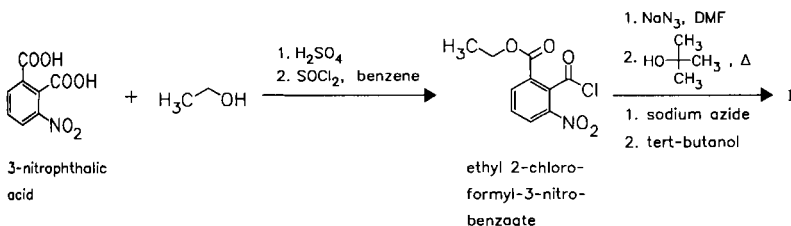
Avacan (Uji); wfm

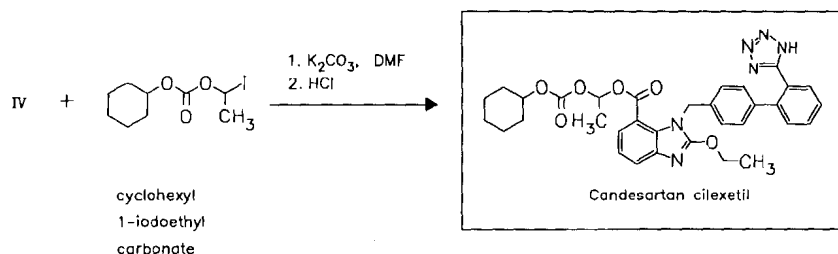
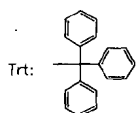
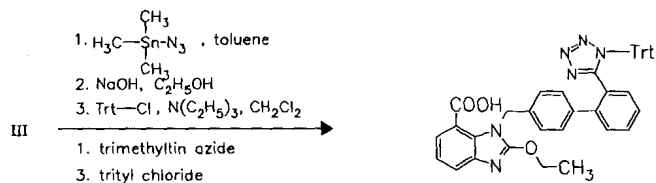
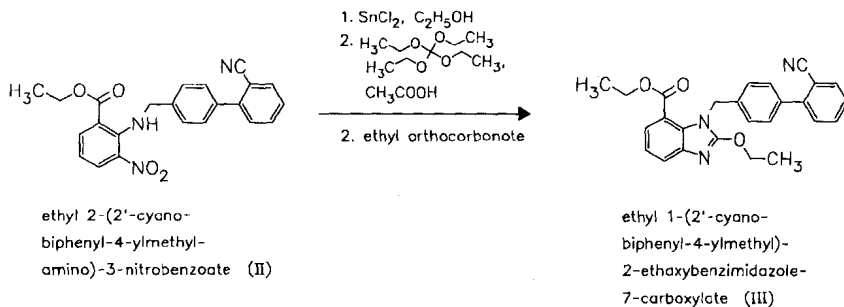
Rugo (Hokuriku); wfm

Candesartan cilexetil

(TCV-116)

Use: antihypertensive, angiotensin II antagonist

RN: 145040-37-5 MF: $C_{33}H_{34}N_6O_6$ MW: 610.67CN: (\pm)-2-ethoxy-1-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-1H-benzimidazole-7-carboxylic acid 1-[[[(cyclohexyloxy)carbonyl]oxy]ethyl ester

**Reference(s):**

EP 459 136 (Takeda Chem. Ind.; appl. 19.4.1991; J-prior. 27.4.1990, 30.5.1990, 1.10.1990).

Formulation(s): tabl. 4 mg, 8 mg, 16 mg

Trade Name(s):

D: Atacand (Astra/Promed)
Bloopress (Takeda)

GB: Amias (Astra; Takeda)
USA: Atacand (Astra)

Canthaxanthin

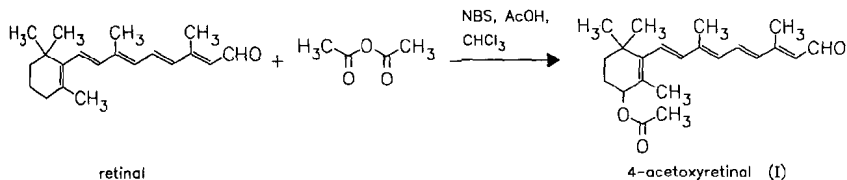
ATC: S01JA

Use: photoprotector, dye stuff

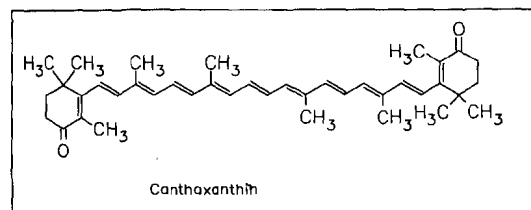
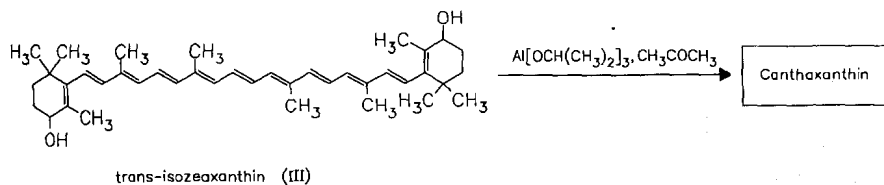
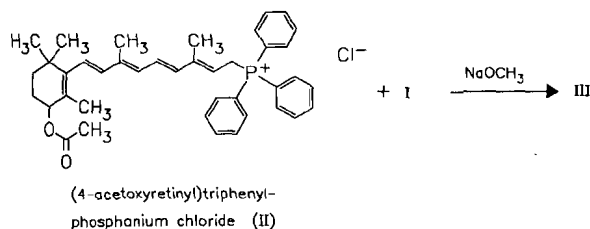
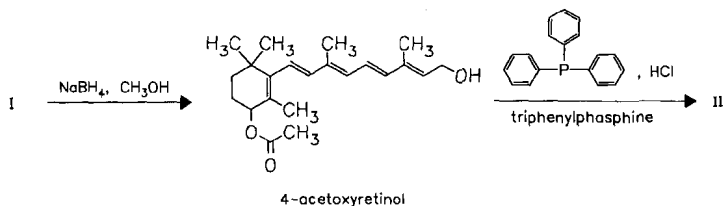
RN: 514-78-3 MF: $C_{40}H_{52}O_2$ MW: 564.85 EINECS: 208-187-2

LD₅₀: 10 g/kg (M, p.o.)

CN: β, β -carotene-4,4'-dione



(cf. beta-carotene synthesis)



Reference(s):

US 3 311 656 (Roche; 28.3.1967; appl. 12.5.1964).
 Surmatis, J.D. et al.: Helv. Chim. Acta (HCACAV) **53**, 974 (1970).

alternative syntheses:

DOS 2 037 935 (Roche; appl. 30.7.1970; CH-prior. 1.8.1969).
 US 4 000 198 (Roche; 28.12.1976; appl. 9.6.1975).
 DOS 2 625 259 (Roche; appl. 4.6.1976; USA-prior. 9.6.1975).

Formulation(s): gel 10 mg/600 mg; 15 mg/900 mg

Trade Name(s):

F: Phenoro "Roche" (Prod.
Roche S.A.R.L.)-comb.
with betacarotene

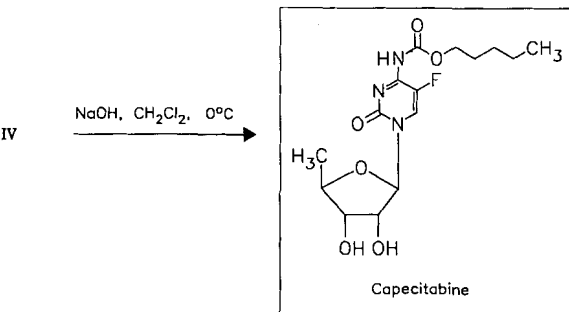
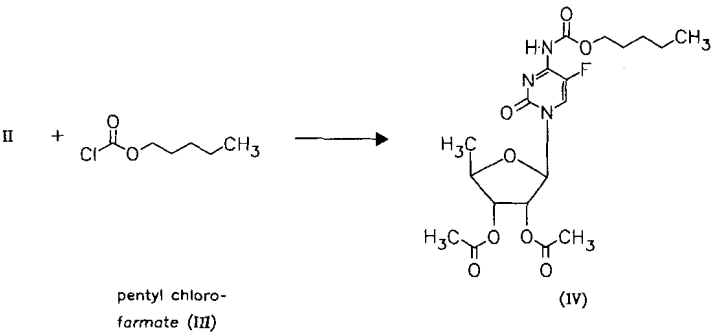
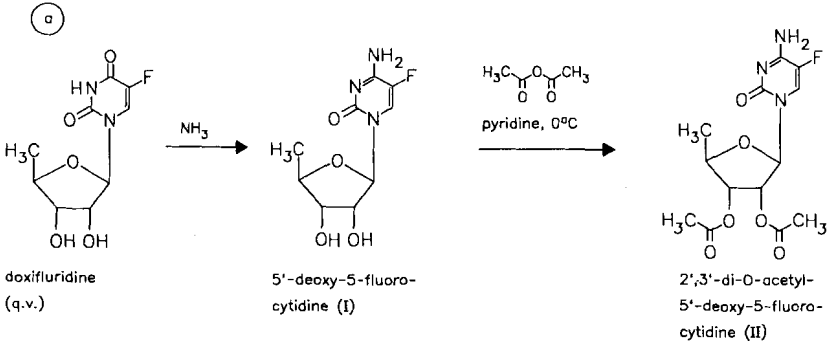
Capecitabine

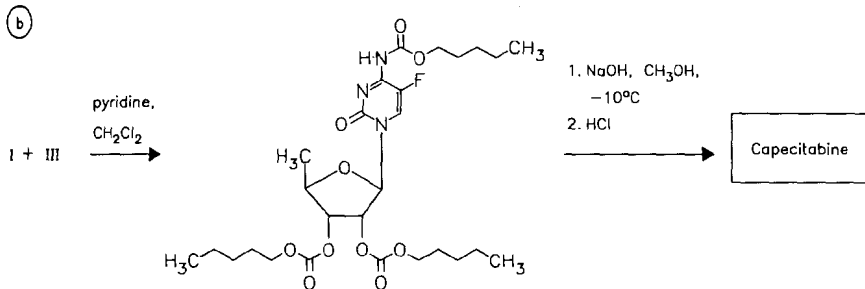
(Ro-09-1978)

ATC: L01BC06

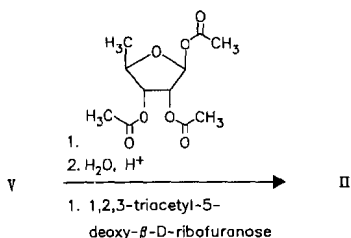
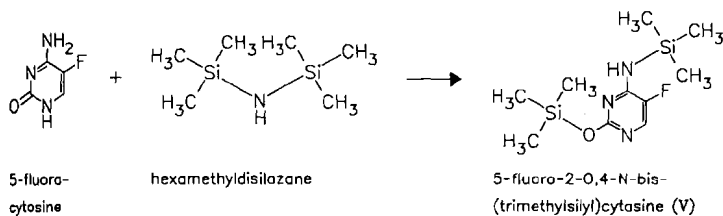
Use: anticancer, orally active prodrug of
doxifluridineRN: 154361-50-9 MF: $C_{15}H_{22}FN_3O_6$ MW: 359.35

CN: 5'-Deoxy-5-fluoro-N-[(pentyloxy)carbonyl]cytidine





alternative preparation of intermediate II



Reference(s):

- a EP 602 454 (Hoffmann-La Roche; appl. 1.12.1993; EP-prior. 18.12.1992)
US 5 472 949 (Hoffmann-La Roche; 5.12.1995; EP-prior. 18.12.1992).
- b US 5 476 932 (Hoffmann-La Roche; 19.12.1995; USA-prior. 26.8.1994)

compositions of interleukin and pyrimidine nucleosides:

WO 9 637 214 (Hoffmann-La Roche; appl. 15.5.1996; EP-prior. 26.5.1995)

Formulation(s): tabl. 150 mg, 500 mg

Trade Name(s):

USA: Xeloda (Roche; 1998)

Capreomycin

(Caprenomycin)

ATC: J04AB30

Use: tuberculostatic, peptide antibiotic

RN: 11003-38-6 MF: C₂₅H₄₄N₁₄O₈ MW: 668.72

LD₅₀: 238 mg/kg (M, i.v.)

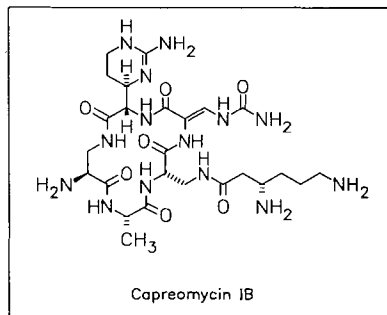
CN: capreomycin (mixture of capreomycin IB, IA, IIA and IIB)

sulfate

RN: 1405-37-4 MF: H₂SO₄ · unspecified MW: unspecified EINECS: 215-776-8

LD₅₀: 250 mg/kg (M, i.v.);

325 mg/kg (R, i.v.)



From culture of *Streptomyces capreolus* by ion-exchange adsorption.

Reference(s):

US 3 143 468 (Eli Lilly; 4.8.1964; appl. 25.5.1962; prior. 2.11.1959).

Formulation(s): vial 1 g

Trade Name(s):

D:	Ogostal (Lilly); wfm	J:	Capastat (Shionogi; as sulfate)
F:	Capastat (Lilly); wfm		
GB:	Capastat (King; as sulfate)	USA:	Capastat (Dura)

Captodiame

ATC: ·N05BB02

Use: psychoregulant, sedative

RN: 486-17-9 MF: C₂₁H₂₉NS₂ MW: 359.60 EINECS: 207-629-1

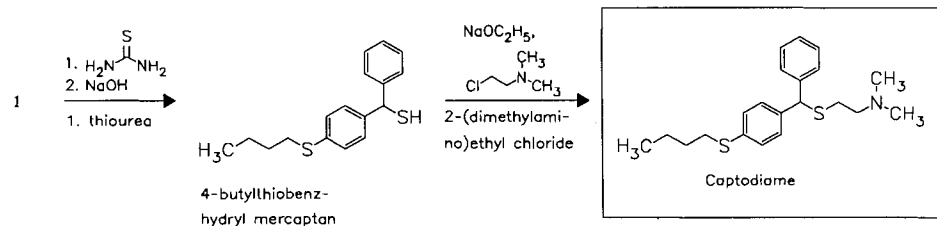
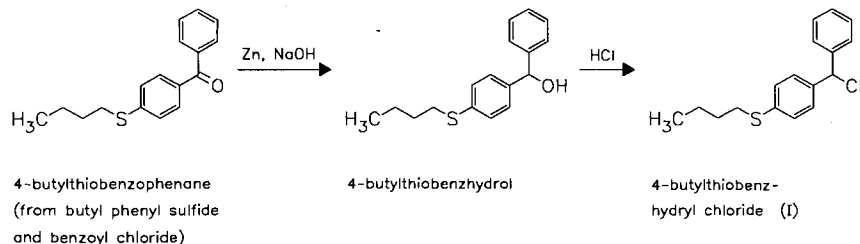
LD₅₀: 72 mg/kg (M, i.v.); 1630 mg/kg (M, p.o.);
3800 mg/kg (R, p.o.)

CN: 2-[[[4-(butylthio)phenyl]phenylmethyl]thio]-N,N-dimethylethanamine

hydrochloride

RN: 904-04-1 MF: C₂₁H₂₉NS₂ · HCl MW: 396.06 EINECS: 212-992-4

LD₅₀: 44 mg/kg (M, i.v.)



Reference(s):

US 2 830 088 (O.H. Hubner, P.V. Petersen; 1958; DK-prior. 1952).

Formulation(s): tabl. 50 mg

Trade Name(s):

F: Covatine (Bailly)

Captopril

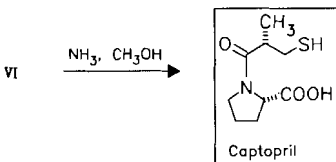
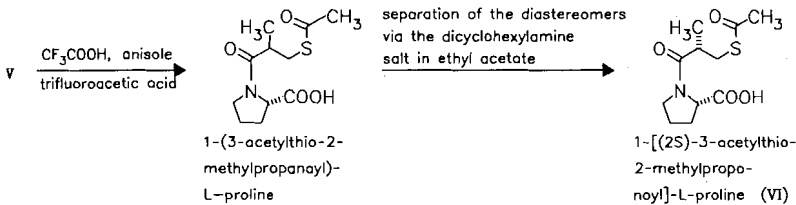
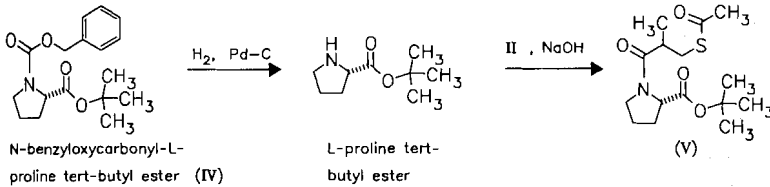
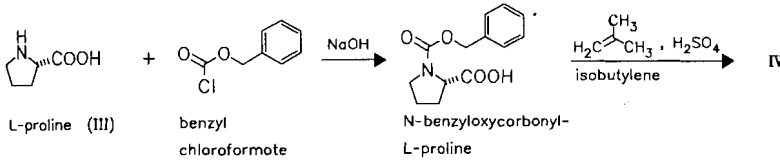
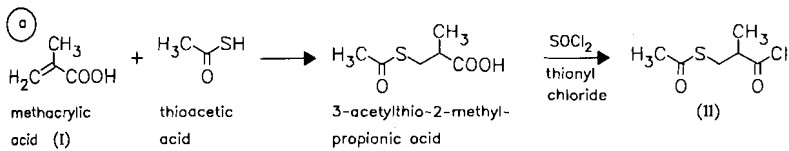
ATC: C09AA01

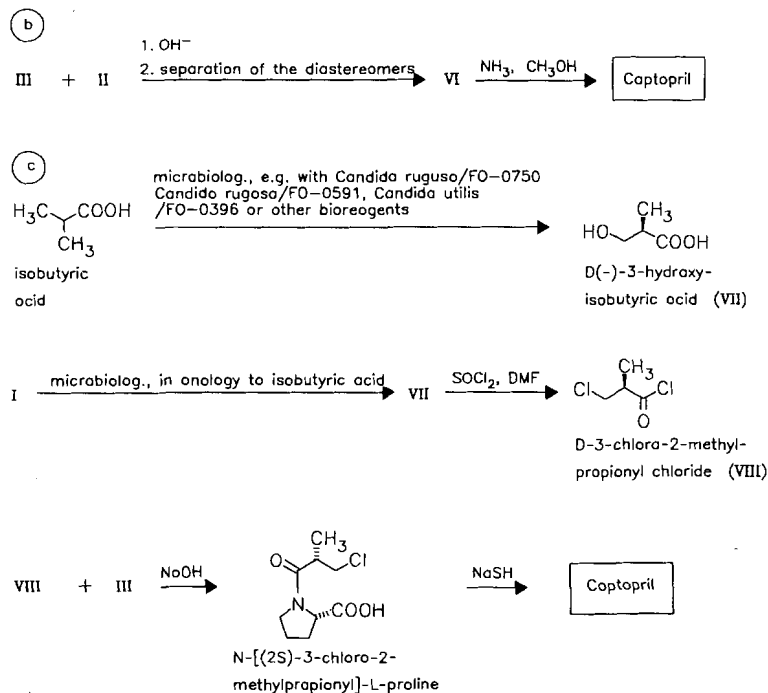
Use: antihypertensive (ACE inhibitor)

RN: 62571-86-2 MF: C₉H₁₅NO₃S MW: 217.29 EINECS: 263-607-1LD₅₀: 663 mg/kg (M, i.v.); 2500 mg/kg (M, p.o.);

554 mg/kg (R, i.v.); 4245 mg/kg (R, p.o.)

CN: (S)-1-(3-mercapto-2-methyl-1-oxopropyl)-L-proline





Reference(s):

- a,b** DOS 2 703 828 (Squibb; appl. 31.1.1977; USA-prior. 13.2.1976; 21.6.1976, 22.12.1976).
 US 4 046 889 (Squibb; 6.9.1977; appl. 13.2.1976).
 US 4 105 776 (Squibb; 8.8.1978; prior. 13.2.1976, 21.6.1976, 22.12.1976).
 US 4 154 840 (Squibb; 15.5.1979; prior. 13.2.1976, 21.6.1976, 22.12.1976, 9.3.1977).
 US 4 154 935 (Squibb; 15.5.1979; prior. 21.2.1978, 1.9.1978).
- c** GB 2 065 643 (Kanegafuchi; appl. 1.12.1980; J-prior. 13.12.1979, 28.12.1979, 8.3.1980).
 US 4 460 780 (Kanegafuchi; 17.7.1984; J-prior. 20.1.1982).

microbiological production of D(-)-3-hydroxyisobutyric acid:

US 4 310 635 (Kanegafuchi; 12.1.1982; J-prior. 6.11.1979, 14.2.1980, 7.7.1980).

similar methods with D- or DL-3-halogeno-2-methylpropionic acids as intermediates:

Nam, D.H. et al.: J. Pharm. Sci. (JPMSAE) **73**, 1843 (1984).
 DE 3 049 273 (Egyt; appl. 29.12.1980; HU-prior. 29.12.1979).
 US 4 332 725 (Egyt; 1.6.1982; HU-prior. 29.12.1979).
 GB 2 066 252 (Egyt; appl. 29.12.1980; HU-prior. 29.12.1979).
 US 4 399 144 (Wyeth; 16.8.1983; GB-prior. 30.4.1980).

alternative syntheses:

via 3-mercapto-2-D-methylpropionic acid:

US 4 384 139 (Kanegafuchi; 17.5.1983; J-prior. 20.8.1980).
 GB 2 082 174 (Kanegafuchi; appl. 7.8.1981; J-prior. 20.8.1980).

via 3-acylthio-2-D-methylpropionic acids:

EP 8 831 (Océ-Andeno; appl. 31.8.1979; NL-prior. 7.9.1978).

racemate resolution of DL-3-acylthio-2-methylpropionic acids:

EP 35 811 (Océ-Andeno; appl. 26.2.1981; NL-prior. 6.3.1980).
 US 4 346 045 (Océ-Andeno; 24.8.1982; NL-prior. 6.3.1980).
 US 4 297 282 (Sumitomo; 27.10.1981; J-prior. 2.3.1979, 13.3.1979, 28.6.1979, 25.7.1979).

racemization of L-3-acylthio-2-methylpropionic acids:

US 4 411 836 (Sumitomo; 25.10.1983; J-prior. 13.3.1979).

purification of captopril (removal of disulfide):

US 4 332 726 (Squibb; 1.6.1982; appl. 25.8.1980).

medical use for treatment of glaucoma:

EP 99 239 (Squibb; appl. 6.7.1983; USA-prior. 6.7.1982).

combination with diuretics:

DOS 2 854 316 (Squibb; appl. 15.12.1978; USA-prior. 27.12.1977).

controlled-release formulation:

US 4 505 890 (Squibb; 19.5.1985; appl. 30.6.1983).

Formulation(s): tabl. 6.25 mg, 12.5 mg, 25 mg, 50 mg

Trade Name(s):

D:	Capozide (Bristol-Myers Squibb; 1984)-comb. with hydrochlorothiazide	Lopril (Bristol-Myers Squibb; 1982)	Aceplus (Bristol-Myers Squibb)-comb.
	Lopirin (Bristol-Myers Squibb; 1981)	GB: Acepril (Ashbourne) Azecide (Ashbourne)-comb.	Acepress (Guidotti) Capoten (Bristol-Myers Squibb; 1981)
	Tensobon (Schwarz; 1983)	Capoten (Bristol-Myers Squibb; 1981)	J: Captoril (Sankyo; 1983)
F:	Captéa (Bellon)-comb. Captolane (Bellon; 1984)	Capozide (Bristol-Myers Squibb)-comb.	USA: Capoten (Bristol-Myers Squibb; 1981)
	Ecazide (Bristol-Myers Squibb)-comb.	I: Acediur (Guidotti)-comb.	Capozide (Bristol-Myers Squibb; 1986)

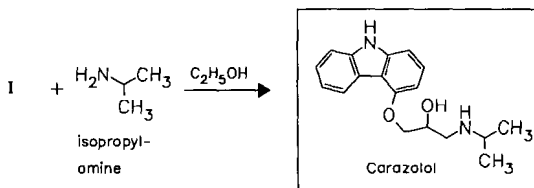
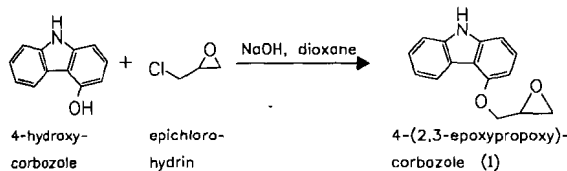
Carazolol

ATC: C07AA

Use: non-selective β -adrenoceptor blocker, antihypertensive, antianginal

RN: 57775-29-8 MF: $C_{18}H_{22}N_2O_2$ MW: 298.39 EINECS: 260-945-1

CN: 1-(9H-carbazol-4-yloxy)-3-[(1-methylethyl)amino]-2-propanol



Reference(s):

DOS 2 240 599 (Boehringer Mannh.; appl. 18.8.1972).

GB 1 369 580 (Boehringer Mannh.; valid from 9.10.1974; D-prior. 18.8.1972).

synthesis of 4-hydroxycarbazole:

DOS 2 928 483 (Boehringer Mannh., appl. 14.7.1979).

Formulation(s): tabl. 5 mg

Trade Name(s):

D: Conducton (Klinge)

Carbachol

(Carbacholine)

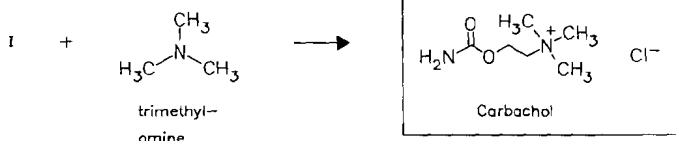
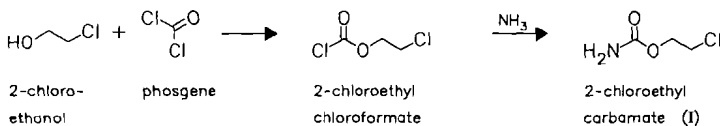
ATC: N07AB01; S01EB02

Use: parasympathomimetic

RN: 51-83-2 MF: C₆H₁₅ClN₂O₂ MW: 182.65 EINECS: 200-127-3LD₅₀: 300 µg/kg (M, i.v.); 15 mg/kg (M, p.o.);

100 µg/kg (R, i.v.); 40 mg/kg (R, p.o.)

CN: 2-[(aminocarbonyl)oxy]-N,N,N-trimethylethanaminium chloride



Reference(s):

DRP 539 329 (E. Merck AG; appl. 1930).

DRP 553 148 (E. Merck AG; appl. 1930).

DRP 590 311 (E. Merck AG; appl. 1932).

Hayworth, R.D. et al.: J. Chem. Soc. (JCSOA9) 1947 176.

alternative synthesis from choline chloride:

US 2 374 367 (Merck & Co.; 1945; prior. 1943).

Formulation(s): amp. 0.25 mg; tabl. 2 mg

Trade Name(s):

D: Carbamann (Mann)

Doryl (Merck)

Isopto-Carbachol (Alcon)

Jesytryl (Chauvin

ankerpharm)

F: Iricoline (Lematte et

Boinot); wfm

Isopto Carbachol (Alcon);

wfm

GB: Isopto-Carbachol (Alcon)-

comb.

I: Mios (Intes)-comb.

J: Calpinol (Tanabe)

USA: Isopto Carbachol Solut.

(Alcon)

Carbamazepine

ATC: N03AF01; N03AX

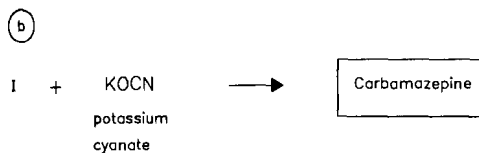
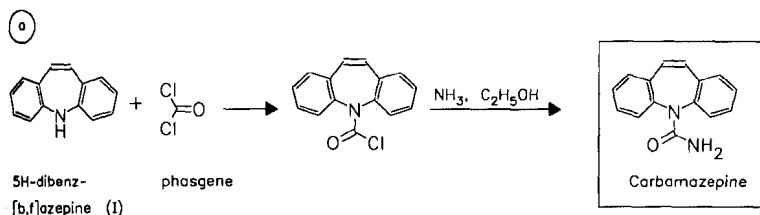
Use: antiepileptic, anticonvulsant

RN: 298-46-4 MF: C₁₅H₁₂N₂O MW: 236.27 EINECS: 206-062-7LD₅₀: 529 mg/kg (M, p.o.);

1957 mg/kg (R, p.o.);

5620 mg/kg (dog, p.o.)

CN: 5H-dibenz[b,f]azepine-5-carboxamide

**Reference(s):**

US 2 948 718 (Geigy; 9.8.1960; CH-prior. 20.12.1957).

alternative synthesis:

DD 133 052 (R. Müller; appl. 8.9.1977).

Formulation(s): s. r. tabl. 200 mg, 400 mg; susp. 100 mg; tabl. 200 mg

Trade Name(s):

D:	Finlepsin (ASTA Medica AWD; Boehringer Mannh.)	Timonil (Desitin)	J:	Tegretol (Fujisawa)
	Sirtal (Merck Generika)	F:	Tegréto (Novartis)	USA: Epitol (Teva)
	Tegretal (Novartis Pharma)	GB:	Tegretol (Novartis)	Tegretol (Novartis)
		I:	Tegretol (Novartis)	

N-Carbamoyl-L-aspartic acid calcium salt

Use: psychoenergetic, tranquilizer

(Calcii carbaspartas)

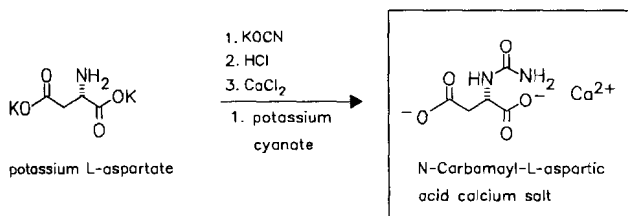
RN: 16649-79-9 MF: C₅H₆CaN₂O₅ MW: 214.19 EINECS: 240-698-6

CN: N-(aminocarbonyl)-L-aspartic acid calcium salt (1:1)

N-carbamoyl-L-aspartic acid

RN: 13184-27-5 MF: C₅H₈N₂O₅ MW: 176.13 EINECS: 236-134-3

LD₅₀: >1 g/kg (M, p.o.)

**Reference(s):**

FR-M 6 376 (Roussel-Uclaf; appl. 18.4.1967).

Trade Name(s):

F:	Cycluran (Salvoxyl-Wander); wfm	Cycluran (Salvoxyl-Wander; as L-ornithine-salt); wfm	Pacilan (Syntex-Daltan); wfm
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Carbasalate calcium

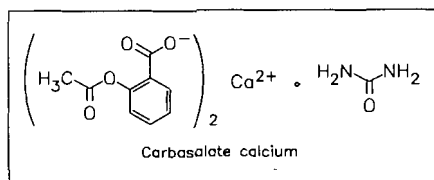
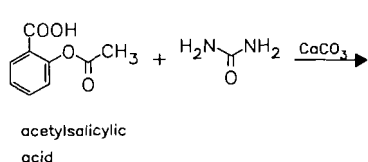
(Calcium carbaspirin)

ATC: B01AC08; N02BA15

Use: analgesic

RN: 5749-67-7 MF: $C_{18}H_{14}CaO_8 \cdot CH_4N_2O$ MW: 458.44 EINECS: 227-273-0

CN: 2-(acetyloxy)benzoic acid calcium salt compd. with urea (1:1)



Reference(s):

Parrott, E.L.: J. Pharm. Sci. (JPMSAE) **51**, 897 (1962).

calcium acetylsalicylate:

US 2 003 374 (Lee Labs.; 1935; appl. 1932).

Formulation(s): tabl. 500 mg

Trade Name(s):

D:	Iromin (Omegin); wfm	USA: Fiogestic (Sandoz); wfm	Ursinus Inlay-Tabs (Dorsey); wfm
F:	Solupsan (UPSA)		

Carbazochrome

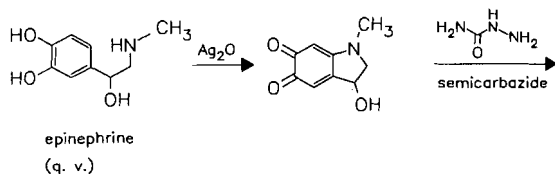
ATC: B02BX02

Use: antihemorrhagic, hemostatic

RN: 69-81-8 MF: $C_{10}H_{12}N_4O_3$ MW: 236.23 EINECS: 200-717-0LD₅₀: >35.832 g/kg (M, p.o.);

>17.280 g/kg (R, p.o.)

CN: 2-(1,2,3,6-tetrahydro-3-hydroxy-1-methyl-6-oxo-5H-indol-5-ylidene)hydrazinecarboxamide



Reference(s):

US 2 506 294 (Soc. Belge de l'Azote et des Prod. Chim.; 1950; B-prior. 1943).

GB 806 908 (Labaz; appl. 1957; USA-prior. 1956).

US 3 244 591 (Endo Labs.; 5.4.1966; appl. 10.8.1960).

oxidation of adrenaline with persulfate:

DOS 2 713 652 (Nippon Gohsei; appl. 28.3.1977; J-prior. 31.3.1976).

Formulation(s): inj. sol. 1.5 mg/3.6 ml, 50 mg/10 ml; tabl. 2.5 mg, 10 mg

Trade Name(s):

D:	Adrenoxyl (Sanofi Winthrop)	Adona (Tanabe) Adonamin (Kanto)	Chichina (Fuso) Donaseven (Kini Yakult Seizo)
F:	Adrénoxyl (Labaz); wfm Bivenon (Lab. Français de Thérapeutique); wfm	Adorzon (Hokuriku) Adostill-AC (Dojin Iyaku) Adozon (Kyorin)	Kealain (Funai) Ohproton (Ohta)
I:	Fleboside (Synthelabo)- comb.	Adrechros (Toho Iyaku) Adrezon (Ono)	Olynate (Sanwa) Perichron (Toho Yakuhin)
J:	Adcal (Nissin) Adedolon (Sanwa) Adcnaron (Kowa) Adnamin (Kanto)	Blochel (Mochida) Carbazon (Hokuriku) Carbinate (Fuji Zoki) Carnamid (Kanebo)	Shiketsumin (Ohta) Tazin (Grelan) USA: Adrenosem (Beecham- Massengill); wfm

Carbenicillin

ATC: J01CA03

Use: antibiotic

RN: 4697-36-3 MF: $C_{17}H_{18}N_2O_6S$ MW: 378.41 EINECS: 225-171-0

LD₅₀: 2363 mg/kg (M, i.v.)

CN: [2S-(2 α ,5 α ,6 β)]-6-[(carboxyphenylacetyl)amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

disodium salt

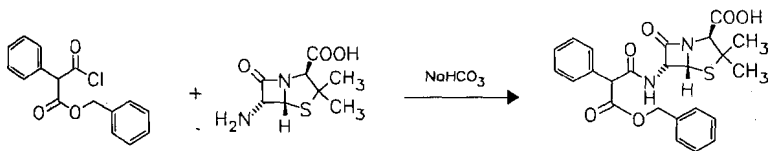
RN: 4800-94-6 MF: $C_{17}H_{16}N_2Na_2O_6S$ MW: 422.37 EINECS: 225-360-8

LD₅₀: 4500 mg/kg (M, i.v.); >12 g/kg (M, p.o.);

6800 mg/kg (R, i.v.); >10 g/kg (R, p.o.)

monopotassium salt

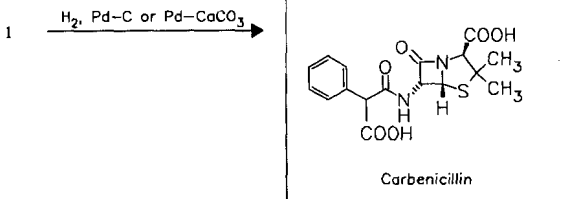
RN: 17230-86-3 MF: $C_{17}H_{17}KN_2O_6S$ MW: 416.50 EINECS: 241-269-6



phenylmalonic acid
benzyl ester chloride

6-aminopenicillanic acid

carbenicillin benzyl ester (I)



Carbenicillin

Reference(s):

US 3 142 673 (Pfizer; 28.7.1964; appl. 31.3.1961).
 US 3 282 926 (Beecham; 1.11.1966; GB-prior. 23.4.1963).
 US 3 492 291 (Beecham; 27.1.1970; GB-prior. 23.4.1963).
 DE 1 295 558 (Beecham; appl. 23.4.1964; GB-prior. 23.4.1963).
 GB 1 004 670 (Beecham; appl. 23.4.1963; valid from 20.4.1964).
 GB 1 197 973 (Beecham; appl. 18.4.1967).
 DAS 1 770 225 (Beecham; appl. 18.4.1968; GB-prior. 18.4.1967).

from phenylmalonic acid monochloride:

DAS 2 244 556 (Pfizer; appl. 11.9.1972; USA-prior. 1.10.1971).

alternative syntheses:

DE 1 931 097 (Koninkl. Nederland. Gisten Spiritusfabriek; appl. 19.6.1969; NL-prior. 19.6.1968).
 DE 1 966 702 (Koninkl. Nederland. Gisten Spiritusfabriek; appl. 19.6.1969; NL-prior. 19.6.1968).
 DOS 2 622 456 (Bayer; appl. 20.5.1976).

Formulation(s): tabl. 382 mg

Trade Name(s):

D:	Anabactyl (Beecham); wfm	I:	Geopen (Pfizer; as sodium salt)	Pyopen (Beecham-Massengill); wfm
	Carindapen (Pfizer); wfm			
	Microcillin (Bayer); wfm	J:	Gripenin (Fujisawa; as sodium salt)	
F:	Pyopen (Beecham-Sévigné); wfm	USA:	Geopen (Roerig); wfm	

Carbenoxolone

ATC: A02BX01

Use: peptic ulcer therapeutic

RN: 5697-56-3 MF: C₃₄H₅₀O₇ MW: 570.77 EINECS: 227-174-2

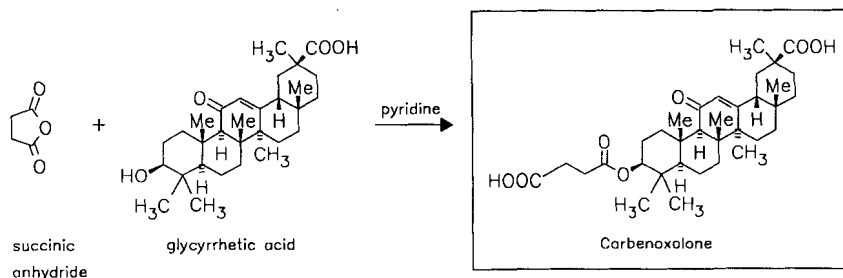
LD₅₀: 290 mg/kg (M, i.v.); 1400 mg/kg (M, p.o.);
 2450 mg/kg (R, p.o.);
 371 mg/kg (dog, i.v.)

CN: (3β,20β)-3-(3-carboxy-1-oxopropoxy)-11-oxoolean-12-en-29-oic acid

disodium salt

RN: 7421-40-1 MF: C₃₄H₄₈Na₂O₇ MW: 614.73 EINECS: 231-044-0

LD₅₀: 198 mg/kg (M, i.v.);
 2450 mg/kg (R, p.o.);
 371 mg/kg (dog, i.v.); 3900 mg/kg (dog, p.o.)

*Reference(s):*

DE 1 076 684 (Biorex; appl. 1.7.1958; GB-prior. 16.7.1957).
 US 3 070 623 (Biorex; 25.12.1962; GB-prior. 16.7.1957).
 US 3 262 851 (Biorex; 26.7.1966; GB-prior. 16.7.1957).

Formulation(s): tabl. 50 mg

Trade Name(s):

D: Biogastrone/-Duodenal Degussa(Homburg); wfm Neogel (Homburg); wfm Ulcus-Tabliten (Beiersdorf-Tabliten); wfm Ulcus-Tabliten (Sanorania); wfm	F: Duogastrone (Merrell); wfm	GB: Bioral (SmithKline Beecham)	J: Biogastrone (Richardson- Merrell-Shionogi)
I: Gastrasil (ISF); wfm			

Carbidopa

ATC: N04BA02

Use: decarboxylase inhibitor (at levodopa therapy)

RN: 28860-95-9 MF: $C_{10}H_{14}N_2O_4$ MW: 226.23 EINECS: 249-271-9

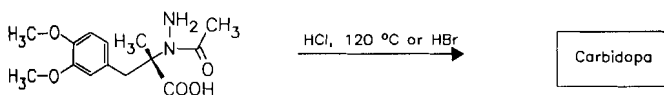
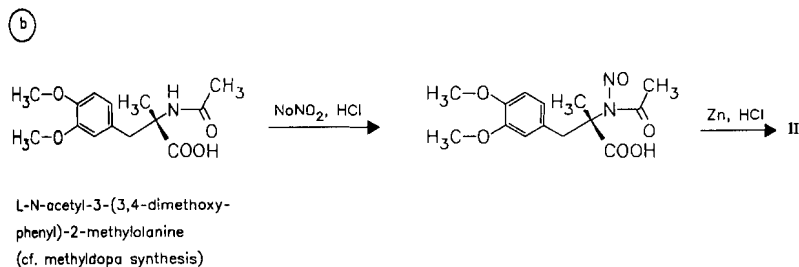
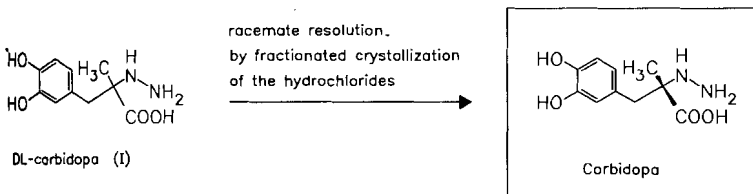
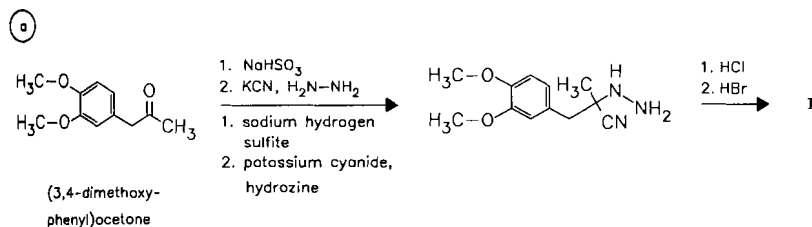
LD₅₀: 468 mg/kg (M, i.p.);

2804 mg/kg (R, i.p.)

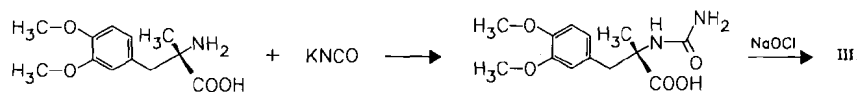
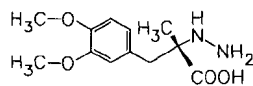
CN: (S)- α -hydrazino-3,4-dihydroxy- α -methylbenzenepropanoic acid

monohydrate

RN: 38821-49-7 MF: $C_{10}H_{14}N_2O_4 \cdot H_2O$ MW: 244.25



c

L-3-(3,4-dimethoxy-
phenyl)-2-methylalaninepotassium
cyanateL-3-(3,4-dimethoxy-
phenyl)-2-hydrozino-
2-methylalanine (III)

Carbidopa

Reference(s):

DL-carbidopa:

US 3 462 536 (Merck & Co.; 19.8.1969; prior. 28.7.1960 and 29.6.1961).

GB 940 596 (Merck & Co.; appl. 17.7.1961; USA-prior. 28.7.1960).

carbidopa:

DOS 2 062 285 (Merck & Co.; appl. 17.12.1970; USA-prior. 18.12.1969, 5.2.1970, 24.2.1970, 25.3.1970).

DOS 2 062 332 (Merck & Co.; appl. 17.12.1970; USA-prior. 18.12.1969, 5.2.1970, 24.2.1970, 25.3.1970).

Karady, S. et al.: J. Org. Chem. (JOCEAH) **36**, 1946, 1949 (1971).*alternative synthesis from methyl dopa:*

US 3 781 415 (Merck & Co.; 25.12.1973; appl. 9.9.1971; prior. 18.6.1969).

US 3 830 827 (Merck & Co.; 20.8.1974; appl. 7.9.1972; prior. 18.6.1969).

combination with m-tyrosine:

US 3 839 585 (Merck & Co.; 1.10.1974; appl. 30.4.1973; prior. 5.8.1970).

combination with benzimidazolyl- and benzoxazolylalanines:

US 4 069 333 (Merck & Co.; 17.1.1978; appl. 8.2.1977; prior. 13.2.1976).

combination with other antihypertensives:

US 4 086 354 (Merck & Co.; 25.4.1978; prior. 13.2.1976, 8.2.1977).

combination with hydralazine:

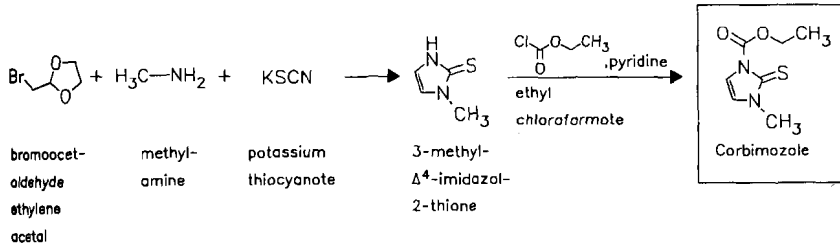
US 4 055 645 (Merck & Co.; 25.10.1977; appl. 13.2.1976).

Formulation(s): s. r. tabl. 27 mg, 54 mg; tabl. 27 mg**Trade Name(s):**

D:	isicom (Desitin)	GB:	Sinemet (Du Pont)-comb. with levodopa	Neodopaston (Sankyo)- comb. with levodopa
	Nacom (Du Pont Pharma)- comb. with levodopa	I:	Sinemet (Du Pont Pharma Italia)-comb. with levodopa	USA: Atamet (Athena)
	Striaton (Knoll)	J:	Menesit (Merck-Banyu)- comb. with levodopa	Sinemet (Du Pont)
F:	Sinemet (Du Pont Pharma)- comb. with levodopa			

CarbimazoleATC: H03BB01
Use: antithyroid drugRN: 22232-54-8 MF: C₇H₁₀N₂O₂S MW: 186.24 EINECS: 244-854-4

CN: 2,3-dihydro-3-methyl-2-thioxo-1H-imidazole-1-carboxylic acid ethyl ester

**Reference(s):**

US 2 671 088 (Nat. Res. Dev. Corp.; 1954; GB-prior. 1951).
 US 2 815 349 (Nat. Res. Dev. Corp.; 1957; GB-prior. 1956).
 Baker, J.A.: J. Chem. Soc. (JCSOA9) **1958**, 2387.

Formulation(s): tabl. 5 mg, 10 mg

Trade Name(s):

D: Neo-Thyreostat (Herbrand) I: Carbotiroid (Borromeo);
F: Néo-Mercazole (Nicholas) wfm
GB: Neo-Mercazole (Roche) Neo-Tireol (Granata); wfm

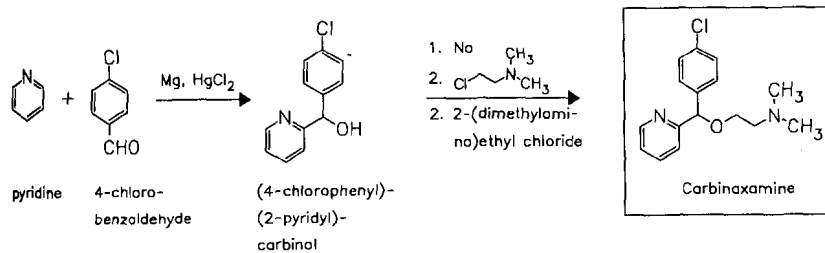
Carbinoxamine

ATC: R06AA08
Use: antihistaminic

RN: 486-16-8 **MF:** C₁₆H₁₉ClN₂O **MW:** 290.79 **EINECS:** 207-628-6
LD₅₀: 18 mg/kg (M, i.v.)
CN: 2-[(4-chlorophenyl)-2-pyridinylmethoxy]-N,N-dimethylethanamine

maleate (1:1)

RN: 3505-38-2 **MF:** C₁₆H₁₉ClN₂O · C₄H₄O₄ **MW:** 406.87 **EINECS:** 222-498-0
LD₅₀: 32 mg/kg (M, i.v.); 162 mg/kg (M, p.o.)

**Reference(s):**

US 2 606 195 (Merrell; 1952; prior. 1947).

alternative synthesis:

US 2 800 485 (McNeil; 1957; appl. 1955).

Formulation(s): tabl. 2 mg

Trade Name(s):

D: Polistin T-Caps (Trommsdorff) **F:** Allergefon (Lafon) Humex Fournier gélule (Urgo)-comb. **J:** Torfam (Abbott)-comb. Chlorcap Nyscap (S. S. Pharm.; as maleate) Hislosine (Toho)
Rhinopront (Mack, Illert.)
Rhinotussal (Mack, Illert.) **I:** Rondec (Abbott)-comb.

USA: Biohist (Wakefield)
Rondec (Dura; as maleate)

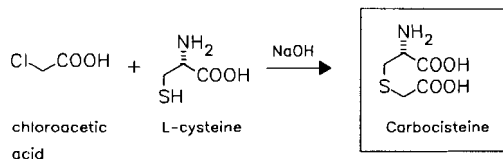
Carbocisteine
(Carboxymethylcysteine)

ATC: R05CB03
Use: secretolytic, mucolytic agent

RN: 638-23-3 MF: C₅H₉NO₄S MW: 179.20 EINECS: 211-327-5

LD₅₀: 8400 mg/kg (M, p.o.);
>15 g/kg (R, p.o.)

CN: S-(carboxymethyl)-L-cysteine



Reference(s):

FR 1 288 907 (Rech. et Propagande Scientifiques; appl. 15.2.1961).

preparation from L-cystine:

DAS 2 647 094 (Degussa; appl. 19.10.1976).

US 4 129 593 (Degussa; 12.12.1978; D-prior. 19.10.1976).

Formulation(s): cps. 375 mg; syrup 280 mg

Trade Name(s):

D:	Mucopront (Mack, Illert.) Sedotussin (Rodleben; UCB; Vedim) Transbronchin (ASTA Medica AWD)		Cadotussyl (Whitehall) Drill Expectorant (Pierre Fabre) Fluditec (Innotech International)		Fluifort (Dompé) Lisil (KBR) Lisomucil (Synthelabo) Mucocis (Crosara) Mucojet (Polifarma) Mucolase (Lampugnani) Mucosol (Tosi-Novara) Mucotreis (Ecobi) Polimucil (Poli)-comb. Reomucil (Astra-Simes) Solfomucil (Locatelli) Solucis (Magis) Superthiol (Francia Farm.)
F:	Bronchathiol (Martin- Johnson & Johnson-MSD) Bronchocyst (SmithKline Beecham) Bronchokod (Biogalénique) Broncloclar (Oberlin) Broncorinol (Roche Nicholas) Bronkirex (Irex)		Fluvic (Pierre Fabre) Médibronc (Elerté) Muciclar (Parke Davis) Mucotrophir (Sanofi Winthrop) Pectasan (RPR Cooper) Rhinathiol (Joullié)	GB:	Mucodyne (Rhône-Poulenc Rorer)
		I:	Carbocit (CT)	J:	Mucodyne (Kyorin)

Carbocromen
(Carbochromen; Chromonar)

ATC: C01DX05
Use: coronary vasodilator

RN: 804-10-4 MF: C₂₀H₂₇NO₅ MW: 361.44 EINECS: 212-356-6

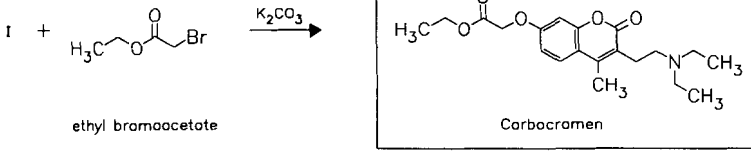
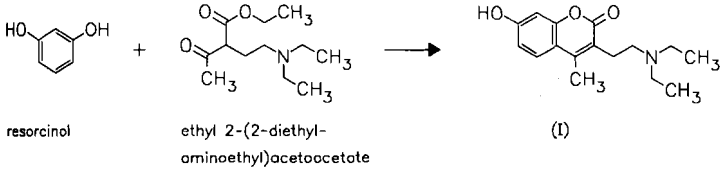
LD₅₀: 35.5 mg/kg (M, i.v.); 6300 mg/kg (M, p.o.)

CN: [[3-[2-(diethylamino)ethyl]-4-methyl-2-oxo-2H-1-benzopyran-7-yl]oxy]acetic acid ethyl ester

hydrochloride

RN: 655-35-6 MF: C₂₀H₂₇NO₅ · HCl MW: 397.90 EINECS: 211-511-5

LD₅₀: 34 mg/kg (M, i.v.); 6300 mg/kg (M, p.o.);
8 g/kg (R, p.o.)



Reference(s):

- BE 621 327 (Cassella; appl. 10.8.1962; D-prior. 12.8.1961).
- DE 1 210 883 (Cassella; appl. 9.11.1961).
- US 3 282 938 (Cassella; 1.11.1966; D-prior. 12.8.1961, 9.11.1961, 26.1.1962).

Formulation(s): cps. 75 mg, 150 mg; tabl. 450 mg

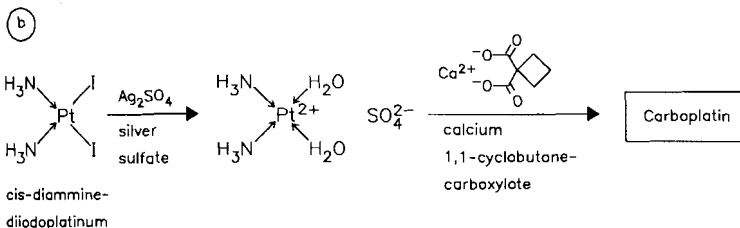
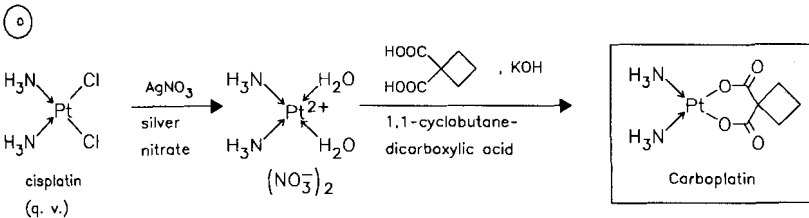
Trade Name(s):

- | | |
|-------------------------------------|---|
| D: Intensain (Hoechst) | I: Cardiocap (Miba; as hydrochloride) |
| F: Intensain (Diamant); wfm | J: Intensain (Takeda; as hydrochloride) |
| Sédo-Intensain (Diamant)-comb.; wfm | |

Carboplatin
(CBDCA; Paraplatin)

ATC: L01XA02
Use: antineoplastic

RN: 41575-94-4 MF: C₆H₁₂N₂O₄Pt MW: 371.25 EINECS: 255-446-0
 LD₅₀: 150 mg/kg (M, i.p.); 140 mg/kg (M, i.v.); 85 mg/kg (R, i.v.)
 CN: (SP-4-2)-diammine[1,1-cyclobutanedi(carboxylato-κO)(2-)]platinum



Reference(s):

- a US 4 140 707 (Research Corp.; 20.2.1979; prior. 8.6.1972).
 DE 2 329 485 (Research Corp.; appl. 8.6.1973; USA-prior. 8.6.1972).
 GB 1 380 228 (Research Corp.; Complete specification 8.1.1975; USA-prior. 8.6.1972).
- b Harrison, R.C. et al.: Inorg. Chim. Acta (ICHAA3) **46**, L15 (1980).

Formulation(s): vial 50 mg/5 ml, 150 mg/15 ml, 450 mg/45 ml

Trade Name(s):

D:	Carboplat (Bristol-Myers Squibb)	GB:	Paraplatin (Bristol-Myers Squibb; 1985)	USA:	Paraplatin (Bristol-Myers Squibb Oncology/Immunology)
	Ribocarbo (ribosepharm)	I:	Paraplatin (Bristol It. Sud)		
F:	Paraplatine (Bristol-Myers Squibb)	J:	Paraplatin (Bristol-Myers Squibb)		

Carboquone

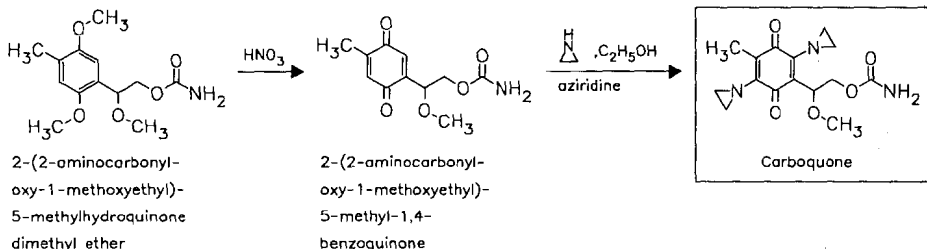
(Carbazilquinone)

ATC: L01AC03
 Use: antineoplastic

RN: 24279-91-2 MF: C₁₅H₁₉N₃O₅ MW: 321.33

LD₅₀: 5430 µg/kg (M, i.v.); 28.6 mg/kg (M, p.o.);
 3620 µg/kg (R, i.v.); 27.3 mg/kg (R, p.o.)

CN: 2-[2-[(aminocarbonyl)oxy]-1-methoxyethyl]-3,6-bis(1-aziridinyl)-5-methyl-2,5-cyclohexadiene-1,4-dione



Reference(s):

- DOS 1 905 224 (Sankyo; appl. 28.1.1969; J-prior. 29.1.1968, 28.12.1968).
 Nakao, H. et al.: Ann. Sankyo Res. Lab. (SKKNAJ) **27**, 1 (1976).

Formulation(s): amp. 1 mg; tabl. 0.5 mg

Trade Name(s):

J:	Carbazilquinone (Sankyo)	Esquinone (Sankyo)
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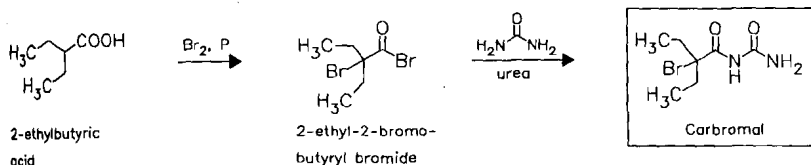
Carbromal

ATC: N05CM04
 Use: sedative, hypnotic

RN: 77-65-6 MF: C₇H₁₃BrN₂O₂ MW: 237.10 EINECS: 201-046-6

LD₅₀: 464 mg/kg (M, p.o.);
 427 mg/kg (R, i.v.); 316 mg/kg (R, p.o.)

CN: N-(aminocarbonyl)-2-bromo-2-ethylbutanamide



Reference(s):
DRP 225 710 (Bayer; 1909).

Formulation(s): drg. 250 mg

Trade Name(s):

D: Adalin (Bayer); wfm	Mirfurdorm (Merckle); wfm	F: Divalentyl (Promedica)-comb.; wfm
Addisomnol (Synochem); wfm	Staurodorm Neu (Dolorgict)-comb.; wfm	Dormopan (Bayer-Pharma)
Mirfudorm (Diabetylin); wfm		I: Bonares (ISF)-comb.; wfm
		Contradol Merz (SIT); wfm

Carbutamide

(Butylcarbamide; Glybutamide)

ATC: A10BB06

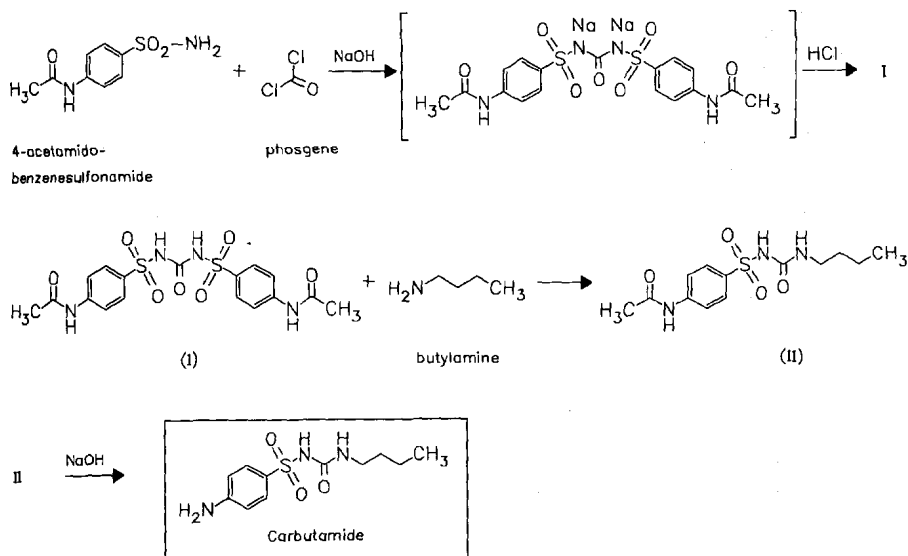
Use: antidiabetic

RN: 339-43-5 MF: $\text{C}_{11}\text{H}_{17}\text{N}_3\text{O}_3\text{S}$ MW: 271.34 EINECS: 206-424-4

LD₅₀: 1920 mg/kg (M, i.v.); 2800 mg/kg (M, p.o.);

980 mg/kg (R, i.v.); 7800 mg/kg (R, p.o.)

CN: 4-amino-N-[(butylamino)carbonyl]benzenesulfonamide



Reference(s):
DE 1 117 103 (Boehringer Mannh.; appl. 1953).
US 2 907 692 (Boehringer Mannh.; 6.10.1959; D-prior. 11.2.1953).
Haack, E.: *Arzneim.-Forsch. (ARZNAD)* **8**, 444 (1958).

Formulation(s): tabl. 0.5 g

Trade Name(s):

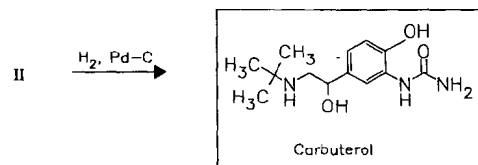
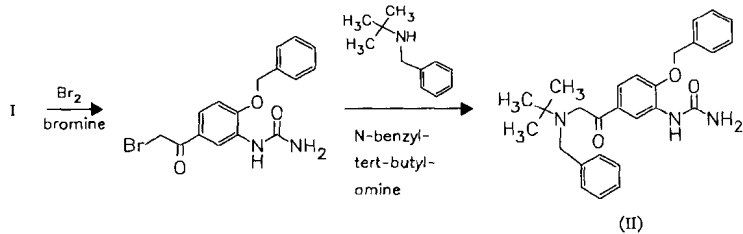
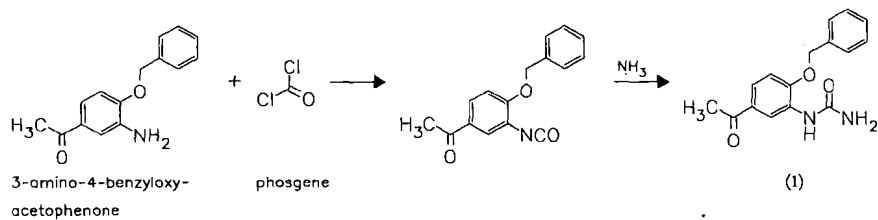
D: Dia-Tabliten (Sanorania); wfm Invenol (Hoechst); wfm Nadisan (Boehringer Mannh.); wfm	F: Glucidoral (Servier) I: Diabetoplex (Vaillant); wfm Insoral (Valeas); wfm Invenol (Hoechst); wfm	J: Mellitos (Oho) Rovan (Sumitomo)
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Carbuterol

ATC: R03AC10; R03CC10

Use: selective β -adrenoceptor agonist,
bronchodilatorRN: 34866-47-2 MF: $C_{13}H_{21}N_3O_3$ MW: 267.33 EINECS: 252-257-5LD₅₀: 38 mg/kg (M, i.v.); 3134 mg/kg (M, p.o.);
77,2 mg/kg (R, i.v.)

CN: [5-[2-[(1,1-dimethylethyl)amino]-1-hydroxyethyl]-2-hydroxyphenyl]urea



Reference(s):

- US 3 763 232 (Smith Kline & French; 2.10.1973; prior. 17.2.1970, 11.1.1971).
 DOS 2 106 620 (Smith Kline & French; appl. 12.2.1971; USA-prior. 17.2.1970).
 US 3 917 847 (Smith Kline & French; 4.11.1975; prior. 11.1.1971, 17.2.1970).
 Kaiser, C. et al.: J. Med. Chem. (JMCMAR) 17, 49 (1974).

Formulation(s): aerosol 0.1 mg/puff; sol. 1 mg/0.8 ml; tabl. 2 mg

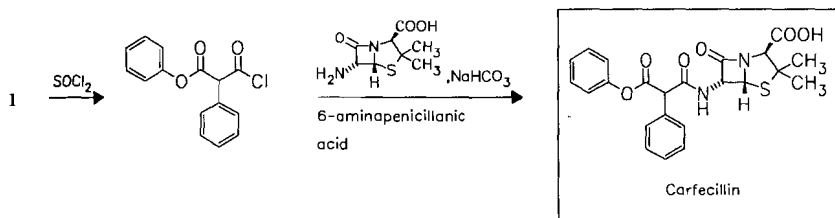
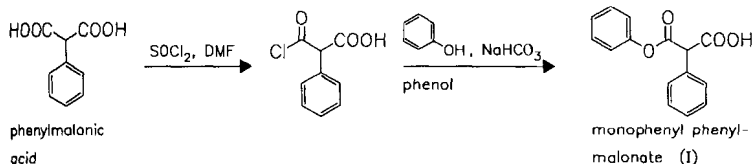
Trade Name(s):

D: Pirem (Gödecke); wfm	Pirem (Gödecke/Sasse); wfm	I: Bronsecur (Parke Davis) Dynavent (Piam)
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Carfecillin

ATC: G01AA08; J01CA

Use: antibiotic

RN: 27025-49-6 MF: C₂₃H₂₂N₂O₆S MW: 454.50 EINECS: 248-171-2LD₅₀: 728 mg/kg (M, i.v.); 3924 mg/kg (M, p.o.)CN: [2S-(2 α ,5 α ,6 β)]-6-[(1,3-dioxo-3-phenoxy-2-phenylpropyl)amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid**Reference(s):**

US 3 853 849 (Beecham; 10.12.1974; prior. 2.11.1967 and 29.5.1969).

US 3 881 013 (Beecham; 29.4.1975; GB-prior. 5.11.1966 and 27.1.1967).

Formulation(s): tabl. 500 mg**Trade Name(s):**I: Uricillina (IBI)
Urocarf (SPA; as sodium salt)J: Gripenin-O (Fujisawa)
Uticillin (SmithKline Beecham)**Carfenazine**

(Carphenazine)

ATC: N05AK

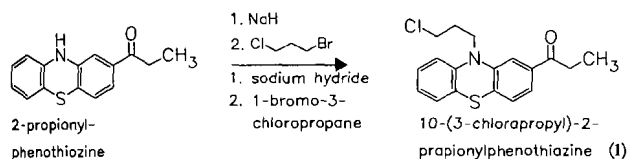
Use: neuroleptic

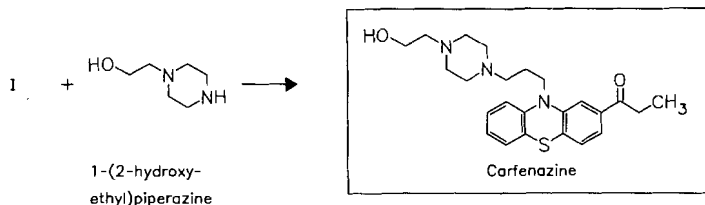
RN: 2622-30-2 MF: C₂₄H₃₁N₃O₂S MW: 425.60 EINECS: 220-072-9

CN: 1-[10-[3-[4-(2-hydroxyethyl)-1-piperazinyl]propyl]-10H-phenothiazin-2-yl]-1-propanone

dimaleateRN: 2975-34-0 MF: C₂₄H₃₁N₃O₂S · 2C₄H₄O₄ MW: 657.74 EINECS: 221-019-2LD₅₀: 42 mg/kg (M, i.v.); 156 mg/kg (M, p.o.);

162 mg/kg (R, p.o.)



**Reference(s):**

US 2 985 654 (Schering Corp.; 1961; appl. 1956).

US 3 023 146 (American Home; 27.2.1962; appl. 6.6.1960; prior. 3.6.1959).

Formulation(s): tabl. 25 mg, 400 mg**Trade Name(s):**

USA: Proketazine (Wyeth); wfm

Carindacillin

(Indanylcarbenicilline; Carbenicillin Indanyl Sodium)

ATC: J01CA05

Use: antibiotic

RN: 35531-88-5 MF: $C_{26}H_{26}N_2O_6S$ MW: 494.57LD₅₀: 3600 mg/kg (M, p.o.);

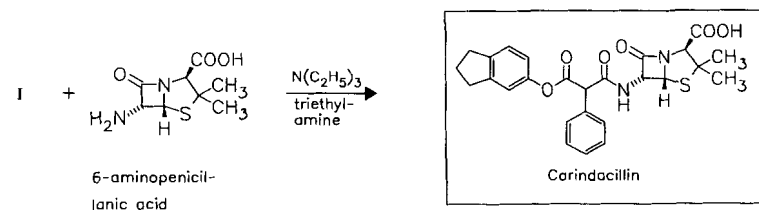
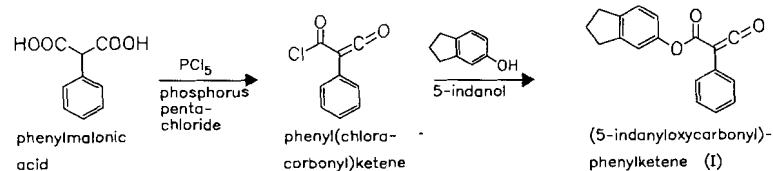
2 g/kg (R, p.o.);

>500 mg/kg (dog, p.o.)

CN: [2*S*-(2 α ,5 α ,6 β)]-6-[[3-[(2,3-dihydro-1*H*-inden-5-yl)oxy]-1,3-dioxo-2-phenylpropyl]amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid**monosodium salt**RN: 26605-69-6 MF: $C_{26}H_{25}N_2NaO_6S$ MW: 516.55 EINECS: 247-845-3LD₅₀: 210 mg/kg (M, i.v.); 4400 mg/kg (M, p.o.);

295 mg/kg (R, i.v.); 4450 mg/kg (R, p.o.);

>15.3 mg/kg (dog, p.o.)

**Reference(s):**

US 3 557 090 (Pfizer; 19.1.1971; appl. 5.1.1968).

US 3 574 189 (Pfizer; 6.4.1971; appl. 5.1.1968).

US 3 679 801 (Pfizer; 25.7.1972; prior. 5.1.1968, 4.6.1969, 19.5.1970).

DAS 1 967 024 (Pfizer; appl. 3.1.1969; USA-prior. 5.1.1968).

alternative synthesis:

DOS 1 959 569 (Pfizer; appl. 27.11.1969; USA-prior. 23.1.1969).

Formulation(s): tabl. 500 mg*Trade Name(s):*

D: Carindapen (Pfizer; 1973); J: Geopen-U (Taito Pfizer; wfm 1976)
 I: Geopen orale (Pfizer; 1973) USA: Geocillin (Pfizer; 1972)

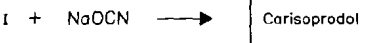
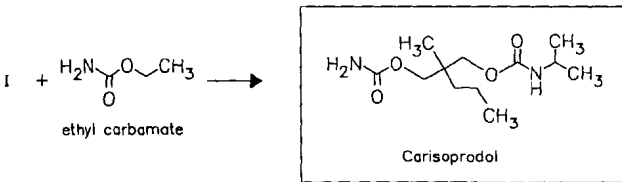
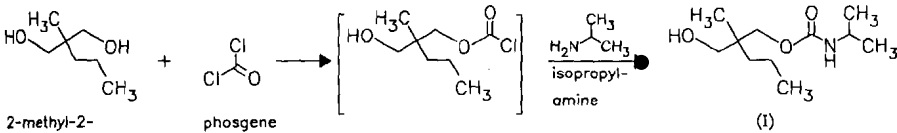
Carisoprodol

ATC: M03BA02

Use: muscle relaxant

RN: 78-44-4 MF: C₁₂H₂₄N₂O₄ MW: 260.33 EINECS: 201-118-7LD₅₀: 165 mg/kg (M, i.v.); 1800 mg/kg (M, p.o.);
450 mg/kg (R, i.v.); 1320 mg/kg (R, p.o.)

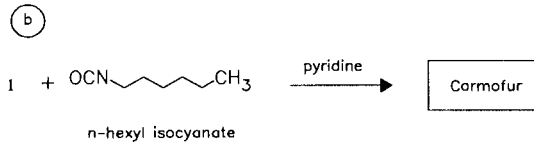
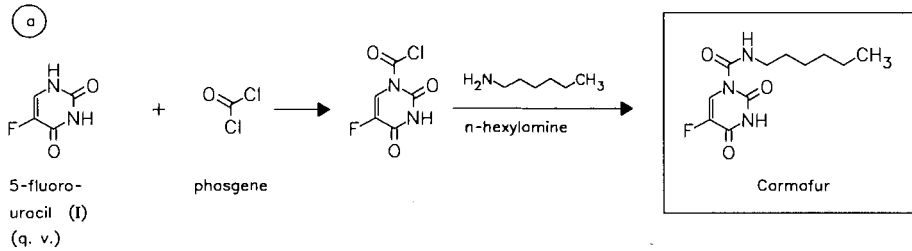
CN: (1-methylethyl)carbamic acid 2-[[[(aminocarbonyl)oxy]methyl]-2-methylpentyl ester

*Reference(s):*

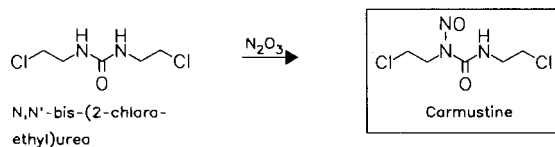
US 2 937 119 (Carter Products; 17.5.1960; prior. 11.6.1959).

Formulation(s): tabl. 350 mg*Trade Name(s):*

D: Sanoma (Heilit)		Flexartal (Clin-Midy); wfm		numerous combination preparations
F: Flexagit (Clin-Midy)-comb.; wfm	GB:	Carisoma (Pharmax)		
Flexalgit (Clin-Comar-Byla)-comb.; wfm	I:	Flexidone (Pierrel)-comb.	J:	Myobutazolidin (Ciba-Geigy-Fujisawa)-comb.
Flexartal (Clin-Comar-Byla); wfm		Soma Complex (Teofarma)-comb.		Somanil (Banyu)
		Teknadone (Teknofarma)-comb.	USA:	Soma (Wallace)

Carmofur
(HCFU)ATC: L01BC04
Use: antineoplastic, orally active
fluorouracil derivativeRN: 61422-45-5 MF: C₁₁H₁₆FN₃O₃ MW: 257.27LD₅₀: 1129 mg/kg (M, p.o.);
268 mg/kg (R, p.o.);
65 mg/kg (dog, p.o.)CN: 5-fluoro-*N*-hexyl-3,4-dihydro-2,4-dioxo-1(2*H*)-pyrimidinecarboxamide**Reference(s):**

- a JP 53/098 977 (Mitsui; appl. 2.8.1977).
b DOS 2 639 135 (Mitsui; appl. 31.8.1976; USA-prior. 5.11.1975).
US 4 071 519 (Mitsui; 31.1.1978; prior. 5.11.1975).

Formulation(s): tabl. 100 mg**Trade Name(s):**J: Mifurol (Mitsui; 1981) Yamaful (Yamanouchi;
1981)**Carmustine**
(BCNU)ATC: L01AD01
Use: antineoplasticRN: 154-93-8 MF: C₅H₉Cl₂N₃O₂ MW: 214.05 EINECS: 205-838-2LD₅₀: 26 mg/kg (M, i.p.); 45 mg/kg (M, i.v.); 19 mg/kg (M, p.o.); 24 mg/kg (M, s.c.);
13.8 mg/kg (R, i.v.); 20 mg/kg (R, p.o.)CN: *N,N'*-bis(2-chloroethyl)-*N*-nitrosourea**Reference(s):**

DOS 2 528 365 (The Government of US; appl. 25.6.1975; USA-prior. 13.11.1974).

nitrosation with NaNO_2 .

Johnston, T.P. et al.: J. Med. Chem. (JMCMAR) **6**, 669 (1963).

synthesis of *N,N'*-bis-(2-chloroethyl)urea:

Bastian, H.: Justus Liebigs Ann. Chem. (JLACBF) **566**, 210 (1950).

review:

Carter, S.K. et al.: "Advances in Cancer Research" (Ed. G. Klein, S. Weinhouse) **16**, 273 (1972).

Formulation(s): tabl. 7.7 mg

Trade Name(s):

D: Carmubris (Bristol-Myers Squibb)	GB: BICNU (Bristol-Myers Squibb)	USA: BICNU (Bristol-Myers Squibb)
F: BICNU (Bristol-Myers Squibb)	I: Nitrumon (Astra-Simes)	Gliadel (Rhône-Poulenc Rorer)

Carnitine

(Levocarnitine)

ATC: A12AX; A14B; A11JC

Use: appetite stimulant, antiarrhythmic, cardiomyopathy therapeutic

RN: 541-15-1 MF: $\text{C}_7\text{H}_{15}\text{NO}_3$ MW: 161.20

LD₅₀: 9 g/kg (M, s.c.);

7 g/kg (dog, route unreported)

CN: (R)-3-carboxy-2-hydroxy-*N,N,N*-trimethyl-1-propanaminium hydroxide inner salt

L-hydrochloride

RN: 6645-46-1 MF: $\text{C}_7\text{H}_{15}\text{NO}_3 \cdot \text{HCl}$ MW: 197.66 EINECS: 229-663-6

DL-carnitine

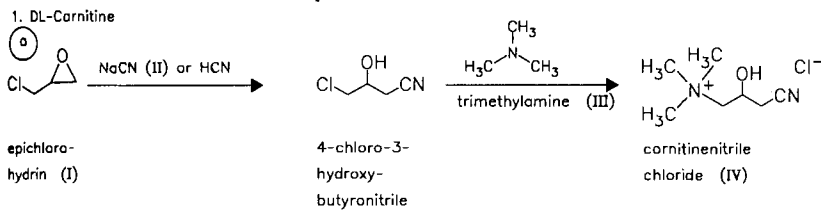
RN: 406-76-8 MF: $\text{C}_7\text{H}_{15}\text{NO}_3$ MW: 161.20 EINECS: 206-976-6

DL-hydrochloride

RN: 461-05-2 MF: $\text{C}_7\text{H}_{15}\text{NO}_3 \cdot \text{HCl}$ MW: 197.66 EINECS: 207-309-1

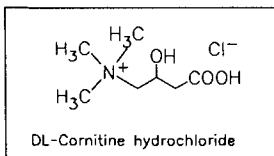
LD₅₀: 6 g/kg (M, s.c.);

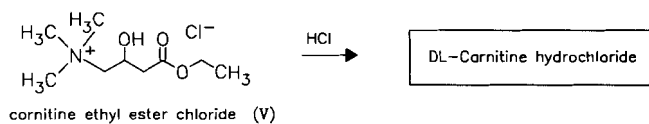
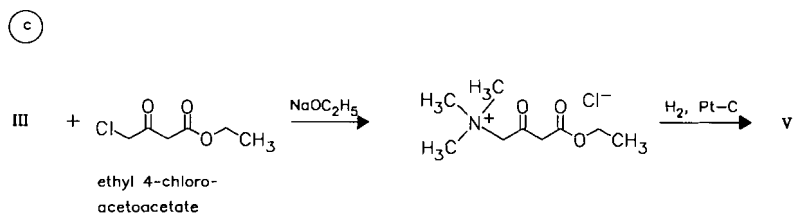
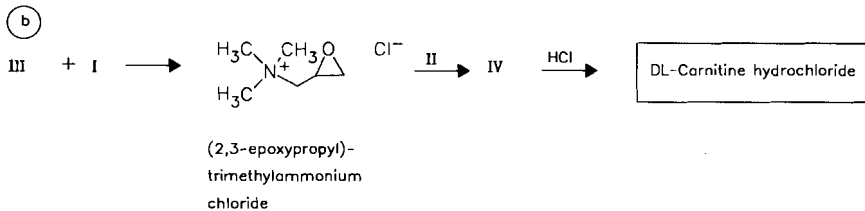
10 g/kg (R, s.c.)



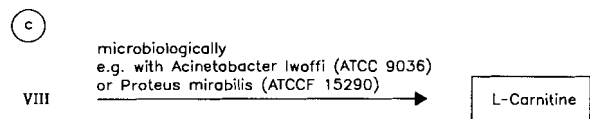
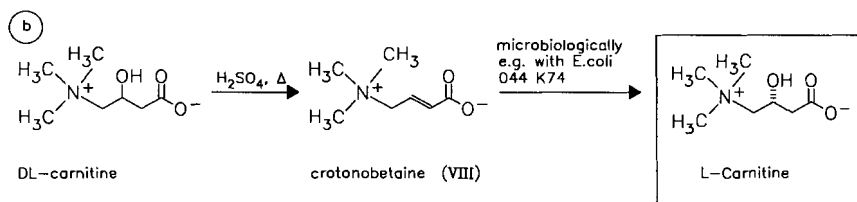
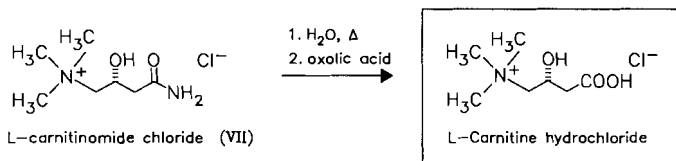
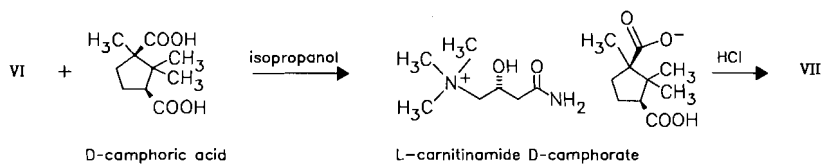
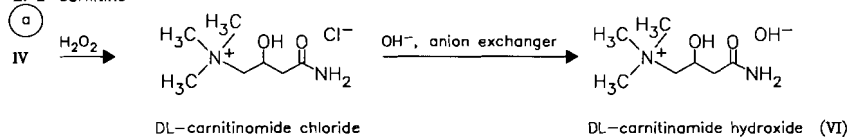
IV

$\xrightarrow{\text{HCl}}$





2. L-Carnitine



Reference(s):

- 1a** US 3 135 788 (Nihon Zoki Seiyaku; 2.6.1964; J-prior. 28.9.1959).
hydrolysis of carnitinenitrile chloride with conc. HCl:
 DAS 1 090 676 (Labaz; appl. 24.10.1958).
- b** US 4 070 394 (Ethyl Corp.; 24.1.1978; appl. 11.3.1977; prior. 23.1.1976).
- c** CH 588 433 (Lonza; appl. 25.9.1974).
similar process from γ -chloroacetanilide:
 CH 589 604 (Lonza; appl. 26.4.1974).
- 2a** DOS 2 927 672 (C. Cavazza; appl. 9.7.1979; I-prior. 10.7.1978).
 US 4 254 053 (C. Cavazza; 3.3.1981; I-prior. 10.7.1978).
electrolytic methods for release of base:
 DOS 3 342 713 (Sigma-Tau; appl. 25.11.1983; I-prior. 25.11.1982).
 US 4 521 285 (Sigma-Tau; 4.6.1985; I-prior. 25.11.1982).
- b** EP 148 132 (Sigma-Tau; appl. 31.10.1984; DDR-prior. 3.11.1983).
- c** EP 122 794 (Ajinomoto; appl. 13.4.1984; J-prior. 13.4.1983).

*enzymatic methods from γ -butyrobetaine and 2-ketoglutaric acid with γ -butyrobetaine hydroxylase from *Neurospora crassa*:*

GB 2 078 742 (Sigma-Tau; appl. 23.6.1981; I-prior. 24.6.1980).

synthesis from D-mannitol:

US 4 413 142 (Anic; 1.11.1983; I-prior. 18.3.1981).

use as antiarrhythmic:

US 3 830 931 (S. L. De Felice; 20.8.1974; appl. 6.11.1972).

US 3 968 241 (S. L. De Felice; 6.7.1976; prior. 6.11.1972, 2.7.1974).

parenteral use for improvement of myocard function:

US 4 075 352 (S. L. De Felice; 21.2.1978; appl. 28.4.1976).

use for reduction of cardiotoxicity of cytostatics, e. g. daunomycin:

US 4 320 110 (S. L. De Felice; 16.3.1982; appl. 4.10.1979).

US 4 400 371 (S. L. De Felice; 23.8.1983; appl. 12.5.1981).

use as appetite stimulant:

US 3 810 994 (Ethyl Corp.; 14.5.1974; appl. 1.6.1972).

additive to parenteral feeding:

DOS 3 032 300 (A. Lohninger, Wien; appl. 27.8.1980).

US 4 320 145 (C. Cavazza; 16.3.1982; I-prior. 5.10.1979).

EP 59 775 (Leopold & Co.; appl. 1.6.1981; YU-prior. 9.6.1980).

use as antihyperlipidemic:

US 4 315 944 (Sigma-Tau; 16.2.1982; I-prior. 21.9.1979).

use as geriatric for improvement of mental ability:

US 4 474 812 (Sigma-Tau; 2.10.1984; I-prior. 29.10.1982).

treatment of lung diseases:

DE 2 360 332 (Otsuka; appl. 4.12.1973; J-prior. 7.12.1972).

Formulation(s): drinking sol. 1 g/10 ml; inj. sol. 1g/5 ml; syrup 1 g/3.3 ml

Trade Name(s):

D:	Biocarn (Medice)	Cardiogen (Chemil)	Carvit (AGIPS)
	L-Carn (Sigma-Tau)	Carnitene (Sigma-Tau)	Eucar (Salus Research)
F:	Lévoearnil (Sigma-Tau)	Carnitolo (Recordati)	Eucarnil (Pulitzer)
I:	Anetin (Ibirm)	Farma)	Kernit (CT)
	Biocarnil (Gentili)	Carnitop (Virginia Farmac.)	L-Carnitina Coli (Coli)
	Briocor (Farge)	Carnovis (Duncan)	Lefcar (Glaxo)
	Cardimet (Errekappa)	Carnum (Firma)	Levocarvit (Mitim)
	Euroter.)	Carrier (Chiesi)	Medocarnit (Medosan)

Metina (Pierrel)
 Miocardin (Magis)
 Miocor (Ecobi)
 Miotonal (Caber)

J: Transfert (Piam)
 Abedine (Nippon Zoki)
 Entomin (Maruko)
 Monocamin (Tanabe)

USA: L-Carnitine (Tyson)
 Carnitor (Sigma-Tau)

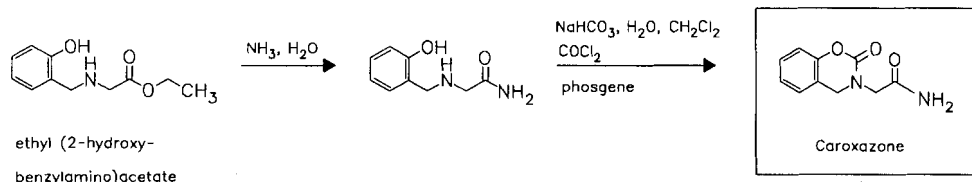
Caroxazone

ATC: N06A
 Use: antidepressant

RN: 18464-39-6 MF: C₁₀H₁₀N₂O₃ MW: 206.20 EINECS: 242-345-1

LD₅₀: 728 mg/kg (M, p.o.)

CN: 2-oxo-2H-1,3-benzoxazine-3(4H)-acetamide



Reference(s):

CH 586 687 (Farmitalia; appl. 26.4.1974).

ZA 742 435 (Farmitalia; appl. 17.4.1974).

alternative synthesis:

US 3 427 313 (Farmitalia; 11.2.1969; I-prior. 23.12.1965, 14.9.1966).

Bernardi, L. et al.: Experientia (EXPEAM) **24**, 774 (1968).

Trade Name(s):

I: Timostenil (Carlo Erba);
 wfm

Timostenil (Farmitalia);
 wfm

Carpipramine

(Carbadipimidine)

ATC: N06B
 Use: antidepressant

RN: 5942-95-0 MF: C₂₈H₃₈N₄O MW: 446.64 EINECS: 227-700-0

LD₅₀: 28 mg/kg (M, i.v.); 2180 mg/kg (M, p.o.);

37 mg/kg (R, i.v.); 1025 mg/kg (R, p.o.)

CN: 1'-[3-(10,11-dihydro-5H-dibenz[*b,f*]azepin-5-yl)propyl][1,4'-bipiperidine]-4'-carboxamide

dihydrochloride monohydrate

RN: 7075-03-8 MF: C₂₈H₃₈N₄O · 2HCl · H₂O MW: 537.58 EINECS: 230-372-1

LD₅₀: 136 mg/kg (M, i.p.); 28 mg/kg (M, i.v.); 2180 mg/kg (M, p.o.);

76 mg/kg (R, i.p.); 37 mg/kg (R, i.v.); 1025 mg/kg (R, p.o.);

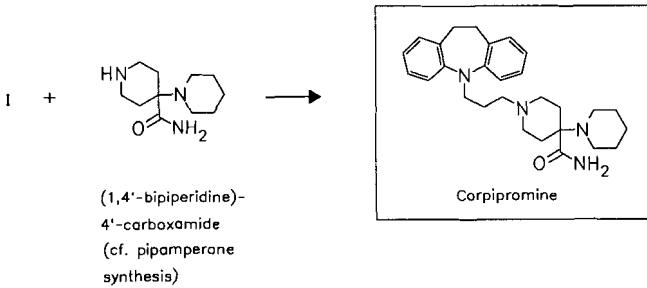
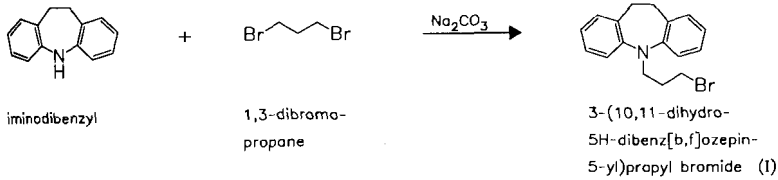
18 mg/kg (rabbit, i.v.)

maleate (1:1)

RN: 100482-23-3 MF: C₂₈H₃₈N₄O · C₄H₄O₄ MW: 562.71

LD₅₀: 147 mg/kg (M, i.p.); 2055 mg/kg (M, p.o.);

169 mg/kg (R, i.p.)

**Reference(s):**

JP 66 006 572 (Yoshitomi; appl. 29.6.1963).
Nakanishi, M. et al.: *J. Med. Chem. (JMCMAR)* **13**, 644 (1970).

medical use as anxiolytic, hypnotic:

EP 374 042 (Rhône-Poulenc; appl. 13.12.1989; F-prior. 16.12.1988).

Formulation(s): powder 10 %; tabl. 25 mg, 50 mg

Trade Name(s):

F: Prazinil (Pierre Fabre) J: Defekton (Yoshitomi)

Carprofen

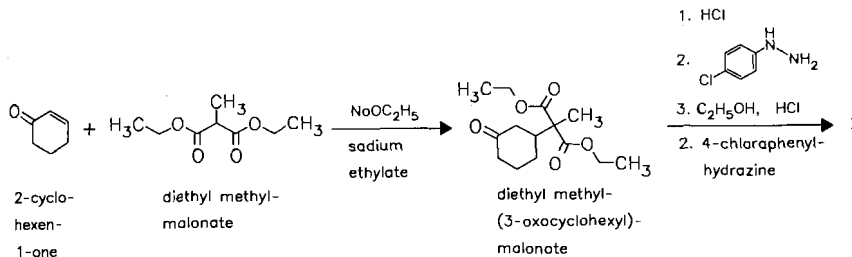
ATC: M01AE

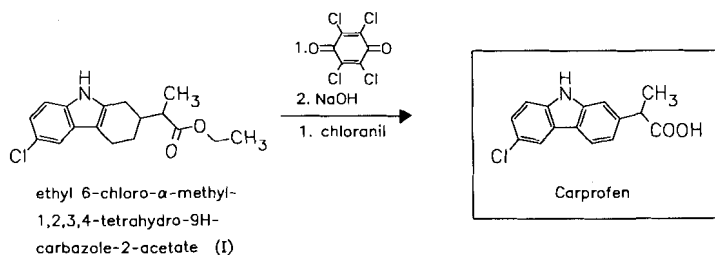
Use: non-steroidal anti-inflammatory

RN: 53716-49-7 MF: C₁₅H₁₂ClNO₂ MW: 273.72 EINECS: 258-712-4

LD₅₀: 400 mg/kg (M, p.o.)

CN: (±)-6-chloro-α-methyl-9H-carbazole-2-acetic acid



**Reference(s):**

US 3 896 145 (Hoffmann-La Roche; 22.7.1975; prior. 17.5.1973, 24.7.1972).

Formulation(s): tabl. 150 mg

Trade Name(s):

USA: Rimadyl (Roche); wfm

Carteolol

ATC: C07AA15; S01ED05

Use: beta blocking agent

RN: 51781-06-7 MF: $C_{16}H_{24}N_2O_3$ MW: 292.38

LD₅₀: 810 mg/kg (M, p.o.);

830 mg/kg (dog, p.o.)

CN: 5-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-3,4-dihydro-2(1H)-quinolinone

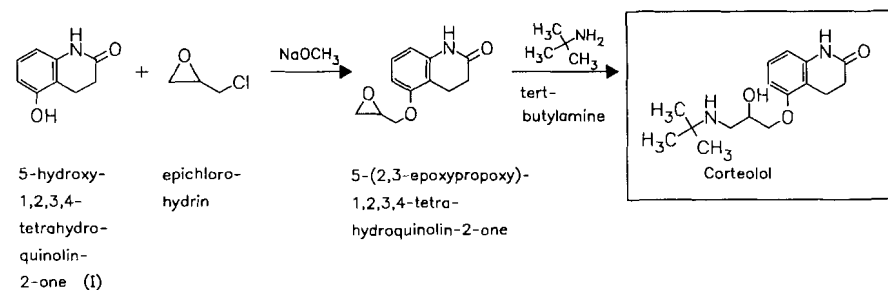
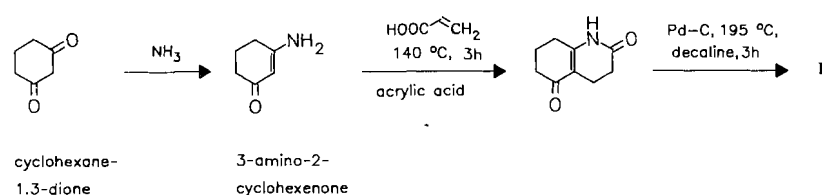
monohydrochloride

RN: 51781-21-6 MF: $C_{16}H_{24}N_2O_3 \cdot HCl$ MW: 328.84 EINECS: 257-415-7

LD₅₀: 54.5 mg/kg (M, i.v.); 810 mg/kg (M, p.o.);

153 mg/kg (R, i.v.); 1330 mg/kg (R, p.o.);

830 mg/kg (dog, p.o.)

**Reference(s):**

Winkler, W.: *Arzneim.-Forsch. (ARZNAD)* **33**, 279 (1983).

DOS 2 302 027 (Otsuka; appl. 16.1.1973; J-prior. 13.4.1972).

US 3 910 924 (Otsuka; 7.10.1975; appl. 19.1.1973; J-prior. 13.4.1972).

synthesis of intermediate 5-hydroxy-1,2,3,4-tetrahydroquinolin-2-one:

Shono, T. et al.: J. Org. Chem. (JOCEAH) **46**, 3719 (1981).

Formulation(s): eye drops 1 %, 2 %, tabl. 2.5 mg, 5 mg, 20 mg (as hydrochloride)

Trade Name(s):

D:	Arteptic (CIBA Vision; 1984)		Cartéol (Chauvin; 1985)		I:	Carteol (SIFI; 1987)
	Endak (Madaus; 1982)	GB:	Mikelan (Lipha Santé)		J:	Mikelan (Otsuka; 1980)
F:	Carpilo (Chauvin)-comb.		Teoptic (CIBA Vision; 1986)		USA:	Cartrol (Abbott)

Carticaine

ATC: N01B; N01BB08; N01BB58

Use: local anesthetic

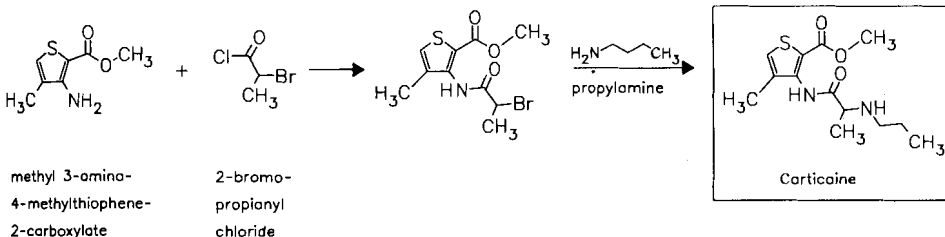
RN: 23964-58-1 MF: $C_{13}H_{20}N_2O_3S$ MW: 284.38

CN: 4-methyl-3-[[[1-oxo-2-(propylamino)propyl]amino]-2-thiophenecarboxylic acid methyl ester

monohydrochloride

RN: 23964-57-0 MF: $C_{13}H_{20}N_2O_3S \cdot HCl$ MW: 320.84 EINECS: 245-957-7

LD₅₀: 37 mg/kg (M, i.v.)



Reference(s):

DAS 1 643 325 (Hoechst; appl. 7.7.1967).

US 3 855 243 (Hoechst; 17.12.1974; D-prior. 7.7.1967).

Formulation(s): amp. 10mg/ml, 20 mg/ml, 40 mg/ml, 50 mg/ml

Trade Name(s):

D:	Ultracain (Hoechst)	F:	Alphacaine (SPAD)-comb.
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Carumonam

(AMA-1080; Ro-17-2301)

ATC: S01AA

Use: antibacterial (monobactam antibiotic)

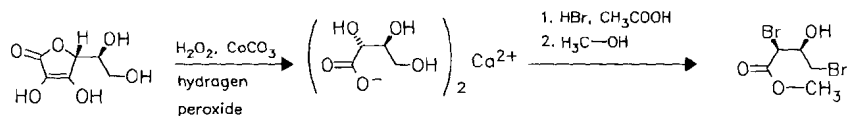
RN: 87638-04-8 MF: $C_{12}H_{14}N_6O_{10}S_2$ MW: 466.41

CN: [2S-[2 α ,3 α (Z)]]-[[[2-[[[2-[[[(aminocarbonyl)oxy]methyl]-4-oxo-1-sulfo-3-azetidiny]amino]-1-(2-amino-4-thiazolyl)-2-oxoethylidene]amino]oxy]acetic acid

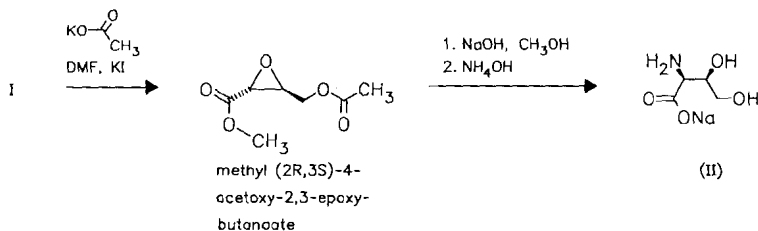
disodium salt

RN: 86832-68-0 MF: $C_{12}H_{12}N_6Na_2O_{10}S_2$ MW: 510.37

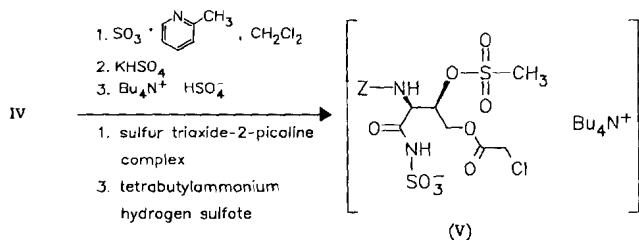
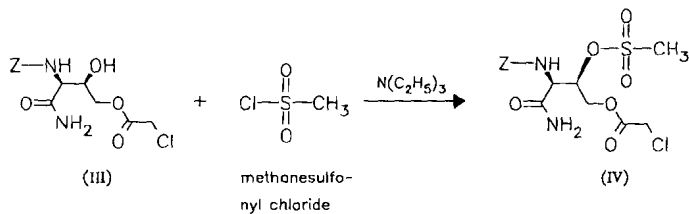
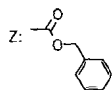
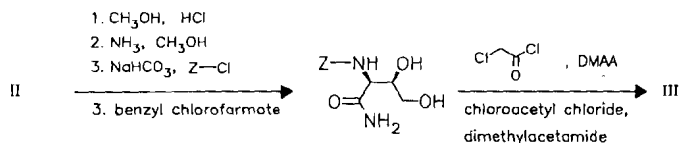
(a) azetidinone intermediate:

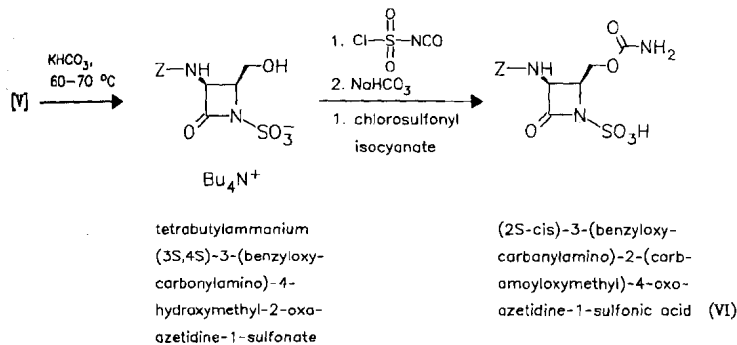


(I)

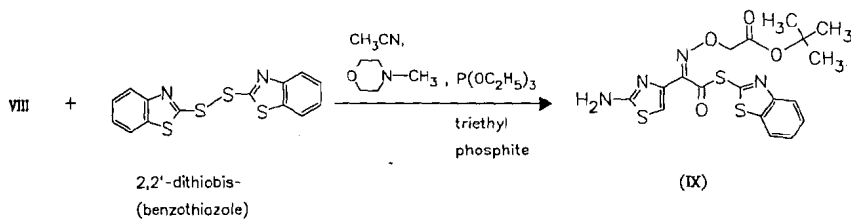
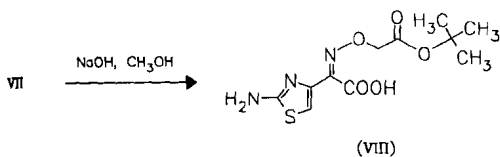
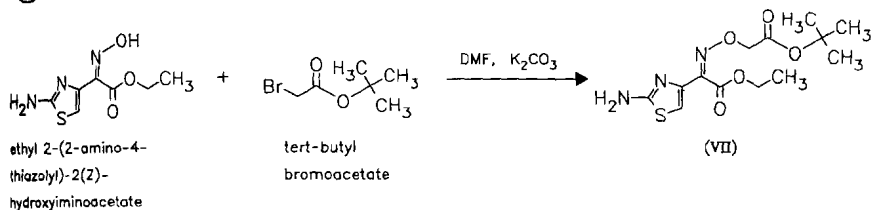


(II)

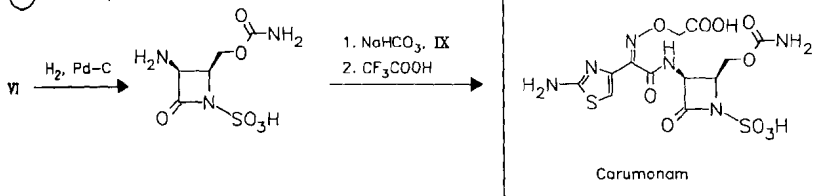




(b) side chain:



(c) final product:



Reference(s):

Kishimoto, S. et al.: J. Antibiot. (JANTAJ) **36**, 1421 (1983).

Sendai, M. et al.: J. Antibiot. (JANTAJ) **38**, 346 (1985).

US 4 572 801 (Takeda; 25.2.1986; PCT-prior. 30.4.1981, 21.8.1981, 24.9.1981; J-prior. 30.4.1982, 31.5.1982; USA-appl. 3.12.1981, 5.8.1982, 31.5.1983).

special route according to a for VI:

Manchand, P.S. et al.: J. Org. Chem. (JOCEAH) **53**, 5507 (1988).

alternative route for VI:

Hashigushi, S. et al.: Heterocycles (HTCYAM) **24**, 2273 (1986).

further synthetic routes for carumonam and its intermediates:

US 4 673 739 (Takeda; 16.6.1987; PCT-prior. 5.12.1980, 30.4.1981, 21.8.1981, 24.9.1981; J-prior. 30.4.1982, 31.5.1982; USA-appl. 3.12.1981, 5.8.1982, 31.5.1983, 18.9.1985).

US 4 675 397 (Takeda 23.6.1987; PCT-prior. 5.12.1980, 30.4.1981, 21.8.1981, 24.9.1981; J-prior. 30.4.1982; USA-appl. 3.12.1981, 5.8.1982) - 446 pages.

US 4 782 147 (Takeda; 1.11.1988; PCT-prior. 5.12.1980, 30.4.1981, 21.8.1981, 24.9.1981; J-prior. 31.5.1982; USA-appl. 3.12.1981, 31.5.1983) - 504 pages.

US 4 502 994 (Hoffmann-La Roche; 5.3.1985; appl. 9.12.1982).

US 4 652 651 (Hoffmann-La Roche; 24.3.1987; prior. 31.5.1983, 14.4.1986).

US 4 663 469 (Hoffmann-La Roche; 5.5.1987; prior. 9.12.1982, 10.12.1984).

EP 96 297 (Hoffmann-La Roche; appl. 25.5.1983; CH-prior. 3.6.1982, 25.4.1983).

EP 185 221 (Hoffmann-La Roche; appl. 25.11.1985; CH-prior. 19.12.1984).

Formulation(s): (disodium salt) vial 0.5 g (i.m. and i.v. inj.), 1 g (i.v. inj.)

Trade Name(s):

D: Amasulin (Takeda); wfm

Carvedilol

(BM-14190)

ATC: C07AG02; C07EA

Use: non-selective β_1 -adrenoceptor blocker with vasodilating activity

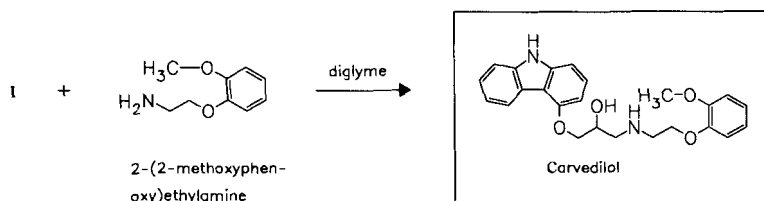
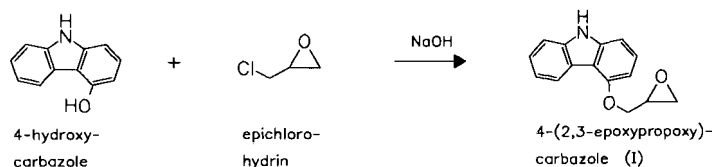
RN: 72956-09-3 MF: $C_{24}H_{26}N_2O_4$ MW: 406.48

LD₅₀: 364 mg/kg (M, i.p.); 27 mg/kg (M, i.v.);

769 mg/kg (R, i.p.); 25 mg/kg (R, i.v.);

>1 g/kg (dog, p.o.)

CN: 1-(9H-carbazol-4-yloxy)-3-[[2-(2-methoxyphenoxy)ethyl]amino]-2-propanol

*Reference(s):*

DOS 2 815 926 (Boehringer Mannh.; appl. 13.4.1978).

EP 4 920 (Boehringer Mannh.; appl. 4-7-1979; D-prior. 13.4.1978).

synthesis of enantiomers:

EP 127 099 (Boehringer Mannh.; appl. 19.5.1984; D-prior. 26.5.1983).

Formulation(s): tabl. 6.25 mg, 12.5 mg, 25 mg, 50 mg

Trade Name(s):

D: Dilatrend (Boehringer Mannh.; SmithKline Beecham; 1991) Querto (Byk Gulden)	F: Kredex (Boehringer Mannh.; SmithKline Beecham)	Dilatrend (Boehringer Mannh.)
	J: Eucardic (Boehringer Mannh. VK)	Artist (Daiichi Seiyaku)
	GB: Carvipress (Gentili)	USA: Coreg (SmithKline Beecham)

Carzenide

ATC: M01AE01
Use: antispasmodic, diuretic
(carboanhydrase inhibitor)

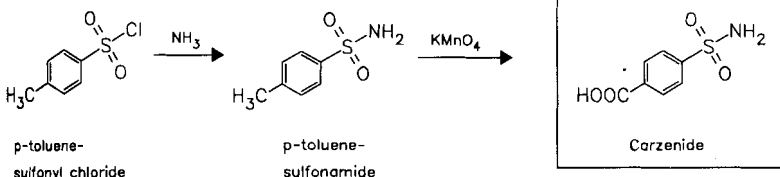
RN: 138-41-0 MF: C₇H₇NO₄S MW: 201.20 EINECS: 205-327-4

LD₅₀: >1 g/kg (M, i.p.);
350 mg/kg (R, i.p.)

CN: 4-(aminosulfonyl)benzoic acid

monosodium salt

RN: 6101-29-7 MF: C₇H₆NNaO₄S MW: 223.18



By-product of saccharin production.

Reference(s):

DRP 64 624 (Dr. C. Fahlberg; appl. 1891).

Formulation(s): f. c. tabl. 200 mg

Trade Name(s):

D: Dismenol (Simons)-comb.

Cefacetrile
(Cephacetrile)

ATC: J01DA34
Use: antibiotic

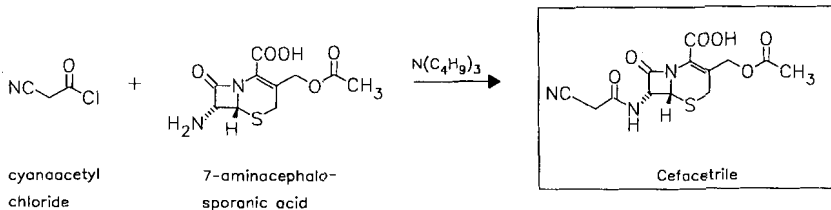
RN: 10206-21-0 MF: C₁₃H₁₃N₃O₆S MW: 339.33 EINECS: 233-508-8

CN: (6*R-trans*)-3-[(acetyloxy)methyl]-7-[(cyanoacetyl)amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

monosodium salt

RN: 23239-41-0 MF: C₁₃H₁₂N₃NaO₆S MW: 361.31 EINECS: 245-513-2

LD₅₀: 3700 mg/kg (M, i.v.); 19 g/kg (M, p.o.);
3100 mg/kg (R, i.v.); 15.1 g/kg (R, p.o.)

**Reference(s):**

DAS 1 670 324 (Ciba-Geigy; appl. 8.1.1966; CH-prior. 18.1.1965, 1.4.1965, 10.5.1965, 20.10.1965).
 US 3 483 197 (Ciba; 9.12.1969; CH-prior. 18.1.1965, 1.4.1965, 10.5.1965, 20.10.1965).
 NL-appl. 6 600 586 (Ciba; appl. 17.1.1966; CH-prior. 18.1.1965, 1.4.1965, 10.5.1965, 20.10.1965).

acylation with mixed anhydrides of cyanoacetic acid:

DOS 2 730 580 (Pierrel S.p.A.; appl. 6.7.1977; GB-prior. 10.7.1976).

acylation via 1,3,2-dioxaboranyl-derivatives:

DOS 2 755 902 (Dobfar; appl. 15.12.1977; I-prior. 16.12.1976).

sodium salt:

US 4 061 853 (Ciba-Geigy; 6.12.1977; CH-prior. 9.12.1975).

Formulation(s): vial 1 g/5 ml

Trade Name(s):

D:	Celospor (Ciba/Grünenthal); wfm	I:	Celospor (Novartis; as sodium salt)	Celtol (Takeda)
F:	Celospor (Ciba); wfm	J:	Celospor (Novartis)	

Cefaclor

ATC: J01DA08

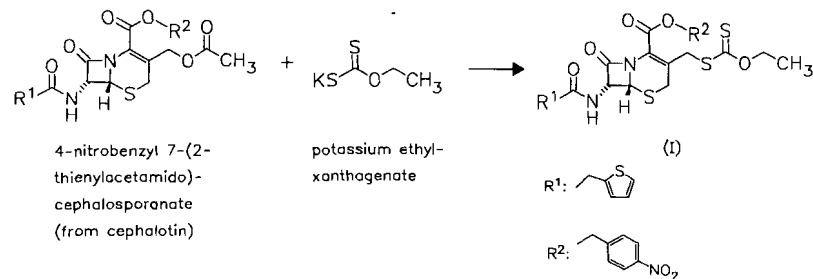
Use: antibiotic

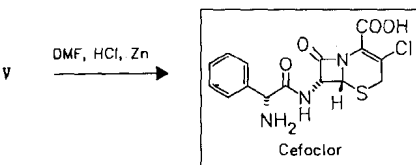
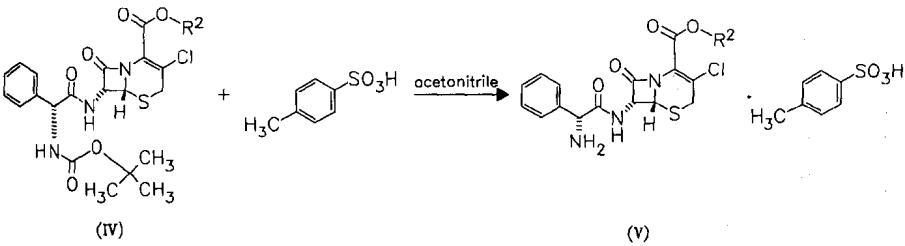
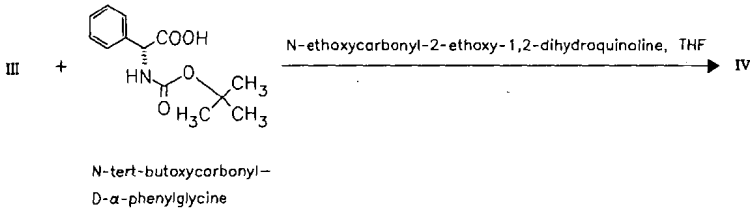
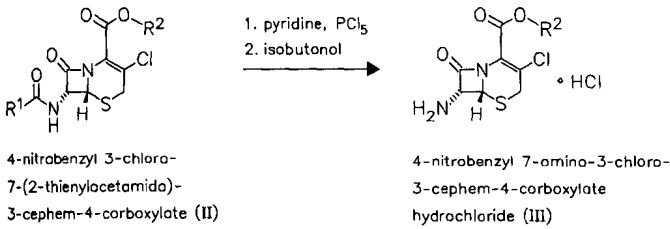
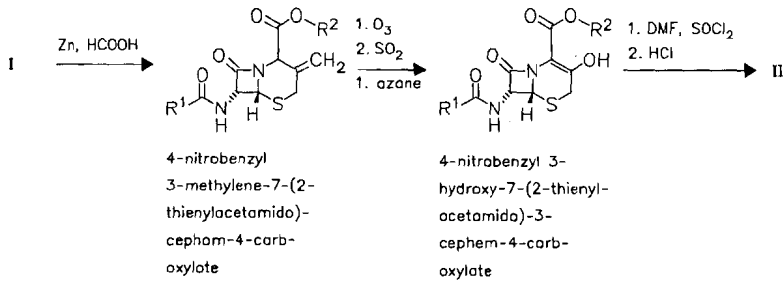
RN: 53994-73-3 MF: C₁₅H₁₄ClN₃O₄S MW: 367.81 EINECS: 258-909-5

LD₅₀: >20 g/kg (M, p.o.);

>20 g/kg (R, p.o.)

CN: [6R-[6α,7β(R*)]]-7-[(aminophenylacetyl)amino]-3-chloro-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid



**Reference(s):**

US 3 925 372 (Lilly; 9.12.1975; prior. 23.2.1973, 1.4.1974).
DOS 2 408 698 (Lilly; appl. 22.2.1974; USA-prior. 23.2.1973).
Chauvette, R.R.; Pennington, P.A.: J. Med. Chem. (JMCMAR) **18**, 403 (1975).

3-halogenocephem precursors:

DOS 2 408 686 (Lilly; appl. 22.2.1974; USA-prior. 23.2.1973).
US 4 115 643 (Lilly; 19.9.1978; prior. 16.8.1976, 8.8.1977).

3-hydroxycephem intermediates:

US 3 917 587 (Lilly; 4.11.1975; appl. 28.11.1972).

3-methylenecephem intermediates:

US 3 932 393 (Lilly; 13.1.1976; appl. 25.2.1971).

US 4 075 203 (Lilly; 21.2.1978; appl. 16.6.1976).

3-chlorocephem intermediates:

US 3 962 227 (Lilly; 8.6.1976; prior. 23.2.1973, 1.4.1974).

US 4 064 343 (Lilly; 20.12.1977; prior. 23.2.1973, 1.4.1974, 9.2.1976).

Formulation(s): cps. 250 mg, 500 mg; gran. 125 mg, 250 mg; s. r. tabl. 375 mg, 500 mg; syrup 125 mg/ml, 250 mg/ml

Trade Name(s):

D:	Kefspor (ASTA Medica AWD)	F:	Sigacefal (Kytta-Siegfried)	J:	Kefral (Shionogi; 1982)
	Muco Panoral (Lilly)- comb.	GB:	Alfatil (Lilly; 1981)	USA:	Ceclor (Lilly; 1979)
	Panoral (Lilly; 1979)		Distaclor MR (Lilly; 1979)		Ceclor CD (Dura)
		I:	Keftid (Galen)		
			Panacef (Lilly)		

Cefadroxil

ATC: J01DA09

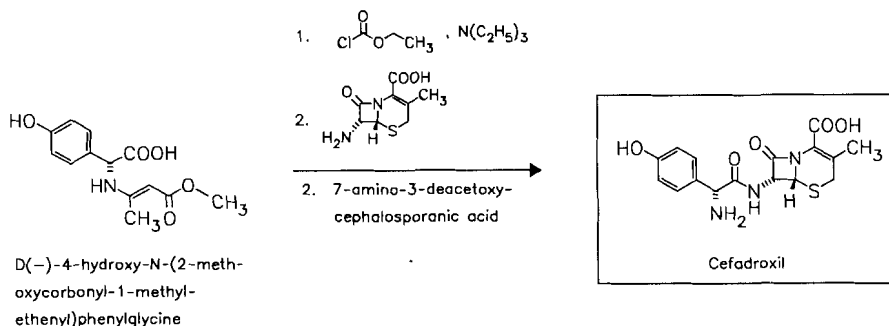
Use: antibiotic

RN: 50370-12-2 MF: C₁₆H₁₇N₃O₅S MW: 363.39 EINECS: 256-555-6LD₅₀: >1.5 g/kg (M, i.v.); >10 g/kg (M, p.o.);

>1 g/kg (R, i.v.); >10 g/kg (R, p.o.);

>2 g/kg (dog, p.o.)

CN: [6*R*-[6α,7β(*R**)]]-7-[[amino(4-hydroxyphenyl)acetyl]amino]-3-methyl-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

*Reference(s):*

DE 1 795 292 (Bristol-Myers; appl. 5.9.1968; USA-prior. 5.9.1967).

US 3 489 752 (Bristol-Myers; 13.1.1970; appl. 5.9.1967).

GB 1 240 687 (Bristol-Myers; appl. 5.9.1968; USA-prior. 5.9.1967).

US 3 985 741 (Bristol-Myers; 12.10.1976; prior. 15.9.1972, 18.10.1974).

GB 1 532 682 (Bristol-Myers; appl. 27.4.1976; valid from 7.3.1977).

crystalline monohydrate:

US 4 160 863 (Bristol-Myers; 10.7.1979; prior. 7.4.1977, 2.2.1978).

DOS 2 718 741 (Bristol-Myers; appl. 27.4.1977; GB-prior. 27.4.1976, 7.3.1977).

Formulation(s): cps. 500 mg; oral susp. 125 mg/5 ml, 250 mg/5 ml, 500 mg/5 ml; tabl. 1 g

Trade Name(s):

D:	Bidocef (Bristol-Myers Squibb; 1980)	Cedrox (Hexal)	Grüncef (Bristol-Myers Squibb; Grünenthal)
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F:	Oracefal (Bristol-Myers Squibb; 1977)	Cephos (CT)	Sumacef (Bristol Banyu; 1982)
GB:	Baxan (Bristol-Myers Squibb; 1982)	Crenodyn (Ist. Italiano Ferm.)	USA: Duricef (Bristol-Myers Squibb; 1978)
I:	Cefadril (AGIPS)	Oradroxil (Lampugnani)	Ultracef (Bristol; 1981)
	Coxil (Magis)	J: Sedral (Banyu; 1982)	

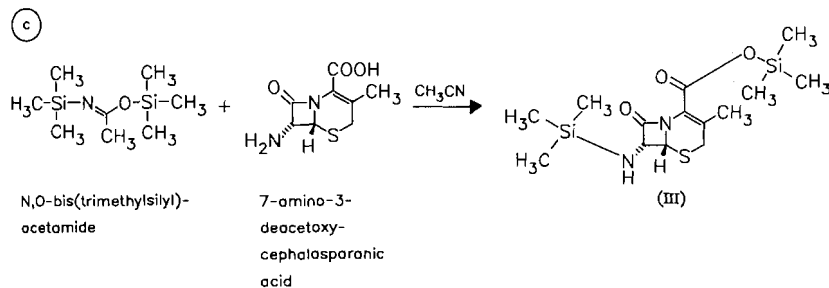
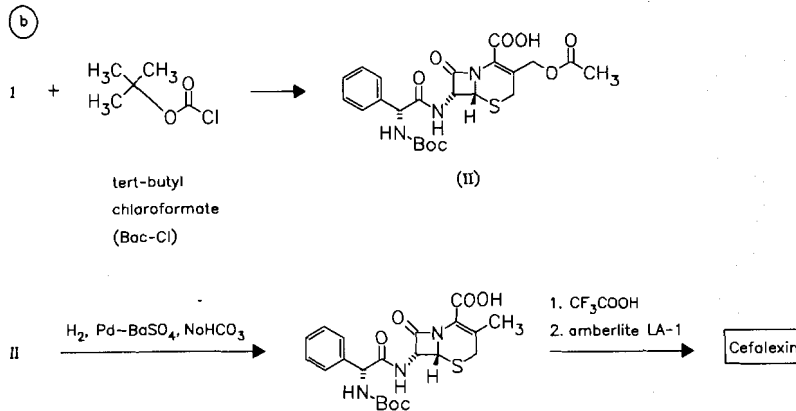
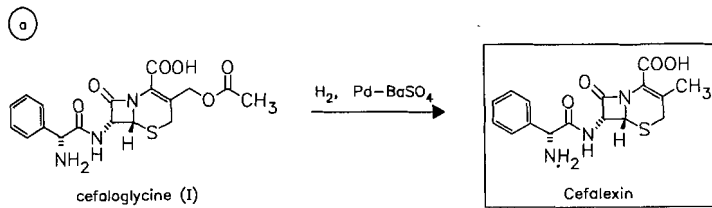
Cefalexin (Cephalexin)

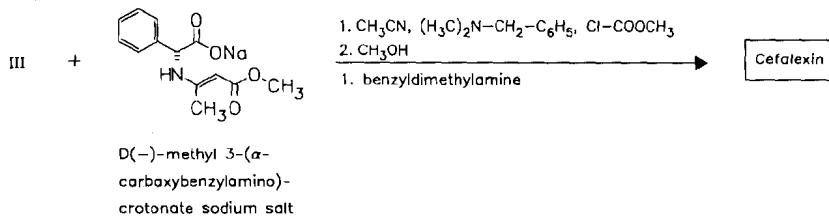
ATC: J01DA01

Use: antibiotic

RN: 15686-71-2 MF: C₁₆H₁₇N₃O₄S MW: 347.40 EINECS: 239-773-6LD₅₀: 1495 mg/kg (M, p.o.);
>20 g/kg (R, p.o.)CN: [6*R*-[6 α ,7 β (*R**)]]-7-[(aminophenylacetyl)amino]-3-methyl-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

monohydrate

RN: 23325-78-2 MF: C₁₆H₁₇N₃O₄S · H₂O MW: 365.41

*Reference(s):*

- DE 1 670 625 (Lilly; appl. 28.3.1967; USA-prior. 14.9.1966).
 US 3 507 861 (Lilly; 21.4.1970; prior. 31.7.1962, 14.9.1966).
 a,b Ryan, C.W. et al.: J. Med. Chem. (JMCMAR) **12**, 310 (1968).
 FR 1 524 225 (Eli Lilly; appl. 23.3.1967; USA-prior. 14.9.1966).
 GB 1 174 335 (Eli Lilly; appl. 7.3.1967).
 c DOS 1 942 454 (Lilly; appl. 20.8.1969; USA-prior. 23.8.1968).
 GB 1 459 807 (Proter S.p.A.; appl. 27.5.1975).

purification:

- US 3 634 416 (Glaxo; 11.1.1972; GB-prior. 26.3.1969).
 US 3 676 437 (Glaxo; 11.7.1972; GB-prior. 26.9.1969).

alternative syntheses (also ring extension of penicillin sulfoxide esters):

- GB 1 204 394 (Eli Lilly; appl. 8.5.1968; USA-prior. 8.5.1967).
 US 3 502 663 (Eli Lilly; 24.3.1970; appl. 21.4.1969).
 US 3 671 449 (Lilly; 20.6.1972; prior. 23.8.1968, 19.8.1970).
 DAS 2 012 955 (Eli Lilly; appl. 18.3.1970; USA-prior. 18.3.1969).
 DOS 2 117 377 (Bristol-Myers; appl. 8.4.1971; USA-prior. 10.4.1970, 5.10.1970).
 DOS 2 127 225 (Yamanouchi; appl. 2.6.1971; J-prior. 12.6.1970, 15.6.1970).
 DAS 2 241 091 (Toyo Jozo; appl. 21.8.1972; J-prior. 20.8.1971, 14.1.1972).
 DAS 2 242 684 (Lilly; appl. 30.8.1972; GB-prior. 11.9.1971).
 US 3 946 002 (Eli Lilly; 23.3.1976; appl. 11.7.1974).
 DOS 2 728 578 (Lilly; appl. 24.6.1977; USA-prior. 1.7.1976).
 Chauvette, R.R. et al.: J. Org. Chem. (JOCEAH) **36**, 1259 (1971).

acylation via 1,3,2-dioxaboranyl-derivatives:

- DOS 2 755 902 (Dobfar; appl. 15.12.1977; I-prior. 16.12.1976).

microbiological acylation:

- US 4 073 687 (Shionogi; 14.2.1978; J-prior. 14.5.1975).

crystalline monohydrate:

- US 3 531 481 (Lilly; 29.9.1970; prior. 21.4.1969).
 US 3 655 656 (Lilly; 11.4.1972; prior. 21.4.1969, 4.6.1970).

salts with sulfonic acids:

- US 3 676 434 (Lilly; 11.7.1972; prior. 29.7.1970).

retard preparation:

- GB 1 543 543 (Shionogi; appl. 11.5.1977; J-prior. 13.5.1976).

Formulation(s): cps. 500 mg; f. c. tabl. 500 mg, 1000 mg; gran. 125 mg, 250 mg; vial 1 g/4 ml; susp. 250 mg/5 ml; syrup 50 mg/ml, 250 mg/ml

Trade Name(s):

D:	Ceporexine (Glaxo Wellcome; Hoechst; 1973)	GB:	Ceporex (Glaxo Wellcome; 1969)	Cefalexina (Marco Viti)
	Oracef (Lilly; 1971)			Ceporex (Glaxo)
F:	Cefacet (Norgine)		Keflex (Lilly; 1985)	Foce (Medici)-comb.
	Ceporexine (Glaxo Wellcome)	I:	Cefalexi (Formulario Naz.; Lifepharma)	Fosfolexin (Lifepharma)-comb.
				Lafarin (Lafare)

	Pivacef (Firma)	Garasin (Wakamoto)	Rinesal (Kissei)
	Zetacef (Menarini)	Iwalexin (Iwaki)	Salitex (Banyu)
J:	Cephalomax (Daisan)	Keflex (Shionogi)	Segorammin (Takata)
	Cephazal (Hokuriku)	Larixin (Toyama)	Sencephalin (Takeda)
	Cepol (Torii)	Madlexin (Meiji)	Suciralin (Mohan)
	CEX (Glaxo)	Mamalexin (Showa)	Syncl (Toyo Jozo)
	Ciponium (Nippon Kayaku)	Mepilacin-DS (Kanto Ishi)	Taicelexin (Taiyo)
	Derantel (Nippon Chemiphar)	Ohlexin (Ohta)	Tokiolexin (Isei)
		Oracocin (Tobishi)	Xakl (SS Seiyaku)
		Oroxin (Otsuka)	USA: Keflex (Dista; 1971)

Cefaloglycin

(Cephaloglycin)

ATC: J01DA
Use: antibiotic

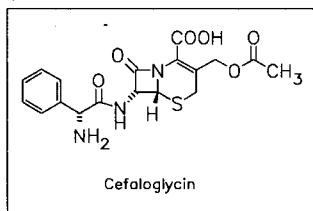
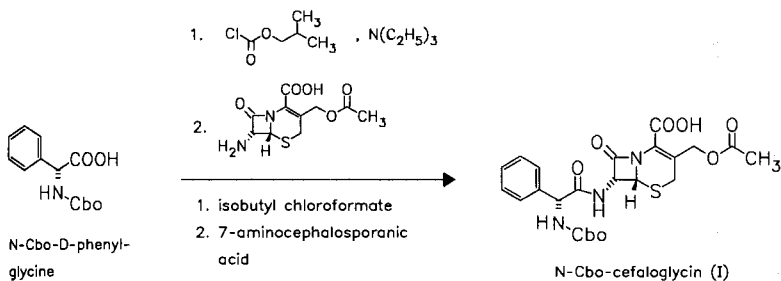
RN: 3577-01-3 MF: $C_{18}H_{19}N_3O_6S$ MW: 405.43 EINECS: 222-696-7

LD₅₀: >10 g/kg (M, p.o.);
>10 g/kg (R, p.o.)

CN: [6R-(6 α ,7 β (R*))]-3-[(acetyloxy)methyl]-7-[(aminophenylacetyl)amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

dihydrate

RN: 22202-75-1 MF: $C_{18}H_{19}N_3O_6S \cdot 2H_2O$ MW: 441.46



Reference(s):

GB 985 747 (Eli Lilly; appl. 22.8.1962; USA-prior. 11.9.1961).
US 3 497 505 (Eli Lilly; 24.2.1970; appl. 24.10.1966).
GB 1 017 624 (Merck & Co.; appl. 10.1.1963; USA-prior. 16.1.1962).

acylation via silyl-derivatives:

DOS 1 942 454 (Lilly; appl. 20.8.1969; USA-prior. 23.8.1968).

microbiological acylation:

US 4 073 687 (Shionogi; 14.2.1978; J-prior. 14.5.1975).

Formulation(s): cps. 250 mg, 500 mg

Trade Name(s):

J: Kefglycin (Shionogi)

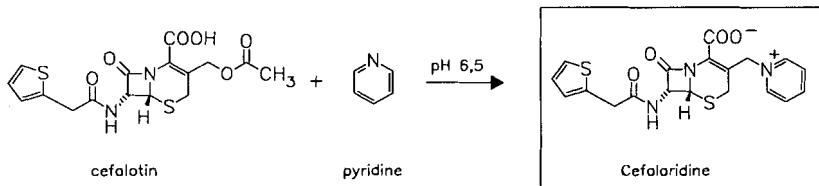
USA: Kafocin (Lilly); wfm

Cefaloridine

(Cephaloridine)

ATC: J01DA02

Use: antibiotic

RN: 50-59-9 MF: C₁₉H₁₇N₃O₄S₂ MW: 415.49 EINECS: 200-052-6LD₅₀: 2200 mg/kg (M, i.v.); >20 g/kg (M, p.o.);
1065 mg/kg (R, i.v.); 2500 mg/kg (R, p.o.)CN: (6*R*-*trans*)-1-[[2-carboxy-8-oxo-7-[(2-thienylacetyl)amino]-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]pyridinium hydroxide inner salt

Reference(s):

GB 1 030 630 (Glaxo; appl. 14.12.1962).

DE 1 445 828 (Glaxo; appl. 14.12.1963; GB-prior. 14.12.1962, 2.12.1963).

FR 1 384 197 (Glaxo; appl. 13.12.1963; GB-prior. 14.12.1962, 2.12.1963).

DAS 1 670 599 (Lilly; appl. 17.1.1966; USA-prior. 5.3.1965).

DAS 1 795 581 (Glaxo; appl. 4.11.1964; GB-prior. 13.7.1964, 29.9.1964).

DE 1 795 610 (Glaxo; appl. 4.11.1964; GB-prior. 4.11.1963, 13.7.1964, 29.9.1964).

Formulation(s): amp. 250 mg/2 ml, 500 mg/3 ml, 1 g/4 ml

Trade Name(s):

D: Cepaloridin-Glaxo (Glaxo);

Kéflodin (Lilly); wfm

Keflodin (Shionogi)

wfm

I: Ceporin (Glaxo)

USA: Loridine (Lilly); wfm

generics

J: Ceporan (Torii)

F: Céporine (Glaxo); wfm

CER (Glaxo)

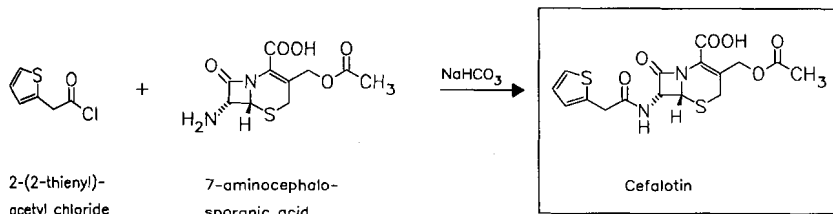
Cefalotin

(Cephalotin)

ATC: J01DA03

Use: antibiotic

RN: 153-61-7 MF: C₁₆H₁₆N₂O₆S₂ MW: 396.44 EINECS: 205-815-7LD₅₀: 4990 mg/kg (M, i.v.);
>5 g/kg (R, i.v.)CN: (6*R*-*trans*)-3-[(acetyloxy)methyl]-8-oxo-7-[(2-thienylacetyl)amino]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid**monosodium salt**RN: 58-71-9 MF: C₁₆H₁₅N₂NaO₆S₂ MW: 418.43 EINECS: 200-394-6LD₅₀: 4800 mg/kg (M, i.v.);
5600 mg/kg (R, i.v.); >10 g/kg (R, p.o.)

**Reference(s):**

DE 1 445 684 (Eli Lilly; appl. 4.6.1962; USA-prior. 8.6.1961).
 BE 618 663 (Eli Lilly; appl. 7.6.1962; USA-prior. 8.6.1961).
 DAS 1 670 641 (Lilly; appl. 23.11.1967; USA-prior. 23.11.1966).
 DOS 2 730 579 (Pierrel S.p.A.; appl. 6.7.1977; GB-prior. 10.7.1976).

acylation via silyl-derivatives of 7-aminocephalosporanic acid:

DOS 1 942 454 (Lilly; appl. 20.8.1969; USA-prior. 23.8.1968).

acylation via 1,3,2-dioxaboranyl-derivatives:

DOS 2 755 902 (Dobfar; appl. 15.12.1977; I-prior. 16.12.1976).

total synthesis:

Ratcliffe, R.W.; Christensen, G.B.: *Tetrahedron Lett.* (TELEAY) **1973**, 4649.

"easily soluble form" for parenteral application by freeze-drying:

US 4 029 655 (Lilly; 14.6.1977; appl. 11.4.1975).
 US 4 132 848 (Lilly; 2.1.1979; prior. 3.11.1977).
 DOS 2 752 442 (Lilly; appl. 24.11.1977).

crystalline sterile preparation for parenteral application:

US 4 029 655 (Lilly; 14.6.1977; appl. 11.4.1975).

Formulation(s): amp. 500 mg, 1 g, 2 g, 4 g (as sodium salt)

Trade Name(s):

D:	Cepovenin (Hoechst; 1973); wfm	J:	Cephation (Meiji) CET (Glaxo)	Sucira N (Mohan) Synclotin (Toyo Jozo)
F:	Céfalotine (Panpharma) Kéflin (Lilly; 1966) generics		Coaxin (Tobishi) Keflin (Shionogi Lilly) Resting (Ono)	Toricelocin (Torii) USA: Keflin (Lilly; 1975); wfm
I:	Cefalo (Formulario Naz.) Keflin (Lilly)		Sodium Cephalotin (Green Cross)	Seffin Neutral (Glaxo; 1984); wfm

Cefamandole

ATC: J01DA07

Use: antibiotic

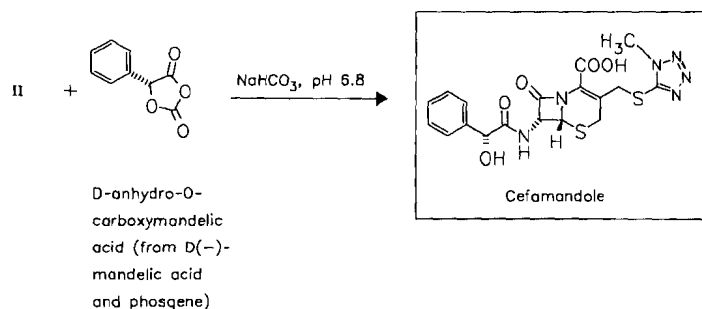
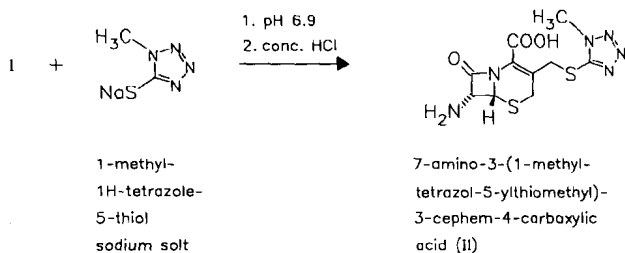
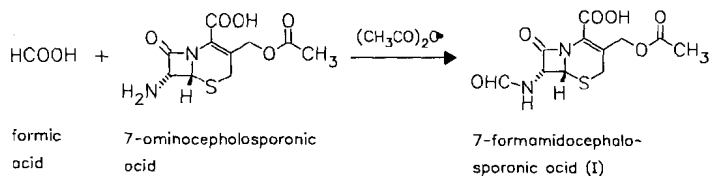
RN: 34444-01-4 MF: $\text{C}_{18}\text{H}_{18}\text{N}_6\text{O}_5\text{S}_2$ MW: 462.51 EINECS: 252-030-0

CN: [6R-[6 α ,7 β (R*)]]-7-[(hydroxyphenylacetyl)amino]-3-[[[(1-methyl-1H-tetrazol-5-yl)thio]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

formate monosodium salt (nafate)

RN: 42540-40-9 MF: $\text{C}_{19}\text{H}_{17}\text{N}_6\text{NaO}_6\text{S}_2$ MW: 512.50 EINECS: 255-877-4

LD₅₀: 3915 mg/kg (M, i.v.);
 2562 mg/kg (R, i.v.)

**Reference(s):**

- US 3 641 021 (Lilly; 8.2.1972; appl. 18.4.1969).
 DE 2 018 600 (Lilly; appl. 17.4.1970; USA-prior. 18.4.1969).
 DAS 2 065 621 (Lilly; appl. 17.4.1970; USA-prior. 18.4.1969).
 US 3 840 531 (Lilly; 8.10.1974; appl. 21.3.1972).
 US 3 903 278 (Smith Kline Corp.; 2.9.1975; prior. 4.11.1971).
 DOS 2 730 579 (Pierrel S.p.A.; appl. 6.7.1977; GB-prior. 10.7.1976).

preparation and/or purification via the trimethylsilyl-derivatives:

- DOS 2 711 095 (Lilly; appl. 14.3.1977; USA-prior. 17.3.1976).

purification:

- US 4 115 644 (Lilly; 19.9.1978; appl. 19.9.1978).
 DOS 2 839 670 (Lilly; appl. 12.9.1978; USA-prior. 19.9.1977).

crystalline sodium salt:

- US 4 054 738 (Lilly; 18.10.1977; appl. 22.12.1975).
 US 4 168 376 (Lilly; 18.9.1979; appl. 5.6.1978).

lithium salt:

- GB 1 546 757 (Lilly; appl. 10.4.1975; valid from 7.4.1976).

O-formyl-derivative:

- US 3 928 592 (Lilly; 23.12.1975; appl. 21.2.1974).
 GB 1 493 676 (Lilly; appl. 20.2.1975; USA-prior. 22.2.1974).
 GB 1 546 898 (Lilly; appl. 7.4.1976; USA-prior. 11.4.1975).
 DOS 2 506 622 (Lilly; appl. 17.2.1975; USA-prior. 22.2.1974).

crystalline sodium salt of O-formylcefamandole:

- US 4 006 138 (Lilly; 1.2.1977; appl. 11.4.1975).

complex of cefamandole sodium with 1,4-dioxane and water:
US 3 947 414 (Lilly; 30.3.1976; appl. 23.12.1974).

complex of cefamandole sodium with ethyl L(-)-lactate:
US 3 947 415 (Lilly; 30.3.1976; appl. 23.12.1974).

Formulation(s): vial 0.5 g, 1 g, 2 g (as nafate)

Trade Name(s):

D: Mandokef (Lilly; 1977)	Cefaseptolo (Miba)	Mandolsan (San Carlo)
F: Kefandol (Lilly)	Cefiran (Pierrel)	Neocefal (Metapharma)
GB: Kefadol (Dista; 1978)	Cemado (Francia Farm.)	Septomandolo (IPA)
I: Bergacef (Bergamon)	Fado (Caber)	J: Kefadole (Shionogi)
Cedol (Eurofarmaco)	Lampomandol (AGIPS)	USA: Mandol (Lilly; 1978)
Cefam (Magis)	Mancef (Lafare)	
Cefamen (Menarini)	Mandokef (Lilly)	

Cefapirin

(Cephapirin; Cefaprin)

ATC: J01DA30

Use: β -lactam antibiotic

RN: 21593-23-7 MF: $C_{17}H_{17}N_3O_6S_2$ MW: 423.47 EINECS: 244-466-5

LD₅₀: >760 mg/kg (M, i.v.); 26.1 g/kg (M, p.o.);
6048 mg/kg (R, i.v.); 16.356 g/kg (R, p.o.)

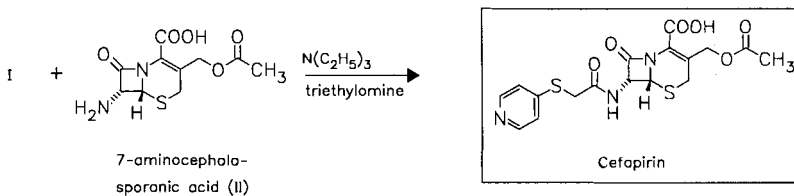
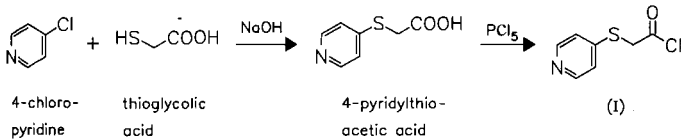
CN: (6*R-trans*)-3-[(acetyloxy)methyl]-8-oxo-7-[[4-pyridinylthio]acetyl]amino]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

monosodium salt

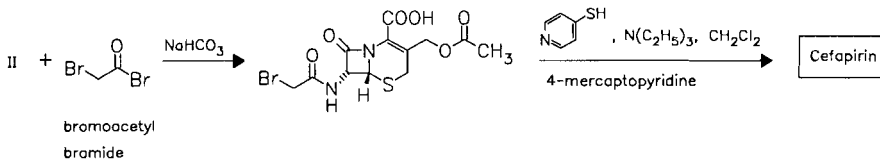
RN: 24356-60-3 MF: $C_{17}H_{16}N_3NaO_6S_2$ MW: 445.45 EINECS: 246-194-2

LD₅₀: 4600 mg/kg (M, i.v.); 26.1 g/kg (M, p.o.);
4580 mg/kg (R, i.v.); 16.4 g/kg (R, p.o.);
2500 mg/kg (dog, i.v.)

(a)



(b)



Reference(s):

- Crast, L.B. et al.: J. Med. Chem. (JMCMAR) **16**, 1413 (1973).
 US 3 422 100 (Bristol-Myers; 14.1.1969; appl. 2.5.1967; prior. 5.1.1967).
 US 3 503 967 (Bristol-Myers; 31.3.1970; appl. 26.8.1968).
 US 3 578 661 (Bristol-Myers; 11.5.1971; appl. 2.6.1969).
 DE 1 670 301 (Bristol-Myers; appl. 5.1.1968; USA-prior. 5.1.1967).

acylation via 1,3,2-dioxaboranyl-derivatives:

DOS 2 755 902 (Dobfar; appl. 15.12.1977; I-prior. 16.12.1976).

salts with amino acids:

FR-appl. 2 479 228 (Dobfar; appl. 25.3.1981; I-prior. 1.4.1980).

Formulation(s): vial 0.5 g, 1 g, 2 g, 4 g (as sodium salt)

Trade Name(s):

D:	Bristocef (Bristol; 1974); wfm	Brisporin (Bristol It. Sud); wfm	Cefatrexyl (Nihon Bristol) Cepotril (Tobishi-Kaken)
F:	Cefalobject (Bristol-Myers Squibb; 1974)	J: Piricef (CT); wfm	Ceropirin (Nichiiko) Taicelepirin (Taiyo)
I:	Ambrocef (Lusofarmaco); wfm	Chemiphar Cefarin (Fuji)	Vacian (Kantoishi) USA: Cefadyl (Bristol; 1974)

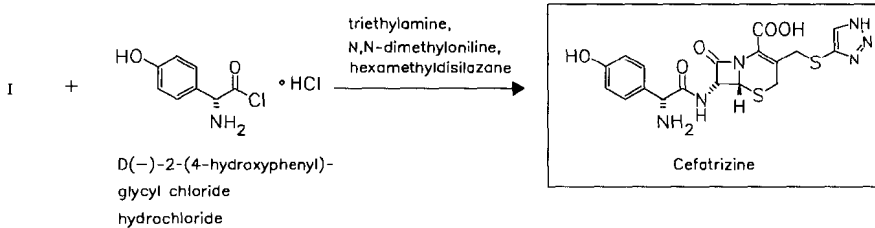
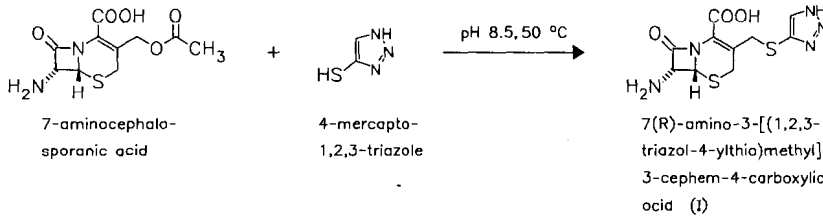
Cefatrizine

ATC: J01DA21

Use: β -lactam antibiotic

RN: 51627-14-6 MF: $C_{18}H_{18}N_6O_5S_2$ MW: 462.51 EINECS: 257-324-2

CN: [6R-[6 α ,7 β (R*)]]-7-[[amino(4-hydroxyphenyl)acetyl]amino]-8-oxo-3-[(1H-1,2,3-triazol-4-ylthio)methyl]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

*Reference(s):*

- US 3 899 394 (Bristol-Myers; 12.8.1975; prior. 26.12.1972).
 US 3 867 380 (SmithKline Corp.; 18.2.1975; prior. 17.12.1970, 18.2.1971, 14.6.1972).
 DOS 2 364 192 (Bristol-Myers; appl. 21.12.1973; USA-prior. 26.12.1972).
 DAS 2 622 985 (Bristol-Myers; appl. 21.5.1976; USA-prior. 23.5.1975).
 US 3 970 651 (Bristol-Myers; 20.7.1976; prior. 7.1.1974, 18.12.1974).
 US 3 985 747 (Bristol-Myers; 12.10.1976; appl. 24.5.1974).

acylation via 1,3,2-dioxaboranyl derivatives:

DOS 2 755 902 (Dobfar; appl. 15.12.1977; I-prior. 16.12.1976).

Formulation(s): cps. 125 mg, 250 mg, 500 mg; susp. 5 %; syrup 125 mg, 250 mg

Trade Name(s):

F:	Céfaperos (Bristol-Myers Squibb; 1987)	Lampotrix (Leben's)	Trixilan (Pulitzer)
I:	Cefatrix (tekmarna bkf)	Latocef (Delsaz & Filippini)	Trizina (Francia Farm.)
	Cefotrizin (Firma)	Miracef (Tosi-Novara)	Zanitrin (Bristol It. Sud)
	Cetrazil (Herdel)	Novacef (Locatelli)	Zinaf (Crosara)
	Faretrizin (Lafare)	Orotrix (San Carlo)	Zitrix (Metapharma)
	Ipatrizina (IPA)	Tamyl (Fisons Italchimici)	J: Bricef (Bristol)
	Kefoxina (CT)	Tricef (Eurofarmaco)	Cepticol (Banyu; 1980)
	Ketrizin (Esseti)	Trixidine (ASTA Medica)	

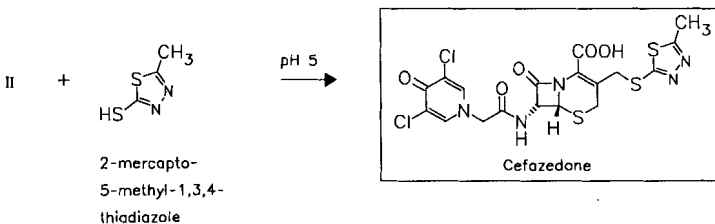
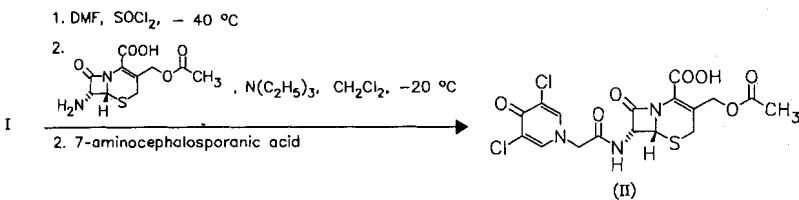
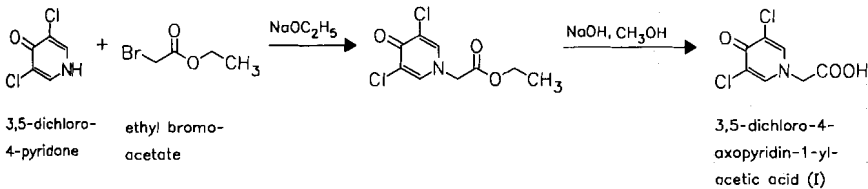
Cefazedone

ATC: J01DA15

Use: antibiotic

RN: 56187-47-4 MF: $C_{18}H_{15}Cl_2N_5O_5S_3$ MW: 548.45

CN: (6*R-trans*)-7-[[[3,5-dichloro-4-oxo-1(4*H*)-pyridinyl]acetyl]amino]-3-[[[(5-methyl-1,3,4-thiadiazol-2-yl)thio]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid



Reference(s):

Gericke, R.; Rogalski, W.: *Arzneim.-Forsch. (ARZNAD)* **29** (I), 362 (1979).
 DOS 2 427 224 (E. Merck; appl. 6.6.1974).
 DOS 2 345 402 (E. Merck; appl. 8.9.1973).
 DOS 2 621 011 (E. Merck; appl. 12.5.1976).
 GB 1 436 989 (E. Merck; appl. 5.9.1974; D-prior. 8.9.1973, 6.6.1974).
 US 4 153 693 (E. Merck; 8.5.1979; D-prior. 8.9.1973, 6.6.1974).
 GB 1 539 158 (E. Merck; appl. 11.5.1977; D-prior. 12.5.1976).

Formulation(s): vial 1 g, 2 g

Trade Name(s):

D: Refosporin (E. Merck);
 wfm

Cefazolin

(Cephazolin)

ATC: J01DA04

Use: antibiotic

RN: 25953-19-9 MF: $C_{14}H_{14}N_8O_4S_3$ MW: 454.52 EINECS: 247-362-8

LD₅₀: 3 g/kg (M, i.v.)

CN: (6*R-trans*)-3-[[[(5-methyl-1,3,4-thiadiazol-2-yl)thio]methyl]-8-oxo-7-[(1*H*-tetrazol-1-ylacetyl)amino]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

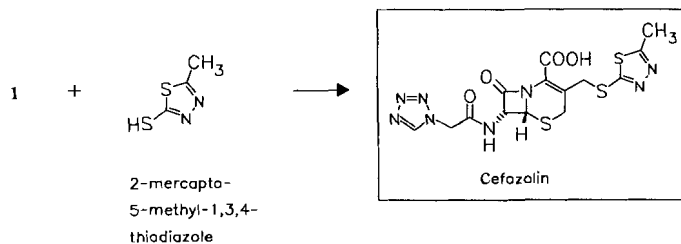
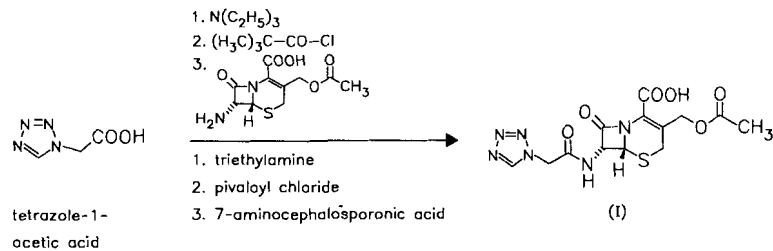
monosodium salt

RN: 27164-46-1 MF: $C_{14}H_{13}N_8NaO_4S_3$ MW: 476.50 EINECS: 248-278-4

LD₅₀: 3900 mg/kg (M, i.v.); >11 g/kg (M, p.o.);

2760 mg/kg (R, i.v.); >11 g/kg (R, p.o.);

2200 mg/kg (dog, i.v.)

**Reference(s):**

US 3 516 997 (Fujisawa; 23.6.1970; appl. 12.4.1968; J-prior. 15.4.1967, 24.10.1967, 28.10.1967).
 DE 1 170 168 (Fujisawa; appl. 10.4.1968; J-prior. 14.4.1967).

corresponding:

GB 1 206 305 (Fujisawa; appl. 11.4.1968; J-prior. 15.4.1967).

NL 6 805 179 (Fujisawa; appl. 11.4.1968; J-prior. 15.4.1967).

DOS 1 953 861 (Fujisawa; appl. 25.10.1969).

alternative syntheses:

DOS 2 055 796 (Fujisawa; appl. 13.11.1970; J-prior. 17.11.1969).

DOS 2 540 374 (Lilly; appl. 10.9.1975; USA-prior. 12.9.1974).

acylation via 1,3,2-dioxaboranyl-derivatives:

DOS 2 755 902 (Dobfar; appl. 15.12.1977; I-prior. 16.12.1976).

purification:

US 4 115 645 (Lilly; 19.9.1978; appl. 10.5.1977).

sodium salt:

DOS 2 752 443 (Lilly; appl. 24.11.1977; USA-prior. 24.11.1976).

sodium salt monohydrate:

US 4 104 470 (Lilly; 1.8.1978; appl. 3.6.1977).

rapidly soluble spray dried sodium salt:

US 4 146 971 (Lilly; 3.4.1979; prior. 24.11.1976, 14.12.1977).

suspension for parenteral application:

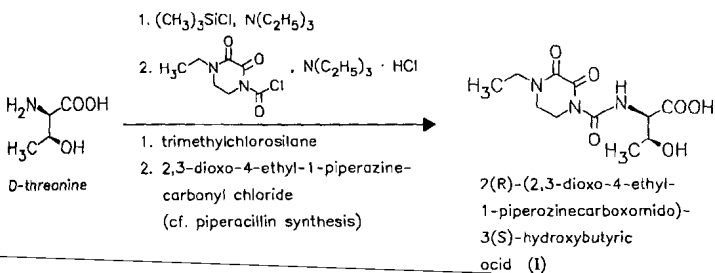
GB 1 546 479 (Lilly; appl. 23.4.1976; USA-prior. 28.4.1975).

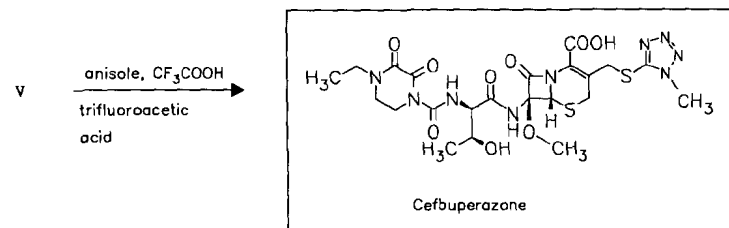
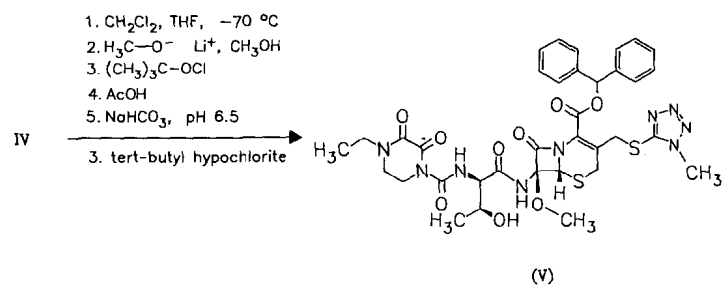
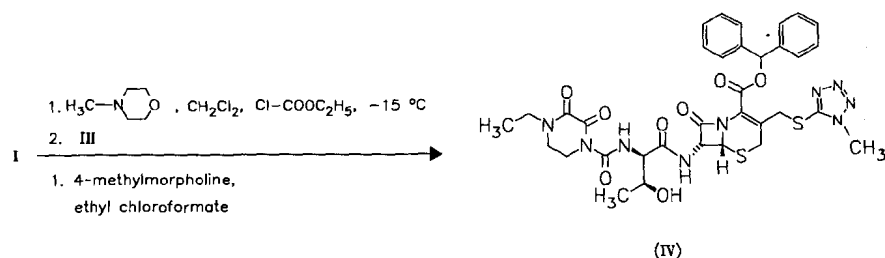
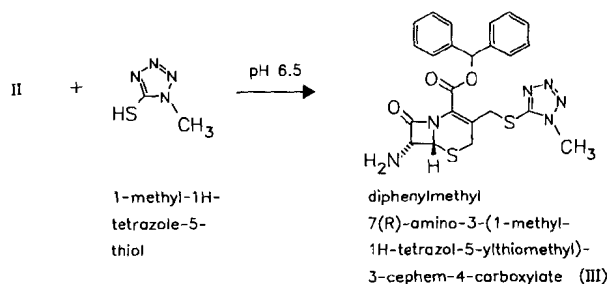
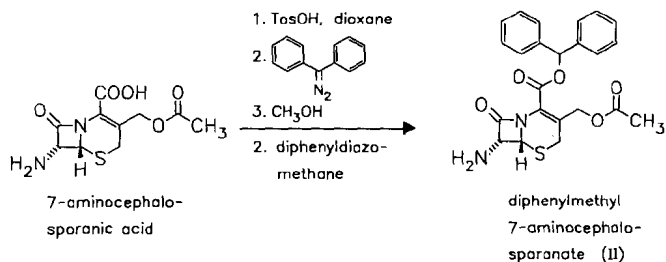
Formulation(s): vial 250 mg, 500 mg, 1 g, 2 g (as sodium salt)*Trade Name(s):*

D:	Elzogram (Lilly; 1974)	Cefabiozim (IPA)	Zolisint (Locatelli)
	Gramaxin (Roche; 1974)	Cefamezin (Carlo Erba)	J: Cefamezin (Fujisawa; 1971)
F:	Cefacidal (Bristol-Myers Squibb; 1976)	Cefazil (Delsaz & Filippini)	USA: Ancef (SmithKline Beecham; 1973)
	Kefzol (Lilly; 1976)	Cromezin (Crosara)	
GB:	Kefzol (Lilly; 1974)	Firmacef (Firma)	Kefzol (Lilly; 1973)
I:	Acef (Eurofarmaco)	Recef (Farma Uno)	
	Biazolina (Ist. Italiano Ferm.)	Totacef (Bristol It. Sud)	
		Zolin (San Carlo)	

Cefbuperazone

ATC: J01DA

Use: β -lactam antibioticRN: 76610-84-9 MF: $C_{22}H_{29}N_9O_9S_2$ MW: 627.66CN: [6R-[6 α ,7 α ,7(2R*,3S*)]]-7-[[2-[[[(4-ethyl-2,3-dioxo-1-piperazinyl)carbonyl]amino]-3-hydroxy-1-oxobutyl]amino]-7-methoxy-3-[[[1-methyl-1H-tetrazol-5-yl]thio]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid



References(s):

- DOS 2 939 747 (Toyama; appl. 1.10.1979; J-prior. 23.4.1979, 7.8.1979).
 FR 2 455 051 (Toyama; appl. 4.10.1979; J-prior. 23.4.1979, 7.8.1979).
 US 4 263 292 (Toyama; 21.4.1981; J-prior. 13.6.1978, 23.4.1979, 7.8.1979).
 GB 2 048 241 (Toyama; appl. 26.9.1979; J-prior. 23.4.1979, 7.8.1979).

Formulation(s): vial 500 mg, 1 g

Trade Name(s):

J: Keiperazon (Kaken; 1985)

Tomiporan (Toyama; 1985)

Cefditoren pivoxil

(ME-1207)

ATC: S01AA

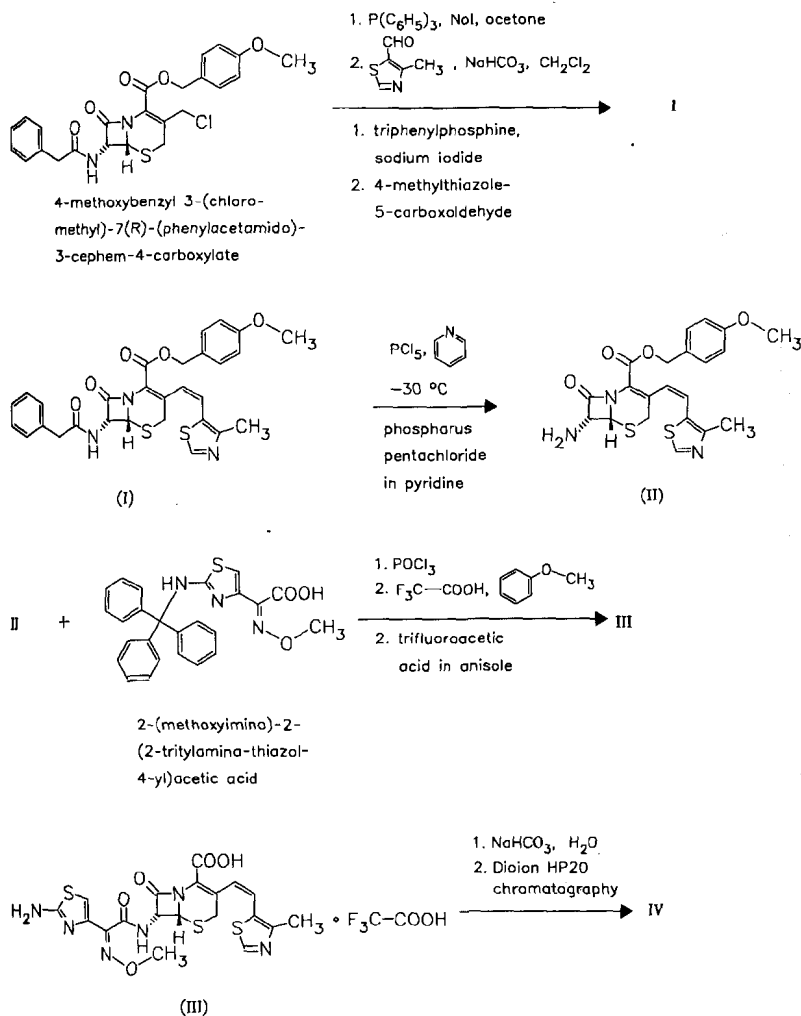
Use: cephalosporin

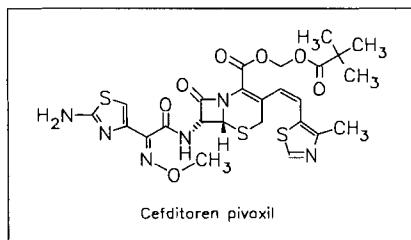
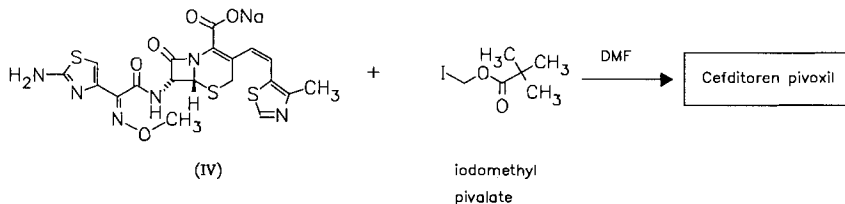
RN: 117467-28-4 MF: $C_{25}H_{28}N_6O_7S_3$ MW: 620.73

CN: [6R-[3(Z),6 α ,7 β (Z)]]-7-[[2-amino-4-thiazolyl)(methoxyimino)acetyl]amino]-3-[2-(4-methyl-5-thiazolyl)ethenyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid (2,2-dimethyl-1-oxopropoxy)methyl ester

[6R-[3(Z),6 α ,7 β (E)]]-form

RN: 104145-87-1 MF: $C_{25}H_{28}N_6O_7S_3$ MW: 620.73



**Reference(s):***synthesis:*

EP 175 610 (Meiji Seika Kaisha; appl. 26.3.1986; J-prior. 7.9.1984, 18.7.1985).

Sakagami, K. et al.: J. Antibiot. (JANTAJ) **43**(8), 1047 (1990).

Sakagami, K. et al.: Chem. Pharm. Bull. (CPBTAL) **39**(9), 2433 (1992).

pharmaceutical compositions:

EP 339 465 (Meiji Seika Kaisha; appl. 2.11.1989; J-prior. 19.4.1988).

EP 629 404 (Meiji Seika Kaisha; appl. 21.12.1994; J-prior. 16.6.1993).

Formulation(s): gran. 100 mg; tabl. 100 mg

Trade Name(s):

J: Meiact (Meiji Seika)

Cefixime

(CL-284635; FK-027; FR-17027)

ATC: J01DA23

Use: semisynthetic third generation cephem antibiotic (for oral administration), high β -lactamase stability

RN: 79350-37-1 MF: $C_{16}H_{15}N_5O_7S_2$ MW: 453.46

LD₅₀: 4420 mg/kg (M, i.v.); >10 g/kg (M, p.o.);

6990 mg/kg (R, i.v.); >10 g/kg (R, p.o.);

>3200 mg/kg (dog, i.v.); >600 mg/kg (dog, p.o.)

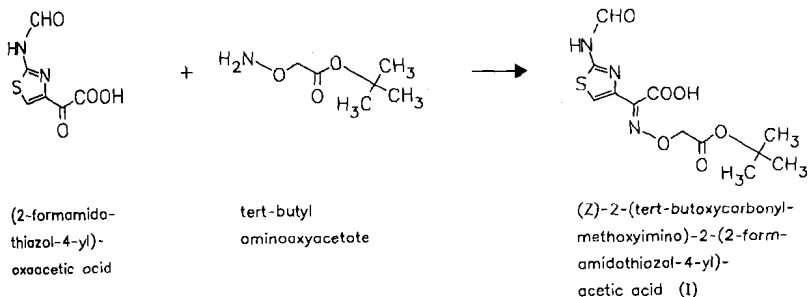
CN: [6R-[6 α ,7 β (Z)]]-7-[[2-amino-4-thiazolyl][(carboxymethoxy)imino]acetyl]amino]-3-ethenyl-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

trihydrate

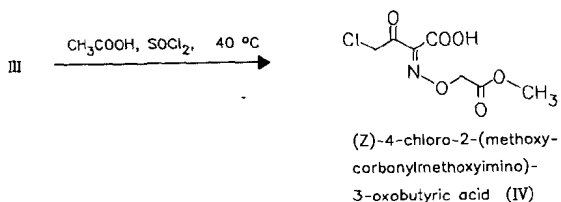
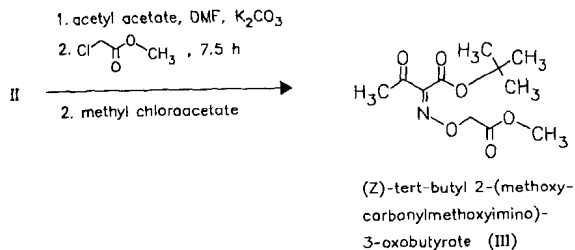
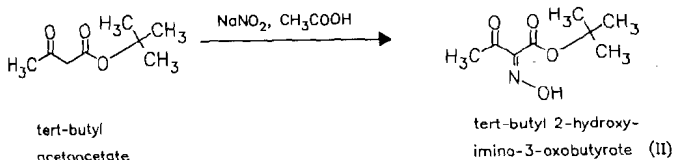
RN: 125110-14-7 MF: $C_{16}H_{15}N_5O_7S_2 \cdot 3H_2O$ MW: 507.50

Synthesis of intermediates:

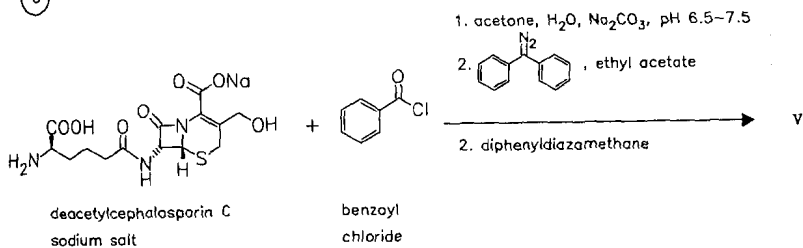
①

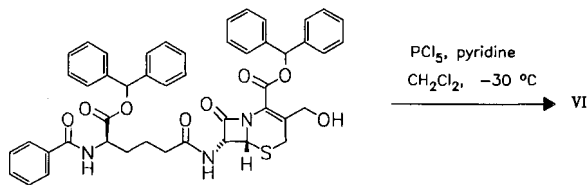


②

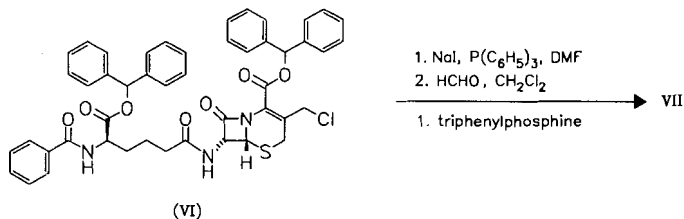


③

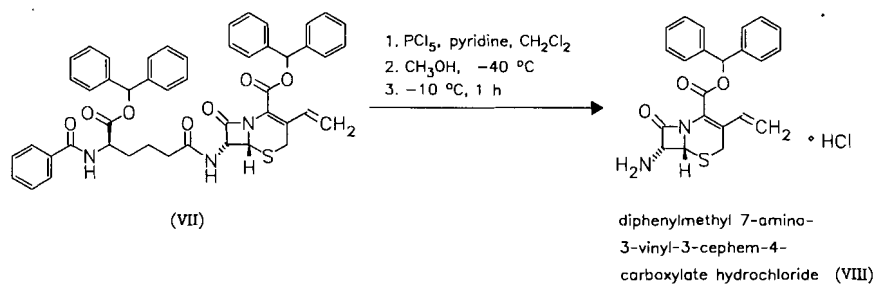




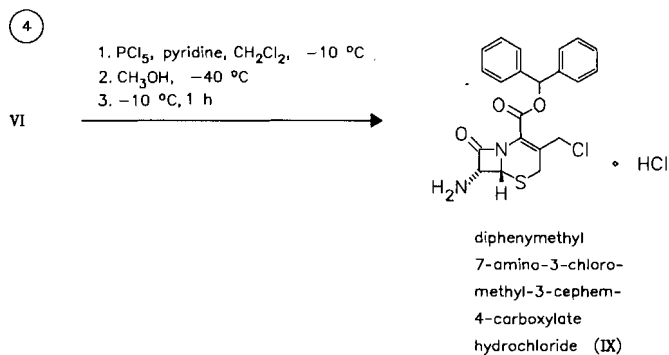
diphenylmethyl 7-[5-(diphenylmethoxycarbonyl)-
5-(diphenylmethoxycarbonyl)-
pentanamido]-3-hydroxymethyl-
3-cephem-4-carboxylate (V)



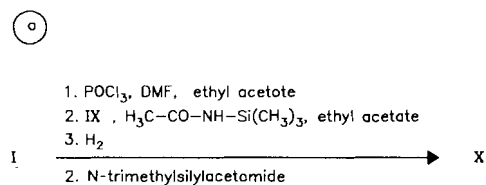
(VI)

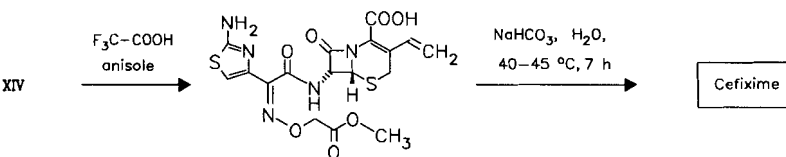
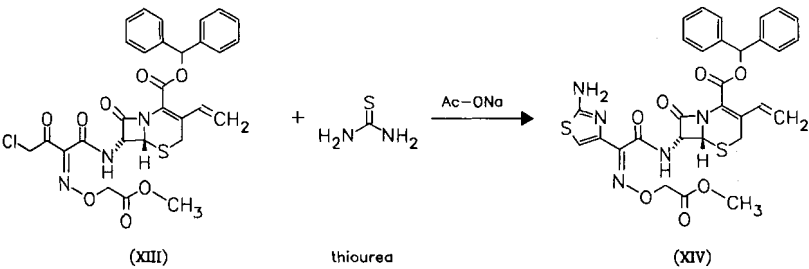
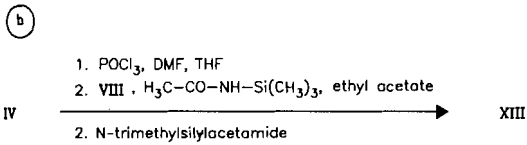
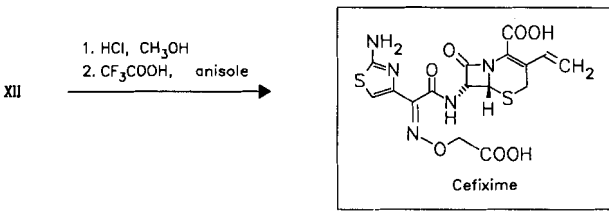
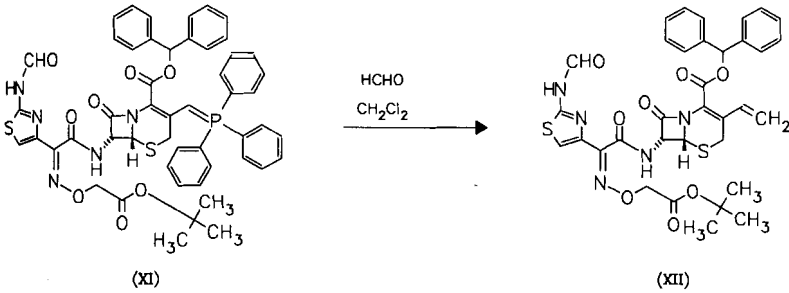
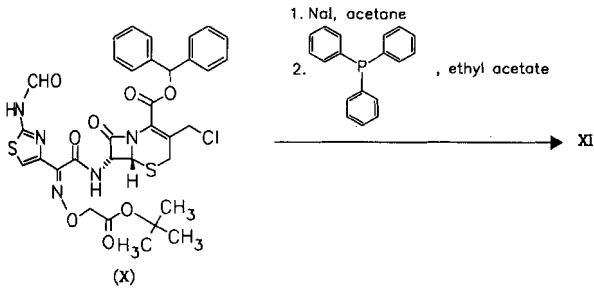


(VII)



synthesis of Cefixime:





Reference(s):

alternative synthesis routes for VIII starting from 7-aminocephalosporanic acid are also described in the cited literature:

Yamanaka, H. et al.: J. Antibiot. (JANTAJ) **38**, 1738 (1985).

Yamanaka, H. et al.: J. Antibiot. (JANTAJ) **39**, 101 (1986).

Kawabata, K. et al.: J. Antibiot. (JANTAJ) **39**, 405 (1986).

US 4 409 214 (Fujisawa; 11.10.1983; UK-prior. 19.11.1979, 8.2.1980, 21.4.1980, 14.7.1980).

US 4 423 213 (Fujisawa; 27.12.1983; UK-prior. 19.11.1979, 8.2.1980, 21.4.1980, 14.7.1980).

US 4 487 927 (Fujisawa; 11.12.1984; UK-prior. 19.11.1979, 8.2.1980, 21.4.1980, 14.7.1980).

US 4 585 860 (Fujisawa; 29.4.1984; UK-prior. 19.11.1979, 8.2.1980, 21.4.1980, 14.7.1980).

EP 30 630 (Fujisawa; appl. 15.11.1980; UK-prior. 19.11.1979, 8.2.1980, 21.4.1980, 14.7.1980).

Formulation(s): cps. 100 mg, 200 mg; fine gran. 50 mg/g; f. c. tabl. 200 mg, 400 mg; oral susp. 100 mg/5 ml; syrup 100 mg/5 ml; supplied as trihydrate in all formulations

Trade Name(s):

D:	Cephoral (Merck; 1991)	F:	Oroken (Bellon)	Unixime (Firma)	
	Suprax (Klinge)	I:	Cefixoral (Menarini)	J:	Cefspan (Fujisawa; 1987)
	Uro-Cephoral (Merck)		Suprax (Cyanamid)	USA:	Suprax (Lederle Labs.)

Cefmenoxime

ATC: J01DA16

Use: β -lactam antibiotic (cefalosporin derivative)

RN: 65085-01-0 MF: $C_{16}H_{17}N_9O_5S_3$ MW: 511.57

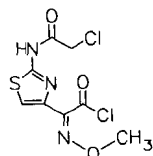
CN: [6R-[6 α ,7 β (Z)]]-7-[(2-amino-4-thiazolyl)(methoxyimino)acetyl]amino]-3-[[1-(methyl-1H-tetrazol-5-yl)thio]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

hydrochloride (2:1)

RN: 75738-58-8 MF: $C_{16}H_{17}N_9O_5S_3 \cdot 1/2HCl$ MW: 1059.60 EINECS: 278-299-4

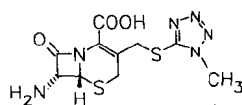
LD₅₀: 7830 mg/kg (M, i.v.); 17.54 g/kg (M, p.o.);

2680 mg/kg (R, i.v.); >20 g/kg (R, p.o.)

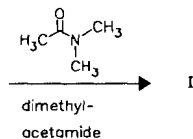


2-(2-chloroacetamido-4-thiazolyl)-2-methoxyiminoacetyl chloride
(cf. ceftriaxone synthesis)

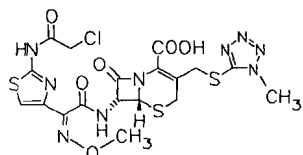
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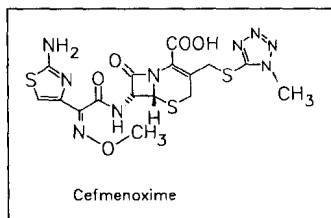
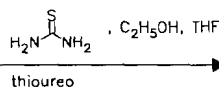
7(R)-amino-3-(1-methyl-1H-tetrazol-5-ylthio)-3-cephem-4-carboxylic acid
(cf. cefamandole synthesis)

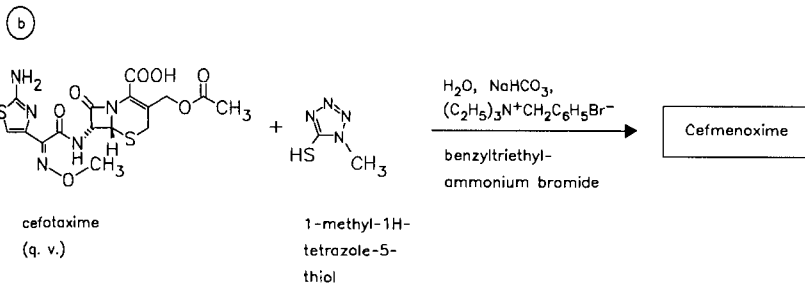


I



(I)



**Reference(s):**Ochiai, M. et al.: Chem. Pharm. Bull. (CPBTAL) **25**, 3115 (1977).

DOS 2 556 736 (Takeda; appl. 17.12.1975; J-prior. 19.12.1974; GB-prior. 9.6.1975).

US 4 098 888 (Takeda; 4.7.1978; J-prior. 1974; GB-prior. 9.6.1975).

DOS 2 715 385 (Takeda; appl. 6.4.1977; J-prior. 14.4.1976; 8.9.1976).

Formulation(s): vial 500 mg, 1 g, 2 g (as hydrochloride)**Trade Name(s):**

D: Tacef (Takeda; 1983)

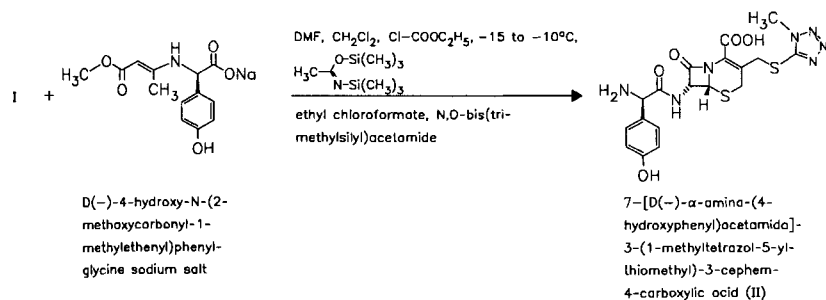
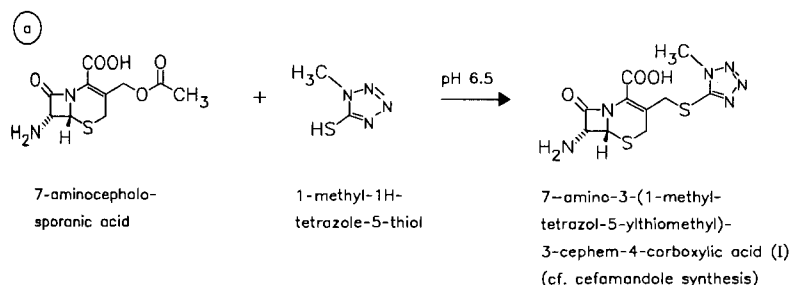
F: Cemix (Takeda); wfm

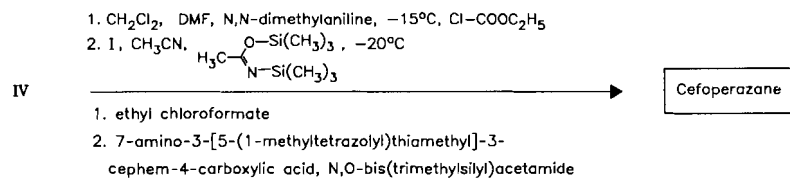
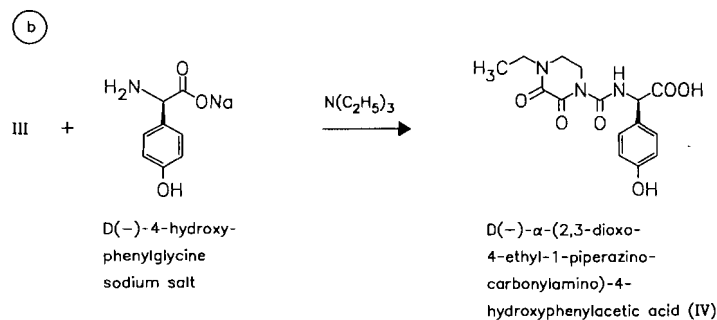
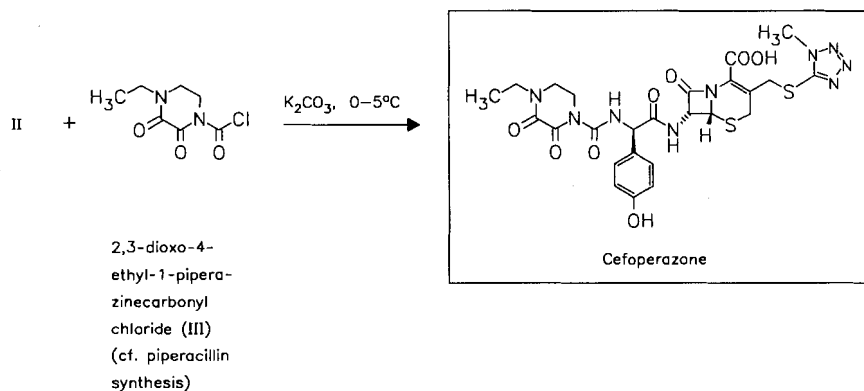
J: Bestcall (Takeda; 1983)

Cefoperazone

ATC: J01DA32

Use: antibiotic

RN: 62893-19-0 MF: $\text{C}_{25}\text{H}_{27}\text{N}_9\text{O}_8\text{S}_2$ MW: 645.68 EINECS: 263-749-4CN: [6R-[6 α ,7 β (R*)]]-7-[[[(4-ethyl-2,3-dioxo-1-piperazinyl)carbonyl]amino](4-hydroxyphenyl)acetyl]amino]-3-[[[(1-methyl-1H-tetrazol-5-yl)thio]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid**sodium salt**RN: 62893-20-3 MF: $\text{C}_{25}\text{H}_{26}\text{N}_9\text{NaO}_8\text{S}_2$ MW: 667.66

**Reference(s):**

DE 2 600 880 (Toyama; D-prior. 12.1.1976).

US 4 410 522 (Toyama; 18.10.1983; J-prior. 9.5.1974).

US 4 110 327 (Toyama; 29.8.1978; J-prior. 9.5.1974, 13.5.1974, 31.5.1974, 13.8.1974, 26.9.1974, 13.12.1974, 27.3.1975).

DOS 2 519 400 (Toyama; appl. 30.4.1975; J-prior. 9.5.1974, 13.5.1974, 31.5.1974, 13.8.1974, 26.9.1974, 13.12.1974, 27.3.1975).

GB 1 508 062 (Toyama; appl. 28.4.1975; J-prior. 9.5.1974, 13.5.1974, 31.5.1974, 24.7.1974, 7.8.1974, 13.8.1974, 26.9.1974, 12.10.1974, 28.10.1974, 6.12.1974, 13.12.1974, 17.2.1975, 26.3.1975, 27.3.1975).

GB 1 508 071 (Toyama; appl. 19.1.1976).

***N,N*-dimethylacetamide adducts:**

DOS 2 841 706 (Toyama; appl. 25.9.1978; J-prior. 27.9.1977).

Formulation(s): vial 250 mg, 500 mg, 1 g, 2 g (as sodium salt)**Trade Name(s):**

D: Cefobis (Pfizer; 1981)

F: Céfobis (Pfizer); wfm

I: Bioperazone (Leben's)

Cefazone (Locatelli)

Cefobid (Pfizer)

Cefogram (Metapharma)

Cefoneg (Tosi-Novara)

Cefoper (Menarini)

Cefosint (Crosara)

Dardum (Lisapharma)

Farecef (Lafare)

Ipazone (IPA)

Kefazon (Esseti)

Mediper (Medici)

Novobiocyl (Francia Farm.)

Perocef (Pulitzer)

Prontokef (Master Pharma)

Tomabef (Salus Research)

Zoncef (AGIPS)

J: Cefobid (Toyama/Pfizer;
1981)Cefoperazin (Toyama)
USA: Cefobid (Pfizer; 1982)**Cefotaxime**

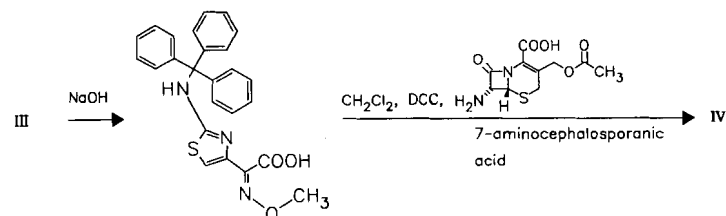
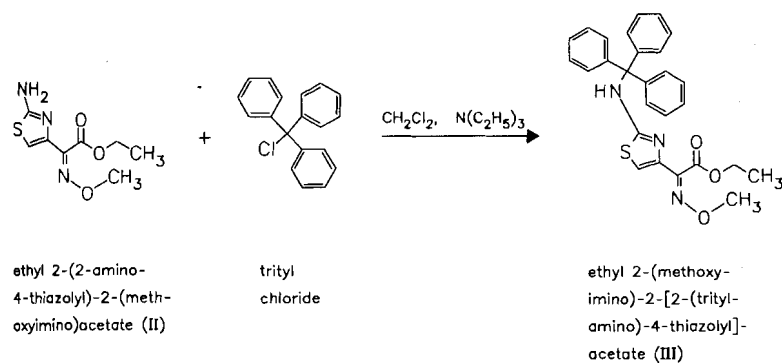
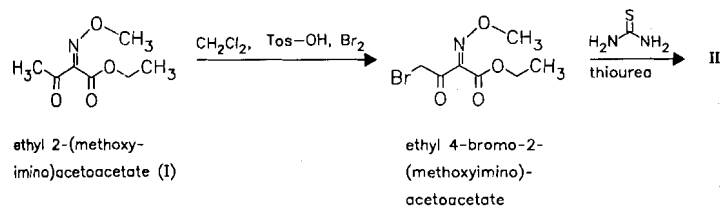
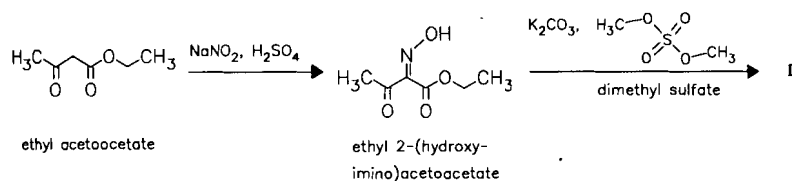
ATC: J01DA10

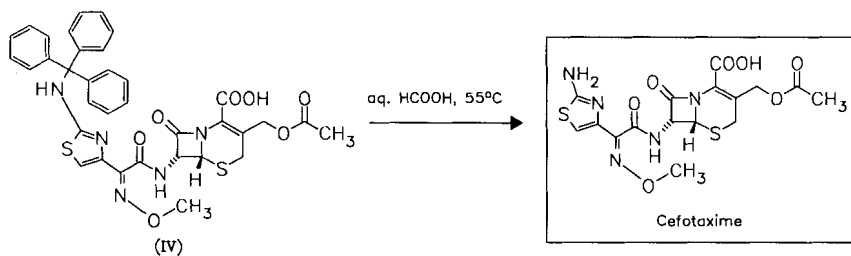
Use: antibiotic

RN: 63527-52-6 MF: $C_{16}H_{17}N_5O_7S_2$ MW: 455.47 EINECS: 264-299-1CN: [6R-[6 α ,7 β (Z)]]-3-[(acetyloxy)methyl]-7-[[2-(2-amino-4-thiazolyl)(methoxyimino)acetyl]amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid**monosodium salt**RN: 64485-93-4 MF: $C_{16}H_{16}N_5NaO_7S_2$ MW: 477.45LD₅₀: 6845 mg/kg (M, i.v.); >20 g/kg (M, p.o.);

7 g/kg (R, i.v.); >20 g/kg (R, p.o.);

>1.5 g/kg (dog, i.v.)



**Reference(s):**

DOS 2 702 501 (Roussel-Uclaf; appl. 21.1.1977; F-prior. 23.1.1976, 11.6.1976, 18.8.1976).
 US 4 152 432 (Roussel-Uclaf; 1.5.1979; F-prior. 23.1.1976).

sodium salt:

DAS 2 708 439 (Hoechst; appl. 26.2.1977).

Formulation(s): vial 250 mg, 500 mg, 1 g, 2 g (as sodium salt)

Trade Name(s):

D:	Claforan (Hoechst; 1980)	Zariviz (Hoechst Italia Sud)	USA:	Claforan (Hoechst Marion Roussel)
F:	Claforan (Hoechst)	J:	Cefotax (Roussel-Chugai; 1981)	
GB:	Claforan (Roussel; 1981)			
I:	Claforan (Roussel)			Claforan (Hoechst; 1981)

Cefotetan

ATC: J01DA14

Use: β -lactam antibiotic (cefalosporin derivative)

RN: 69712-56-7 MF: C₁₇H₁₇N₇O₈S₄ MW: 575.63 EINECS: 274-093-3

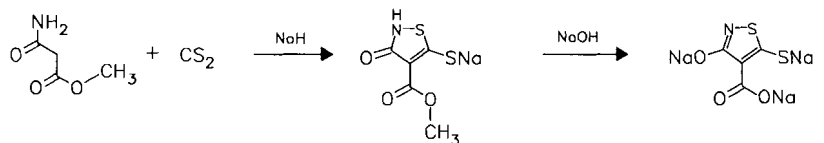
LD₅₀: 4990 mg/kg (M, i.v.); >10 g/kg (M, p.o.);
 5 g/kg (R, i.v.); >10 g/kg (R, p.o.);
 >6 g/kg (dog, i.v.)

CN: [6R-(6 α ,7 α)]-7-[[[4-(2-amino-1-carboxy-2-oxoethylidene)-1,3-dithietan-2-yl]carbonyl]amino]-7-methoxy-3-[[[1-methyl-1H-tetrazol-5-yl]thio]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

disodium salt

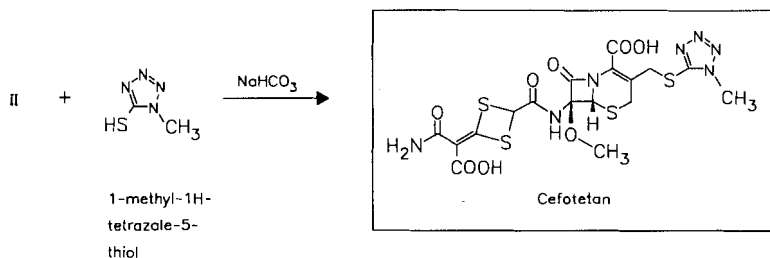
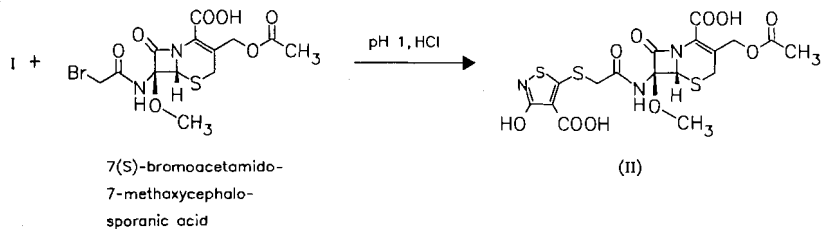
RN: 74356-00-6 MF: C₁₇H₁₅N₇Na₂O₈S₄ MW: 619.59 EINECS: 277-834-9

LD₅₀: 4990 mg/kg (M, i.v.); >10 g/kg (M, p.o.);
 6790 mg/kg (R, i.v.); >10 g/kg (R, p.o.);
 >6 g/kg (dog, i.v.)



methyl
malonamate

4-carboxy-3-hydroxy-
5-mercaptoisothiazole
trisodium salt (I)

**Reference(s):**

DOS 2 824 559 (Yamanouchi; appl. 5.6.1978; J.-prior. 10.6.1977).
 US 4 263 432 (Yamanouchi; 21.4.1981; appl. 7.6.1978; J.-prior. 28.7.1977).

Formulation(s): vial 250 mg, 500 mg, 1 g, 2 g (as sodium salt)

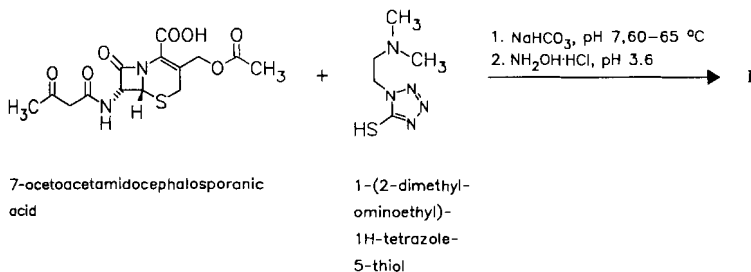
Trade Name(s):

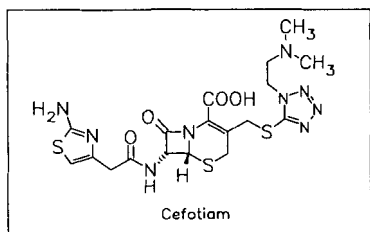
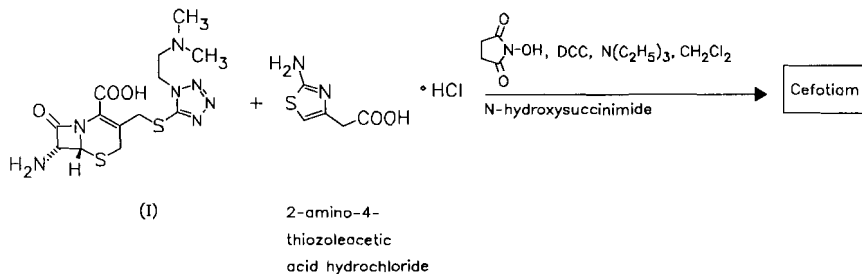
D:	Apatef (ICI; 1985); wfm	I:	Apatef (Zeneca)	J:	Yamatetan (Yamanouchi)
F:	Apacef (Zeneca)		Cepan (IBI)	USA:	Cefotan (Stuart; 1986)

Cefotiam

ATC: J01DA19

Use: antibiotic

RN: 61622-34-2 MF: C₁₈H₂₃N₉O₄S₃ MW: 525.64LD₅₀: 3840 mg/kg (M, i.v.)CN: (6*R-trans*)-7-[[[2-amino-4-thiazolyl]acetyl]amino]-3-[[[1-[2-(dimethylamino)ethyl]-1*H*-tetrazol-5-yl]thio]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid**dihydrochloride**RN: 66309-69-1 MF: C₁₈H₂₃N₉O₄S₃ · 2HCl MW: 598.56



Reference(s):

- Tsushima, S. et al.: Chem. Pharm. Bull. (CPBTAL) **27**, 696 (1979).
 DOS 2 461 478 (Takeda; appl. 24.12.1974; J-prior. 25.12.1973).
 DAS 2 462 736 (Takeda; appl. 24.12.1974; J-prior. 25.12.1973).
 US 4 080 498 (Takeda; 21.3.1978; appl. 20.12.1974; J-prior. 25.12.1973).
 DE 2 738 711 (Takeda; appl. 27.8.1977; J-prior. 31.8.1976).
 US 4 146 710 (Takeda; 27.3.1979; 29.8.1977; J-prior. 31.8.1976).

intermediates:

- DOS 2 607 064 (Takeda; appl. 21.2.1976; J-prior. 24.2.1975).

Formulation(s): vial 500 mg, 1 g, 2 g (as dihydrochloride); tabl. 100 mg, 200 mg

Trade Name(s):

D:	Spizef (Takeda; 1982)	Texodil (Cassenne)	J:	Pansporin T (Takeda; 1981)
F:	Taketiam (Takeda)	I: Sporidyn (Zoja)		Sporidyn (Cyanamid)

Cefoxitin

ATC: J01DA05

Use: antibiotic

RN: 35607-66-0 MF: $C_{16}H_{17}N_3O_7S_2$ MW: 427.46 EINECS: 252-641-2

LD₅₀: 4970 mg/kg (M, i.v.); >10 g/kg (M, p.o.);

8580 mg/kg (R, i.v.); >10 g/kg (R, p.o.);

>10 g/kg (dog, i.v.)

CN: (6R-cis)-3-[[[(aminocarbonyl)oxy]methyl]-7-methoxy-8-oxo-7-[(2-thienylacetyl)amino]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

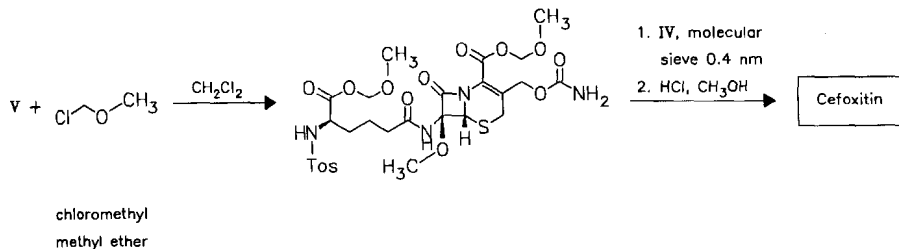
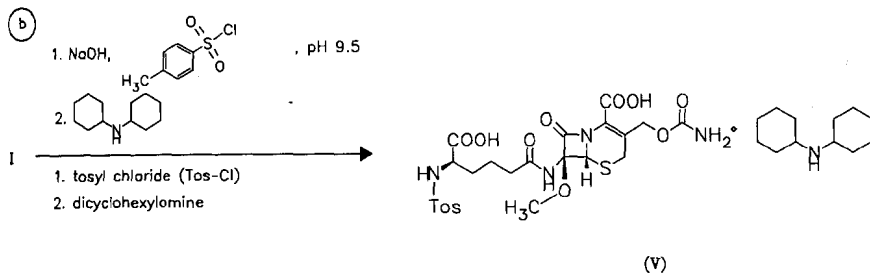
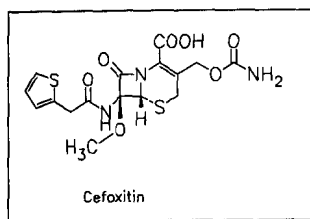
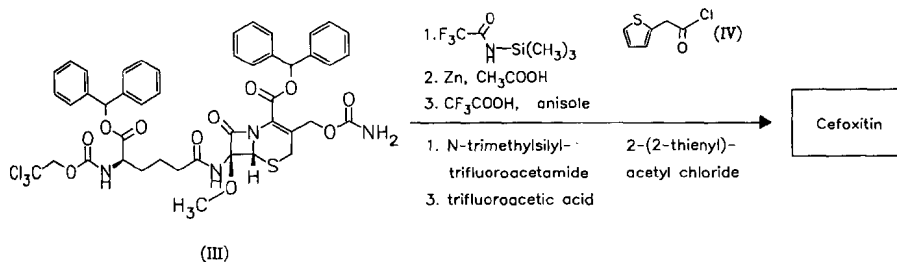
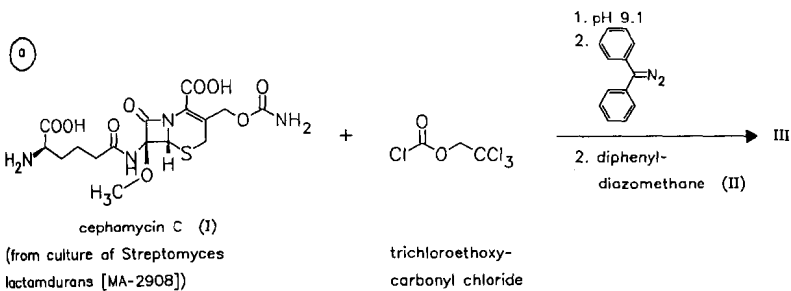
monosodium salt

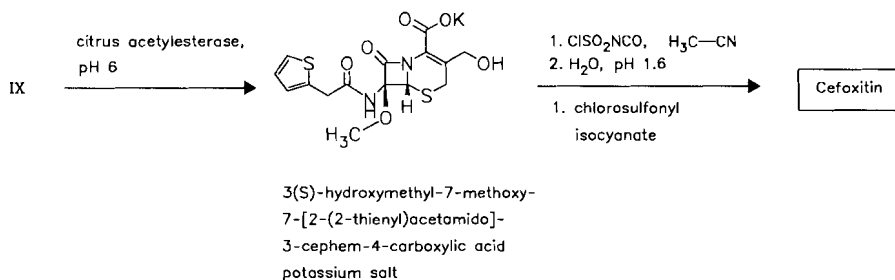
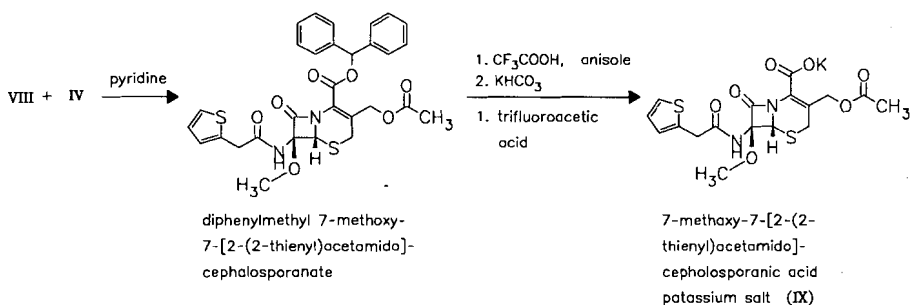
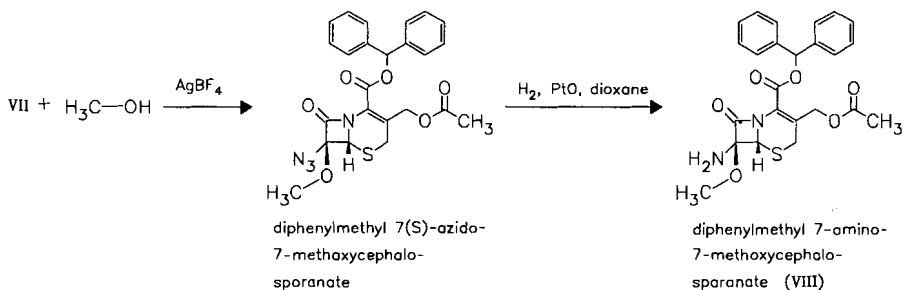
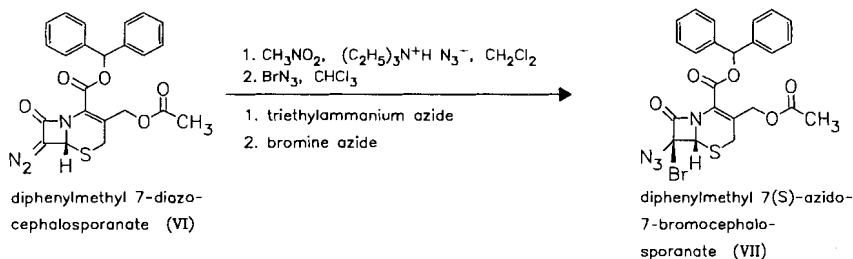
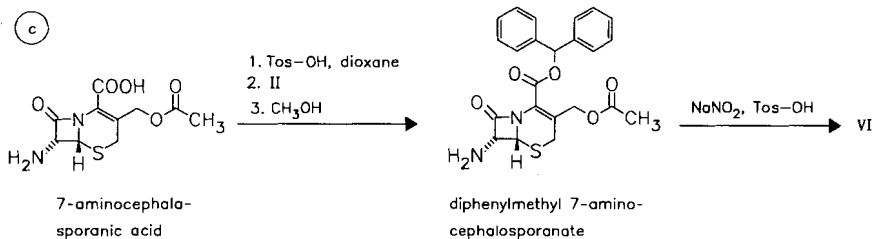
RN: 33564-30-6 MF: $C_{16}H_{16}N_3NaO_7S_2$ MW: 449.44 EINECS: 251-574-6

LD₅₀: 4970 mg/kg (M, i.v.); >10 g/kg (M, p.o.);

8580 mg/kg (R, i.v.); >10 g/kg (R, p.o.);

10 g/kg (dog, i.v.)





Reference(s):

- a,c US 4 297 488 (Merck & Co. 27.10.1981; appl. 2.6.1971; GB-prior. 16.6.1970).
 DOS 2 129 675 (Merck & Co.; appl. 15.6.1971; GB-prior. 16.6.1970).
 DOS 2 143 331 (Merck & Co.; appl. 15.6.1971; GB-prior. 16.6.1970).
 DOS 2 203 653 (Merck & Co.; appl. 26.1.1972; GB-prior. 27.1.1971).
 US 3 775 410 (Merck & Co.; 27.11.1973; appl. 29.11.1971).
 US 3 780 033 (Merck & Co.; 18.12.1973; appl. 29.11.1971).
 DOS 2 258 278 (Merck & Co.; appl. 28.11.1972; USA-prior. 29.11.1971).
 US 3 843 641 (Merck & Co.; 22.10.1974; prior. 29.11.1971).
 b DOS 2 456 528 (Merck & Co.; appl. 29.11.1974; USA-prior. 30.11.1973).
 c DE 2 318 829 (Merck & Co.; appl. 13.4.1973; USA-prior. 14.4.1972).
 DOS 2 365 582 (Merck & Co.; appl. 13.4.1973; USA-prior. 14.4.1972).

azido-intermediates:

DOS 2 365 406 (Merck & Co.; appl. 13.4.1973; USA-prior. 14.4.1972).

7-amino-7-methoxycephalosporanic acid esters:

DOS 2 365 456 (Merck & Co.; appl. 13.4.1973; USA-prior. 14.4.1972).

from 7-amino-7-methoxypenicillanic acid derivatives:

DAS 2 229 246 (Merck & Co.; appl. 15.6.1972; USA-prior. 18.6.1971, 13.12.1971).

fermentative preparation of cephamycin C:

US 3 914 157 (Merck & Co.; 21.10.1975; prior. 13.3.1970, 30.6.1970, 1.12.1971, 12.2.1973).
 US 3 962 224 (Merck & Co.; 8.6.1976; prior. 14.4.1972, 30.6.1972, 10.10.1972, 5.3.1973).
 GB 1 515 809 (Merck & Co.; appl. 7.9.1976; USA-prior. 21.11.1975).
 US 4 137 405 (Merck & Co.; 30.1.1979; appl. 28.7.1977).

*7-(5-amino-5-carboxypentanoylamino)-7-methoxy-3-hydroxymethyl-3-cephem-4-carboxylic acid**from cephamycin A or B:*

DAS 2 509 337 (Meiji Seika Kaisha; appl. 4.3.1975; J-prior. 11.3.1974).

common synthetic methods for 7-methoxycephalosporine:

Hiraoka, T. et al.: Heterocycles (HTCYAM) **8**, 719 (1977).

Formulation(s): vial 1 g, 2 g (as sodium salt)

Trade Name(s):

D:	Mefoxitin (MSD; 1978)	I:	Betacef (Firma)	J:	Tifox (Select Pharma)
F:	Mefoxin (Merck Sharp & Dohme-Chibret)		Cefociclin (Ist. Italiano Ferm.)		Cenomycin (Daiichi)
GB:	Mefoxin (Merck Sharp & Dohme; 1978)		Mefoxin (Merck Sharp & Dohme)	USA:	Mefoxin (Merck; 1978)

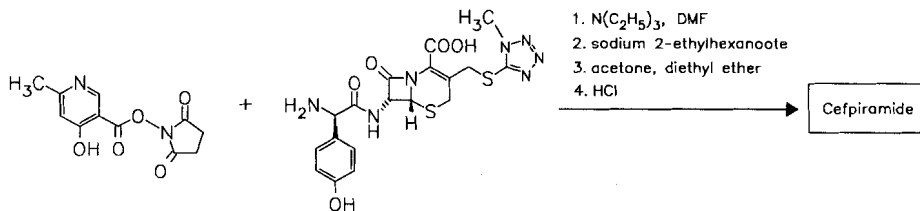
Cefpiramide

ATC: J01DA27

Use: β -lactam antibiotic

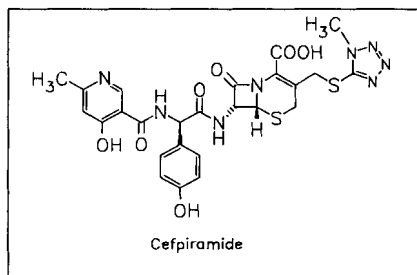
RN: 70797-11-4 MF: C₂₅H₂₄N₈O₇S₂ MW: 612.65

CN: [6R-[6 α ,7 β (R*)]]-7-[[[(4-hydroxy-6-methyl-3-pyridinyl)carbonyl]amino]-(4-hydroxyphenyl)acetyl]amino]-3-[[[(1-methyl-1H-tetrazol-5-yl)thio]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid



succinimido
4-hydroxy-6-methyl-
nicotinate

7(R)-[2(R)-amino-2-(4-
hydroxyphenyl)acetamido]-
3-[[[(1-methyl-1H-tetrazol-
5-yl)thio]methyl]-3-cephem-
4-carboxylic acid
(cf. cefoperazone synthesis)



Reference(s):

DOS 2 539 664 (Sumitomo; appl. 5.9.1975; J-prior. 6.9.1974, 19.9.1974, 20.3.1975).
US 4 156 724 (Sumitomo; 29.5.1979; appl. 8.9.1975; J-prior. 6.9.1974, 19.9.1974, 20.3.1975).
US 4 160 087 (Sumitomo; 3.7.1979; appl. 10.5.1977; J-prior. 6.9.1974, 19.9.1974, 20.3.1975).
GB 1 510 730 (Sumitomo; appl. 5.9.1975; J-prior. 6.9.1974, 19.9.1974, 20.3.1975).
FR 2 283 688 (Sumitomo; appl. 5.9.1975; J-prior. 6.9.1974, 19.9.1974, 20.3.1975).

Formulation(s): vial 1 g (as sodium salt)

Trade Name(s):

J: Sepatren (Sumitomo)

Suncefal (Yamanouchi)

***cis*-Cefprozil**

ATC: J01DA41

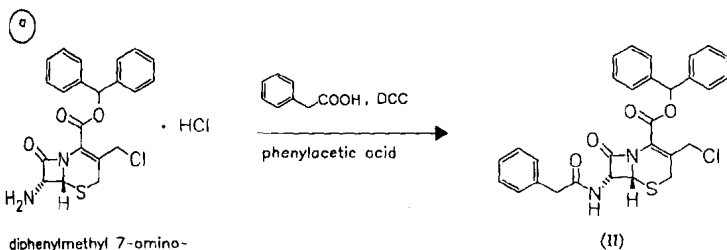
Use: broad-spectrum cephalosporin (orally active)

RN: 92665-29-7 MF: $C_{18}H_{19}N_3O_5S$ MW: 389.43

CN: [6R-[3(Z),6 α ,7 β (R*)]]-7-[[Amino(4-hydroxyphenyl)acetyl]amino]-8-oxo-3-(1-propenyl)-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

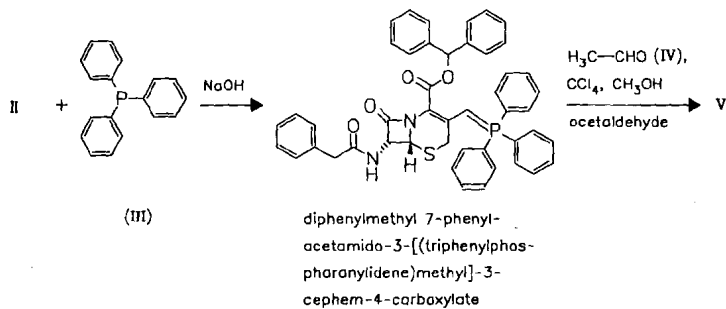
monohydrate

RN: 121123-17-9 MF: $C_{18}H_{19}N_3O_5S \cdot H_2O$ MW: 407.45



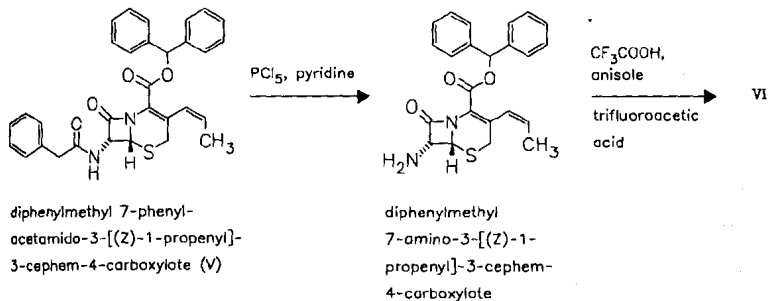
diphenylmethyl 7-amino-3-chloromethyl-3-cephem-4-carboxylate hydrochloride (I)
(cf. cefixime synthesis)

(II)



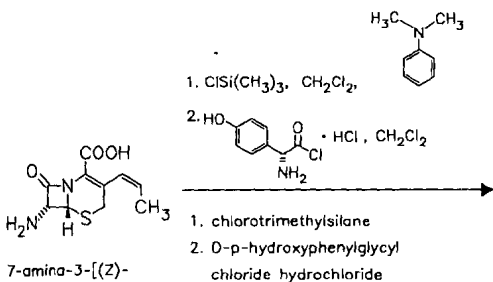
(III)

diphenylmethyl 7-phenylacetamido-3-[(triphenylphosphoranylidene)methyl]-3-cephem-4-carboxylate

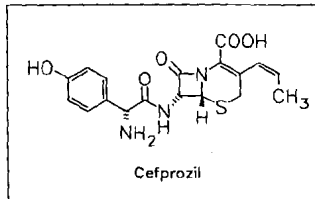


diphenylmethyl 7-phenylacetamido-3-[(Z)-1-propenyl]-3-cephem-4-carboxylate (V)

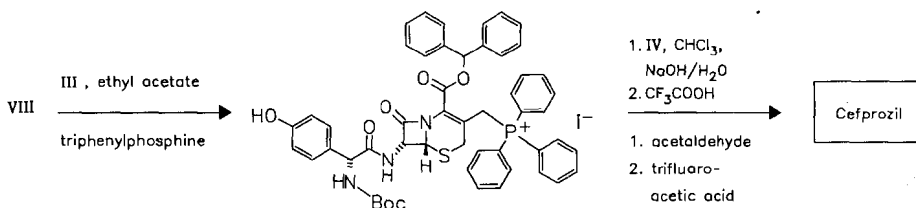
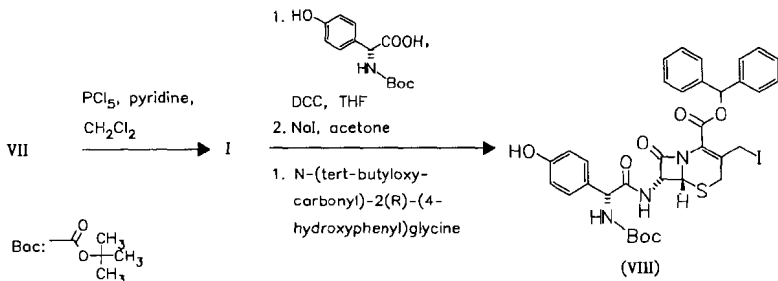
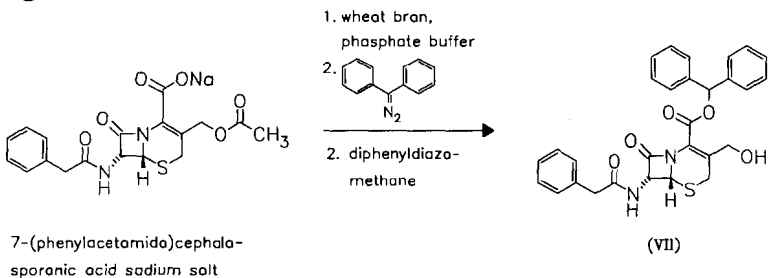
diphenylmethyl 7-amino-3-[(Z)-1-propenyl]-3-cephem-4-carboxylate



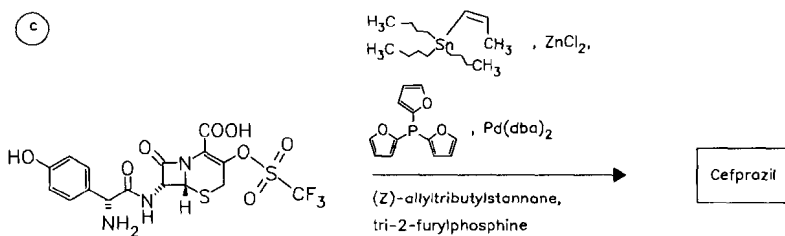
7-amino-3-[(Z)-1-propenyl]-3-cephem-4-carboxylic acid (VI)



(b)



(c)

*Reference(s):*

- a US 4 694 079 (Bristol-Myers Squibb. Co.; 15.9.1987; USA-prior. 29.7.1985).
b DE 3 402 642 (Bristol-Myers Squibb. Co.; appl. 26.1.1984; USA-prior. 28.1.1983).
c US 4 870 168 (Bristol-Myers Squibb & Co.; 29.11.1989; USA-prior. 26.2.1987).

Formulation(s): oral susp. 125 mg/5 ml, 250 mg/5ml; tabl. 250 mg, 500 mg

Trade Name(s):

USA: Cefzil (Bristol-Myers Squibb; 1992)

Cefradine

(Cephadrine)

ATC: J01DA31

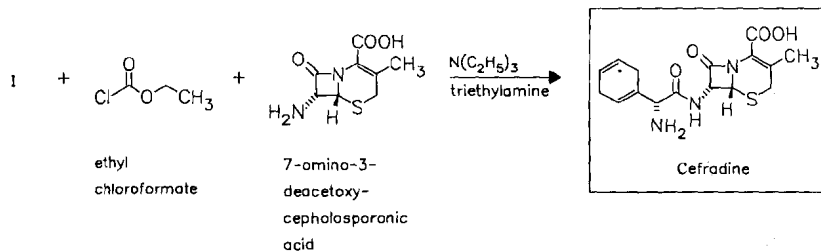
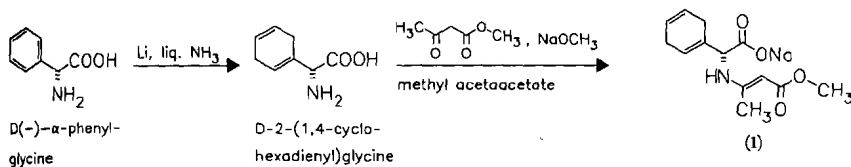
Use: antibiotic

RN: 38821-53-3 MF: C₁₆H₁₉N₃O₄S MW: 349.41 EINECS: 254-137-8LD₅₀: 3539 mg/kg (M, i.v.); 3549 mg/kg (M, p.o.);

>2500 mg/kg (R, i.v.); >12 g/kg (R, p.o.)

CN: [6R-[6 α ,7 β (R*)]]-7-[(amino-1,4-cyclohexadien-1-ylacetyl)amino]-3-methyl-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid**dihydrate**RN: 31828-50-9 MF: C₁₆H₁₉N₃O₄S · 2H₂O MW: 385.44LD₅₀: 3 g/kg (M, i.v.); 5 g/kg (M, p.o.);

>8.5 g/kg (R, p.o.)

**Reference(s):**

US 3 485 819 (Squibb; 23.12.1969; appl. 2.7.1968).

DAS 1 931 722 (Squibb; appl. 23.6.1969; USA-prior. 2.7.1968).

acylation via 1,3,2-dioxaboranyl-derivatives:

DOS 2 755 902 (Dobfar; appl. 15.12.1977; I-prior. 16.12.1976).

microbiological acylation with *Aphanocladium araneorum* (ATCC 20453):

US 4 073 687 (Shionogi; 14.2.1978; J-prior. 14.5.1975).

Formulation(s): cps. 250 mg, 500 mg; tabl. 1 g; vial 250 mg, 500 mg, 1 g**Trade Name(s):**

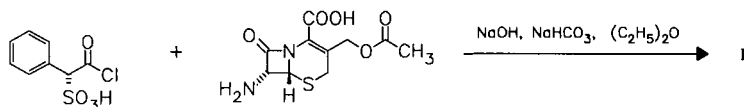
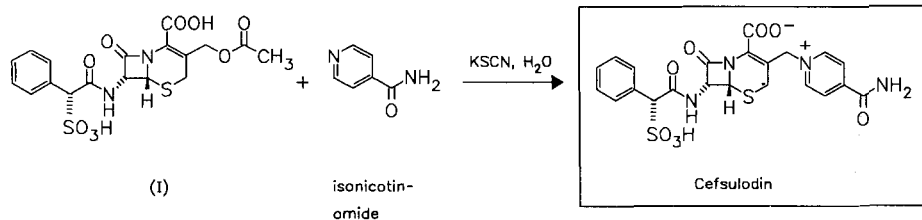
D:	Eskacef (SK Dauelsberg; 1977); wfm	GB:	Velosef (Bristol-Myers Squibb)	USA:	Anspor (Smith Kline & French; 1974); wfm
F:	Sefril (Heyden; 1973); wfm	I:	Cefrabiotic (Leben's Citicef (CT)		Cephadrine (Lederle Standard)
	Cefirex (Irex)		Ecosporina (Ecobi)		Velosef (Squibb; 1974); wfm
	Doncef (Pharma 2000)		Lisacef (Lisapharma)		
	Kelsef (Jumer)	J:	Cefro (Sankyo)		
	Zadyl (Thera France)		Dicefalin (Nikon Squibb)		
	Zeefra (Doms-Adrian)				

Cefsulodin

ATC: J01DA12

Use: β -lactam antibioticRN: 62587-73-9 MF: $C_{22}H_{20}N_4O_8S_2$ MW: 532.55CN: [6R-[6 α ,7 β (R*)]]-4-(aminocarbonyl)-1-[[2-carboxy-8-oxo-7-[(phenylsulfoacetyl)amino]-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]pyridinium hydroxide inner salt**monosodium salt**RN: 52152-93-9 MF: $C_{22}H_{19}N_4NaO_8S_2$ MW: 554.54 EINECS: 257-692-4LD₅₀: 3780 mg/kg (M, i.v.); >15 g/kg (M, p.o.);3030 μ g/kg (R, i.v.); >15 g/kg (R, p.o.);

>15 g/kg (dog, p.o.)

(R)- α -sulfophenyl-
acetyl chloride7-aminocephalo-
sporonic acid

(I)

isonicotin-
amide

Cefsulodin

Reference(s):

Nomura, H. et al.: J. Med. Chem. (JMCMAR) 17, 1312 (1974).

US 4 065 619 (Takeda; 27.12.1977; J-prior. 17.7.1971, 22.10.1971).

DE 2 234 280 (Takeda; appl. 12.7.1972; J-prior. 17.7.1971, 22.10.1971).

FR 2 146 313 (Takeda; appl. 17.7.1972; J-prior. 17.7.1971, 22.10.1971).

GB 1 387 656 (Takeda; appl. 17.7.1972; J-prior. 17.7.1971, 22.10.1971).

Formulation(s): vial 500 mg, 1 g, 2 g (as sodium salt)**Trade Name(s):**

D: Pseudocef (Takeda; 1981)

GB: Monaspor (Ciba; 1982);

J: Takesulin (Takeda; 1981)

F: Pyocefal (Takeda)

wfm

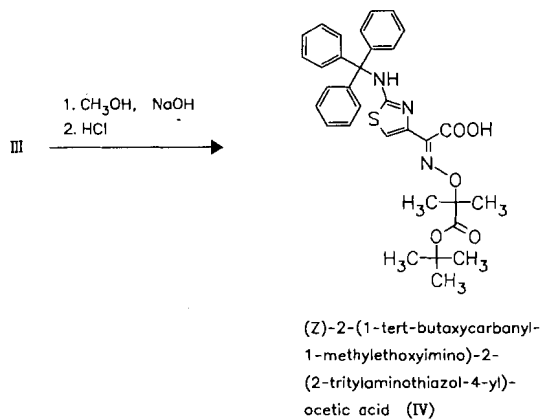
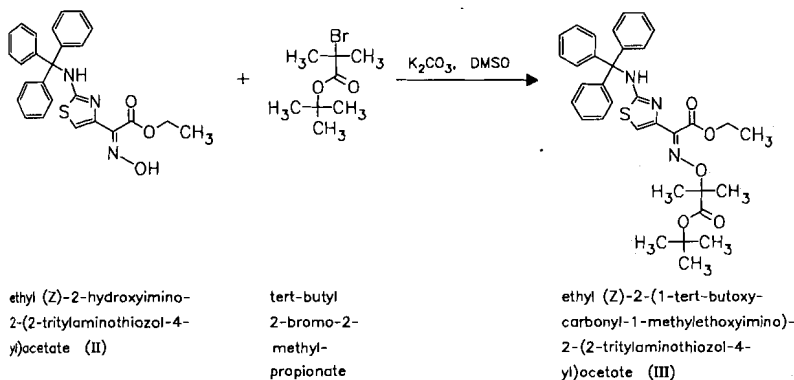
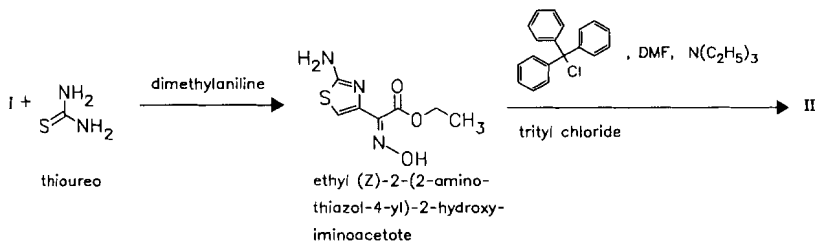
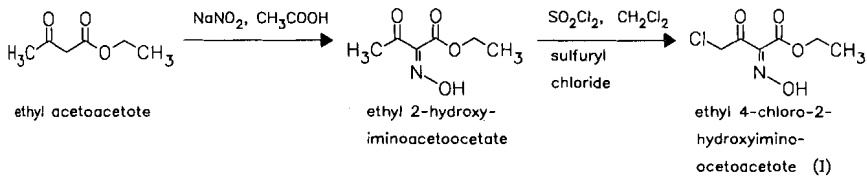
Ceftazidime

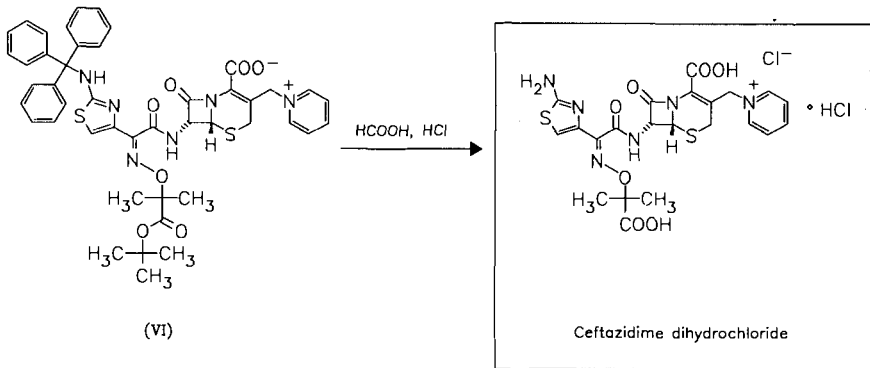
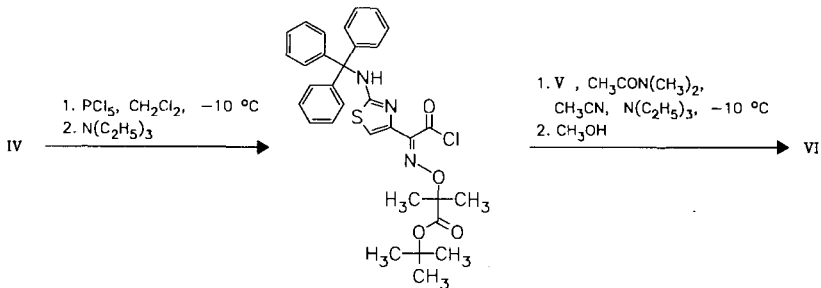
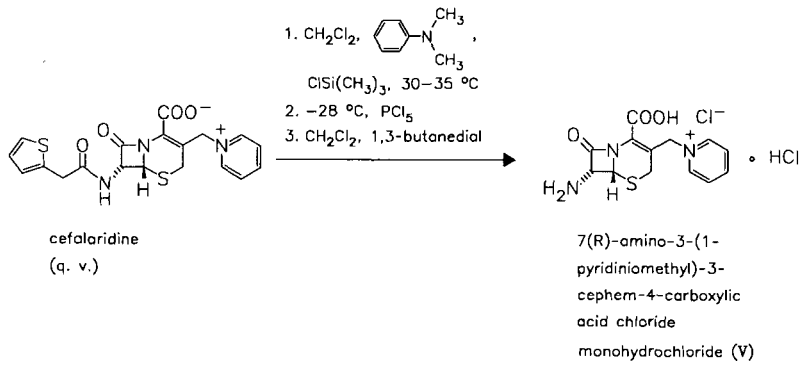
ATC: J01DA11

Use: β -lactam antibiotic (cefalosporin derivative)RN: 72558-82-8 MF: $C_{22}H_{22}N_6O_7S_2$ MW: 546.59 EINECS: 276-715-9LD₅₀: 6300 mg/kg (M, i.v.); >20 g/kg (M, p.o.);

5800 mg/kg (R, i.v.); >20 g/kg (R, p.o.)

CN: [6R-[6 α ,7 β (Z)]]-1-[[7-[[[(2-amino-4-thiazolyl)[(1-carboxy-1-methylethoxy)imino]acetyl]amino]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]pyridinium hydroxide inner salt**dihydrochloride**RN: 73547-70-3 MF: $C_{22}H_{22}N_6O_7S_2 \cdot 2HCl$ MW: 619.51



**Reference(s):**

- DOS 2 921 316 (Glaxo; appl. 25.5.1979; GB-prior. 26.5.1978).
 US 4 258 041 (Glaxo; 24.3.1981; GB-prior. 26.5.1978).
 GB 2 025 398 (Glaxo; appl. 25.5.1979; GB-prior. 26.5.1978).
 US 4 525 587 (Eli Lilly; 25.6.1985; prior. 27.12.1982, 3.2.1984).

intermediate IV:

- US 4 497 956 (Glaxo; 5.2.1985; GB-prior. 13.11.1981).

acid chloride of IV:

- EP 101 148 (Glaxo; appl. 28.4.1983; GB-prior. 29.4.1982).

intermediate V:

- EP 135 258 (Eli Lilly; appl. 18.6.1984; USA-prior. 20.6.1983).
 EP 70 706 (Glaxo; appl. 16.7.1982; GB-prior. 17.7.1981).

salts and crystal modifications:**crystalline dihydrochloride:**

- US 4 467 086 (Glaxo; 21.8.1984; GB-prior. 2.10.1979).

pentahydrate:

DOS 3 037 102 (Glaxo; appl. 1.10.1980; GB-prior. 2.10.1979).
 GB 2 063 871 (Glaxo; appl. 1.10.1980; GB-prior. 2.10.1979).
 US 4 329 453 (Glaxo; 11.5.1982; appl. 9.9.1980; GB-prior. 2.10.1979).

sesquihydrate:

DOS 3 313 816 (Hoechst; appl. 16.4.1983).
 EP 122 584 (Hoechst; appl. 10.4.1984; D-prior. 16.4.1983).

anhydrous crystal modification:

DOS 3 313 818 (Hoechst; appl. 16.4.1983).
 EP 122 585 (Hoechst; appl. 10.4.1984; D-prior. 16.4.1983).

pharmaceutical formulations:

DOS 3 332 616 (Glaxo; appl. 9.9.1983; GB-prior. 10.9.1982).

Formulation(s): vial 250 mg, 500 mg, 1 g, 2 g, 3 g

Trade Name(s):

D:	Fortum (Cascan-Glaxo; 1984)	I:	Kefadim (Lilly) Ceftim (Glaxo Allen)	J:	Starcef (Firma) Modacin (Shin Nihon)
F:	Fortum (Glaxo Wellcome)		Glazidim (Glaxo)	USA:	Ceptaz (Glaxo)
GB:	Fortum (Glaxo Wellcome; 1983)		Panzid (Duncan) Spectrum (Sigma-Tau)		Fortaz (Glaxo; 1985) Tazdime (Lilly; 1985)

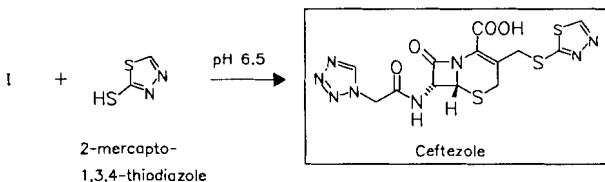
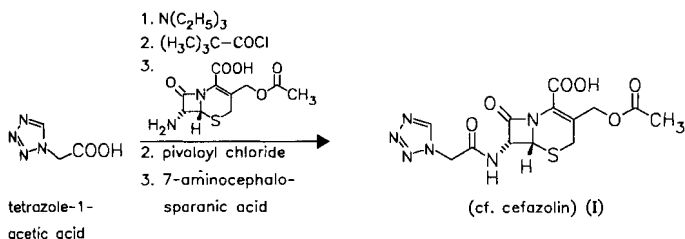
Ceftezole

ATC: J01DA36

Use: antibiotic

RN: 26973-24-0 MF: $C_{13}H_{12}N_8O_4S_3$ MW: 440.49

CN: (6*R-trans*)-8-oxo-7-[(1*H*-tetrazol-1-ylacetyl)amino]-3-[(1,3,4-thiadiazol-2-ylthio)methyl]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

*Reference(s):*

DE 1 770 168 (Fujisawa; appl. 10.4.1968; J-prior. 15.4.1967, 23.10.1967, 28.10.1967).
 US 3 516 997 (Fujisawa; 23.6.1970; J-prior. 15.4.1967, 24.10.1967, 28.10.1967).
 GB 1 206 305 (Fujisawa; appl. 11.4.1968; J-prior. 15.4.1967, 24.10.1967, 28.10.1967).

combination with penicillins:

DOS 2 508 443 (Fujisawa; appl. 27.2.1975; J-prior. 28.2.1974, 27.3.1974).

Formulation(s): vial 250 mg, 500 mg, 1 g, 2 g (as sodium salt)

Trade Name(s):

I: Alomen (Benedetti)

J: Celoslin (Fujisawa)

Falomesin (Chugai)

Cefprozime

ATC: J01DA22

Use: β -lactam antibiotic (cefalosporin derivative)

RN: 68401-81-0 MF: $C_{13}H_{13}N_5O_5S_2$ MW: 383.41

CN: [6R-[6 α ,7 β (Z)]]-7-[[2-amino-4-thiazolyl(methoxyimino)acetyl]amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

monohydrochloride

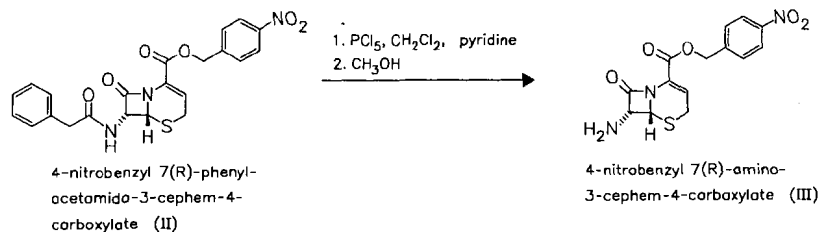
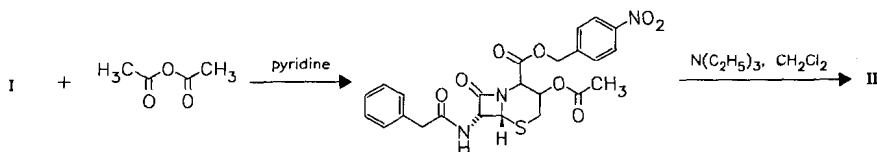
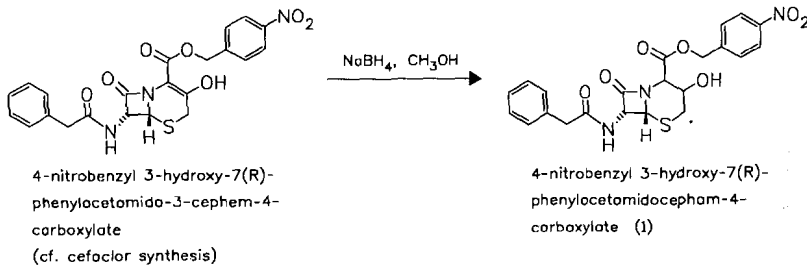
RN: 68401-80-9 MF: $C_{13}H_{13}N_5O_5S_2 \cdot HCl$ MW: 419.87

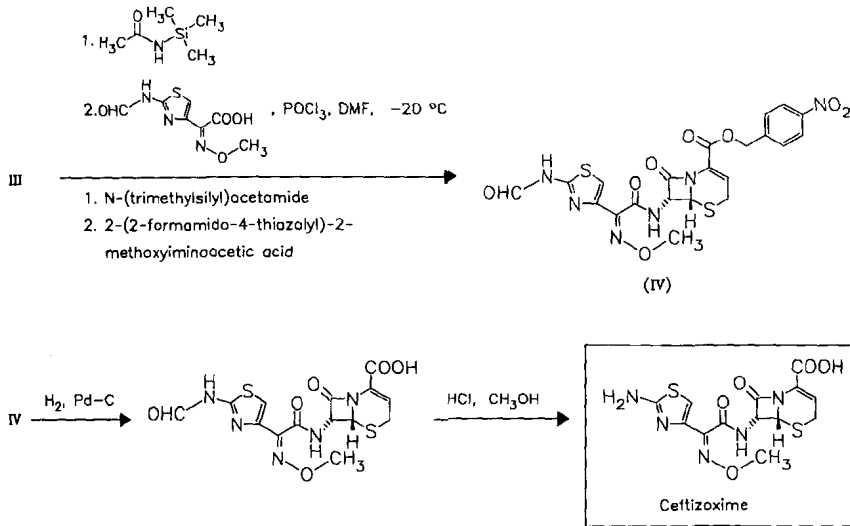
monosodium salt

RN: 68401-82-1 MF: $C_{13}H_{12}N_5NaO_5S_2$ MW: 405.39

LD₅₀: 5150 mg/kg (M, i.v.); >10 g/kg (M, p.o.);

5570 mg/kg (R, i.v.); >10 g/kg (R, p.o.)



**Reference(s):**

US 4 427 674 (Fujisawa; 24.1.1984; GB-prior. 14.3.1977, 12.7.1977, 11.10.1977, 3.1.1978).
 US 4 463 002 (Fujisawa; 31.7.1984; J-prior. 21.5.1981).

Formulation(s): vial 0.25 g, 0.5 g, 1 g, 2 g (as sodium salt)

Trade Name(s):

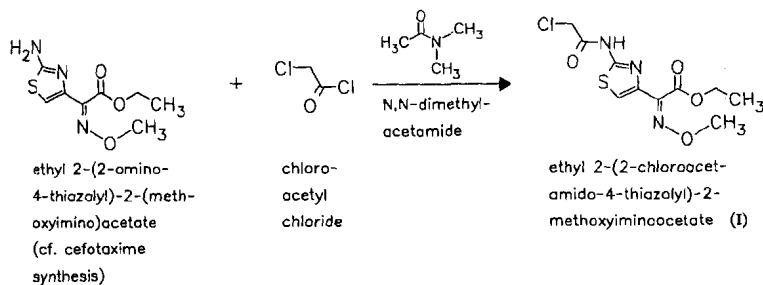
D: Cefix (Roche; 1983)	GB: Cefizox (Wellcome); wfm	J: Epocelin (Fujisawa)
F: Cefizox (Bellon)	I: Eposerin (Farmitalia)	USA: Cefizox (Fujisawa; 1983)

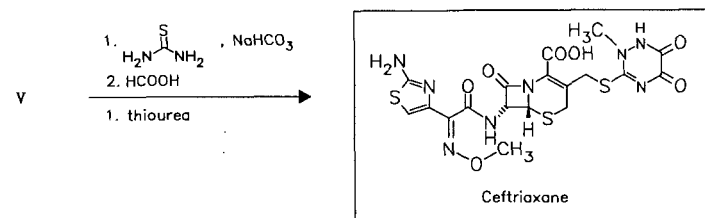
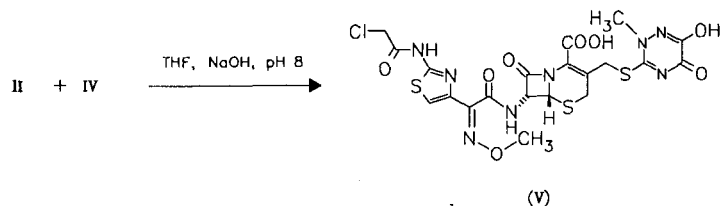
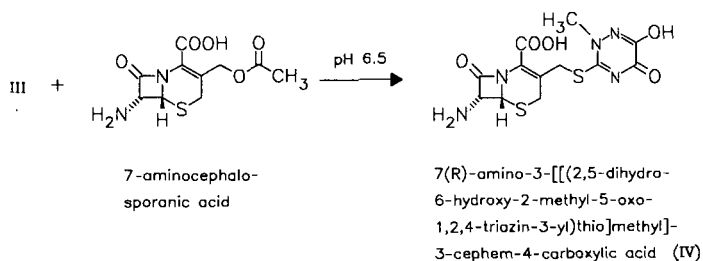
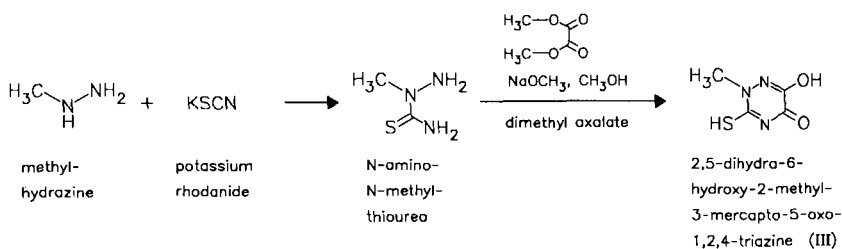
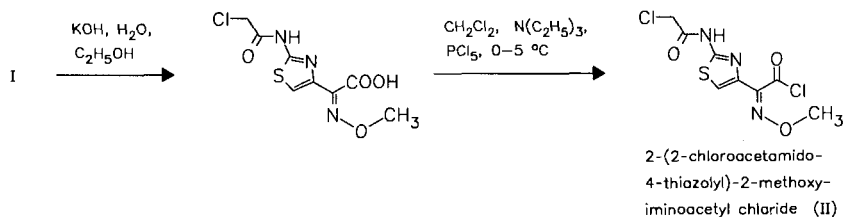
Ceftriaxone

ATC: J01DA13

Use: β -lactam antibiotic (cefalosporin derivative)RN: 73384-59-5 MF: C₁₈H₁₈N₈O₇S₃ MW: 554.59 EINECS: 277-405-6CN: [6R-[6 α ,7 β (Z)]]-7-[[[(2-amino-4-thiazolyl)(methoxyimino)acetyl]amino]-8-oxo-3-[[[(1,2,5,6-tetrahydro-2-methyl-5,6-dioxo-1,2,4-triazin-3-yl)thio]methyl]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid**disodium salt**RN: 74578-69-1 MF: C₁₈H₁₆N₈Na₂O₇S₃ MW: 598.55 EINECS: 277-930-0LD₅₀: 2200 mg/kg (M, i.v.); >10 g/kg (M, p.o.);

1900 mg/kg (R, i.v.); >10 g/kg (R, p.o.)



**Reference(s):**

DOS 2 922 036 (Roche; appl. 30.5.1979; CH-prior. 30.5.1978, 8.3.1979).
US 4 327 210 (Roche; 27.4.1982; appl. 24.11.1978; CH-prior. 30.5.1978).

alternative synthesis from cefotaxime and 2,5-dihydro-6-hydroxy-2-methyl-3-mercapto-5-oxo-1,2,4-triazine:
US 4 431 804 (Roche; 14.2.1984; CH-prior. 17.2.1981).

Formulation(s): inj. powder 250 mg, 1 g, 2 g

Trade Name(s):

D: Rocephin (Roche; 1983)

F: Rocéphine (Roche)

GB: Rocephin (Roche)

I: Rocefin (Roche) USA: Rocefin (Roche Labs.;
 J: Rocephin (Roche) 1985)

Cefuroxime

ATC: J01DA06
 Use: antibiotic

RN: 55268-75-2 MF: $C_{16}H_{16}N_4O_8S$ MW: 424.39 EINECS: 259-560-1

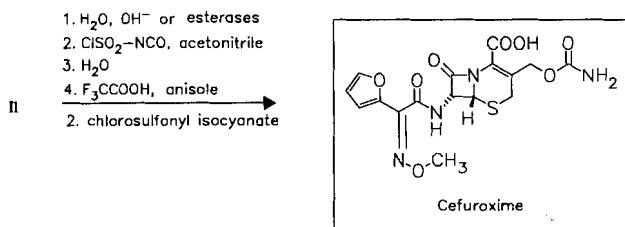
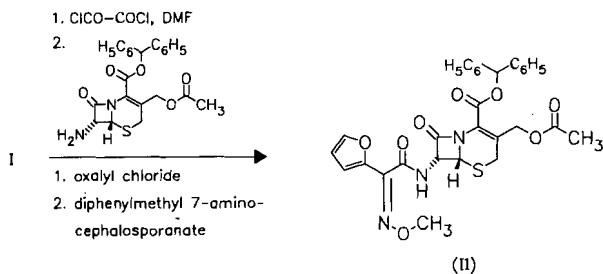
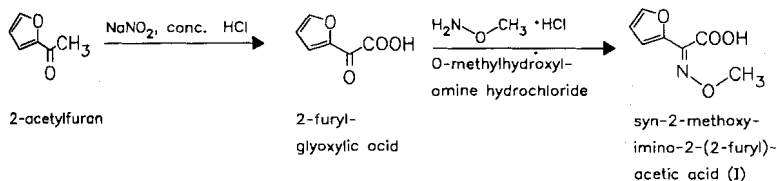
LD₅₀: 10.4 g/kg (M, i.v.); >10 g/kg (M, p.o.);
 >8 g/kg (R, i.v.); 10 g/kg (R, p.o.)

CN: [6*R*-[6 α ,7 β (*Z*)]]-3-[[aminocarbonyloxy]methyl]-7-[[2-furyl(methoxyimino)acetyl]amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

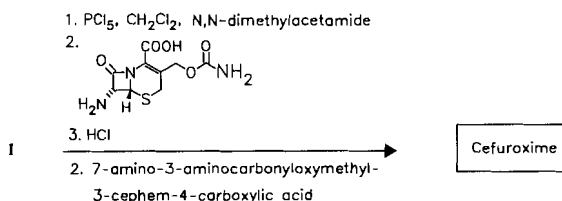
sodium salt

RN: 56238-63-2 MF: $C_{16}H_{15}N_4NaO_8S$ MW: 446.37

a



b



Reference(s):

GB 1 453 049 (Glaxo; appl. 21.8.1973; valid from 13.8.1974).
 DAS 2 439 880 (Glaxo; appl. 20.8.1974; GB-prior. 21.8.1973).
 DOS 2 462 376 (Glaxo; appl. 20.8.1974; GB-prior. 21.8.1973).
 DOS 2 204 060 (Glaxo; appl. 28.1.1972; GB-prior. 29.1.1971, 1.10.1971 and 14.1.1972).
 DOS 2 223 375 (Glaxo; appl. 12.5.1972; GB-prior. 14.5.1971 and 1.10.1971).
 DOS 2 265 234 (Glaxo; appl. 12.5.1972; GB-prior. 14.5.1971 and 1.10.1971).
 US 3 966 717 (Glaxo; 29.6.1976; GB-prior. 14.5.1971, 1.10.1971, 21.8.1973).
 DOS 2 439 880 (Glaxo; appl. 20.8.1974; GB-prior. 21.8.1973).
 US 3 971 778 (Glaxo; 27.7.1976; GB-prior. 25.10.1972).
 US 3 974 153 (Glaxo; 10.8.1976; GB-prior. 14.5.1971, 1.10.1971, 21.8.1973).

crystalline sodium salt:

DOS 2 901 730 (Glaxo; appl. 17.1.1979; GB-prior. 17.1.1978).

syn-2-methoxyimino-2-(2-furyl)acetic acid, resp. -acetyl chloride:

US 4 017 515 (Glaxo; 12.4.1977; GB-prior. 14.5.1971, 1.10.1971, 12.5.1972 and 25.10.1972).

2-furylgyoxylic acid:

GB 1 503 649 (Glaxo; appl. 28.6.1974; valid from 27.6.1975).

US 4 013 680 (Glaxo; 22.3.1977; prior. 18.6.1975).

L-lysine salt of cefuroxime:

US 4 128 715 (Glaxo; 5.12.1978; GB-prior. 28.4.1976).

DOS 2 718 730 (Glaxo; appl. 27.4.1977; GB-prior. 28.4.1976).

alternative methods for 3-hydroxymethylcephalosporin derivatives:

DE 1 545 915 (Glaxo; appl. 29.10.1965; GB-prior. 30.10.1964, 27.1.1965, 19.10.1965).

DOS 2 745 219 (Glaxo; appl. 7.10.1977; GB-prior. 8.10.1976).

DAS 1 795 777 (Glaxo; appl. 29.10.1965; GB-prior. 30.10.1964, 27.1.1965, 19.10.1965).

GB 1 474 519 (Glaxo; appl. 14.5.1973; valid from 6.5.1974).

alternative methods for 3-carbamoyloxymethyl-cephalosporin-derivatives from the corresponding 3-hydroxymethyl-derivatives (enzymatic with O-transcarbamoylase):

US 4 075 061 (Glaxo; 21.2.1978; GB-prior. 19.2.1976).

US 4 164 447 (Glaxo; 14.8.1979; GB-prior. 19.2.1976).

US 4 164 447 (Glaxo; 14.8.1979; GB-prior. 19.2.1976).

(also reaction of the hydroxymethyl-compd. with chlorosulfonyl isocyanate corresponding at the cefoxitin-synthesis, q. v.).

Formulation(s): amp. 250 mg, 500 mg, 750 mg, 1 g, 1.5 g/20 ml, 1-5 g/40 ml; gran. 125 mg (as sodium salt);
 tabl. 125 mg, 250 mg, 500 mg

Trade Name(s):

D:	Elobact (Glaxo Wellcome/ Cascan)	Cefamar (Firma)	Kefox (CT)
	Zinacef (Glaxo Wellcome; Hoechst; 1977)	Cefoprim (Esseti)	Kesint (Mendelejeff)
	Zinnat (Glaxo Wellcome)	Cefumax (Locatelli)	Lafurex (Lafare)
F:	Cepazine (Sanofi)	Cefur (Eurofarmaco)	Lamposporin (Leben's)
	Winthrop)	Cefurex (Salus Research)	Medoxim (Medici)
	Zinnat (Glaxo Wellcome)	Cefurin (Magis)	Polixima (Sifarma)
GB:	Zinacef (Glaxo Wellcome)	Coliofossim (Coli)	Supero (Francia Farm.)
I:	Biociclin (Delsaz & Filippini)	Curoxim (Glaxo)	J: Oracef (Shin Nihon-Glaxo)
	Biofurex (KBR)	Deltacef (Pulitzer)	USA: Kefurox (Glaxo Wellcome; 1986)
	Bioxima (Kemyos)	Duxima (Ecobi)	Zinacef (Glaxo Wellcome; 1983)
		Gibicef (Metapharma)	
		Ipacef (IPA)	
		Itorex (Biotekfarma)	

Celecoxib

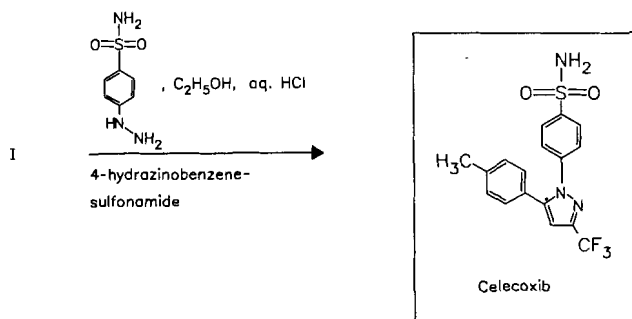
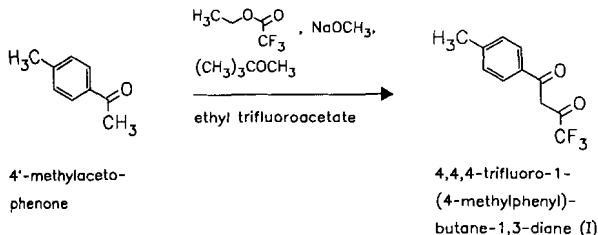
(SC-58635; YM-177)

ATC: M01AH01

Use: anti-inflammatory, cyclooxygenase-2 inhibitor

RN: 169590-42-5 MF: $C_{17}H_{14}F_3N_3O_2S$ MW: 381.38

CN: 4-[5-(4-Methylphenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]benzenesulfonamide

*Reference(s):*

WO 9 515 316 (Searle & Co.; appl. 14.11.1994; USA-prior. 30.11.1993, 6.4.1994).

WO 9 637 476 (Searle & Co.; appl. 23.5.1996; USA-prior. 25.5.1995).

US 5 892 053 (Searle & Co.; 6.4.1999; USA-prior. 25.5.1995).

Penning, T.D. et al.: J. Med. Chem. (JMCMAR) **40** (9), 1347 (1997).De Vleeschauwer, M.; Gauthier, J.Y.: Synlett (SYNLES) **1997** (4), 375.*Formulation(s):* cps. 100 mg, 200 mg*Trade Name(s):*

USA: Celebrex (Pfizer; Searle; 1999)

Celiprolol

(ST-1396)

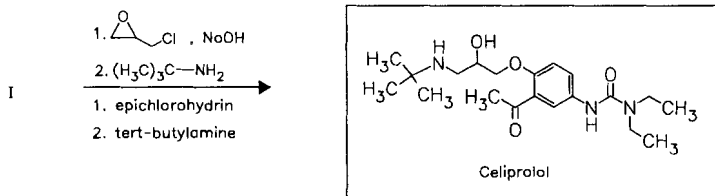
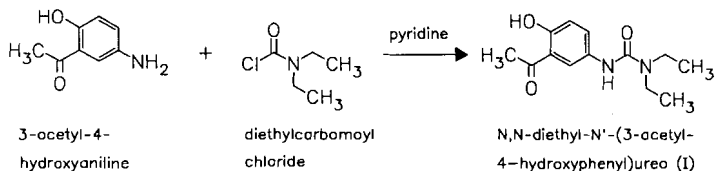
ATC: C07AB08

Use: cardioselective β -receptor antagonistRN: 56980-93-9 MF: $C_{20}H_{33}N_3O_4$ MW: 379.50 EINECS: 260-497-7

CN: N-[3-acetyl-4-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]phenyl]-N,N-diethylurea

monohydrochlorideRN: 57470-78-7 MF: $C_{20}H_{33}N_3O_4 \cdot HCl$ MW: 415.96 EINECS: 260-752-2LD₅₀: 42.3 mg/kg (M, i.v.); 1362 mg/kg (M, p.o.);

68.3 mg/kg (R, i.v.); 2157 mg/kg (R, p.o.)

**Reference(s):**

DOS 2 458 624 (Lentia; appl. 11.12.1974; A-prior. 20.12.1973, 19.11.1974, 20.11.1974, 25.11.1974).
US 4 034 009 (Chemie Linz 5.7.1977; appl. 17.12.1974; A-prior. 20.12.1973).

purification:

EP 229 947 (Lentia; appl. 2.12.1986; D-prior. 13.12.1985).

synthesis of enantiomers:

EP 135 162 (Chemie Linz; appl. 17.8.1984; D-prior. 19.8.1983).
EP 155 518 (Chemie Linz; appl. 20.2.1985; D-prior. 21.3.1984).

ophthalmic formulation:

EP 366 765 (Alcon; appl. 26.4.1989; USA-prior. 26.4.1988).
EP 109 561 (Rorer; appl. 20.10.1983; USA-prior. 27.10.1982).

sustained release formulation:

EP 285 871 (Lentia; appl. 16.3.1988; D-prior. 10.4.1987).
EP 268 813 (Lentia; appl. 16.10.1987; D-prior. 24.10.1986).

Formulation(s): f. c. tabl. 100 mg, 200 mg (as hydrochloride)

Trade Name(s):

D:	Celipro Lich (Lichtenstein)	F:	Célectol (Bellon)
	Selectol (Pharmacia & Upjohn; 1986)	GB:	Celectol (Rhône-Poulenc Rorer)

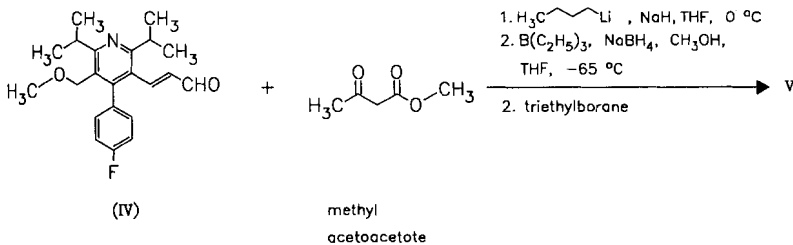
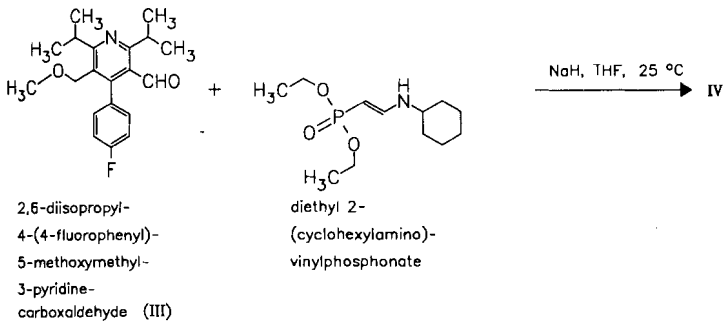
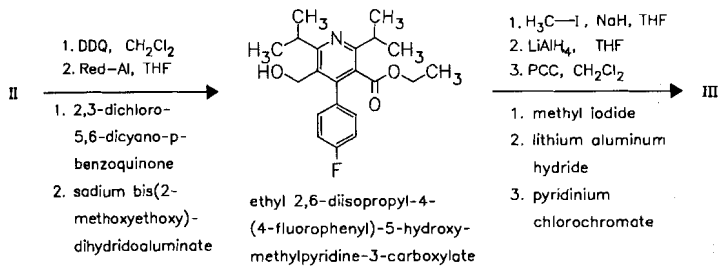
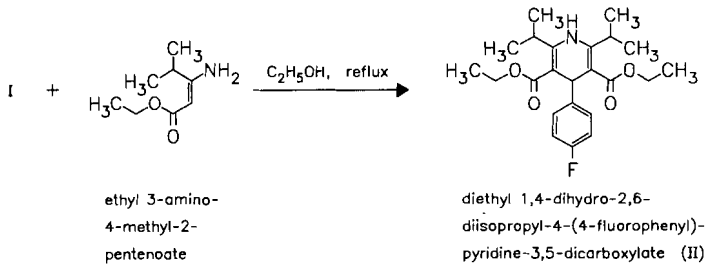
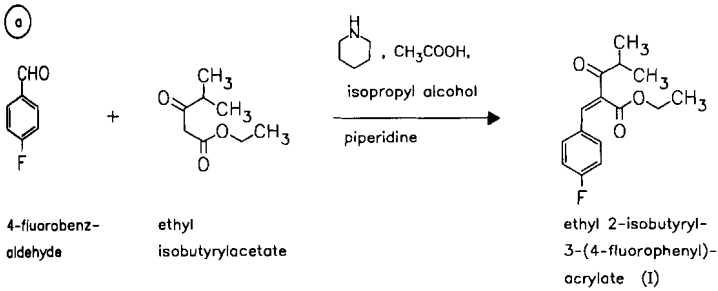
Cerivastatin sodium

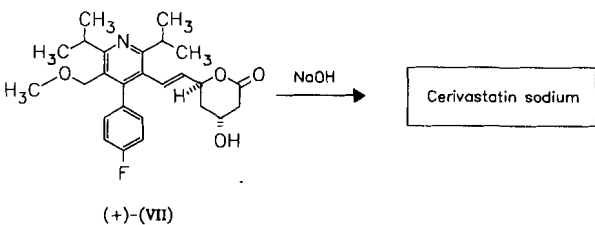
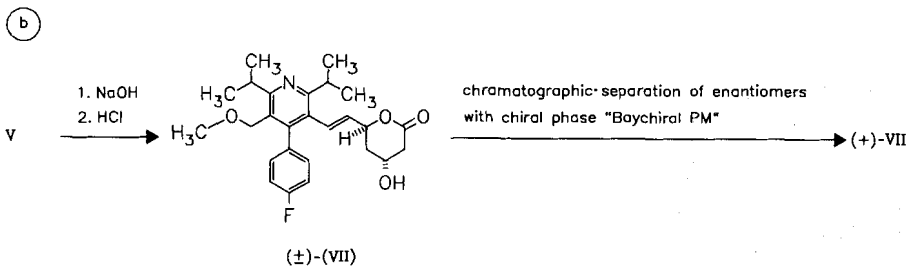
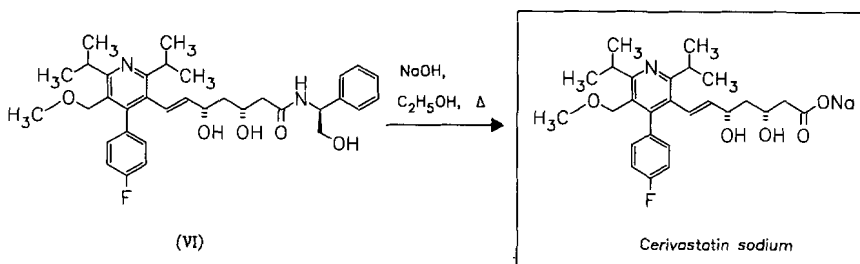
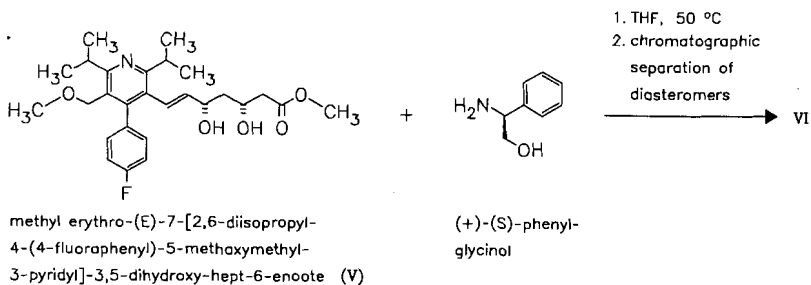
(Avastatin; Bay-W-6228; Rivastatin)

Use: hyperlipidemic, HMG-CoA-reductase inhibitor, antihypercholesterolemic agent

RN: 143201-11-0 MF: C₂₆H₃₃FNNaO₅ MW: 481.54

CN: [S-[R*,S*-(E)]]-7-[4-(4-fluorophenyl)-5-(methoxymethyl)-2,6-bis(1-methylethyl)-3-pyridinyl]-3,5-dihydroxy-6-heptenoic acid monosodium salt





Reference(s):

- a DE 4 040 026 (Bayer; appl. 14.12.1990).
EP 325 130 (Bayer AG; appl. 9.1.1989; D-prior. 20.1.1988).
EP 491 226 (Bayer AG; appl. 3.12.1991; D-prior. 14.12.1990).
AU 9 189 615 (Bayer AG; appl. 11.12.1991; D-prior. 14.12.1990).
(R)-(+)- α -phenethylamine can be used instead of S-(+)-phenylglycinol.
- b Drugs Future (DRFUD4) 19, 537-541 (1994).

Formulation(s): tabl. 0.1 mg, 0.2 mg, 0.3 mg

Trade Name(s):

D: Lipobay (Bayer)

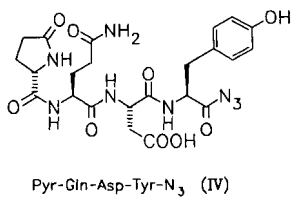
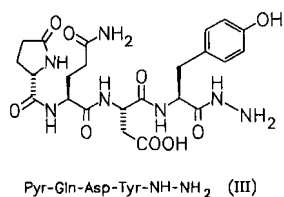
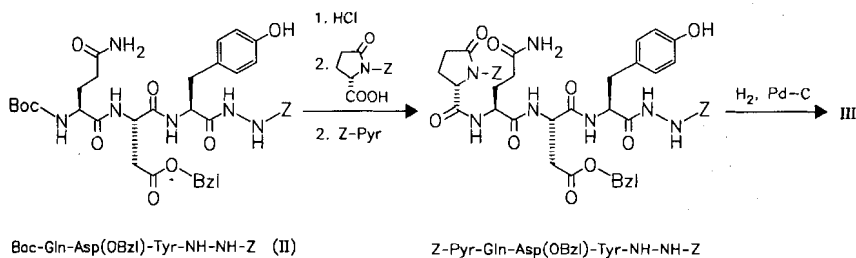
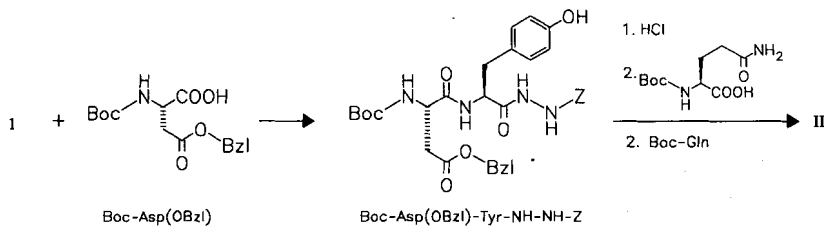
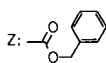
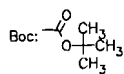
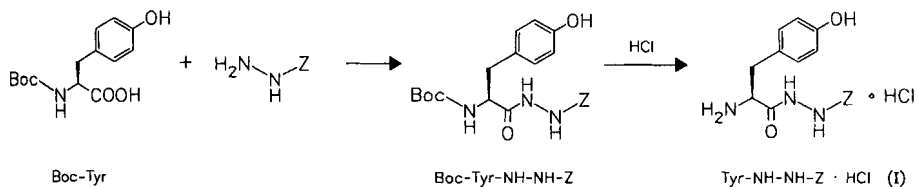
GB: Lipobay (Bayer)

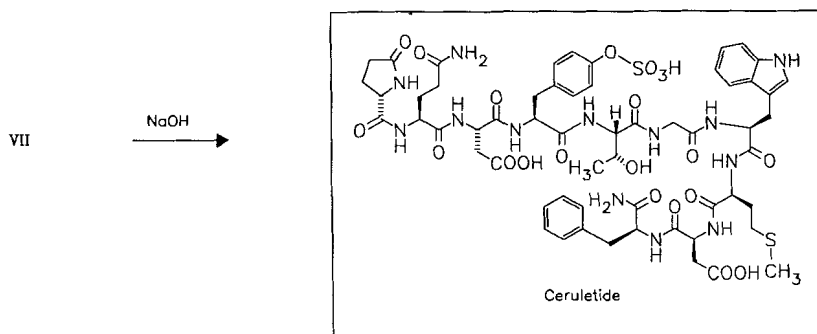
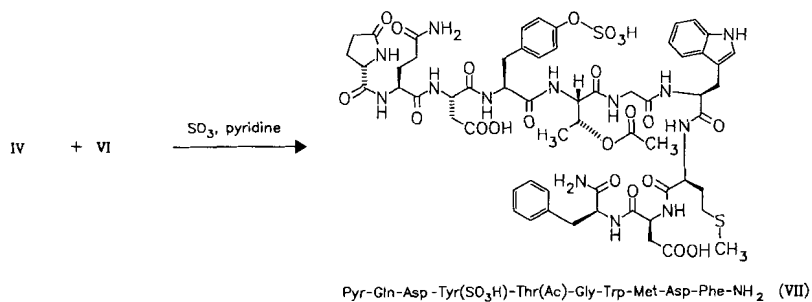
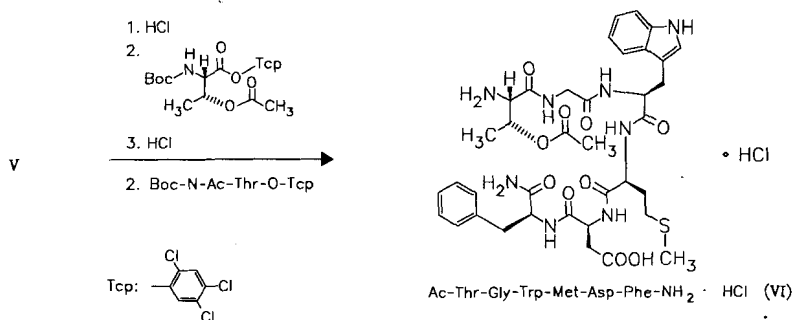
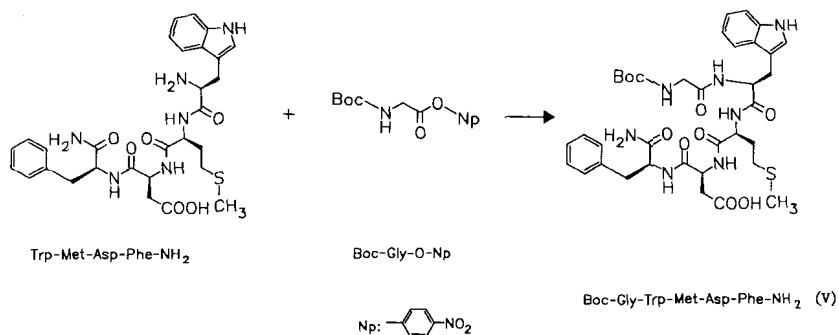
USA: Baycol (Bayer)

Ceruleotide

(Caerulein)

ATC: V04CC04; V04CK

Use: diagnostic (for pancreatic function),
stimulant of gastric secretoryRN: 17650-98-5 MF: C₅₈H₇₃N₁₃O₂₁S₂ MW: 1352.42LD₅₀: 1012 mg/kg (M, i.v.)CN: 5-oxo-L-prolyl-L-glutamyl-L- α -aspartyl-*O*-sulfo-L-tyrosyl-L-threonylglycyl-L-tryptophyl-L-methionyl-L- α -aspartyl-L-phenylalanin amide

**Reference(s):**

DE 1 643 504 (Soc. Farmaceutici Italia; appl. 6.4.1972; I-prior. 9.8.1966).

US 3 472 832 (Soc. Farmaceutici Italia; I-prior. 9.8.1966).

Bernardi, L. et al.: *Experientia (EXPEAM)* **23**, 700 (1967).**structure and isolation from *Hyla caerulea*:**Anastasi, A. et al.: *Experientia (EXPEAM)* **23**, 699 (1967).

Formulation(s): amp. 5 µg/ml, 40 µg/2 ml; vial 20 µg, 30 µg, 40 µg

Trade Name(s):

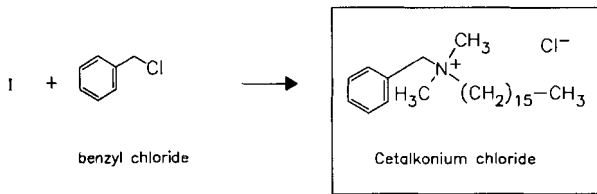
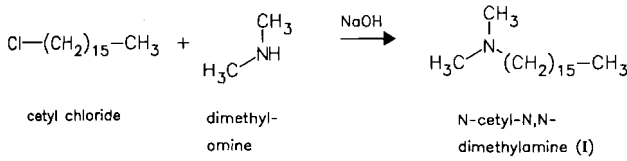
D: Takus (Pharmacia & Upjohn) J: Ceosunin (Kyowa Hakko)

Cetalkonium chloride

ATC: S01AA
Use: antiseptic, bactericide

RN: 122-18-9 MF: C₂₅H₄₆ClN MW: 396.10 EINECS: 204-526-3

CN: N-hexadecyl-N,N-dimethylbenzenemethanaminium chloride



Reference(s):

FR 771 746 (I. G. Farben; 1934).

Formulation(s): sol. 13 g/100 g, 130 mg

Trade Name(s):

D: Baktonium (Bode) F: Pansoral (Pierre Fabre) GB: Bonjela (Reckitt & Colman)-comb.
Mundisal (Mundipharma)-comb. J: Lazal (Shionogi)

Cethexonium bromide

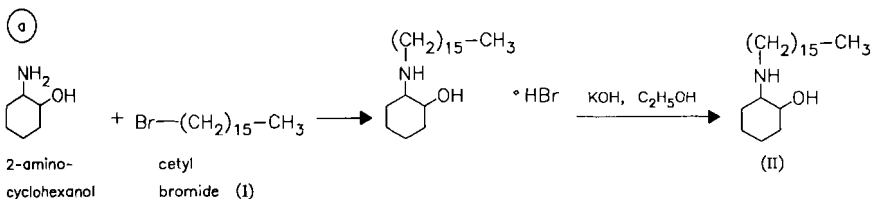
ATC: D08AX; R02AA20
Use: antiseptic

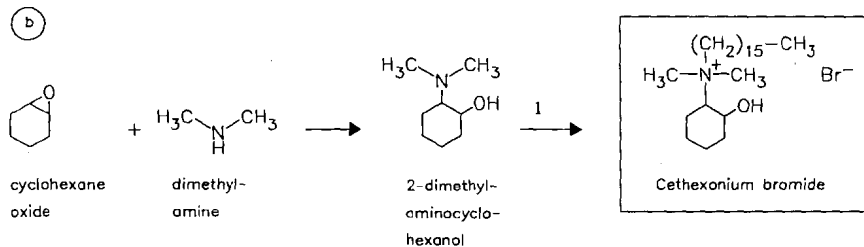
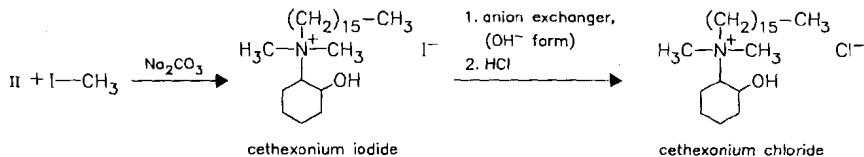
RN: 1794-74-7 MF: C₂₄H₅₀BrNO MW: 448.57

CN: N-hexadecyl-2-hydroxy-N,N-dimethylcyclohexanaminium bromide

chloride

RN: 58703-78-9 MF: C₂₄H₅₀ClNO MW: 404.12



**Reference(s):**

Winternitz, F. et al.: Bull. Soc. Chim. Biol. (BSCIA3) 33, 369 (1951).

Formulation(s): collutorium 0.025 g/100 ml, 0.1 mg/0.4 ml, 0.3 g/100 ml; eye drops 0.025 % (bromide); ointment 1 g/100 g; powder 1.5 g/100 g; sol 50 mg/100 ml

Trade Name(s):

F: Biocidan (Menarini)

Cetiedil

ATC: C04AX26

Use: vasodilator (peripheral)

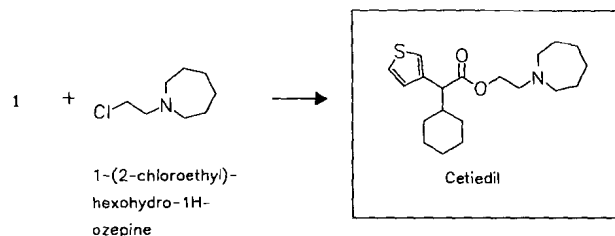
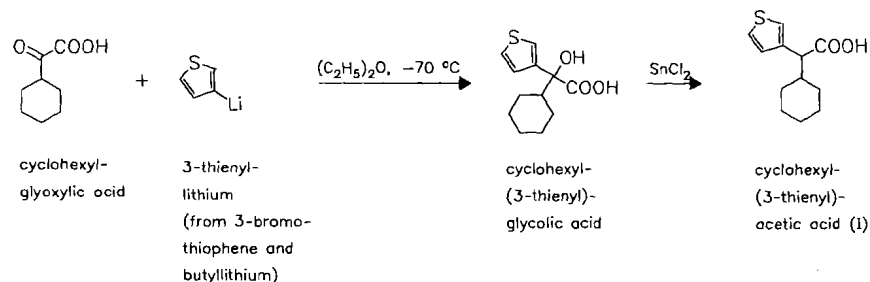
RN: 14176-10-4 MF: $\text{C}_{20}\text{H}_{31}\text{NO}_2\text{S}$ MW: 349.54 EINECS: 238-028-2

LD₅₀: 1726 mg/kg (M, p.o.)

CN: α -cyclohexyl-3-thiopheneacetic acid 2-(hexahydro-1H-azepin-1-yl)ethyl ester

citrate (1:1)

RN: 16286-69-4 MF: $\text{C}_{20}\text{H}_{31}\text{NO}_2\text{S} \cdot \text{C}_6\text{H}_8\text{O}_7$ MW: 541.66 EINECS: 240-381-2



Reference(s):

FR 1 460 571 (Innothéra; appl. 10.6.1965).

FR-M 5 504 (Innothéra; appl. 10.6.1965).

Robba, M.; Guen, Y. Le: *Chim. Ther. (CHTPBA)* **1967** (No. 2), 120.*synthesis of starting materials:*Robba, M.; Guen, Y. Le: *Chim. Ther. (CHTPBA)* **1966** (No. 4), 238.

FR-appl. 2 260 575 (Innothéra; appl. 11.2.1974).

FR-appl. 2 260 576 (Innothéra; appl. 11.2.1974).

synthesis from 3-thienylacetonitrile:

US 4 108 865 (Labaz; 22.8.1978; prior. 29.8.1974, 1.3.1976).

Formulation(s): cps. 100 mg (as citrate)*Trade Name(s):*

F: Stratene (Gerda)

Vasocet (Cipharm)

I: Stratene (Sigma-Tau); wfm

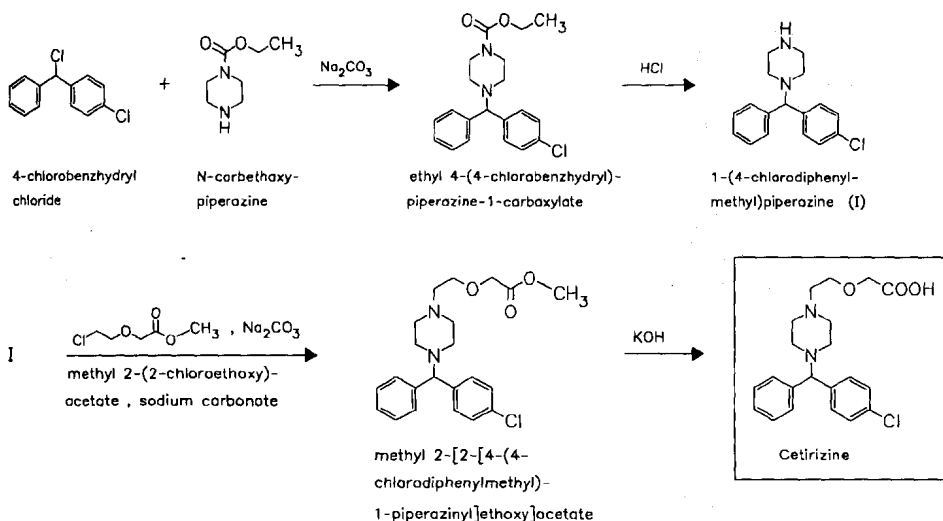
Cetirizine

ATC: R06AE07

Use: non-sedative antihistaminic

RN: 83881-51-0 MF: $C_{21}H_{25}ClN_2O_3$ MW: 388.90CN: (\pm)-[2-[4-[(4-chlorophenyl)phenylmethyl]-1-piperazinyl]ethoxy]acetic acid**dihydrochloride**RN: 83881-52-1 MF: $C_{21}H_{25}ClN_2O_3 \cdot 2HCl$ MW: 461.82LD₅₀: 365 mg/kg (R, p.o.);

>320 mg/kg (dog, p.o.)

*Reference(s):*

EP 58 146 (UCB; appl. 5.2.1982; GB-prior. 6.2.1981, 8.4.1981).

alternative synthesis (also enantiomers):

GB 2 225 321 (UCB; appl. 23.11.1988).

EP 801 064 (UCB; appl. 9.4.1997; BE-prior. 10.4.1996).

WO 9 737 982 (UCB; appl. 28.3.1997; BE-prior. 4.10.1996).

WO 9 802 425 (Apotex; appl. 11.7.1997; CA-prior. 11.7.1996).

synthesis of 1-(4-chlorodiphenylmethyl)piperazine:

US 2 819 269 (Abbott; 1958).

HU 17 343 (Richter Gedeon; appl. 26.5.1977).

US 2 709 169 (UCB; 1952).

Formulation(s): drops 10 mg; sol. 0.1 %; tabl. 10 mg (as dihydrochloride)

Trade Name(s):

D:	Zyrtec (UCB; Rodleben); Vedim)	GB:	Zirtek (UCB)	USA:	Zyrtec (Pfizer; as hydrochloride)
F:	Virlix (Synthelabo) Zyrtec (UCB)	I:	Formistin (Formenti; 1990) Virlix (Chemil) Zirtec (UCB; 1990)		

Cetrimonium bromide (Cetrimide)

ATC: R02AA17

Use: antiseptic

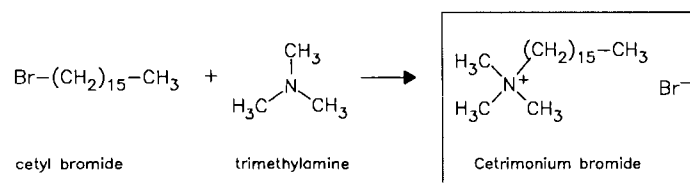
RN: 57-09-0 MF: C₁₉H₄₂BrN MW: 364.46 EINECS: 200-311-3

LD₅₀: 32 mg/kg (M, i.v.);
44 mg/kg (R, i.v.); 410 mg/kg (R, p.o.)

CN: N,N,N-trimethyl-1-hexadecanaminium bromide

hydroxide

RN: 505-86-2 MF: C₁₉H₄₃NO MW: 301.56 EINECS: 208-022-4



Reference(s):

Shelton, R.S. et al.: J. Am. Chem. Soc. (JACSAT) **68**, 753 (1946).

Formulation(s): sol. 117 mg/100 g; tabl. 4 mg

Trade Name(s):

D:	Lemocin (Novartis Consumer Health) Xylastesin (Espe) numerous combination preparations	Buccawalter (SmithKline Beecham)-comb. Cétavlon (Zeneca) Dérinox (Thérabel Lucien)- comb.	GB:	Ceanel Conc. (Quinoderm)- comb. Cetavlex (Zeneca) Cetavlon (Zeneca) Xylonor (Ogna)-comb.
F:	Aseptit (Riom)	Rectoquotane (Evans Medical)-comb.	I:	Cetavlon (Sumitomo Chem.)

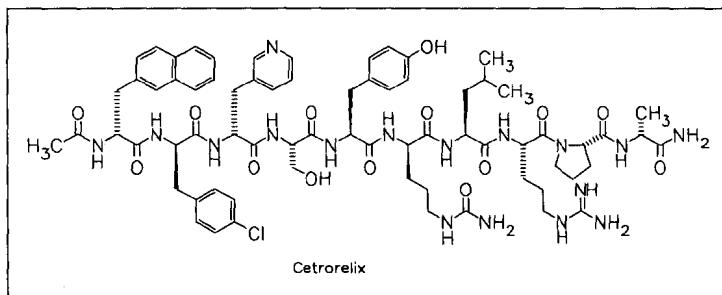
Cetrorelix (SB-75; D-20761)

ATC: H01CC02

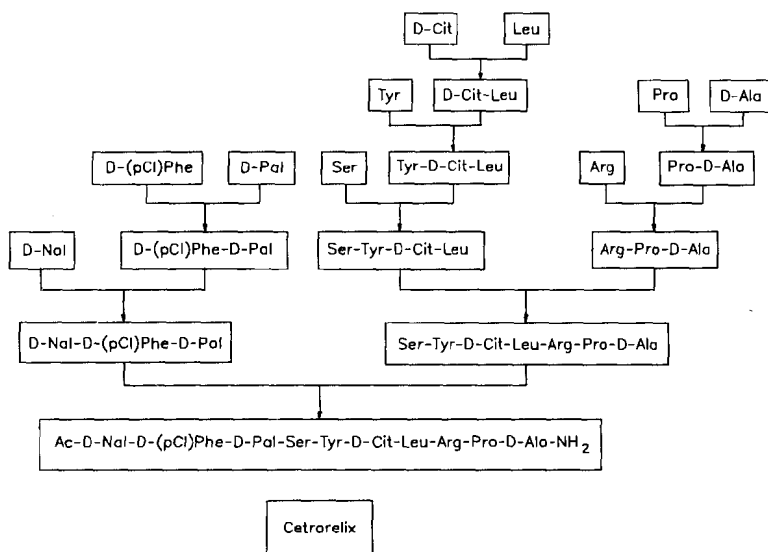
Use: LHRH-antagonist

RN: 120287-85-6 MF: C₇₀H₉₂ClN₁₇O₁₄ MW: 1431.06

CN: N-Acetyl-3-(2-naphthalenyl)-D-alanyl-4-chloro-D-phenylalanyl-3-(3-pyridinyl)-D-alanyl-L-seryl-L-tyrosyl-N⁵-(aminocarbonyl)-D-ornithyl-L-leucyl-L-arginyl-L-prolyl-D-alaninamide



b classical, liquid-phase synthesis:



abbreviations see method a

Reference(s):

- a** Bajusz, S. et al.: *Int J. Pept. Protein Res. (IJPPC3)* **32**, 425 (1988).
EP 299 402 (ASTA Medica; appl. 11.7.1988; USA-prior. 17.7.1987).
- a,b** Kleemann, A. et al.: *Proc. Akabori Conf.: Ger.-Jpn. Symp. Pept. Chem.*, 4th, 1991, 96-101.
- b** Kunz, F.R. et al.: *Proc. Akabori Conf.: Ger.-Jpn. Symp. Pept. Chem.*, 5th, 1994, 15-16.

long-acting injection suspension with pamoate salt:

US 773 032 (ASTA Medica; 10.6.1996; D-prior. 9.12.1993).

sterile acetate formulation:

EP 611 572 (ASTA Medica; D-prior. 19.2.1993).

use in fertility control:

EP 788 799 (ASTA Medica; USA-prior. 7.2.1996).

use for BPH or prostate cancer:

WO 9 810 781 (ASTA Medica; USA-prior. 12.9.1996).

Formulation(s): vial 0.25 mg, 3 mg (as acetate)

Trade Name(s):

D: Cetrotide (ASTA Medica) GB: Cetrotide (ASTA Medica)
AWD; 1999)

Cetylpyridinium chloride

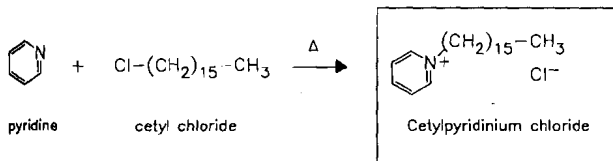
ATC: B05CA01; D08AJ03; D09AA07;
R02AA06

Use: disinfectant, antiseptic

RN: 123-03-5 MF: C₂₁H₃₈N Cl MW: 340.00 EINECS: 204-593-9

LD₅₀: 10 mg/kg (M, i.v.); 108 mg/kg (M, p.o.);
200 mg/kg (R, p.o.)

CN: 1-hexadecylpyridinium chloride

**Reference(s):**

Budesinsky-Protiva, 531-532.

Formulation(s): eff. tabl. 1.5 mg, 3 mg; lozenge 1.4 mg; sol. 5 mg/10 ml (0.01 %, 0.05 %); tabl. 2 mg

Trade Name(s):

D: Dobendan (Cassella-med)	Merocaine (Seton)-comb.	Penaten (Johnson & Johnson)
Formamint N (Beecham-Wülfing)	Merocet (Seton)	Ragaden (Ganassini)
Tyrosolvetten (Byk Gulden; Roland)-comb.	I: Borocaina (Schiapparelli Salute)	Vidermina (Ganassini)
numerous combination preparations	Fluprim (Roche)	numerous combination preparations
F: Alodont (Warner-Lambert)-comb.	Golagamma (Avantgarde)	J: Colgen 123 (Kowa)-comb.
Broncorinol (Roche Nicholas)-comb.	Neocepacol (Lepetit)	Pabron Troche (Taisho)
Cétylyre (Oberlin)	Neocoricidin (Schering-Plough)	Suprol (Iwaki)
GB: Calgel (Warner-Lambert)	Neoformitrol (Sandoz)	USA: Cepacol (Lakeside)-comb.; wfm
	Neogola (Sella)	Cobrex (Reid-Rowell)-comb.; wfm
	Noalcoool (Sella)	

Chenodeoxycholic acid

(Chenodiol; Acide chenodéoxycholique; Chenodesoxycholsäure)

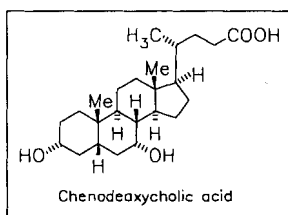
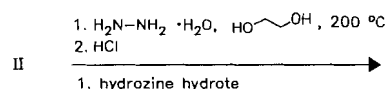
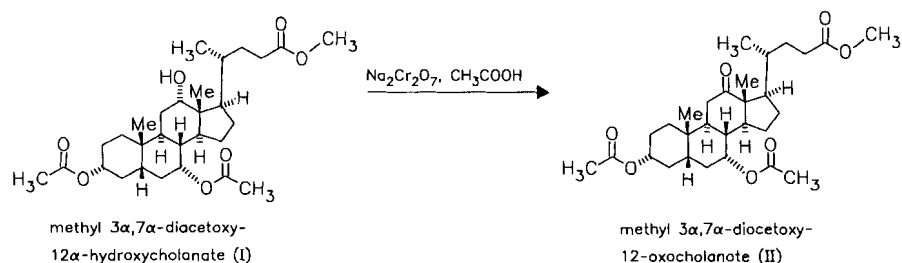
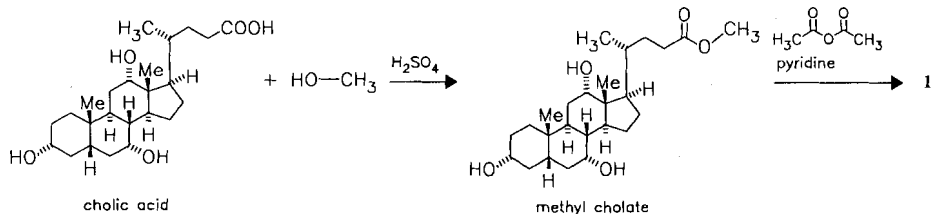
ATC: A05AA01

Use: choleric, anticholethithogenic
dissolution of cholesterol gallstones

RN: 474-25-9 MF: C₂₄H₄₀O₄ MW: 392.58 EINECS: 207-481-8

LD₅₀: 100 mg/kg (M, i.v.); 3 g/kg (M, p.o.);
106 mg/kg (R, i.v.); 4 g/kg (R, p.o.);
>1 g/kg (dog, p.o.)

CN: (3 α ,5 β ,7 α)-3,7-dihydroxycholan-24-oic acid

**Reference(s):**

- Fieser, L.F.; Rajagopalan, S.: J. Am. Chem. Soc. (JACSAT) **72**, 5530 (1950).
 Hauser, E. et al.: Helv. Chim. Acta (HCACAV) **43**, 1595 (1960).
 Hofmann, A.F.: Acta Chem. Scand. (ACHSE7) **17**, 173 (1963).
 Sato, Y.; Ikekawa, N.: J. Org. Chem. (JOCEAH) **24**, 1367 (1959).

purification:

- DOS 2 302 744 (Union International; appl. 20.1.1973; GB-prior. 20.1.1972).
 DE 2 404 102 (Schering AG; appl. 25.1.1974).
 DOS 2 613 346 (Diamalt; appl. 29.3.1976).
 US 4 163 017 (Diamalt; 31.7.1979; D-prior. 29.3.1976).
 JP-appl. 52 153 955 (Tokyo Tanabe; appl. 18.6.1976).

isolation from animal bile:

- US 3 919 266 (Intellectual Property Dev. Corp.; 11.11.1975; prior. 21.9.1972, 19.11.1973).
 US 4 014 908 (Intellectual Property Dev. Corp.; 29.3.1977; prior. 21.9.1972, 19.11.1973, 7.5.1974, 30.5.1974, 20.2.1976).
 US 4 072 695 (Intellectual Property Dev. Corp.; 7.2.1978; prior. 21.9.1972, 19.11.1973, 7.5.1974, 30.5.1974, 20.2.1976, 17.9.1976).

combination with hycromomone:

- DOS 2 700 085 (Lipha; appl. 4.1.1977; F-prior. 13.7.1976).

Formulation(s): cps. 250 mg; tabl. 250 mg

Trade Name(s):

- | | | | | |
|----|---------------------------------|-----------------------------|-----|-----------------------|
| D: | Chenofalk (Falk) | Hekbilin (Strathmann)-comb. | GB: | Chendol (CP Pharm.) |
| | Cholit-Ursan (Fresenius-Praxis) | Ursofalk (Falk)-comb. | I: | Chenofalk (Interfalk) |
| F: | Chénodex (Hoechst Houdé) | | | Chenossil (Midy) |

J: Fluibil (Zambon Italia)
Chenochol (Yamanouchi)

Cholasa (Tokyo Tanabe)

USA: Chenix (Reid-Rowell);
wfm

Chloral hydrate

ATC: N05CC01

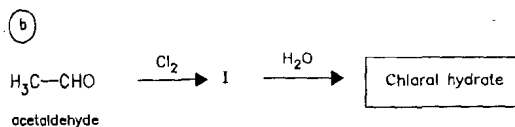
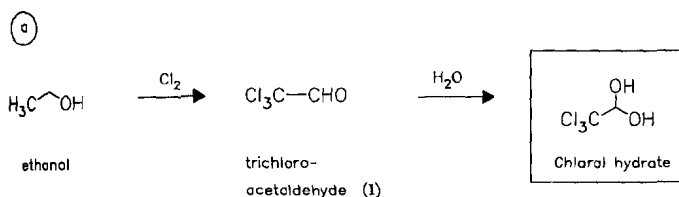
Use: hypnotic, sedative

RN: 302-17-0 MF: $C_2H_3Cl_3O_2$ MW: 165.40 EINECS: 206-117-5

LD₅₀: 530 mg/kg (M, i.v.); 1100 mg/kg (M, p.o.);

479 mg/kg (R, p.o.)

CN: 2,2,2-trichloro-1,1-ethanediol



Reference(s):

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 9, 377.

Formulation(s): cps. 250 mg, 500 mg

Trade Name(s):

D: Chloraldurat (Pohl)

GB: Welldorm elixir (S & N)

USA: Noctec (Squibb); wfm

F: numerous combination
preparations

I: Cloral (Tariff. Nazionale)

generica

J: Escre (SS)

Chloralodol

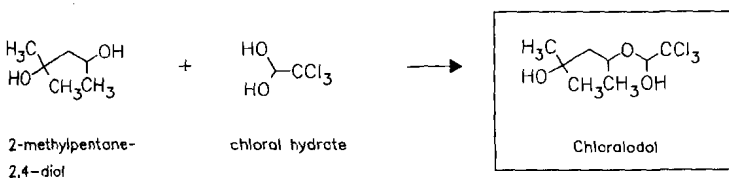
(Chlorhexadol)

ATC: N05CC02

Use: hypnotic

RN: 3563-58-4 MF: $C_8H_{15}Cl_3O_3$ MW: 265.56 EINECS: 222-634-9

CN: 2-methyl-4-(2,2,2-trichloro-1-hydroxyethoxy)-2-pentanol



Reference(s):

US 2 931 838 (Det Danske Med.-& Kem.-Komp.; 5.4.1960; DK-prior. 8.12.1956).

Formulation(s): tabl. 400 mg, 800 mg

Trade Name(s):

GB: Medodorm (Medo); wfm

Chlorambucil

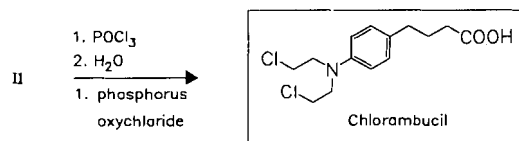
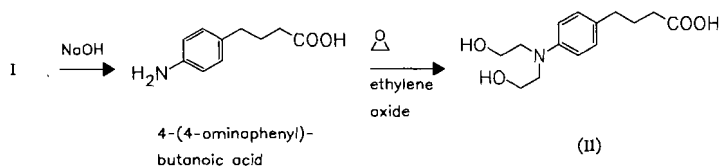
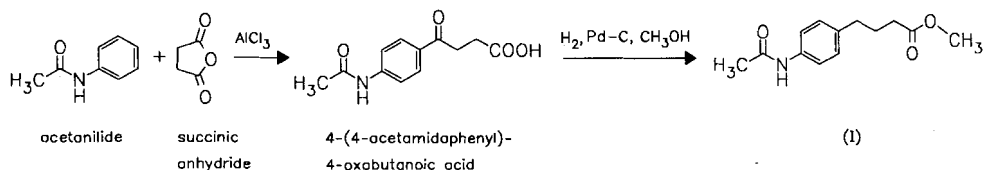
ATC: L01AA02

Use: antineoplastic

RN: 305-03-3 MF: C₁₄H₁₉Cl₂NO₂ MW: 304.22 EINECS: 206-162-0LD₅₀: 80 mg/kg (M, p.o.);

76 mg/kg (R, p.o.)

CN: 4-[bis(2-chloroethyl)amino]benzenebutanoic acid



Reference(s):

US 3 046 301 (Borroughs Wellcome; 24.7.1962; prior. 29.10.1959).

Formulation(s): drg. 2 mg; tabl. 2 mg, 5 mg

Trade Name(s):

D: Leukeran (Glaxo Wellcome)

GB: Leukeran (Glaxo Wellcome)

USA: Linfolyisin (Nuovo ISM) Leukeran (Glaxo Wellcome)

F: Chloraminophène (Techni-Pharma)

I: Leukeran (Glaxo Wellcome)

Chloramphenicol

ATC: D06AX02; D10AF03; G01AA05; J01BA01; S01AA01; S02AA01; S03AA08

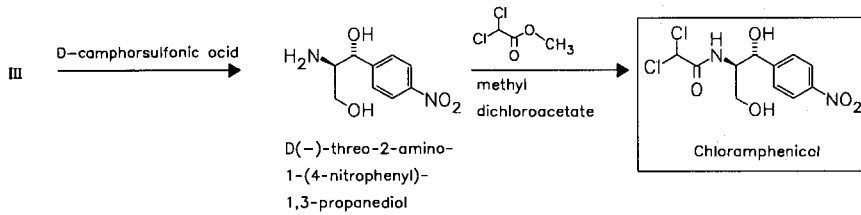
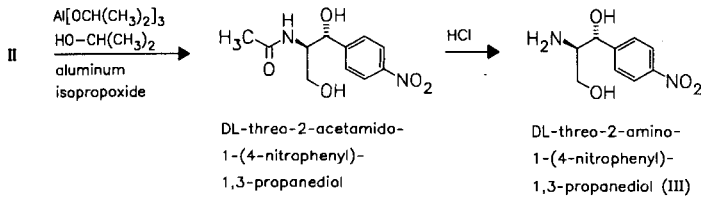
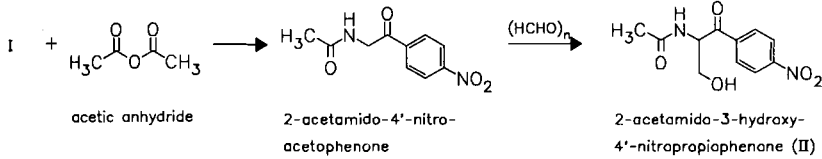
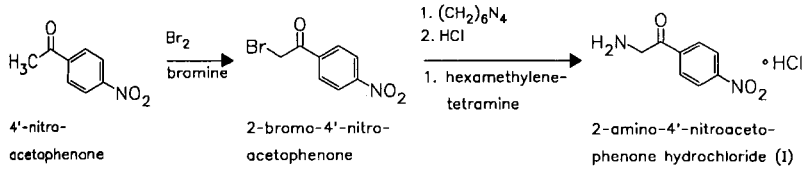
Use: antibiotic

RN: 56-75-7 MF: C₁₁H₁₂Cl₂N₂O₅ MW: 323.13 EINECS: 200-287-4LD₅₀: 110 mg/kg (M, i.v.); 1500 mg/kg (M, p.o.);

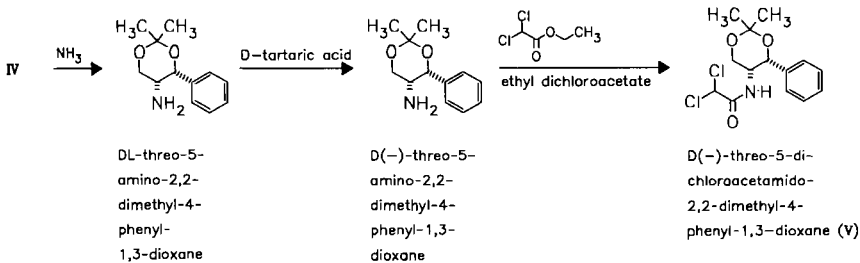
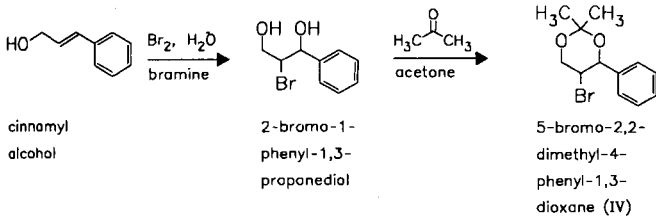
171 mg/kg (R, i.v.); 2500 mg/kg (R, p.o.)

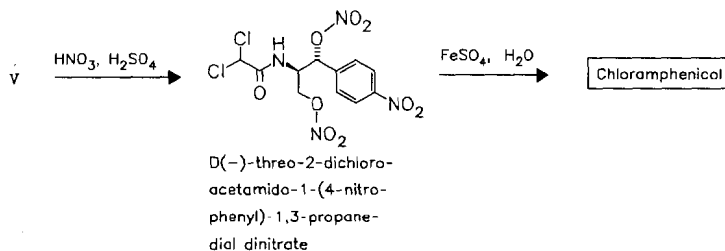
CN: [R-(R*,R*)]-2,2-dichloro-N-[2-hydroxy-1-(hydroxymethyl)-2-(4-nitrophenyl)ethyl]acetamide

a



b



**Reference(s):**Ehrhart-Ruschig **IV**, 398 ff.

- a** Long, L.M.; Troutman, H.D.: J. Am. Chem. Soc. (JACSAT) **71**, 2469, 2473 (1949).
 US 2 483 871 (Parke Davis; 1949; appl. 1948).
 US 2 483 884 (Parke Davis; 1949; appl. 1948).
 US 2 483 885 (Parke Davis; 1949; appl. 1949).
 US 2 483 892 (Parke Davis; 1949; appl. 1948).
 US 2 687 434 (Parke Davis; 1954; appl. 1953).
 US 2 651 661 (Monsanto; 1953; appl. 1950).
 US 2 786 870 (Parke Davis; 1957; appl. 1954).
 Rebstock, M.C. et al.: J. Am. Chem. Soc. (JACSAT) **71**, 2458-2468 (1949).
- b** BE 539 991 (Boehringer Mannh.; appl. 1955; D-prior. 1954).
 DE 1 016 718 (Boehringer Mannh.; appl. 1953).
 BE 558 378 (Boehringer Mannh.; appl. 14.6.1957; D-prior. 27.6.1956, 22.12.1956).

alternative synthesis (from benzaldehyde and nitromethane or O-nitroethanol via 2-nitro-1-phenyl-1,3-propanediol):

- DE 862 302 (Parke Davis; appl. 1949; USA-prior. 1948).
 DE 1 064 937 (Boehringer Mannh.; appl. 1957).
 DOS 2 708 301 (Egyt; appl. 25.2.1977; H-prior. 25.2.1976).

O-3-monophosphate:

DAS 1 668 961 (Roussel-Uclaf; appl. 20.2.1968; I-prior. 20.2.1967, 18.5.1967).

Formulation(s): amp. 1 g (as hydrogen succinate sodium salt); cps. 250 mg, 500 mg; ear drops 5 g/100 ml, 50 mg/g; eye drops 5 mg, 10 mg; ointment 1 % (10 mg/g)

Trade Name(s):

D:	Aquamycetin (Winzer)	GB:	Chloromycetin (Goldshield)	numerous salts and combination preparations
	Chloramphenicol-PW (Pharma Wernigerode)		Kemicetine Succinate (Pharmacia & Upjohn)	J: Antacin (Sumitomo)
	Chloramsaar (Chephasaar)		Minims Chloramphenicol (Chauvin)	Chloromycetin (Sankyo)
	Oleomycetin (Winzer)		SNO Phenicol (Chauvin)	Kemicetine (Fujisawa)
	Paraxin (Boehringer Mannh.)		Chemicetina (Carlo Erba)	Myclocin (Takeda)
	Thilocanfol C (Alcon)	I:	Chloromycetin (Parke Davis)	Paraxin (Yamanouchi)
	numerous combination preparations		Cloram (Formulario Naz.)	Synthomycetine (Otsuka)
F:	Cébédexacol (Chauvin)-comb.		Minims (Smith & Nephew)	numerous generics and combination preparations
	Cébénicol (Chauvin)		Mycetin (Farmigea)	USA: Elase-Chloromycetin (Fujisawa)
	numerous combination preparations		Sificetina (SIFI)	
			Vitamfenicolo (Allergan)	

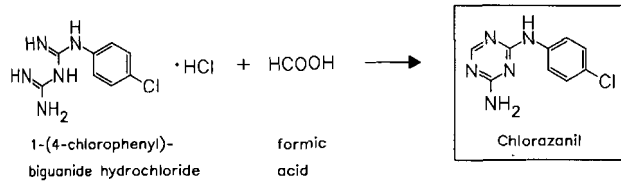
Chlorazaniil

ATC: C03
Use: diuretic

RN: 500-42-5 MF: $C_9H_8ClN_5$ MW: 221.65 EINECS: 207-904-6
LD₅₀: 300 mg/kg (M, p.o.);
16 mg/kg (R, i.v.)
CN: *N*-(4-chlorophenyl)-1,3,5-triazine-2,4-diamine

monohydrochloride

RN: 2019-25-2 MF: $C_9H_8ClN_5 \cdot HCl$ MW: 258.11 EINECS: 217-962-4

**Reference(s):**

DE 1 008 303 (Heumann & Co.; appl. 1955).

Formulation(s): tabl. 150 mg

Trade Name(s):

D: Orpidan-150 (Heumann);
wfm

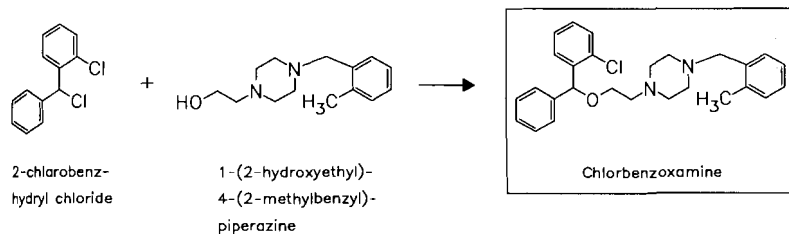
Chlorbenzoxamine

ATC: A03AX03
Use: anticholinergic

RN: 522-18-9 MF: $C_{27}H_{31}ClN_2O$ MW: 435.01 EINECS: 208-323-0
CN: 1-[2-[(2-chlorophenyl)phenylmethoxy]ethyl]-4-[(2-methylphenyl)methyl]piperazine

dihydrochloride

RN: 5576-62-5 MF: $C_{27}H_{31}ClN_2O \cdot 2HCl$ MW: 507.93 EINECS: 226-951-3
LD₅₀: 1400 mg/kg (M, p.o.);
66 mg/kg (R, i.v.); 3350 mg/kg (R, p.o.)

**Reference(s):**

BE 549 420 (H. Morren; appl. 10.7.1956).

Formulation(s): tabl. 30 mg (as dihydrochloride)

Trade Name(s):

D:	Libratar (UCB); wfm	Gastomax (Brocchieri); wfm	Libratar (UCB-Smith)-comb.; wfm
I:	Antilucera Master (Cali); wfm		Anratal (Tobishi)
J:			

Chlorcyclizine

(Histachlorazine)

ATC: R06AE04
Use: antihistaminic

RN: 82-93-9 MF: C₁₈H₂₁ClN₂ MW: 300.83 EINECS: 201-446-0

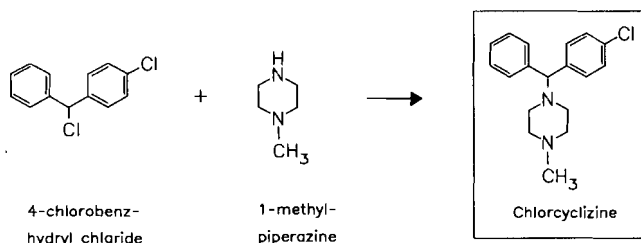
CN: 1-[(4-chlorophenyl)phenylmethyl]-4-methylpiperazine

monohydrochloride

RN: 14362-31-3 MF: C₁₈H₂₁ClN₂ · HCl MW: 337.29

dihydrochloride

RN: 129-71-5 MF: C₁₈H₂₁ClN₂ · 2HCl MW: 373.76

*Reference(s):*

US 2 630 435 (Burroughs Wellcome; 1953; prior. 1948).

Formulation(s): tabl. 50 mg (as hydrochloride)

Trade Name(s):

F:	Di-Paralène (Abbott); wfm	I:	Clorciclizina (Tariff. Integrativo)	USA:	Mantadil (Burroughs Wellcome)-comb. with hydrocortisone; wfm
GB:	Histofax (Wellcome); wfm		Di-Paralene (Abbott); wfm		

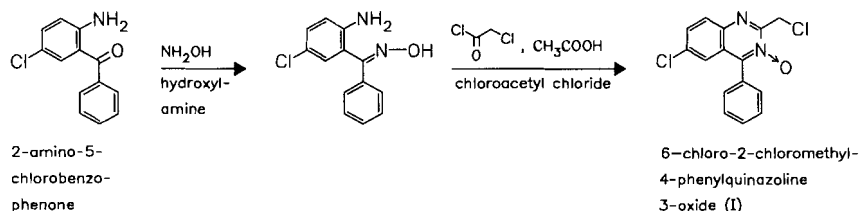
Chlordiazepoxide

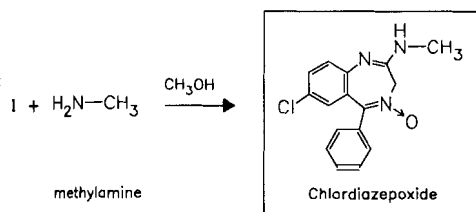
ATC: N05BA02
Use: tranquilizer

RN: 58-25-3 MF: C₁₆H₁₄ClN₃O MW: 299.76 EINECS: 200-371-0

LD₅₀: 95 mg/kg (M, i.v.); 200 mg/kg (M, p.o.);
165 mg/kg (R, i.v.); 392 mg/kg (R, p.o.)

CN: 7-chloro-N-methyl-5-phenyl-3H-1,4-benzodiazepin-2-amine 4-oxide



**Reference(s):**

- US 2 893 992 (Hoffmann-La Roche; 7.7.1959; prior. 15.5.1958).
 DE 1 096 363 (Hoffmann-La Roche; appl. 24.4.1959; USA-prior. 15.5.1958).
 Stembach, L.H. et al.: J. Org. Chem. (JOCEAH) **26**, 1111 (1961).

Formulation(s): drg. 10 mg; f. c. tabl. 5 mg; tabl. 5 mg, 10 mg, 25 mg

Trade Name(s):

D:	Limbatriil (Roche)-comb. Multum (Rosen Pharma) Radepur (ASTA Medica AWD)	Psicofar (Terapeutico) Reliberan (Geymonat) Sedans (Ganassini)-comb. Seren Vita (Synthelabo)	USA: Librax (Roche Products; as hydrochloride) Librium (Roche Products; as hydrochloride)
F:	Librax (Roche)-comb.	J: Balance (Yamanouchi)	Limbitrol (Roche Products)
GB:	Librium (Roche)	Contol (Takeda)	generics
I:	Diapatol (Teofarma)-comb. Librium (Roche) Limbityl (Roche)-comb.	Sophiamin (Kyowa) Yakuhin Trakipearl (Hishiyama)	

Chlorhexidine

ATC: A01AB03; B05CA02; D08AC02;
D09AA12; R02AA05; S01AX09;
S02AA09; S03AA04

Use: antiseptic

RN: 55-56-1 MF: C₂₂H₃₀Cl₂N₁₀ MW: 505.46 EINECS: 200-238-7

LD₅₀: 24 mg/kg (M, i.v.); 2515 mg/kg (M, p.o.);
21 mg/kg (R, i.v.); 9200 µL/kg (R, p.o.)

CN: N,N'-bis(4-chlorophenyl)-3,12-diimino-2,4,11,13-tetraazatetradecanediiimidamide

diacetate

RN: 56-95-1 MF: C₂₂H₃₀Cl₂N₁₀ · 2C₂H₄O₂ MW: 625.56 EINECS: 200-302-4

LD₅₀: 25 mg/kg (M, i.v.); 2 g/kg (M, p.o.)

dihydrochloride

RN: 3697-42-5 MF: C₂₂H₃₀Cl₂N₁₀ · 2HCl MW: 578.38 EINECS: 223-026-6

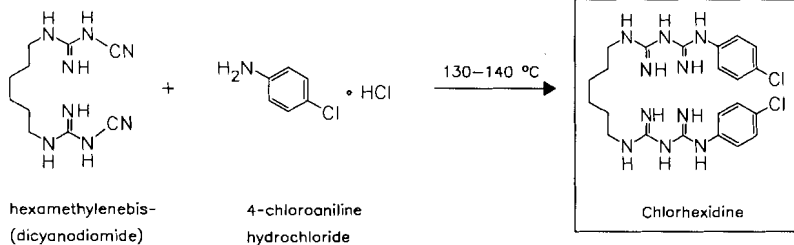
LD₅₀: >5 g/kg (M, s.c.)

di-D-gluconate

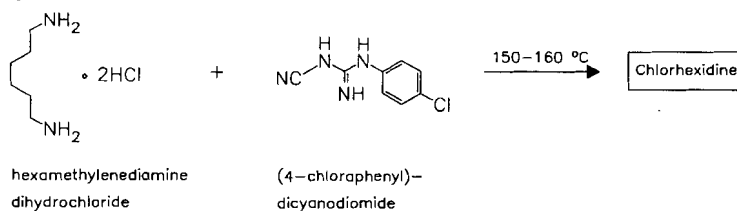
RN: 18472-51-0 MF: C₂₂H₃₀Cl₂N₁₀ · 2C₆H₁₂O₇ MW: 897.77 EINECS: 242-354-0

LD₅₀: 12.9 mg/kg (M, i.v.); 1260 mg/kg (M, p.o.);
24.2 mg/kg (R, i.v.); 2 g/kg (R, p.o.)

a



b

*Reference(s):*

GB 705 838 (ICI; appl. 1951; valid from 1952).

Formulation(s): gel 1 g/100 g; powder 1 g/100 g; sol. 0.1 g/100 g, 0.2 g/100 g, 1 g/50 ml (as digluconate)*Trade Name(s):*

D:	Chlorhexamed (Blend-a-med)	Hibidil (Zeneca; as digluconate)	Hibidil (Zeneca)
	Chlorhexidindigluconat (Engelhard)	Hibiscrub (Zeneca; as digluconate)	Hibiscrub (Zeneca)
	Corsodyl (SmithKline Beecham OTC Medicines)	Hibitane (Zeneca; as gluconate)	Hibitane (Zeneca)
	Frubilurgyl (Boehringer Mannh.)	Merfene (Novartis; as gluconate)	Lenixil (Eurospital)
	Hansamed (Beiersdorf)	Plurexid (Evans; as gluconate)	Neomercurocromo (SIT)
	numerous combination preparations	Prexidine (Pred; as gluconate)	Neoxene (Ecobi)
F:	Antalyre (Boehringer Ing.; as gluconate)-comb.	Sepéal (Sinbio; as digluconate)	Odontoxina (Ipfi)
	Collunovar (Dexo; as gluconate)	Thiovalone (Eurorga; as diacetate)-comb.	Oramil (Ganassini)
	Collupressine (Synthélabo; as gluconate)-comb.	Bactigras (Smith & Nephew)	Plak Out (Byk Gulden)
	Collustan (Oberlin; as digluconate)-comb.	Chlorhexitulle (Hoechst)	Sanoral (Kemiprogress)
	Corsadyl (SmithKline Beecham; as digluconate)	Corsodyl (SmithKline Beecham)	Savlodil (Zeneca)-comb.
	Cytéal (Sinbio; as gluconate)-comb.	numerous preparations	Savlol (Zeneca)-comb.
	Dacryne (Johnson & Johnson)	Clorex (Formulario Naz.)	Vaxidina (Vaas)
	Diseptine (Nicholas; as gluconate)-comb.	Contact (Vaas; as hydrochloride)	Vidermina (Ganassini)
	Eludril (Inava; as digluconate)-comb.	Corsodyl (SmithKline Beecham)	J:
		Effetre (Farma3 Medicalex)	Hexadol (Green Cross)
		Hansamed (Beiersdorf)	Hibiscrub (ICI)
			Hibitane Digluconate (Sumitomo)
			Maskin (Maruishi)
			Pabron (Taisho Seiyaku)
			White Gol (Tamagawa Eizai)
			White Rive (Eisai)
			USA:
			Whitesept (Purdue Frederick; as gluconate)
			Hibiclens (Zeneca; as gluconate)
			Hibistat (Zeneca; as gluconate)

Peridex (Procter & Gamble; as gluconate)

Periogard (Colgate Oral; as gluconate)

Chlormadinone acetate

ATC: G03D

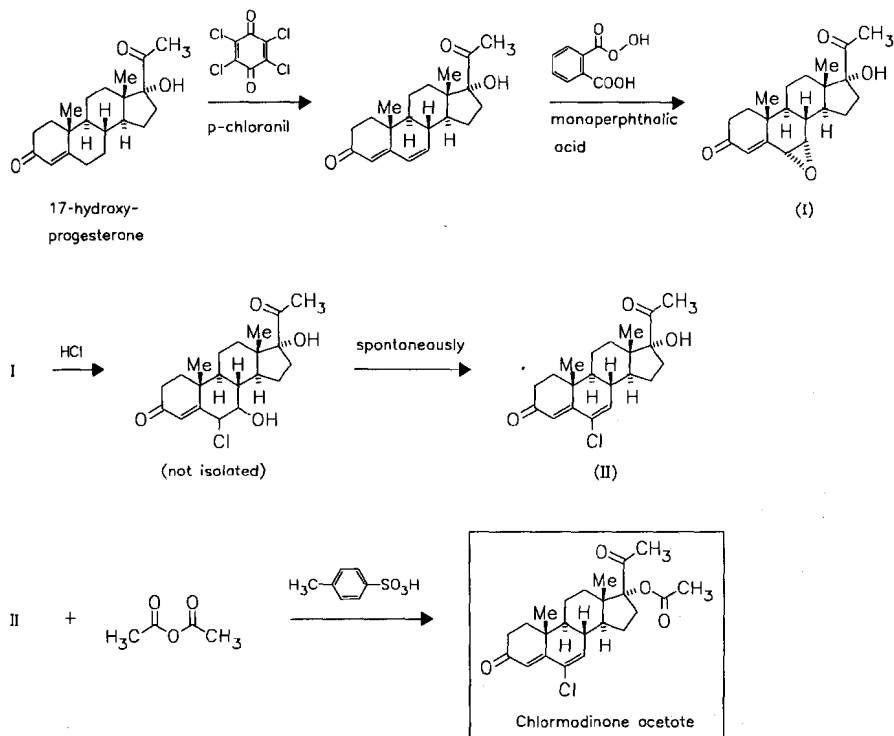
Use: progestogen

RN: 302-22-7 MF: $C_{23}H_{29}ClO_4$ MW: 404.93 EINECS: 206-118-0

LD₅₀: >2 g/kg (M, i.v.); >15 g/kg (M, p.o.);

>10 g/kg (R, p.o.)

CN: 17-(acetyloxy)-6-chloropregna-4,6-diene-3,20-dione



Reference(s):

DE 1 075 114 (E. Merck AG; appl. 29.4.1958).

Brückner, K. et al.: Chem. Ber. (CHBEAM) **94**, 1225 (1961).

Formulation(s): tabl. 2 mg, 5 mg

Trade Name(s):

D: Chlormadinon (Jenapharm)
 Gestafortin (Merck)
 Gestamestrol (Hermal-Chemie)-comb.

Menova (Merck)-comb.
 Neo-Eunomin
 (Grünenthal)-comb.
 F: Lutéran (Solymés)

I: Fisiosequil (Recordati);
 wfm
 J: Lutoral (Shionogi)

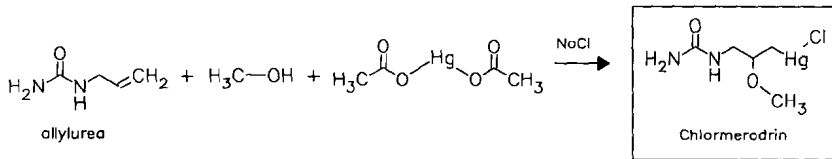
Chlormerodrin

ATC: C03

Use: diuretic

RN: 62-37-3 MF: C₅H₁₁ClHgN₂O₂ MW: 367.20 EINECS: 200-530-4LD₅₀: 215 mg/kg (M, p.o.);

150 mg/kg (R, p.o.)

CN: [3-[(aminocarbonyl)amino]-2-methoxypropyl-C¹,O³]chloromercury*Reference(s):*

US 2 635 982 (Lakeside Labs.; 1953; prior. 1951).

Formulation(s): amp.; tabl. 18 mg*Trade Name(s):*

USA: Neohydrin (Lakeside); wfm

Chlormezanone

ATC: M03BB02

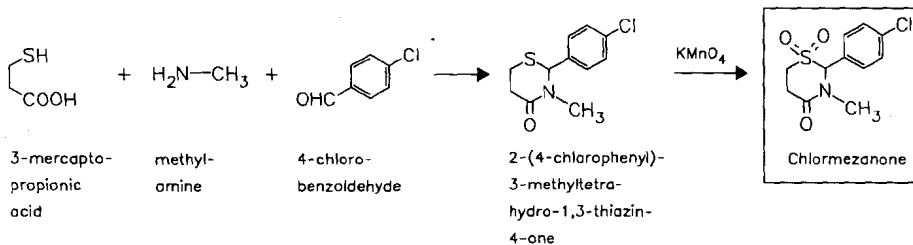
Use: muscle relaxant

RN: 80-77-3 MF: C₁₁H₁₂ClNO₃S MW: 273.74 EINECS: 201-307-4LD₅₀: 600 mg/kg (M, p.o.);

605 mg/kg (R, p.o.);

500 mg/kg (dog, p.o.)

CN: 2-(4-chlorophenyl)tetrahydro-3-methyl-4H-1,3-thiazin-4-one 1,1-dioxide

*Reference(s):*

GB 815 203 (Sterling Drug; appl. 3.7.1957; USA-prior. 20.7.1956).

Surrey, A.R. et al.: J. Am. Chem. Soc. (JACSAT) **80**, 3469, 3471 (1958).*Formulation(s):* suppos. 200 mg; tabl. 100 mg, 200 mg, 400 mg*Trade Name(s):*D: Muskel Trancopal (Winthrop); wfm
Muskel Trancopal comp. (Winthrop)-comb. with paracetamol; wfmMuskel Trancopal cum codeino (Winthrop)-comb. with paracetamol and codeine phosphate; wfm
F: Alinam (Lucien); wfmSupotran (Winthrop); wfm
Trancogésic (Winthrop)-comb. with aspirine; wfm
Trancopal (Winthrop); wfm
GB: Trancopal (Winthrop); wfm

	Trancoprin (Winthrop)- comb. with aspirine; wfm	Eblimon (Guidotti)-comb. numerous combination preparations	Transanate (Teikoku Hormone)
I:	Clormetadone (Nuovo Cons. Sanit. Naz.)-comb.	J:	USA: Trancopal (Sanofi)
	Condol (Maggioni- Winthrop)-comb.	Myolespen (Dojin Iyaku)	
		Relizon (Mochida)	
		Trancopal (Daiichi)	

Chlormidazole

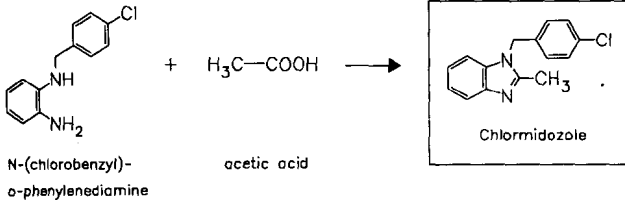
(Clomidazolium)

ATC: D01AC

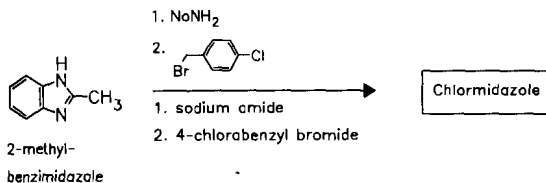
Use: fungistatic, antifungal

RN: 3689-76-7 MF: C₁₅H₁₃ClN₂ MW: 256.74 EINECS: 222-998-9CN: 1-[(4-chlorophenyl)methyl]-2-methyl-1*H*-benzimidazole**hydrochloride**RN: 54118-67-1 MF: C₁₅H₁₃ClN₂ · HCl MW: 293.20

a



b

**Reference(s):**

US 2 876 233 (Grünenthal; 3.3.1959; prior. 29.10.1956).

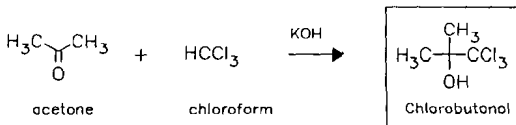
Formulation(s): cream 5 %; ointment 5 % (as hydrochloride)**Trade Name(s):**D: Myco-Jellin (Grünenthal)-
comb. with fluocinolone
acetone; wfmPolycid N (Grünenthal)-
comb.; wfm**Chlorobutanol**

ATC: A04AD04

Use: hypnotic, anesthetic

RN: 57-15-8 MF: C₄H₇Cl₃O MW: 177.46 EINECS: 200-317-6

CN: 1,1,1-trichloro-2-methyl-2-propanol

*Reference(s):*

Budesinsky-Protiva, 235.

Willgerodt, C.: Ber. Dtsch. Chem. Ges. (BDCGAS) **14**, 2451 (1881).

US 2 462 389 (Socony-Vac Oil; 1949; prior. 1946).

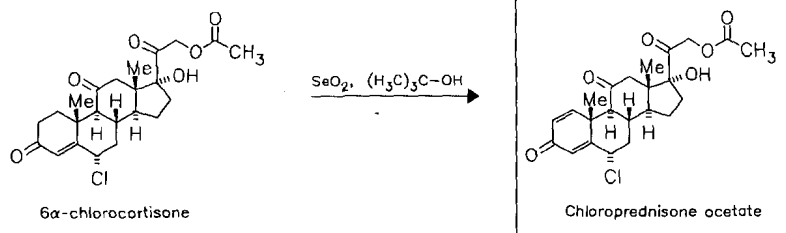
Formulation(s): sol. 250 mg/100 ml*Trade Name(s):*

D:	Givalex (Norgine)	Liquifilm (Allergan)-comb.	Clorobutanolo (Tariff. Integrativo)
F:	Alodont (Warner-Lambert)-comb.	Optrex (Etris)-comb.	Corizzina (SIT)-comb.
	Angispray (Monot)-comb.	GB: Cerumol (L.A.B.)-comb.	Desalfa (Intes)-comb.
	Balsamorhinol (Janssen)-comb.	Eludril (Chefaro)-comb.	Fialetta odontalg. Knapp (Montefarmaco)-comb.
	Ciella (RPR Cooper)-comb.	I: Abiostil (Deca)-comb.	Oftalzina (SIT)-comb.
	Eludril (Inava)-comb.	Antipulmina (Lisapharma)	Respiro (Pierre)-comb.
	Givalex (Nagine Pharma)-comb.	Cerumenex (ASTA Medica)-comb.	Rinoleina (Granelli)-comb.

Chloroprednisone acetate

ATC: H02AB; D07AB

Use: topical glucocorticoid

RN: 14066-79-6 MF: C₂₃H₂₇ClO₆ MW: 434.92 EINECS: 237-919-3CN: (6 α)-21-(acetyloxy)-6-chloro-17-hydroxypregna-1,4-diene-3,11,20-trione*Reference(s):*

DE 1 079 042 (Syntex; appl. 1958; MEX-prior. 1957).

FR-M 666 (Syntex; appl. 20.9.1960).

alternative synthesis:

US 3 130 211 (Upjohn; 21.4.1964; prior. 1957, 1958).

pharmaceutical formulation:

GB 955 891 (Organon; valid from 1962; NL-prior. 1961).

Formulation(s): cream; ointment

Trade Name(s):USA: Adremycin (Organon);
wfm

Topilan (Syntex); wfm

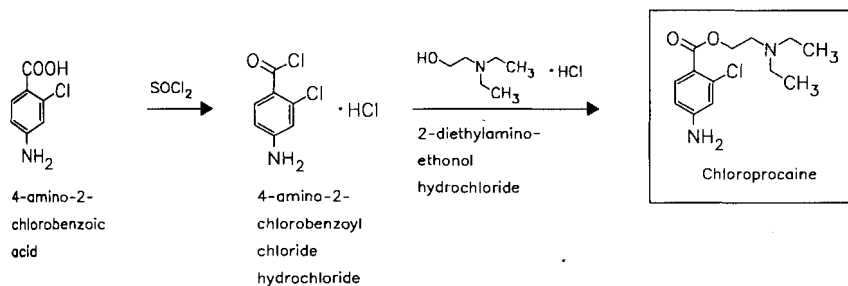
Chloroprocaine

ATC: N01BA04

Use: local anesthetic

RN: 133-16-4 MF: C₁₃H₁₉ClN₂O₂ MW: 270.76

CN: 4-amino-2-chlorobenzoic acid 2-(diethylamino)ethyl ester

monohydrochlorideRN: 3858-89-7 MF: C₁₃H₁₉ClN₂O₂ · HCl MW: 307.22 EINECS: 223-371-2LD₅₀: 266 mg/kg (M, i.p.); 700 mg/kg (M, s.c.)**Reference(s):**

US 2 460 139 (Wallace & Tiernan; 1949; appl. 1945).

Formulation(s): multiple-dose vial 1 %, 2 %; single-dose vial 2 %, 3 % (as hydrochloride)**Trade Name(s):**J: Piocaine (Teikoku Kagaku-Nagase) USA: Nesacaine (Astra)
Nesacaine (Pennwalt)**Chloropyramine**

(Halopyramine; Chlortripelemamine)

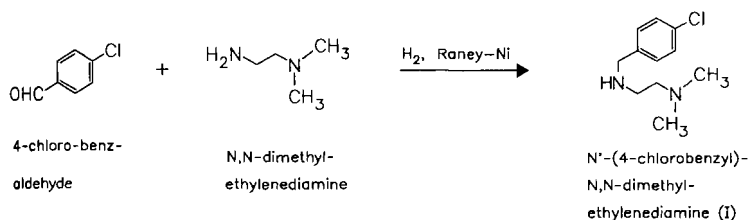
ATC: D04AA09; R06AC03

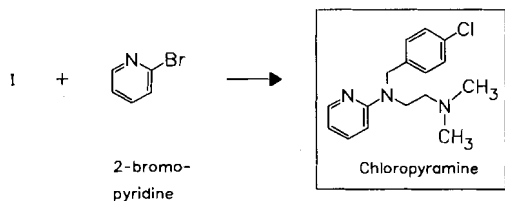
Use: antihistaminic

RN: 59-32-5 MF: C₁₆H₂₀ClN₃ MW: 289.81 EINECS: 200-421-1LD₅₀: 24.1 mg/kg (M, i.v.); 354 mg/kg (M, p.o.);

32.5 mg/kg (R, i.v.); 920 mg/kg (R, p.o.)

CN: N-[(4-chlorophenyl)methyl]-N',N'-dimethyl-N-2-pyridinyl-1,2-ethanediamine

monohydrochlorideRN: 6170-42-9 MF: C₁₆H₂₀ClN₃ · HCl MW: 326.27 EINECS: 228-216-2

*Reference(s):*

US 2 569 314 (American Cyanamid; 1951; appl. 1947).

Vaughan, J.R. et al.: J. Org. Chem. (JOCEAH) **14**, 228 (1949).*Formulation(s):* amp. 20 mg; cream 1 %; tabl. 25 mg*Trade Name(s):*

D: Synpen (Geigy); wfm

I: Sinopen (Geigy); wfm

Chloropyrilene

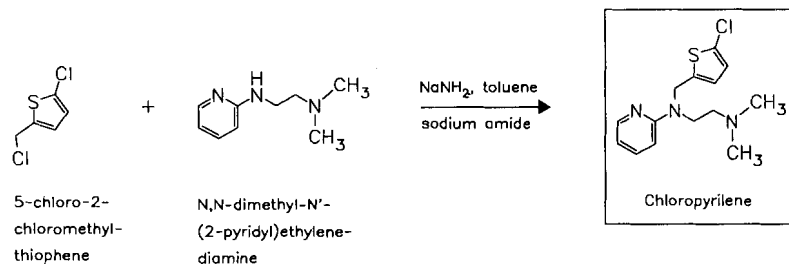
(Chlorthenylpyramine)

ATC: R06AC

Use: antihistaminic

RN: 148-65-2 MF: C₁₄H₁₈ClN₃S MW: 295.84LD₅₀: 105 mg/kg (M, i.p.)

CN: N-[(5-chloro-2-thienyl)methyl]-N,N-dimethyl-N-2-pyridinyl-1,2-ethanediamine

citrate (1:1)RN: 148-64-1 MF: C₁₄H₁₈ClN₃S · C₆H₈O₇ MW: 487.96 EINECS: 205-720-0**monohydrochloride**RN: 135-35-3 MF: C₁₄H₁₈ClN₃S · HCl MW: 332.30LD₅₀: 438 mg/kg (M, p.o.)*Reference(s):*

(cf. thenyldiamine, methapyrilene)

US 2 581 868 (Monsanto; 1952; prior. 1946).

Clapp, R.C. et al.: J. Org. Chem. (JOCEAH) **14**, 216 (1949).Clapp, R.C. et al.: J. Am. Chem. Soc. (JACSAT) **69**, 1549 (1947).*Formulation(s):* tabl. 25 mg*Trade Name(s):*I: Brevirina (Prodatti Erma)-
comb.; wfmPanta-Valeas (Valeas); wfm
USA: Tagathen (Lederle); wfmTagathen (Lederle; as
citrate); wfm

Chloroquine

ATC: P01BA01

Use: antirheumatic, antimalarial

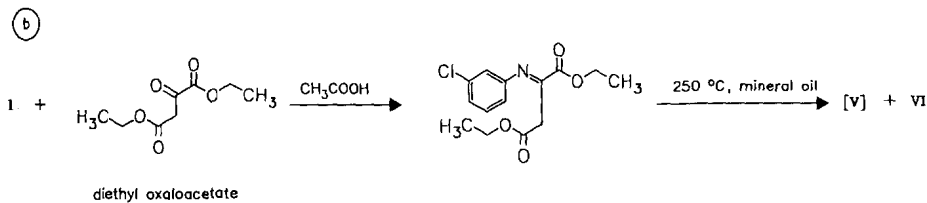
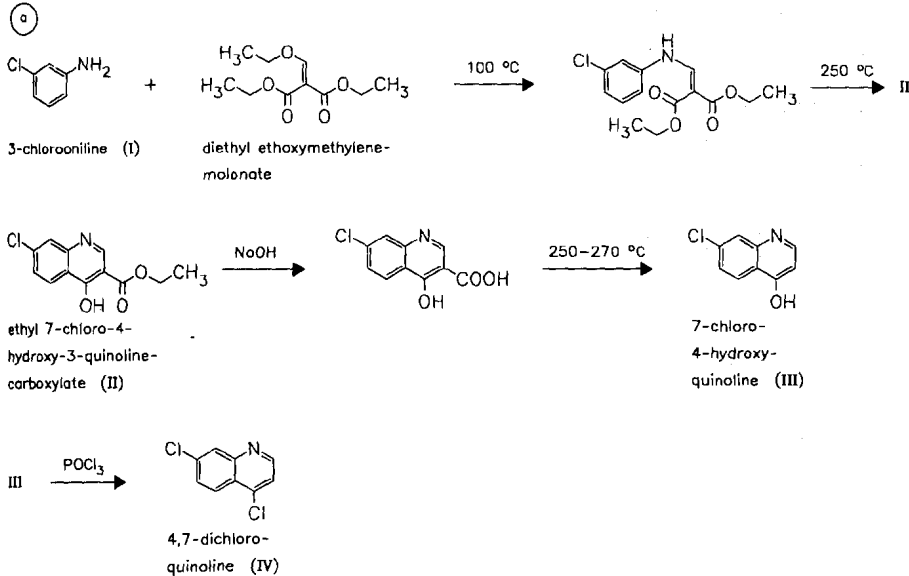
RN: 54-05-7 MF: $C_{18}H_{26}ClN_3$ MW: 319.88 EINECS: 200-191-2LD₅₀: 21.6 mg/kg (M, i.v.); 311 mg/kg (M, p.o.);

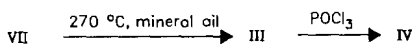
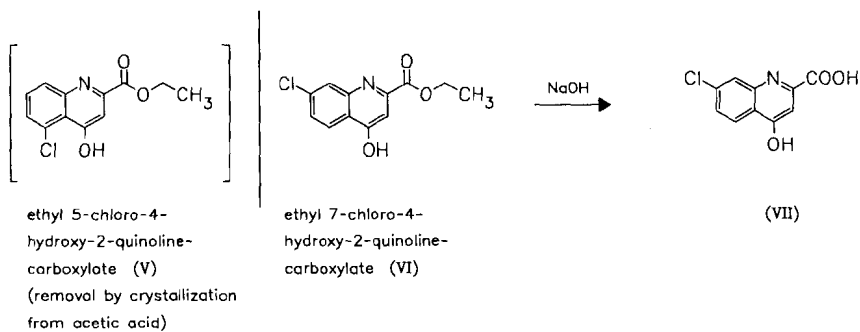
60 mg/kg (R, i.v.); 330 mg/kg (R, p.o.)

CN: *N*⁴-(7-chloro-4-quinolinyl)-*N*¹,*N*¹-diethyl-1,4-pentanediamine**diphosphate**RN: 50-63-5 MF: $C_{18}H_{26}ClN_3 \cdot 2H_3PO_4$ MW: 515.87 EINECS: 200-055-2LD₅₀: 500 mg/kg (M, p.o.)**sulfate (1:1)**RN: 132-73-0 MF: $C_{18}H_{26}ClN_3 \cdot H_2SO_4$ MW: 417.96 EINECS: 205-077-6**sulfate (1:1) monohydrate**RN: 6823-83-2 MF: $C_{18}H_{26}ClN_3 \cdot H_2O_4S \cdot H_2O$ MW: 435.97**dihydrochloride**RN: 3545-67-3 MF: $C_{18}H_{26}ClN_3 \cdot 2HCl$ MW: 392.80 EINECS: 222-592-1**2,5-dihydroxybenzoate**RN: 16510-14-8 MF: $C_{18}H_{26}ClN_3 \cdot xC_7H_6O_4$ MW: unspecified EINECS: 240-578-3**diorotate**RN: 16301-30-7 MF: $C_{18}H_{26}ClN_3 \cdot 2C_5H_4N_2O_4$ MW: 632.07 EINECS: 240-389-6LD₅₀: 1130 mg/kg (M, p.o.)

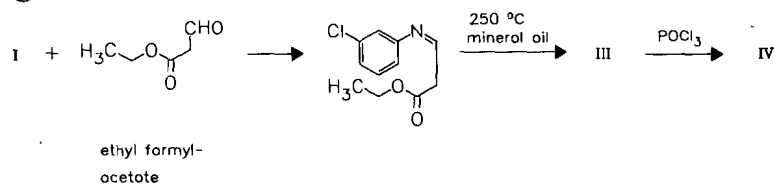
starting products:

1. 4,7-Dichloroquinoline



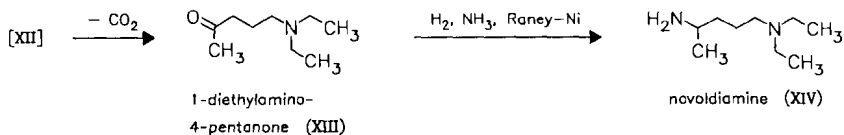
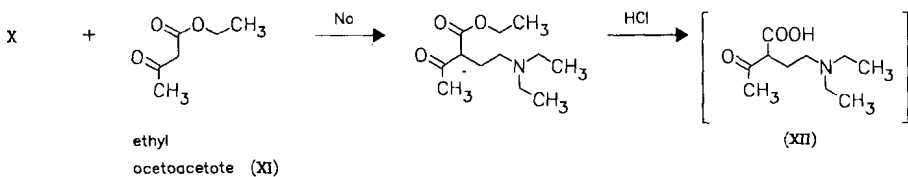
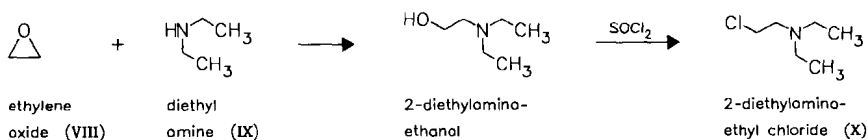


(c)

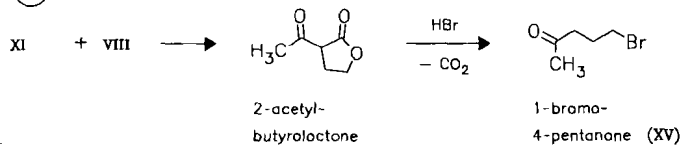


2. Novoldiomine

(o)



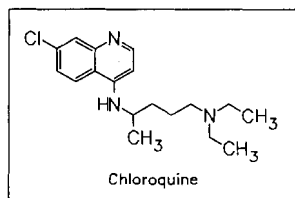
(b)



final product:

Chloroquine

IV + XIV

*Reference(s):*

- US 2 233 970 (Winthrop; 1941; D-prior. 1937).
 DRP 683 692 (I. G. Farben; appl. 1937).
 Drake, N.L. et al.: J. Am. Chem. Soc. (JACSAT) **68**, 1214 (1946).
1a Price, C.C.; Roberts, R.M.: J. Am. Chem. Soc. (JACSAT) **68**, 1204 (1946).
 DD 53 065 (S. Schwarz et al.; appl. 1966).
b Surrey, A.R.; Hammer, H.F.: J. Am. Chem. Soc. (JACSAT) **68**, 113 (1946).
c US 2 478 125 (American Cyanamid; 1949; appl. 1944).
2a DRP 486 079 (I. G. Farben; appl. 1924).
b Elderfield, R.C. et al.: J. Am. Chem. Soc. (JACSAT) **68**, 1579 (1946).

alternative syntheses of novoldiamine:

- US 2 365 825 (Monsanto; 1944; appl. 1942).
 GB 1 157 637 (Sterling Drug; appl. 1966; USA-prior. 1965).

aminating hydrogenation of novolketone, continuous method:

- DOS 2 923 472 (Bayer; appl. 9.6.1979).

alternative synthesis of 4,7-dichloroquinoline from 3-chloroaniline and acrylic acid ester:

- FR 1 514 280 (Roussel-Uclaf; appl. 10.1.1967).
 EP 56 765 (Rhône-Poulenc; appl. 15.1.1982; F-prior. 16.1.1981).

alternative synthesis of chloroquine from 7-chloro-4-oxo-1,2,3,4-tetrahydroquinoline and novoldiamine:

- EP 56 766 (Rhône-Poulenc; appl. 15.1.1982; F-prior. 16.1.1981).

chlorination of 7-chloro-4-hydroxyquinoline with benzotrichloride:

- DOS 3 112 415 (Dynamit Nobel; appl. 28.3.1981).

Formulation(s): amp. 250 mg/5 ml; syrup 15 mg; tabl. 50 mg, 155 mg, 300 mg (as phosphate)

Trade Name(s):

D:	Resochin (Bayer Vital)	GB:	Avloclor (Zeneca)	USA:	Aralen (Sanofi; as hydrochloride)
F:	Nivaquine (Rhône-Poulenc Rorer Specia)		Nivaquine (Rhône-Poulenc Rorer)		Aralen (Sanofi; as phosphate)
	Savarine (Zeneca Pharma)-comb.	I:	Cloroc (Formulario Naz.) Clorochina (Bayer)		

Chlorothiazide

ATC: C03AA04
 Use: diuretic

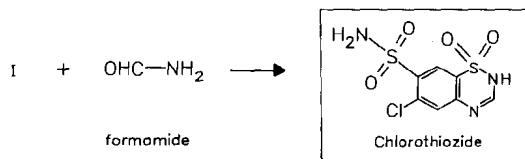
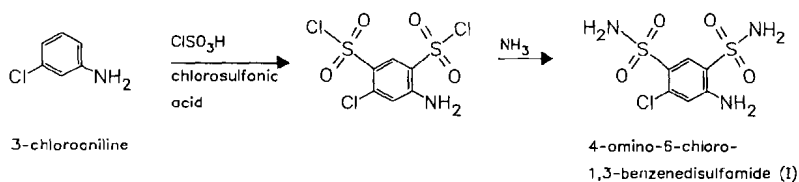
RN: 58-94-6 MF: C₇H₆ClN₃O₄S₂ MW: 295.73 EINECS: 200-404-9

LD₅₀: 940 mg/kg (M, i.v.); 8 g/kg (M, p.o.);
 200 mg/kg (R, i.v.); 10 g/kg (R, p.o.);
 1 g/kg (dog, i.v.)

CN: 6-chloro-2H-1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide

sodium salt

RN: 7085-44-1 MF: C₇H₅ClN₃NaO₄S₂ MW: 317.71

*Reference(s):*

US 2 809 194 (Merck & Co.; 8.10.1957; prior. 2.5.1956).

US 2 937 169 (Merck & Co.; 17.5.1960; prior. 25.9.1958).

Novello, E.C.; Sprague, J.M.: J. Am. Chem. Soc. (JACSAT) **79**, 2028 (1957).

alternative synthesis of 4-amino-6-chloro-1,3-benzenedisulfamide (chlorosulfonation of 1,3-dichlorobenzene and subsequent reaction with ammonia):

DE 1 119 290 (Hoechst; appl. 7.11.1959).

Formulation(s): amp. 500 mg/20 ml (as sodium salt); tabl. 250 mg, 500 mg

Trade Name(s):

D:	Chlotride (Sharp & Dohme); wfm	I:	Clotride (Merck Sharp & Dohme); wfm	USA:	Aldochlor (Merck)
F:	Diupreskal (ThérapiX)-comb.; wfm		Saluren (Croce Bianca); wfm		Diupres (Merck)
	Diurilix (ThérapiX)-comb.; wfm	J:	Aldochlor (Merck Sharp & Dohme)-comb. with methyldopa		Diuril (Merck)
GB:	Saluric (Merck Sharp & Dohme)		Chlotride (Merck-Banyu)		Diuril (Merck; as sodium salt) generics

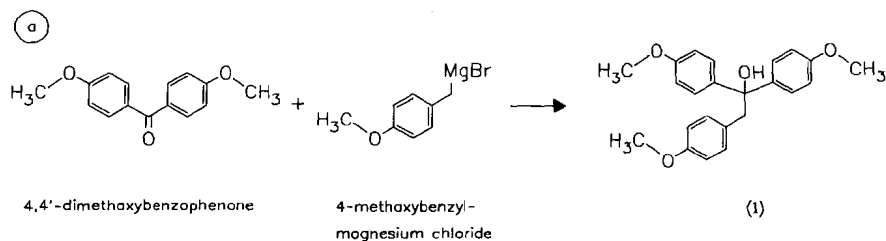
Chlorotrianisene

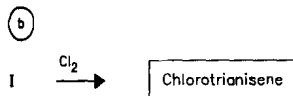
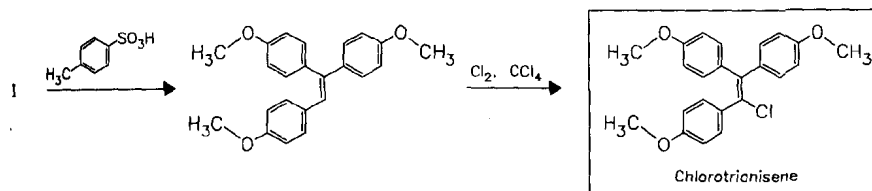
ATC: G03CA06

Use: synthetic estrogen

RN: 569-57-3 MF: C₂₃H₂₁ClO₃ MW: 380.87 EINECS: 209-318-6

CN: 1,1',1''-(1-chloro-1-ethenyl-2-ylidene)tris[4-methoxybenzene]



**Reference(s):**

- a US 2 430 891 (Merrell; 1947; prior. 1941).
 b BE 561 508 (ICI; valid from 1943; prior. 1942).

Formulation(s): cps. 12 mg, 24 mg, 72 mg

Trade Name(s):

D:	Merbental (Marion Merrell); wfm	Tace-FN (Merrell-Toraude); wfm	USA:	Chlotride (Merck & Co.); wfm
F:	Tace (Merrell Dow); wfm	GB:	Tace (Merrell); wfm	Diuril (Merck & Co.); wfm
		I:	Anisene (Farmila); wfm	Tace (Merrell Dow); wfm

Chloroxylenol

(Parachlorometaxylenol)

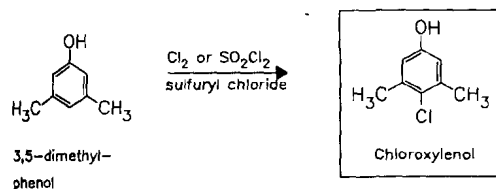
ATC: D08AE05

Use: antiseptic

RN: 88-04-0 MF: C₈H₉ClO MW: 156.61 EINECS: 201-793-8

LD₅₀: 1 g/kg (M, p.o.);
 3830 mg/kg (R, p.o.)

CN: 4-chloro-3,5-dimethylphenol

**Reference(s):**

US 2 350 677 (W. Wiggins Cocker; 1944; GB-prior. 1939).

Formulation(s): cream 0.33 g/100 g; powder 0.33 g/100 g (combination); sol. 1 g/100 g (combination)

Trade Name(s):

D:	Bacillotox (Bode)-comb. Gehwol (Gerlach)-comb.	I:	Dettol (Manetti Roberts); wfm	Cortic (Everett) Zoto HC (Horizon)
GB:	Rinstead (Schering-Plough)-comb. Zeasorb (Stiefel)-comb.		Foille (Delalande Isnardi)-comb.	
		USA:	Cortane-B (Blansett)	

Chlorphenamine

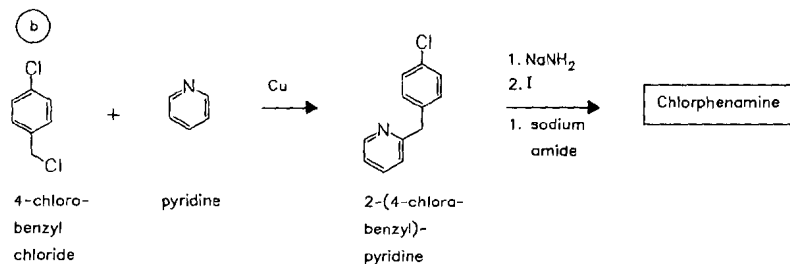
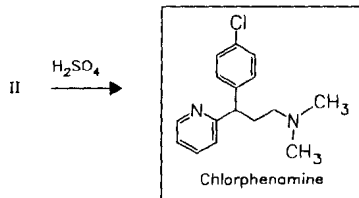
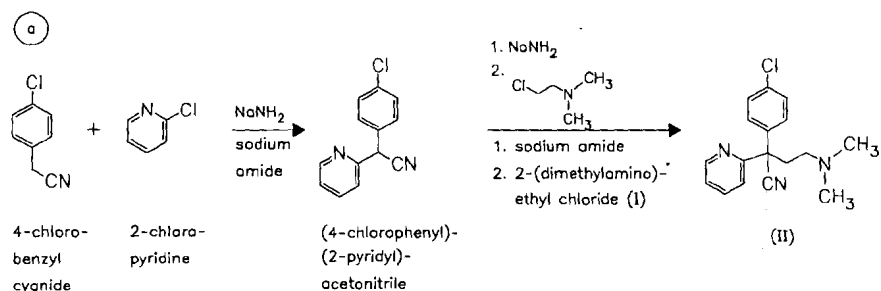
(Chlorpheniramine)

ATC: R06AB04
Use: antihistaminic

RN: 132-22-9 MF: C₁₆H₁₉ClN₂ MW: 274.80 EINECS: 205-054-0
LD₅₀: 20 mg/kg (M, i.v.); 121 mg/kg (M, p.o.);
118 mg/kg (R, p.o.)
CN: γ -(4-chlorophenyl)-*N,N*-dimethyl-2-pyridinepropanamine

maleate (1:1)

RN: 113-92-8 MF: C₁₆H₁₉ClN₂ · C₄H₄O₄ MW: 390.87 EINECS: 204-037-5
LD₅₀: 26.1 mg/kg (M, i.v.); 130 mg/kg (M, p.o.);
306 mg/kg (R, p.o.);
97.6 mg/kg (dog, i.v.)



Reference(s):

US 2 567 245 (Schering Corp.; 1951; prior. 1948).
US 2 676 964 (Schering Corp.; 1954; prior. 1950).

Formulation(s): amp. 10 mg; cps. 2.5 mg, 4 mg, 8 mg (as maleate); syrup 3 mg/15 ml

Trade Name(s):

D: Balkis (Dolorgiet)-comb.
Codicaps (Thiemann)-comb.

Contac (SmithKline Beecham)
Grippostad (Stada)

Sedotussin (Rodleben, UCB, Vedim)
F: Arpha (Fournier SCA)-comb.

	Bronchalène (Martin)-comb.	Neorestamin (Kowa)	Mescolor (Horizon; as maleate)
	Hexapneumine (Doms-Adrian)-comb.	Poracemin (Horita)	maleate)
	Hyrvalan (Monot)-comb.	USA: Ah Chew (We; as maleate)	Nalex-A (Blansett; as maleate)
	Pneumopan (SmithKline Beecham)-comb.	Ana-Kit (Bayer Allergy; as maleate)	ND (Seatrace; as maleate)
	Poroncorinol (Roche Nicholas)-comb.	Anaplex (ECR; as maleate)	Notamine (Carrick; as maleate)
	Rhinofebral (Martin)-comb.	Atrohist (Medeva; as maleate)	Omnihist (We; as maleate)
	Rumicine (Schering-Plough)-comb.	Atrohist (Medeva; as tannate)	Ornace (SmithKline Beecham; as maleate)
	Sup-Rhinite (SmithKline Beecham)	Brexin (Savage; as maleate)	Pediacof (Sanofi; as maleate)
GB:	Galepsend (Galen; as maleate)-comb.	Codimal (Schwarz; as maleate)	Protid (Lunsco; as maleate)
	Haymine (Pharmax; as maleate)-comb.	Co-Pyronil (Dista; as maleate)	Rescon (Ion; as maleate)
	Piriton (Stafford-Miller)	Cura-Vent/DA (Dura; as maleate)	Respa ARM (Respa; as maleate)
I:	Fienamina (Recordati)-comb.	D.A. II (Dura; as maleate)	Rynaton (Wallace; as tannate)
	Lentostamin (SIT)	Dallergyl (Laser; as maleate)	Rynatuss (Wallace; as tannate)
	Neocoricidin (Schering-Plough)-comb.	Donatussin (Laser; as maleate)	Sinulin (Cernick; as maleate)
	Rectocoricidin (Schering-Plough)-comb.	Endal (Forest; as maleate)	Sinutas Sinus Allergy MS (Warner-Lambert; as maleate)
	Trimeton (Schering-Plough)	Extendryl (Fleming; as maleate)	Tamafed (Horizon; as tannate)
	combination preparations	Fedahist (Schwarz; as maleate)	Triotann (Duramed; as tannate)
J:	Allergin (Sankyo)	Histussin (Sanofi; as maleate)	Tuss (Seatrace; as maleate)
	Atalis-D (Kanto-Isei)	Hycamine (Endo; as maleate)	Tussar (Rhône-Poulenc Rorer; as maleate)
	Bismilla (Fuso)	Hydrocodone (Pharmaceutical Associates; as maleate)	Tussend (Monarch; as maleate)
	Chlodamin (Maruko)	Kronofec (Ferndale; as maleate)	Tylenol (McNeil; as maleate)
	Chlor-Trimeton (Schering)		
	Lekrica (Yoshitomi)		

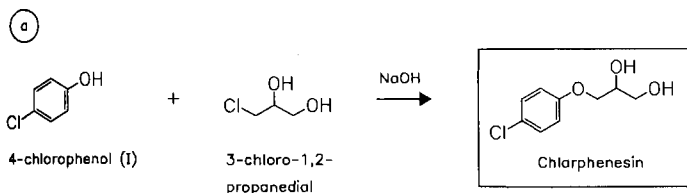
Chlorphenesin

ATC: D01AE07

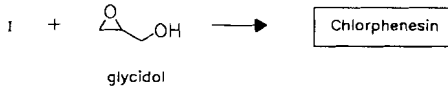
Use: antifungal

RN: 104-29-0 MF: C₉H₁₁ClO₃ MW: 202.64 EINECS: 203-192-6LD₅₀: 911 mg/kg (M, s.c.)

CN: 3-(4-chlorophenoxy)-1,2-propanediol



(b)

*Reference(s):*

GB 628 497 (British Drug Houses; appl. 1948).

Formulation(s): cream 10 mg/1 g; vaginal suppos. 10 mg*Trade Name(s):*

D:	Soorphenesin (Kade)	Miol Cream
	Soorphenesin H (Kade)-	(Comprehensive)-comb;
	comb.	wfm
GB:	Aero-Mycil (Duncan,	Mycil (Duncan, Flockhart);
	Flockhart); wfm	wfm

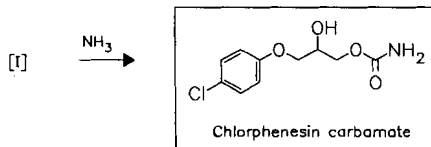
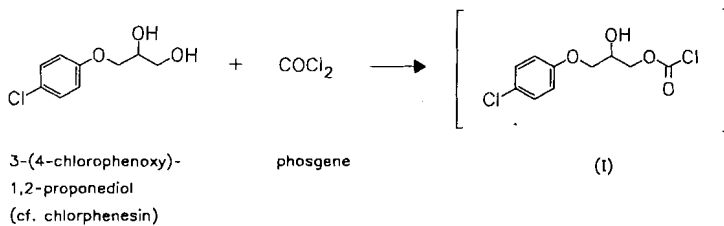
Chlorphenesin carbamate

ATC: D01AE07

Use: analgesic, muscle relaxant,
tranquilizerRN: 886-74-8 MF: C₁₀H₁₂ClNO₄ MW: 245.66 EINECS: 212-954-7LD₅₀: 239 mg/kg (M, i.v.); 807 mg/kg (M, p.o.);

236 mg/kg (R, i.v.); 744 mg/kg (R, p.o.)

CN: 3-(4-chlorophenoxy)-1,2-propanediol 1-carbamate

*Reference(s):*

US 3 161 567 (Upjohn; 15.12.1964; prior. 29.5.1963; medical use).

US 3 214 336 (Upjohn; 26.10.1965; prior. 26.8.1960).

Formulation(s): tabl. 400 mg*Trade Name(s):*

USA: Maolate (Upjohn); wfm

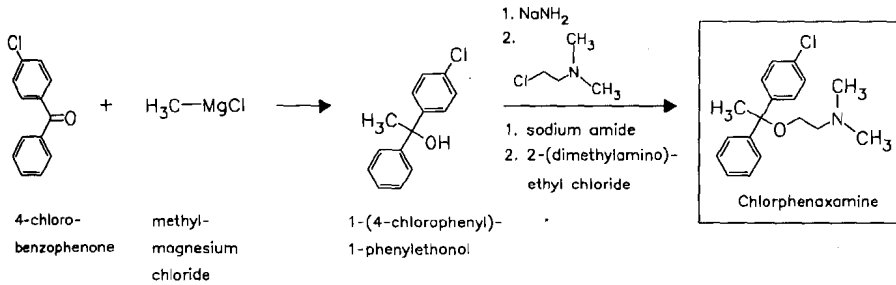
Chlorphenoxamine

ATC: D04AA34; R06AA06
Use: antihistaminic

RN: 77-38-3 MF: $C_{18}H_{22}ClNO$ MW: 303.83
LD₅₀: 376 mg/kg (M, p.o.)
CN: 2-[1-(4-chlorophenyl)-1-phenylethoxy]-*N,N*-dimethylethanamine

hydrochloride

RN: 562-09-4 MF: $C_{18}H_{22}ClNO \cdot HCl$ MW: 340.29 EINECS: 209-227-1
LD₅₀: 44 mg/kg (M, i.v.); 345 mg/kg (M, p.o.);
1 g/kg (R, p.o.);
30.8 mg/kg (dog, i.v.)

**Reference(s):**

US 2 785 202 (ASTA-Werke; 12.3.1957; D-prior. 1952).
DE 1 009 193 (ASTA-Werke; appl. 1955).

Formulation(s): cream 15 mg/g; drg. 20 mg, 30 mg (combination); gel 15 mg/g; suppos. 24 mg, 60 mg; tabl. 20 mg

Trade Name(s):

D:	Rodavan (ASTA Medica)-comb.	Systral (ASTA Medica)-comb.	GB:	Clorevan (Evans); wfm	
	Systral (ASTA Medica)	F:	Systral (Lucien); wfm	J:	Systral (Kyrorin)
				USA:	Phenoxene (Dow); wfm

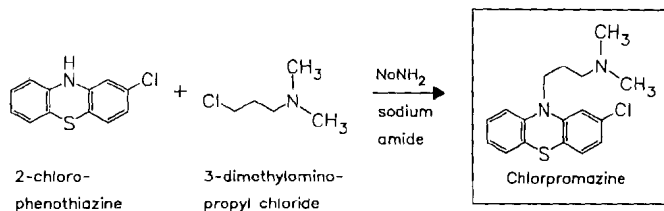
Chlorpromazine

ATC: N05AA01
Use: antipsychotic, neuroleptic, psychosedative

RN: 50-53-3 MF: $C_{17}H_{19}ClN_2S$ MW: 318.87 EINECS: 200-045-8
LD₅₀: 16 mg/kg (M, i.v.); 135 mg/kg (M, p.o.);
23 mg/kg (R, i.v.); 142 mg/kg (R, p.o.);
30 mg/kg (dog, i.v.)
CN: 2-chloro-*N,N*-dimethyl-10*H*-phenothiazine-10-propanamine

monohydrochloride

RN: 69-09-0 MF: $C_{17}H_{19}ClN_2S \cdot HCl$ MW: 355.33 EINECS: 200-701-3
LD₅₀: 20 mg/kg (M, i.v.); 135 mg/kg (M, p.o.);
25 mg/kg (R, i.v.); 145 mg/kg (R, p.o.)

**Reference(s):**

US 2 645 640 (Rhône-Poulenc; 1953; F-prior. 1950).
 DE 910 301 (Rhône-Poulenc; appl. 1951; F-prior. 1950).

Formulation(s): amp. 25 mg/ml, 50 mg/2 ml; drops 20 mg/ml; suppos. 25 mg, 100 mg; syrup 10 mg/5 ml; tabl. 10 mg, 25 mg, 50 mg, 100 mg, 200 mg (as hydrochloride)

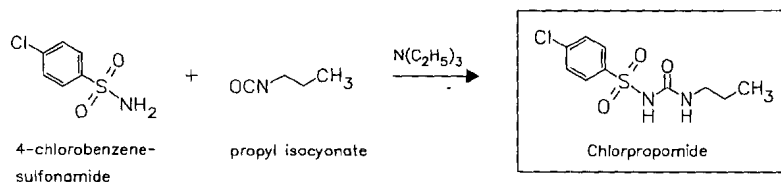
Trade Name(s):

D:	Propaphenin (Rodleben)	J:	Prozin (Lusofarmaco)	Promexin (Meiji)
F:	Largactil (Rhône-Poulenc Rorer Specia)		Acemin (Sanko)	Wintermin (Shionogi)
GB:	Largactil (Rhône-Poulenc Rorer)		Contomin (Yoshitomi)	USA: Thorazine (SmithKline Beecham)
I:	Clorpr (Formulario Naz.; Biologici Italia; Sifra)		Copormin (Kaken)	Thorazine (SmithKline Beecham; as hydrochloride)
	Largactil (Rhône-Poulenc Rorer)		Doimazin (Nippon Shinyaku)	
			Epokuhl (Kyowa)	
			Ishitomin (Kanto)	
			Norcozine (Iwaki)	

Chlorpromamide

ATC: A10BB02
 Use: antidiabetic

RN: 94-20-2 MF: C₁₀H₁₃ClN₂O₃S MW: 276.74 EINECS: 202-314-5
 LD₅₀: 500 mg/kg (M, i.v.); 1100 mg/kg (M, p.o.);
 590 mg/kg (R, i.v.); 2150 mg/kg (R, p.o.)
 CN: 4-chloro-N-[(propylamino)carbonyl]benzenesulfonamide

**Reference(s):**

US 3 013 072 (Pfizer; 1961; prior. 1958).
 US 3 349 124 (Pfizer; 24.10.1967; prior. 20.5.1957).
 Ruschig, H. et al.: *Arzneim.-Forsch. (ARZNAD)* **8**, 448 (1958).

Formulation(s): tabl. 100 mg, 250 mg

Trade Name(s):

D:	Chloronase (Hoechst); wfm	I:	Clorprop (Formulario Naz.)	J:	Abemide (Kobayashi Kako)
	Diabetoral (Boehringer Mannh.); wfm		Diabemide (Guidotti)		Arodoc-C (Sawai)
F:	Diabinèse (Pfizer)		Diabexan (Crosara)		Chloronase (Hoechst)
GB:	Diabinese (Pfizer)		Pleiamide (Guidotti)-comb.		Diabinese (Taito Pfizer)

Diamide (Kanto)
Mellitos C (Ono)

Shuabate (Toyama)
Toyomclin (Toyo Jozo)

USA: Diabinese (Pfizer)

Chlorprothixene

ATC: N05AF03
Use: neuroleptic

RN: 113-59-7 MF: $C_{18}H_{18}ClNS$ MW: 315.87 EINECS: 204-032-8
LD₅₀: 36 mg/kg (M, i.v.); 50.1 mg/kg (M, p.o.);
200 mg/kg (R, p.o.)
CN: (Z)-3-(2-chloro-9H-thioxanthen-9-ylidene)-N,N-dimethyl-1-propanamine

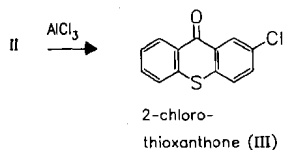
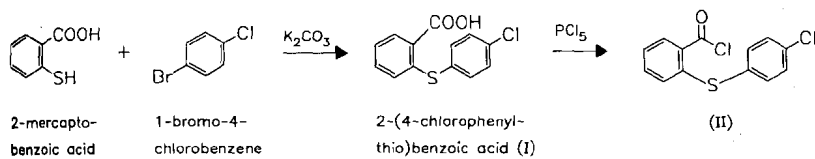
hydrochloride

RN: 6469-93-8 MF: $C_{18}H_{18}ClNS \cdot HCl$ MW: 352.33 EINECS: 229-289-3
LD₅₀: 42.4 mg/kg (M, i.v.); 242 mg/kg (M, p.o.)

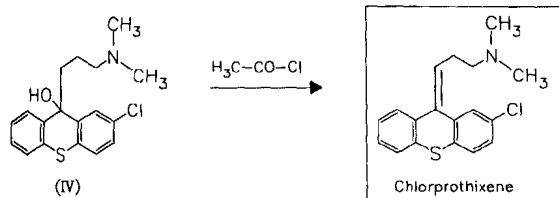
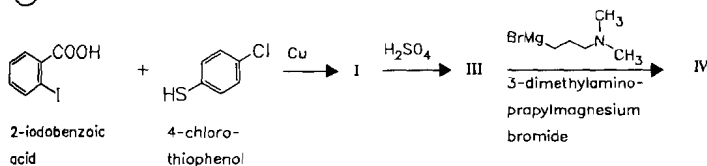
acetate

RN: 58889-16-0 MF: $C_{18}H_{18}ClNS \cdot C_2H_4O_2$ MW: 375.92

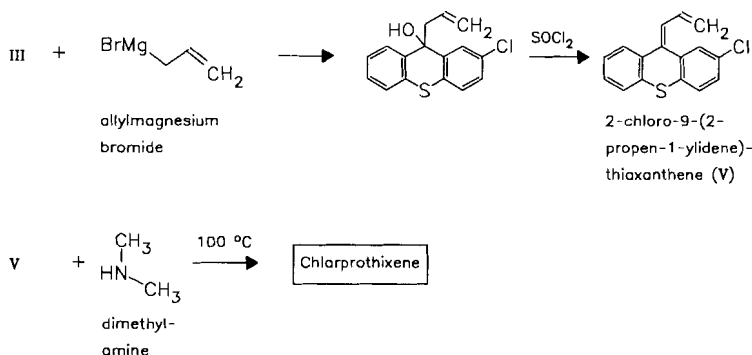
(a)



(b)



c

*Reference(s):*

- a** DE 1 044 103 (Hoffmann-La Roche; appl. 22.5.1957; CH-prior. 12.6.1956, 29.6.1956, 5.7.1956).
CH 349 617 (Hoffmann-La Roche; appl. 29.6.1956).
BE 558 171 (Hoffmann-La Roche; appl. 6.6.1957; CH-prior. 12.6.1956, 29.6.1956, 5.7.1956).
- b** US 2 951 082 (Merck & Co.; 30.8.1960; prior. 9.7.1956).
- c** US 3 116 291 (Kefalas; 31.12.1963; DK-prior. 4.12.1958).
DE 1 168 446 (Kefalas; appl. 1959; DK-prior. 1958).
DE 1 418 517 (Kefalas; appl. 1959; DK-prior. 1958).

separation of isomers:

US 3 115 502 (Roche; 24.12.1963; CH-prior. 19.6.1959).

alternative synthesis:

DE 1 162 382 (Kefalas; appl. 1959; DK-prior. 1958).

isomerization:

DE 1 190 955 (Roche; appl. 1960; CH-prior. 1959).

review:

Bonricino, G.E. et al.: J. Org. Chem. (JOCEAH) **26**, 2383 (1961).

alternative synthesis:

DOS 1 918 739 (Egyesült; appl. 12.4.1969; H-prior. 12.4.1968).

Formulation(s): amp. 50 mg/ml; drg. 15 mg, 50 mg; f. c. tabl. 15 mg, 50 mg, 100 mg; liquid 40 mg;
sol. 20 mg/ml; susp. 20 mg/ml

Trade Name(s):

D:	Truxal (Promonta Lundbeck)	GB:	Taractan (Roche); wfm	Tra-Quilan (Eisai)
F:	Taractan (Roche); wfm	I:	Taractan (Roche); wfm	Truxal (Toyama)
		J:	Chlothixen (Yoshitomi)	USA: Taractan (Roche); wfm

Chlorquinaldol

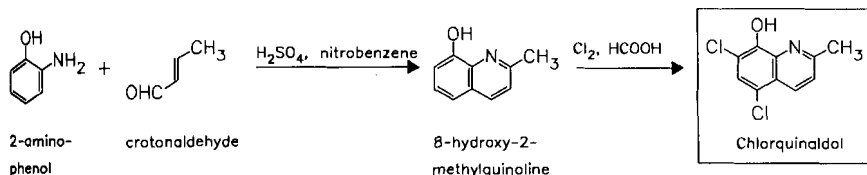
(Clorquinaldol)

ATC: D08AH02; G01AC03; P01AA04;
R02AA11

Use: antiseptic, antifungal

RN: 72-80-0 MF: C₁₀H₇Cl₂NO MW: 228.08 EINECS: 200-789-3LD₅₀: 660 mg/kg (R, p.o.);
2250 mg/kg (dog, p.o.)

CN: 5,7-dichloro-2-methyl-8-quinolinol



Reference(s):

US 2 411 670 (Geigy; 1946; CH-prior. 1942).

Bourquin, J.-P. et al.: Arch. Pharm. Ber. Dtsch. Pharm. Ges. (APBDAJ) **295**, 383 (1962).

Formulation(s): cream 10 mg, 130 mg

Trade Name(s):

D:	Nerisona (Schering)-comb. Proctaspre (Henning)-comb.	Siogène (Geigy); wfm Sterosan (Geigy); wfm	J:	Lonjee (Sampo)-comb. Rub-All T (Toyama)-comb.
F:	Gynothérax (Bouchard); wfm Nérisona (Schering)-comb.; wfm	GB: Lacoid C (Yamanouchi)-comb. I: Eczezur (Schering)-comb. Impetex (Roche)-comb. Norisona (Schering)-comb.		Siosteran (Ciba-Geigy)-Fujisawa)

Chlortalidone

(Chlorthalidone)

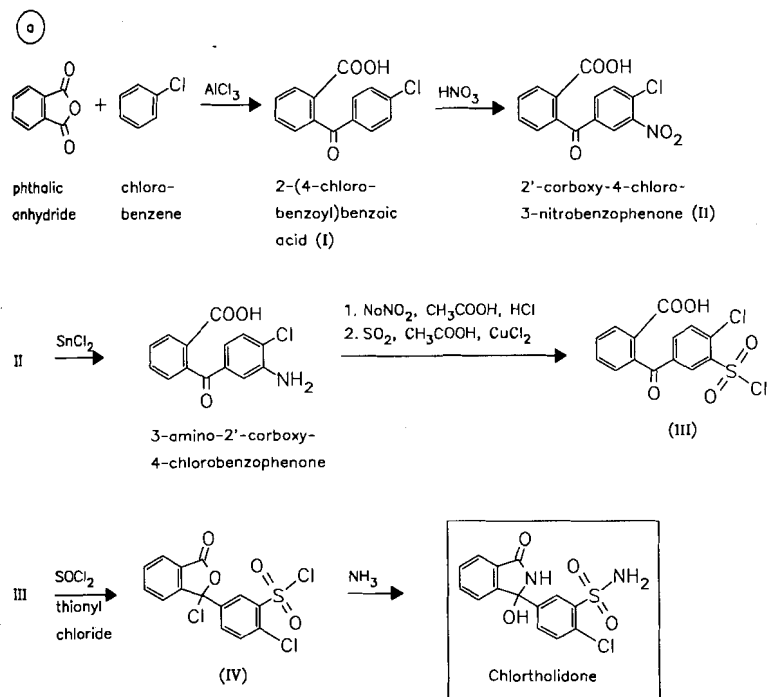
ATC: C03BA04

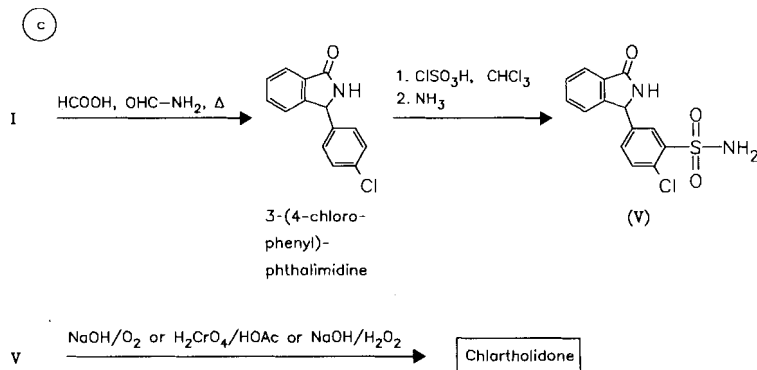
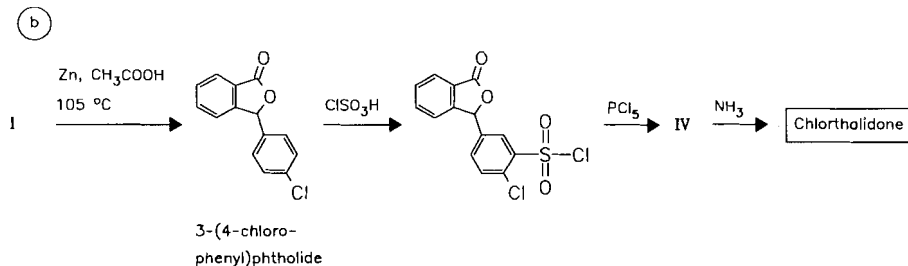
Use: diuretic, antihypertensive

RN: 77-36-1 MF: $\text{C}_{14}\text{H}_{11}\text{ClN}_2\text{O}_4\text{S}$ MW: 338.77 EINECS: 201-022-5LD₅₀: >5 g/kg (M, p.o.);

>5 g/kg (R, p.o.)

CN: 2-chloro-5-(2,3-dihydro-1-hydroxy-3-oxo-1H-isindol-1-yl)benzenesulfonamide





Reference(s):

- a US 3 055 904 (Geigy; 25.9.1962; CH-prior. 4.11.1957).
 Graf, W. et al.: *Helv. Chim. Acta (HCACAV)* **42**, 1085 (1959).
 b US 4 188 330 (Dow; 12.2.1980; appl. 10.10.1978).
 c EP 51 215 (USV; appl. 22.10.1981; USA-prior. 31.10.1980).
 EP 51 217 (USV; appl. 22.10.1981; USA-prior. 31.10.1980).

water soluble dispersions:

EP 125 420 (Boehringer Ing.; appl. 15.3.1984; USA-prior. 16.3.1983).

Formulation(s): tabl. 25 mg, 50 mg, 100 mg

Trade Name(s):

D:	Combipresan (Boehringer Ing.)-comb. Darebon (Novartis Pharma)-comb. Diu-Atenolol Verla (Verla) Hydro-Long-Tablinen (Sanorania) Hygroton (Novartis Pharma) Prelis (Novartis Pharma)-comb. Teneretic (Zeneca)-comb. Trasitensin (Novartis Pharma)-comb. Trepres (Novartis Pharma)-comb. TRI-Horm (Zeneca)-comb. combination preparations	F:	Hygroton (Novartis) Logroton (Novartis)-comb. Trasitensine (Novartis)-comb.		Diube (SIT)-comb. Diurolab (Leben's)-comb. Eupres Mite (Schiapparelli Searle)-comb. Igroseles (Carlo Erba)-comb. Igroton (Novartis) Igroton-Lopresor (Novartis)-comb. Igroton Reserpina (Novartis)-comb. Target (Lisapharma)-comb. Tenolone (Lusofarmaco)-comb. Tenoretic (Zeneca)-comb. Zambesil (Gentili)	
		GB:	Hygroton (Novartis) Kalspare (Dominion)-comb. Tenoret 50 (Zeneca)-comb. Tenoretic (Zeneca)-comb.			
		I:	Ataclor (Crosara)-comb. Atenigron (Mitim)-comb. Biotens (Kemyos Biomedical Research)-comb. Carmian (Lifepharm)-comb. Combipresan (Boehringer Ing.)-comb.		J:	Hybasedock (Sawai) Hygroton (Ciba-Geigy)

USA: Combipres (Boehringer
Ing.)

Hygroton (Rhône-Poulenc
Rorer)

Tenoretic (Zeneca)
Thalitone (Monarch)

Chlortetracycline

ATC: A01AB21; D06AA02; J01AA03;
S01AA02

Use: antibiotic

RN: 57-62-5 MF: $C_{22}H_{23}ClN_2O_8$ MW: 478.89 EINECS: 200-341-7

LD₅₀: 134 mg/kg (M, i.v.); 1500 mg/kg (M, p.o.);

118 mg/kg (R, i.v.);

150 mg/kg (dog, i.v.); 750 mg/kg (dog, p.o.)

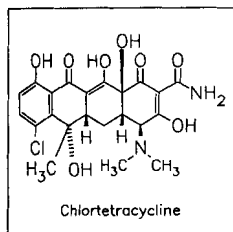
CN: [4S-(4 α ,4 α ,5 α ,6 β ,12 α)]-7-chloro-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,6,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-2-naphthacenecarboxamide

monohydrochloride

RN: 64-72-2 MF: $C_{22}H_{23}ClN_2O_8 \cdot HCl$ MW: 515.35 EINECS: 200-591-7

LD₅₀: 100 mg/kg (M, i.v.); 2314 mg/kg (M, p.o.);

100 mg/kg (R, i.v.)



From fermentation solutions of *Streptomyces aureofaciens*.

Reference(s):

US 2 482 055 (American Cyanamid; 1949; prior. 1948).

US 2 609 329 (American Cyanamid; 1949; prior. 1948).

US 2 899 422 (American Cyanamid; 1959; prior. 1956).

US 2 987 449 (American Cyanamid; 6.6.1961; prior. 23.2.1960).

US 3 050 446 (American Cyanamid; 21.8.1962; prior. 28.7.1960).

Duggar, B.M.: Ann. N. Y. Acad. Sci. (ANYAA9) **51**, 175 (1948).

Formulation(s): cream 10 mg/g, 30 mg/g, 3 %; eye ointment 10 mg/g (1 %); ointment 30 mg/10 g (3 %); pastes 30 mg; pessaries 100 mg (as hydrochloride)

Trade Name(s):

D:	Aureodelf (Lederle)-comb.	GB:	Aureocort (Wyeth)-comb.	J:	Aureomycin (Lederle)
	Aureomycin (Lederle)		Aureomycin (Wyeth)	USA:	Aureomycin (Lederle);
F:	Auréomycine (Specia);		Dete clo (Wyeth)-comb.		wfm
	wfm	I:	Aureocort (Cyanamid)-		
	Tri-antibiotique Chibret		comb.		
	(Chibret)-comb.; wfm		Aureomicina (Cyanamid)		

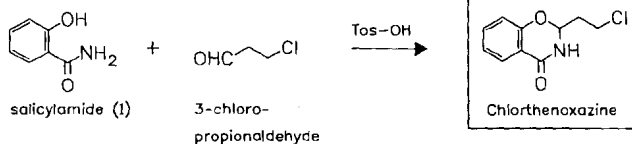
Chlorthenoxazine

ATC: N02B

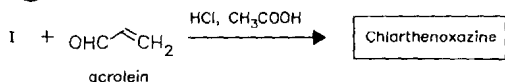
Use: anti-inflammatory, antipyretic,
analgesicRN: 132-89-8 MF: C₁₀H₁₀ClNO₂ MW: 211.65 EINECS: 205-082-3LD₅₀: 11.155 g/kg (M, p.o.);
10 g/kg (R, p.o.)

CN: 2-(2-chloroethyl)-2,3-dihydro-4H-1,3-benzoxazin-4-one

a



b

*Reference(s):*

a DE 1 021 848 (Thomae; appl. 1955).

b DE 1 028 999 (Thomae; appl. 1956; addition to DE 1 021 848).

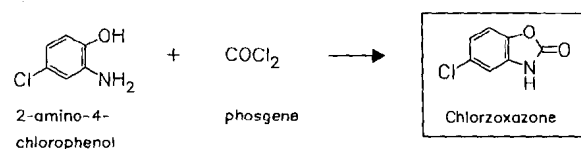
Formulation(s): tabl. 200 mg*Trade Name(s):*D: Cimporhin (Tomae)-comb.;
wfm
Fiobrol (Geigy)-comb.;
wfmI: Atossipirina (Borromeo)-
comb.; wfmBetix (Saba); wfm
Megapir (Biotrading)-
comb.; wfm
Ossazin (Sealari); wfm
Ossazone (Broccieri);
wfmOssipirina (Radiumfarma);
wfm
Oxal (Saita); wfm
Reugaril (Farber-Ref); wfm
Reulin (Isola-Ibi); wfm
Reumital (Farge); wfm**Chlorzoxazone**

ATC: M03BB03

Use: muscle relaxant

RN: 95-25-0 MF: C₇H₄ClNO₂ MW: 169.57 EINECS: 202-403-9LD₅₀: 440 mg/kg (M, p.o.);
763 mg/kg (R, p.o.)

CN: 5-chloro-2(3H)-benzoxazolone

*Reference(s):*

US 2 895 877 (McNeil; 21.7.1959; prior. 30.7.1956).

Formulation(s): tabl. 250 mg, 500 mg

Trade Name(s):

D:	Paraflex (Cilag-Chemie)- comb.; wfm	Deltapyrin (Kodama)- comb.	Salinalon (Nippon Kayaku)-comb.
I:	Biomioran (Bioindustria); wfm Paraflex (Cilag-Chemie); wfm	Framenco (Fuso) Kiricoron (Sampo)-comb. Mesin (Yamanouchi) Nichirakishin (Nichiiko)	Solaxin (Eisai) Sorazin (Toho) Trancrol (Mohan)
J:	Chloxoxine (Sanko) Chroxin (Kanto)	Pathorysin (Kowa Yakuhin) Rheumadex Comp. (Nakataki)-comb.	USA: Parafon Forte (Ortho- McNeil Pharmaceutical)- comb.

Cholestyramine

(Colestyramine)

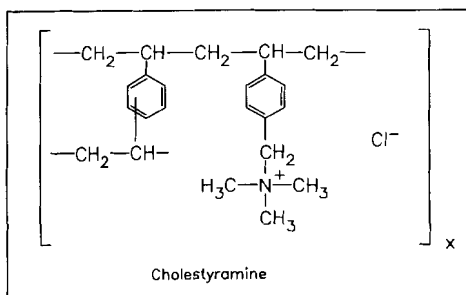
Use: antipruritic at biliary congestion

RN: 11041-12-6 MF: unspecified MW: unspecified EINECS: 234-270-8

LD₅₀: >7.5 g/kg (M, p.o.);

>4 g/kg (R, p.o.)

CN: cholestyramine



Chloromethylation of styrene-divinylbenzene-mixing polymerizate and following reaction with trimethylamine.

Reference(s):

"medical use"

US 3 383 281 (Merck & Co.; 14.5.1968; appl. 22.9.1961; prior. 15.7.1958).

Formulation(s): eff. tabl. 2 g; gran. 4 g; powder 4 g

Trade Name(s):

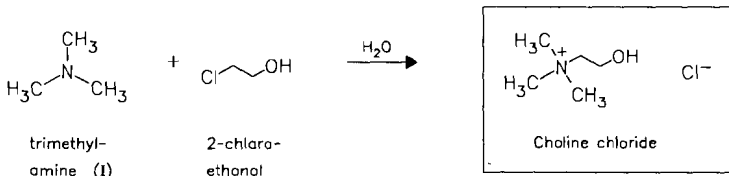
D:	Lipocol (Merz & Co.) Quantalan (Bristol-Myers Squibb) Vasocan (Felgenträger)	GB:	Questran (Bristol-Myers Squibb)	USA:	LoCholest (Warner Chilcott Professional Products)
F:	Questran (Allard; Bristol- Myers Squibb)	I:	Cholestrol (Formenti) Questran (Bristol It. Sud; as hydrochloride)		Questran (Bristol-Myers Squibb)

Choline chloride

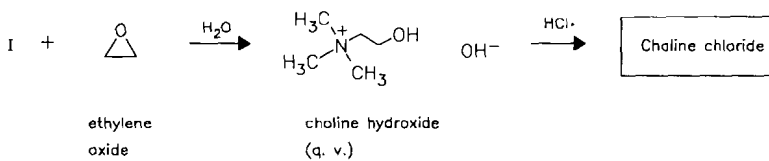
ATC: A05B
Use: choleric

RN: 67-48-1 MF: C₅H₁₄ClNO MW: 139.63 EINECS: 200-655-4
LD₅₀: 53 mg/kg (M, i.v.); 3900 mg/kg (M, p.o.);
3400 mg/kg (R, p.o.)
CN: 2-hydroxy-*N,N,N*-trimethylethanaminium chloride

(a)



(b)



Reference(s):
Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 9, 586.
US 2 623 901 (Nopco; 1952; appl. 1950).

Formulation(s): emulsion 400 mg/5 ml

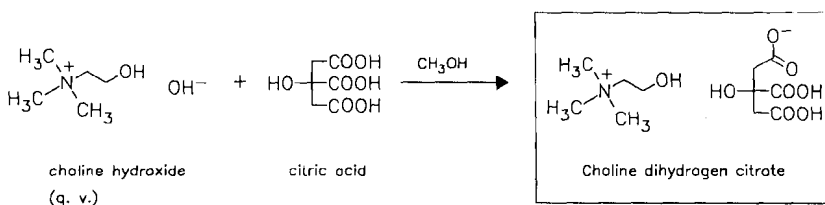
Trade Name(s):

D:	Geriatric-Mulsin (Mucos)-comb.	I:	Betotal (Carlo Erba)-comb. Colina Cloruro (Tariff. Integrativo)	numerous combination preparations
F:	Desintex-Choline (M. Richard)-comb.			

Choline dihydrogen citrate

ATC: C04AX; M03AB
Use: lipotropic

RN: 77-91-8 MF: C₆H₇O₇ · C₅H₁₄NO MW: 295.29 EINECS: 201-068-6
LD₅₀: >4800 mg/kg (M, i.v.); >4800 mg/kg (M, p.o.);
>4800 mg/kg (R, i.v.); >4800 mg/kg (R, p.o.)
CN: 2-hydroxy-*N,N,N*-trimethylethanaminium salt with 2-hydroxy-1,2,3-propanetricarboxylic acid (1:1)



Reference(s):

US 2 870 198 (Nopco; 1959; appl. 1954).

Formulation(s): amp. 300 mg/ml

Trade Name(s):

<p>D: Neurotropan (Phönix)-comb.</p> <p>F: Citrocholine (Thérica)-comb. Hepacholine Sortriol (Synthélabo)-comb.</p>	<p>Hépagrume (Synthélabo)-comb.</p> <p>Kalicitrine (Promédica)-comb.</p> <p>Romarine-choline (Aérocid)-comb.</p>	<p>I: Ipocol (Arnaldi)-comb.; wfm</p> <p>Liverin (Perkins)-comb.; wfm</p> <p>Rybutol (Bergamon)-comb.; wfm</p>
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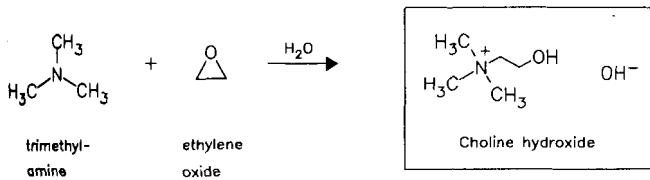
Choline hydroxide

Use: parasympathomimetic

RN: 123-41-1 MF: $C_5H_{15}NO_2$ MW: 121.18 EINECS: 204-625-1

LD₅₀: 21.4 mg/kg (M, i.v.)

CN: 2-hydroxy-*N,N,N*-trimethylethanaminium hydroxide



Intermediate for choline salts.

Reference(s):

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 9, 586.

GB 379 260 (F. Körner; appl. 1932; D-prior. 1931).

DRP 655 882 (Prod. Aminés S. A., Brüssel; appl. 1931; B-prior. 1931).

Renshaw, R.R.: J. Am. Chem. Soc. (JACSAT) 32, 128 (1910).

US 2 774 759 (American Cyanamid; 1956; appl. 1955).

alternative synthesis from trimethylamine and 2-chloroethanol:

DE 801 210 (BASF; appl. 1948).

US 2 623 901 (Nopco; 1952; appl. 1950).

Trade Name(s):

<p>USA: Choline/Inoritol Tablets (Solgar); wfm</p>	<p>Lipo-C (Legere); wfm</p>
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Choline salicylate

(Salicylate de choline)

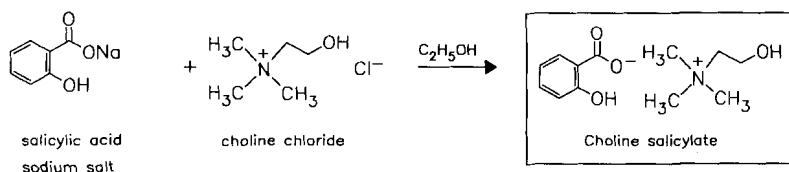
ATC: N02BA03

Use: analgesic, anti-inflammatory, antipyretic

RN: 2016-36-6 MF: $C_5H_{14}NO \cdot C_7H_5O_3$ MW: 241.29 EINECS: 217-948-8

LD₅₀: 2690 mg/kg (M, p.o.)

CN: 2-hydroxy-*N,N,N*-trimethylethanaminium salicylate (1:1)

**Reference(s):**

US 3 069 321 (Labs. for Pharmac. Dev.; 18.12.1962; appl. 4.4.1960).

BE 583 513 (Mundipharma; appl. 12.10.1959).

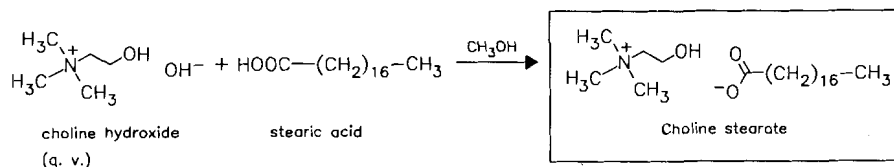
Formulation(s): drops 200 mg/ml; gel 87.1 mg/g; sol. 500 mg/100 ml**Trade Name(s):**

D:	Audax (Mundipharma)	F:	Givalex (Norgine Pharma)-comb.	I:	Salicol (Sais); wfm
	Givalex (Norgine)-comb.		Pansoral (Inava)-comb.	J:	Satibon (Grelan)
	Mundisal (Mundipharma)-comb.	GB:	Bonjela (Reckitt & Colman)-comb.	USA:	Trilisate (Purdue Frederick)

Choline stearate

ATC: C05

Use: anti-inflammatory, liver therapeutic

RN: 60154-01-0 MF: $C_{18}H_{35}O_2 \cdot C_5H_{14}NO$ MW: 387.65CN: 2-hydroxy-*N,N,N*-trimethylethanaminium octadecanoate (salt)**Reference(s):**

US 2 774 759 (American Cyanamid; 1956; appl. 1955).

Formulation(s): ointment 2.95 g/100 g**Trade Name(s):**

D: Chomelanum (Schur)

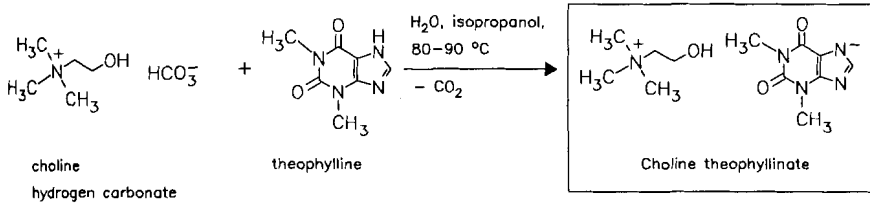
Choline theophyllinate

(Cholinophylline; Oxytriphylline; Oxytrimethylline)

ATC: R03DA02

Use: bronchodilator

RN: 4499-40-5 MF: $C_7H_7N_4O_2 \cdot C_5H_{14}NO$ MW: 283.33 EINECS: 224-798-7CN: 2-hydroxy-*N,N,N*-trimethylethanaminium, salt with 3,7-dihydro-1,3-dimethyl-1*H*-purine-2,6-dione (1:1)

**Reference(s):**

US 2 776 287 (Nepera; 1957; appl. 1954).

Formulation(s): f. c. tabl. 200 mg; s. r. tabl. 400 mg, 600 mg

Trade Name(s):

D:	Euspirax (Asche)	Teofilcolina (Salfa); wfm	Theophyl-Choline
GB:	Choledyl (Warner); wfm	Teofilcolina sedativa	(Perkins)-comb. with
	Sabidal (Zyma); wfm	(Salfa)-comb.; wfm	theophyllineacetate; wfm
I:	Sclerofillina (Medici		J: Ishicolin (Kanto-Isei)
	Domus); wfm		Theocolin (Eisai)

Chymopapain

ATC: M09AB01

Use: intervertebral disk damages
therapeutic

RN: 9001-09-6 MF: unspecified MW: unspecified EINECS: 232-580-8

LD₅₀: 42.3 mg/kg (M, i.v.);

36.1 mg/kg (R, i.v.)

CN: chymopapain

Proteolytic enzyme from the latex of *Carica papaya* with an approximate molecular weight of 27000. It is differentiated from papain in electrophoresis behavior, in solubility and in substrate specificity. Isolation by acidify of papaya-latex with HCl, salting out with NaCl and following chromatographic purification. The formulation contains L-cysteine as reducing agent.

Reference(s):

Jansen, E.F.; Balls, A.K.: J. Biol. Chem. (JBCHA3) **137**, 459 (1941).

US 2 313 875 (E. F. Jansen, A.K. Balls; 1943; appl. 1940).

US 3 558 433 (Baxter Labs.; 26.1.1971; appl. 7.11.1967).

medical use:

US 4 439 423 (Smith Labs.; 27.3.1984; appl. 13.5.1981).

US 3 320 131 (Baxter Labs.; 1967; prior. 1963, 1964).

Formulation(s): vial 4 iu, 5 iu, 10 iu/1000 iu.

Trade Name(s):

D:	Discase (Travenol); wfm	USA: Chymodiactin (Smith);
F:	Chymodiactine (Knoll)	wfm

α -Chymotrypsin

(Alphachymotrypsin)

ATC: B06AA04; S01KX01

Use: anti-inflammatory, proteolytic

RN: 9004-07-3 MF: unspecified MW: unspecified EINECS: 232-671-2

LD₅₀: 89 mg/kg (M, i.v.); >6 g/kg (M, p.o.);

84 mg/kg (R, i.v.); >4 g/kg (R, p.o.)

CN: chymotrypsin

Isolation from homogenized bovine pancreas by

1. extraction with 0,25 normal H₂SO₄.
2. Fractionated ammonium sulfate precipitation of α -chymotrypsinogen (further fractions contain deoxyribonuclease, chymotrypsinogen B, ribonuclease, trypsinogen).
3. Activation of α -chymotrypsinogen by dissolution in 0,005 normal HCl, standardization to 0,1 molar CaCl₂ and 0,1 molar borate buffer pH 8.0; separation of inactive precipitate after 24 h; precipitation of Ca²⁺ as sulfate.
4. Fractionated ammonium sulfate precipitation (twice).
5. Crystallization from borat buffer at pH 8.0 (twice).
6. Desalting by gel chromatography or dialysis.
7. Sterile filtration.
8. Lyophilization.

Reference(s):

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 10, 536.

properties, review:

Niemann, C.: Science (Washington, D.C.) (SCIEAS) 143, 1287 (1964).

Formulation(s): amp. ca. 5 mg/ 5 ml; ointment ca. 5 mg/30 g*Trade Name(s):*

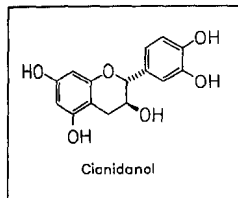
D:	Alpha-Chymocutan (Strathmann)	GB:	Cirkan (Sinbio)-comb. Chymar (Armour); wfm	J:	Zonulasi (SmithKline Beecham)
	Alpha-Chymotrase (Strathmann)		Chymocyclar (Armour); wfm		Chymoral (Tokyo Tanabe)
	Enzym-Wied (Wiedemann)-comb.		Chymoral (Armour)-comb.; wfm		Chymozym (Teikoku Hormone)
	Wobe-Mugos (Mucos)- comb.		Deanase (Consolidated Chemicals); wfm		Kimopsin (Eisai)
F:	Alphachymotrypsine Choay (Sanofi Winthrop)	I:	Ribociclina (Puropharma)- comb.	USA:	Zonolysine (Mochida)
	Alphacutanée (Leurquin)				Orenzyme (Merrell Dow); wfm

Cianidanol((+)-Catechin; (+)-Catechol; Cianidol; Cyanidanol;
Cyanidol; Dexcyanidanol)

ATC: V09D

Use: liver therapeutic (inhibition of lipide
peroxidation)RN: 154-23-4 MF: C₁₅H₁₄O₆ MW: 290.27 EINECS: 205-825-1

CN: (2R-trans)-2-(3,4-dihydroxyphenyl)-3,4-dihydro-2H-1-benzopyran-3,5,7-triol



Ingredient of various plants and trees ("catechu" from *Uncaria gambir* and *Acacia catechu*), obtained by extraction with water or ethyl acetate.

Reference(s):

- Freudenberg, K. et al.: Ber. Dtsch. Chem. Ges. (BDCGAS) **54**, 1204 (1921).
 Freudenberg, K. et al.: Ber. Dtsch. Chem. Ges. (BDCGAS) **55**, 1737 (1922).
 Freudenberg, K. et al.: Justus Liebig's Ann. Chem. (JLACBF) **444**, 135 (1925).

absolute configuration:

Hardegger, E. et al.: Helv. Chim. Acta (HCACAV) **40**, 1819 (1957).

new crystal modifications:

US 4 515 804 (Zyma; 7.5.1985; GB-prior. 24.2.1982).

salts with basic amino acids:

- US 4 285 964 (Continental Pharma; 25.8.1981; appl. 30.8.1979).
 GB 2 057 437 (Continental Pharma; appl. 19.8.1980; USA-prior. 30.8.1979).
 US 4 507 314 (Midit, Soc. Fiduciaire; 26.3.1985; appl. 20.7.1983).

Formulation(s): tabl. 750 mg

Trade Name(s):

D:	Catergen (Zyma); wfm	Catergen (Zyma); wfm	Transepar (Dompé); wfm
F:	Catergène (Zyma); wfm	DrenoliveR (Biochimica)	J: Catergen (Kanebo-Sankyo)
I:	Ausoliver (Ausonia); wfm	Zanardi); wfm	

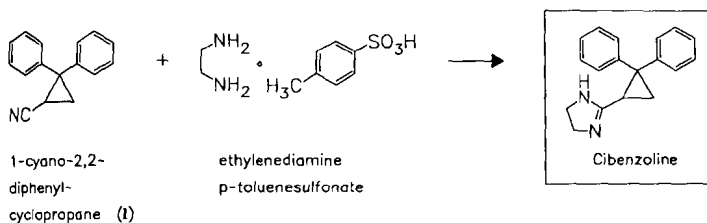
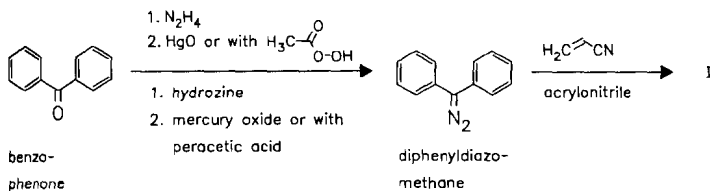
Cibenzoline

ATC: C01BG07

Use: class I antiarrhythmic

RN: 53267-01-9 MF: C₁₈H₁₈N₂ MW: 262.36 EINECS: 258-453-7

CN: 2-(2,2-diphenylcyclopropyl)-4,5-dihydro-1H-imidazole



Reference(s):

DOS 2 359 795 (Hexachimie; appl. 30.9.1973; GB-prior. 30.11.1972, 6.2.1973).
 DOS 2 359 816 (Hexachimie; appl. 30.9.1973; GB-prior. 30.11.1972, 6.2.1973, 2.8.1973).
 US 3 903 104 (Hexachimie; 9.1975; GB-prior. 30.11.1972, 6.2.1973, 2.8.1973).
 US 3 905 993 (Hexachimie; 16.9.1975; GP-prior. 30.11.1972, 6.2.1973).

synthesis of diphenyldiazomethane:

Staudinger, H. et al.: Chem. Ber. (CHBEAM) **49** (1916), 1932

Adamson, J.R. et al.: J. Chem. Soc., Perkin Trans. 1 (JCPRB4) **1975**, 2030.

Formulation(s): cps. 130 mg; tabl. 130 mg; vial 100 mg

Trade Name(s):

F: Cipralan (UPSA; 1985)

Exacor (Monsanto)

Ciclacillin

(Cyclacillin)

ATC: J01CA

Use: antibiotic

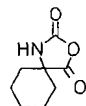
RN: 3485-14-1 MF: C₁₅H₂₃N₃O₄S MW: 341.43 EINECS: 222-470-8

LD₅₀: 5010 mg/kg (M, p.o.);

5010 mg/kg (R, p.o.);

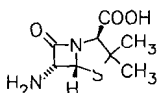
2500 mg/kg (dog, p.o.)

CN: [2*S*-(2 α ,5 α ,6 β)]-6-[[1-(1-aminocyclohexyl)carbonyl]amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid



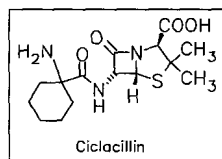
1-aza-3-oxa-
spiro[4.5]decane-
2,4-dione

+



6-amino-
penicilanic
acid

→



Ciclacillin

Reference(s):

US 3 194 802 (American Home; 13.7.1965; appl. 7.2.1963; prior. 26.2.1962).

US 3 553 201 (American Home; 5.1.1971; appl. 3.10.1967; prior. 13.5.1966).

alternative synthesis:

DOS 2 755 903 (Dobfar; appl. 15.12.1977; I-prior. 16.12.1976).

enzymatic:

DAS 2 050 982 (Kyowa Hakko; appl. 16.10.1970; J-prior. 24.10.1969).

via silyl-derivatives:

US 3 478 018 (American Home; 11.11.1969; appl. 2.10.1967).

Formulation(s): gran. 10 %; tabl. 250 mg, 500 mg

Trade Name(s):

D: Ultracillin (Grünenthal);

wfm

J:

Teejel (Napp)-comb.; wfm

Bionacillin-C (Takeda)

GB: Calthor (Ayerst); wfm

Citosarin (Toyo Jozo)

Vastcillin (Takeda)

Wyvital (Wyeth)

USA: Cyclapen (Wyeth); wfm

Cicletanine

(Cycletanide)

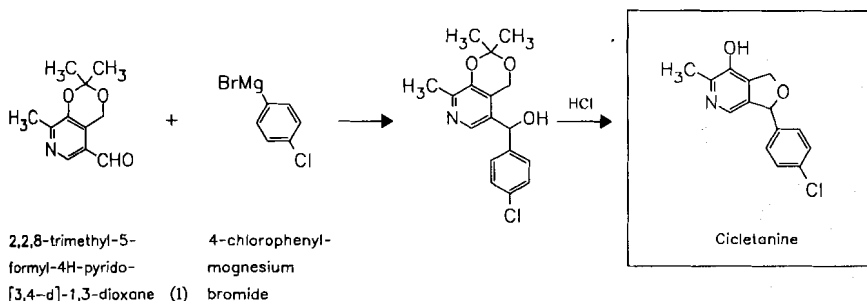
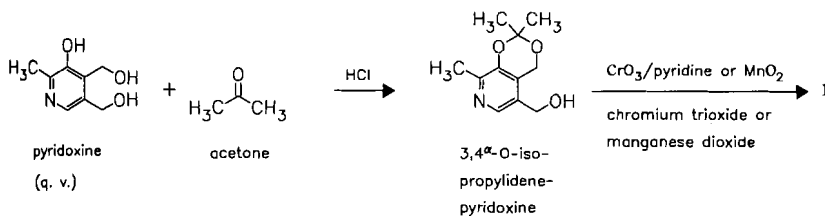
ATC: C03BX03

Use: diuretic, antihypertensive

RN: 89943-82-8 MF: C₁₄H₁₂ClNO₂ MW: 261.71LD₅₀: 4500 mg/kg (M, p.o.);

5000 mg/kg (R, p.o.)

CN: (±)-3-(4-chlorophenyl)-1,3-dihydro-6-methylfuro[3,4-c]pyridin-7-ol

hydrochlorideRN: 82747-56-6 MF: C₁₄H₁₂ClNO₂ · HCl MW: 298.17**Reference(s):**

DOS 3 204 596 (Soc. de Conseils de Recherche et d'Appl. Sci.; appl. 10.2.1982; GB-prior. 10.2.1981).

US 4 383 998 (Soc. de Conseils de Recherche et d'Appl. Sci.; 17.5.1983; GB-prior. 10.2.1981).

synthesis of 2,2,8-trimethyl-5-formyl-4H-pyrido[3,4-d]-1,3-dioxane:Koryntyk, W.; Wiedemann, W.: J. Org. Chem. (JOCEAH) **27**, 2531 (1962).Koryntyk, W.; Kris, E.J.; Singh, R.P.: J. Org. Chem. (JOCEAH) **29**, 574 (1964).Sattangi, P.D.; Argoudelis, C.J.: J. Org. Chem. (JOCEAH) **33**, 1337 (1968).**Formulation(s):** cps. 50 mg, 100 mg (hydrochloride)**Trade Name(s):**

D: Justar (Intersan; 1989)

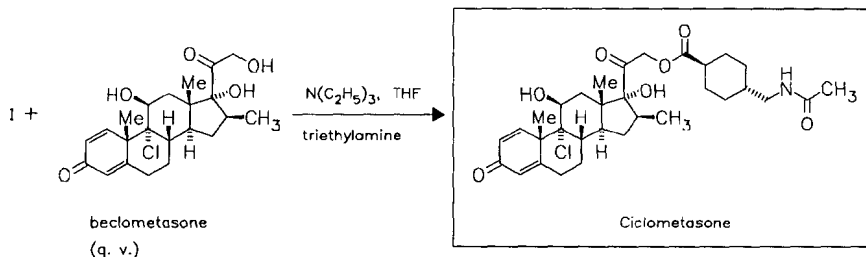
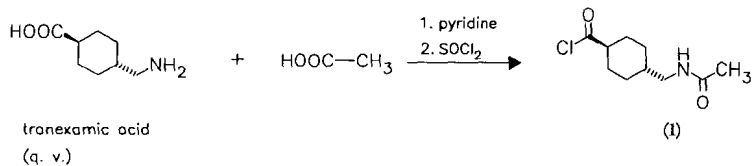
F: Tenstaten (Ipsen-Beaufour; 1988)

Ciclometasone

ATC: D07AB; H02AB

Use: glucocorticoid

RN: 86022-88-0 MF: C₃₂H₄₄ClNO₇ MW: 590.16 EINECS: 289-141-9CN: [11β,16β,21(*trans*)]-21-[[[4-(*N*-acetylamino)methyl]cyclohexyl]carbonyl]oxy]-9-chloro-11,17-dihydroxy-16-methylpregna-1,4-diene-3,20-dione

**Reference(s):**

FR 2 280 384 (Rorer; appl. 1.8.1974).

synthesis of 4-aminomethylcyclohexanecarboxylic acid:Levine, M.; Sedlecky, R.: J. Org. Chem. (JOCEAH) **24**, 115 (1959).**Trade Name(s):**

I: Cycloderm (Rottapharm)

Telecort Sray (Rottapharm)

Ciclonium bromide

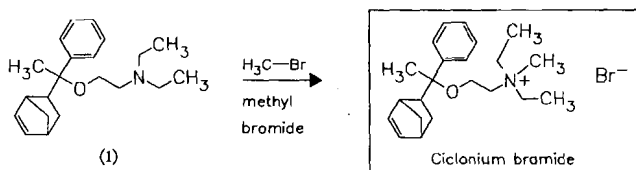
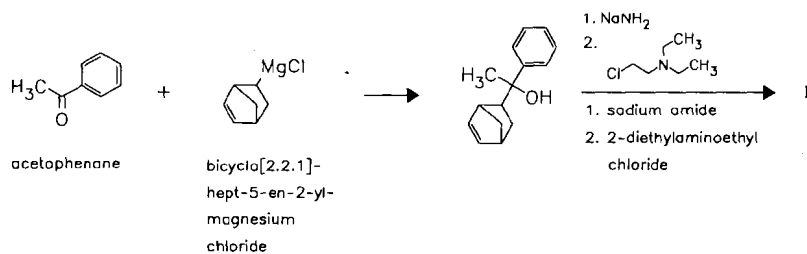
ATC: A03DA04

Use: antispasmodic, anticholinergic

RN: 29546-59-6 MF: C₂₂H₃₄BrNO MW: 408.42 EINECS: 249-687-0LD₅₀: 400 mg/kg (M, p.o.);

1030 mg/kg (R, p.o.)

CN: 2-(1-bicyclo[2.2.1]hept-5-en-2-yl-1-phenylethoxy)-N,N-diethyl-N-methylethanaminium bromide

**Reference(s):**

DE 1 052 982 (ASTA; appl. 29.6.1957).

Formulation(s): amp. 10 mg/2 ml

Trade Name(s):

D: Dolo-Adamon (ASTA)-
comb.; wfm

Tranquo-Adamon (ASTA
Medica)-comb.; wfm

Ciclopirox

ATC: D01AE14; G01AX12

Use: antifungal

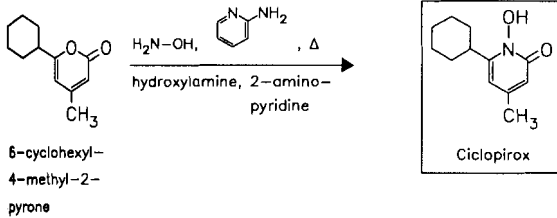
RN: 29342-05-0 MF: C₁₂H₁₇NO₂ MW: 207.27 EINECS: 249-577-2CN: 6-cyclohexyl-1-hydroxy-4-methyl-2(1*H*)-pyridinone

ciclopirox olamine

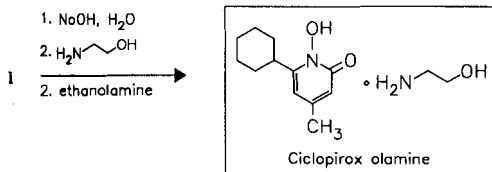
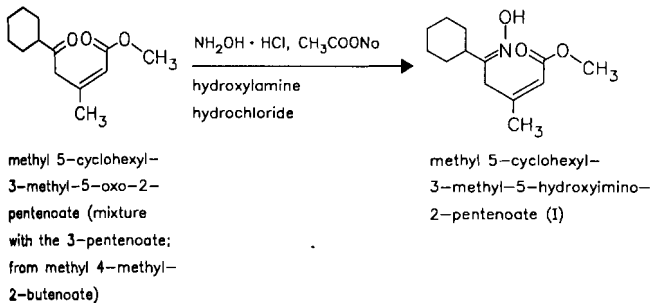
RN: 41621-49-2 MF: C₁₂H₁₇NO₂ · C₂H₇NO MW: 268.36 EINECS: 255-464-9LD₅₀: 71 mg/kg (M, i.v.); 1740 mg/kg (M, p.o.);

72 mg/kg (R, i.v.); 2350 mg/kg (R, p.o.)

a



b



Reference(s):

- a US 3 883 545 (Hoechst AG; 13.5.1975; appl. 16.11.1971; prior. 22.12.1972).
US 3 972 888 (Hoechst AG; 3.8.1976; D-prior. 25.3.1972).
- b ZA 696 039 (Hoechst AG; appl. 12.8.1969; D-prior. 31.8.1968).
DE 1 795 270 (Hoechst AG; appl. 31.8.1968).
DOS 2 214 608 (Hoechst AG; appl. 25.3.1972).

Formulation(s): cream 1 %; powder 1 % (as olamine); sol. 10 mg/ml (as ciclopirox); vaginal cream 1 % (as olamine)

Trade Name(s):

D:	Batrafen (Hoechst; 1981)	Brumixol (Bruschettini)	Micoxolamina (Delalande Isnardi)
F:	Nagel-Batrafen (Hoechst)	Dafnegin (Poli)	
F:	Mycoster (Pierre Fabre; 1986)	Miclast (Pierre Fabre Phar.)	J: Batrafen (Hoechst)
I:	Batrafen (Hoechst)	Miclast (Lifepharm)	USA: Loprox (Hoechst Marion Roussel; 1983)
		Micomicen (Synthelabo)	

Cyclosporin

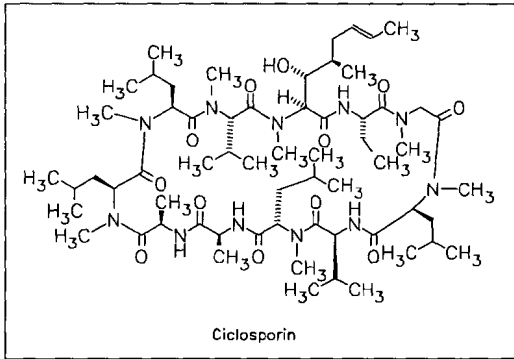
(Cyclosporin A)

ATC: L04AA01

Use: immunosuppressive

RN: 59865-13-3 MF: C₆₂H₁₁₁N₁₁O₁₂ MW: 1202.64

CN: [R-[R*,S*-(E)]]-cyclic(L-alanyl-D-alanyl-N-methyl-L-leucyl-N-methyl-L-leucyl-N-methyl-L-valyl-3-hydroxy-N,4-dimethyl-L-2-amino-6-octenoyl-L-α-aminobutyryl-N-methylglycyl-N-methyl-L-leucyl-L-valyl-N-methyl-L-leucyl)



Cyclic peptide from 11 amino acids. Preparation by fermentation of *Tolypocladium inflatum* Gams with addition of DL-α-aminobutyric acid to the fermentation medium. Isolation by homogenization of mycelium, extraction with 90 % methanol and column chromatographic purification.

Reference(s):

US 4 117 118 (Sandoz; 26.9.1978; prior. 29.11.1974, 15.8.1975, 9.9.1976; CH-prior. 9.4.1976).
 DE 2 455 859 (Sandoz; appl. 26.11.1974; CH-prior. 6.12.1973, 21.10.1974).
 Rügger, A. et al.: *Helv. Chim. Acta (HCACAV)* **59**, 1075 (1976).
 Kobel, H.; Traber, R.: *Eur. J. Appl. Microbiol. Biotechnol. (EJABDD)* **14**, 237 (1982).

structure:

Petcher, T.J. et al.: *Helv. Chim. Acta (HCACAV)* **59**, 1480 (1976).

total syntheses:

Wenger, R.M.: *Angew. Chem. (ANCEAD)* **97**, 88 (1985).
 EP 34 567 (Sandoz; appl. 13.2.1981; CH-prior. 14.2.1980).

oral formulation:

US 5 766 629 (SangStat Med. Corp.; 16.6.1998; prior. 25.8.1995, 21.3.1996).

Formulation(s): cps. 25 mg, 50 mg, 100 mg; inj. sol. 250 mg/5 ml; oral sol. 100 mg/ml; sol. 100 mg

Trade Name(s):

D:	Sandimmun (Novartis; 1983)	F:	Sandimmun (Novartis)	Sandimmun (Novartis; 1983)
		GB:	Neoral (Novartis)	

I: Sandimmun (Sandoz) USA: Neoral (Novartis)
 J: Sandimmun (Novartis; 1986) Sandimmune (Novartis; 1983)

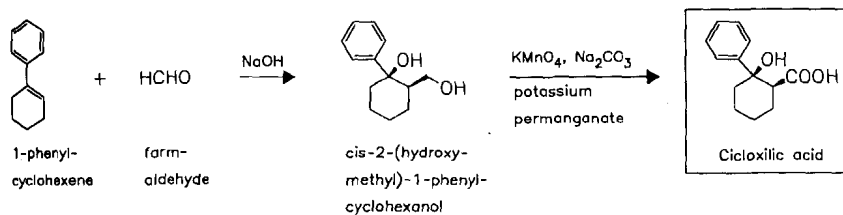
Cicloxicilic acid

ATC: A05AX; A06AB
 Use: choleric, hepatic protectant

RN: 57808-63-6 MF: C₁₃H₁₆O₃ MW: 220.27 EINECS: 260-966-6

LD₅₀: 2095 mg/kg (M, p.o.);
 1570 mg/kg (R, p.o.)

CN: *cis*-2-hydroxy-2-phenylcyclohexanecarboxylic acid

**Reference(s):**

BE 848 143 (Guidotti Int.; appl. 9.12.1976; I-prior. 12.11.1975).

alternative synthesis and use as choleric:

US 3 700 775 (L. Turbanti; 24.10.1972; I-prior. 29.4.1966).

stereochemistry:

Turbanti, L. et al.: *Arzneim.-Forsch. (ARZNAD)* **28** (II), 1449 (1978).

Formulation(s): amp. 60 mg; drg. 40 mg

Trade Name(s):

I: Plecton (Guidotti) Pleiabil (Guidotti)-comb.

Cicrotoic acid

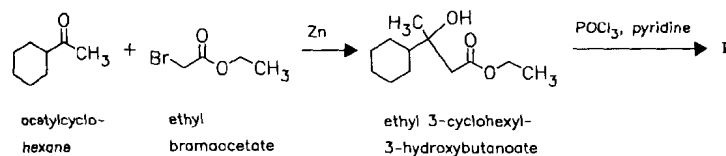
Use: choleric

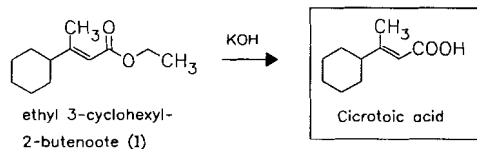
(Acide cicrotoique)

RN: 25229-42-9 MF: C₁₀H₁₆O₂ MW: 168.24 EINECS: 246-739-4

LD₅₀: 1925 mg/kg (M, p.o.);
 2900 mg/kg (R, p.o.)

CN: 3-cyclohexyl-2-butenic acid



**Reference(s):**

FR-M 4 665 (A. E. C. Soc. de Chim. Organ. et Biol.; appl. 3.5.1965).
Young et al.: J. Org. Chem. (JOCEAH) **28**, 928 (1963).

Formulation(s): cps. 250 mg

Trade Name(s):

F: Accroibile (Adrian-Marinier); wfm

Cidofovir

(HPMPC; GS-504; GS-0504)

ATC: J05AB12

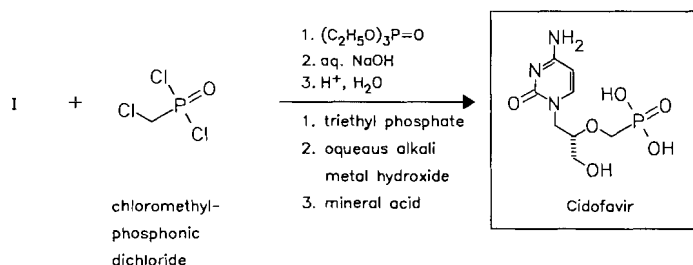
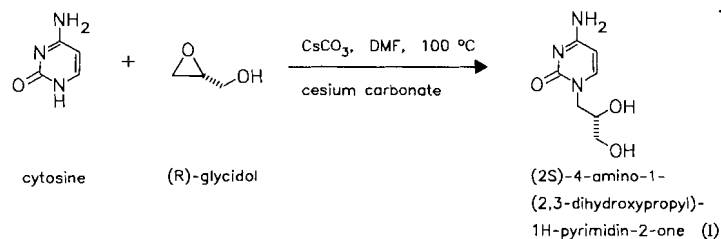
Use: antiviral

RN: 113852-37-2 MF: $\text{C}_8\text{H}_{14}\text{N}_3\text{O}_6\text{P}$ MW: 279.19

CN: (S)-[[2-(4-amino-2-oxo-1(2H)-pyrimidinyl)-1-(hydroxymethyl)ethoxy)methyl]phosphonic acid

dihydrate

RN: 149394-66-1 MF: $\text{C}_8\text{H}_{14}\text{N}_3\text{O}_6\text{P} \cdot 2\text{H}_2\text{O}$ MW: 315.22

**Reference(s):**

EP 253 412 (Ceskoslovenska Akademie Ved., Czech., appl. 20.1.1988; CS-prior. 18.7.1986).
WO 9 624 355 (Astra; appl. 15.8.1996; WO-prior. 6.2.1995).
WO 9 713 528 (Dumex-Alpharma; appl. 17.4.1997; prior. 12.10.1995).

synthesis of (2S)-4-amino-1-(2,3-dihydroxypropyl)-1H-pyrimidin-2-one:

Holy, A.: Collect. Czech. Chem. Commun. (CCCCAK) **58** (3), 649 (1993).
Holy, A.: Collect. Czech. Chem. Commun. (CCCCAK) **43**, 2054 (1978).
Martin, J.C. et al.: Nucleosides Nucleotides (NUNUD5) **8** (5-6), 923 (1989).

Formulation(s): vial 375 mg (75 mg/ml anhydrous) for i.v. infusion

Trade Name(s):

D: VISTIDE (Pharmacia & Upjohn) USA: Vistide (Gilead Science)

Cilastatin

ATC: J01DH51

Use: dehydropeptidase inhibitor (for combination with imipenem)

RN: 82009-34-5 MF: $C_{16}H_{26}N_2O_5S$ MW: 358.46 EINECS: 279-875-8

LD₅₀: 8 g/kg (M, route unreported);

8 g/kg (R, route unreported)

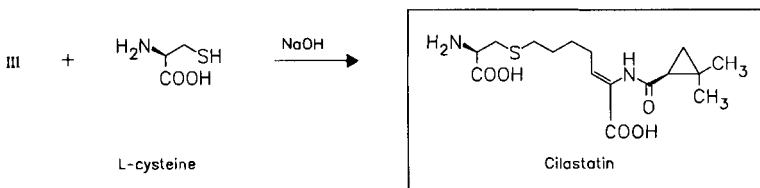
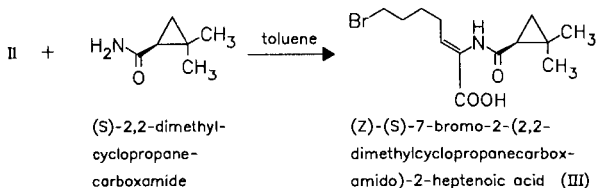
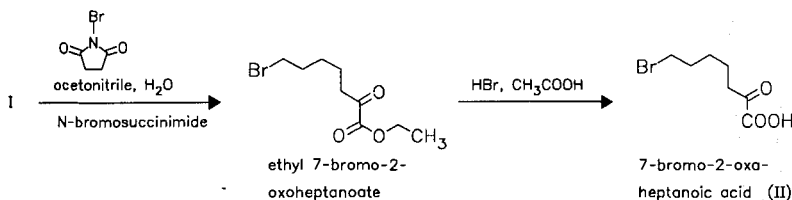
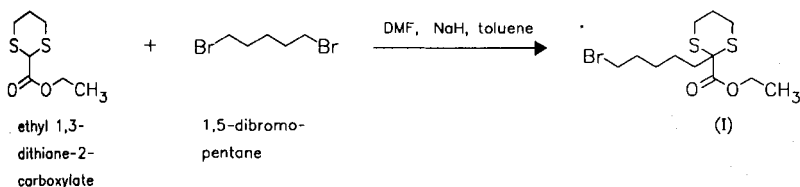
CN: [R-[R*,S*-(Z)]]-7-[(2-amino-2-carboxyethyl)thio]-2-[[[(2,2-dimethylcyclopropyl)carbonyl]amino]-2-heptenoic acid

monosodium salt

RN: 81129-83-1 MF: $C_{16}H_{25}N_2NaO_5S$ MW: 380.44 EINECS: 279-694-4

LD₅₀: 6786 mg/kg (M, i.v.); >10 g/kg (M, p.o.);

5027 mg/kg (R, i.v.); >10 g/kg (R, p.o.)



Reference(s):

EP 10 573 (Merck & Co.; appl. 24.7.1979; USA-prior. 24.7.1978).

EP 48 301 (Merck & Co.; appl. 24.9.1980).

Formulation(s): amp. 250 mg, 500 mg, 750 mg (as sodium salt)

Trade Name(s):

D:	Zienam (MSD; 1985)- comb. with imipenem	I:	Imipem (Neopharmed)- comb.	Tienam (MSD)-comb.
F:	Tienam (Merck Sharp & Dohme-Chibret)-comb.		Tenacid (Sigma-Tau)- comb.	J: Tienam (Banyu; 1987)- comb.
				USA: Primaxin (Merck; 1985)

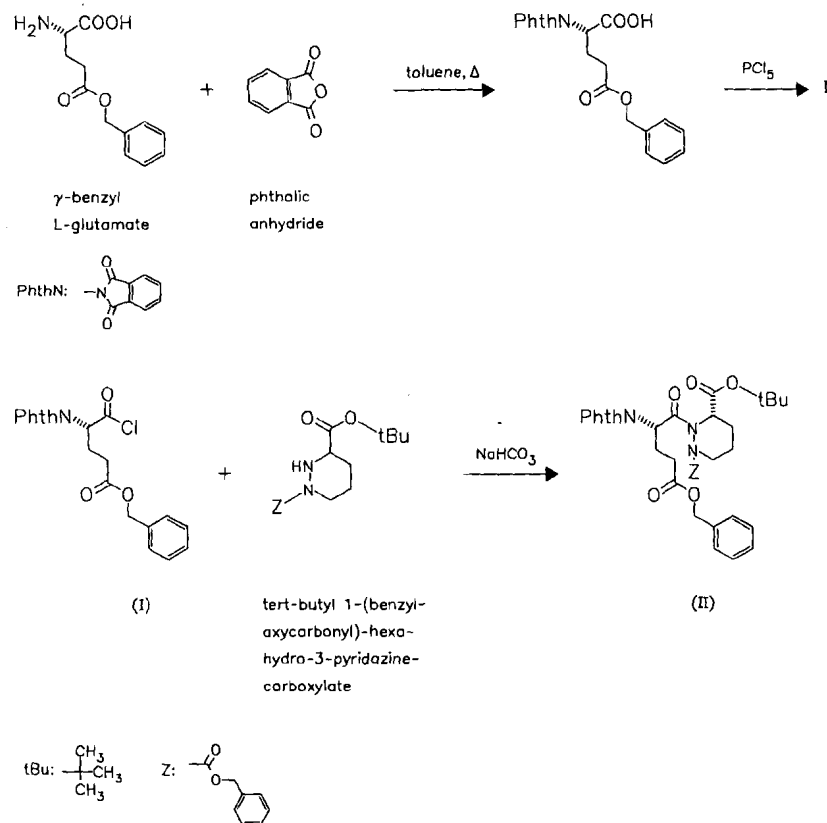
Cilazapril

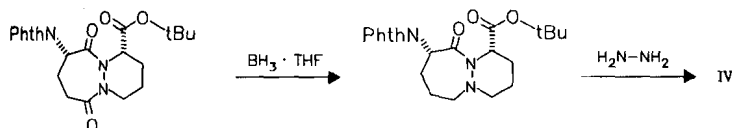
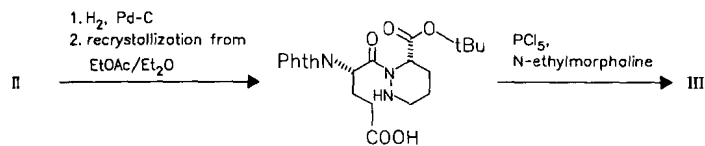
ATC: C09AA08

Use: antihypertensive (ACE inhibitor)

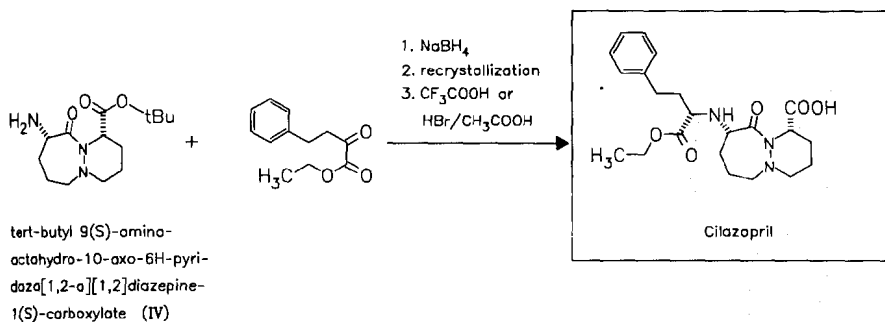
RN: 88768-40-5 MF: C₂₂H₃₁N₃O₅ MW: 417.51CN: [1S-[1 α ,9 α (R*)]]-9-[[1-(ethoxycarbonyl)-3-phenylpropyl]amino]octahydro-10-oxo-6H-pyridazino[1,2-a][1,2]diazepine-1-carboxylic acid

monohydrate

RN: 92077-78-6 MF: C₂₂H₃₁N₃O₅ · H₂O MW: 435.52



tert-butyl octahydro-6,10-dioxo-9(S)-phthalimido-6H-pyridazo[1,2-a][1,2]diazepine-1(S)-carboxylate (III)



tert-butyl 9(S)-amino-octahydro-10-oxo-6H-pyridazo[1,2-a][1,2]diazepine-1(S)-carboxylate (IV)

Reference(s):

US 4 512 924 (Hoffmann-La Roche; 23.4.1985; GB-prior. 12.5.1982, 28.2.1983).

US 4 658 024 (Hoffmann-La Roche; 14.4.1987; GB-prior. 12.5.1982).

Attwood, M.R. et al.: FEBS Lett. (FEBLAL) **165**, 201 (1984).

tert-butyl 1-(benzyloxycarbonyl)-hexahydro-3-pyridazinecarboxylate:

Hassall, C.H. et al.: J. Chem. Soc., Perkin Trans. 1 (JCPRB4), 1451 (1979).

Formulation(s): f. c. tabl. 0.5 mg, 1 mg, 2.5 mg, 5 mg

Trade Name(s):

D: Dynorm (Merck/Roche)

GB: Vaspace (Roche)

Initiss (Carlo Erba)

F: Justor (Jacques Logeais)

I: Inibace (Roche)

Cilnidipine

(FRC-8653)

Use: antihypertensive, calcium antagonist

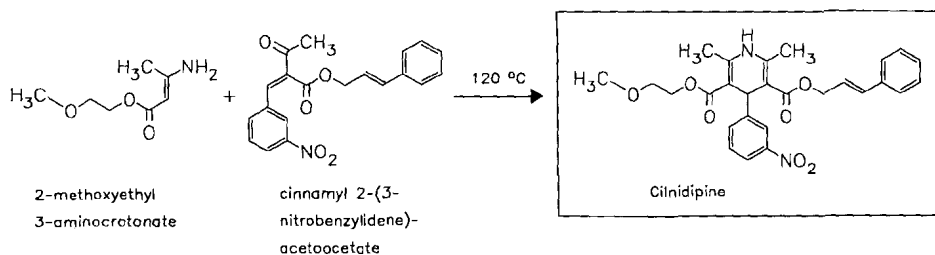
RN: 132203-70-4 MF: C₂₇H₂₈N₂O₇ MW: 492.53

LD₅₀: >5 g/kg (M, p.o.);
4412 mg/kg (R, p.o.);
>2 g/kg (dog, p.o.)

CN: (E)-(±)-1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-3,5-pyridinedicarboxylic acid 2-methoxyethyl 3-phenyl-2-propenyl ester

unspecified stereochemistry

RN: 102106-21-8 MF: C₂₇H₂₈N₂O₇ MW: 492.53

(+)-enantiomerRN: 132338-87-5 MF: C₂₇H₂₈N₂O₇ MW: 492.53**(-)-enantiomer**RN: 132295-21-7 MF: C₂₇H₂₈N₂O₇ MW: 492.53**Reference(s):**

EP 161 877 (Fujirebio; appl. 2.5.1985; J-prior. 4.5.1984, 20.6.1984).

Drugs Future (DRFUD4) **21**(3), 249-253 (1996).**Formulation(s):** tabl. 5 mg, 10 mg**Trade Name(s):**

J: Atelec (Ajinomoto/Nippon-HMR)

Cinalong (Fujirebio)

Ciscard (Nippon Boehringer Ing.)

Cilostazol

(OPC-13013)

ATC: B01AC

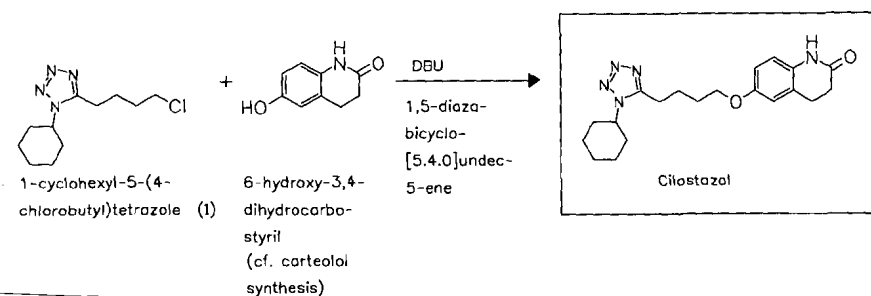
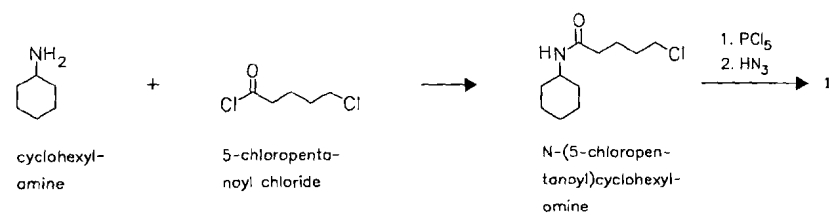
Use: platelet aggregation inhibitor, cerebral vasodilating activity

RN: 73963-72-1 MF: C₂₀H₂₇N₅O₂ MW: 369.47LD₅₀: >5 g/kg (M, p.o.);

>5 g/kg (R, p.o.);

>2 g/kg (dog, p.o.)

CN: 6-[4-(1-cyclohexyl-1H-tetrazol-5-yl)butoxy]-3,4-dihydro-2(1H)-quinolinone



Reference(s):

DOS 2 934 747 (Otsuka; appl. 28.8.1979; J-prior. 1.9.1978).
 US 4 277 479 (Otsuka; 7.7.1981; J-prior. 1.9.1978).
 Nishi, T. et al.: Chem. Pharm. Bull. (CPBTAL) **31**, 1151 (1983).

medical use for treatment of nephritis:

JP 2 178 227 (Otsuka; appl. 28.12.1988).

medical use for treatment of Raynaud's syndrome:

JP 2 178 226 (Otsuka, appl. 28.12.1988).

Formulation(s): tabl. 50 mg, 100 mg

Trade Name(s):

J: Pletaal (Otsuka) Retal (Otsuka; 1988)

Cimetidine

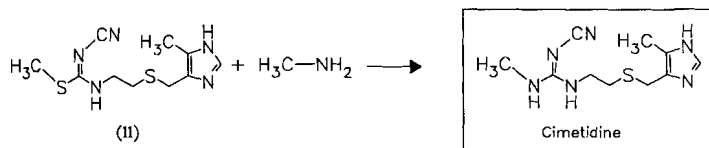
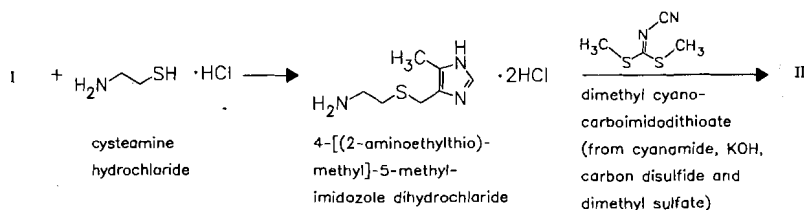
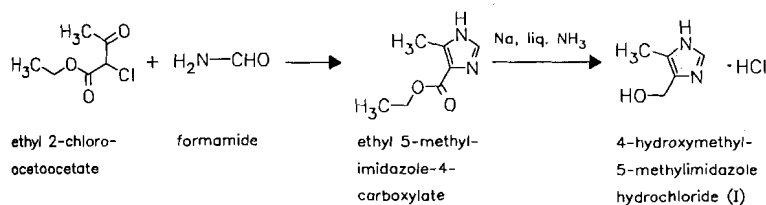
ATC: A02BA01

Use: peptic ulcer therapeutic (H₂-receptor antagonist)

RN: 51481-61-9 MF: C₁₀H₁₆N₆S MW: 252.35 EINECS: 257-232-2

LD₅₀: 150 mg/kg (M, i.v.); 2550 mg/kg (M, p.o.);
 106 mg/kg (R, i.v.); 5 g/kg (R, p.o.);
 206 mg/kg (dog, i.v.); 2600 mg/kg (dog, p.o.)

CN: N-cyano-N'-methyl-N'-[2-[[[(5-methyl-1H-imidazol-4-yl)methyl]thio]ethyl]guanidine

*Reference(s):*

US 3 894 151 (Smith Kline & French; 8.7.1975; GB-prior. 20.4.1972).
 US 4 000 302 (Smith Kline & French; 28.12.1976; GB-prior. 20.4.1972).
 DOS 2 320 131 (Smith Kline & French; appl. 19.4.1973; GB-prior. 20.4.1972) – medical use.
 DOS 2 344 779 (Smith Kline & French; appl. 5.9.1973; GB-prior. 5.9.1972 and 8.2.1973).
 US 3 950 333 (Smith Kline & French; 13.4.1976; appl. 14.3.1974; prior. 29.2.1972 and 20.9.1972).

cimetidine "A":

DOS 2 742 531 (Smith Kline & French; appl. 21.9.1977; GB-prior. 21.9.1976, 24.1.1977).

GB 1 543 238 (Smith Kline & French; appl. 21.9.1976, 24.1.1977, 20.9.1977; valid from 13.12.1977).

precursors and alternative methods:

DOS 2 637 670 (Smith Kline & French; appl. 20.8.1976; USA-prior. 20.8.1975 and 27.5.1976).

FR 2 321 490 (Smith Kline & French; appl. 16.8.1976; USA-prior. 20.8.1975 and 27.5.1976).

GB 1 338 169 (Smith Kline & French; appl. 9.3.1971 and 22.7.1971; valid from 9.3.1972).

DAS 2 211 454 (Smith Kline & French; appl. 9.3.1972; GB-prior. 9.3.1971 and 22.7.1971).

US 4 018 931 (Smith Kline & French; 19.4.1977; appl. 4.12.1975; prior. 29.2.1972, 20.9.1972 and 14.3.1974).

US 4 013 678 (Smith Kline & French; 22.3.1977; GB-prior. 2.9.1974).

US 3 984 293 (Smith Kline & French; 5.10.1976; prior. 2.9.1974).

BE 853 954 (Smith Kline Corp. GB appl. 26.4.1977; USA-prior. 22.2.1977).

US 4 063 023 (Smith Kline & French; 13.12.1977; prior. 20.8.1975).

DOS 2 649 059 (Smith Kline; appl. 28.10.1976; USA-prior. 29.10.1975).

DOS 2 718 715 (Smith Kline; appl. 27.4.1977; USA-prior. 22.2.1977).

US 4 049 672 (Smith Kline & French; 20.9.1977; appl. 17.3.1976; prior. 29.2.1972, 20.9.1972, 14.3.1974).

US 4 104 472 (Smith Kline & French; 1.8.1978; prior. 9.2.1977, 24.5.1977).

US 4 163 858 (Smith Kline; 7.8.1979; prior. 9.2.1977, 24.5.1977, 8.3.1978).

DOS 2 805 221 (Smith Kline; appl. 8.2.1978; USA-prior. 9.2.1977, 24.5.1977).

DOS 2 814 355 (BASF; appl. 3.4.1978).

DOS 2 855 836 (Lab. Om; appl. 22.12.1978; CH-prior. 28.12.1977, 7.12.1978).

FR-appl. 2 386 525 (Ricorvi; appl. 17.10.1977; E-prior. 6.4.1977).

X-ray structure:

Hädicke, E. et al.: Chem. Ber. (CHBEAM) **111**, 3222 (1978).

combination with conventional antihistaminics:

US 4 104 382 (Smith Kline & French; 1.8.1978; prior. 9.4.1973, 16.4.1975, 27.9.1976).

Formulation(s): amp. 200 mg/2 ml, 400 mg/4 ml, 1000 mg/10 ml; eff. tabl. 400 mg, 800 mg; f. c. and tabl. 200 mg, 400 mg, 800 mg

Trade Name(s):

D:	Altramet (ASTA Medica AWD)	I:	Zita (Eastern Biomag (Pulitzer)	J:	Temic (Farma Uno) Ulcedin (AGIPS)
	Azucimet (Anipharma)		Brumetidina (Bruschettini)		Ulcestop (Metapharma; as hydrochloride)
	Tagamet (SmithKline Beecham; 1977)		Citimid (CT)		Ulcodina (Locatelli)
F:	Stomédine (SmithKline Beecham)		Dina (San Carlo)		Ulcofalk (Interfalk)
	Tagamet (SmithKline Beecham; 1977)		Eureceptor (Zambon)		Ulcomedina (Leben's)
			Gastromet (Bayropharm)		Ulis (Lafare)
			Neo Gastransil (Schiapparelli Searle)		Vagolisal (Biotekfarma)
GB:	Algitec (SmithKline Beecham)-comb.		Notul (Mendelejeff; as hydrochloride)	USA:	Tagamet (SKF-Fujisawa; 1982)
	Dyspamet (SmithKline Beecham)		Stomet (Allergan)		Tagamet (SmithKline Beecham; 1977)
	Galenamet (Galen)		Tagamet (Smith Kline & French; 1977)		
	Tagamet (SmithKline Beecham; 1976)		Tametin (SmithKline Beecham)		

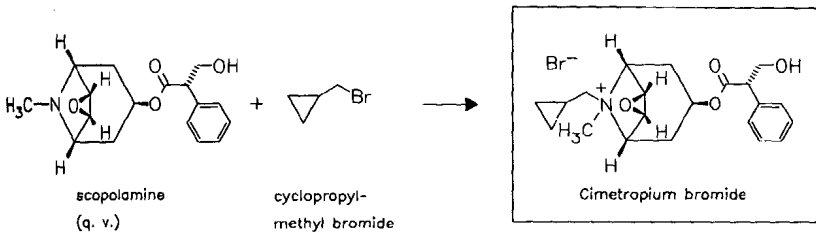
Cimetropium bromide

ATC: A03BB05

Use: anticholinergic, antispasmodic

RN: 51598-60-8 MF: C₂₁H₂₈BrNO₄ MW: 438.36

CN: [7(S)-(1 α ,2 β ,4 β ,5 α ,7 β)]-9-(cyclopropylmethyl)-7-(3-hydroxy-1-oxo-2-phenylpropoxy)-9-methyl-3-oxa-9-azoniatricyclo[3.3.1.0^{2,4}]nonane bromide

**Reference(s):**

US 3 853 886 (De Angeli; 10.12.1974; appl. 13.4.1973; GB-prior. 18.4.1972).

US 3 952 108 (De Angeli; 20.4.1976, GB-prior. 18.4.1972).

DOS 2 316 728 (De Angeli; appl. 4.4.1973; GB-prior. 18.4.1972).

Formulation(s): amp. 5 mg/ml; suppos. 50 mg; syrup 1 %; tabl. 50 mg

Trade Name(s):

I: Alginor (Boehringer Ing.; 1985)

Cinchocaine

(Dibucaine)

ATC: C05AD04; D04AB02; N01BB06; S01HA06

Use: local anesthetic

RN: 85-79-0 MF: C₂₀H₂₉N₃O₂ MW: 343.47 EINECS: 201-632-1

LD₅₀: 24.5 mg/kg (M, i.p.); 28.5 mg/kg (M, s.c.)

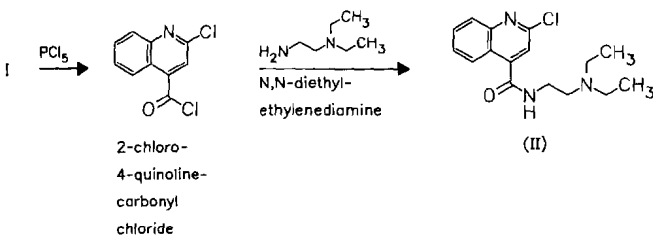
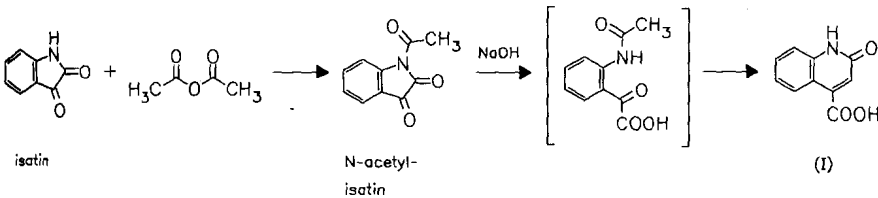
CN: 2-butoxy-N-[2-(diethylamino)ethyl]-4-quinolinecarboxamide

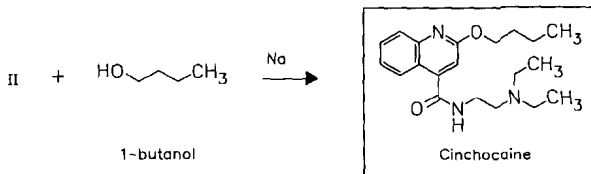
monohydrochloride

RN: 61-12-1 MF: C₂₀H₂₉N₃O₂ · HCl MW: 379.93 EINECS: 200-498-1

LD₅₀: 3800 µg/kg (M, i.v.);

52 mg/kg (R, i.v.)



**Reference(s):**

DRP 537 104 (Ciba; appl. 1926).

US 1 825 623 (Ciba; 1931; D-prior. 1926).

Miescher, K.: *Helv. Chim. Acta (HCACAV)* **15**, 163 (1932).**Formulation(s):** amp. 6 mg/3 ml (as hydrochloride); rectal ointment 5 mg/100 g; suppos. 1 mg**Trade Name(s):**

D: Anumedin (Kade)-comb. Butazolidin (Novartis Pharma)-comb. Dolo-Posterine (Kade) Faktu (Byk Gulden; Roland)-comb. Otobacid (Asche)-comb. Procto-Kaban (Asche)-comb. Protospire (Hennig)-comb. Scheriproct (Schering)-comb.	F: Deliproct (Schering)-comb. Ultraproct (Schering)-comb.	I: Algolisina (Celsius)-comb. Nupercainal (Ciba); wfm Ultraproct (Schering)-comb.
GB: Nupercainal (Novartis) Proctosedyl (Hoechst)-comb. Scheriproct (Schering)-comb. Ultraproct (Schering)-comb. Uniroid (Unigreg)-comb.	J: Nupercain (Ciba-Geigy-Takeda) Percamin (Teikoku Kagaku-Nagase)	USA:. Nupercaine (Ciba); wfm

Cineole

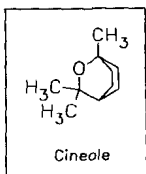
(Cajeputol; Eucalyptol)

ATC: R01AX; R05CA

Use: antiseptic, expectorant

RN: 470-82-6 MF: $\text{C}_{10}\text{H}_{18}\text{O}$ MW: 154.25 EINECS: 207-431-5LD₅₀: 2480 mg/kg (R, p.o.)

CN: 1,3,3-trimethyl-2-oxabicyclo[2.2.2]octane



Principal ingredient of eucalyptus oils, isolated after separation of remaining terpenes with sulfuric acid.

Reference(s):Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. **22**, 542.

DRP 499 732 (Rhein. Kampfer-Fabrik; appl. 1928).

US 2 090 620 (Newport Industries; 1937; appl. 1936).

Formulation(s): cps. 100 mg; sol. 2 g/100 g, 15 g/100 g**Trade Name(s):**

D: Denesol (Doerernkamp)-comb.	Eufimenth (Lichtenstein)-comb.	Pinimenthol (Spitzner)-comb.
---------------------------------------	--------------------------------	------------------------------

Rowachol (Rowa-Wagner)- comb.		numerous combination preparations	Calyptol (Rhône-Poulenc Rorer)
Rowatinex (Rowa- Wagner)-comb.	GB:	Rowachol (Rowa)-comb. Rowatinex (Rowa)-comb.	Eucal (Tariff. Nazionale) Eucalipt (Tariff. Nazionale)
Soledum (Cassella-med)	I:	Alc Ment Cmp (Formulario Naz.)-comb.	Rinostil (Deca)-comb.
Transpulmin (ASTA Medica)		Balsamic (Formulario Naz.)-comb.	numerous combination preparations
Wick VapoRup (Wick Pharma)		Brochenolo Balsamo (Midy)-comb.	USA: Listerine Antiseptic (Warner-Lambert)

Cinepazet

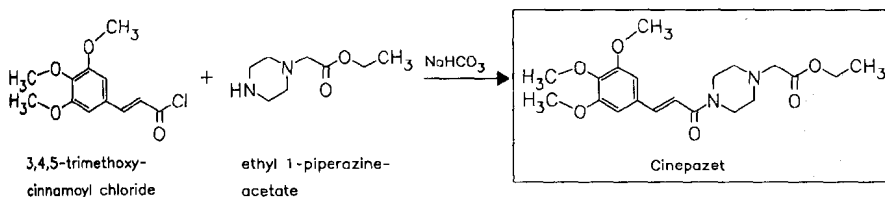
(Cinepazate)

ATC: C01DX14

Use: vasodilator, antianginal

RN: 23887-41-4 MF: C₂₀H₂₈N₂O₆ MW: 392.45 EINECS: 245-927-3LD₅₀: 1300 mg/kg (M, p.o.); 300 mg/kg (M, i.v.)

CN: 4-[1-oxo-3-(3,4,5-trimethoxyphenyl)-2-propenyl]-1-piperazineacetic acid ethyl ester

maleate (1:1)RN: 50679-07-7 MF: C₂₀H₂₈N₂O₆ · C₄H₄O₄ MW: 508.52 EINECS: 256-709-2**Reference(s):**

DAS 1 795 402 (Delalande; appl. 26.9.1968; GB-prior. 29.9.1967).

Formulation(s): tabl. 300 mg**Trade Name(s):**

F: Vascoril (Delalande); wfm I: Vascoril (Delalande); wfm

Cinepazide

ATC: C04AX27

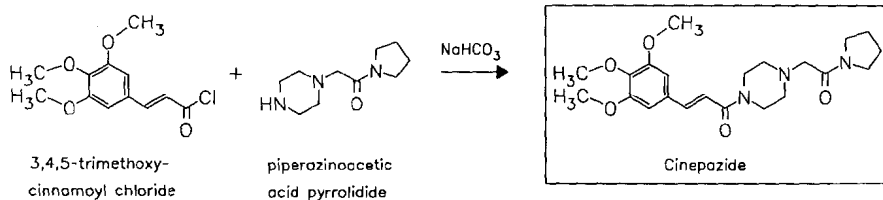
Use: vasodilator (peripheral)

RN: 23887-46-9 MF: C₂₂H₃₁N₃O₅ MW: 417.51 EINECS: 245-928-9

CN: 1-[2-oxo-2-(1-pyrrolidiny)ethyl]-4-[1-oxo-3-(3,4,5-trimethoxyphenyl)-2-propenyl]piperazine

maleate (1:1)RN: 26328-04-1 MF: C₂₂H₃₁N₃O₅ · C₄H₄O₄ MW: 533.58 EINECS: 247-613-1LD₅₀: 617 mg/kg (M, i.v.); 1000 mg/kg (M, p.o.);

414 mg/kg (R, i.v.); 1310 mg/kg (R, p.o.)

**Reference(s):**

DE 1 915 795 (Delalande; appl. 27.3.1969; GB-prior. 3.4.1968).
 DOS 2 043 350 (Delalande; appl. 1.9.1970; F-prior. 17.10.1969).
 US 3 634 411 (Delalande; 11.1.1972; GB-prior. 3.4.1968).

Formulation(s): amp. 80 mg/2 ml; tabl. 200 mg (as maleate)

Trade Name(s):

F:	Vasodistal (Delalande; 1974); wfm	Brepanael (Hotta)	Sebdeel (Mohan)
I:	Vasodistal (Delalande; 1978); wfm	Cinema (Choseido)	Sylpinale (Teikoku Kagaku)
J:	Anapazin (Zenyaku)	Ekarusin (Seiko Eiyo)	Tatsumedil (Tatsumi)
	Bilbvarde (Yoshindo)	Madesol (Sanwa)	Tineup (Maruko)
	Brendil (Daiichi; 1981)	Mishiline (Mishiyama)	Vasodeniel (MF-Taiyo)
	Brentomine (Daito Koeki Nichiiko)	Neubcat (Nippon Shoji)	
		Prosmet (Sawai)	
		Schulandere (Tsuruhara)	
		Scorjile (Kotobuki)	

Cinitapride

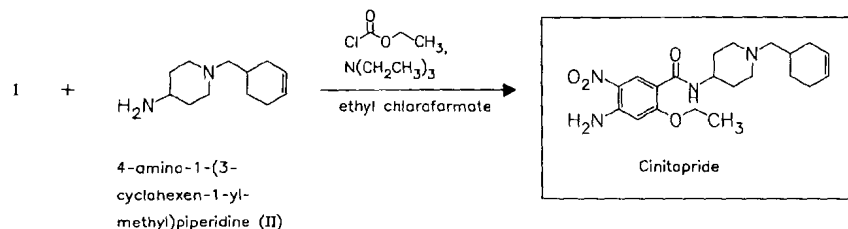
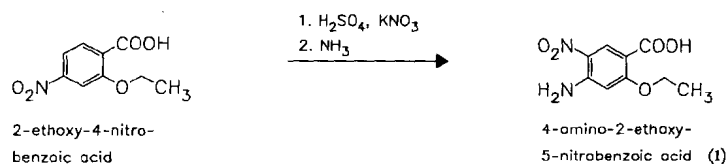
(LAS-17177)

ATC: A04

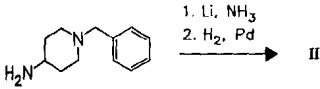
Use: gastrointestinal

RN: 66564-14-5 MF: $\text{C}_{21}\text{H}_{30}\text{N}_4\text{O}_4$ MW: 402.50

CN: 4-amino-N-[1-(3-cyclohexen-1-ylmethyl)-4-piperidinyl]-2-ethoxy-5-nitrobenzamide

fumarate (1:1)RN: 67135-13-1 MF: $\text{C}_{21}\text{H}_{30}\text{N}_4\text{O}_4 \cdot \text{C}_4\text{H}_4\text{O}_4$ MW: 518.57**tartrate**RN: 96623-56-2 MF: $\text{C}_{21}\text{H}_{30}\text{N}_4\text{O}_4 \cdot x\text{C}_4\text{H}_6\text{O}_6$ MW: unspecifiedLD₅₀: >450 mg/kg (M, R, p.o.)

synthesis of II

4-amino-1-benzyl-
piperidine*Reference(s):*GB 1 574 419 (Anphar; appl. 3.9.1980; GB-prior. 16.11.1976).
CH 628 886 (Anphar; appl. 31.3.1982; CH-prior. 1.1.1978).*synthesis of I:*Goldstein, H.; Brochon, R.; *Helv. Chim. Acta (HCACAV)* **32**, 2334 (1949).*synthesis of III/cinitapride:*

DE 2 706 038 (A. Gallardo; appl. 12.2.1977; GB-prior. 17.2.1976).

alternative synthesis of cinitapride:

ES 2001 458 (Fordonal; appl. 16.5.1988; E-prior. 12.12.1986).

Formulation(s): sol. 0.2 mg/ml (as tartrate); tabl. 1 mg*Trade Name(s):*

E: Cidine (Almirall; 1990)

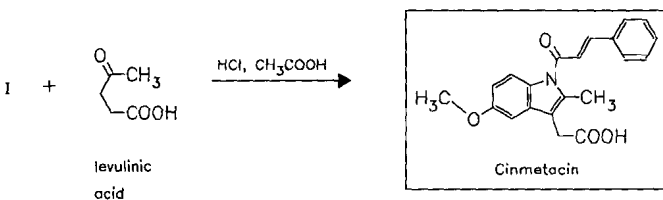
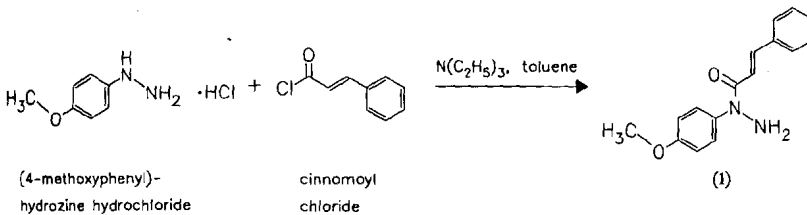
Cinmetacin

ATC: M01AB

Use: non-steroidal anti-inflammatory

RN: 20168-99-4 MF: C₂₁H₁₉NO₄ MW: 349.39 EINECS: 243-555-6LD₅₀: 360 mg/kg (M, i.p.); 750 mg/kg (M, p.o.);
590 mg/kg (R, i.p.); 1020 mg/kg (R, p.o.)

CN: 5-methoxy-2-methyl-1-(1-oxo-3-phenyl-2-propenyl)-1H-indole-3-acetic acid

*Reference(s):*US 3 576 800 (Sumitomo; 27.4.1971; J-prior. 12.5.1966, 27.6.1966, 30.6.1966, 8.7.1966, 1.8.1966, 19.8.1966,
15.12.1966, 16.12.1966, 20.12.1966, 6.1.1967, 7.1.1967, 16.1.1967, 17.1.1967).

ZA 672 683 (Sumitomo; appl. 12.4.1967; J-prior. 12.5.1966, 27.6.1966, 30.6.1977).

Yamamoto, H.; Nakao, M.; *J. Med. Chem. (JMCMAR)* **12**, 176 (1969).

Formulation(s): cps 300 mg; suppos. 375 mg, 750 mg

Trade Name(s):

I: Cindomet (Chiesi); wfm J: Indolacin (Sumitomo)

Cinnamedrine

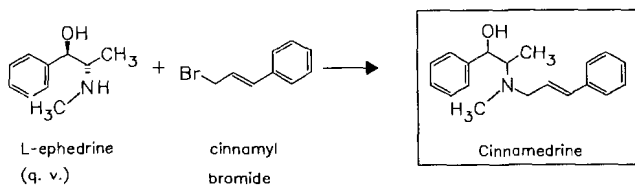
(Cinnamylephedrine)

ATC: N02

Use: uterine antispasmodic, treatment of menstrua syndrom

RN: 90-86-8 MF: C₁₉H₂₃NO MW: 281.40 EINECS: 202-021-2

CN: α-[1-[methyl(3-phenyl-2-propenyl)amino]ethyl]benzenemethanol



Reference(s):

US 1 959 392 (Winthrop; 1934; D-prior. 1930).

Welsh, L.H.; Kennan, G.L.: J. Am. Pharm. Assoc. (JPHAA3) **30**, 123 (1941).

Formulation(s): tabl. 14.9 mg in combination with aspirine, coffeine

Trade Name(s):

USA: Midol (Glenbrook)-comb.;
wfm

Cinnarizine

ATC: N07CA02

Use: antihistaminic, vasodilator

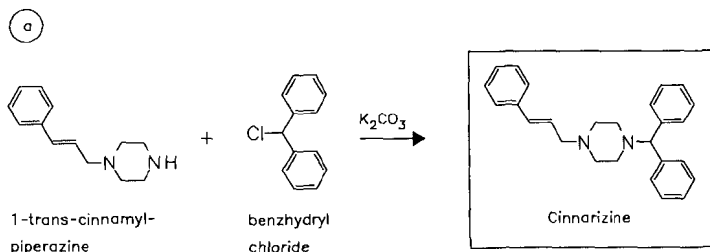
RN: 298-57-7 MF: C₂₆H₂₈N₂ MW: 368.52 EINECS: 206-064-8

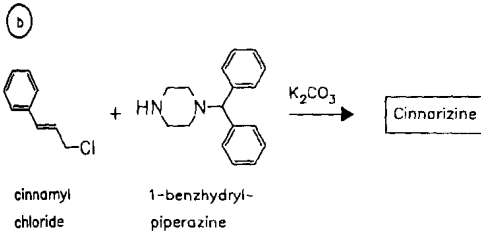
LD₅₀: 22 mg/kg (M, i.v.); >4500 mg/kg (M, p.o.);

24 mg/kg (R, i.v.); >6500 mg/kg (R, p.o.);

>500 mg/kg (dog, p.o.)

CN: 1-(diphenylmethyl)-4-(3-phenyl-2-propenyl)piperazine



**Reference(s):**

US 2 882 271 (Janssen; 14.8.1959; NL-prior. 20.4.1956).
 DE 1 086 235 (Janssen; appl. 10.4.1957; NL-prior. 20.4.1956).

combination with dihydroergotamine:

DOS 2 820 937 (Dolorgiet; appl. 12.5.1978).

Formulation(s): cps. 75 mg; tabl. 20 mg, 25 mg, 75 mg

Trade Name(s):

D:	Arlevert (Henning)-comb. Cinnacet (Sanofi Winthrop) Cinnarizin forte R.A.N. (R.A.N.)	J:	Toliman (Corvi) Annarizine (Sioe) Aplactan (Eisai) Aplexal (Taiyo-Yakuko Takayama) Apomiterl (Teizo) Apsatan (Wakamoto) Cerebalan (Tobishi) Corathiem (Ohta) Denapol (Teisan) Eglen (Tatsumi) Hirdsyn (Fuso)		Izaberizin (Toho) Katoseran (Hishiyama) Milactan (Miwa) Processine (Sankyo) Roin (Maruishi) Salarizine (Iwaki) Sapratol (Daigo-Takeda) Sedatromin (Takeda) Signal (Fuji Zoki) Siptazin (Isei) Spaderizine (Kotobuki) Tolesmin (Sato)
F:	Sureptil (Synthelabo)- comb.				
GB:	Stugeron (Janssen-Cilag)				
I:	Cinazyn (Fisons) Italchimici) Stugeron (Janssen) Sureptil (Delalande) Isnardi)-comb.				

Cinolazepam

(Ox-373)

ATC: N05CD13

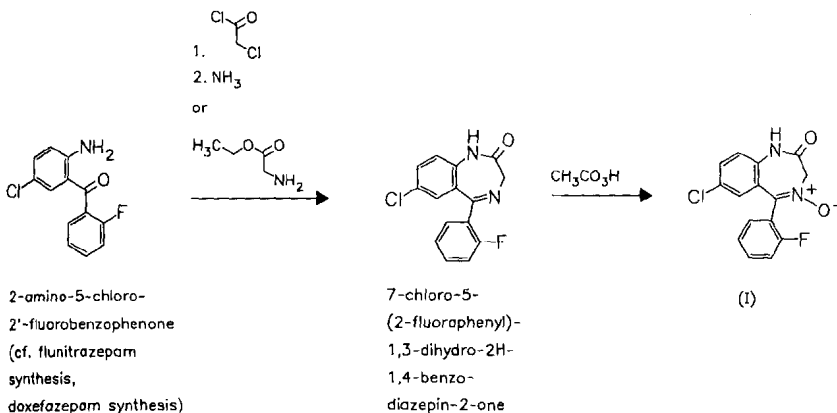
Use: hypnotic benzodiazepine

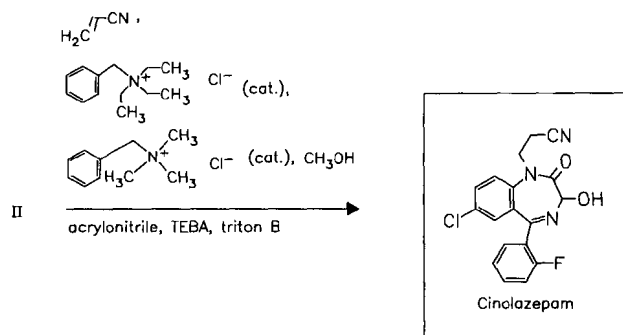
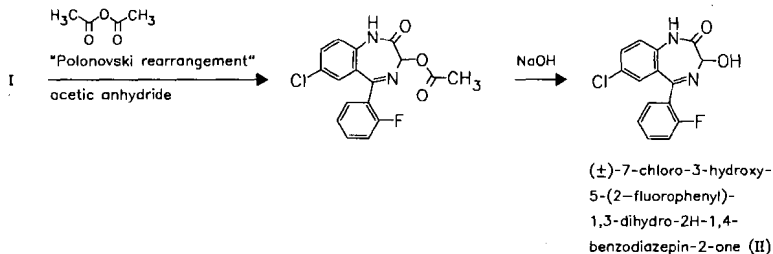
RN: 75696-02-5 MF: $C_{18}H_{13}ClFN_3O_2$ MW: 357.77

LD₅₀: 3.5 g/kg (R, p.o.)

3.5 g/kg (M, p.o.)

CN: (\pm)-7-Chloro-5-(2-fluorophenyl)-2,3-dihydro-3-hydroxy-2-oxo-1H-1,4-benzodiazepine-1-propanenitrile



**Reference(s):**

DE 2 950 235 (Gerot Pharmazeutika; appl. 23.12.1979; A-prior. 18.12.1978).

synthesis of intermediate II:

Earley, J.V.; Fryer, R.I.; Winter, D.; Sternbach, L.H.: J. Med. Chem. (JMCMAR) **11** (4), 774 (1968).

Formulation(s): tabl. 40 mg

Trade Name(s):

A: Geroderm (Gerot; 1993)

Cinoxacin

(Acidum azolinicum; Azolinic acid)

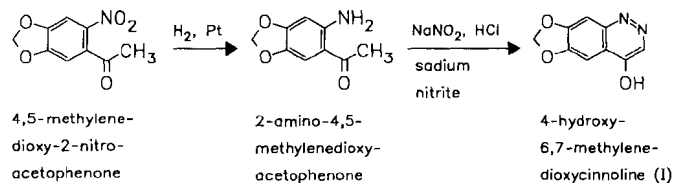
ATC: G04AB05

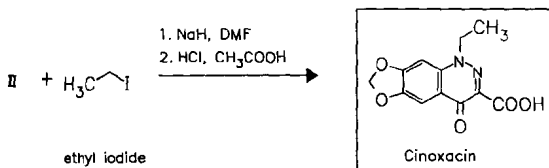
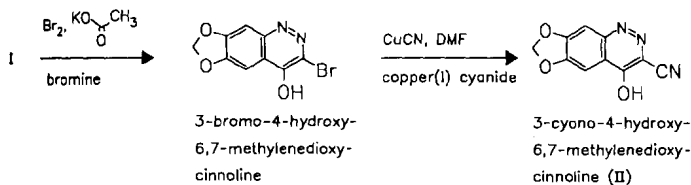
Use: antibacterial (treatment of urinary tract infections)

RN: 28657-80-9 MF: $\text{C}_{12}\text{H}_{10}\text{N}_2\text{O}_5$ MW: 262.22 EINECS: 249-133-8

LD_{50} : 900 mg/kg (R, i.v.); 4160 mg/kg (R, p.o.)

CN: 1-ethyl-1,4-dihydro-4-oxo[1,3]dioxolo[4,5-g]cinnoline-3-carboxylic acid



**Reference(s):**

US 3 669 965 (Eli Lilly; 13.6.1972; prior. 29.12.1969).

DOS 2 005 104 (Eli Lilly; appl. 4.2.1970).

Formulation(s): cps. 250 mg, 500 mg**Trade Name(s):**

D: Cinoxacin (Rosen Pharma)

GB: Cinobac (Lilly; 1979)

I: Cinobac (Lilly)
Nossacin (Corvi)

Noxigram (Firma)

Uronorm (Alfa

Wassermann)

Uroxacin (Malesci)

J: Cinobact (Shionogi)

USA: Cinobac (Dista; 1981);

wfm

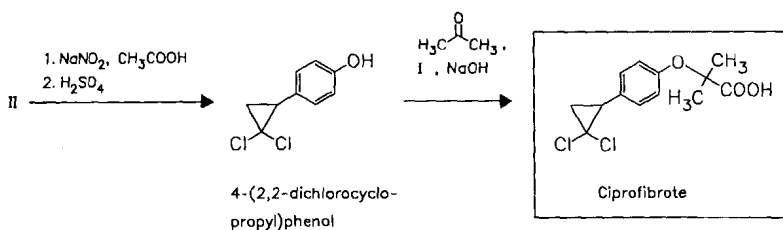
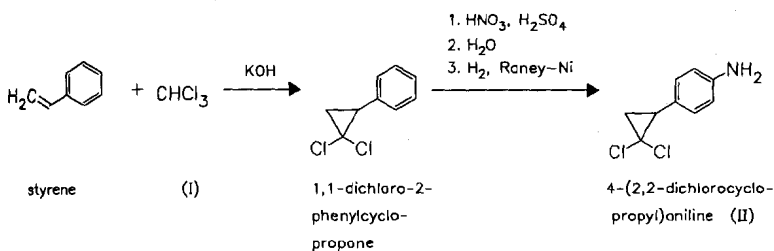
Ciprofibrate

ATC: B04AC; C01AB08

Use: antihyperlipidemic, clofibrate derivative

RN: 52214-84-3 MF: $\text{C}_{13}\text{H}_{14}\text{Cl}_2\text{O}_3$ MW: 289.16 EINECS: 257-744-6

CN: 2-[4-(2,2-dichlorocyclopropyl)phenoxy]-2-methylpropanoic acid



Reference(s):

US 3 948 973 (Sterling Drug; 6.4.1976; prior. 29.8.1972).

DOS 2 343 606 (Sterling Drug; appl. 29.8.1973; USA-prior. 29.8.1972).

*synthesis of 4-(2,2-dichlorocyclopropyl)aniline:*Nefedov, O.M.; Shafran, R.N.: Zh. Org. Khim. (ZORKAE) **1974**, 477.C.A. (CHABA8) **80**, 145626o (1974).*Formulation(s):* cps. 100 mg, tabl. 100 mg*Trade Name(s):*

F: Lipanor (Sanofi Winthrop; 1985) GB: Modalim (Sanofi Winthrop)

Ciprofloxacin

(Bay-o-9867)

ATC: J01MA02; S03AA07

Use: antibacterial

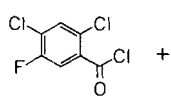
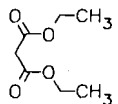
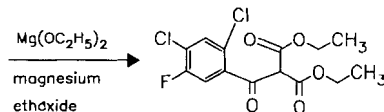
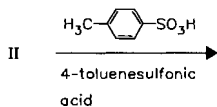
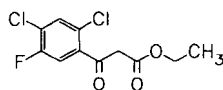
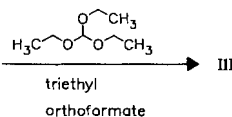
RN: 85721-33-1 MF: $C_{17}H_{18}FN_3O_3$ MW: 331.35LD₅₀: 122 mg/kg (M, i.v.); 5 g/kg (M, p.o.);

207 mg/kg (R, i.v.); >2 g/kg (R, p.o.)

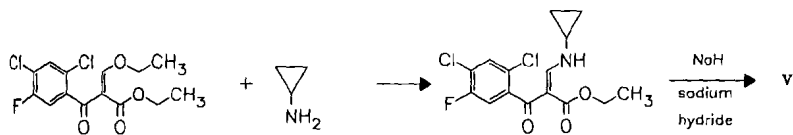
CN: 1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-7-(1-piperazinyl)-3-quinolinecarboxylic acid

monohydrateRN: 113078-43-6 MF: $C_{17}H_{18}FN_3O_3 \cdot H_2O$ MW: 349.36**monohydrochloride**RN: 93107-08-5 MF: $C_{17}H_{18}FN_3O_3 \cdot HCl$ MW: 367.81**hydrochloride**RN: 86483-48-9 MF: $C_{17}H_{18}FN_3O_3 \cdot xHCl$ MW: unspecifiedLD₅₀: 258 mg/kg (M, i.v.); >5 g/kg (M, p.o.);

300 mg/kg (R, i.v.); >5 g/kg (R, p.o.)

lactate (1:1)RN: 97867-33-9 MF: $C_{17}H_{18}FN_3O_3 \cdot C_3H_6O_3$ MW: 421.432,4-dichloro-5-fluoro-
benzoyl chloride (I)diethyl
malonatediethyl (2,4-dichloro-5-
fluorobenzoyl)malonate (II)II
4-toluenesulfonic
acidethyl 2,4-dichloro-5-fluoro-
benzoylacetatetriethyl
orthoformate

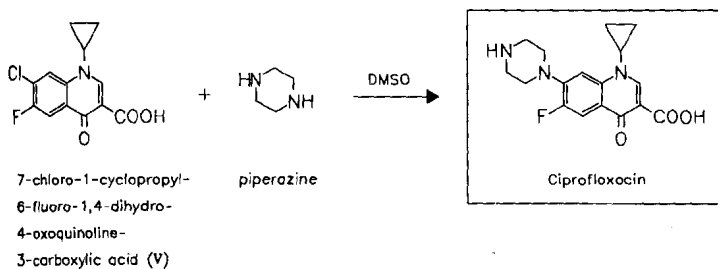
III



ethyl 2-(2,4-dichloro-5-fluorobenzoyl)-3-ethoxyacrylate (III)

cyclopropylamine (IV)

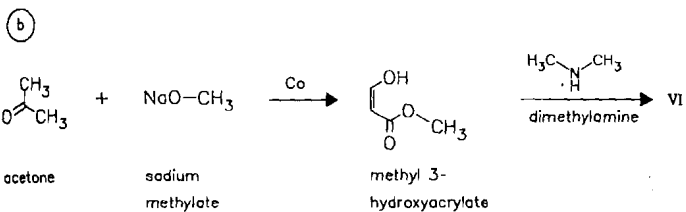
ethyl 3-cyclopropylamino-2-(2,4-dichloro-5-fluorobenzoyl)acrylate (V)



7-chloro-1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxoquinoline-3-carboxylic acid (V)

piperazine

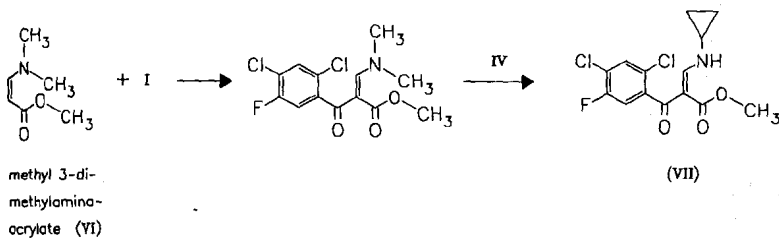
Ciprofloxacin



acetone

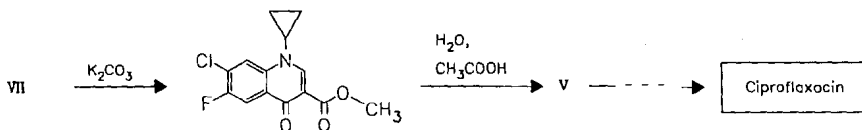
sodium methylate

methyl 3-hydroxyacrylate



methyl 3-dimethylaminoacrylate (VI)

(VII)



VII

Ciprofloxacin

Reference(s):

- EP 49 355 (Bayer AG; appl. 21.8.1981; D-prior. 3.9.1980).
 US 4 670 444 (Bayer AG; 2.6.1987; D-prior. 3.9.1980).
 DE 3 273 892
 DOS 3 142 854 (Bayer AG; appl. 29.10.1981).
 US 4 620 007 (Bayer AG; 28.10.1986; D-prior. 3.9.1980, 29.10.1981).
 Grohe, K.; Heitzer, H.: Liebigs Ann. Chem. (LACHDL) **1987**, 29.
 EP 657 448 (Bayer AG; appl. 28.11.1994; D-prior. 10.12.1993).

Formulation(s): amp. 100 mg/10 ml, 200 mg/200 ml, 400 mg/400 ml; eye drops 3 mg/3 ml; tabl. 100 mg, 200 mg, 250 mg, 500 mg, 750 mg; vial 100 mg/50 ml, 200 mg/100 ml (as hydrochloride)

Trade Name(s):

D: Ciloxan (Alcon)	F: Ciflox (Bayer)	Flociprin (IBI; 1989)
Ciprobay (Bayer Vital; 1987)	GB: Ciloxan (Alcon)	USA: Ciloxan (Alcon)
Uniflox (Bayer)	Ciproxin (Bayer; 1987)	Cipro (Bayer; 1987)
	I: Ciproxin (Bayer; 1989)	

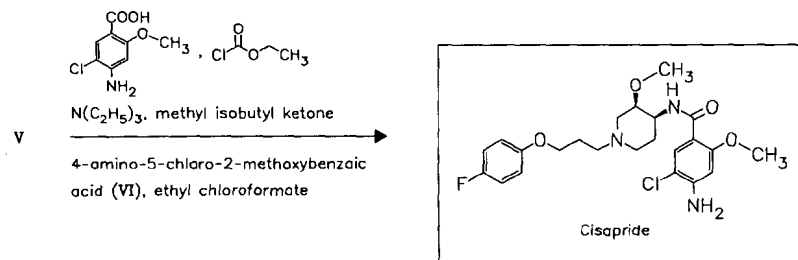
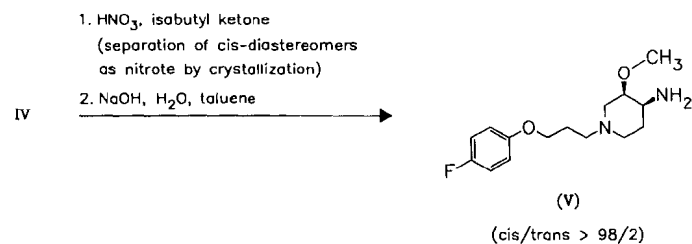
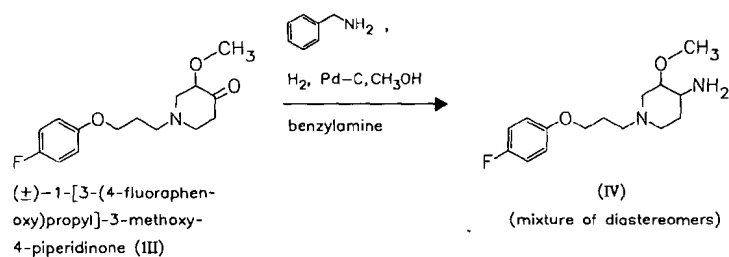
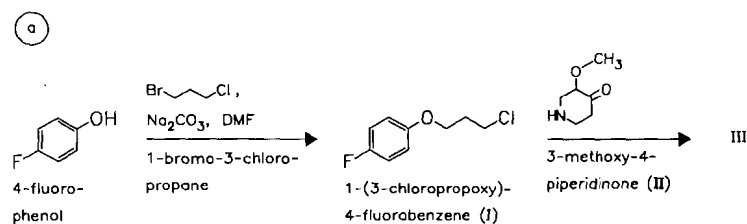
Cisapride

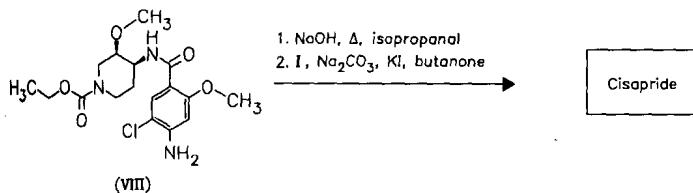
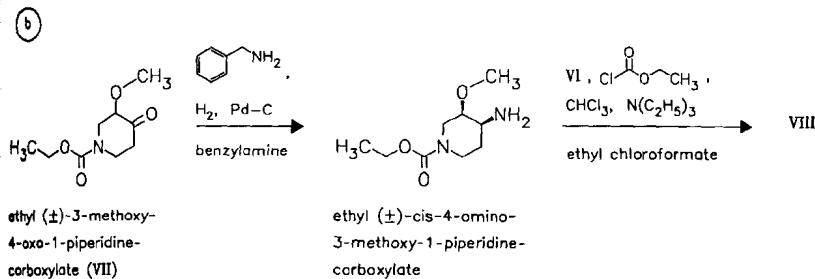
ATC: A03FA02

Use: gastrokinetic, promotility

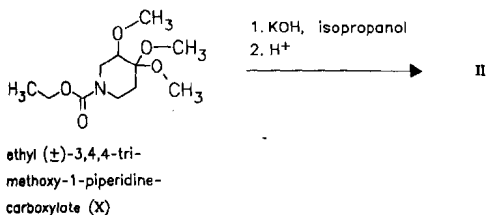
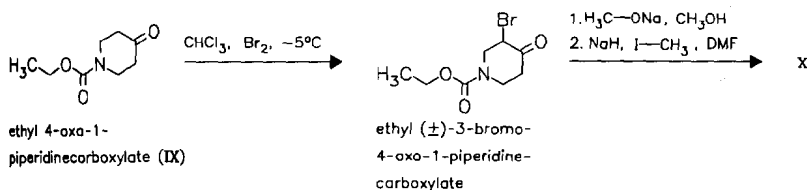
RN: 81098-60-4 MF: C₂₃H₂₉ClFN₃O₄ MW: 465.95 EINECS: 279-689-7CN: (±)-*cis*-4-Amino-5-chloro-2-methoxy-*N*-[1-[3-(4-fluorophenoxy)propyl]-3-methoxy-4-piperidyl]benzamide

(±)-tartrate

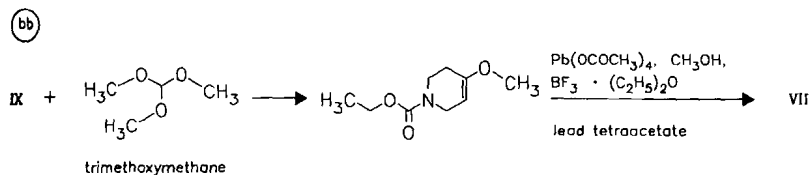
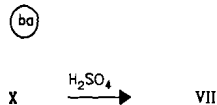
RN: 189888-25-3 MF: C₂₃H₂₉ClFN₃O₄ · C₄H₆O₆ MW: 616.04



preparation of 3-methoxy-4-piperidinone (II):



preparation of ethyl (±)-3-methoxy-4-oxo-1-piperidinecarboxylate (VII):



Reference(s):

- a** WO 9 816 511 (Janssen Pharmaceuticals; appl. 9.10.1997; EP-prior. 15.10.1996).
a,b EP 76 530 (Janssen Pharmaceuticals; 13.4.1983; USA-prior. 1.10.1981).
bb Singh, V.S.; Singh, C.; Dikshit, D.K.: *Synth. Commun. (SYNCAV)* **28** (1), 45 (1998).

Formulation(s): f. c. cps. 400 mg; susp. 1 mg/ml (as hydrate); tabl. 5 mg, 10 mg, 20 mg, 25 mg, 50 mg, 100 mg.

Trade Name(s):

D:	Alimix (Janssen-Cilag)	GB:	Prepulsid (Janssen-Cilag)	Prepulsid (Janssen-Cilag)
	Propulsin (Janssen-Cilag)	I:	Alimix (Cilag)	USA: Propulsid (Janssen; 1997)
F:	Prepulsid (Janssen-Cilag)		Cipril (Fisons)	

Cisatracurium besylate

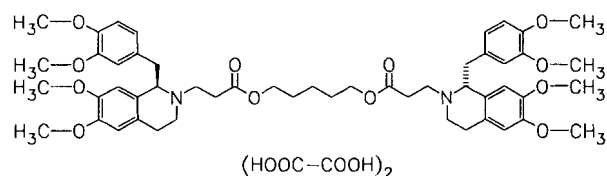
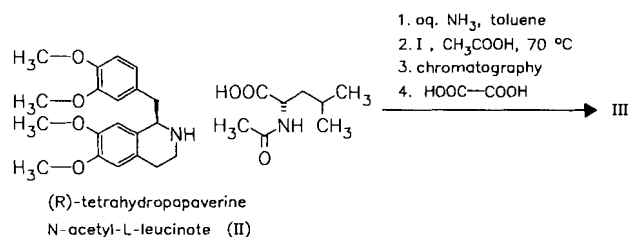
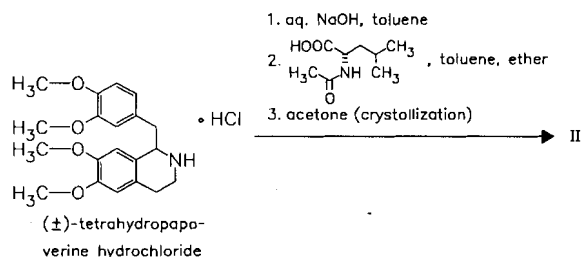
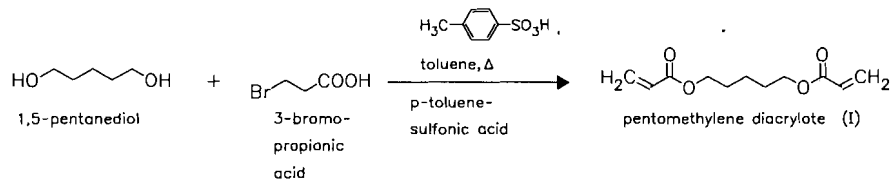
(51W89; 51W)

ATC: M03AC11

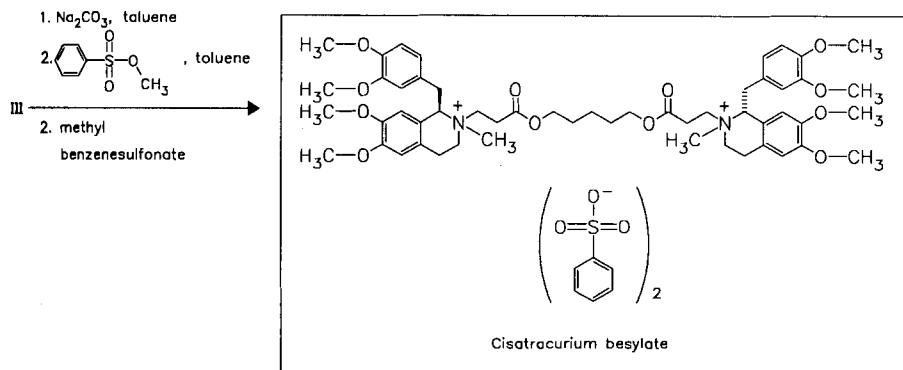
Use: neuromuscular blocker

RN: 96946-42-8 MF: $C_{53}H_{72}N_2O_{12} \cdot 2C_6H_5O_3S$ MW: 1243.50CN: [1R-[1 α ,2 α (1'R*,2'R*)]]-2,2'-[1,5-pentanediy]bis[oxy(3-oxo-3,1-propanediyl)]]bis[1-[(3,4-dimethoxyphenyl)methyl]-1,2,3,4-tetrahydro-6,7-dimethoxy-2-methylisoquinolinium] dibenzenesulfonate

cation

RN: 96946-41-7 MF: $C_{53}H_{72}N_2O_{12}$ MW: 929.16

(1R,1'R)-2,2'-(3,11-dioxo-4,10-dioxatridecylmethylene)bis-(1,2,3,4-tetrahydro-6,7-dimethoxy-1-veratrylisoquinoline) dioxalate (III)

**Reference(s):**

WO 9 200 965 (Wellcome Foundation; appl. 23.1.1992; GB-prior. 13.7.1990).

US 5 453 510 (Burroughs Wellcome Co.; appl. 26.9.1995; GB-prior. 13.7.1990; USA-prior. 12.7.1991).

Boyd, A.H. et al.: Br. J. Anaesth. (BJANAD) **74** (4), 400 (1995).

Formulation(s): amp. (inj.) 2 mg/ml (25 ml, 10 ml, 2.5 ml)

Trade Name(s):

D: Nimbex (Glaxo Wellcome; Zeneca) GB: Nimbex (Glaxo Wellcome; as besylate) J: Ciprxan (Bayer) USA: Nimbex (Glaxo Wellcome)

Cisplatin

ATC: L01XA01

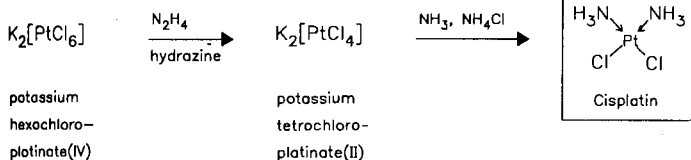
Use: antineoplastic

RN: 15663-27-1 MF: $\text{Cl}_2\text{H}_6\text{N}_2\text{Pt}$ MW: 300.05 EINECS: 239-733-8

LD₅₀: 3.4 mg/kg (R, i.v.);

9.7 mg/kg (g. p., i.v.)

CN: diamminedichloroplatinum (SP-4-2)

**Reference(s):**

US 4 273 755 (MPD Techn.; 16.6.1981; prior. 16.8.1979).

EP 30 782 (MPD Techn.; USA-prior. 16.8.1979).

DE 3 305 248 (Degussa AG; D-prior. 16.2.1983).

Kaufmann, G.B. et al.: Inorg. Synth. (INSYA3) **7**, 239 (1963).

Rosenberg, B. et al.: Nature (London) (NATUAS) **222**, 385 (1969).

injectable solution:

DOS 2 906 700 (Bristol-Myers; appl. 21.2.1979; USA-prior. 30.5.1978).

Formulation(s): vial (lyo.) 10 mg, 25 mg, 50 mg; vial (sol.) 10 mg/20 ml, 50 mg/100 ml, 100 mg/200 ml

Trade Name(s):

D: Cisplatin Azupharma (Azupharma)

Cisplatin-Lösung (ASTA Medica AWD)

Cisplatin medac (medac)

	Platiblastin (Pharmacia & Upjohn)	GB:	Neoplatin (Mead Johnson; 1979); wfm	Pronto Platamine (Farmitalia)
	Platinex (Bristol-Myers Squibb; 1979)		Platinex (Bristol-Myers); wfm	generics and combination preparations
	generics and combination preparations		Platosin (Nordic); wfm	J:
F:	Cisplatine Dakota (Dakota)	I:	Citoplatino (Rhône-Poulenc Rorer)	Briplatin (Bristol Squibb)
	Cisplatine Lilly (Lilly)		Platamine (Farmitalia)	Randa (Nippon Kayaku)
	Cisplatyl (Rhône-Poulenc Rorer Bellon)		Platinex (Bristol It. Sud)	USA: Platinol (Bristol-Myers Squibb; 1978)

Citalopram

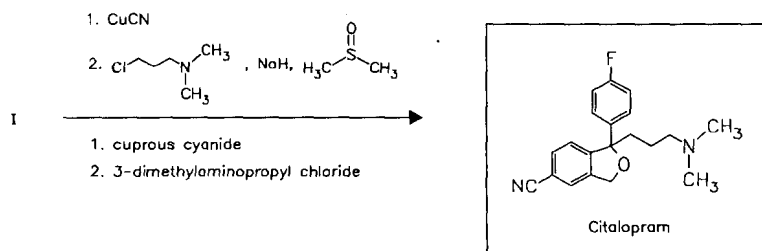
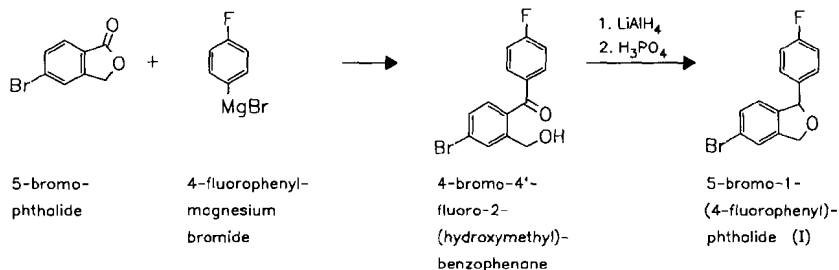
(Nitalapram; LU 10171; ZD-211)

ATC: N06AB04

Use: antidepressant, selective serotonin-uptake inhibitor

RN: 59729-33-8 MF: $C_{20}H_{21}FN_2O$ MW: 324.40 EINECS: 261-891-1

CN: 1-[3-(dimethylamino)propyl]-1-(4-fluorophenyl)-1,3-dihydro-5-isobenzofurancarbonitrile

monohydrobromideRN: 59729-32-7 MF: $C_{20}H_{21}FN_2O \cdot HBr$ MW: 405.31 EINECS: 261-890-6**monohydrochloride**RN: 85118-27-0 MF: $C_{20}H_{21}FN_2O \cdot HCl$ MW: 360.86 EINECS: 285-680-9**fumarate**RN: 107190-73-8 MF: $C_{20}H_{21}FN_2O \cdot xC_4H_4O_4$ MW: unspecified**Reference(s):**

- DE 2 657 013 (Kefalas; appl. 16.12.1976; GB-prior. 14.1.1976).
 US 4 136 193 (Kefalas; 7.1.1977; appl. 23.1.1979; GB-prior. 14.1.1976).
 Bigler, A.J. et al.: Eur. J. Med. Chem. (EJMCA5) **12**, 289 (1977).

alternative synthesis:

- EP 171 943 (Lundbeck; appl. 19.7.1985; GB-prior. 6.8.1984).
 WO 9 819 511 (Lundbeck; appl. 10.11.1997; WO-prior. 10.11.1997).
 WO 9 819 512 (Lundbeck; WO-prior. 10.12.1997).
 WO 9 819 513 (Lundbeck; DK-prior. 8.7.1997).

synthesis of enantiomers:

EP 347 066 (Lundbeck; appl. 1.6.1989; GB-prior. 14.6.1988).

*preparation of 5-bromophthalide:*Levy; Stephen: J. Chem. Soc. (JCSOA9) **1931**, 867, 870.*Formulation(s):* f. c. tabl. 20 mg, 40 mg (as hydrobromide)*Trade Name(s):*D: Cipramil (Promonta
Lundbeck)GB: Cipramil (Lundbeck; as
hydrochloride)

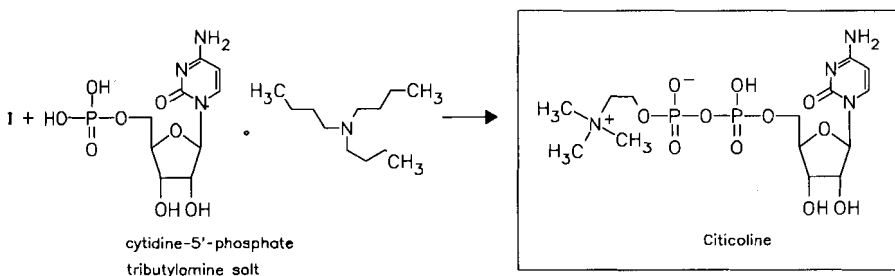
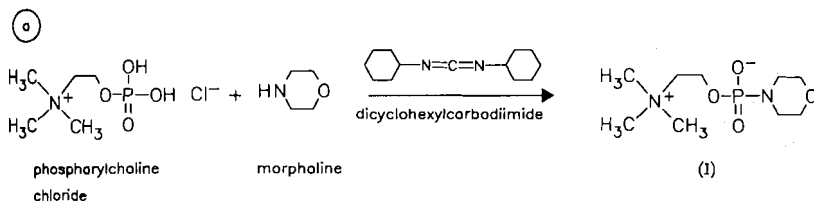
USA: Celexa (Forest)

Citicoline

ATC: N06BX06

Use: cerebrostimulant, antiparkinsonian,
lipometabolism coenzyme (lecithin-
and plasmalogen biosynthesis)RN: 987-78-0 MF: C₁₄H₂₆N₄O₁₁P₂ MW: 488.33 EINECS: 213-580-7LD₅₀: 4600 mg/kg (M, i.v.); 27.142 g/kg (M, p.o.);
2973 mg/kg (R, i.v.); 18.501 g/kg (R, p.o.)

CN: cytidine-5'-(trihydrogen diphosphate) mono[2-(trimethylammonio)ethyl] ester hydroxide inner salt

(b) fermentatively from cytidylic acid, choline phosphate and glucose in presence of alkali phosphates,
magnesium sulfate by means of microorganisms, which produce fructose-1,6-bisphosphate*Reference(s):*Kennedy, E.P.: J. Biol. Chem. (JBCHA3) **222**, 185 (1956).

a JP-appl. 7 004 747 (Takeda; appl. 18.12.1967).

similar processes:

JP-appl. 6 540 ('64) (Takeda; appl. 11.5.1960).

JP-appl. 6 541 ('64) (Takeda; appl. 23.8.1960).

JP-appl. 13 024 ('60) (Takeda; appl. 9.9.1960).

JP-appl. 1 384 ('67) (Takeda; appl. 22.8.1963).

JP-appl. 7 004 505 (Toho; appl. 22.9.1967).

crystalline monohydrate:

DOS 2 019 308 (Takeda; appl. 22.4.1970; J-prior. 24.4.1969).

b DOS 2 054 785 (Asahi; appl. 6.11.1970; J-prior. 26.11.1969).

similar process:

DOS 2 037 988 (Kyowa Hakko; appl. 30.7.1970; J-prior. 4.8.1969).

Formulation(s): amp. 250 mg/2 ml, 500 mg/4 ml, 1000 mg/8 ml (as sodium salt)

Trade Name(s):

F: Rexort (Takeda)	Kemodyn (Esseti)	Daicoline (Daisan)
I: Anticolin (Farge)	Logan (Ist. Chim. Inter.)	Dereb (Ohta)
Brassel (Schiapparelli)	Neurex (Salus Research)	Emicholine-F (Dojin)
Searle)	Neuroton (Nuovo Cons.	Emilian (Beppu)
Cebroton (Sancarlo)	Sanit. Naz.)	Ensign (Yamanouchi)
Cidifos (Neopharmed)	Nicholin (Cyanamid)	Erholen (Nichiiko)
Cidilin (Errekappa)	Nicolsint (Leben's)	Haibrain (Ono)
Euroter.)	Polineural (Biotekfarma)	Hornbest (Hoci)
Citicolin (Piam)	Sinkron (Ripari-Gero)	Intelon (Takata)
Citifar (Lafare)	Sintoclar (Pulitzer)	Nicholin (Takeda)
Citsav (Savio IBN)	J: Andes (Nippon Kayaku)	Plube (Mochida)
Difosfocin (Magis)	Ceregut (Kodama)	Recognan (Toyo Jozo)
Encelin (Crosara)	Colite (Nippon Chemiphar)	Rupis (Vitacain)
Flussorex (Lampugnani)	Corenalin (Kaken)	Suncholin (Mohan)
Gerolin (CT)	Cyscholin (Kanto)	

Citolone

(Acetylhomocysteine thiolactone)

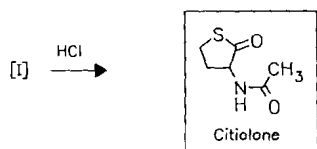
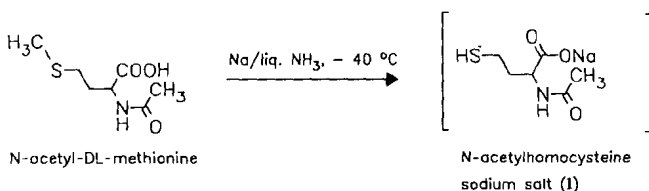
ATC: A05BA04

Use: liver therapeutic

RN: 1195-16-0 MF: C₆H₉NO₂S MW: 159.21 EINECS: 214-793-8

LD₅₀: 1200 mg/kg (M, i.v.)

CN: N-(tetrahydro-2-oxo-3-thienyl)acetamide



Reference(s):

DE 1 134 683 (Degussa; appl. 16.3.1961).

Formulation(s): cps. 200 mg, 400 mg; gran. 200 mg; suppos. 250 mg, 500 mg

Trade Name(s):

D: Contralum Ultra (Hermal)-
comb.; wfm

Hepa-Merz (Merz)-comb.;
wfm

Hepasteril B. compositum,
forte (Fresenius)-comb.;
wfm
Mederma (Merz)-comb.;
wfm

Reducdyn (Nordmark)-
comb.; wfm
Sterofundin-CH (Braun
Melsungen); wfm
Tutofusin LC (Pfrimmer);
wfm

F: Thioncycline (Merrell)-
comb.; wfm
Thioxidréne (Bottu); wfm
I: Citiolase (Roussel)

Citrulline

ATC: V03AB99

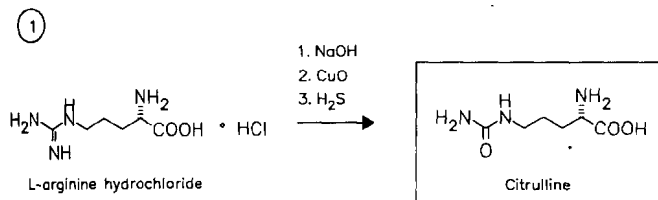
Use: liver therapeutic

RN: 372-75-8 MF: $C_6H_{13}N_3O_3$ MW: 175.19 EINECS: 206-759-6

CN: N^5 -(aminocarbonyl)-L-ornithine

malate (1:1)

RN: 70796-17-7 MF: $C_6H_{13}N_3O_3 \cdot C_4H_4O_4$ MW: 291.26



- ②
- o by fermentation
 - o from *Saccharomyces* genus
 - b from ornithine
 - c from *Arthrobacter*

Reference(s):

- 1 Fox, S.W.: *J. Biol. Chem. (JBCHA3)* **123**, 687 (1938).
2a JP 52 143 288 (Kyowa; appl. 20.5.1976).
2b JP 50 148 588 (Miura; appl. 23.5.1974).
2c JP 53 075 387 (Kyowa; appl. 13.12.1976).

alternative syntheses:

- JP 122 48/67 (Ajinomoto; appl. 11.9.1965).
JP 117 58/68 (Kyowa; appl. 15.11.1965).
Fox, S.W. et al.: *J. Org. Chem. (JOCEAH)* **6**, 410 (1941).

crystallization:

- JP 7 100 174 (Ajinomoto; appl. 20.11.1968).

isolation from *Citrullus vulgaris* Schrad.:

- Wada, M.: *Biochem. Z. (BIZEA2)* **224**, 420 (1930).

use as liver therapeutic:

- FR-M 4 182 (Inst. de Recherche Sci.; appl. 9.3.1965).
FR-M 5 594 (Dimaphar; appl. 1.7.1966).
FR-M 5 703 (Lab. Carriere Carron; appl. 30.8.1965).
FR-M 6 305 (Dimaphar; appl. 15.12.1966).

use as digestant:

- FR-M 5 695 (Lab. Carriere Carron; appl. 29.8.1966).

citrulline fumarate:

- FR-M 6 306 (Dimaphar; appl. 15.12.1966).

citrulline maleate:

FR-M 6 443 (Dimaphar; appl. 21.4.1967).

Formulation(s): amp. 60 mg/15 ml; drg. 25 mg, 100 mg*Trade Name(s):*

D:	Polilevo (Taurus Pharma)- comb.	Perifago (Pharmacia & Upjohn)	Citruplexina (Synthelabo)- comb.
F:	Azonutril (Pharmacia & Upjohn)-comb. Epuram (Pharmafarm)- comb.	I:	Stimol (Biocodex; as malate) Biotassina (UCM)-comb.

Cladribine

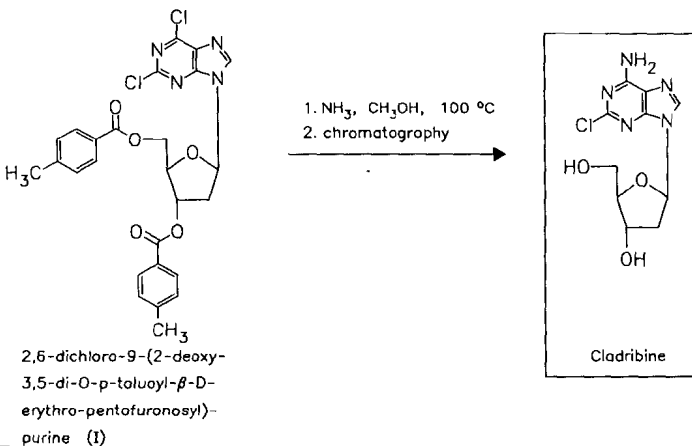
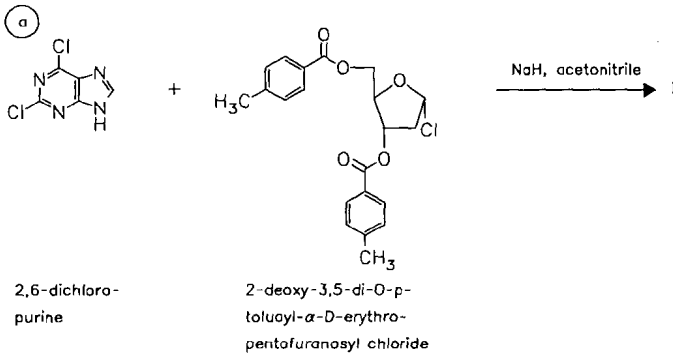
(NSC-105014-F; RWJ-26251; 2-CdA)

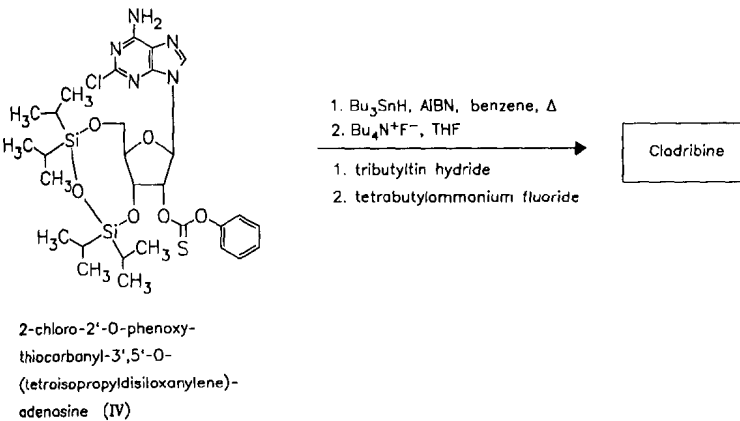
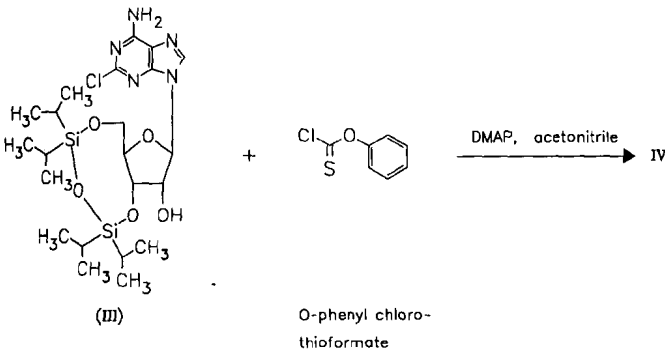
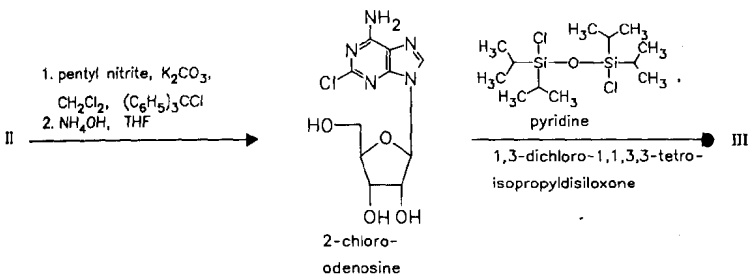
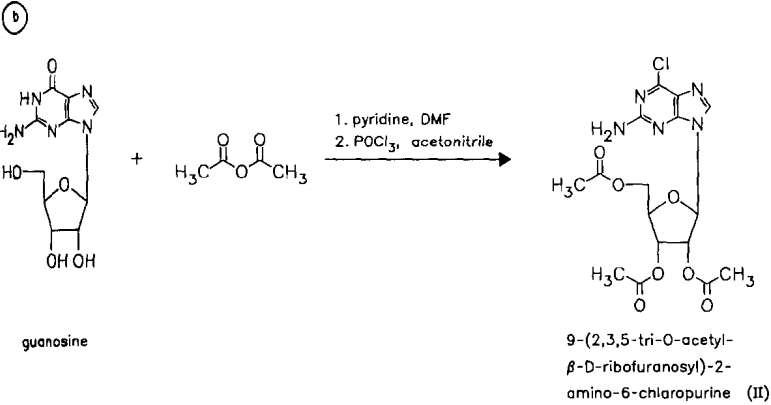
ATC: L01BB04

Use: antineoplastic

RN: 4291-63-8 MF: C₁₀H₁₂ClN₅O₃ MW: 285.69

CN: 2-chloro-2'-deoxyadenosine





Reference(s):

- a Kazimierczuk, Z. et al.: J. Am. Chem. Soc. (JACSAT) **106**, 6379-6382 (1984).
EP 173 059 (Univ. Brigham Young; appl. 17.7.1985; USA-prior. 6.8.1984, 15.1.1987).
Christensen, L.F. et al.: J. Med. Chem. (JMCMAR) **15**, 735 (1972).
- b US 5 208 327 (Ortho Pharm. Corp.; appl. 16.4.1992; USA-prior. 18.12.1991).

compositions for treatment of rheumatoid arthritis:

US 5 310 732 (Scripps Res. Inst.; appl. 19.2.1992; USA-prior. 3.2.1986).

Formulation(s): inj. sol. 10 mg/10 ml

Trade Name(s):

D: Leustatin (Janssen-Cilag) GB: Leustat (Janssen-Cilag)
F: Leustatine (Janssen-Cilag) USA: Leustatin (Ortho Biotech)

Clavulanic acid

ATC: J01CR02

Use: β -lactamase inhibitor

RN: 58001-44-8 MF: $C_8H_9NO_5$ MW: 199.16 EINECS: 261-069-2

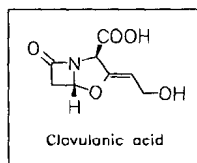
LD₅₀: 4 g/kg (M, i.v.); 4526 mg/kg (M, p.o.);
7936 mg/kg (R, p.o.)

CN: [2*R*-(2 α ,3*Z*,5 α)]-3-(2-hydroxyethylidene)-7-oxo-4-oxa-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

monosodium salt

RN: 57943-81-4 MF: $C_8H_8NNaO_5$ MW: 221.14 EINECS: 261-032-0

LD₅₀: 4 g/kg (M, i.p.); 4500 mg/kg (M, s.c.)



From cultures of *Streptomyces clavuligerus*.

Reference(s):

- US 4 529 720 (Beecham; 16.7.1985; GB-prior. 2.4.1974).
US 4 367 175 (Glaxo; 4.1.1983; GB-prior. 7.2.1975).
GB 1 508 977 (Beecham; appl. 11.4.1975; GB-prior. 20.4.1974, 21.6.1974, 9.10.1974, 11.12.1974).
DOS 2 517 316 (Beecham; appl. 18.4.1975; GB-prior. 20.4.1974, 21.6.1974, 9.10.1974, 11.12.1974).
DE 2 560 074 (Beecham; appl. 18.4.1975; GB-prior. 20.4.1974, 21.6.1974, 9.10.1974, 11.12.1974).

pure salts (e. g. Na-, Li- and other salts):

- US 4 490 294 (Beecham; 25.12.1984; GB-prior. 7.2.1975, 17.3.1975).
US 4 490 295 (Beecham; 25.12.1984; GB-prior. 7.2.1975, 17.3.1975).
GB 1 543 563 (Glaxo; appl. 7.2.1975, 17.3.1975; Compl. Spect. 6.2.1976).

tert-butylamine salt:

- EP 26 044 (Beecham; appl. 15.8.1980; GB-prior. 24.8.1979).
US 4 454 069 (Beecham; 12.6.1984; GB-prior. 24.8.1979).

various salts:

- US 4 367 175 (Glaxo; 4.1.1983; GB-prior. 7.2.1975, 17.3.1975).

esters:

- GB 1 508 978 (Beecham; appl. 11.4.1975; GB-prior. 20.4.1974, 21.6.1974, 9.10.1974, 11.12.1974).

formulation with amoxicillin:

EP 8 905 (Beecham; appl. 21.8.1979; GB-prior. 6.9.1978).
 US 4 301 149 (Beecham; 17.11.1981; GB-prior. 11.10.1977).
 EP 49 061 (Beecham; appl. 6.9.1981; GB-prior. 27.9.1980).
 EP 52 962 (Beecham; appl. 2.11.1981; GB-prior. 20.11.1980).
 GB 2 084 016 (Beecham; GB-prior. 27.9.1980).

formulation with penicillins and cephalosporins:

DOS 2 559 411 (Beecham; appl. 18.4.1975; GB-prior. 20.4.1974, 21.6.1974, 9.10.1974, 11.12.1974).

Formulation(s): drops 12.5 mg/ml; f. c. tabl. 125 mg; tabl. 125 mg; vial 0.1 g, 0.2 g, 0.275 g, 0.6 g, 1.2 g, 2.2 g (as potassium salt)-comb. with amoxicillin

Trade Name(s):

D:	Augmentan (SmithKline Beecham; 1982)-comb. with amoxicillin	I:	Augmentin (SmithKline B. Farm.)-comb. Clavucar (Smith Kline & French)-comb. with ticarcilline	J:	Augmentin (Beecham-Meiji)-comb. with amoxicillin
F:	Augmentin (SmithKline Beecham; 1984) Ciblor (Inava) Claventin (SmithKline Beecham)		Clavulin (Carlo Erba)-comb. Neoduplamox (Smith Kline & French)-comb.	USA:	Augmentin (SmithKline Beecham; 1984)-comb. with amoxicillin Timentin (SmithKline Beecham)
GB:	Augmentin (SmithKline Beecham; 1984)-comb. with amoxicillin		Timentin (SmithKline Beecham)-comb. with ticarcilline		

Clebopride

ATC: A03FA06; A04AD

Use: anti-emetic, specific antagonist of peripheral and central dopamine receptors, reversible MAO-inhibitor

RN: 55905-53-8 MF: $C_{20}H_{24}ClN_3O_2$ MW: 373.88 EINECS: 259-885-9
 LD₅₀: 260 mg/kg (M, i.m.); 40 mg/kg (M, i.p.); 51 mg/kg (M, i.v.); 490 mg/kg (M, p.o.); 350 mg/kg (M, s.c.); 1450 mg/kg (R, i.m.); 155 mg/kg (R, i.p.); 39 mg/kg (R, i.v.); 2540 mg/kg (R, p.o.); 4850 mg/kg (R, s.c.)
 CN: 4-amino-5-chloro-2-methoxy-N-[1-(phenylmethyl)-4-piperidinyl]benzamide

monohydrochloride

RN: 57645-39-3 MF: $C_{20}H_{24}ClN_3O_2 \cdot HCl$ MW: 410.35

LD₅₀: >1 g/kg (M, p.o.)

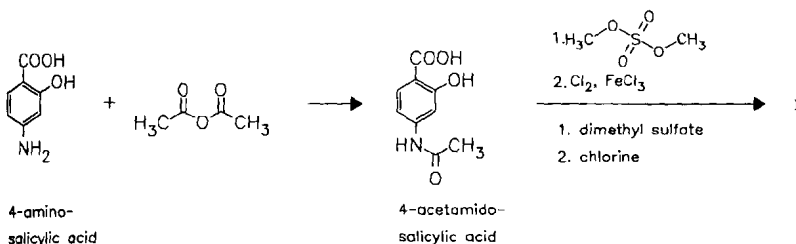
malate (1:1)

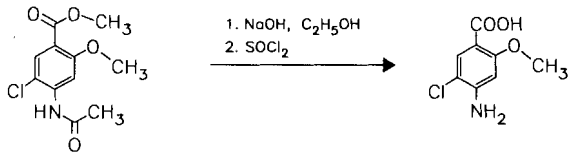
RN: 57645-91-7 MF: $C_{20}H_{24}ClN_3O_2 \cdot C_4H_6O_5$ MW: 507.97 EINECS: 260-874-6

LD₅₀: 51 mg/kg (M, i.v.); 490 mg/kg (M, p.o.);

39 mg/kg (R, i.v.); 2540 mg/kg (R, p.o.);

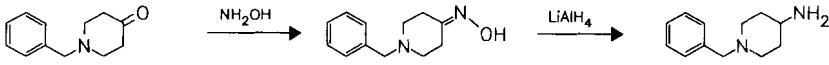
>800 mg/kg (dog, p.o.)





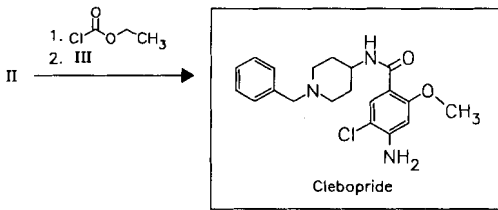
methyl 2-methoxy-4-acetamido-5-chlorobenzoate (I)

2-methoxy-4-amino-5-chlorobenzoic acid (II)



1-benzylpiperidine-4-one

1-benzyl-4-aminopiperidine (III)



Reference(s):

- DE 2 513 136 (Anphar; appl. 21.3.1975; GB-prior. 21.3.1974).
US 4 138 492 (Anphar; 6.2.1979; appl. 17.3.1975; GB-prior. 21.3.1974).
Prieto, J. et al.: J. Pharm. Pharmacol. (JPPMAB) **29**, 147 (1977).

alternative synthesis:

- JP 63 295 558 (Asahi; appl. 26.5.1987).
JP 63 295 557 (Asahi; appl. 26.5.1987).

synthesis of intermediates:

- JP 63 295 559 (Asahi; appl. 26.5.1987).

transdermal patch:

- EP 303 445 (Fordonal; appl. 9.8.1988; J-prior. 13.8.1987).

Formulation(s): amp. 1 mg; sol. 0.5 mg; syrup 0.5 mg; tabl. 0.25 mg, 0.5 mg (as hydrogen maleate)

Trade Name(s):

- | | | | |
|----|---------------------------|----|----------------------|
| I: | Cleprid (Recordati; 1987) | J: | Amicos (Banyu; 1985) |
| | Motilex (Guidotti) | | Clast (Meiji) |

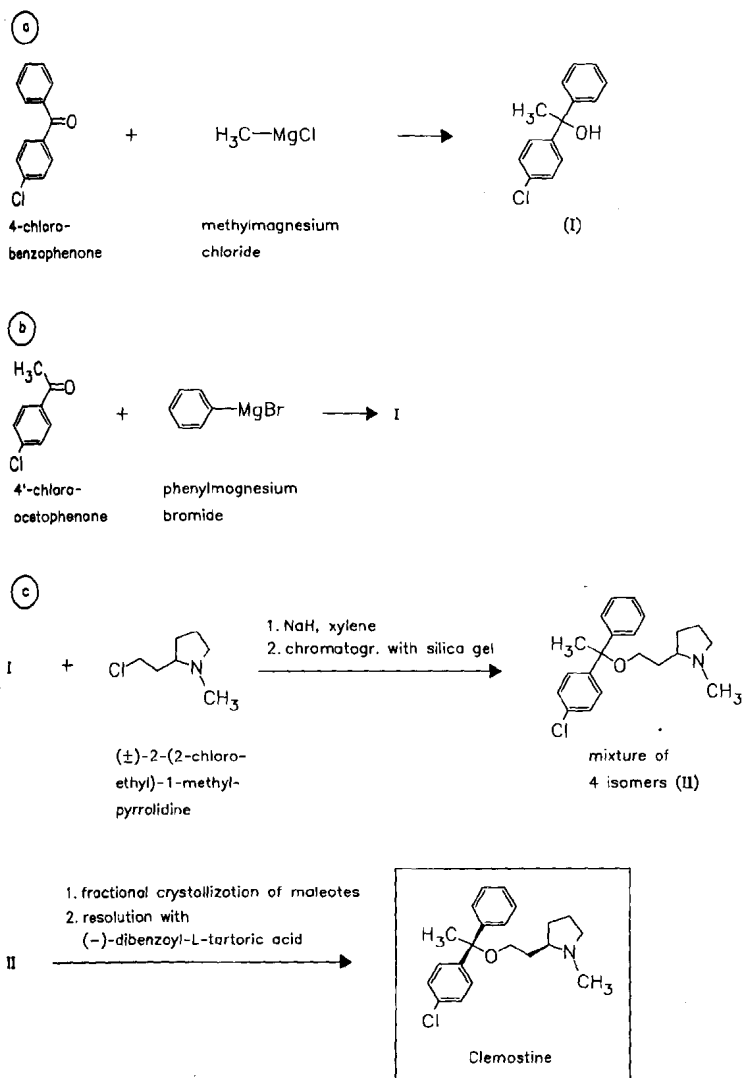
Clemastine (Meclastine)

ATC: D04AA14; R06AA04
Use: antiallergic, antihistaminic

RN: 15686-51-8 MF: C₂₁H₂₆ClNO MW: 343.90
CN: [*R*-(*R**,*R**)]-2-[2-[1-(4-chlorophenyl)-1-phenylethoxy]ethyl]-1-methylpyrrolidine

hydrogen fumarate (1:1)

RN: 14976-57-9 MF: C₂₁H₂₆ClNO · C₄H₄O₄ MW: 459.97 EINECS: 239-055-2
LD₅₀: 43 mg/kg (M, i.v.); 730 mg/kg (M, p.o.);
82 mg/kg (R, i.v.); 3550 mg/kg (R, p.o.)

**Reference(s):**

Ebnöther, A.; Weber, H.-P.: *Helv. Chim. Acta (HCACAV)* **59**, 2462 (1976).
 GB 942 152 (Sandoz; appl. 14.12.1960; CH-prior. 19.1.1960, 3.8.1960, 27.9.1960).
 FR-M 1 313 (Sandoz; appl. 13.7.1961).

preparation of 2-(2-chloroethyl)-1-methylpyrrolidine enantiomers:

Vernier, J.M. et al.: *J. Med. Chem. (JMCMAR)* **42** (10), 1684 (1999).

Formulation(s): amp. 2 mg/5 ml; gel 300 mg/g (as hydrogen fumarate); syrup 0.5 mg/10 ml; tabl. 1 mg

Trade Name(s):

D:	Corto-Tavegil (Novartis Pharma)-comb. Tavegil (Novartis Consumer Health)	J:	Alagyl (Sawai) Alusas (Fuso) Anhistan (Nippon Zoki) Antriptin (Nippon Yakuin) Batomu (Zensei) Benanzyl (Isei) Chlonaryl (Ohta)		Clemanyl (Kyoritsu Yamagata) Fuluminol (Tatsumi) Fumalestine (Hishiyama) Fumartin (Torii) Histamedine (Mohan) Inbestan (Maruko) Kinotomin (Toa Eiyo)
F:	Tavégil (Sandoz); wfm				
GB:	Tavegil (Novartis; as hydrogen fumarate)				
I:	Tavegil (Sandoz)				

Lacretin (Tokyo Tanabe)
 Lecasol (Kaken)
 Maikohis (Nihon Yakuhin)
 Mallermin-F (Taiyo
 Yakuko)
 Marsthine (Towa)
 Masletenc (Shioe)

Natarilan (Nippon
 Chemiphar)
 Piloral (Nippon Kayaku)
 Raseltin (Maruishi)
 Reconin (Toyama)
 Romien (Fuji Zoki)
 Tavegyl (Sandoz-Sankyo)

Telgin G (Takata)
 Trabest (Hoei)
 Xolamin (Sanko)
 generics and combination
 preparations
 USA: Tavist (Dorsey); wfm
 Travist (Sandoz); wfm

Clemizole

ATC: R06A

Use: antihistaminic, antiallergic

RN: 442-52-4 MF: $C_{19}H_{20}ClN_3$ MW: 325.84 EINECS: 207-133-5

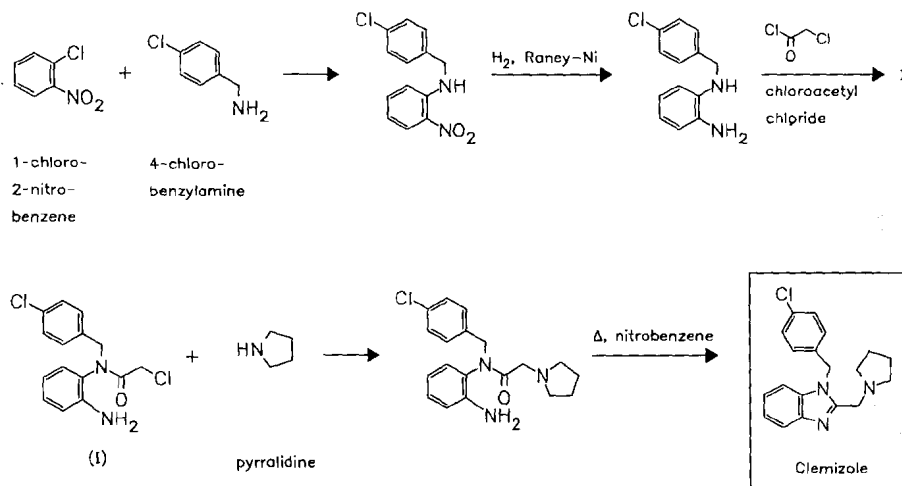
CN: 1-[(4-chlorophenyl)methyl]-2-(1-pyrrolidinylmethyl)-1H-benzimidazole

monohydrochloride

RN: 1163-36-6 MF: $C_{19}H_{20}ClN_3 \cdot HCl$ MW: 362.30 EINECS: 214-605-4

LD₅₀: 75 mg/kg (M, i.v.); 837 mg/kg (M, p.o.);

74 mg/kg (R, i.v.); 1950 mg/kg (R, p.o.)



Reference(s):

US 2 689 853 (Schering AG; 1954; D-prior. 1950).

alternative syntheses:

DE 980 644 (Schering AG; appl. 1950).

DE 901 649 (Schering AG; appl. 1951).

Formulation(s): cream 10 mg/40 g; suppos. 5 mg

Trade Name(s):

D: Megacillin (Grünenthal)-
 comb. with penicillin; wfm
 Scheriproct (Scherax)-
 comb.; wfm
 Ultraproct (Scherax)-
 comb.; wfm

F: Deliproct (Schering)-
 comb.; wfm
 Ultralan (Schering); wfm
 Ultraproct (Schering)-
 comb.; wfm
 GB: Scheriproct (Schering)-
 comb.; wfm

I: Ultraproct (Schering)-
 comb.
 J: Histacur (Nichidoku)

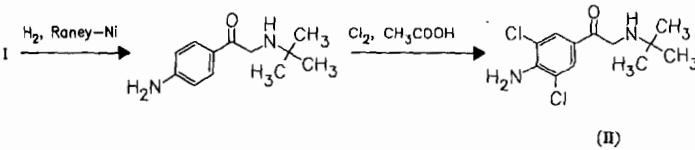
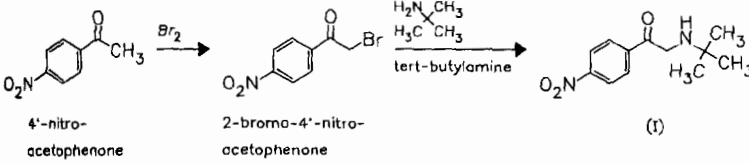
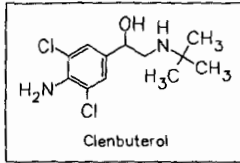
Clenbuterol

ATC: R03AC14; R03CC13

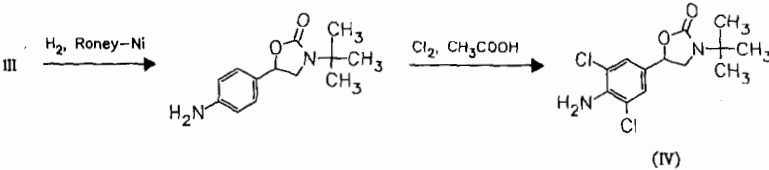
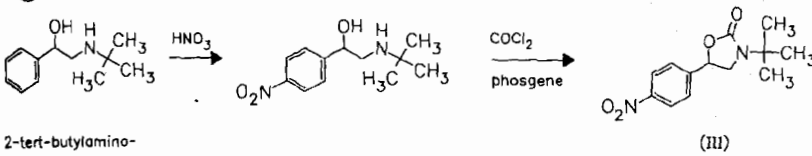
Use: bronchodilator

RN: 37148-27-9 MF: $C_{12}H_{18}Cl_2N_2O$ MW: 277.20 EINECS: 253-366-0LD₅₀: 27.6 mg/kg (M, i.v.)CN: 4-amino-3,5-dichloro- α -[[[1,1-dimethylethyl]amino]methyl]benzenemethanol**hydrochloride**RN: 21898-19-1 MF: $C_{12}H_{18}Cl_2N_2O \cdot HCl$ MW: 313.66

a

II $\xrightarrow{NaBH_4}$ 

b



Reference(s):

Keck, J. et al.: *Arzneim.-Forsch. (ARZNAD)* **22**, 861 (1972).

a DOS 1 793 416 (Thomae; appl. 5.9.1967).

BE 704 213 (Thomae; appl. 22.9.1967; D-prior. 22.9.1966, 15.2.1967, 2.6.1967).

US 3 536 712 (Boehringer Ing.; 27.10.1970; D-prior. 22.9.1966, 15.2.1967, 2.6.1967).

b DOS 2 157 040 (Thomae; appl. 17.11.1971).

DE 1 543 928 (Thomae; appl. 22.9.1966).

alternative syntheses:

DAS 2 354 959 (Thomae; appl. 2.11.1973).

Formulation(s): drops 0.059 mg/ml, 15 mg/2 ml; syrup 0.005 mg/5 ml; tabl. 0.01 mg, 0.02 mg (as hydrochloride)

Trade Name(s):

D: Contraspasmin (ASTA Medica AWD)	I: Broncodil (Leben's) Clenasma (Biomedica) Foscamo	J: Spiropent (Boehringer Ing.) Spasmo-Mucosolvan (Boehringer Ing.)-comb.	Prontovent (Salus Research) Spiropent (Boehringer Ing.) Spiropent (Teijin-Kissei)
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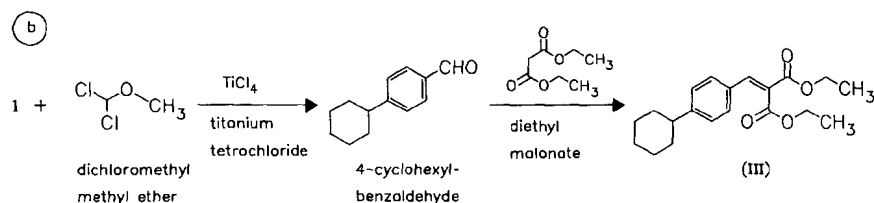
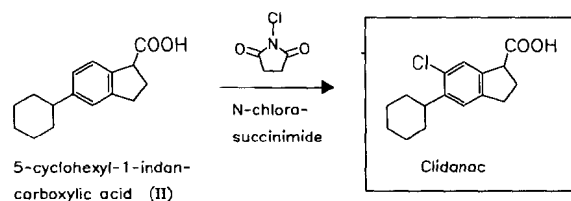
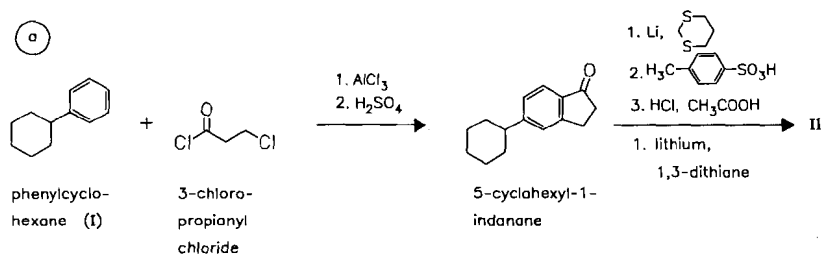
Clidanac

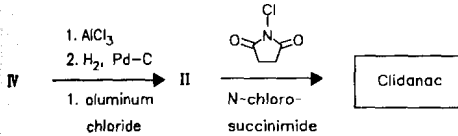
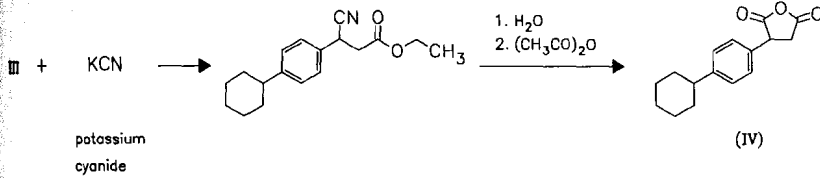
ATC: M01AB

Use: non-steroidal anti-inflammatory, antipyretic

RN: 34148-01-1 MF: C₁₆H₁₉ClO₂ MW: 278.78LD₅₀: 41 mg/kg (R, p.o.)

CN: 6-chloro-5-cyclohexyl-2,3-dihydro-1H-indene-1-carboxylic acid



**Reference(s):**

- a Juby, P.F. et al.: J. Med. Chem. (JMCMAR) **15**, 1297 (1972).
(alternative synthesis described)
- b DOS 2 004 038 (Bristol-Myers; appl. 29.1.1970; USA-prior. 31.1.1969).
US 3 565 943 (Bristol-Myers; 23.2.1971; prior. 17.9.1969, 31.1.1969).
US 3 663 627 (Bristol-Myers; 16.5.1972; prior. 1.6.1970).

alternative synthesis:

DOS 2 330 856 (Takeda; appl. 16.6.1973; J-prior. 19.6.1972, 21.11.1972).

Formulation(s): tabl. 15 mg

Trade Name(s):

J: Britai (Bristol-Banyu) Indanol (Takeda)

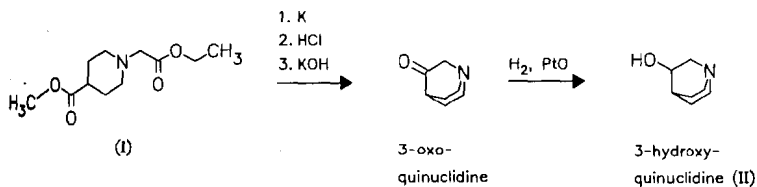
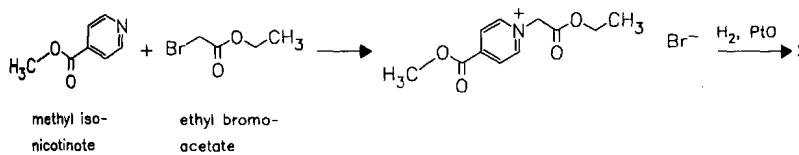
Clidinium bromide

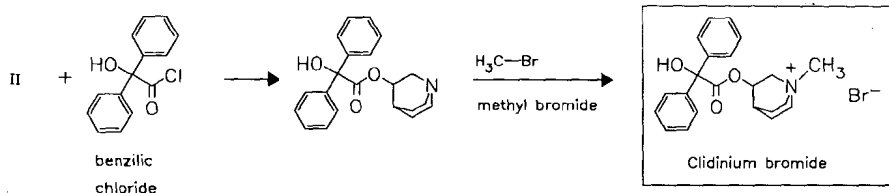
ATC: A03CA02
Use: anticholinergic

RN: 3485-62-9 MF: C₂₂H₂₆BrNO₃ MW: 432.36 EINECS: 222-471-3

LD₅₀: 16 mg/kg (M, i.v.); 492 mg/kg (M, p.o.);
26 mg/kg (dog, i.v.)

CN: 3-[(hydroxydiphenylacetyl)oxy]-1-methyl-1-azoniabicyclo[2.2.2]octane bromide



*Reference(s):*

US 2 648 667 (Hoffmann-La Roche; 1955; prior. 1951).

Formulation(s): drg. 2.5 mg

Trade Name(s):

D:	Librax (Roche)-comb. with chlorodiazepoxide; wfm	GB:	Libraxin (Roche)-comb. with chlorodiazepoxide; wfm	I:	Librax (Roche)-comb. with chlorodiazepoxide
F:	Librax (Roche)-comb. with chlorodiazepoxide			USA:	Librax (Roche)-comb. with chlorodiazepoxide

Clindamycin

ATC: D10AF01; G01AA10; J01FF01

Use: antibiotic

RN: 18323-44-9 MF: $\text{C}_{18}\text{H}_{33}\text{ClN}_2\text{O}_5\text{S}$ MW: 424.99 EINECS: 242-209-1

LD₅₀: 2618 mg/kg (R, s.c.)

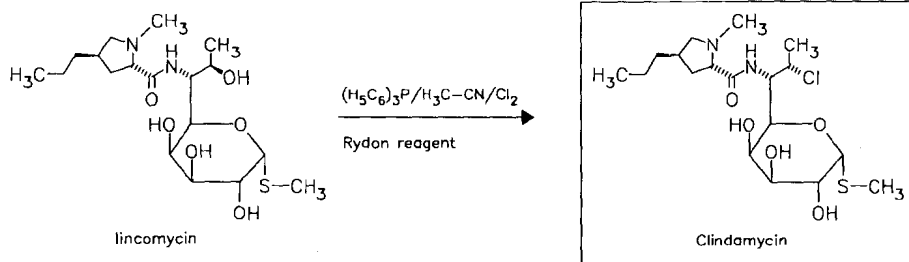
CN: (2*S-trans*)-methyl 7-chloro-6,7,8-trideoxy-6-[[[(1-methyl-4-propyl-2-pyrrolidinyl)carbonyl]amino]-1-thio-L-threo- α -D-galacto-octopyranoside

monohydrochloride

RN: 21462-39-5 MF: $\text{C}_{18}\text{H}_{33}\text{ClN}_2\text{O}_5\text{S} \cdot \text{HCl}$ MW: 461.45 EINECS: 244-398-6

LD₅₀: 245 mg/kg (M, i.v.); 2539 mg/kg (M, p.o.);

2193 mg/kg (R, p.o.)

*Reference(s):*

US 3 496 163.

DE 1 795 740

US 3 418 414 (Upjohn; 24.12.1968; appl. 31.8.1966).

US 3 475 407 (Upjohn; 28.10.1969; appl. 22.12.1967).

US 3 509 127 (Upjohn; 28.4.1970; appl. 30.4.1968).

use as antimalarial:

US 3 627 887 (Upjohn; 14.12.1971; appl. 17.10.1969).

Rydon reagent:

Landauer, S.R.; Rydon, H.N.: J. Chem. Soc. (JCSOA9) **1953**, 2224.

Coe, D.G. et al.: J. Chem. Soc. (JCSOA9) **1954**, 2281.

Rydon, H.N.; Tonge, B.L.: J. Chem. Soc. (JCSOA9) **1956**, 3043.

Formulation(s): amp. 300 mg/2 ml, 600 mg/4 ml, 900 mg/6 ml; cps. 150 mg, 300 mg; gel 10 mg/g; sol. 10 mg/ml (as hydrochloride or phosphate); vaginal cream 20 mg

Trade Name(s):

D: Sobelin (Upjohn; 1968) generics	Clinamycina (Savoma) Dalacin C (Pharmacia & Upjohn; 1969)	USA: Cleocin (Pharmacia & Upjohn; 1970) Clinda-Derm (Paddock) Clindets Pledgets (Stiefel)
F: Dalacine (Pharmacia & Upjohn; 1972)	I: Dalacin C (Upjohn)	
GB: Cleocin (Upjohn)	J: Dalacin (Upjohn; 1971)	

Clinofibrate

ATC: B04AC

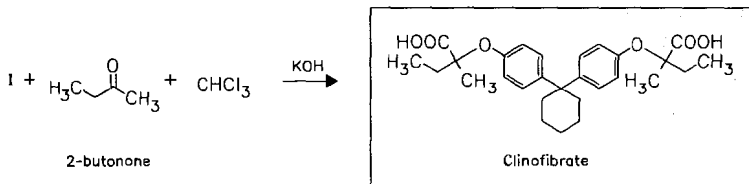
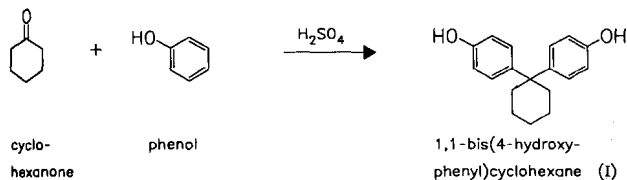
Use: antihyperlipidemic, clofibrate derivative

RN: 30299-08-2 MF: C₂₈H₃₆O₆ MW: 468.59

LD₅₀: 255 mg/kg (M, i.p.); 1800 mg/kg (M, p.o.); 410 mg/kg (M, s.c.);

205 mg/kg (R, i.p.); >4000 mg/kg (R, p.o.); 2200 mg/kg (R, s.c.)

CN: 2,2'-[cyclohexylidenebis(4,1-phenyleneoxy)]bis[2-methylbutanoic acid]



Reference(s):

US 3 716 583 (Sumitomo; 13.2.1972; appl. 7.4.1970; J-prior. 16.4.1969).

US 3 821 404 (Sumitomo; 28.6.1974; J-prior. 16.4.1969).

DOS 2 017 331 (Sumitomo; appl. 10.4.1970; J-prior. 16.4.1969, 2.5.1969).

synthesis of 1,1-bis(4-hydroxyphenyl)cyclohexane:

DD 46 281 (G. Drefahl, E. Littmann; appl. 22.1.1962).

Formulation(s): tabl. 100 mg, 200 mg

Trade Name(s):

J: Deslipoze (Kowa Yakuhin) Lipaderin (Uji)	Lipirate (Hishiyama) Lipoclin (Sumitomo; 1981)	Lipofibrate (Taiyo) Prinmate (Sawai)
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Cloioquinol

(Chloroiodoquine; Iodochlorhydroxyquin)

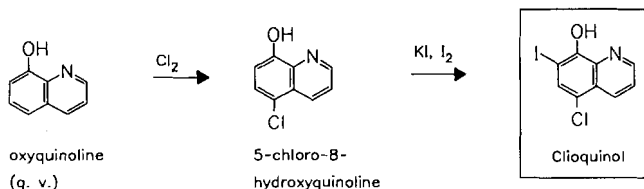
ATC: D08AH30; D09AA10; G01AC02;
P01AA02; S02AA05

Use: wound- and bowel-antiseptic

RN: 130-26-7 MF: C₉H₅ClINO MW: 305.50 EINECS: 204-984-4LD₅₀: 69 mg/kg (M, p.o.);

>5 g/kg (R, p.o.)

CN: 5-chloro-7-iodo-8-quinolinol

*Reference(s):*

DRP 117 767 (Ciba; 1899).

Formulation(s): cream 3 g/100 g; emulsion 0.5 g/100 g; ointment 3 g/100 g*Trade Name(s):*

D:	Linola-sept (Wolff)	Synalar C (Zeneca)-comb.	Reticus (Farmila)-comb.
	Locacorten-Vioform (Novartis Pharma)-comb.	Vioform-hydrocortisone (Novartis)-comb.	Viobeta (IDI)-comb.
	Millicorten-Vioform (Novartis Pharma)-comb.	I: Dermadex Chinol (SmithKline Beecham)-comb.	J: Emaform (Tanabe)
F:	Diprosept (Schering-Plough)-comb.		Entero-Vioform (Ciba-Geigy-Takeda)
GB:	Betnovate-C (Glaxo Wellcome)-comb.	Diproform (Schering-Plough)-comb.	Mexaform (Ciba-Geigy-Takeda)-comb.
	Locorten-Vioform (Novartis)-comb.	Iodochlorossich TI (Tariff. Integrativo)	USA: Racet (Lemmon)-comb. wfm
		Locorten (Zyma)-comb.	Vioform (Ciba); wfm

Clobazam

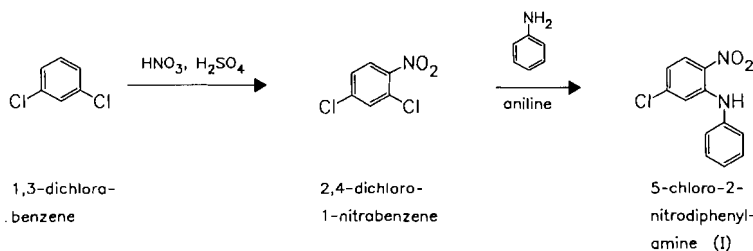
ATC: N05BA09

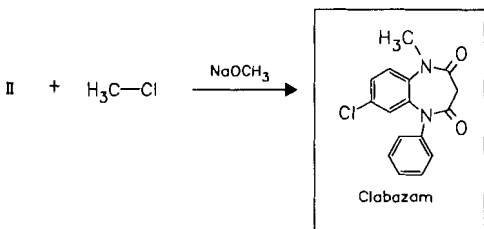
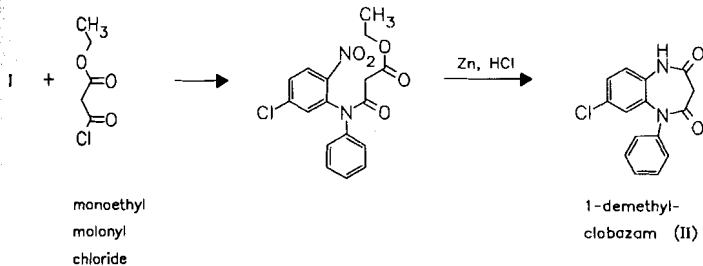
Use: minor tranquilizer

RN: 22316-47-8 MF: C₁₆H₁₃ClN₂O₂ MW: 300.75 EINECS: 244-908-7LD₅₀: 510 mg/kg (M, i.p.); 840 mg/kg (M, p.o.);

>2000 mg/kg (R, p.o.)

CN: 7-chloro-1-methyl-5-phenyl-1H-1,5-benzodiazepine-2,4(3H,5H)-dione





Reference(s):

- DAS 1 793 837 (Roussel-Uclaf; appl. 14.12.1967; I-prior. 14.12.1966).
- US 3 984 398 (Roussel-Uclaf; 5.10.1976; I-prior. 14.12.1966).
- US 3 836 653 (Boehringer Ing.; 17.9.1974; D-prior. 7.2.1967, 18.1.1968).
- DOS 1 670 190 (Boehringer Ing.; appl. 7.2.1967).
- DOS 1 670 306 (Boehringer Ing.; appl. 18.1.1968).
- Weber, K.H. et al.: Justus Liebig's Ann. Chem. (JLACBF) **756**, 128 (1972).

1-demethylclobazam:

- DAS 1 668 634 (Roussel-Uclaf; appl. 14.12.1967; I-prior. 14.12.1966).

synthesis of 5-chloro-2-nitrodiphenylamine:

- Laubenheimer: Ber. Dtsch. Chem. Ges. (BDCGAS) **9**, 771 (1876).

combination with nomifensine:

- DOS 2 724 683 (Hoechst; appl. 1.6.1977).

Formulation(s): cps.- 10 mg; tabl. 10 mg, 20 mg

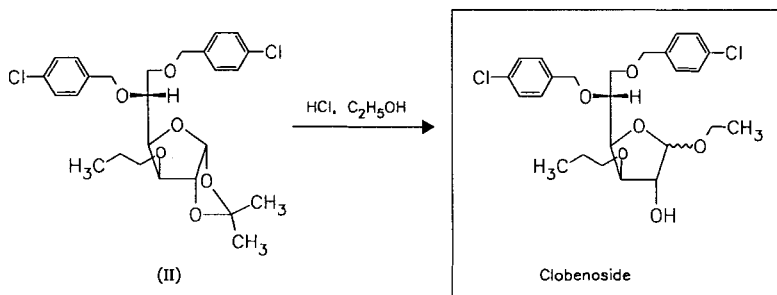
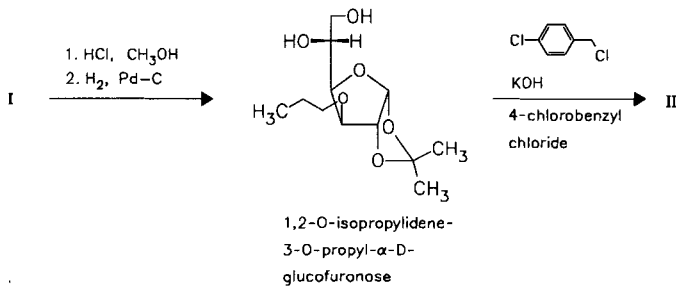
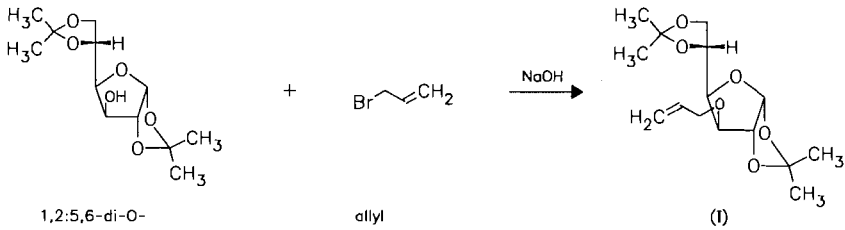
Trade Name(s):

- | | | | |
|----|----------------------------|-----|------------------------------|
| D: | Frisium (Hoechst; 1977) | GB: | Frisium (Hoechst; 1979) |
| F: | Urbanyl (Synthelabo; 1975) | I: | Frisium (Hoechst Italia Sud) |

Clobenoside

ATC: C05
 Use: anti-inflammatory, vasoprotective

RN: 29899-95-4 MF: C₂₅H₃₂Cl₂O₆ MW: 499.43 EINECS: 249-940-5
 CN: ethyl 5,6-bis-O-[(4-chlorophenyl)methyl]-3-O-propyl-D-glucofuranoside

**Reference(s):**

- DOS 1 793 338 (Ciba-Geigy; appl. 3.9.1968; CH-prior. 11.9.1967).
 US 3 665 884 (Ciba-Geigy; 11.4.1972; CH-prior. 11.9.1967).
 US 3 542 761 (Ciba-Geigy; 24.11.1970; appl. 25.4.1968; CH-prior. 11.9.1967).

synthesis of 1,2-O-isopropylidene-3-O-propyl- α -D-glucofuranose:

- DOS 2 031 161 (Ciba; appl. 24.6.1970; CH-prior. 3.7.1969).
 Cunningham, J. et al.: Tetrahedron Lett. (TELEAY) **19**, 1191 (1964).
 Corbettand, W.M.; McKay, J.E.: J. Chem. Soc. (JCSOA9), 2930 (1961).

Formulation(s): tabl. 200 mg, gel

Trade Name(s):

CH:	Aglidin (Zyma)	Finocal (Zyma)
	Arvigol (Zyma)	Flogasol (Vifor)

Clobezorex

ATC: A08AA08

Use: appetite depressant

RN: 13364-32-4 MF: C₁₆H₁₈ClN MW: 259.78 EINECS: 236-434-4

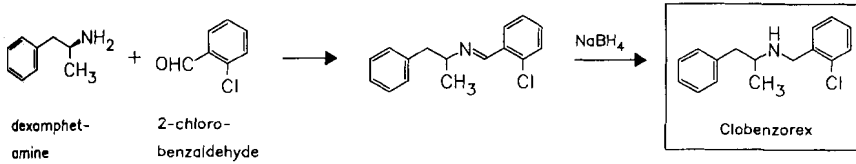
CN: (+)-N-[(2-chlorophenyl)methyl]- α -methylbenzeneethanamine

hydrochloride

RN: 5843-53-8 MF: C₁₆H₁₈ClN · HCl MW: 296.24 EINECS: 227-434-5

LD₅₀: 103 mg/kg (M, i.p.);

103 mg/kg (R, i.p.)



Reference(s):

FR 1 429 306 (S. I. F. A.; appl. 23.11.1964).

Formulation(s): cps. 30 mg (as hydrochloride)

Trade Name(s):

F: Dinintel (Roussel Diamant; as hydrochloride)

Clobenztropine

(Chlorobenzotropine)

ATC: R06

Use: antihistaminic

RN: 5627-46-3 MF: C₂₁H₂₄ClNO MW: 341.88

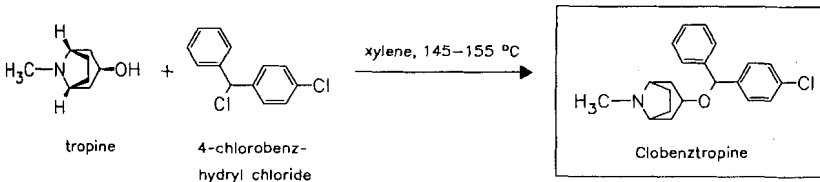
CN: 3-[(4-chlorophenyl)phenylmethoxy]-8-methyl-8-azabicyclo[3.2.1]octane

hydrochloride

RN: 14008-79-8 MF: C₂₁H₂₄ClNO · HCl MW: 378.34

LD₅₀: 174 mg/kg (M, p.o.);

364 mg/kg (R, p.o.)



Reference(s):

US 2 782 200 (Schenley Labs.; 1957; appl. 1955).

alternative synthesis (with 4-chlorodiphenyldiazomethane):

US 2 799 680 (S. Fromer; 1957; appl. 1954).

Trade Name(s):

USA: Teprin (Endo); wfm

Clobetasol propionate

ATC: D07AD01
Use: topical glucocorticoid

RN: 25122-46-7 MF: $C_{25}H_{32}ClFO_5$ MW: 466.98 EINECS: 246-634-3

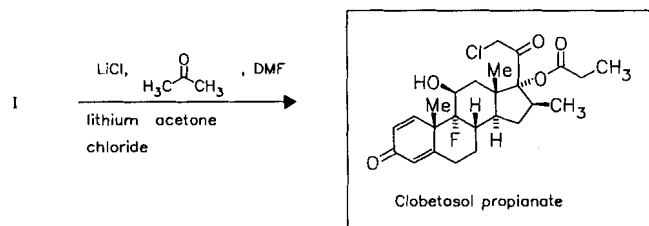
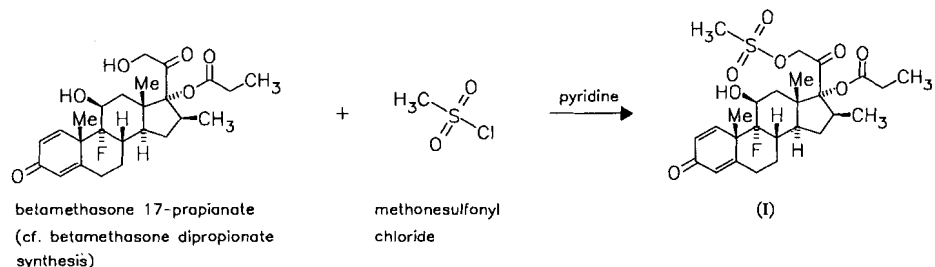
LD₅₀: >3 g/kg (M, p.o.);

>3 g/kg (R, p.o.)

CN: (11 β ,16 β)-21-chloro-9-fluoro-16-methyl-17-(1-oxopropoxy)pregna-1,4-diene-3,20-dione

clobetasol

RN: 25122-41-2 MF: $C_{22}H_{28}ClFO_4$ MW: 410.91 EINECS: 246-633-8

**Reference(s):**

DE 1 902 340 (Glaxo; appl. 17.1.1969; GB-prior. 19.1.1968).

US 3 721 687 (Glaxo; 20.3.1973; GB-prior. 4.4.1968).

Formulation(s): cream 0.05 %; ointment 0.05 %; sol. 0.5 mg/g (0.05 %)

Trade Name(s):

D:	Dermoxin (Glaxo Wellcome/Cascan; 1976)	I:	Clobesol (Glaxo Wellcome)	Myalore (Ohta)
	Dermoxinale (Glaxo Wellcome/Cascan; 1977)	J:	Betaleston (Nihon Yakuin)	Siodelbate (Tatsumi)
	Karison (Dermapharm)		Delspart (Kodama)	Solvega (Hisamitsu)
F:	Dermoval (Glaxo Wellcome)		Dermovate (Glaxo; 1979)	USA: Cormax (Oclassen)
			Entyfluson (Taiyo)	Temovate (Glaxo Wellcome; 1986)
GB:	Dermovate (Glaxo Wellcome; 1973)		Glydil (Shinshin)	
			Mahady (Wukamoto)	

Clobetasone butyrate

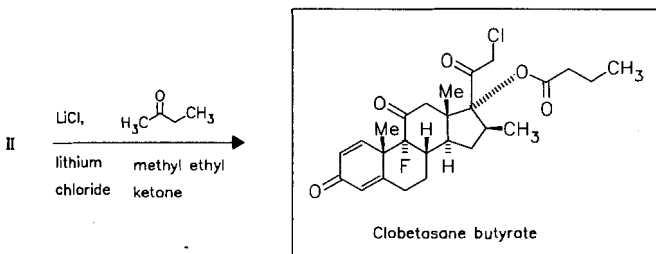
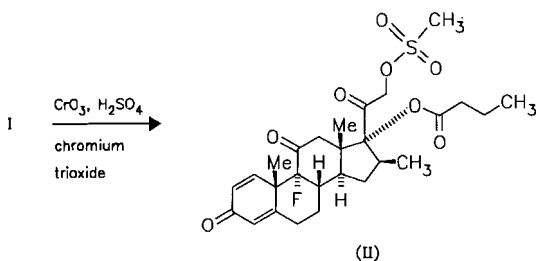
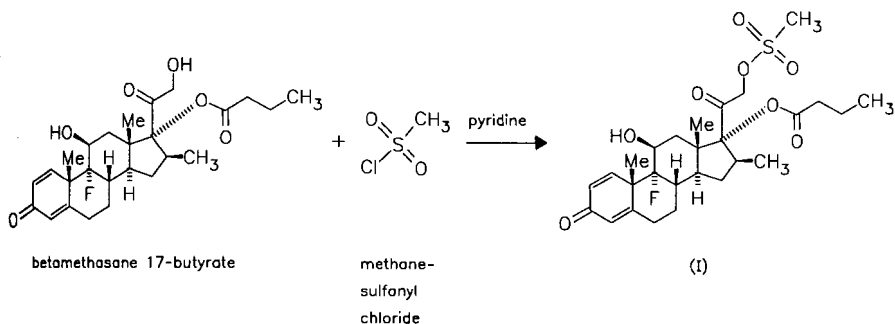
ATC: D07AB01; S01BA09
Use: topical glucocorticoid

RN: 25122-57-0 MF: $C_{26}H_{32}ClFO_5$ MW: 478.99 EINECS: 258-953-5

LD₅₀: >6 g/kg (M, p.o.);

>6 g/kg (R, p.o.)

CN: (16 β)-21-chloro-9-fluoro-16-methyl-17-(1-oxobutoxy)pregna-1,4-diene-3,11,20-trione

clobetasoneRN: 54063-32-0 MF: C₂₂H₂₆ClFO₄ MW: 408.90**Reference(s):**

DE 1 902 340 (Glaxo; appl. 17.1.1969; GB-prior. 19.1.1968).

US 3 721 687 (Glaxo; 20.3.1973; GB-prior. 4.4.1968).

cf. synthesis of betamethasone-17-butyrate

Formulation(s): eye drops 0.1 %; cream, ointment 0.5 mg/g (0.05 %)**Trade Name(s):**

D: Emovate (Glaxo; 1980)

GB: Clobuvate (Dominion)

Eumovate (Glaxo
Wellcome; 1975)

Trimovate (Glaxo

Wellcome)-comb.

I: Eumovate (Glaxo; 1983)

Visucloben (Merck Sharp
& Dohme)

J: Kindavate (Glaxo; 1984)

Clobutinol

ATC: R05DB03

Use: antitussive

RN: 14860-49-2 MF: C₁₄H₂₂ClNO MW: 255.79 EINECS: 238-926-4LD₅₀: 53 mg/kg (M, i.v.); 334 mg/kg (M, p.o.);

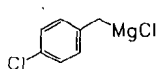
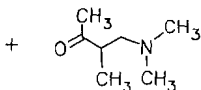
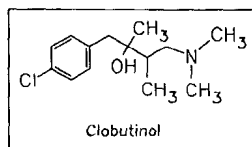
63 mg/kg (R, i.v.); 802 mg/kg (R, p.o.);

45.3 mg/kg (dog, i.v.)

CN: 4-chloro- α -[2-(dimethylamino)-1-methylethyl]- α -methylbenzeneethanol**hydrochloride**RN: 1215-83-4 MF: C₁₄H₂₂ClNO · HCl MW: 292.25 EINECS: 214-931-7LD₅₀: 40.9 mg/kg (M, i.v.); 334 mg/kg (M, p.o.);

63 mg/kg (R, i.v.); 802 mg/kg (R, p.o.);

45.3 mg/kg (dog, i.v.)

4-chlorobenzyl-
magnesium chloride4-dimethylamino-
3-methyl-2-butanone

Clobutinol

Reference(s):

DE 1 146 068 (Thomae; appl. 21.3.1959).

DE 1 150 686 (Thomae; appl. 12.5.1960).

US 3 121 087 (Thomae; 11.2.1964; prior. 18.3.1960, 28.6.1961).

Engelhorn, R.: *Arzneim.-Forsch. (ARZNAD)* **10**, 794 (1960).**alternative synthesis:**

DE 1 153 380 (Thomae; appl. 21.5.1959).

Formulation(s): amp. 20 mg/2 ml; drg. 40 mg; cps. 40 mg, 80 mg; drops 40 mg/0.67 ml; syrup 40 mg/10 ml (as hydrochloride)

Trade Name(s):

D:	Mentopin (Hermes)	Silomat (Boehringer Ing.)	Silomat compositum
	Nullatuss (Pharma	Tussamed (Hexal)	(Fher)-comb.
	Wernigerode)	F:	Silomat (Boehringer Ing.)
	Rotafuss (MIP Pharma)	I:	Silomat (Fher)
		J:	Silomat (Morishita)

Clocapramine

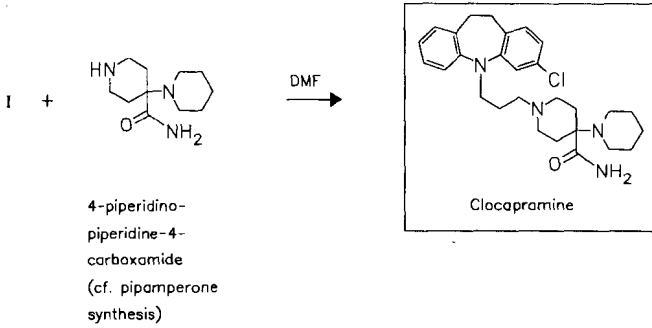
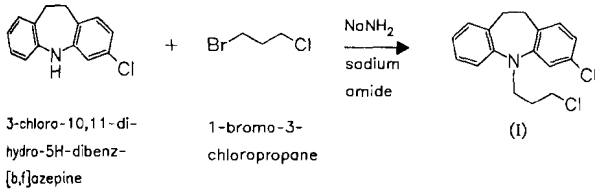
ATC: S01B

Use: thymoleptic

RN: 47739-98-0 MF: C₂₈H₃₇ClN₄O MW: 481.08

CN: 1'-[3-(3-chloro-10,11-dihydro-5H-dibenz[b,f]azepin-5-yl)propyl][1,4'-bipiperidine]-4'-carboxamide

hydrochloride hydrateRN: 28058-62-0 MF: C₂₈H₃₈Cl₂N₄O · HCl · H₂O MW: 572.02



Reference(s):
 DOS 1 905 765 (Yoshitomi; appl. 6.2.1969; J-prior. 7.2.1968).
 US 3 668 210 (Yoshitomi; 6.6.1972; J-prior. 7.2.1968).

Formulation(s): tabl. 10 mg, 25 mg (as hydrochloride)

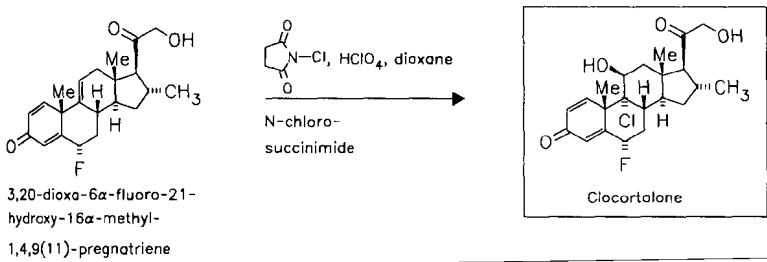
Trade Name(s):
 J: Clofekton (Yoshitomi-Takeda; 1974)

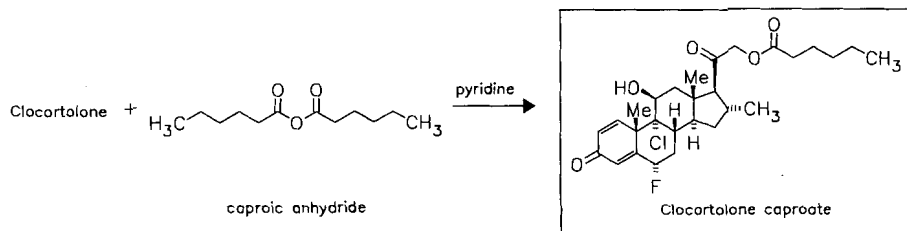
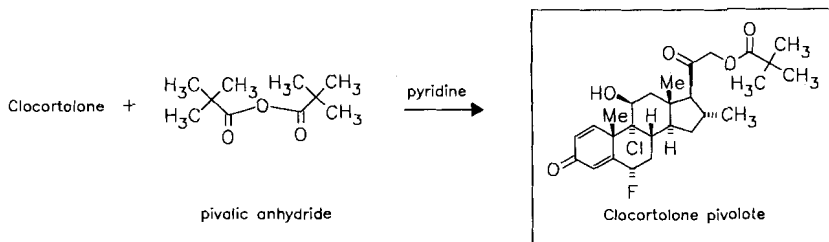
Clocortolone

ATC: D07AB21
 Use: glucocorticoid

RN: 4828-27-7 MF: C₂₂H₂₈ClFO₄ MW: 410.91 EINECS: 225-406-7
 CN: (6 α ,11 β ,16 α)-9-chloro-6-fluoro-11,21-dihydroxy-16-methylpregna-1,4-diene-3,20-dione

pivalate
 RN: 34097-16-0 MF: C₂₇H₃₆ClFO₅ MW: 495.03 EINECS: 251-826-5
caproate
 RN: 4891-71-8 MF: C₂₈H₃₈ClFO₅ MW: 509.06 EINECS: 225-513-9



**Reference(s):**

NL-appl. 6 412 708 (Schering AG; appl. 2.11.1964; D-prior. 9.11.1963).

FR 6 752 M (Schering AG; appl. 9.11.1966; D-prior. 9.11.1965).

synthesis of starting compound:

DOS 1 913 042 (Schering AG; appl. 11.3.1969).

alternative synthesis:

DOS 2 011 559 (Schering AG; appl. 7.3.1970).

Formulation(s): cream 1 mg/g**Trade Name(s):**

D: Crino-Kaban (Asche; as pivalate-comb.)
Kaban (Asche; as pivalate and capronate-comb.)

Kabanimat (Asche; as pivalate and capronate)
Procto Kaban (Asche; as capronate)-comb.

I: Cilder (Cilag; as pivalate); wfm
USA: Cloderm (Penederm; as pivalate)

Clodantoin

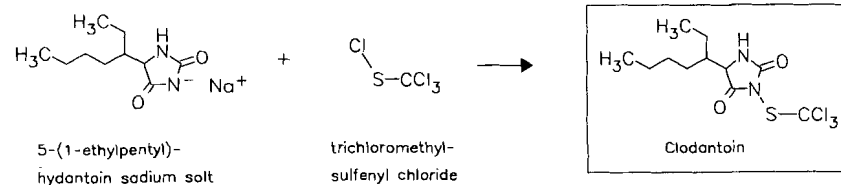
(Chlordantoin)

ATC: G01AX01

Use: fungicide

RN: 5588-20-5 MF: C₁₁H₁₇Cl₃N₂O₂S MW: 347.69 EINECS: 226-995-3LD₅₀: >1165 mg/kg (R, p.o.)

CN: 5-(1-ethylpentyl)-3-[(trichloromethyl)thio]-2,4-imidazolidinedione

**Reference(s):**

US 2 553 770 (Standard Oil; 1951; prior. 1949).

Formulation(s): cream; gel; powder

Trade Name(s):

GB: Sporostacin (Ortho); wfm USA: Sporostacin (Ortho)-comb.;
J: Gynelan (Eisai)-comb. wfm

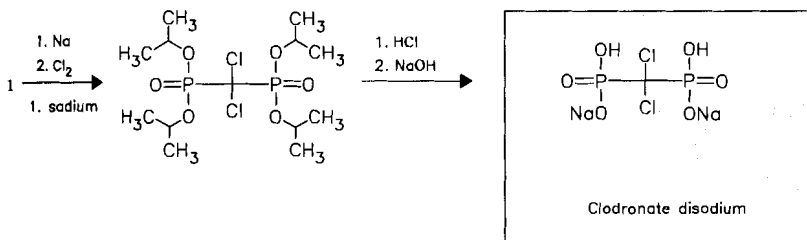
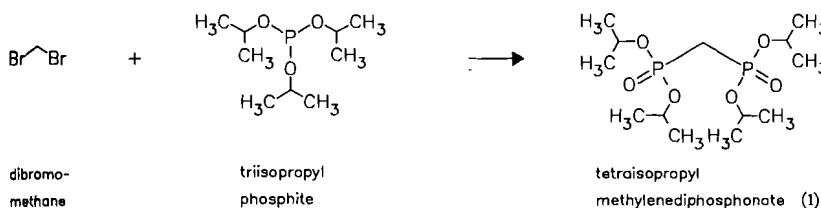
Clodronate disodium
(Clodronic acid disodium salt)

ATC: M05BA02
Use: calcium metabolism regulator

RN: 22560-50-5 MF: $\text{CH}_2\text{Cl}_2\text{Na}_2\text{O}_6\text{P}_2$ MW: 288.86 EINECS: 245-078-9
CN: (dichloromethylene)bis(phosphonic acid) disodium salt

free acid

RN: 10596-23-3 MF: $\text{CH}_4\text{Cl}_2\text{O}_6\text{P}_2$ MW: 244.89 EINECS: 234-212-1



Reference(s):

DOS 1 467 655 (Procter & Gamble; appl. 17.3.1964; USA-prior. 18.3.1963).
DOS 1 793 768 (Procter & Gamble; appl. 17.3.1964; USA-prior. 18.3.1963).
US 3 404 178 (Procter & Gamble; 1.10.1968; appl. 18.3.1963, 7.10.1965).
US 3 422 021 (Procter & Gamble; 14.1.1969; appl. 18.3.1963).
Quimby, O.F. et al.: J. Org. Chem. (JOCEAH) **32**, 4111 (1967).

alternative synthesis:

McKenna, C.E. et al.: Phosphorus sulfur **37**, 1 (1998)

Formulation(s): amp. 300 mg/5 ml, 300 mg/10 ml; cps. 400 mg; f. c. tabl. 520 mg, 800 mg

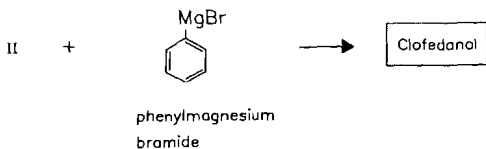
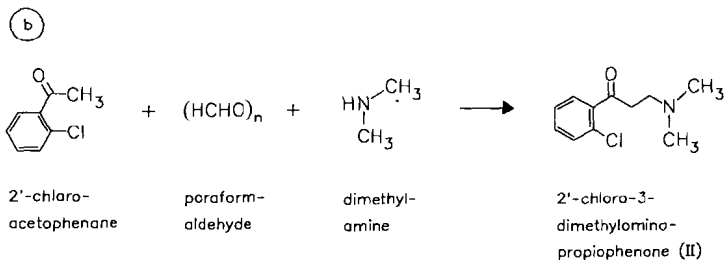
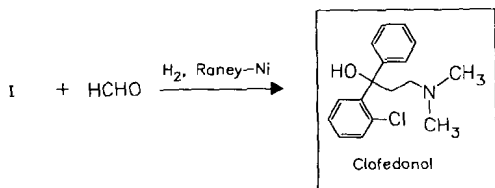
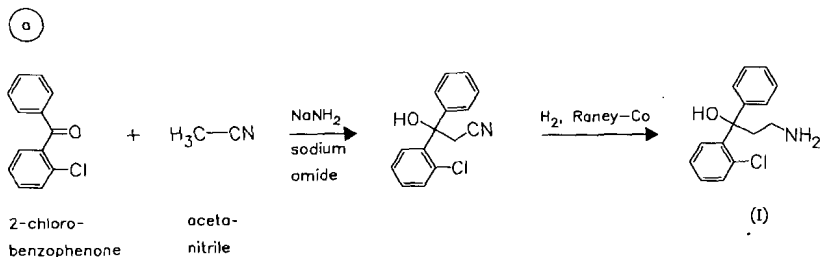
Trade Name(s):

D: Bonefos (Astra; medac)	F: Clastoban (Rorer; Roger Bellon)	I: Clasteon (Gentili)
Ostac (Roche; 1988)	Cytos (Roche)	Difosfonal (SPA)
		Ossiten (Roche)

Clofedanol
(Chlophedianol)ATC: R05DB10
Use: antitussiveRN: 791-35-5 MF: C₁₇H₂₀ClNO MW: 289.81 EINECS: 212-340-9LD₅₀: 70 mg/kg (M, i.v.); 300 mg/kg (M, p.o.)CN: 2-chloro- α -[2-(dimethylamino)ethyl]- α -phenylbenzenemethanol**hydrochloride**RN: 511-13-7 MF: C₁₇H₂₀ClNO · HCl MW: 326.27 EINECS: 208-124-9LD₅₀: 42 mg/kg (M, i.v.); 284 mg/kg (M, p.o.);

53 mg/kg (R, i.v.); 350 mg/kg (R, p.o.);

84 mg/kg (dog, p.o.)

**Reference(s):**

DE 1 080 568 (Bayer; appl. 8.1.1958).

DE 1 083 277 (Bayer; appl. 19.3.1958).

US 3 031 377 (Bayer; 24.4.1962; appl. 26.11.1957).

Formulation(s): syrup 25 mg, 30 mg; tabl. 12.5 mg (as hydrochloride)

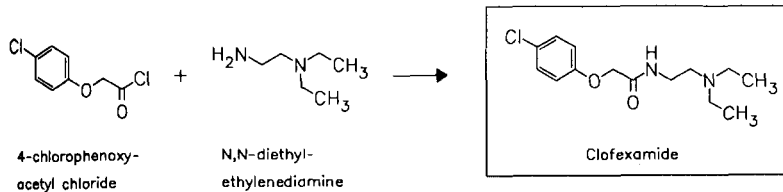
Trade Name(s):

D: Dicton (Dolorgiet)-comb.; wfm
 Pectolitan (Kettelhack-Riker); wfm
 I: Soltux (Corvi)-comb.
 J: Coldrin (Nippon Shinyaku)
 F: Tussiplégyl (Bayer); wfm
 USA: Ulo (Riker); wfm

Clofexamide

ATC: N06B
 Use: psychoanaesthetic

RN: 1223-36-5 MF: C₁₄H₂₁ClN₂O₂ MW: 284.79 EINECS: 214-951-6
 CN: 2-(4-chlorophenoxy)-N-[2-(diethylamino)ethyl]acetamide

**Reference(s):**

GB 942 761 (Centre National de la Recherche Scientifique; appl. 8.4.1960; F-prior. 15.4.1959, 30.7.1959).

Formulation(s): tabl. 50 mg, 400 mg

Trade Name(s):

F: Clofexan à la noramidopyrine (Anphar)-comb.; wfm

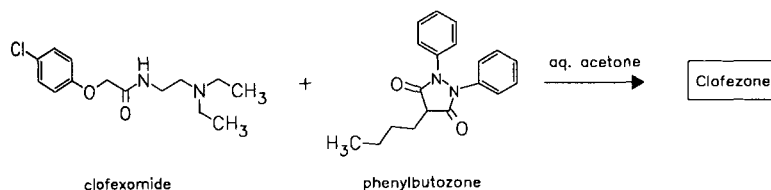
Clofezone

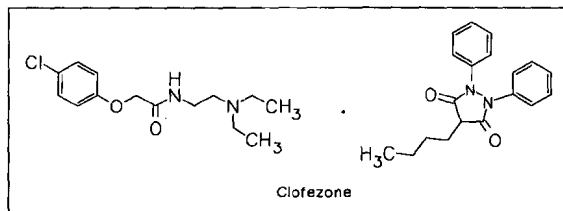
ATC: M01AA05; M02AA03
 Use: anti-inflammatory, antirheumatic

RN: 17449-96-6 MF: C₁₉H₂₀N₂O₂ · C₁₄H₂₁ClN₂O₂ MW: 593.17 EINECS: 241-466-7
 LD₅₀: 1700 mg/kg (M, p.o.); 1950 mg/kg (R, p.o.)
 CN: 2-(4-chlorophenoxy)-N-[2-(diethylamino)ethyl]acetamide compd. with 4-butyl-1,2-diphenyl-3,5-pyrazolidinedione (1:1)

dihydrate

RN: 60104-29-2 MF: C₁₉H₂₀N₂O₂ · C₁₄H₂₁ClN₂O₂ · 2H₂O MW: 629.20



**Reference(s):**

US 3 491 190 (P. Rumpf, J.-E., G. Thuillier; 20.1.1970; F-prior. 8.9.1965).

Formulation(s): cps. 200 mg, 400 mg; ointment 5 g/100 g; suppos. 400 mg

Trade Name(s):

D:	Perclusone (Mack, Illert.); wfm	F:	Perclusone (Serb)-comb.	J:	Panas (Grelan)
		I:	Perclusone (Marxer); wfm		

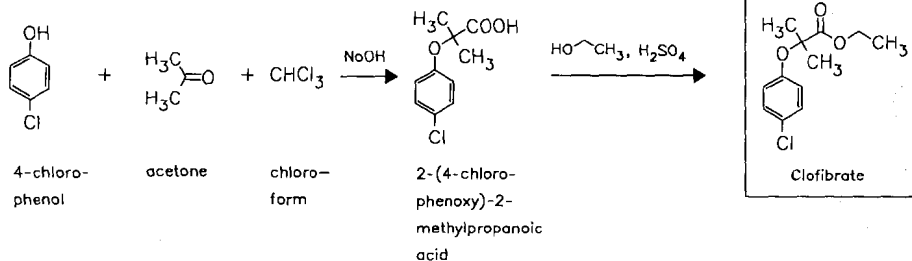
Clofibrate

ATC: C01AB01

Use: cholesterol depressant, antihyperlipidemic, antiarteriosclerotic

RN: 637-07-0 MF: C₁₂H₁₅ClO₃ MW: 242.70 EINECS: 211-277-4

CN: 2-(4-chlorophenoxy)-2-methylpropanoic acid ethyl ester

**Reference(s):**

Julia, M. et al.: Bull. Soc. Chim. Fr. (BSCFAS) **1956**, 777.

US 3 262 850 (ICI; 26.7.1966; GB-prior. 20.6.1958).

Formulation(s): cps. 250 mg, 500 mg

Trade Name(s):

D:	Regelan N 500 (Zeneca)	Atemarol (Kowa Yakuhin)	Cholestol (Toho)
F:	Lipavlon (Zeneca)	Athebrate (Kakenyaku)	Cholesrun (Hokuriku)
GB:	Atromid S (Zeneca)	Atherolate (Fuji Zoki)	Clarol (Toyama)
I:	Sinteroid (Crinos)	Atheromide (Ono)	Clobrate (Chugai)
J:	Amotril (Sumitomo)	Atmol (Taisho)	Clobren (Morishita)
	Apoterin A (Seiko)	Atosterine (Kanto)	Clofbate (Mohan)
	Arthard (Nissin)	Auparton (Samva)	Climinon (Meiji)
	Ateculon (Nippon Chemiphar)	Binograc (Zeria)	Deliva (Nippon Kayaku)
	Ateles (Tokyo Hosei)	Bresit (Toyo Jozo)	Hyclorate (Funay)
		Cholenal (Yamanouchi)	Hypocerol (Fuso)

Liprinal (Banyu)

Scrobin (Nikken)

USA: Atromid S (Wyeth-Ayerst)

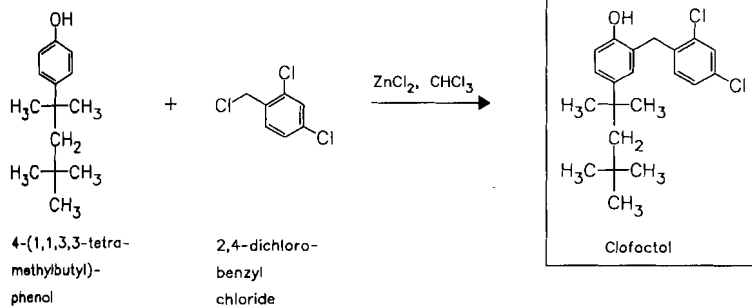
Clofoctol

ATC: J01XX03; R07A

Use: antibacterial (in respiratory infections)

RN: 37693-01-9 MF: $C_{21}H_{26}Cl_2O$ MW: 365.34 EINECS: 253-632-6LD₅₀: >4000 mg/kg (R, p.o.)

CN: 2-[(2,4-dichlorophenyl)methyl]-4-(1,1,3,3-tetramethylbutyl)phenol

*Reference(s):*

FR 1 602 455 (I. R. C. E. B. A.; appl. 21.8.1968; GB-prior. 31.8.1967).

US 3 830 852 (I. R. C. E. B. A.; 20.8.1974; F-prior. 18.8.1970).

DOS 2 140 765 (I. R. C. E. B. A.; appl. 13.8.1971; F-prior. 18.8.1970).

preparation of 4-(1,1,3,3-tetramethylbutyl)phenol:

US 2 726 270 (Dow Chem.; 1951).

DE 842 073 (Reichhold Chem. Inc.; 1950).

US 2 732 448 (California Research Corp.; 1953).

US 2 572 019 (DuPont de Nemours & Co.; 1950).

further patents are described before 1950.

Formulation(s): suppos. 100 mg, 200 mg, 750 mg*Trade Name(s):*

F: Octofène (Débat; 1978)

I: Gramplus (Chiesi)

Octofene (Roussel; 1985)

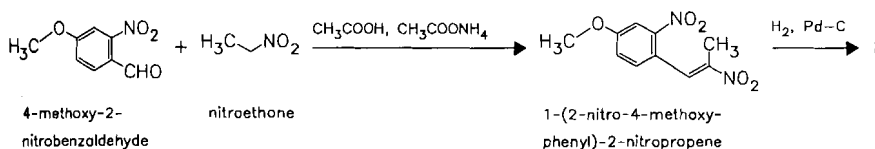
Clometacin

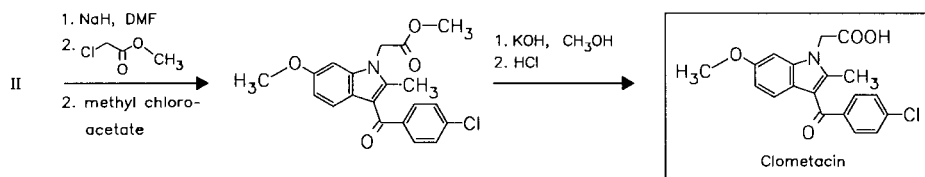
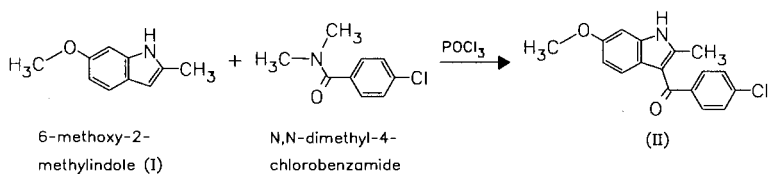
ATC: N02

Use: anti-inflammatory, analgesic

RN: 25803-14-9 MF: $C_{19}H_{16}ClNO_4$ MW: 357.79 EINECS: 247-271-3LD₅₀: 1 g/kg (M, p.o.)

CN: 3-(4-chlorobenzoyl)-6-methoxy-2-methyl-1H-indole-1-acetic acid



**Reference(s):**

DE 1 901 167 (Roussel-Uclaf; appl. 10.1.1969; F-prior. 11.1.1968, 10.4.1968, 10.9.1968, 11.9.1968, 10.12.1968).

Formulation(s): tabl. 150 mg**Trade Name(s):**

F.: Dupéran (Cassenne); wfm

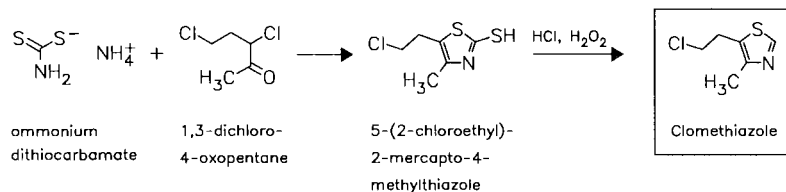
Clomethiazole

ATC: N05CM02

Use: anticonvulsant, hypnotic, sedative

RN: 533-45-9 MF: $\text{C}_6\text{H}_8\text{ClNS}$ MW: 161.66 EINECS: 208-565-7LD₅₀: 94 mg/kg (M, i.v.); 2110 mg/kg (M, p.o.)

CN: 5-(2-chloroethyl)-4-methylthiazole

ethanedisonate (2:1)RN: 1867-58-9 MF: $\text{C}_6\text{H}_8\text{ClNS} \cdot 1/2\text{C}_2\text{H}_6\text{O}_6\text{S}_2$ MW: 513.51 EINECS: 217-483-0LD₅₀: 150 mg/kg (M, i.v.); 835 mg/kg (M, p.o.)**Reference(s):**

CH 200 248 (Roche; 1937).

sulfonate:

US 3 031 457 (R. Charonnat, J. Chareton, A. Boune; 24.4.1962; F-prior. 28.9.1955).

alternative syntheses:Buchman, E.R.: J. Am. Chem. Soc. (JACSAT) **58**, 1803 (1936).Sawa, Y.; Ishida, T.: Yakugaku Zasshi (YKKZAJ) **76**, 337 (1956).**Formulation(s):** amp. 0.8 % (as ethanedisonate); cps. 192 mg, 300 mg; syrup 320 mg/10 ml; tabl. 500 mg

Trade Name(s):

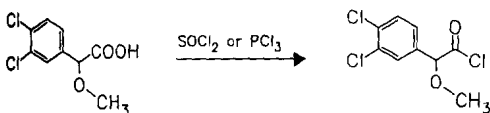
D: Distraneurin (Astra) F: Hémineurine (Débat); wfm GB: Héminevrin (Astra)

Clometocillin

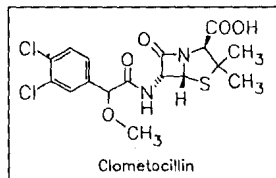
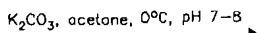
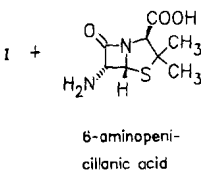
(Chlometocillin)

ATC: J01CE07

Use: antibiotic

RN: 1926-49-4 MF: $C_{17}H_{18}Cl_2N_2O_5S$ MW: 433.31 EINECS: 217-657-6CN: [2*S*-(2 α ,5 α ,6 β)]-6-[[3,4-dichlorophenyl)methoxyacetyl]amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid**monopotassium salt**RN: 15433-28-0 MF: $C_{17}H_{17}Cl_2KN_2O_5S$ MW: 471.403,4-dichloro- α -methoxyphenylacetic acid

(1)

**Reference(s):**

US 3 007 920 (Recherche Industrie Therapeutiques; 7.11.1961; GB-prior. 28.10.1960).

Formulation(s): tabl. 500 mg**Trade Name(s):**

F: Rixapen (Smith Kline & French); wfm

Clomifene

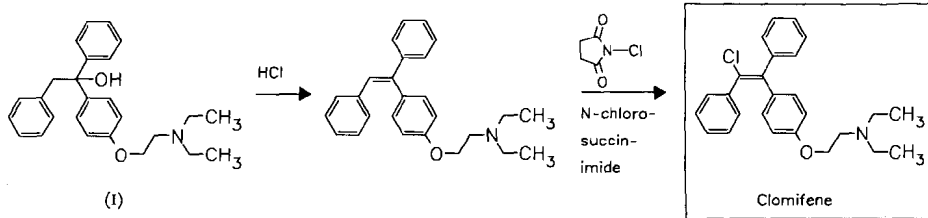
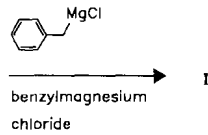
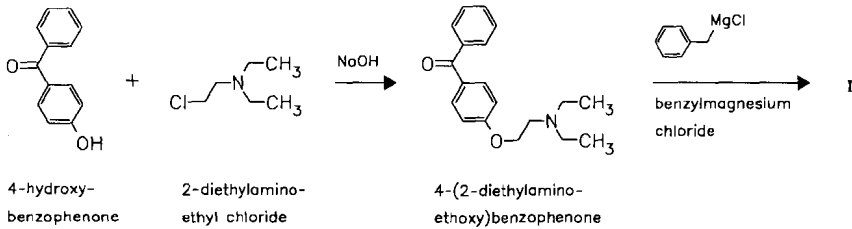
(Clomiphene)

ATC: G03GB02

Use: synthetic gonadotropin stimulant, antiestrogen

RN: 911-45-5 MF: $C_{26}H_{28}ClNO$ MW: 405.97 EINECS: 213-008-6LD₅₀: 1700 mg/kg (M, p.o.)CN: 2-[4-(2-chloro-1,2-diphenylethenyl)phenoxy]-*N,N*-diethylethanamine**citrate (1:1)**RN: 50-41-9 MF: $C_{26}H_{28}ClNO \cdot C_6H_8O_7$ MW: 598.09 EINECS: 200-035-3LD₅₀: 1400 mg/kg (M, p.o.);

5750 mg/kg (R, p.o.)

**Reference(s):**

US 2 914 563 (Merrell; 24.11.1959; prior. 6.8.1957).

medical use:

BE 782 321 (Richardson-Merrell; appl. 19.4.1971).

Formulation(s): cps. 50 mg; tabl. 50 mg (as citrate)

Trade Name(s):

D:	Clomhexal (Hexal)	GB:	Clomid (Hoechst)	Orifen (Iwaki)
	Dynceric (Henning Berlin)		Serophene (Hoechst)	USA:
	Pergotime (Serono)	I:	Clomid (Lepetit)	Clomid (Hoechst Marion
F:	Clomid (Marion Merrell)		Prolifen (Chiesi)	Roussel; as citrate)
	Pergotime (Serono)	J:	Clomid (Shionogi)	Serophene (Serono)

Clomipramine

ATC: N06AA04

Use: antidepressant

RN: 303-49-1 MF: $\text{C}_{19}\text{H}_{23}\text{ClN}_2$ MW: 314.86 EINECS: 206-144-2

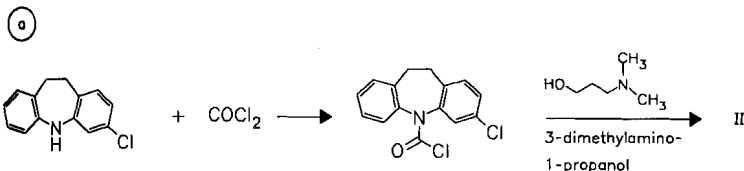
LD_{50} : 27 mg/kg (M, i.v.); 380 mg/kg (M, p.o.);
613 mg/kg (R, p.o.)

CN: 3-chloro-10,11-dihydro-*N,N*-dimethyl-5*H*-dibenz[*b,f*]azepine-5-propanamine

monohydrochloride

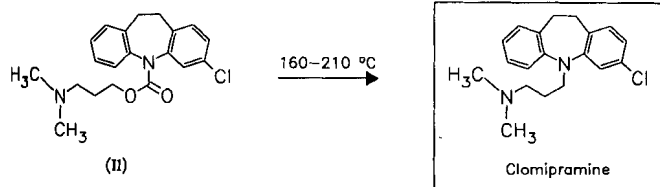
RN: 17321-77-6 MF: $\text{C}_{19}\text{H}_{23}\text{ClN}_2 \cdot \text{HCl}$ MW: 351.32 EINECS: 241-344-3

LD_{50} : 22 mg/kg (M, i.v.); 470 mg/kg (M, p.o.);
26 mg/kg (R, i.v.); 914 mg/kg (R, p.o.);
32 mg/kg (dog, i.v.); 383 mg/kg (dog, p.o.)

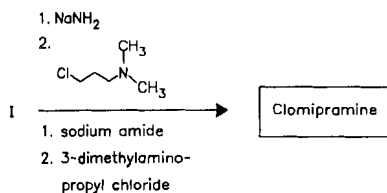


3-chloro-10,11-dihydro-5H-dibenz[b,f]azepine (I)

phosgene



b



Reference(s):

US 3 515 785 (Geigy; 2.6.1970; CH-prior. 6.12.1958; 12.1.1959).
 DE 1 161 278 (Geigy; appl. 5.12.1959; CH-prior. 6.12.1958, 12.1.1959).
 CH 371 799 (Geigy; appl. 6.12.1958).
 Craig, P.N. et al.: J. Org. Chem. (JOCEAH) **26**, 135 (1961).

starting material:

DE 1 166 200 (Geigy; appl. 1959; CH-prior. 1958, 1959).
 US 3 056 774 (Geigy; 1962; CH-prior. 1958).
 US 3 056 776 (Geigy; 1962; CH-prior. 1959).

Formulation(s): amp. 25 mg/2 ml; drg. 25 mg; f. c. tabl. 10 mg, 25 mg; s. r. tabl. 75 mg

Trade Name(s):

D:	Anafranil (Novartis)	F:	Anafranil (Novartis)	J:	Anafranil (Fujisawa)
	Hydiphen (ASTA Medica)	GB:	Anafranil (Novartis)	USA:	Anafranil (Novartis; as hydrochloride)
	AWD)	I:	Anafranil (Geigy)		

Clomocycline

(Chlormethylencycline; Clomociclina)

ATC: J01AA11
 Use: antibiotic

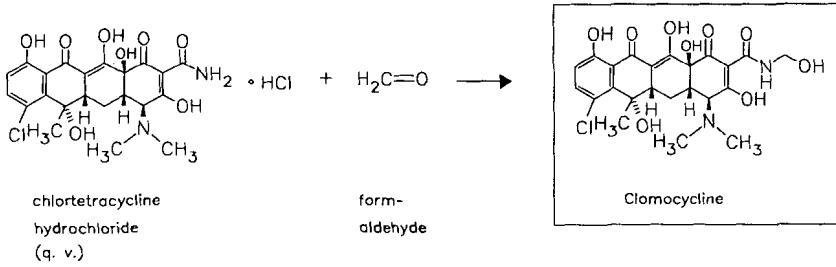
RN: 1181-54-0 MF: C₂₃H₂₅ClN₂O₉ MW: 508.91

LD₅₀: 115 mg/kg (M, i.v.); 2830 mg/kg (M, p.o.)

CN: [4S-(4 α ,4a α ,5a α ,6 β ,12a α)]-7-chloro-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,6,10,12,12a-pentahydroxy-N-(hydroxymethyl)-6-methyl-1,11-dioxo-2-naphthacencarboxamide

sodium salt

RN: 68-20-2 MF: C₂₃H₂₄ClN₂NaO₉ MW: 530.89

*Reference(s):*

BE 628 142 (Leo Ind. Chim. Farm. S.p.A.; appl. 7.2.1963).

Formulation(s): cps. 170 mg (as sodium salt)*Trade Name(s):*

GB: Megaclor (Pharmax); wfm I: Megaclor (Pharmax); wfm

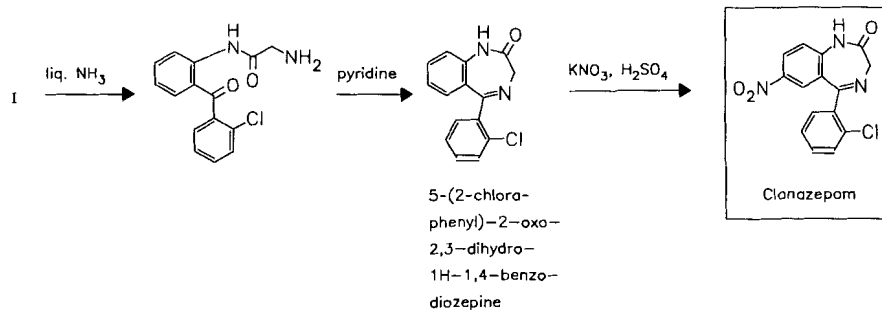
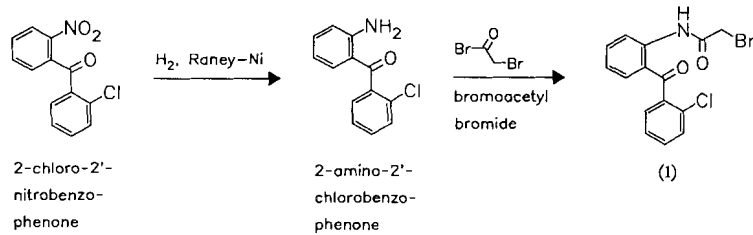
Clonazepam

ATC: N03AE01

Use: anticonvulsant

RN: 1622-61-3 MF: C₁₅H₁₀ClN₃O₃ MW: 315.72 EINECS: 216-596-2

CN: 5-(2-chlorophenyl)-1,3-dihydro-7-nitro-2H-1,4-benzodiazepin-2-one

*Reference(s):*

Sternbach, L.H. et al.: J. Med. Chem. (JMCMAR) 6, 261 (1963).
 US 3 116 203 (Hoffmann-La Roche; 31.12.1963; prior. 14.3.1962).
 US 3 123 529 (Hoffmann-La Roche; 3.3.1964; prior. 9.3.1962).
 US 3 121 114 (Roche; 11.2.1964; CH-prior. 2.12.1960).
 US 3 203 990 (Roche; 31.8.1965; prior. 27.6.1960, 20.4.1961, 21.3.1962).
 US 3 335 181 (Roche; 8.8.1967; appl. 17.4.1964).

Formulation(s): amp. 1 mg/ml; sol. 2.5 mg/ml; tabl. 0.25 mg, 0.5 mg, 1 mg, 2 mg

Trade Name(s):

D: Antalepsin (ASTA Medica AWD)
Rivotril (Roche)

F: Rivotril (Roche)

GB: Rivotril (Roche)

I: Rivotril (Roche)

USA: Klonopin (Roche Labs.)

Clonidine

ATC: C02AC01; N02CX02; S01EA04
Use: antihypertensive

RN: 4205-90-7 MF: C₉H₉Cl₂N₃ MW: 230.10 EINECS: 224-119-4

CN: *N*-(2,6-dichlorophenyl)-4,5-dihydro-1*H*-imidazol-2-amine

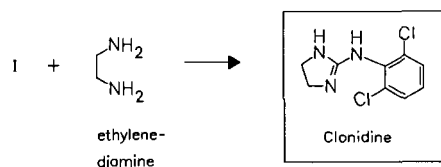
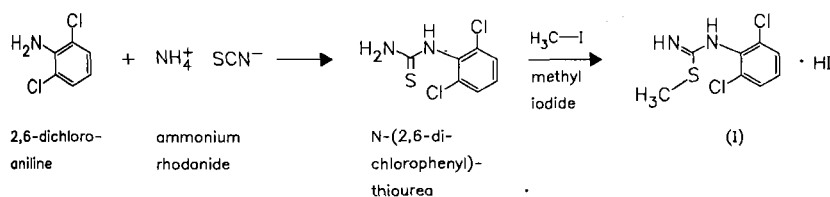
monohydrochloride

RN: 4205-91-8 MF: C₉H₉Cl₂N₃ · HCl MW: 266.56 EINECS: 224-121-5

LD₅₀: 17.6 mg/kg (M, i.v.); 135 mg/kg (M, p.o.);

29 mg/kg (R, i.v.); 126 mg/kg (R, p.o.);

6 mg/kg (dog, i.v.); 30 mg/kg (dog, p.o.)

**Reference(s):**

DE 1 303 141 (Boehringer Ing.; appl. 9.10.1961).
US 3 202 660 (Boehringer Ing.; 24.8.1965; D-prior. 9.10.1961).
US 3 236 857 (Boehringer Ing.; 22.2.1966; D-prior. 9.10.1961, 4.10.1963).
BE 653 933 (Boehringer Ing.; appl. 2.10.1964; D-prior. 4.10.1963; 31.7.1964).
GB 1 016 514 (Boehringer Ing.; appl. 2.10.1962; D-prior. 9.10.1961).
GB 1 034 938 (Boehringer Ing.; appl. 28.9.1964; D-prior. 4.10.1963; addition to GB 1 016 514).

alternative syntheses:

DAS 1 770 874 (VEB Arzneimittelwerke Dresden; appl. 12.7.1968).
DAS 2 505 297 (Lentia; appl. 7.2.1975; A-prior. 5.4.1974).

Formulation(s): eye drops 0.625 mg/ml, 1.25 mg/ml; inj. sol. 0.15 mg/1 ml, 0.75 mg/ml; s. r. cps. 0.25 mg; tabl. 0.075 mg, 0.15 mg, 0.3 mg

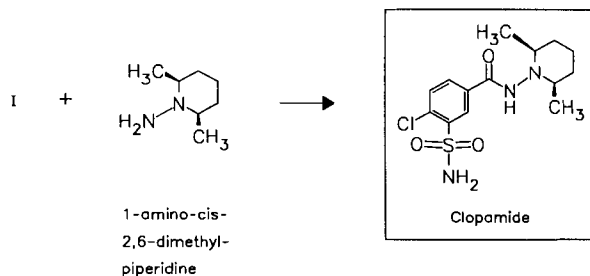
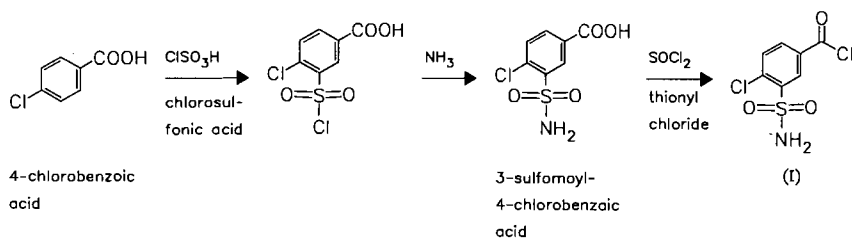
Trade Name(s):

D: Aruclonin (Chauvin ankerpharm)
Catapresan (Boehringer Ing.)
Combipresan (Boehringer Ing.)-comb.
Dispaclonidin (CIBA Vision)

F: Dixarit (Boehringer Ing.)
Haemiton (ASTA Medica AWD)
Haemiton (ASTA Medica AWD)-comb.
Isoglaucan (Alcon)
Mirfat (Merckle)
Paracefan (Boehringer Ing.)

GB: Catapres (Boehringer Ing.)
Dixarit (Boehringer Ing.)

I: Adesipress (Carlo Erba)
Catapresan (Boehringer Ing.)-comb.

Combipresan (Boehringer
Ing.)Isoglaucan (Boehringer
Ing.; as hydrochloride)J: Catapres (Tanabe)
USA: Catapres (Boehringer Ing.)**Clopamide**ATC: C03BA03
Use: diureticRN: 636-54-4 MF: C₁₄H₂₀ClN₃O₃S MW: 345.85 EINECS: 211-261-7
CN: *cis*-3-(aminosulfonyl)-4-chloro-*N*-(2,6-dimethyl-1-piperidyl)benzamide**Reference(s):**

Jucker, E.; Lindenmann, A.: *Helv. Chim. Acta (HCACAV)* **45**, 2316 (1962).
 CH 412 891 (Sandoz; appl. 6.6.1961; addition to CH 396 905).
 CH 396 905 (Sandoz; appl. 9.11.1960).
 CH 436 288 (Sandoz; appl. 11.6.1963).

combination with dihydroergocristine and reserpine:

US 3 567 828 (Sandoz; 2.3.1971; appl. 12.8.1968; CH-prior. 17.8.1967).
 DAS 1 792 271 (Sandoz; appl. 13.8.1968; CH-prior. 17.8.1967).

Formulation(s): drg. 2.5 mg, 5 mg (comb. with reserpine); tabl. 20 mg

Trade Name(s):

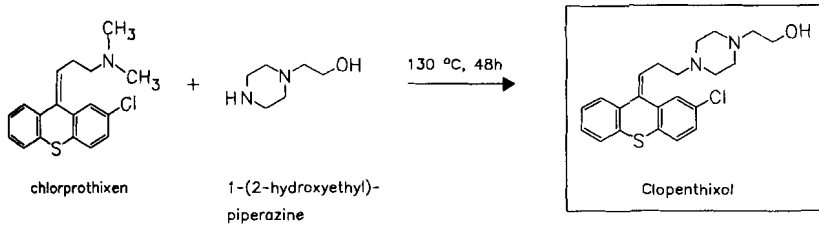
D:	Brinaldix (Novartis Pharma)	Viskaldix (Novartis Pharma)-comb.	I:	Brinerdina (Sandoz)-comb.	
	Briserin/mite (Novartis Pharma)-comb.	F:	Viskaldix (Sandoz)-comb.	USA:	Brinaldix (Sandoz); wfm
		GB:	Viskaldix (Novartis)-comb.		

ClophenthixolATC: N05AF02
Use: neuroleptic

RN: 982-24-1 MF: C₂₂H₂₅ClN₂OS MW: 400.97 EINECS: 213-566-0
 LD₅₀: 226 mg/kg (M, i.p.)
 CN: 4-[3-(2-chloro-9*H*-thioxanthen-9-ylidene)propyl]-1-piperazineethanol

dihydrochlorideRN: 633-59-0 MF: C₂₂H₂₅ClN₂OS · 2HCl MW: 473.90 EINECS: 211-194-3LD₅₀: 111 mg/kg (M, i.v.); 560 mg/kg (M, p.o.);

125 mg/kg (R, i.v.); 660 mg/kg (R, p.o.)

**Reference(s):**

US 3 116 291 (Kefalas; 31.12.1963; DK-prior. 4.12.1958).

DE 1 231 254 (Kefalas; appl. 1960; DK-prior. 1959).

US 3 149 103 (Kefalas A/S; 15.9.1964; DK-prior. 14.7.1959).

GB 932 494 (Kefalas; appl. 3.12.1959; DK-prior. 4.12.1958, 14.8.1959).

alternative syntheses:

DE 1 443 983 (Roche; appl. 16.1.1962; CH-prior. 8.2.1961, 30.3.1961).

DE 1 795 506 (Kefalas; appl. 3.12.1959; DK-prior. 4.12.1958, 14.8.1959).

DOS 1 918 739 (Egyesült; appl. 12.4.1969; H-prior. 12.4.1968).

separation of isomers:

DAS 2 429 101 (Kefalas; appl. 18.6.1974; GB-prior. 25.6.1973).

Formulation(s): amp. 10 mg/ml, 25 mg/ml; drg. 10 mg, 25 mg; tabl. 25 mg (as dihydrochloride)**Trade Name(s):**

D: Ciatyl (Bayer Vital)

GB: Clopixol (Lundbeck)

I: Sordinol (Pierrel)

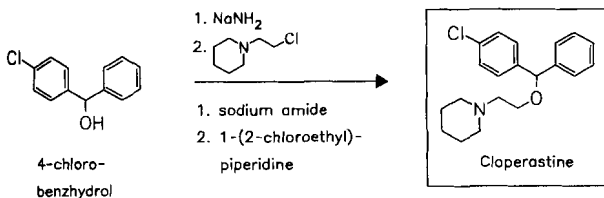
Cloperastine

ATC: R05DB21

Use: antitussive

RN: 3703-76-2 MF: C₂₀H₂₄ClNO MW: 329.87 EINECS: 223-042-3LD₅₀: 439 mg/kg (g.p., route unreported)

CN: 1-[2-[(4-chlorophenyl)phenylmethoxy]ethyl]piperidine

**Reference(s):**

GB 670 622 (Parke Davis; appl. 1948; CH-prior. 1947).

salt with 2-[(6-hydroxy[1,1'-biphenyl]-3-yl)carbonyl]benzoic acid:

GB 1 179 945 (Yoshitomi; appl. 7.7.1967; J-prior. 7.7.1966; 16.8.1966, 15.11.1966 and 1.3.1967).

Formulation(s): syrup 0.2 %; tabl. 5 mg, 10 mg, 20 mg

Trade Name(s):

I: Nitossil (Zyma)
Risoltuss (Magis)J: Seki (Astra-Simes)
Hustazol (Yoshitomi)**Clopidogrel hydrogensulfate**

(SR-25990C)

ATC: B01AC04

Use: platelet anti-aggregatory

RN: 120202-66-6 MF: C₁₆H₁₆ClNO₂S · H₂SO₄ MW: 419.91

CN: (S)-.α-(2-Chlorophenyl)-6,7-dihydrothieno[3,2-c]pyridine-5(4H)-acetic acid methyl ester sulfate (1:1)

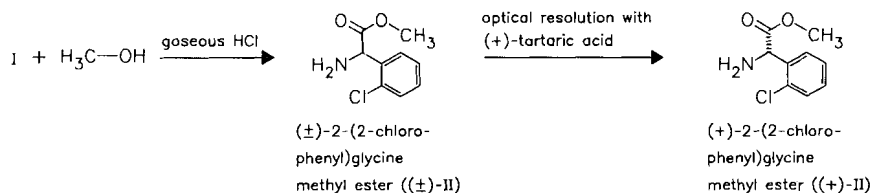
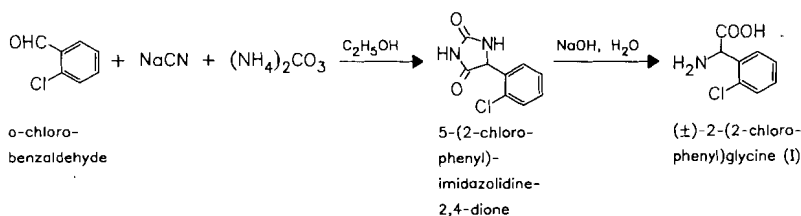
(±)-base

RN: 90055-48-4 MF: C₁₆H₁₆ClNO₂S MW: 321.83

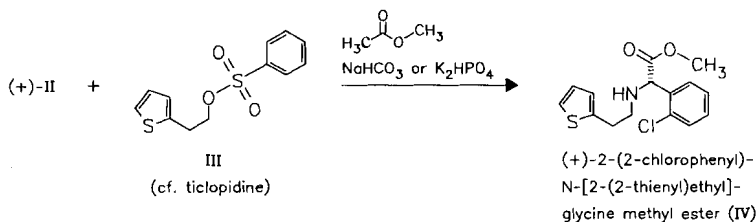
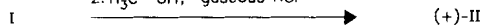
(+) -base

RN: 113665-84-2 MF: C₁₆H₁₆ClNO₂S MW: 321.83

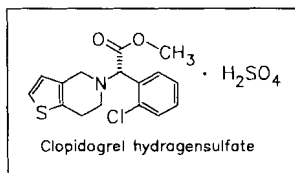
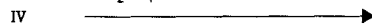
a



1. optical resolution with (+)-10-camphorsulfonic acid
2. H₃C—OH, gaseous HCl



1. aq. (HCHO)_n (V), HCOOH
or
aq. HCHO, DMF, gaseous HCl
2. H₂SO₄

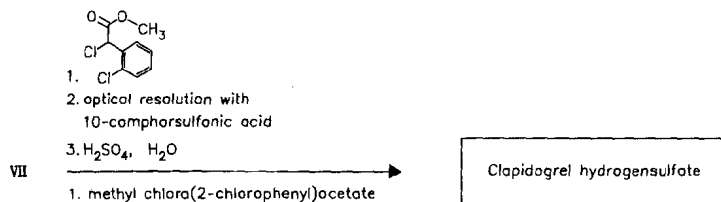
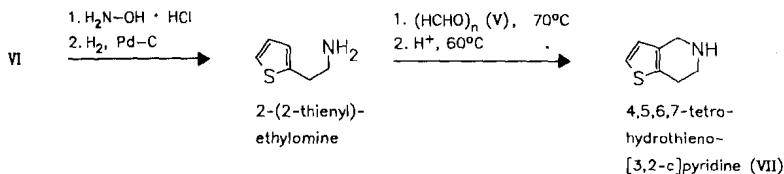
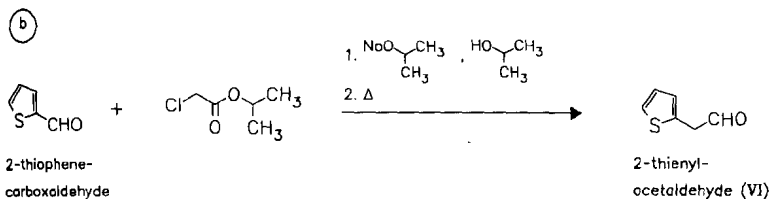
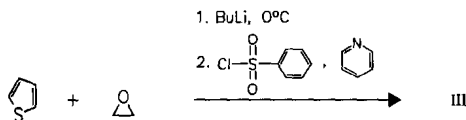


alternative route

1. (\pm)-II
2. optical resolution with (+)-10-camphorsulfonic acid
3. $(\text{HCHO})_n$ (V) / HCOOH
4. H_2SO_4



synthesis of intermediate III



Reference(s):

- a EP 99 802 (Sanofi; appl. 5.7.1983; F-prior. 13.7.1982).
optical resolution of (\pm)-clopidogrel with (+)-10-camphorsulfonic acid:
 EP 281 459 (Elf Sanofi; appl. 16.2.1988; F-prior. 17.2.1987).
- b EP 465 358 (Sanofi; appl. 3.7.1991; F-prior. 4.7.1990).

alternative route for preparing 2-thienylethylamine derivatives from thienylglycidic acid derivatives:
 WO 9 839 322 (Sanofi; appl. 5.3.1998; F-prior. 5.3.1997).

pharmaceutical compositions:

WO 9 729 753 (Sanofi; appl. 17.2.1997; F-prior. 19.2.1996).
 WO 9 717 064 (Sanofi; appl. 30.10.1996; F-prior. 3.11.1995).

synthesis of optical pure (2-chlorophenyl)glycine:

Garcia, M.J.; Azerad, R: *Tetrahedron: Asymmetry (TASYE3)* **8** (1), 85 (1997).

synthesis of (2-chlorophenyl)glycine:

Hayashi: *Chem. Pharm. Bull. (CPBTAL)* **7**, 912, 1914 (1959).
 Kobow, M.; Sprung, W.-D.; Schulz, E.: *Pharmazie (PHARAT)* **45** (7), 529 (1990).

Formulation(s): f. c. tabl. 75 mg (as hydrogen sulfate)

Trade Name(s):

D: Iscover (Bristol-Myers Squibb)

Plavix (Sanofi-Synthelabo; 1988)

USA: Plavix (Sanofi Pharm; Bristol-Myers Squibb; 1998)

GB: Plavix (Sanofi Winthrop)

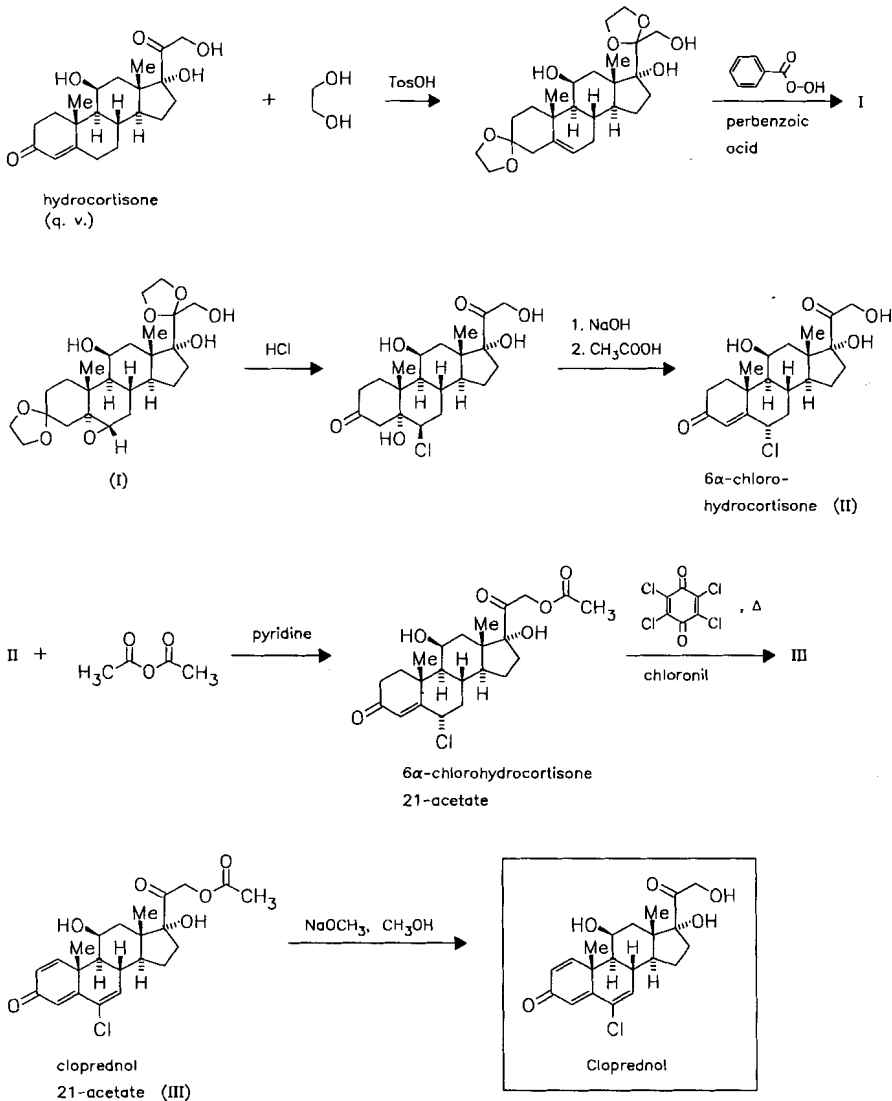
Cloprednol

ATC: H02AB14

Use: glucocorticoid

RN: 5251-34-3 MF: $C_{21}H_{25}ClO_5$ MW: 392.88 EINECS: 226-052-6

CN: (11 β)-6-chloro-11,17,21-trihydroxypregna-1,4,6-triene-3,20-dione



Reference(s):

US 3 232 965 (Syntex; 1.2.1966; prior. 8.7.1957, 20.6.1958).

GB 890 835 (Syntex; appl. 20.6.1958; Mex.-prior. 22.6.1957, 20.7.1957).

alternative synthesis:

US 3 264 332 (Schering Corp.; 2.8.1966; prior. 7.1.1959).

Formulation(s): tabl. 2.5 mg, 5 mg, 10 mg*Trade Name(s):*

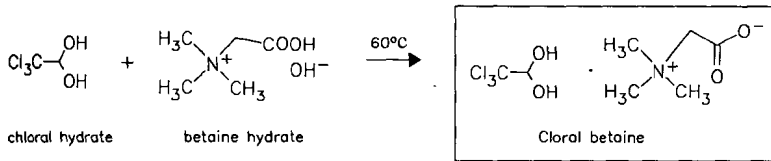
D: Syntestan (Syntex/Roche) I: Cloradryn (Recordati)

Cloral betaine

(Betainchloralum; Chloral Betaine)

ATC: N05C

Use: hypnotic, sedative

RN: 2218-68-0 MF: $C_2H_3Cl_3O_2$ MW: 165.40 EINECS: 218-722-1LD₅₀: 800 mg/kg (M, p.o.)CN: 1-carboxy-*N,N,N*-trimethylmethanaminium inner salt compd. with 2,2,2-trichloro-1,1-ethanediol (1:1)*Reference(s):*

US 3 028 420 (British Drug Houses; 3.4.1962).

GB 874 246 (British Drug Houses; appl. 26.6.1959; valid from 27.5.1960).

Trade Name(s):

USA: Beta-Chlor (Mead Johnson); wfm

Quinamm (Merrell-National); wfm

Quinine sulfate (Perepac); wfm

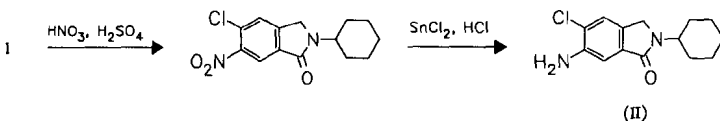
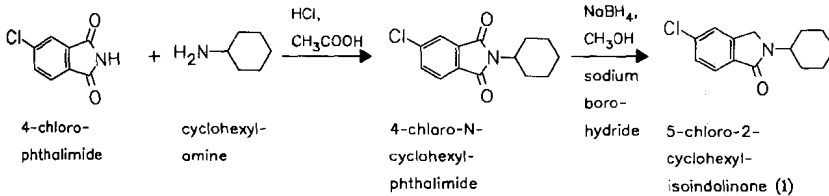
Clorexolone

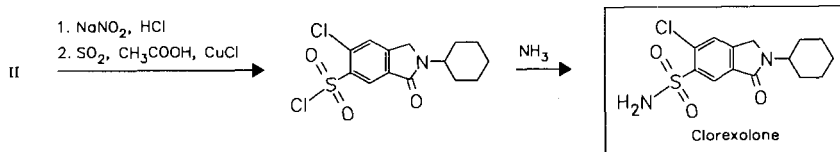
ATC: C03BA12

Use: diuretic

RN: 2127-01-7 MF: $C_{14}H_{17}ClN_2O_3S$ MW: 328.82 EINECS: 218-342-6LD₅₀: 230 mg/kg (M, i.v.); >6 g/kg (M, p.o.);

120 mg/kg (R, i.v.); 6 g/kg (R, p.o.)

CN: 6-chloro-2-cyclohexyl-2,3-dihydro-3-oxo-1*H*-isoindole-5-sulfonamide

**Reference(s):**

BE 620 654 (May & Baker; appl. 25.7.1962; GB-prior. 28.7.1961).

Formulation(s): tabl. 10 mg, 25 mg**Trade Name(s):**

F:	Flonatril (Specia); wfm Speciatensol (Specia)- comb.; wfm	GB:	Nefrolan (May & Baker); wfm
J:		J:	Nefrolan (Teikoku Zoki)

Cloricromen

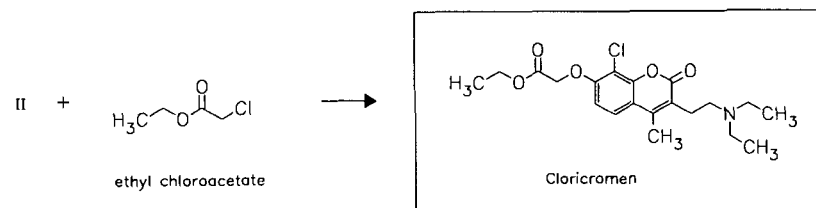
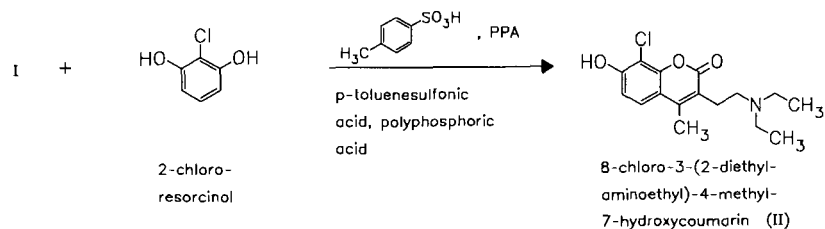
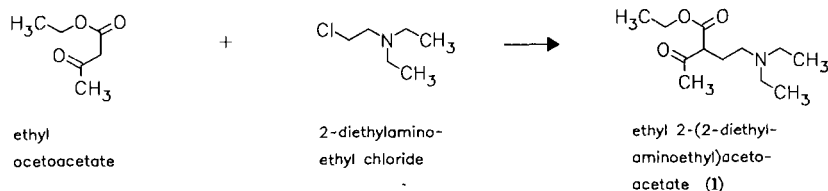
(AD-6)

ATC: B01AC02; C01

Use: coronary vasodilator, antithrombotic

RN: 68206-94-0 MF: C₂₀H₂₆ClNO₅ MW: 395.88LD₅₀: 10 mg/kg (R, i.v.); 1250 mg/kg (R, p.o.)

CN: [[8-chloro-3-[2-(diethylamino)ethyl]-4-methyl-2-oxo-2H-1-benzopyran-7-yl]oxy]acetic acid ethyl ester

hydrochlorideRN: 74697-28-2 MF: C₂₀H₂₆ClNO₅ · HCl MW: 432.34

Reference(s):

DOS 2 846 083 (Fidia; appl. 23.10.1978; I-prior. 17.11.1977).

US 4 296 039 (Fidia; 20.10.1981; I-prior. 17.11.1977).

synthesis of ethyl 2-(2-diethylaminoethyl)acetoacetate:Weizmann, Ch.; Bergmann, E.; Sulzbacher, M.: J. Org. Chem. (JOCEAH) **15**, 918 (1950).**synthesis of 2-chlororesorcinol:**Schamp, N.: Bull. Soc. Chim. Belg. (BSCBAG) **73**, 35 (1946).Wauzlick, H.V.; Mohrmann, S.: Chem. Ber. (CHBEAM) **96**, 2257 (1963).**Formulation(s):** amp. 30 mg/5 ml; cps. 100 mg; vial 30 mg**Trade Name(s):**

I: Assogen (Metapharma)

Proendotel (Fidia; 1991)

Clorprenaline

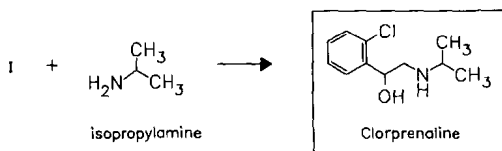
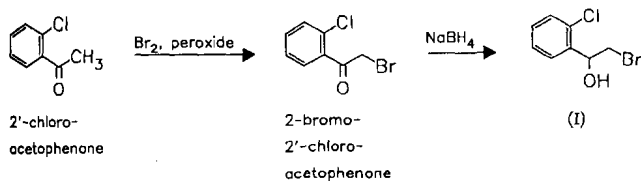
ATC: R03

Use: bronchodilator

RN: 3811-25-4 MF: C₁₁H₁₆ClNO MW: 213.71 EINECS: 223-291-8CN: 2-chloro- α -[[1-methylethyl]amino]methyl]benzenemethanol**hydrochloride monohydrate**RN: 5588-22-7 MF: C₁₁H₁₆ClNO · HCl · H₂O MW: 268.18LD₅₀: 54 mg/kg (M, i.v.); 298 mg/kg (M, p.o.);

68 mg/kg (R, i.v.); 450 mg/kg (R, p.o.);

>400 mg/kg (dog, p.o.)

**Reference(s):**

US 2 816 059 (Lilly; 1957; appl. 1956).

Formulation(s): sol. 2 % (inhalation)**Trade Name(s):**

J: Aremans (Zensei)

Conselt (San-a)

Neoasutoma (Nihon

Asthone (Eisai)

Cosmoline (Chemiphar)

Yakuhiin)

Bronocon (Wakamoto)

Fusca (Hoei)

Pentadol (Showa)

Clopinerin (Nippon Shoji)

Kalutein (Tatsumi)

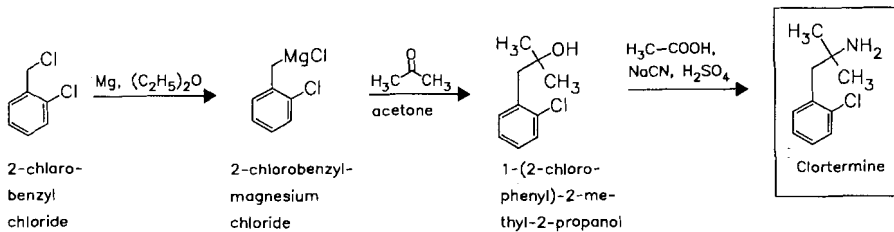
Propran (Kobayashi Kako)

Clorprenalin HCl (Kongo)

Clortermine

ATC: N07

Use: appetite depressant

RN: 10389-73-8 MF: C₁₀H₁₄ClN MW: 183.68CN: 2-chloro- α,α -dimethylbenzeneethanamine**hydrochloride**RN: 10389-72-7 MF: C₁₀H₁₄ClN · HCl MW: 220.14LD₅₀: 332 mg/kg (R, p.o.)**Reference(s):**

US 3 415 937 (Ciba; 10.12.1968; appl. 1.12.1966; prior. 31.8.1964).

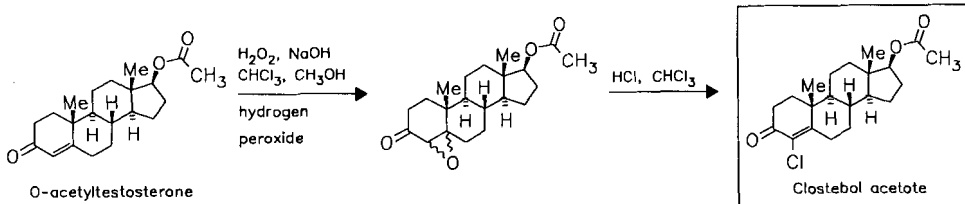
Formulation(s): tabl. 50 mg**Trade Name(s):**

USA: Voranil (USV); wfm

Clostebol acetate

ATC: D11AE

Use: anabolic

RN: 855-19-6 MF: C₂₁H₂₉ClO₃ MW: 364.91 EINECS: 212-720-4CN: (17 β)-17-(acetyloxy)-4-chloroandrost-4-en-3-one**clostebol**RN: 1093-58-9 MF: C₁₉H₂₇ClO₂ MW: 322.88 EINECS: 214-133-9**Reference(s):**

US 2 953 582 (Soc. Farmaceutici Italia; 20.9.1960; appl. 26.10.1956; I-prior. 23.4.1956).

US 2 933 510 (Julian Labs.; 19.4.1960, Prior. 3.2.1955).

Formulation(s): cream 0.5 %; sugar coated tabl. 15 mg; vial 10 mg/1.5 ml**Trade Name(s):**

D: Megagrisevit (Pharmacia & Upjohn)

Megagrisevit N (Pharmacia & Upjohn)-comb.

F: Trofoseptine (Boehringer Ing.)-comb.

I: Alfa-Trofodermine
(Farmitalia)

Trofodermin (Farmitalia)-
comb. with neomycine

J: Steranabol (Sumitomo)

Clotiazepam

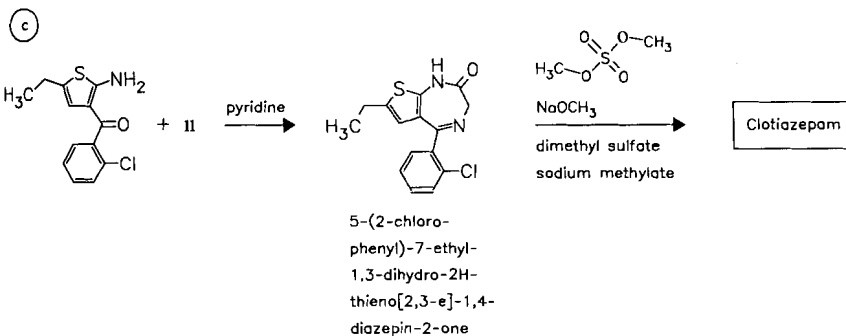
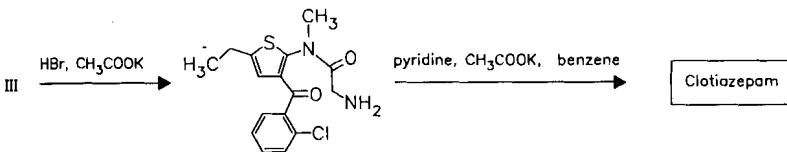
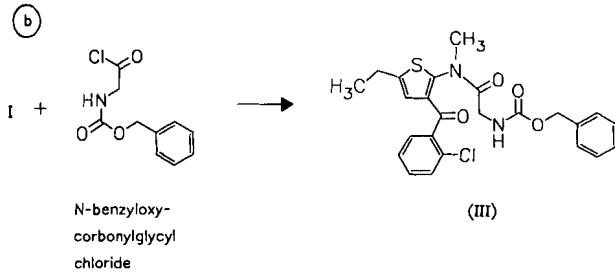
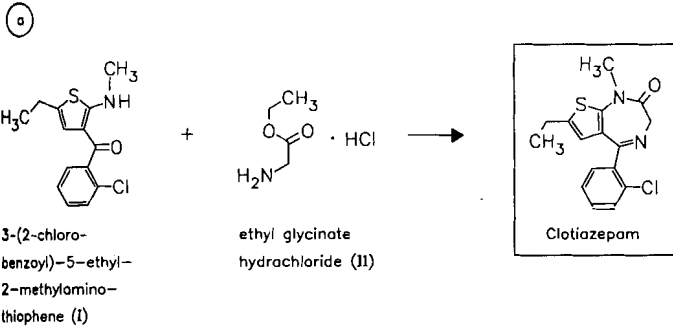
ATC: N05BA21

Use: anxiolytic, benzodiazepine analog

RN: 33671-46-4 MF: C₁₆H₁₅ClN₂OS MW: 318.83 EINECS: 251-627-3

LD₅₀: 440 mg/kg (M, i.p.); 636 mg/kg (M, p.o.)

CN: 5-(2-chlorophenyl)-7-ethyl-1,3-dihydro-1-methyl-2H-thieno[2,3-e]-1,4-diazepin-2-one



Reference(s):

DOS 2 107 356 (Yoshitomi; appl. 16.2.1971; J-prior. 17.2.1970, 23.2.1970, 7.3.1970, 25.6.1970, 31.7.1970).
 US 3 849 405 (Yoshitomi; 19.11.1974; J-prior. 17.2.1970, 23.2.1970, 7.3.1970, 25.6.1970, 31.7.1970).

Formulation(s): drops 1 %; tabl. 5 mg, 10 mg, 20 mg

Trade Name(s):

D: Trecalmo (Bayer Vital; 1979)	J: Tienor (Farmaka) Emolex (Nichiiko)	Reilyfter (Maruko) Rize (Yoshitomi)
F: Vératran (Murat; 1984)	Isocline (Sawai)	
I: Rizen (Puropharma; 1984)	Lieze (Yoshitomi)	

Clotrimazole

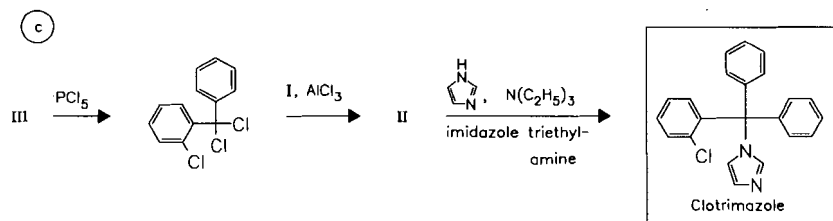
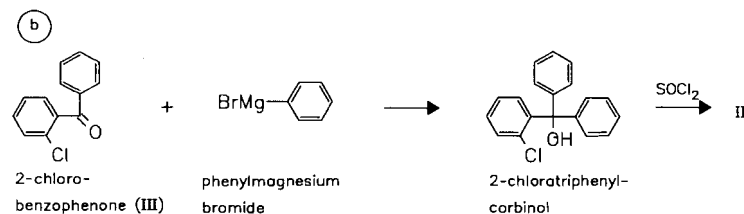
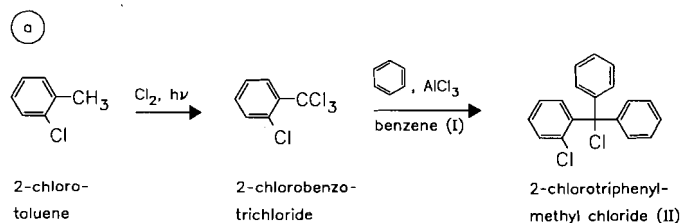
ATC: A01AB18; D01AC01; G01AF02

Use: antifungal

RN: 23593-75-1 MF: C₂₂H₁₇ClN₂ MW: 344.85 EINECS: 245-764-8LD₅₀: 761 mg/kg (M, p.o.);

708 mg/kg (R, p.o.);

>2 g/kg (dog, p.o.)

CN: 1-[(2-chlorophenyl)diphenylmethyl]-1*H*-imidazole*Reference(s):*

DE 1 617 481 (Bayer; appl. 15.9.1967).

DAS 1 670 976 (Bayer; appl. 29.1.1968).

DE 1 670 977 (Bayer; D-prior. 29.1.1968).

US 3 660 577 (Bayer; 2.5.1972; D-prior. 15.9.1967).

US 3 705 172 (Bayer; 5.12.1972; D-prior. 15.9.1967).

mode of mechanism:

Berg, D. et al.: *Arzneim.-Forsch. (ARZNAD)* **34** (I), 139 (1984).

medical use at Herpes labialis:

US 4 438 129 (Pennwalt; 20.3.1984; appl. 27.9.1982).

special formulations:

DOS 3 321 043 (Bayer; appl. 10.6.1983).

EP 128 459 (Bayer; appl. 30.5.1984; D-prior. 10.6.1983).

EP 112 485 (Bayer; appl. 17.11.1983; D-prior. 25.11.1982).

combination with corticosteroids:

EP 49 468 (Schering Corp.; appl. 30.9.1981; USA-prior. 6.10.1980).

Formulation(s): pessaries 100 mg, 200 mg, powder 10 mg/g (1 %); 500 mg; sol. 1 %, 10 mg; spray 10 mg/ml (1 %); topical cream 1 %, 10 mg; vaginal cream 10 mg, 20 mg/ml (2 %, 10 %); vaginal tabl. 100 mg, 200 mg, 500 mg

Trade Name(s):

D:	Antifungal (Hexal)	Mono Baycuten (Bayropharm)	I:	Antimicotico Same (Savoma)
	Apocanda (esparma)	Mycofug (Hermal)		Canesten (Bayropharm; 1973)
	ARU Spray (Chauvin ankerpharm)	Myko Cordes (Ichthyol)		Desamix Effe (Savoma)-comb.
	Azutrimazol (Azupharma)	Mykofungin (Wyeth)		Gyno-Canesten (Bayropharm)
	Benzoderm (Athenstaedt)	Mykohaug (betapharm)		Meclon (Farmigea)
	Candazol (Apogepha)	Ovis (Warner-Lambert)		Empecid (Bayer-Takeda; 1976)
	Canesten (Bayer; 1973)	Pedisafe (BASF Generics)	J:	Tao (Toko-Fujisawa)
	Canifug (Wolff)	Radical (Maurer)		Fungoid (Pedinol)
	Cloderm (Dermapharm)	Uromycol (Hayer)	USA:	Lotrimin (Schering; 1976)
	Cutistad (Stada)	F: Trimysten (Roger Bellon; 1978); wfm		Lotrisone (Schering)
	Durafungol (durachemie)	GB: Canesten (Bayer; 1973)		Mycelex (Bayer)
	Gilt (Solvay Arzneimittel)	Canesten HC (Bayer)-comb.		
	Gyno Canesten (Bayer Vital)	Lotriderm (Dominion)-comb.		
	Holfungin (Holborn)	Masnoderm (Dominion)		
	Jenamazol (Jenapharm)			
	Lobalacid (Kade)			

Cloxacillin

ATC: J01CF02

Use: antibiotic

RN: 61-72-3 MF: $C_{19}H_{18}ClN_3O_5S$ MW: 435.89 EINECS: 200-514-7

CN: [2S-(2 α ,5 α ,6 β)]-6-[[[3-(2-chlorophenyl)-5-methyl-4-isoxazolyl]carbonyl]amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

monosodium salt

RN: 642-78-4 MF: $C_{19}H_{17}ClN_3NaO_5S$ MW: 457.87 EINECS: 211-390-9

LD₅₀: 916 mg/kg (M, i.v.); 5 g/kg (M, p.o.);

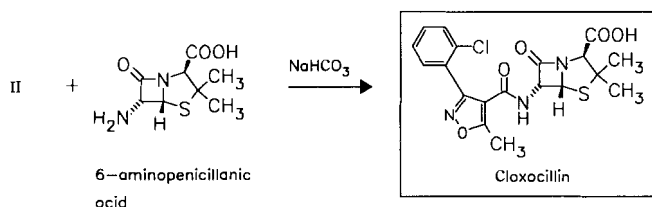
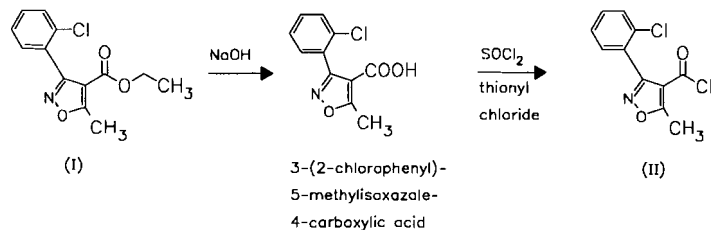
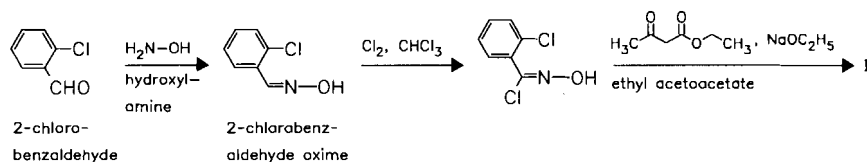
1660 mg/kg (R, i.v.); 5 g/kg (R, p.o.)

monosodium salt monohydrate

RN: 7081-44-9 MF: $C_{19}H_{17}ClN_3NaO_5S \cdot H_2O$ MW: 475.89

LD₅₀: 1100 mg/kg (M, i.v.); 5 g/kg (M, p.o.);

1660 mg/kg (R, i.v.); 5 g/kg (R, p.o.)

**Reference(s):**

US 2 996 501 (Beecham; 15.8.1961; GB-prior. 31.3.1960).
 GB 905 778 (Beecham; appl. 31.3.1960; valid from 14.3.1961).
 GB 958 478 (Beecham; appl. 28.2.1963; USA-prior. 13.3.1962).

Formulation(s): amp. 250 mg, 500 mg; cps. 250 mg, 500 mg; tabl. 250 mg, 500 mg (as sodium salt)

Trade Name(s):

D:	Ampiclox (Beecham)-comb. with ampicillin; wfm Pyoclox (Beecham)-comb. with carbenicillin; wfm Pyolox (Beecham)-comb. with carbenicillin; wfm	GB:	Ampiclox (SmithKline Beecham)-comb. with ampicillin Orbenin (Beecham); wfm	USA:	Methocillin-S (Meiji Seika) Orbenin (Beecham-Fujisawa) Prostaphlin (Bristre-Banyu)
F:	Orbenine (SmithKline Beecham)	I:	Amplium (Sigma-Tau)-comb.		Solcillin C (Takeda)-comb. Totaclox (Beecham)-comb.
		J:	Cloxac (Formulario Naz.) Acucillin (Fuji)-comb.		Cloxapen (Beecham); wfm Tegopen (Bristol); wfm

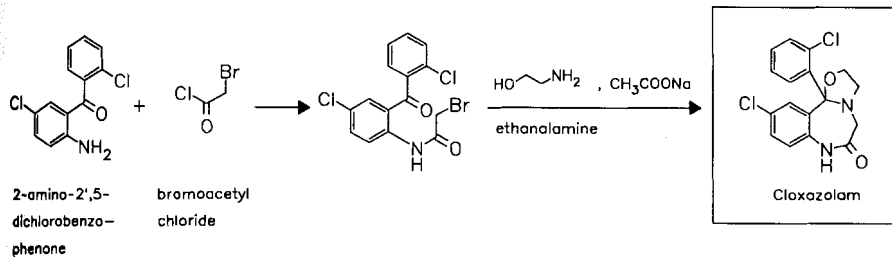
Cloxazolam

ATC: N05BA22
 Use: tranquilizer

RN: 24166-13-0 MF: C₁₇H₁₄Cl₂N₂O₂ MW: 349.22

LD₅₀: 2630 mg/kg (M, p.o.);
 1780 mg/kg (R, p.o.)

CN: 10-chloro-11b-(2-chlorophenyl)-2,3,7,11b-tetrahydrooxazolo[3,2-d][1,4]benzodiazepin-6(5H)-one

**Reference(s):**

DOS 1 812 252 (Sankyo; appl. 26.11.1968; J-prior. 27.11.1967).

DOS 1 817 923 (Sankyo; appl. 26.11.1968; J-prior. 27.11.1967).

alternative synthesis:

DOS 1 954 065 (Sankyo; appl. 23.10.1969; J-prior. 24.10.1968, 17.4.1969).

US 3 696 094 (Sankyo; 3.10.1972; J-prior. 24.10.1968, 25.10.1968).

US 3 772 371 (Sankyo; 13.11.1973; J-prior. 27.11.1967).

review:Schulte, E.: Dtsch. Apoth. Ztg. (DAZEA2) **115**, 1253, 1828 (1975).**Formulation(s):** tabl. 1 mg, 2 mg**Trade Name(s):**

J: Enadel (Taito Pfizer)

Sepazon (Sankyo)

Clozapine

ATC: N05AH02

Use: neuroleptic

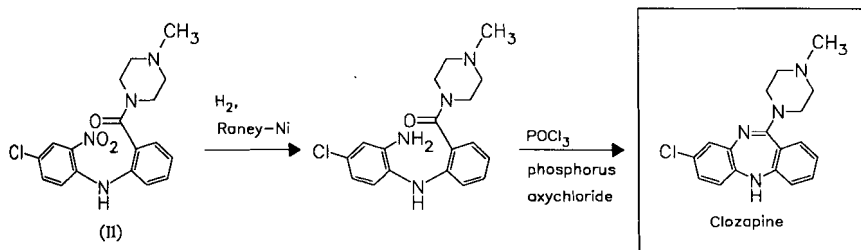
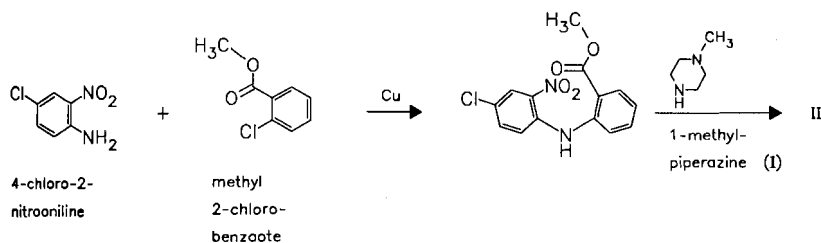
RN: 5786-21-0 MF: C₁₈H₁₉ClN₄ MW: 326.83 EINECS: 227-313-7LD₅₀: 36.5 mg/kg (M, i.v.); 150 mg/kg (M, p.o.);

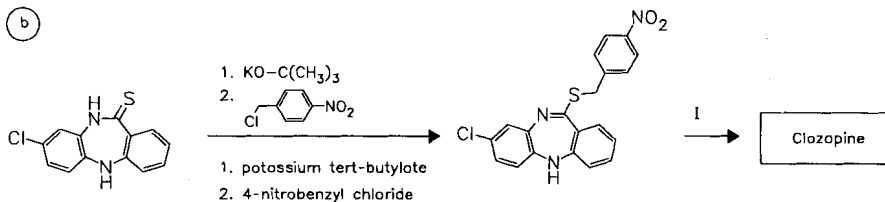
41.6 mg/kg (R, i.v.); 251 mg/kg (R, p.o.);

145 mg/kg (dog, p.o.)

CN: 8-chloro-11-(4-methyl-1-piperazinyl)-5H-dibenzo[*b,e*][1,4]diazepine

a





8-chloro-11-thioxo-
10,11-dihydro-5H-
dibenzo[b,e][1,4]-
diazepine

Reference(s):

CH 404 677 (Dr. A. Wander; appl. 2.12.1960).

CH 398 620 (Dr. A. Wander; appl. 16.8.1960).

GB 980 853 (Dr. A. Wander; appl. 16.8.1961; CH-prior. 16.8.1960, 2.12.1960).

NL 147 426 (Dr. A. Wander; appl. 24.5.1963; CH-prior. 25.5.1962, 8.6.1962, 5.12.1962, 15.2.1963).

DE 1 280 879 (Wander; appl. 7.8.1961; CH-prior. 16.8.1960, 2.12.1960).

US 3 539 573 (Wander; 10.11.1970; CH-prior. 16.8.1060, 2.12.1960, 20.7.1961, 25.5.1962, 5.12.1962, 15.2.1963, 22.3.1967, 11.7.1967, 3.11.1967).

Hunziker, F. et al.: Helv. Chim. Acta (HCACAV) **50**, 1588 (1967).

Formulation(s): inj. sol. 50 mg/2 ml; tabl. 25 mg, 100 mg

Trade Name(s):

D: Clozaril (Novartis) F: Leponex (Novartis)
Leponex (Novartis Pharma) USA: Clozaril (Novartis)

Cobamamide

(Adenosylcobalamin; Coenzym B₁₂; Dibenzoide)

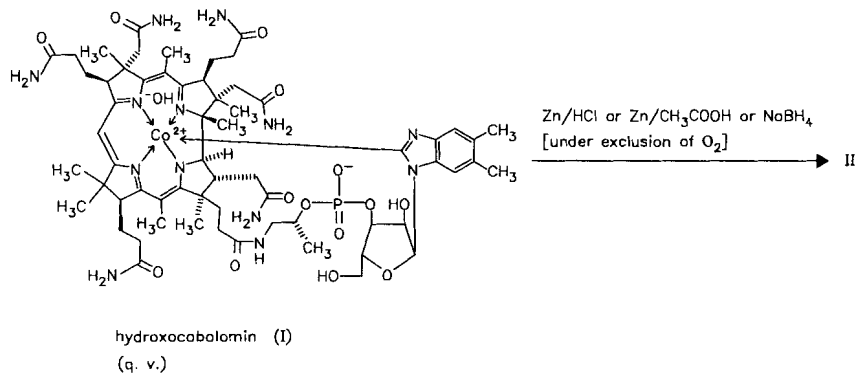
ATC: B03BA04

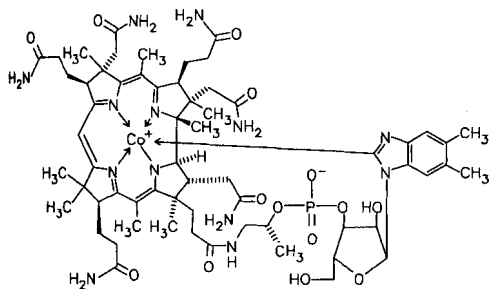
Use: anabolic

RN: 13870-90-1 MF: C₇₂H₁₀₀CoN₁₈O₁₇P MW: 1579.61 EINECS: 237-627-6

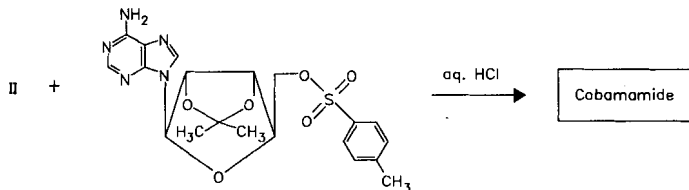
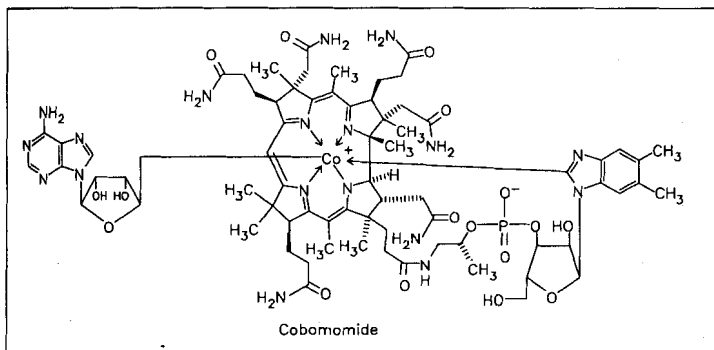
LD₅₀: 1 g/kg (M, i.v.)

CN: cobinamide Co-(5'-deoxyadenosine-5') deriv. hydroxide dihydrogen phosphate (ester) inner salt 3'-ester with 5,6-dimethyl-1- α -D-ribofuranosyl-1H-benzimidazole

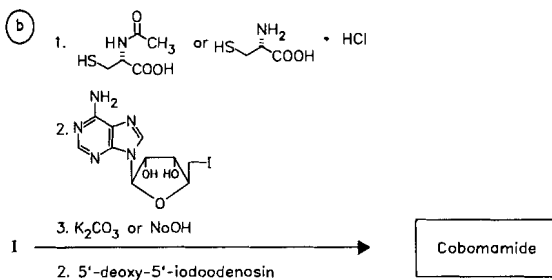




hydriocobalamin (II)

2',3'-O-isopropylidene-
5'-O-tosyladenosine

Cobamamide

**Reference(s):**

- a** Bernhauer, K. et al.: *Angew. Chem. (ANCEAD)* **75**, 1145 (1963).
US 3 213 082 (Glaxo; 19.10.1965; GB-prior. 11.12.1961).
b US 3 461 114 (Yamanouchi; 12.8.1969; J-prior. 1.10.1966).

Formulation(s): cps. 0.25 mg, 1 mg; drops 30 mg; tabl. 0.25 mg, 1 mg, 2.5 mg

Trade Name(s):

D: Xobaline (Albert-Roussel);

wfm

F:	Vibalgan (Doms-Adrian)-comb.	Hepafactor Complex (Sigma-Tau)-comb.	Cobamylde (Shiu Nihon Jitsugyo)
I:	Amico (SIT)-comb.	Indusil (Recordati)	Funacomide (Funai)
	Aminozim (Pierrel)-comb.	J: Actavix (Nippon Kayaku)	Hokuramide (Hokuriku)
	Anabasi (Zilliken)	Actimide (Tobishi)	Hycobal (Eisai)
	Calciozim (Pierrel)-comb.	Ademide (Toyo Jozo)	Hyrasedon (Sawai)
	Calisvit (Menarini)-comb.	Cabaryl (Daiko)	Lasedmeide (Choseido)
	Cobaforte (Roussel)	Calomide (Yamanouchi)	Metamide (Nakataki)
	Cocametina B12 (Sigma-Tau)-comb.	Cobaforte (Roussel-Chugai)	Sabalamin (Sato-Santen)
	Glutacomplex (Chemil)-comb.	Cobalan (Daiichi)	Satomid (Shinshin)
		Cobaltamin-S (Wakamoto)	generics and combination preparations

Cocarboxylase

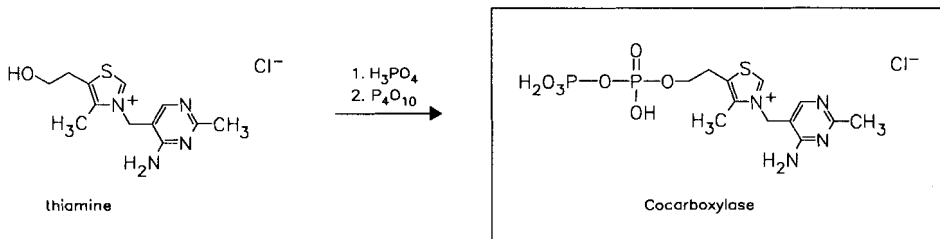
ATC: A11DA

Use: enzyme against metabolic disturbance

RN: 154-87-0 MF: C₁₂H₁₉ClN₄O₇P₂S MW: 460.77 EINECS: 205-836-1

LD₅₀: >1 g/kg (M, i.m.);
>500 mg/kg (R, i.m.)

CN: 3-[4-amino-2-methyl-5-pyrimidinyl)methyl]-4-methyl-5-(4,6,6-trihydroxy-4,6-dioxido-3,5-dioxo-4,6-diphosphahex-1-yl)thiazolium chloride



Work up of the reaction mixtures on ion-exchangers.

Reference(s):

US 2 991 284 (E. Merck AG; 4.7.1961; D-prior. 28.9.1957).

Formulation(s): vial 5.8 mg/10 mg, 20 mg, 50 mg, 100 mg

Trade Name(s):

D:	Cernevit (Baxter)-comb.	Fosforilasi (Polifarma)-comb.	Carboxin (Toa Eiyo-Yamanouchi)
F:	Cernévit (Baxter)-comb.	Neogeynevril (Geymonat)-comb.	Hiactose (Ohno)
	Plenyl (Oberlin)-comb.	Piruvasi (Delalande Isnardi)-comb.	Metabolase (Takeda)
	generics and combination preparations	salts and combination preparations	Neo Alinachiol (Kanto)
I:	Adenobeta (Salus Research)-comb.	Bicholase (Fuso)	Nutrase (Kyorin)
	Adenoplex (Lepetit)-comb.	Cocalbose (Fuji Zoki)	Paraboramin (Hoei)
	Adenovit (Nuovo Cons. Sanit. Naz.)-comb.	Cocalox (Maruko)	Proffit (Isei)
	Benexol (Roche)-comb.	Co-Carten (Sanken)	Pyrolase (Chugai)
	Bivitasi (ISI)	Coxylase (Funai)	Reborase (Kanto)
	Firmavit (Firma)-comb.		Thiamilase (Hokuriku)

Codeine

ATC: R05DA04

Use: antitussive, narcotic, analgesic

RN: 76-57-3 MF: $C_{18}H_{21}NO_3$ MW: 299.37 EINECS: 200-969-1LD₅₀: 54 mg/kg (M, i.v.); 250 mg/kg (M, p.o.);

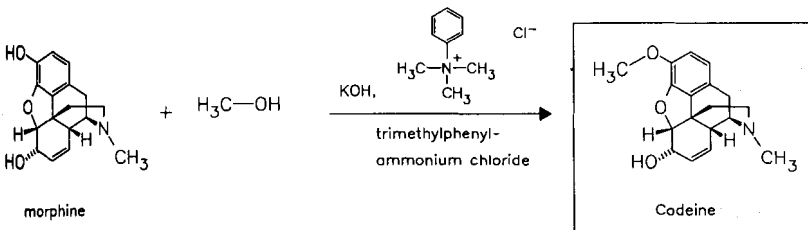
75 mg/kg (R, i.v.); 427 mg/kg (R, p.o.);

69 mg/kg (dog, i.v.)

CN: (5 α ,6 α)-7,8-didehydro-4,5-epoxy-3-methoxy-17-methylmorphinan-6-ol**hydrobromide**RN: 125-25-7 MF: $C_{18}H_{21}NO_3 \cdot HBr$ MW: 380.28 EINECS: 204-730-2LD₅₀: 535 mg/kg (M, p.o.)**hydriodide**RN: 125-26-8 MF: $C_{18}H_{21}NO_3 \cdot HI$ MW: 427.28 EINECS: 204-731-8**phosphate (1:1)**RN: 52-28-8 MF: $C_{18}H_{21}NO_3 \cdot H_3PO_4$ MW: 397.36 EINECS: 200-137-8LD₅₀: 62 mg/kg (M, i.v.); 237 mg/kg (M, p.o.);

54 mg/kg (R, i.v.); 85 mg/kg (R, p.o.);

97.8 mg/kg (dog, i.v.)

**Reference(s):**

Ehrhart-Ruschig I, 117-118.

DRP 247 180 (C. H. Boehringer; 1912).

Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. 3, 232.

Formulation(s): cps. 30 mg; drops 2.4 g/100 ml; suppos. 30 mg; syrup 0.117 g/100 g; tabl. 30 mg, 50 mg**Trade Name(s):**

D:	Bronchicum (Nattermann)	Treupel (ASTA Medica AWD)	numerous combination preparations
	Codeinum phophoricum	Tricoidein (Soleo)	I: Bromocodeina (Menarini)
	Compretten (Glaxo Wellcome/Cascan)	Tussipect (Beiersdorf-Lilly)-comb.	Codeinol (Saba)-comb.
	Codicept (Sanol)	numerous combination preparations	Codipront (Bracco)-comb.
	Codipront (Mack, Illert.)		Lactocol (Ogna)-comb.
	Dolomo (Klinge; as phosphate)-comb.	F:	Hedrix Plan (Saba)-comb.
	Dolviran (Bayer Vital)-comb.	numerous combination preparations	Senodin (Bristol-Myers Squibb)-comb.
	Gelonida (Gödecke; as phosphate)-comb.	GB:	numerous combination preparations
	Lonarid (Boehringer Ing.)-comb.	Aspar (Hoechst)-comb.	J: Codeine Phosphate (Dainippon; Sankyo; Shionogi; Takeda; Tanabe)
	Optipyrin (Thiemann)-comb.	Codafen Continus (Napp; as phosphate)-comb.	USA: Brontex (Procter & Gamble; as phosphate)
	Spasmo-Cibalgin Comp. (Novartis Pharma)-comb.	Migralere (Pfizer Consumer; as phosphate)-comb.	Dimetane (Robins; as phosphate)
		Solpadol (Sanofi Winthrop; as phosphate)-comb.	
		Tylox (Schwarz; as phosphate)-comb.	

USA: Al-Vite (Drug Industries)-
comb.; wfm

Ultra "A" & "D" (Nature's
Bounty); wfm

Ultra "D"-Tabl. (Nature's
Bounty); wfm

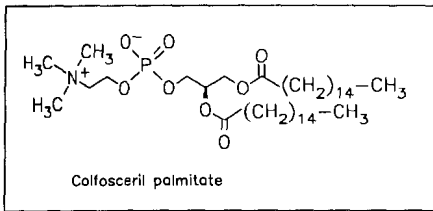
Colfosceril palmitate

ATC: R07AA01

Use: synthetic lung surfactant,
prophylactic treatment of respiratory
distress syndrome

RN: 99732-49-7 MF: $C_{40}H_{80}NO_8P \cdot C_{16}H_{34}O \cdot [C_{14}H_{22}O \cdot C_2H_4O \cdot CH_2O]_x$ MW: unspecified

CN: (R)-N,N,N-trimethyl-10-oxo-7-[(1-oxohexadecyl)oxy]-3,5,9-trioxa-4-phosphapentacosan-1-aminium-4-oxide inner salt, mixt. with formaldehyde polymer with oxirane and 4-(1,1,3,3-tetramethylbutyl)phenol and 1-hexadecanol



Lyophilization of 1,2-dipalmitoyl-*sn*-3-glycerophosphorylcholine, *n*-hexadecan-1-ol, tyloxapol solution in 0.1 n NaCl.

Reference(s):

US 4 826 821 (The Regents of the Univ. of California; 2.5.1989; appl. 5.11.1986; prior. 26.6.1985, 17.10.1983).
EP 50 793 (The Regents of the Univ. of California; appl. 14.10.1981; USA-prior. 24.10.1980).

Formulation(s): vial 108 mg (lyo.)

Trade Name(s):

D:	Exosurf (Glaxo Wellcome)	I:	Exosurf Neonatate (Glaxo Wellcome)	USA:	Exosurf (Glaxo Wellcome; 1991)
GB:	Exosurf Neonatal (Glaxo Wellcome; 1991)				

Colistin

(Colistin A + B; Polymyxin E)

ATC: A07AA10; J01XB01

Use: antibiotic (macrocyclic peptide)

RN: 1066-17-7 MF: unspecified MW: unspecified EINECS: 213-907-3

CN: colistin

sulfate

RN: 1264-72-8 MF: $H_2O_4S \cdot x$ unspecified MW: unspecified EINECS: 215-034-3

LD₅₀: 6 mg/kg (M, i.v.); 793 mg/kg (M, p.o.)

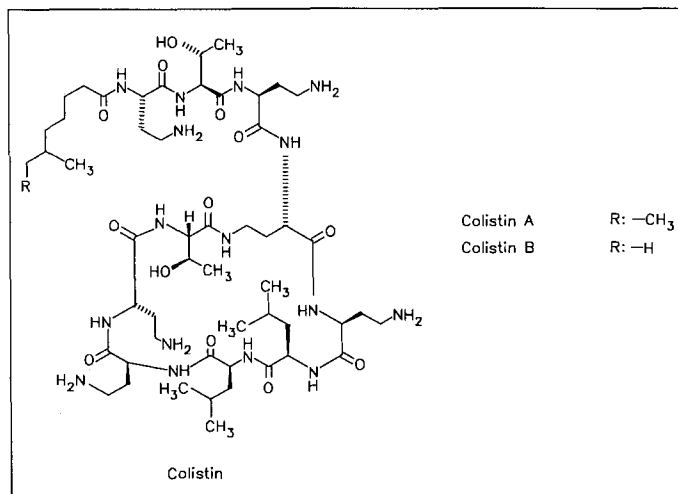
pentasodium mesylate

RN: 8068-28-8 MF: unspecified MW: unspecified EINECS: 232-516-9

LD₅₀: 222 mg (M, i.v.); >767 mg (M, p.o.);

5450 mg/kg (R, p.o.)

Cyclopeptide antibiotic from *Aerobacillus colistinus*.

**Reference(s):**

Vogler, K.; Studer, R.O.: *Experientia (EXPEAM)* **22**, 345 (1966).

Formulation(s): tabl. 24 mg, 95 mg; vial 33.3 mg

Trade Name(s):

D:	Diarönt (Chephasaar)	Colimycine (Bellon)	Methacolimycin (Kaken)
F:	Bacicoline (Merck Sharp & Dohme-Chibret)-comb.	GB: Colomycin (Pharmax)	USA: Coly-Mycin (Parke Davis; as sulfate)
	Colicort (Merck Sharp & Dohme-Chibret)-comb.	I: Colbiocin (SIFI)-comb.	
		Colimicina (UCB)	
		J: Colimycin-S (Kaken)	

Convallatoxin

ATC: C01AA

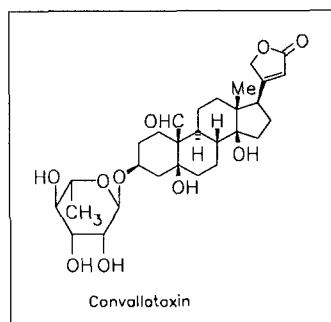
Use: cardiac glycoside, cardiotonic

RN: 508-75-8 MF: C₂₉H₄₂O₁₀ MW: 550.65 EINECS: 208-086-3

LD₅₀: 1 mg/kg (M, i.v.); >2 g/kg (M, p.o.);

15.2 mg/kg (R, i.v.)

CN: (3β,5β)-3-[(6-deoxy-α-L-mannopyranosyl)oxy]-5,14-dihydroxy-19-oxocard-20(22)-enolide



From *Convallaria majalis*.

Reference(s):

DRP 490 648 (Hoffmann-La Roche; appl. 1928; CH-prior. 1928).

Karrer, P.: *Helv. Chim. Acta (HCACAV)* **12**, 506 (1929).

SU 64 447 (F. D. Zilbert; appl. 1945).

PL 51 371 (Inst. Farmaceutyczny; appl. 17.5.1965).

*partial synthesis:*Reichstein, T. et al.: *Helv. Chim. Acta (HCACAV)* **33**, 1541 (1950).

DD 19 239 (E. Lüdde; appl. 18.7.1960).

SU 198 319 (Kharkov Scientific Research Chemical-Pharmaceutical Institut; appl. 9.8.1965).

alternative syntheses:

The Merck Index, 2505 (Rahway 1990).

DOS 1 933 090 (Hoechst; appl. 30.6.1969).

*Trade Name(s):*D: Cor-Eusedon (Krewel);
wfmseveral combination
products containing
standardized *Convallaria*
majalis extract.I: several combination
products containing
standardized *Convallaria*
majalis extract.**Cortisone**

ATC: H02AB10; S01BA03

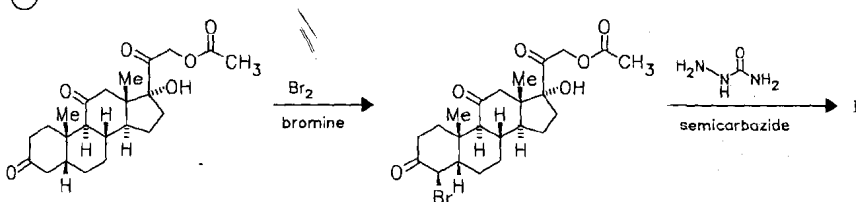
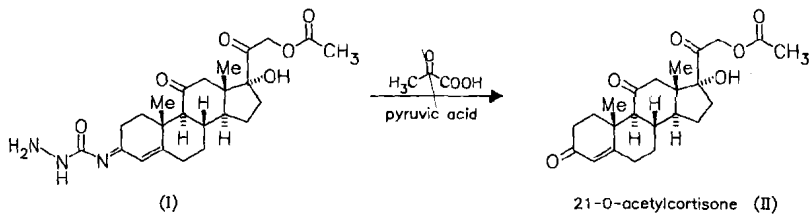
Use: glucocorticoid

RN: 53-06-5 MF: $C_{21}H_{28}O_5$ MW: 360.45 EINECS: 200-162-4LD₅₀: 230 mg/kg (M, i.p.)

CN: 17,21-dihydroxypregn-4-ene-3,11,20-trione

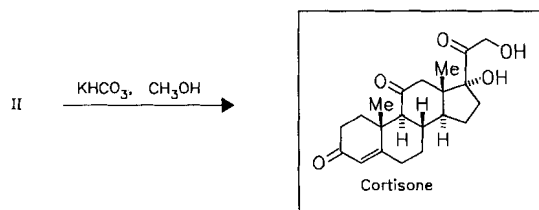
acetateRN: 50-04-4 MF: $C_{23}H_{30}O_6$ MW: 402.49 EINECS: 200-006-5

a

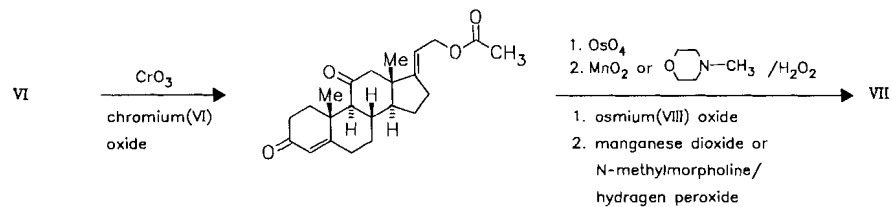
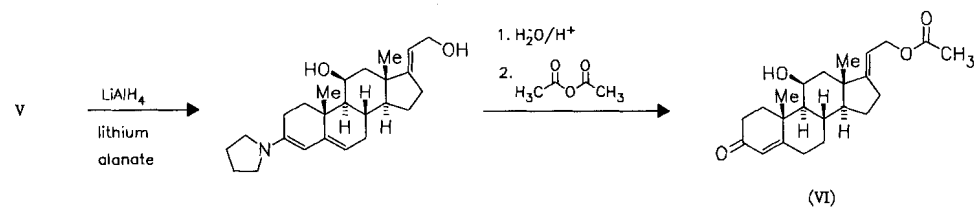
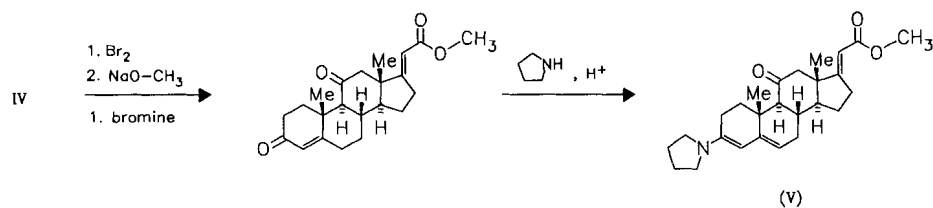
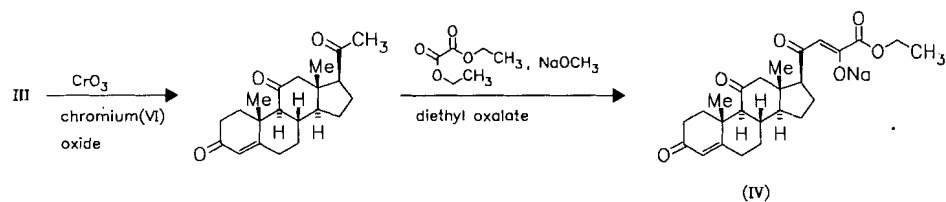
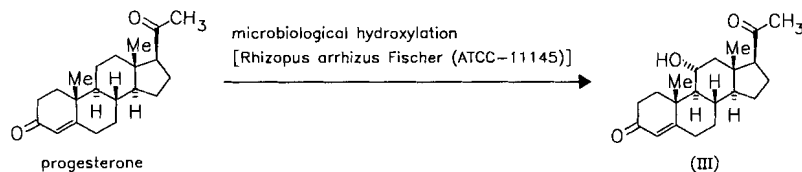
dihydrocortisone 21-acetate
(from deoxycholic acid)

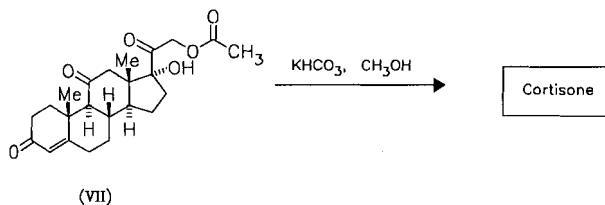
(I)

21-O-acetylcortisone (II)



(b)



*Reference(s):*

- a Applezweig, N.: Steroid Drugs, Vol. **1**, 14, 61 (New York, Toronto, London 1962).
 Kendall, E.C. et al.: J. Biol. Chem. (JBCHA3) **166**, 345 (1946), **173**, 271 (1948).
synthesis of dihydrocortisone acetate:
 Applezweig, N.: Steroid Drugs, Vol. **1**, 62 (New York, Toronto, London 1962).
 The Merck Index, 2862 (Rahway 1976).
- b US 2 602 769 (Upjohn; 1952; prior. 1950).
 US 2 769 823 (Upjohn; 1956; appl. 1954).
 Applezweig, N.: Steroid Drugs, Vol. **1**, 59 (New York, Toronto, London 1962).

alternative syntheses:

FR 1 091 734 (Upjohn; appl. 1953; USA-prior. 1952).

cf. hydrocortisone from dehydropregnenolone acetate:
 Ehrhart, Ruschig, **III**, 399.

from ergosterol and stigmasterol:

Rosenkranz, G.: Fortschr. Chem. Org. Naturst. (FCONAA) **10**, 274 (1953).

from hecogenin:

Applezweig, N.: Steroid Drugs, Vol. **1**, 66 (New York, Toronto, London 1962).

from sitosterol:

US 4 041 055 (Upjohn; 9.8.1977; appl. 17.11.1975).

total synthesis:

Fieser, L.F.; Fieser, M.: Steroide, 779 (Weinheim 1961).

review:

Fieser, L.F.; Fieser, M.: Steroide, 679 (Weinheim 1961).

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. **13**, 50.

Formulation(s): ointment 0.5 %, 1 %; tabl. 25 mg, 5 mg, 50 mg; vial 25 mg (2.5 mg/ml), 500 mg (50 mg/ml)
 (as acetate)

Trade Name(s):

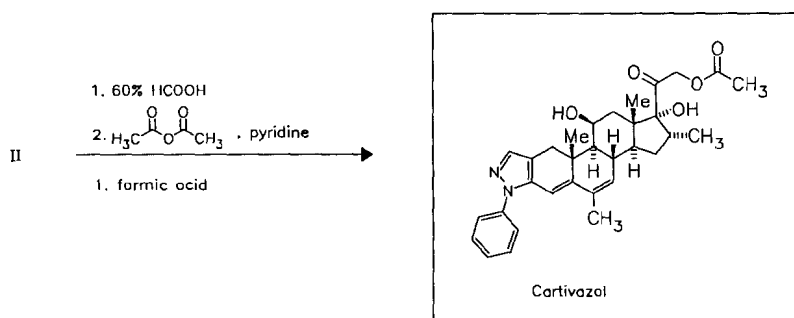
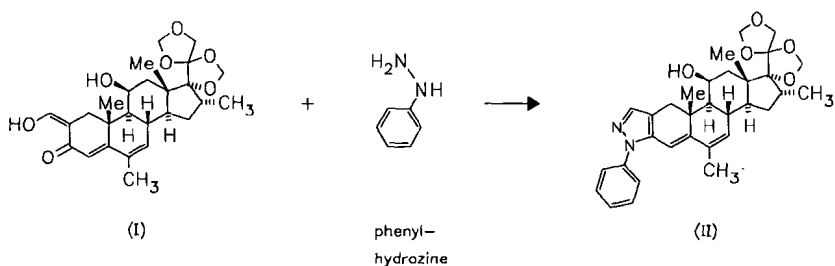
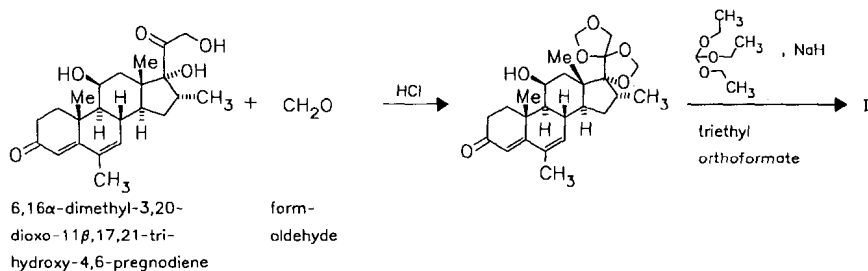
D:	Cortison Augensalbe Dr. Winzer (Dr. Winzer) Cortison Ciba (Novartis Pharma)	I:	Cortone Acetato (Merck Sharp & Dohme) Dutimelan (Hoechst)- comb.	J:	Cortisone Acetat Sup. (Upjohn) Cortone (Banyu) Scheroson (Schering)
F:	Cortisme Roussel (Roussel)		generics	USA:	Cortisone Acetate (Merck)
GB:	Cortisyl (Hoechst)				Cortone Acetat (Merck)

Cortivazol

ATC: H02AB17
 Use: glucocorticoid

RN: 1110-40-3 MF: C₃₂H₃₈N₂O₅ MW: 530.67 EINECS: 214-175-8

CN: (11β,16α)-21-(acetyloxy)-11,17-dihydroxy-6,16-dimethyl-2'-phenyl-2'H-pregna-2,4,6-trieno[3,2-c]pyrazol-20-one

**Reference(s):**

US 3 067 194 (Merck & Co.; 4.12.1962; prior. 1.12.1961, 4.11.1960).
 US 3 300 483 (Merck & Co.; 24.1.1967; prior. 4.12.1962, 2.7.1962, 1.12.1961, 4.11.1960).
 Fried, J.H. et al.: J. Am. Chem. Soc. (JACSAT) **85**, 236 (1963).

Formulation(s): syringe 3.75 mg

Trade Name(s):

F: Altim (Roussel)

Creatinolfosfate

(Creatinol phosphate)

ATC: C01EB05

Use: cardiac preparation, cardiac stimulant

RN: 6903-79-3 MF: $\text{C}_4\text{H}_{12}\text{N}_3\text{O}_4\text{P}$ MW: 197.13 EINECS: 230-011-8

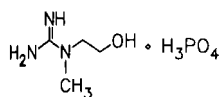
LD₅₀: 1200 mg/kg (M, i.v.); >5 g/kg (M, p.o.);

1300 mg/kg (R, i.v.); >5 g/kg (R, p.o.)

CN: *N*-methyl-*N*-[2-(phosphonoxy)ethyl]guanidine

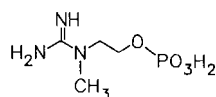
disodium salt

RN: 6903-80-6 MF: $\text{C}_4\text{H}_{10}\text{N}_3\text{Na}_2\text{O}_4\text{P}$ MW: 241.10



N-methyl-N-(2-hydroxyethyl)guanidine phosphate

polyphosphoric acid, 160 °C



Creatinolfosfote

Reference(s):

DOS 2 550 430 (E. Allievi; appl. 13.11.1974; I-prior. 13.11.1974).

alternative syntheses:

FR-M 6 401 (Siphar; appl. 14.11.1966).

Ferrari, G., Casagrande, C.: Farmaco, Ed. Sci. (FRPSAX) **20**, 879 (1965).

medical use as cardiac preparation:

DOS 2 144 584 (Siphar; appl. 6.9.1971; B-prior. 7.9.1970).

effervescent tablet:

BE 755 826 (Siphar; appl. 7.9.1970).

Formulation(s): amp. 510 mg/4 ml; eff. gran. 500 mg/6 g; tabl. 250 mg

Trade Name(s):

I: Aplodan (Astra-Simes)

Croconazole

(Cloconazole)

ATC: D01A

Use: topical antifungal (for treatment of candidiasis)

RN: 77175-51-0 MF: C₁₈H₁₅ClN₂O MW: 310.78

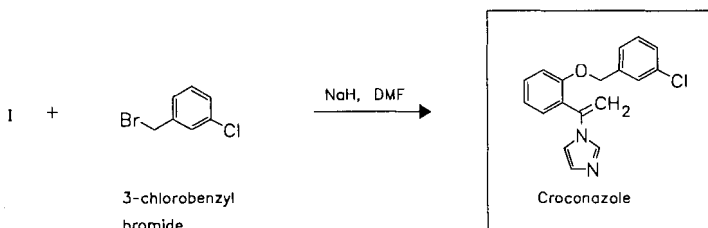
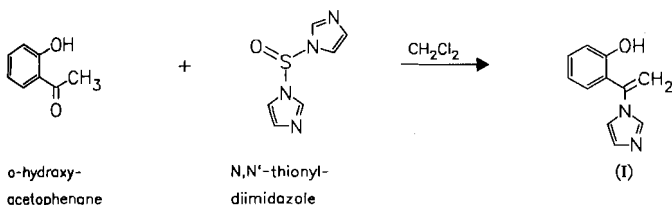
CN: 1-[1-[2-[(3-chlorophenyl)methoxy]phenyl]ethenyl]-1H-imidazole

monohydrochloride

RN: 77174-66-4 MF: C₁₈H₁₅ClN₂O · HCl MW: 347.25

LD₅₀: 1150 mg/kg (M, p.o.);

2 g/kg (R, p.o.)



Reference(s):

DOS 3 021 467 (Shionogi; appl. 6.6.1980; J-prior. 7.6.1979, 7.9.1979).
 US 4 328 348 (Shionogi; 4.5.1982; J-prior. 7.6.1979, 7.9.1979).
 US 4 463 011 (Shionogi; 31.7.1984; J-prior. 7.6.1979, 7.9.1979).
 US 4 483 866 (Shionogi; 20.11.1984; J-prior. 7.6.1979, 7.9.1979).

Formulation(s): cream 1 %; sol. 10 mg/g (1 %) (as hydrochloride)

Trade Name(s):

D: Pilzcin (Merz & Co.) J: Pilzcin (Shionogi)

Cromoglicic acid
 (Acidum cromoglicicum)

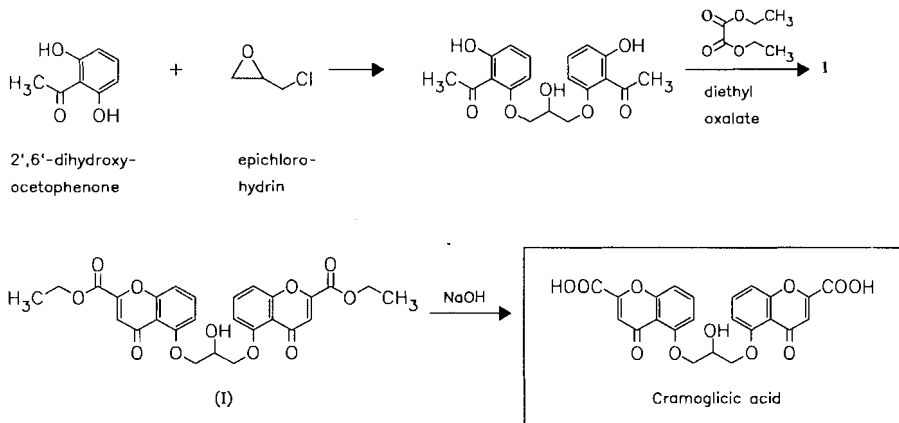
ATC: A07EB01; R01AC01; R03BC01;
 S01GX01

Use: antiallergic

RN: 16110-51-3 MF: C₂₃H₁₆O₁₁ MW: 468.37 EINECS: 240-279-8
 LD₅₀: >2.15 g/kg (R, p.o.)
 CN: 5,5'-(2-hydroxy-1,3-propanediyl)bis(oxy)]bis[4-oxo-4*H*-1-benzopyran-2-carboxylic acid]

disodium salt

RN: 15826-37-6 MF: C₂₃H₁₄Na₂O₁₁ MW: 512.33 EINECS: 239-926-7
 LD₅₀: 3300 mg/kg (M, i.v.); >11 g/kg (M, p.o.);
 >4 g/kg (R, i.v.); >11 g/kg (R, p.o.);
 >1.6 g/kg (dog, i.v.); >4 g/kg (dog, p.o.)

*Reference(s):*

DAS 1 543 579 (Fisons; appl. 23.3.1966; GB-prior. 25.3.1965, 9.12.1965, 17.12.1965).
 GB 1 144 905 (Fisons; valid from 3.3.1966; prior. 25.3.1965, 9.12.1965, 17.12.1965).
 US 3 419 578 (Fisons; 31.12.1968; GB-prior. 25.3.1965, 9.12.1965).
 Barker, G. et al.: J. Med. Chem. (JMCMAR) **16**, 87 (1973).
 US 3 671 625 (Fisons; 20.6.1972; GB-prior. 25.3.1965).
 US 3 686 412 (Fitzmonrice et al.; 22.8.1972; GB-prior. 25.3.1965).
 US 3 777 033 (Fisons; 4.12.1973; GB-prior. 25.3.1965).

disodium cromoglycate with particular mass density:

DOS 2 741 202 (Fisons; appl. 13.9.1977; GB-prior. 23.9.1976, 16.10.1976).

combination with anti-inflammatories:

US 4 066 756 (Fisons; 3.1.1978; GB-prior. 28.11.1975).
 US 4 151 292 (Fisons; 24.4.1979; GB-prior. 25.1.1977).

Formulation(s): aerosol 1 mg/0.05 ml; cps. 100 mg; gran. 100 mg, 200 mg; nasal spray 2.8 mg/0.14 ml, 20 mg/ml; ophthalmic drops 10 mg/0.5 ml, 20 mg/ml (as disodium salt)

Trade Name(s):

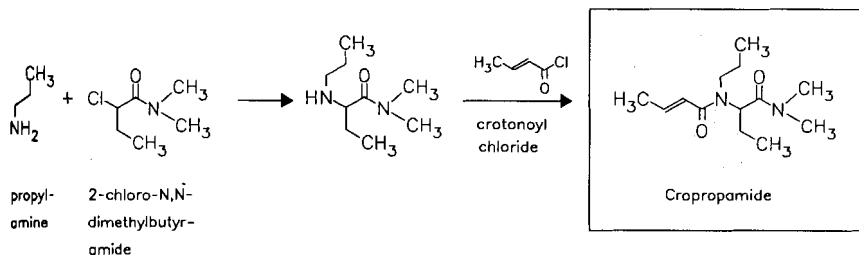
<p>D: Aarane (Rhône-Poulenc Rorer; 1983)-comb. Allergochrom (Ursapharm) Allergospasmin (ASTA Medica AWD; 1983)-comb. Colimune (Fisons) Colimune s 100/s 200 (Fisons) Durachroman (durachemie) Intal (Fisons; Rhône-Poulenc Rorer; 1970) Lomupren (Fisons) Opticrom (Fisons) Pulbil (Klinge) Vividrin (Mann) generics</p> <p>F: Cromedil (Europhta) Cromoptic (Chauvin)</p>	<p>GB: Intal Synchroner (Rhône-Poulenc Rorer; 1968) Nalcrom (Rhône-Poulenc Rorer) Opticrom (Rhône-Poulenc Rorer)</p>	<p>I: Cromantal (Nuovo Cons. Sanit. Naz.) Frenal (Schiapparelli Searle) Gastrofrenal (Schiapparelli Searle) Lomudal (Fisons) Nalcrom (Fisons) Rinofrenal (Schiapparelli Searle)-comb. Sificrom (SIFI) Visuglican (Merck Sharp & Dohme)-comb.</p> <p>J: Intal (Fujisawa; 1971)</p> <p>USA: Aarane (Syntex); wfm Intal (Fisons; 1973); wfm Nasalacrom (Fisons); wfm Opticrom (Fisons); wfm</p>
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Cropropamide

ATC: R07AB
Use: respiratory tonic

RN: 633-47-6 MF: C₁₃H₂₄N₂O₂ MW: 240.35 EINECS: 211-193-8

CN: N-[1-[(dimethylamino)carbonyl]propyl]-N-propyl-2-butenamide



Reference(s):

US 2 447 587 (Geigy; 1948; CH-prior. 1942).

Formulation(s): drops 15 % (comb. with crotetamide)

Trade Name(s):

<p>D: Micoren (Geigy)-comb. with crotetamide; wfm</p>	<p>F: Micorène (Ciba-Geigy)-comb. with crotetamide; wfm</p>	<p>GB: Micoren (Geigy)-comb. with crotetamide; wfm</p> <p>I: Micoren (Geigy)-comb. with crotetamide; wfm</p>
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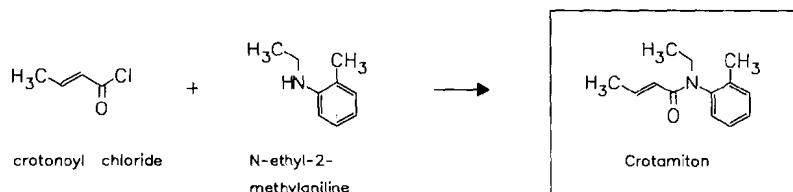
Crotamiton

ATC: P03A

Use: antipruritic, scabicide

RN: 483-63-6 MF: C₁₃H₁₇NO MW: 203.29 EINECS: 207-596-3LD₅₀: 1600 mg/kg (M, p.o.);

1500 mg/kg (R, p.o.)

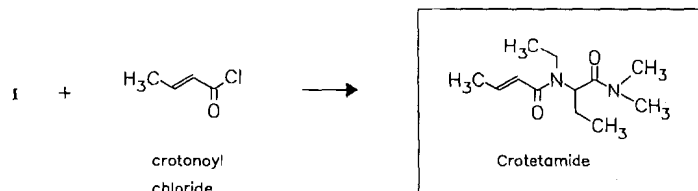
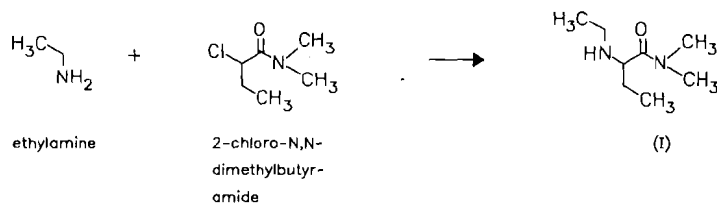
CN: *N*-ethyl-*N*-(2-methylphenyl)-2-butenamide*Reference(s):*

GB 615 137 (Geigy; appl. 1946).

Formulation(s): cream 0.1 g/g; gel 50 mg/100 g; ointment 100 mg/100 g; sol. 10 %*Trade Name(s):*D: Crotamitex-Gel
(gepapharm)
Euraxil (Novartis
Consumer Health)F: Eurax (Zyma)
GB: Eurax (Novartis Consumer)
I: Eurax (Zyma)
J: Dermarin (Taisho)Eurax (Ciba-Geigy-
Fujisawa)
USA: Eurax (Westwood-Squibb)**Crotetamide**

ATC: R07AB

Use: respiratory tonic

RN: 6168-76-9 MF: C₁₂H₂₂N₂O₂ MW: 226.32 EINECS: 228-208-9CN: *N*-[1-[(dimethylamino)carbonyl]propyl]-*N*-ethyl-2-butenamide*Reference(s):*

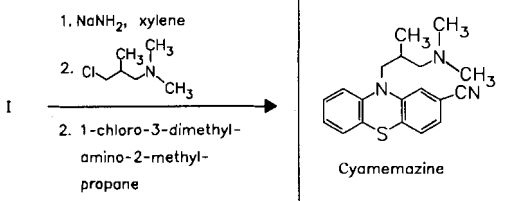
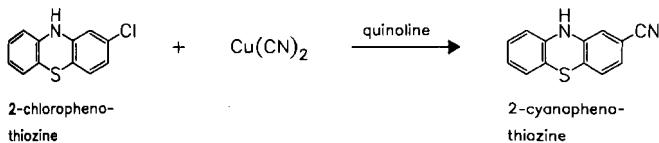
US 2 447 587 (Geigy; 1948; CH-prior. 1942).

Formulation(s): drops 15 % (comb. with cropropamide)

Trade Name(s):D: Micoren (Geigy)-comb.
with cropropamide; wfmF: Micorène (Ciba-Geigy)-
comb. with cropropamide;
wfmGB: Micoren (Geigy)-comb.
with cropropamide
I: Micoren (Zyma)-comb.
with cropropamide**Cyamemazine**
(Cyamepromazine)

ATC: N05AA06

Use: neuroleptic, tranquilizer

RN: 3546-03-0 MF: C₁₉H₂₁N₃S MW: 323.46 EINECS: 222-594-2CN: 10-[3-(dimethylamino)-2-methylpropyl]-10*H*-phenothiazine-2-carbonitrile**Reference(s):**

US 2 877 224 (Rhône-Poulenc; 1959; F-prior. 1955).

DE 1 056 611 (Rhône-Poulenc; appl. 1956; F-prior. 1955).

Formulation(s): amp. 50 mg/5 ml; drops 4 %; sol. 40 mg/ml; tabl. 25 mg, 100 mg**Trade Name(s):**D: Neutromil (Farmitalia)-
comb.; wfm

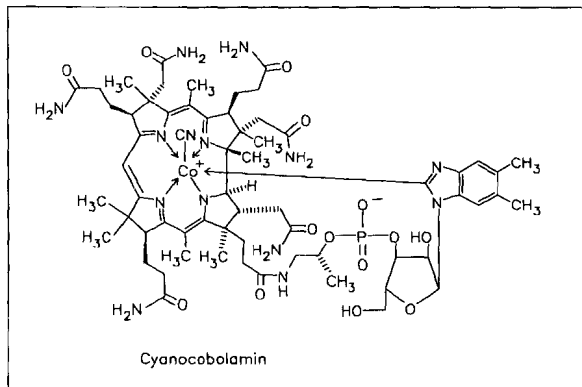
F: Tercian (Specia)

Cyanocobalamin
(Vitamin B₁₂)

ATC: B03BA01

Use: antipernicious vitamin

RN: 68-19-9 MF: C₆₃H₈₈CoN₁₄O₁₄P MW: 1355.39 EINECS: 200-680-0CN: cobinamide cyanide hydroxide dihydrogen phosphate (ester) inner salt 3'-ester with 5,6-dimethyl-1- α -D-ribofuranosyl-1*H*-benzimidazole



By fermentation with *Streptomyces griseus*, *S. olivaceus*, *S. aureofaciens*, *Bacillus megatherium* or *Propionibacterium freudenreichii*. Molasses is used generally as fermentation medium, CoCl_2 and 5,6-dimethylbenzimidazole are added. Various adsorption and extraction methods are used for isolation from the fermentation liquors.

Reference(s):

review:

- Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. **18**, 219.
 Kirk-Othmer Encycl. Chem. Technol., 2nd Ed. (15SWA8), Vol. **21**, (1963-1971), 544.
 Bernhauer, K. et al.: Angew. Chem. (ANCEAD) **75**, 1145 (1963).

fermentative preparation:

- US 2 505 053 (Merck & Co.; 1950; appl. 1948).
 US 2 530 416 (Merck & Co.; 1950; appl. 1949).
 US 2 563 794 (Merck & Co.; 1951; appl. 1949).
 US 2 582 589 (Abbott; 1952; appl. 1949).
 US 2 595 499 (Merck & Co.; 1952; appl. 1948).
 US 2 650 896 (Merck & Co.; 1953; appl. 1950).
 US 2 703 302 (Merck & Co.; 1955; appl. 1952).
 US 2 703 303 (Merck & Co.; 1955; prior. 1948).
 DE 1 046 258 (Soc. Farmaceutici Italia; appl. 1956; I-prior. 1955).
 DE 1 076 889 (Distillers; appl. 1958; GB-prior. 1957).
 US 2 951 017 (Distillers; 1960; GB-prior. 1957).
 US 3 000 793 (Merck & Co.; 1961; prior. 1955).
 US 3 018 225 (Merck & Co.; 23.1.1962; prior. 1953).
 DE 1 080 264 (Distillers; appl. 1958; GB-prior. 1957).
 DE 1 091 705 (Roche; appl. 1959).
 DE 1 109 317 (Roche; appl. 1959).
 GB 1 451 694 (Richter Gedeon; appl. 25.10.1974; H-prior. 26.10.1973).
 US 4 119 492 (Nippon Oil; 10.10.1978; J-prior. 5.2.1976).

yield increasing by addition of betaine to the nutritive medium:

- US 3 000 793 (Merck & Co.; 1961; appl. 1957).
 US 2 923 666 (Pabst Brewing Comp.; 1960; appl. 1954).

isolation from liver preparations:

- US 2 594 314 (Merck & Co.; 1952; appl. 1948).
 US 2 609 325 (Merck & Co.; 1952; appl. 1948).

purification and isolation:

- US 2 607 717 (Merck & Co.; 1952; appl. 1949).
 US 2 626 888 (Merck & Co.; 1953; appl. 1950).
 US 2 628 186 (Research Corp.; 1953; appl. 1950).
 US 3 057 851 (Armour; 9.10.1962; prior. 1955).

Formulation(s): amp. 0.1 mg, 1 mg; drg. 1 mg; drops 0.05 mg; inj. flask 0.5 mg, 1 mg, 5 mg

Trade Name(s):

D:	B ₁₂ "Ankermann" (Wörwag)	Vitamin B ₁₂ Injektionslösung (Wiedemann)	Epargriseovit (Farmitalia)- comb.
	B ₁₂ -Horfervit (Arteva Pharma)	Vitamin-B ₁₂ -ratiopharm (ratiopharm)	Eritrovit B ₁₂ (Lisapharma)
	B ₁₂ Rotexmedica (Rotexmedica)	numerous combination preparations	Mionevrasi (Boehringer Mannh.)-comb.
	B ₁₂ -Steigerwald (Steigerwald)	F:	Neoparibiol (Ecobi)- comb.
	B ₁₂ -Vicotrat (Heyl)	Alvityl (Solvay)-comb.	Reticulogen (Lilly)
	Biovital (Dr. Schieffer)- comb.	Azedanit (Whitehall)- comb.	Tonicum (SIT)-comb.
	Bryonon (Protina)-comb.	B ₁₂ Mille Delagrange (Synthelabo)	numerous combination preparations
	Cervevit (Baxter)-comb.	Berocca (Nicholas)-comb.	J:
	Cobidec (Warner- Lambert)-comb.	Forvital (Whitehall)-comb.	Actamin B ₁₂ (Yashima)
	Cytobion (Merck)	Pharmaton (Boehringer Ing.)-comb.	Redisol (Merck-Banyo)
	Dodecatol (Heyl)-comb.	Solvit (UCB)-comb.	numerous combination preparations
	Dolo-Neurobion (Merckle)-comb.	Synergil (Dakota)	USA:
	Eryfer (Cassella-med)- comb.	Vitamine B ₁₂ Aguettant (Aguettant)	Bevitamel (Westlake)
	Eukalasan (Steigerwald)- comb.	Vitamine B ₁₂ Lavoisier (Chaix et du Marais)	Chromagen (Savage)
	Hämo-Vibolex (Anphasaar)	Vivamyne (Whitehall)- comb.	Cyanocobalamin (Elkins- Sinn)
	Lophakomb (Lomapharm)	numerous combination preparations	Fetrin (Lunsco)
	Multibionta (Merckle)- comb.	GB:	Hemocyte-F (U.S. Pharmaceutical)
	Natabec (Warner-Lambert)	Cytacon (Goldshield)	Mega-B (Arco)
	Neurotrat (Knoll)-comb.	Cytamen (Evans)	Nascobal (Schwarz)
	Vicapam B ₁₂ (Merckle)	I:	Niferex (Schwarz)
	Vitamin B 12 forte (Hevert)	Cobequin (Casarini)	Nu-Iron-Plus Elixier (Merz)
	Vitamin B ₁₂ (OTW)	Dobetin (Anglini)	Rubramin PC (Squibb)
		Efargen (Teofarma)-comb.	Trinsicon (UCB)
			numerous combination preparations

Cyclandelate

ATC: C04AX01

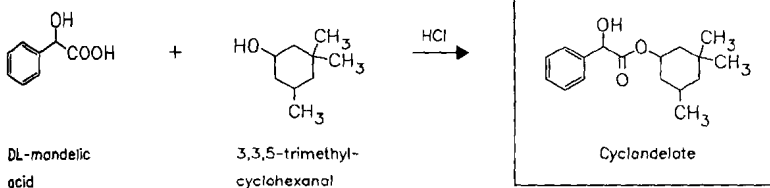
Use: antispasmodic

RN: 456-59-7 MF: C₁₇H₂₄O₃ MW: 276.38 EINECS: 207-271-6

LD₅₀: >10 g/kg (M, p.o.);

5 g/kg (R, p.o.)

CN: α-hydroxybenzeneacetic acid 3,3,5-trimethylcyclohexyl ester



Reference(s):

US 2 707 193 (Brocades-Stheeman; 1955; NL-prior. 1949).

purification:

US 3 663 597 (American Home; 16.5.1972; appl. 5.5.1970).

Formulation(s): cps. 400 mg; drg. 200 mg, 400 mg**Trade Name(s):**

D:	Eucebral-N (Südmedica)- comb. Natil (3M Medica) Spasmocyclon (3M Medica)	I:	Ciclospasmol (Brocades)	Hacosan (Sanko)
F:	Cyclergine (Poirier) Cyclospasmol (Yamanouchi) Novodil (Augot) Vascunormyl (Alcon)- comb.	J:	Anticen (Nippon Kayaku) Aposelebin (Hokuriku) Capilan (Takeda) Capistar (Kowa Yakuhin) Ceaclan (Mohan) Cepidan (Meiji) Circle-one (Funai) Circulat (Kotani) Cyclan (Ohta) Cyclan-Cap. (Nichiiko) Cyclansato (SS)	Hi-Cyclane Cap. (Tyama) Mandelic (Seiko) Marucyclan (Maruko) Mitalon (Toyo Pharmar) Newcellan Cap. (Kowa) Saiclate (Morishita) Sancyclan (Santen) Sepyron Cap. (Sankyo) Spadelate Cap. (Zeria) Venalal (Mochida) Zirkulat (Nippon Shoji)
GB:	Cyclobral (Norgine); wfm Cyclospasmol (Brocades); wfm		Cycleat Cap. (Hishiyama) Cycralate (Kanto)	USA: Cyclospasmol (Ives); wfm generics; wfm

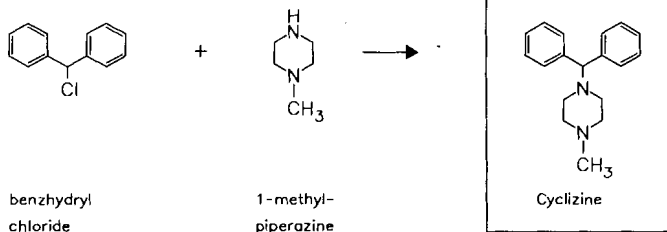
Cyclizine

ATC: R06AE03

Use: antihistaminic, anti-emetic

RN: 82-92-8 MF: $C_{18}H_{22}N_2$ MW: 266.39 EINECS: 201-445-5LD₅₀: 147 mg/kg (M, p.o.)

CN: 1-(diphenylmethyl)-4-methylpiperazine

monohydrochlorideRN: 303-25-3 MF: $C_{18}H_{22}N_2 \cdot HCl$ MW: 302.85 EINECS: 206-136-9LD₅₀: 165 mg/kg (M, p.o.)**lactate (1:1)**RN: 5897-19-8 MF: $C_{18}H_{22}N_2 \cdot C_3H_6O_3$ MW: 356.47**Reference(s):**

US 2 630 435 (Burroughs Wellcome; 1953; prior. 1948).

Formulation(s): amp. 50 mg; suppos. 100 mg; tabl. 25 mg, 50 mg (as hydrochloride)**Trade Name(s):**

D:	Migräne-Kranit spezial (Krewel)-comb.; wfm	GB:	Diconal (Glaxo Wellcome)- comb.	I:	Marzine (Wellcome; as hydrochloride)
F:	Migwell (Glaxo Wellcome); as hydrochloride)-comb.		Migril (Glaxo Wellcome)- comb.	J:	Cleamine (Kodama)-comb.
			Valoid (Glaxo Wellcome)	USA:	Marezine (Burroughs Wellcome); wfm

Marezine (Burroughs
Wellcome; as
hydrochloride); wfm

Cyclobarbital

(Hexemal; Cyclobarbitone)

ATC: N05CA10

Use: hypnotic

RN: 52-31-3 MF: $C_{12}H_{16}N_2O_3$ MW: 236.27 EINECS: 200-138-3

LD₅₀: 840 mg/kg (M, p.o.)

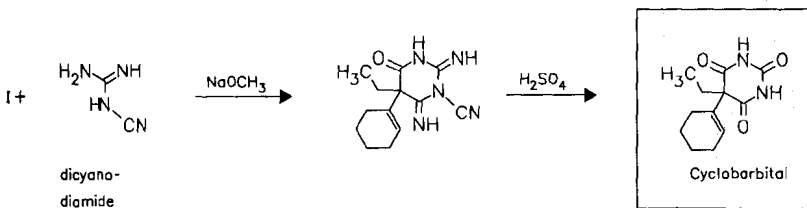
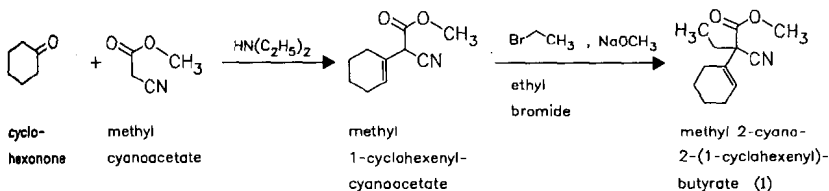
CN: 5-(1-cyclohexen-1-yl)-5-ethyl-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione

calcium salt

RN: 5897-20-1 MF: $C_{12}H_{16}N_2O_3 \cdot xCa$ MW: unspecified EINECS: 227-590-4

calcium salt (2:1)

RN: 143-76-0 MF: $C_{24}H_{30}CaN_4O_6$ MW: 510.60 EINECS: 205-610-2



Reference(s):

DRP 442 655 (Bayer; 1924).

GB 231 150 (Bayer; 1924).

Formulation(s): cps. 75 mg; tabl. 100 mg, 200 mg (as calcium salt)

Trade Name(s):

D: Dormopan (Bayropharm)-
comb.; wfm
Gastripan (Merckle)-
comb.; wfm
Itridal (Homburg)-comb.;
wfm
Medinox (Pfleger)-comb.;
wfm
Phanodorm (Bayer); wfm

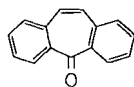
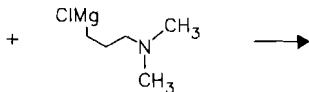
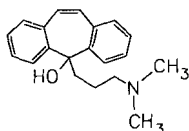
Somnubene (Merckle)-
comb.; wfm
Somnupan C (Merckle);
wfm
Stodinox (Lorenz)-comb.;
wfm
Tempidorm N (Roland)-
comb.; wfm
generics; wfm

F: Dormopan (Bayer-
Pharma)-comb.; wfm
GB: Phanodorm (Winthrop);
wfm
Rapidal (Medo)
I: Cyclobarbitatum (Sale di
calcio)
J: Adorm (Shionogi)

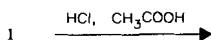
Cyclobenzaprine

ATC: M03BX08

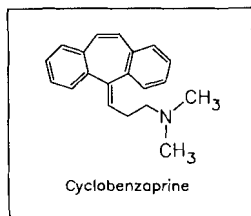
Use: muscle relaxant, psychosedative

RN: 303-53-7 MF: C₂₀H₂₁N MW: 275.40 EINECS: 206-145-8LD₅₀: 36 mg/kg (M, i.v.); 250 mg/kg (M, p.o.)CN: 3-(5*H*-dibenzo[*a,d*]cyclohepten-5-ylidene)-*N,N*-dimethyl-1-propanamine**hydrochloride**RN: 6202-23-9 MF: C₂₀H₂₁N · HCl MW: 311.86 EINECS: 228-264-4LD₅₀: 36 mg/kg (M, i.v.); 250 mg/kg (M, p.o.)dibenzo[*a,d*]cyclo-
hepten-5-one3-dimethylamino-
propylmagnesium
chloride

(I)



1

**Reference(s):**

US 3 272 864 (Merck & Co.; 13.9.1966; appl. 19.4.1962).

US 3 409 640 (Schering Corp.; 5.11.1968; appl. 22.7.1959).

medical use:

US 3 882 246 (Merck & Co.; 6.5.1975; prior. 31.1.1973, 21.5.1971, 9.4.1974).

Formulation(s): cps. 10 mg; tabl. 10 mg, 30 mg (as hydrochloride)**Trade Name(s):**

I: Flexiban (Neopharmed)

USA: Flexeril (Merck; as
hydrochloride)**Cyclobutyrol**

ATC: A05AX03

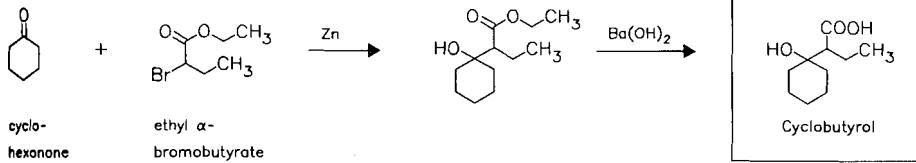
Use: choleric

RN: 512-16-3 MF: C₁₀H₁₈O₃ MW: 186.25 EINECS: 208-138-5LD₅₀: 2900 mg/kg (M, i.v.); >10 g/kg (M, p.o.);

1760 mg/kg (R, i.v.); 4820 mg/kg (R, p.o.)

CN: α-ethyl-1-hydroxycyclohexaneacetic acid

monosodium saltRN: 1130-23-0 MF: C₁₀H₁₇NaO₃ MW: 208.23 EINECS: 214-458-6**calcium salt**RN: 40043-69-4 MF: C₁₀H₁₈O₃ · xCa MW: unspecified**betaine salt (1:1)**RN: 23579-12-6 MF: C₁₀H₁₇O₃ · C₅H₁₂NO₂ MW: 303.40 EINECS: 245-750-1

**Reference(s):**

DE 1 094 254 (Lab. J. Logeais; appl. 14.2.1959; F-prior. 19.2.1958).

US 3 065 134 (Lab. J. Logeais; 20.11.1962; F-prior. 19.2.1958).

Maillard, J. et al.: Bull. Soc. Chim. Fr. (BSCFAS) **1958**, 244.**Formulation(s):** amp. 200 mg; tabl. 250 mg (as sodium salt)**Trade Name(s):**D: Benestan (Karlspharma)-
comb.; wfmTrommgallol
(Trommsdorff)-comb.; wfm

I: Epa-Bon (Sifarma)

J: Lipotrin (Eisai)

F: Hébucol (J. Logeais)

Riphole N (Nichiiko)

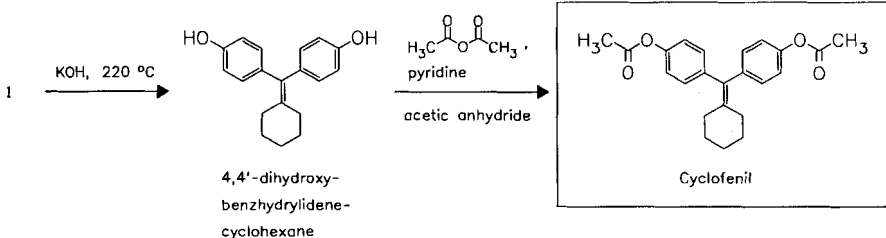
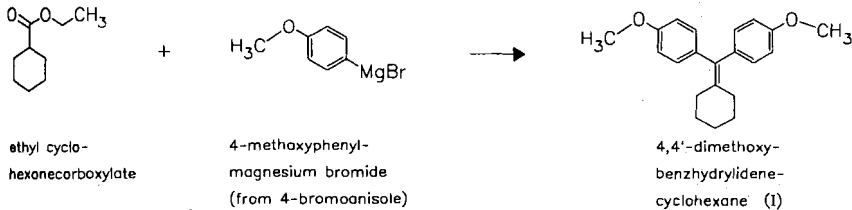
Cyclofenil

ATC: G03GB01

Use: gonadotropin stimulant (against
infertility)RN: 2624-43-3 MF: $\text{C}_{23}\text{H}_{24}\text{O}_4$ MW: 364.44 EINECS: 220-089-1LD₅₀: >12.5 g/kg (M, p.o.);

>12 g/kg (R, p.o.)

CN: 4-[[4-(acetyloxy)phenyl]cyclohexylidene]phenol acetate

**Reference(s):**

US 3 287 397 (K.G. Olsson et al.; 22.11.1966; GB-prior. 22.11.1960).

Formulation(s): tabl. 100 mg, 200 mg, 400 mg**Trade Name(s):**

D: Fertodur (Schering); wfm

GB: Ondonit (Roussel); wfm

I: Fertodur (Schering)

F: Ondogyne (Roussel); wfm

Rehibin (Thames); wfm

Neoclym (Poli)

J: Sexovid (Teikoku Zoki)

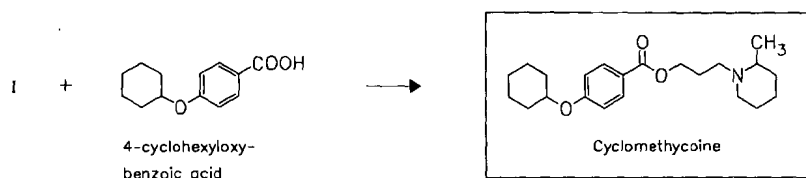
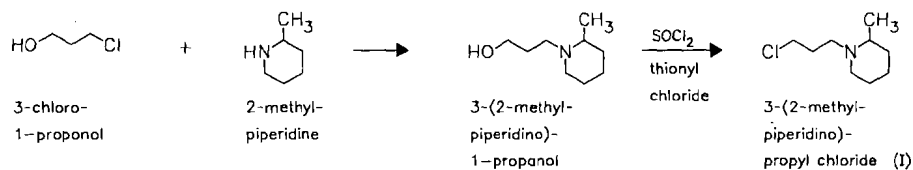
Cyclomethycaine

ATC: S01HA

Use: local anesthetic

RN: 139-62-8 MF: $C_{22}H_{33}NO_3$ MW: 359.51

CN: 4-(cyclohexyloxy)benzoic acid 3-(2-methyl-1-piperidinyl)propyl ester

sulfate (2:1)RN: 6202-05-7 MF: $C_{22}H_{33}NO_3 \cdot 1/2H_2SO_4$ MW: 817.10**sulfate (1:1)**RN: 50978-10-4 MF: $C_{22}H_{33}NO_3 \cdot H_2SO_4$ MW: 457.59**Reference(s):**

US 2 439 818 (S. M. McElvain, T. P. Carney; 1948; appl. 1946).

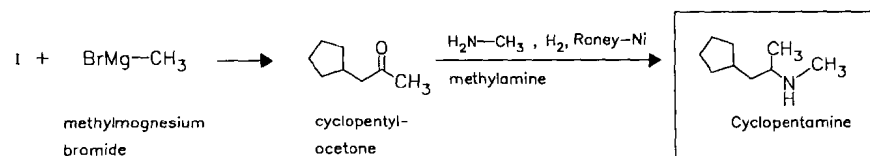
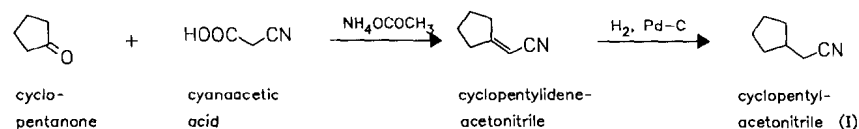
McElvain, S.M.; Carney, T.P.; J. Am. Chem. Soc. (JACSAT) **68**, 2592 (1946).**Formulation(s):** cream 0.5 % - 1 %; ointment 0.5 - 1 %; spray 0.25 %**Trade Name(s):**

USA: Surfacaine (Lilly); wfm

Cyclopentamine

ATC: R01AA02

Use: sympathomimetic

RN: 102-45-4 MF: $C_9H_{19}N$ MW: 141.26CN: *N*, α -dimethylcyclopentaneethanamine

Reference(s):

US 2 520 015 (Eli Lilly; 1950; prior. 1948).

Formulation(s): amp. 10 mg, 25 mg; sol.**Trade Name(s):**D: Copyronilum (Lilly)-
comb.; wfmF: Cyclonarol (Hépatrol);
wfmI: Copyronil (Lilly); wfm
USA: Clopane (Lilly); wfm**Cyclopenthiiazide**

(Cyclomethiazide)

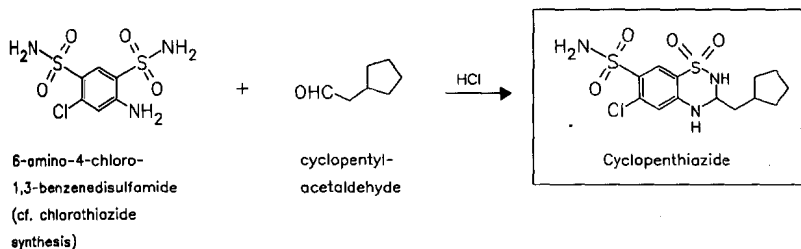
ATC: C03AA07

Use: diuretic, antihypertensive

RN: 742-20-1 MF: C₁₃H₁₈ClN₃O₄S₂ MW: 379.89 EINECS: 212-012-5LD₅₀: 232 mg/kg (M, i.v.); >1 g/kg (M, p.o.);

142 mg/kg (R, i.v.); 1 g/kg (R, p.o.)

CN: 6-chloro-3-(cyclopentylmethyl)-3,4-dihydro-2H-1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide

**Reference(s):**

BE 587 225 (Ciba; appl. 3.2.1960; USA-prior. 4.2.1959).

Whitehead, C.W. et al.: J. Org. Chem. (JOCEAH) **26**, 2814 (1961).**Formulation(s):** tabl. 0.25 mg, 0.5 mg**Trade Name(s):**

D: Navidrex (Ciba); wfm

Trasidrex (Novartis)-comb.

USA: Navidrix (Ciba-Geigy);

GB: Navidrex (Novartis)

J: Navidrex (Ciba-Geigy-

wfm

Navispare (Novartis)-comb.

Takeda)

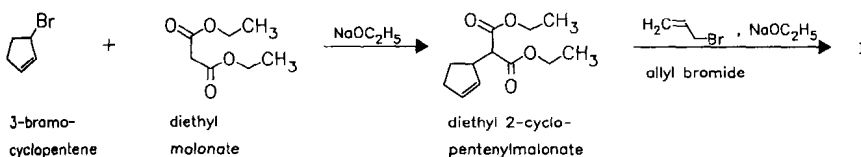
Cyclopentobarbital

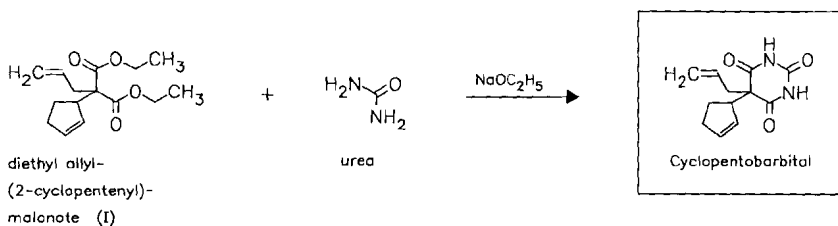
ATC: N05CA

Use: hypnotic

RN: 76-68-6 MF: C₁₂H₁₄N₂O₃ MW: 234.26 EINECS: 200-979-6LD₅₀: 90 mg/kg (R, i.p.)

CN: 5-(2-cyclopenten-1-yl)-5-(2-propenyl)-2,4,6(1H,3H,5H)-pyrimidinetrione



*Reference(s):*

DRP 589 947 (Comp. de Béthune; appl. 1930; F-prior. 1929).

Trade Name(s):

D: Cyclopal (Siegfried); wfm

Cyclopentolate

ATC: S01FA04

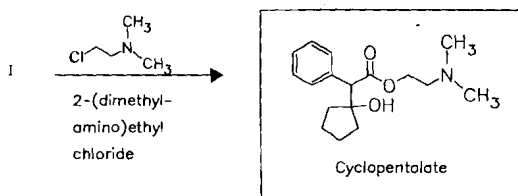
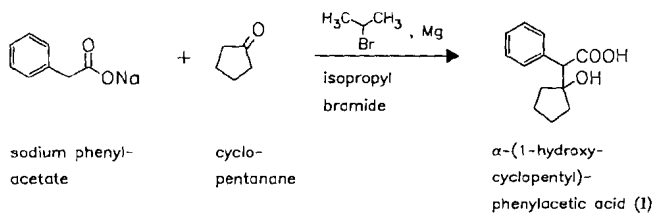
Use: antispasmodic, mydriatic

RN: 512-15-2 MF: C₁₇H₂₅NO₃ MW: 291.39 EINECS: 208-136-4

CN: α-(1-hydroxycyclopentyl)benzeneacetic acid 2-(dimethylamino)ethyl ester

hydrochlorideRN: 5870-29-1 MF: C₁₇H₂₅NO₃ · HCl MW: 327.85 EINECS: 227-521-8LD₅₀: 84 mg/kg (M, i.v.); 960 mg/kg (M, p.o.);

>4 g/kg (R, p.o.)

*Reference(s):*

US 2 554 511 (Schieffelin & Co.; 1951; prior. 1949).

Formulation(s): eye drops 5 mg (0.5 %, 1 %) (as hydrochloride)*Trade Name(s):*D: Cyclopentolat
Augentropfen (Alcon)
Zyklolat EDO (Mann)GB: Minims Cyclopentolate
(Chauvin)
Mydrilate (Boehringer Ing.)

F: Skiacol (Alcon)

I: Ciclolux (Allergan)
USA: Cyclogyl (Alcon); wfmCyclomydril (Alcon)-
comb.; wfm
generics and combination
preparations; wfm

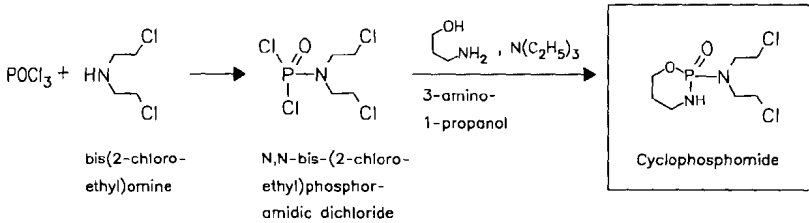
Cyclophosphamide

ATC: L01AA01

Use: antineoplastic

RN: 50-18-0 MF: $C_7H_{15}Cl_2N_2O_2P$ MW: 261.09 EINECS: 200-015-4LD₅₀: 140 mg/kg (M, i.v.); 137 mg/kg (M, p.o.);

148 mg/kg (R, i.v.); 160 mg/kg (R, p.o.)

CN: *N,N*-bis(2-chloroethyl)tetrahydro-2*H*-1,3,2-oxazaphosphorin-2-amine 2-oxide**Reference(s):**

DE 1 057 119 (ASTA-Werke; appl. 10.2.1956).

US 3 018 302 (ASTA-Werke; 23.1.1962; D-prior. 10.2.1956).

Formulation(s): drg. 50 mg; f. c. tabl. 50 mg; vial 100 mg, 200 mg, 500 mg, 1000 mg**Trade Name(s):**

D:	Cyclo-cell (cell pharm)	F:	Endoxan ASTA (ASTA Medica)	J:	Endoxan (Shionogi)
	Cyclostin (Pharmacia & Upjohn)	GB:	Endoxana (ASTA Medica)	USA:	Cytoxan (Bristol-Myers Squibb)
	Endoxan (ASTA Medica AWD)	I:	Endoxan-Asta (ASTA Medica)		

Cycloserine

(Orientomycin)

ATC: J04AB01

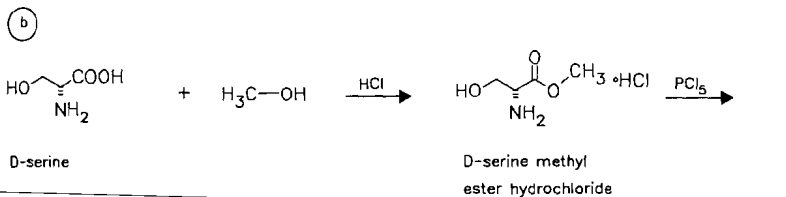
Use: antibiotic (tuberculostatic)

RN: 68-41-7 MF: $C_3H_6N_2O_2$ MW: 102.09 EINECS: 200-688-4LD₅₀: 560 mg/kg (M, i.v.); 5290 mg/kg (M, p.o.);

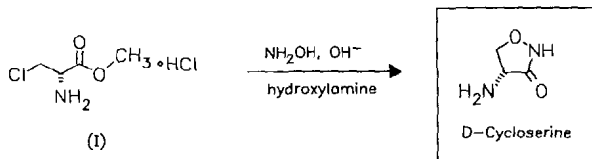
>5 g/kg (R, p.o.);

>2 g/kg (dog, p.o.)

CN: (R)-4-amino-3-isoxazolidinone

hydrogen tartrateRN: 17139-97-8 MF: $C_3H_6N_2O_2 \cdot C_4H_6O_6$ MW: 252.18(a) from fermentation solutions of *Streptomyces garyphalus*, *S. orchidaceus*, *S. lavendulae*

1

*Reference(s):*

- a US 2 773 878 (Pfizer; 1956; appl. 1952).
 US 2 789 983 (Commercial Solvents; 1957; prior. 1954).
 US 2 845 433 (Merck & Co.; 1958; appl. 1955).
- b Plattner, P.A. et al.: *Helv. Chim. Acta (HCACAV)* **40**, 1531 (1957).
 Smrt, J. et al.: *Experientia (EXPEAM)* **13**, 291 (1957).

alternative syntheses:

- US 2 772 280 (Merck & Co.; 1956; appl. 1954).
 US 2 840 565 (Merck & Co.; 1958; appl. 1954).

Formulation(s): cps. 250 mg; tabl. 250 mg

Trade Name(s):

D:	D-Cycloserin "Roche" (Roche); wfm	GB:	Cycloserine Roche (Roche); wfm	Orientmycin (Kayaku- Kakenyaku)
F:	D-Cyclosérine Roche (Roche); wfm	I:	Ciclozer (Formulario Naz.)	Seromycin (Lilly- Schionogi)
		J:	Cyclomycin (Shionogi)	USA: Seromycin (Dura)

Cyclothiazide

ATC: C03AA09

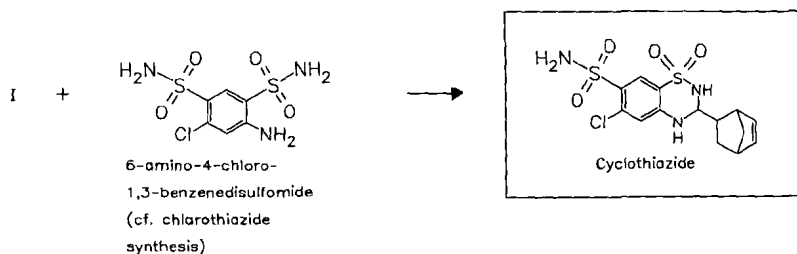
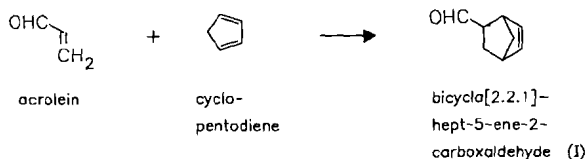
Use: diuretic

RN: 2259-96-3 MF: C₁₄H₁₆ClN₃O₄S₂ MW: 389.88 EINECS: 218-859-7

LD₅₀: >5 g/kg (M, p.o.);

>5 g/kg (R, p.o.)

CN: 3-bicyclo[2.2.1]hept-5-en-2-yl-6-chloro-3,4-dihydro-2H-1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide



Reference(s):

US 3 275 625 (Boehringer Ing.; 27.9.1966; prior. 23.1.1961).
 DE 1 125 938 (Thomae; appl. 12.2.1960).
 GB 915 236 (Eli Lilly; appl. 25.7.1961; USA-prior. 31.10.1960).

Formulation(s): tabl. 2.5 mg, 3 mg

Trade Name(s):

D:	Dimapres (Dieckmann)- comb.; wfm	F:	Cyclotériam (Roussel Diamant)-comb. with triamterene	J:	Valmiran (Boehringer- Tanabe)
				USA:	Anhydron (Lilly)

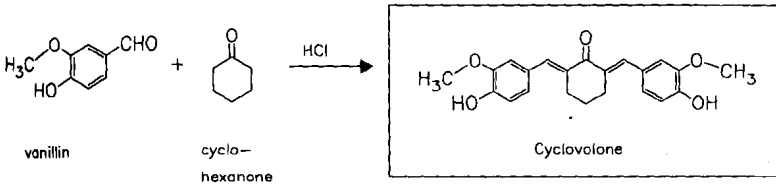
Cyclovalone

Use: digestant, choleric

RN: 579-23-7 MF: C₂₂H₂₂O₅ MW: 366.41 EINECS: 209-438-9

LD₅₀: 56 mg/kg (M, i.v.)

CN: 2,6-bis[(4-hydroxy-3-methoxyphenyl)methylene]cyclohexanone

**Reference(s):**

AT 180 258 (A. v. Waldheim Chem. Pharm. Fabrik; appl. 1953).
 Rumpel, W.: Arch. Pharm. Ber. Dtsch. Pharm. Ges. (APBDJ) **287**, 350 (1954).

Formulation(s): gran. 0.66/100 g

Trade Name(s):

D:	Beveno (Fischer); wfm	F:	Vanilone (Iénapharm)	GB:	Vanisorbyl (Nicholas); wfm
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Cycrimine

ATC: N04

Use: antiparkinsonian

RN: 77-39-4 MF: C₁₉H₂₉NO MW: 287.45 EINECS: 201-024-6

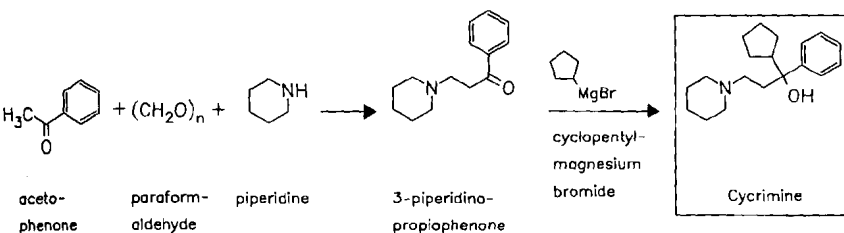
CN: α -cyclopentyl- α -phenyl-1-piperidinepropanol

hydrochloride

RN: 126-02-3 MF: C₁₉H₂₉NO · HCl MW: 323.91 EINECS: 204-764-8

LD₅₀: 50 mg/kg (M, i.v.); 349 mg/kg (M, p.o.);

628 mg/kg (R, p.o.)



Reference(s):

US 2 680 115 (Winthrop-Stearns, 1954; prior. 1949).

Formulation(s): tabl. 0.25 mg, 0.5 mg*Trade Name(s):*

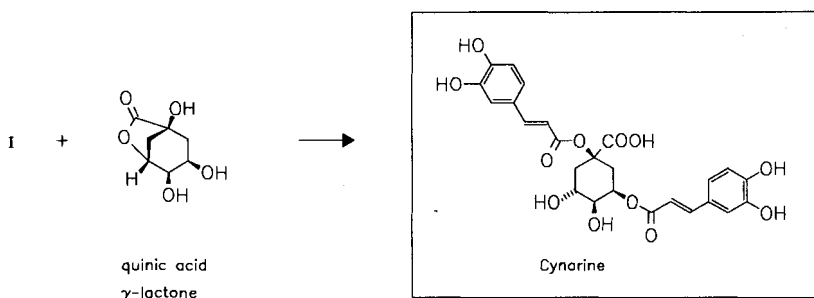
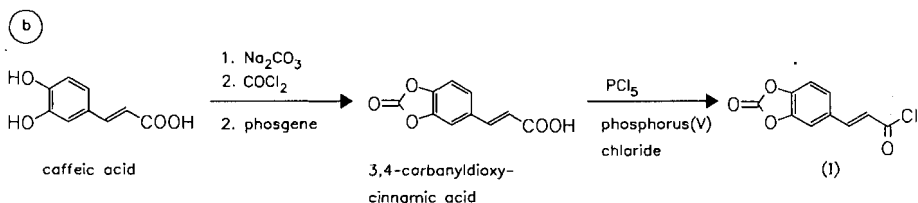
I: Pagitane (Lilly); wfm

USA: Pagitane (Lilly); wfm

Cynarine

ATC: A06AB20

Use: choleric

RN: 1182-34-9 MF: C₂₅H₂₄O₁₂ MW: 516.46 EINECS: 214-655-7LD₅₀: 1900 mg/kg (M, i.p.)CN: (1 α ,3 α ,4 α ,5 β)-1,4-bis[[3-(3,4-dihydroxyphenyl)-1-oxo-2-propenyl]oxy]-3,5-dihydroxycyclohexanecarboxylic acid(a) from *Cynara scolymus* (artichokes) leaves by extraction*Reference(s):*

a US 2 863 909 (Farmitalia; 9.12.1958; I-prior. 28.5.1954).

b US 3 100 224 (Farmitalia; 6.8.1963; I-prior. 28.5.1954).

*synthesis of quinic acid lactone:*Wolinsky, J. et al.: J. Org. Chem. (JOCEAH) **29**, 3596 (1964).*Formulation(s):* tabl.*Trade Name(s):*D: Benestan (Karlspharma)-
comb.; wfmListrocol (Carlo Erba);
wfmMethiocholin (Pfleger)-
comb.; wfm

J: Plemocil (Sumitomo)

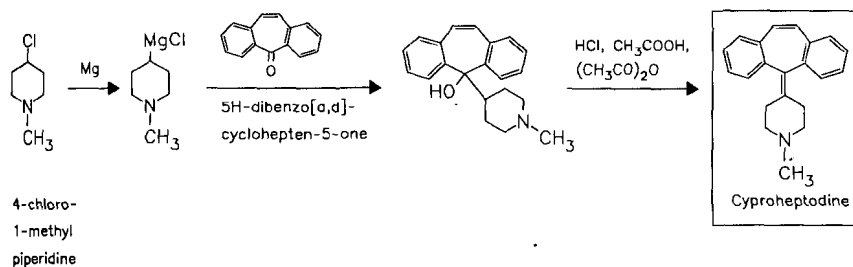
Cyproheptadine

ATC: R06AX02
 Use: antiallergic, appetite stimulant

RN: 129-03-3 MF: C₂₁H₂₁N MW: 287.41 EINECS: 204-928-9
 LD₅₀: 15 mg/kg (M, i.v.); 106 mg/kg (M, p.o.);
 295 mg/kg (R, p.o.)
 CN: 4-(5*H*-dibenzo[*a,d*]cyclohepten-5-ylidene)-1-methylpiperidine

hydrochloride

RN: 969-33-5 MF: C₂₁H₂₁N · HCl MW: 323.87 EINECS: 213-535-1
 LD₅₀: 23 mg/kg (M, i.v.); 69 mg/kg (M, p.o.);
 295 mg/kg (R, p.o.)

**Reference(s):**

US 3 014 911 (Merck & Co.; 26.12.1961; prior. 13.7.1959).
 Engelhardt, E.L. et al.: J. Med. Chem. (JMCMAR) **8**, 829 (1965).

Formulation(s): syrup 2 mg/5 ml; tabl. 4 mg (as hydrochloride)

Trade Name(s):

D:	Peritol (medphano)	GB:	Periactin (Merck Sharp & Dohme)	USA:	Periactin (Merck-Banyu)
F:	Périactine (Merck Sharp & Dohme; as hydrochloride)	I:	Periactin (Neopharmed)		Periactin (Merck; as hydrochloride)
		J:	Ifrasarl (Showa Shinyaku)		

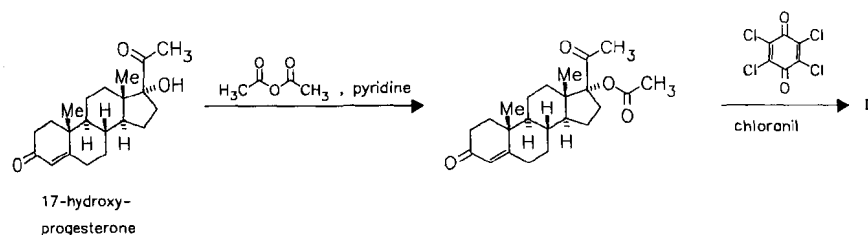
Cyproterone acetate

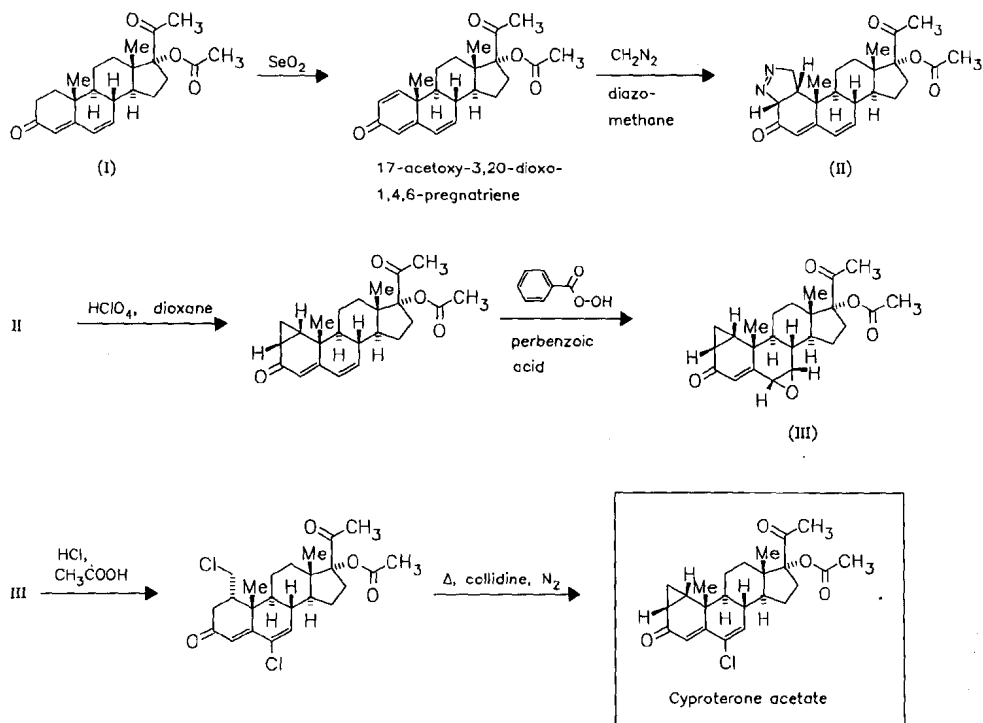
ATC: L02BB; G03HB
 Use: antiandrogen

RN: 427-51-0 MF: C₂₂H₂₇ClO₃ MW: 374.91 EINECS: 207-048-3
 CN: (1β,2β)-17-(acetyloxy)-6-chloro-1,2-dihydro-3'*H*-cyclopropa[1,2]pregna-1,4,6-triene-3,20-dione

cyproterone

RN: 2098-66-0 MF: C₂₂H₂₇ClO₃ MW: 374.91



*Reference(s):*

- DE 1 072 991 (Schering AG; appl. 25.10.1958).
 DE 1 096 353 (Schering AG; appl. 11.7.1959).
 DE 1 158 966 (Schering AG; appl. 29.4.1961).
 DE 1 189 991 (Schering AG; appl. 31.5.1963).
 US 3 234 093 (Schering AG; 8.2.1966; appl. 24.4.1962; D-prior. 29.4.1961).

synthesis of 17-hydroxyprogesterone:

- DE 1 119 266 (Schering AG; appl. 18.12.1957).
 US 2 962 510 (Schering AG; 29.11.1960; appl. 9.12.1958; D-prior. 18.12.1957).

alternative synthesis:

- DE 1 183 500 (Schering AG; appl. 12.10.1962).
 DOS 3 331 824 (Schering AG; appl. 1.9.1983).
 DOS 4 006 165 (Schering AG; appl. 25.2.1990).

review:

Wiechert, R.: Z. Naturforsch., B: Anorg. Chem., Org. Chem., Biochem., Biophys., Biol. (ZENBAX) **196**, 944 (1964).

Formulation(s): amp. 300 mg/3 ml; tabl. 10 mg, 50 mg

Trade Name(s):

- | | | | |
|----|-------------------------|-------------------------|---------------------------|
| D: | Androcur (Schering) | Climéne (Schering) | Dianette (Schering)-comb. |
| | Climen (Schering)-comb. | Diane (Schering)-comb. | I: Androcur (Schering) |
| | Diane (Schering)-comb. | GB: Androcur (Schering) | Diane (Schering)-comb. |
| F: | Androcur (Schering) | Cyprostat (Schering) | J: Androcur (Schering) |

Cytarabine

(ara C; Cytosine arabinoside)

ATC: L01BC01

Use: antineoplastic, antiviral

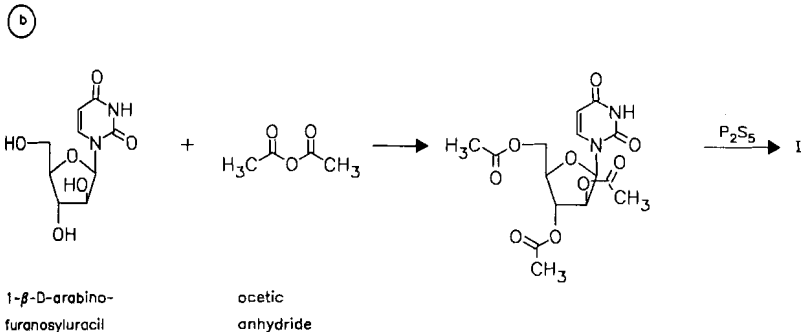
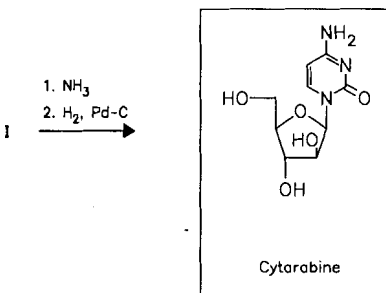
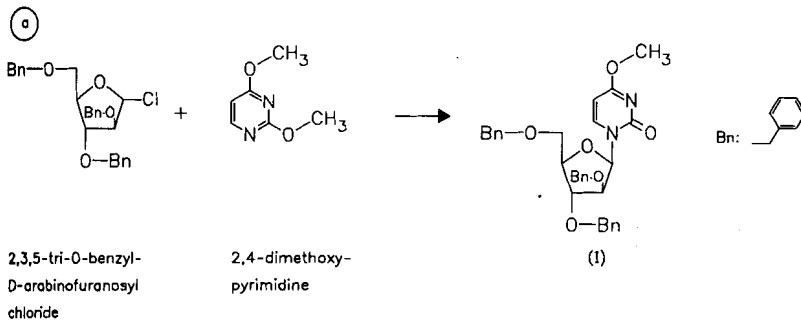
RN: 147-94-4 MF: $C_9H_{13}N_3O_5$ MW: 243.22 EINECS: 205-705-9LD₅₀: >7 g/kg (M, i.v.); 3150 mg/kg (M, p.o.);

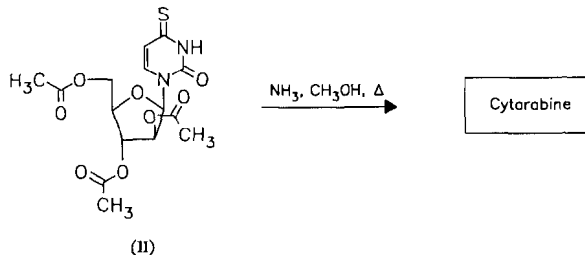
>5 g/kg (R, i.v.); >5 g/kg (R, p.o.)

CN: 4-amino-1-β-D-arabinofuranosyl-2(1*H*)-pyrimidinone**monohydrochloride**RN: 69-74-9 MF: $C_9H_{13}N_3O_5 \cdot HCl$ MW: 279.68 EINECS: 200-713-9LD₅₀: 826 mg/kg (M, p.o.);

>3.2 g/kg (R, p.o.);

172 mg/kg (dog, i.v.)



*Reference(s):*

NL-appl. 6 511 420 (Merck & Co.; appl. 1.9.1965; USA-prior. 2.9.1964).
 US 3 116 282 (Upjohn; 1963, prior. 1959).

alternative synthesis:

Roberts, W.K.; Dekker, C.A.: J. Org. Chem. (JOCEAH) **32**, 816 (1967).
 Fromageot, H.P.M.; Reese, C.B.: Tetrahedron Lett. (TELEAY) **1966**, 3499.
 Claesen, C.A.A. et al.: Tetrahedron Lett. (TELEAY) **26**, 3859 (1985).

Formulation(s): amp. 40 mg/2 ml, 100 mg/5 ml, 1 g/20 ml, 1 g/10 ml

Trade Name(s):

D:	Alexan (Mack)	Cytarbel (Rhône-Poulenc Roger Bellon)	J:	Erpalfa (Intes)	
	ARA-cell (cell pharm)			Cyclocide (Nippon Shinyaku)	
	Udicil (Pharmacia & Upjohn)	GB:		Cytosar (Upjohn)	
F:	Aracytine (Pharmacia & Upjohn)	I:	Alexan (Byk Gulden) Aracytin (Upjohn)	USA:	Cytosar-U (Pharmacia & Upjohn)

Dacarbazine

(DTIC)

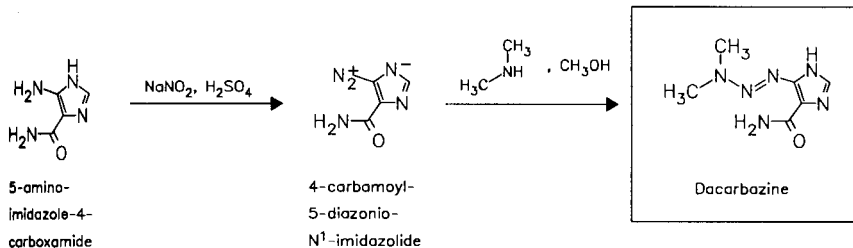
ATC: L01XX13

Use: antineoplastic

RN: 4342-03-4 MF: C₆H₁₀N₆O MW: 182.19 EINECS: 224-396-1LD₅₀: 466 mg/kg (M, i.v.); 2032 mg/kg (M, p.o.);

411 mg/kg (R, i.v.); 2147 mg/kg (R, p.o.)

CN: 5-(3,3-dimethyl-1-triazenyl)-1H-imidazole-4-carboxamide

**Reference(s):**Shealy, J.F. et al.: J. Org. Chem. (JOCEAH) **27**, 2150 (1962).**Formulation(s):** lyo. 100 mg, 200 mg**Trade Name(s):**

D:	Detimedac (medac)	GB:	DTIC-DOME (Bayer)	USA:	DTIC-DOME (Bayer)
	D.T.I.C. 100/200 (Rhône-Poulenc)	I:	Deticene (Rhône-Poulenc Rorer)		
F:	Deticene (Rhône-Poulenc Rorer Bellon)	J:	Dacarbazine (Kyowa Hakko)		

Dactinomycin

(Actinomycin D; Meractinomycin)

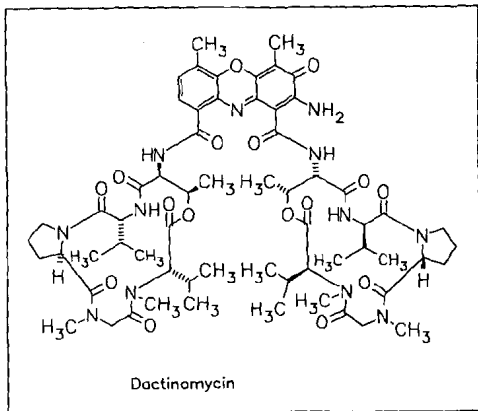
ATC: L01DA01

Use: antibiotic, antineoplastic

RN: 50-76-0 MF: C₆₂H₈₆N₁₂O₁₆ MW: 1255.44 EINECS: 200-063-6LD₅₀: 1025 µg/kg (M, i.v.); 13 mg/kg (M, p.o.);

460 µg/kg (R, i.v.); 7200 µg/kg (R, p.o.)

CN: stereoisomer of *N,N'*-[(2-amino-4,6-dimethyl-3-oxo-3*H*-phenoxazine-1,9-diyl)bis[carbonylimino[2-(1-hydroxyethyl)-1-oxo-2,1-ethanediy]]imino[2-(1-methylethyl)-1-oxo-2,1-ethanediy]]-1,2-pyrrolidinediylcarbonyl(methylimino)(1-oxo-2,1-ethanediy]]bis[*N*-methyl-L-valine] di-ξ-lactone



From cultures of *Actinomyces antibioticus* and chromatographic purification on Al_2O_3 .

Reference(s):

US 2 378 876 (Merck & Co.; 1945; appl. 1941).

Formulation(s): lyo. 0.5 mg

Trade Name(s):

D:	Lyovac (Merck Sharp & Dohme)	I:	Cosmegen (Merck Sharp & Dohme)
GB:	Cosmegen Lyovac (Merck Sharp & Dohme)	USA:	Cosmegen (Merck Sharp & Dohme)

Danazol

ATC: G03XA01

Use: antigonadotropin, anterior pituitary suppressant

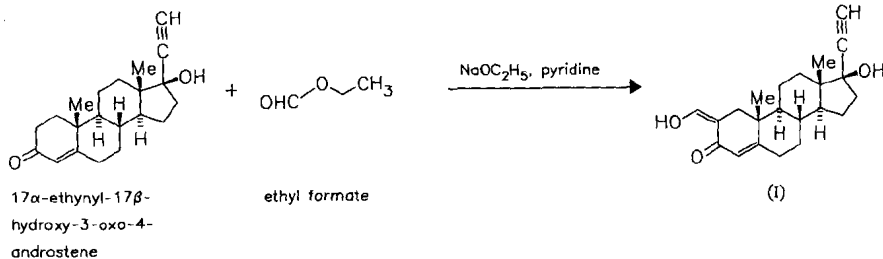
RN: 17230-88-5 MF: $C_{22}H_{27}NO_2$ MW: 337.46 EINECS: 241-270-1

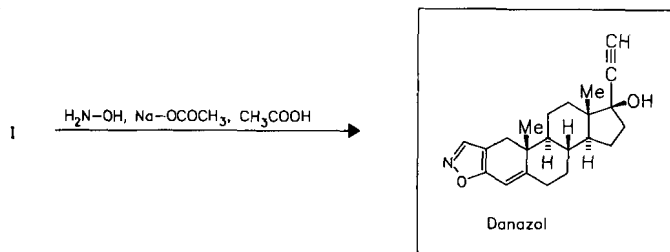
LD₅₀: 4830 mg/kg (M, p.o.);

>17 g/kg (R, p.o.);

>5 g/kg (dog, p.o.)

CN: (17 α)-pregna-2,4-dien-20-yno[2,3-*d*]isoxazol-17-ol



**Reference(s):**

GB 905 844 (Sterling Drug; valid from 1959; USA-prior. 1958).
 US 3 135 743 (Sterling Drug; 2.6.1964; prior. 29.6.1960, 23.7.1958).
 Pirkle, W.H. et al.: J. Med. Chem. (JMCMAR) **6**, 1 (1963).
 Clinton, R.O. et al.: J. Am. Chem. Soc. (JACSAT) **83**, 1478 (1961).

Formulation(s): cps. 50 mg, 100 mg, 200 mg

Trade Name(s):

D:	Winobanin (Sanofi Winthrop)	GB:	Danol (Sanofi Winthrop)	J:	Bonzol (Tokyo Tanabe)
F:	Danatrol (Sanofi Winthrop)	I:	Danatrol (Maggioli-Winthrop)	USA:	Danocrine (Sanofi)

Dantrolene

ATC: M03CA01
 Use: skeletal muscle relaxant, antispasmodic

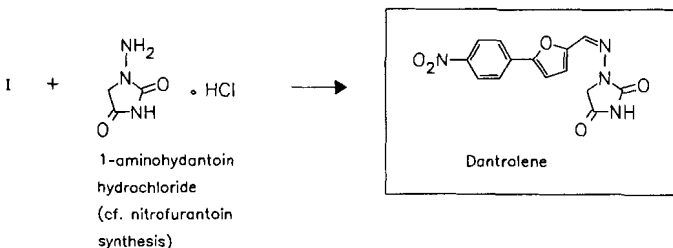
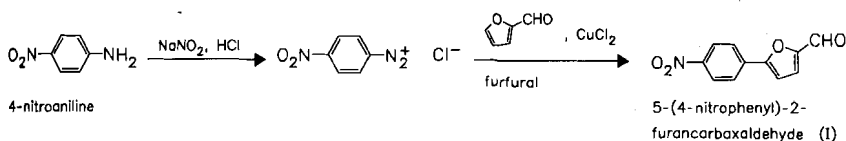
RN: 7261-97-4 MF: $\text{C}_{14}\text{H}_{10}\text{N}_4\text{O}_5$ MW: 314.26 EINECS: 230-684-8

LD₅₀: >7 g/kg (M, i.v.)

CN: 1-[[[5-(4-nitrophenyl)-2-furanyl]methylene]amino]-2,4-imidazolidinedione

sodium salt hydrate (2:7)

RN: 24868-20-0 MF: $\text{C}_{14}\text{H}_9\text{N}_4\text{NaO}_5 \cdot 7/2\text{H}_2\text{O}$ MW: 798.58

**Reference(s):**

US 3 415 821 (Norwich Pharmacal Co.; 10.12.1968; appl. 7.9.1965).
 Snyder, H.R. Jr. et al.: J. Med. Chem. (JMCMAR) **10**, 807 (1967).

use as antiarrhythmic:

EP 105 859 (Norwich Eaton; appl. 30.9.1983; USA-prior. 1.10.1982).

Formulation(s): amp. 20 mg (as sodium salt); cps. 25 mg, 50 mg (as sodium salt); susp. 5 mg/ml

Trade Name(s):

D:	Dantamacrin (Röhm Pharma)	F:	Dantrium (Lipha Santé Division Oberval; as sodium salt)	I:	Dantrium (Formenti)
	Dantrolen (Röhm Pharma)	GB:	Dantrium (Procter & Gamble)	J:	Dantrium (Yamanouchi)
				USA:	Dantrium (Procter & Gamble)

Dapiprazole

(AF-2139)

ATC: N05AX; S01EX02

Use: antipsychotic, antiglaucoma

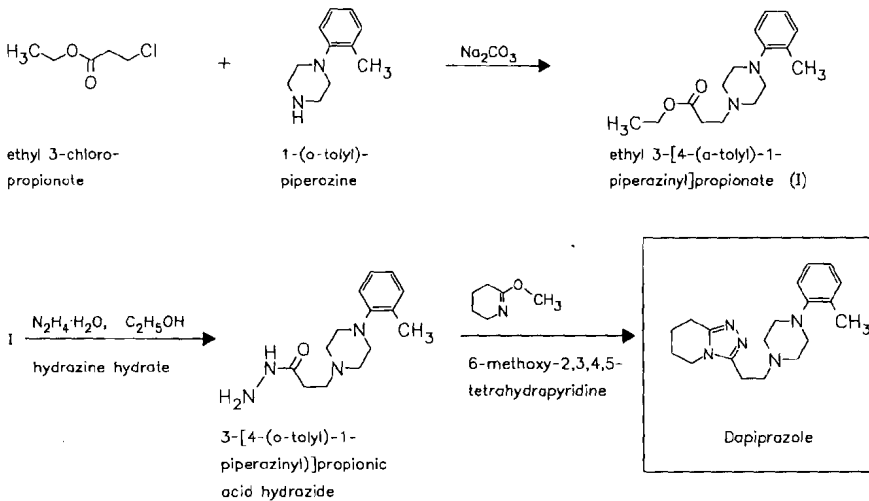
RN: 72822-12-9 MF: C₁₉H₂₇N₅ MW: 325.46

LD₅₀: 260 mg/kg (M, i.p.)

CN: 5,6,7,8-tetrahydro-3-[2-[4-(2-methylphenyl)-1-piperazinyl]ethyl]-1,2,4-triazolo[4,3-a]pyridine

monohydrochloride

RN: 72822-13-0 MF: C₁₉H₂₇N₅ · HCl MW: 361.92



Reference(s):

DE 2 915 318 (Angelini; appl. 14.4.1979; I-prior. 18.4.1978).

US 4 307 095 (Angelini; 22.12.1981; prior. 29.3.1979, 29.8.1980; I-prior. 18.4.1978).

US 4 307 096 (Angelini; 22.12.1981; prior. 29.3.1979, 29.8.1980; I-prior. 18.4.1978).

US 4 325 952 (Angelini; 20.4.1982; prior. 29.3.1979, 29.8.1980; I-prior. 18.4.1978).

BE 877 161 (Angelini; appl. 21.6.1979).

ophthalmic composition:

EP 288 659 (Angelini; appl. 25.1.1988).

US 4 879 294 (Angelini; 7.11.1989; appl. 28.1.1988).

Formulation(s): eye drops 50 mg/10 ml (5 %) (as hydrochloride)

Trade Name(s):

D: Remydrial (Winzer)

I: Glamidolo (Angelini;
1987)

USA: Rev-Eyes; wfm

Dapsone

(DADPS; DDS; Diaphenylsulfone)

ATC: J04BA02

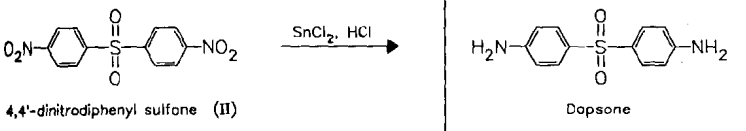
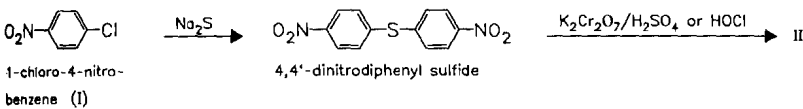
Use: chemotherapeutic (leprosy)

RN: 80-08-0 MF: C₁₂H₁₂N₂O₂S MW: 248.31 EINECS: 201-248-4LD₅₀: 225 mg/kg (M, i.v.); 250 mg/kg (M, p.o.);

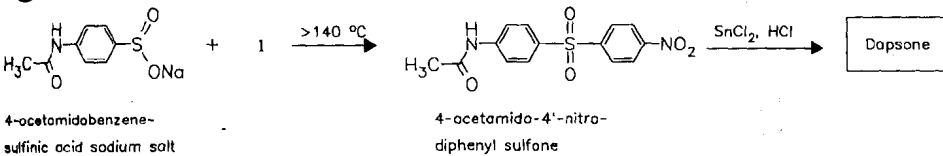
1 g/kg (R, p.o.)

CN: 4,4'-sulfonylbis[benzenamine]

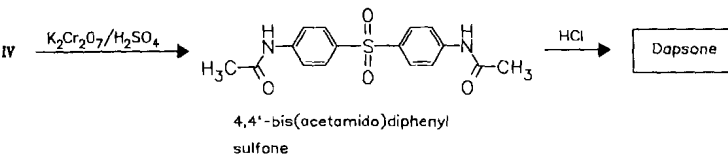
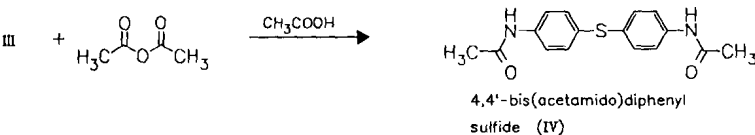
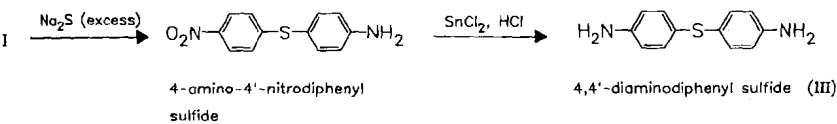
a



b



c



Reference(s):

- a Fromm, E.; Wittmann, J.: Ber. Dtsch. Chem. Ges. (BDCGAS) **41**, 2264 (1908).
US 2 385 889 (Merck & Co.; 1945; appl. 1945).
- b Ferry, C.W. et al.: Org. Synth. (ORSYAT) **22**, 32 (1942).
GB 510 127 (Schering AG; appl. 1938; D-prior. 1937).
similar process:
US 2 227 400 (American Cyanamide Co.; 1940; appl. 1939).
- c Raiziss, G.W. et al.: J. Am. Chem. Soc. (JACSAT) **61**, 2763 (1939).

S-oxidation with hydrogen peroxide:

Arendonk, A.M. Van; Kleiderer, E.C.: J. Am. Chem. Soc. (JACSAT) **62**, 3521 (1940).

preparation via 4,4'-dichlorodiphenyl sulfone:

GB 506 227 (I.G. Farben; appl. 1937).

FR 829 926 (I.G. Farben; appl. 1937; D-prior. 1936, 1937).

FR 844 220 (Lab. Franç. de Chimiothérapie et M. A. Girard; appl. 1938; D-prior. 1937).

Formulation(s): tabl. 50 mg

Trade Name(s):

D:	Dapson-Fatol (Saarstickstoff-Fatol)	GB:	Maloprim (Glaxo Wellcome)-comb.	J:	Protogen (Yoshitomi)
F:	Disulone (Rhône-Poulenc Rorer Specia)	I:	Avlosulfon (Ayerst-Usa); wfm	USA:	generic

Daunorubicin

(Daunomycin)

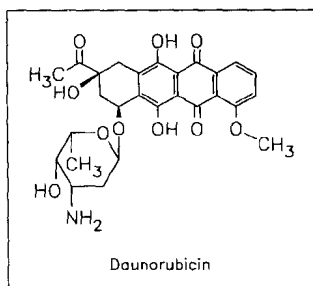
ATC: L01DB02

Use: antineoplastic, anthracycline
antibioticRN: 20830-81-3 MF: C₂₇H₂₉NO₁₀ MW: 527.53 EINECS: 244-069-7LD₅₀: 5 mg/kg (M, i.p.); 29 mg/kg (M, i.v.);

8 mg/kg (R, i.p.); 13 mg/kg (R, i.v.)

CN: (8*S*-*cis*)-8-acetyl-10-[(3-amino-2,3,6-trideoxy- α -L-*lyxo*-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-5,12-naphthacenedione**hydrochloride**RN: 23541-50-6 MF: C₂₇H₂₉NO₁₀·HCl MW: 563.99 EINECS: 245-723-4LD₅₀: 50 mg/kg (M, i.v.); 205 mg/kg (M, p.o.);

14.3 mg/kg (R, i.v.); 290 mg/kg (R, p.o.)

Fermentation of *Streptomyces peuceitius*.*Reference(s):*

BE 639 897 (Farmitalia; appl. 14.II.1963).

Marco, A. Di et al.: Nature (London) (NATUAS) **201**, 706 (1964).

structure and stereochemistry:Arcamone, F. et al.: J. Am. Chem. Soc. (JACSAT) **86**, 5334 (1964).Iwamoto et al.: Tetrahedron Lett. (TELEAY) **1968**, 3891.Arcamone, F. et al.: Gazz. Chim. Ital. (GCITA9) **100**, 949 (1970).**total synthesis:**Acton et al.: J. Med. Chem. (JMCMAR) **17**, 659 (1974).**alternative syntheses:**

DOS 2 519 157 (Farmitalia; appl. 30.4.1975; GB-prior. 2.5.1974).

FR 2 183 710 (Farmitalia; appl. 6.5.1973; I-prior. 6.5.1972).

EP-appl. 100 075 (Sanraku-Ocean; appl. 22.7.1983; J-prior. 24.7.1982).

purification:

BE 898 506 (Farmitalia; appl. 20.12.1983; I-prior. 23.12.1982).

Formulation(s): lyo. 20 mg**Trade Name(s):**

D:	Daunoblastin (Carlo Erba)	GB:	Cerubidin (Rhône-Poulenc Rorer)	USA:	Cerubidine (Bedford; as hydrochloride)
F:	Céribidine (Rhône-Poulenc Roger Bellon; as hydrochloride)	I:	Daunoxome (NeXstar)		DaunoXome (NeXstar; as citrate)
		J:	Daunoblastina (Farmitalia)		
			Daunomycin (Meiji Seika)		

Deanol acetamidobenzoate

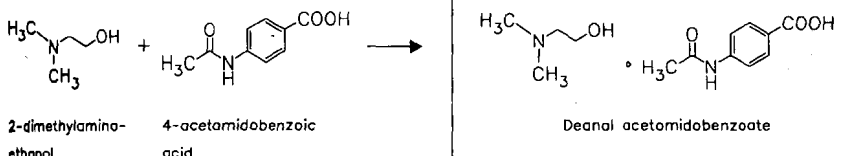
ATC: N06BX04

(Deanoli acetabenzooas)

Use: stimulant

RN: 3635-74-3 MF: C₉H₉NO₃ · C₄H₁₁NO MW: 268.31 EINECS: 222-858-7LD₅₀: 3918 mg/kg (M, p.o.)

CN: 4-(acetylamino)benzoic acid compd. with 2-(dimethylamino)ethanol (1:1)

**Reference(s):**

GB 879 259 (Riker; appl. 1957; USA-prior. 1956).

Formulation(s): tabl. 100 mg**Trade Name(s):**

D:	Deanol Riker (Kettelhack-Riker); wfm	F:	Diforène (Choay); wfm	USA:	Deaner (Riker); wfm
		I:	Pabenol (Gentili)		

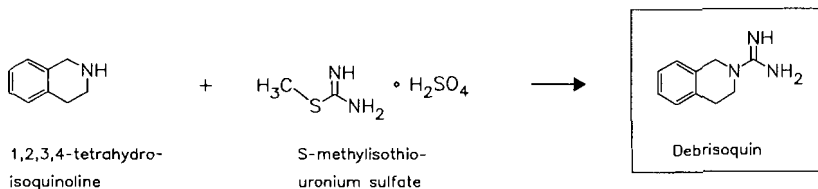
Debrisoquin

ATC: C02CC04

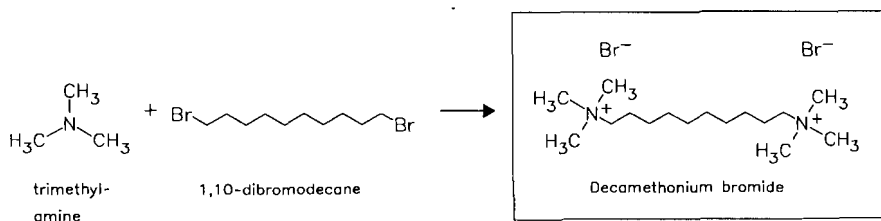
Use: antihypertensive

RN: 1131-64-2 MF: C₁₀H₁₃N₃ MW: 175.24 EINECS: 214-470-1

CN: 3,4-dihydro-2(1H)-isoquinolinecarboximidamide

sulfate (2:1)RN: 581-88-4 MF: C₁₀H₁₃N₃ · 1/2H₂SO₄ MW: 448.55 EINECS: 209-472-4LD₅₀: 31.7 mg/kg (M, i.v.); 235 mg/kg (M, p.o.);
610 mg/kg (R, p.o.)**Reference(s):**BE 629 007 (Hoffmann-La Roche; appl. 28.2.1963; USA-prior. 6.3.1962, 18.12.1962).
DE 1 244 788 (Hoffmann-La Roche; appl. 25.2.1963; USA-prior. 6.3.1962, 18.12.1962).
Wenner, W.: J. Med. Chem. (JMCMAR) **8**, 125 (1965).**Formulation(s):** tabl. 10 mg**Trade Name(s):**GB: Declinax (Roche); wfm
Declinax (Roche; as sulfate); wfm
USA: Declinax (Roche); wfm
Declinax (Roche; as sulfate); wfm**Decamethonium bromide**ATC: M03
Use: muscle relaxantRN: 541-22-0 MF: C₁₆H₃₈Br₂N₂ MW: 418.30 EINECS: 208-772-2LD₅₀: 630 µg/kg (M, i.v.); 190 mg/kg (M, p.o.)

CN: N,N,N,N',N',N'-hexamethyl-1,10-decanediaminium dibromide

**Reference(s):**Blomquist, A.T. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 678 (1959).**Formulation(s):** tabl. 0.25 mg, 0.5 mg**Trade Name(s):**USA: Syncurine (Burroughs
Wellcome); wfm

Deferiprone

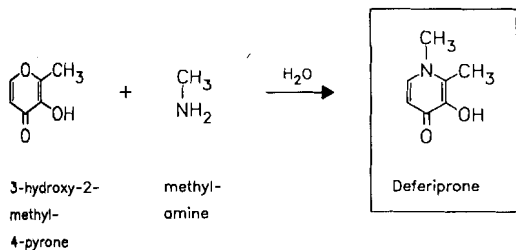
(L1; CGP-37391; CP20)

ATC: V03AC02

Use: metal antagonist

RN: 30652-11-0 MF: C₇H₉NO₂ MW: 139.15LD₅₀: 2 g/kg (R, p.o.)

CN: 3-hydroxy-1,2-dimethyl-4(1H)-pyridinone

*Reference(s):*Dobbin, P.S. et al.: J. Med. Chem. (JMCMAR) **36**(17), 2448 (1993).Konthogiorghes, G.J.; Sheppard, L.: Inorg. Chim. Acta (ICHAA3) **136**, 11 (1987).*clinical studies:*Vreugdenhil, G.; Swaak, G.; Kontoghiorghes, G.J.; VanEijk, H.G.: Lancet (LANCAO) **2**(8676), 1398-1399 (1989).*Formulation(s):* caps. 250 mg, 500 mg*Trade Name(s):*

IND: Deferrum (Cangene)

Kelfer (Cipla)

Deferoxamine

(Desferrioxamine)

ATC: V03AC01

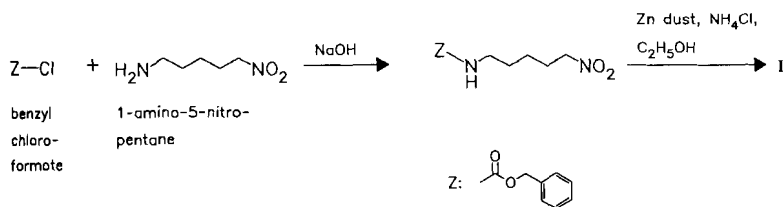
Use: iron complex former (for therapy of iron storage diseases)

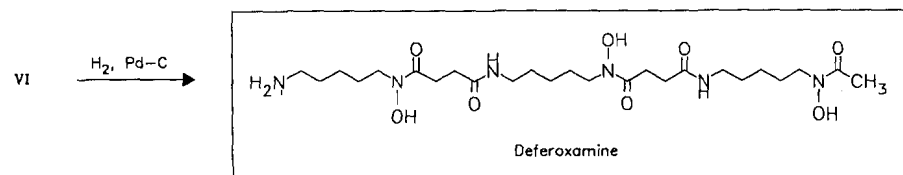
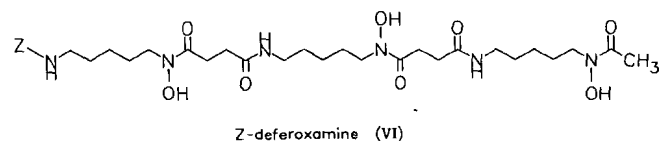
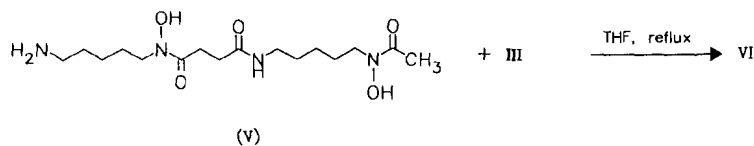
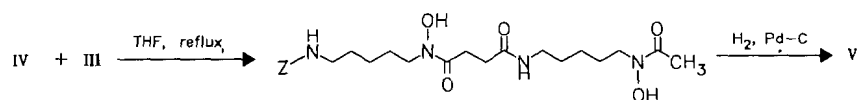
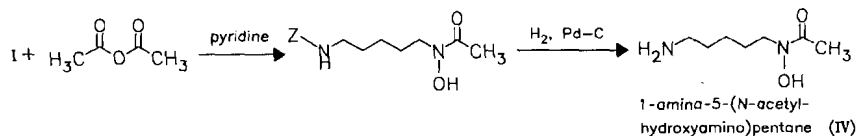
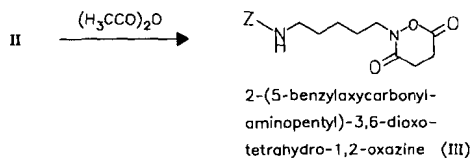
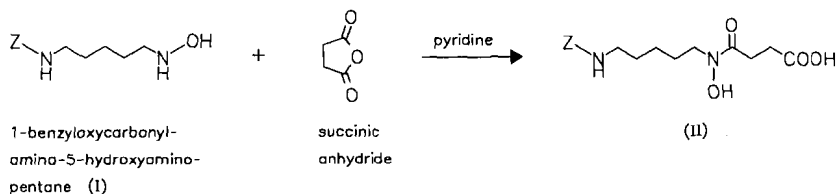
RN: 70-51-9 MF: C₂₅H₄₈N₆O₈ MW: 560.69 EINECS: 200-738-5LD₅₀: 250 mg/kg (M, i.v.); 1340 mg/kg (M, p.o.);

329 mg/kg (R, i.v.)

CN: *N*-[5-[[4-[[5-(acetylhydroxyamino)pentyl]amino]-1,4-dioxobutyl]hydroxyamino]pentyl]-*N*-(5-aminopentyl)-*N*-hydroxybutanediamide**monomesylate**RN: 138-14-7 MF: C₂₅H₄₈N₆O₈ · CH₄O₃S MW: 656.80 EINECS: 205-314-3LD₅₀: 273 mg/kg (M, i.v.); 15.2 g/kg (M, p.o.);

330 mg/kg (R, i.v.); 17.3 g/kg (R, p.o.)



**Reference(s):**

isolation from metabolites of actinomyceten:

Bickel, H. et al.: *Helv. Chim. Acta (HCACAV)*, **43**, 2118 (1960).

constitutional elucidation:

Bickel, H. et al.: *Helv. Chim. Acta (HCACAV)* **43**, 2129 (1960).

synthesis:

BE 609 053 (Ciba; appl. 11.10.1961; CH-prior. 11.10.1960, 23.11.1960, 7.4.1961, 26.4.1961, 29.6.1961, 10.8.1961, 11.8.1961).

BE 619 532 (Ciba; appl. 28.6.1962; CH-prior. 29.6.1961).

Prelog, V.; Walser, A.: *Helv. Chim. Acta (HCACAV)* **45**, 631 (1962).

Formulation(s): amp. 500 mg; inj. powder 500 mg; lyo. 500 mg, 2 g

Trade Name(s):

D:	Desferal (Ciba)	I:	Desferal (Ciba-Geigy)	USA:	Desferal (Novartis; as mesylate)
F:	Desféral (Ciba-Geigy)	J:	Desferal (Novartis-Takeda)		
GB:	Desferal (Novartis)				

Defibrotide

ATC: B01AX01; B06A
Use: antithrombotic, cholinergic channel modulator, stimulates fibrinolysis

RN: 83712-60-1 MF: unspecified MW: unspecified
CN: defibrotide; polydeoxyribonucleotides from bovine lung

Extraction from mammalian organs with aqueous solution of Zn salts.

Reference(s):

DE 2 154 278 (Crinos; appl. 3.11.1971; I-prior. 3.11.1970).
DE 2 154 277 (Crinos; appl. 3.11.1971; I-prior. 3.11.1970).
US 3 829 567 (Crinos; 13.8.1974; I-prior. 3.11.1970).
US 3 899 481 (Crinos; 12.8.1975; I-prior. 3.11.1970).
EP 263 155 (Crinos; 10.4.1987; I-prior. 17.4.1986).

medical use for renal dialysis patients:

EP 317 766 (Crinos; appl. 20.10.1988; I-prior. 23.10.1987).

medical use for treatment of myocardial ischaemia:

EP 152 148 (Crinos; appl. 11.2.1985; I-prior. 16.2.1984).

medical use for treatment of peripheral arterial disease:

EP 137 543 (Crinos; appl. 7.9.1984; I-prior. 12.9.1983).

medical use for treatment of acute renal insufficiency:

EP 137 542 (Crinos; appl. 7.9.1984; I-prior. 12.9.1983).

Formulation(s): vial 200 mg

Trade Name(s):

I:	Dasovas (Carlo Erba)	Noravid (Roussel; 1986)	Prociclide (Crinos; 1986)
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Deflazacort

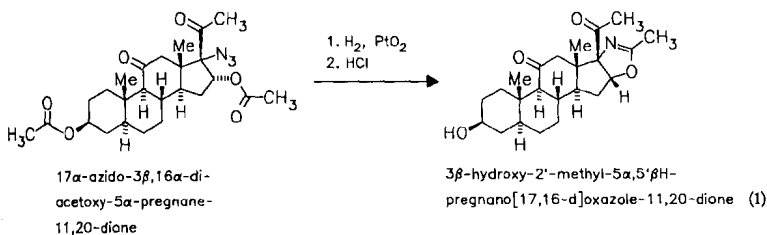
(Azacort; Oxazacort)

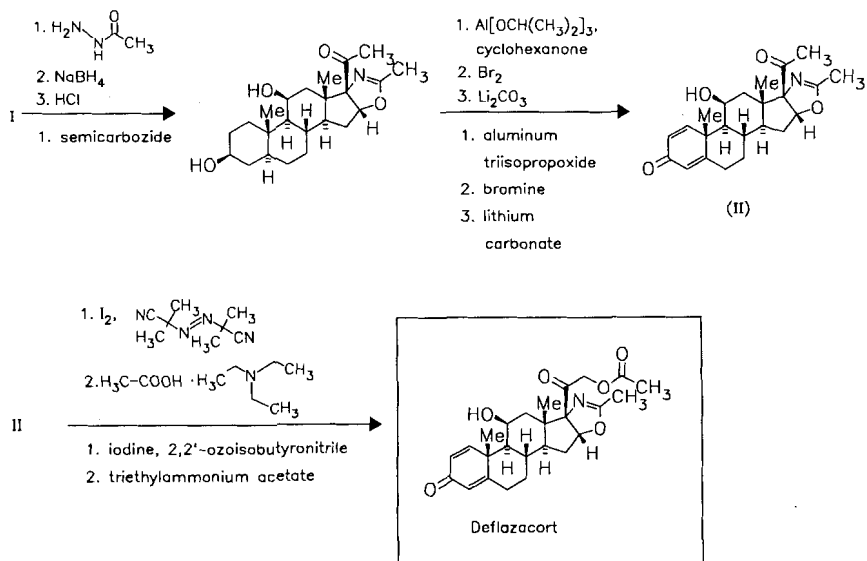
ATC: H02AB13
Use: glucocorticoid, anti-inflammatory

RN: 14484-47-0 MF: C₂₅H₃₁NO₆ MW: 441.52 EINECS: 238-483-7

LD₅₀: 5200 mg/kg (M, p.o.)

CN: (11β,16β)-21-(acetyloxy)-11-hydroxy-2'-methyl-5'H-pregna-1,4-dieno[17,16-d]oxazole-3,20-dione



*Reference(s):*

GB 1 077 393 (Lepetit; appl. 22.4.1965).

Nathansohn, G. et al.: J. Med. Chem. (JMCMAR) **10**, 799 (1967).*synthesis of 17 α -azido-3 β ,16 α -diacetoxy-5 α -pregnane-11,20-dione:*Nathansohn, G. et al.: Gazz. Chim. Ital. (GCITA9) **35**, 1338 (1965).*alternative synthesis:*

US 3 624 077 (Lepetit; 30.11.1971; GB-prior. 11.1.1966).

Nathansohn, G. et al.: Steroids (STEDAM) **13**, 383 (1969).*Formulation(s):* tabl. 6 mg, 30 mg*Trade Name(s):*D: Calcort (Albert-Roussel,
Hoechst)I: Deflan (Guidotti)
Flantadin (Lepetit)**Dehydrocholic acid**

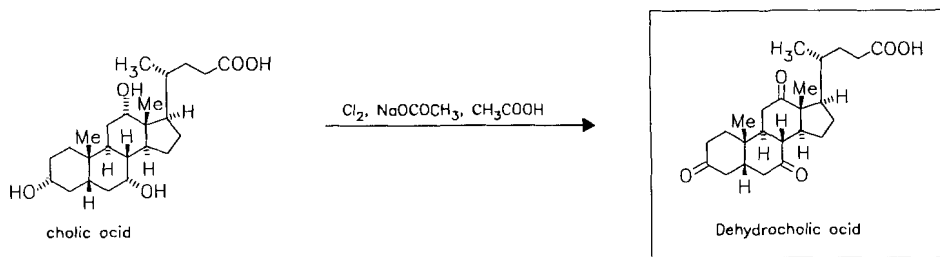
(Acide déhydrocholique)

ATC: A05

Use: choleric, liver protective drug

RN: 81-23-2 MF: $\text{C}_{24}\text{H}_{34}\text{O}_5$ MW: 402.53 EINECS: 201-335-7LD₅₀: 1492 mg/kg (M, i.v.); 3100 mg/kg (M, p.o.);

750 mg/kg (R, i.v.); 4 g/kg (R, p.o.)

CN: (5 β)-3,7,12-trioxocholan-24-oic acid

Reference(s):

US 2 966 499 (Merck & Co.; 27.12.1960; prior. 9.4.1958).

Formulation(s): amp. for i.v. and i.m. inj. 1 g/5 ml H₂O (as sodium salt); tabl. 250 mg**Trade Name(s):**

D: Decholin (Cassella-Riedel)	numerous combination preparations	Decholin (Miles); wfm
Eupond N (Ferring)		Decholin Sodium (Dome); wfm
Felacomp (Verla)-comb.	J: Dehychol (Nippon Eiyo)	Gastroenterase (Wallace)-comb.; wfm
numerous combination preparations	Dehydrochol (Kanto; Sawai; Hokuriku)	Hepahydrin (Great Southern); wfm
F: Dycholium (ThérapiX); wfm	Hydrochol (Kyorin)	Ketochol (Searle); wfm
GB: Dehydrocholin (Duncan, Flockhart); wfm	USA: Atrocholin (Glaxo); wfm	Neocholan (Dow); wfm
I: Certobil (Metapharma)-comb.	Bilax (Drug Industries)-comb.; wfm	Neolax (Central)-comb.; wfm
Debridat (Sigma-Tau)-comb.	Cholan (Pennwalt)-comb.; wfm	Sodium Dchydrocholate (City Chem.); wfm
Heparbil (Montefarmaco)-comb.	Cholan-DH (Pennwalt); wfm	Sodium Dehydrocholate (Endo); wfm
	Cholan-HMB (Pennwalt)-comb.; wfm	

Delavirdine mesilate

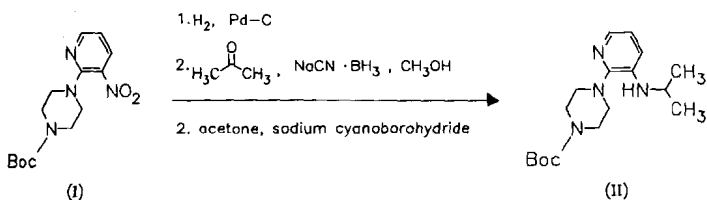
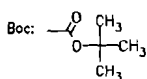
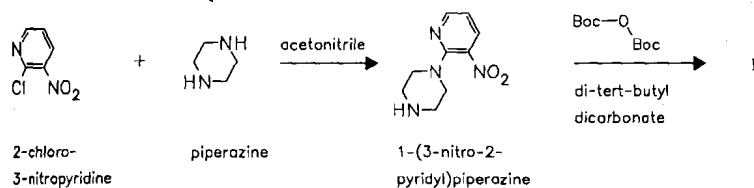
(U-90152S)

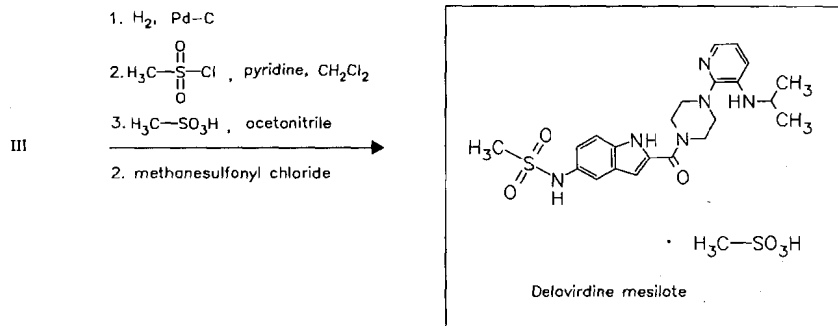
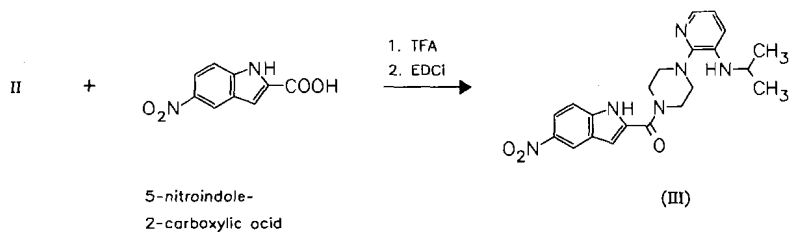
ATC: J05AG02

Use: antiviral, HIV-1 reverse transcriptase inhibitor

RN: 147221-93-0 MF: C₂₂H₂₈N₆O₃S · CH₄O₃S MW: 552.68

CN: 1-[3-[(1-Methylethyl)amino]-2-pyridinyl]-4-[[5-[(methylsulfonyl)amino]-1H-indol-2-yl]-carbonyl]piperazine monomethanesulfonate

baseRN: 136817-59-9 MF: C₂₂H₂₈N₆O₃S MW: 456.57

**Reference(s):**

Romero, D.L. et al.: J. Med. Chem. (JMCMAR) **36**, 1505 (1993).
 WO 9 109 849 (Upjohn; USA-prior. 28.12.1989).
 Pedersen, O.S.; Pedersen, E.B.: Synthesis (SYNTBF), **2000**, 479.

water clathrates:

WO 9 422 836 (Upjohn + Co.; appl. 15.3.1994; USA-prior. 26.3.1993).

novel crystal form:

WO 9 528 398 (Upjohn + Co.; appl. 1.3.1995; USA-prior. 15.4.1994).

combination with HIV-protease inhibitors:

WO 9 726 880 (Pharmacia + Upjohn; appl. 10.12.1996; USA-prior. 26.1.1996).
 WO 9 616 675 (Rega Inst.; appl. 29.11.1995; USA-prior. 30.11.1994).

combination and use with other reverse transcriptase inhibitors:

WO 9 409 781 (Upjohn + Co.; appl. 10.9.1993; USA-prior. 28.10.1992).

Formulation(s): tabl. 100 mg

Trade Name(s):

USA: Rescriptor (Pharmacia & Upjohn; 1997)

Demecarium bromide

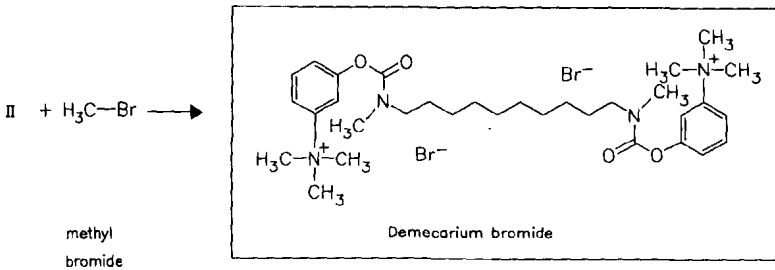
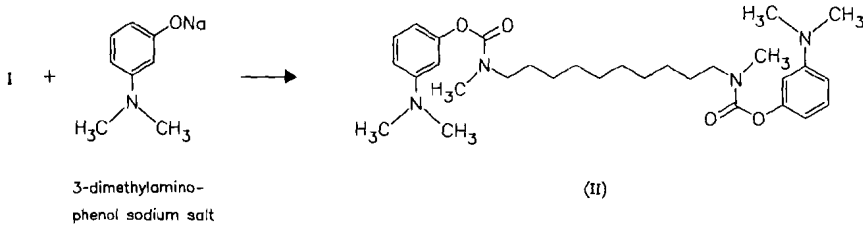
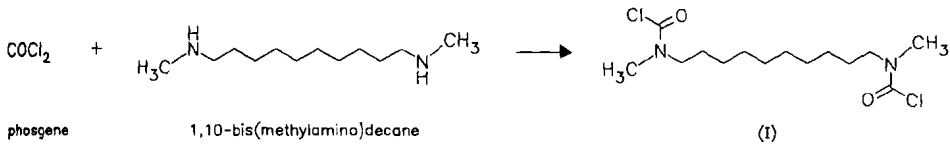
ATC: S01EB04

Use: cholinesterase inhibitor

RN: 56-94-0 MF: $\text{C}_{32}\text{H}_{52}\text{Br}_2\text{N}_4\text{O}_4$ MW: 716.60 EINECS: 200-301-9

LD_{50} : 6490 $\mu\text{g}/\text{kg}$ (M, p.o.)

CN: 3,3'-[1,10-decanediylbis[(methylimino)carbonyloxy]]bis[*N,N,N*-trimethylbenzenaminium] dibromide

**Reference(s):**

US 2 789 891 (Österr. Stickstoffwerke; 1957; A-prior. 1954).

Formulation(s): collyre 0.25 %, 0.5 %, 1 %

Trade Name(s):

D:	Tosmilen (Lentia); wfm	GB:	Tosmilen (Astra); wfm	J:	Tosmilen (Chugai)
F:	Tosmilène (Chibret); wfm		Tosmilen (Sinclair); wfm	USA:	Humorsol (Merck)

Demeclocycline

(Demethylchlortetracycline)

ATC: D06AA01; J01AA01
Use: antibiotic

RN: 127-33-3 MF: $\text{C}_{21}\text{H}_{21}\text{ClN}_2\text{O}_8$ MW: 464.86 EINECS: 204-834-8

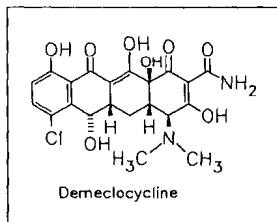
LD₅₀: 79 mg/kg (M, i.v.);
>6.75 g/kg (R, p.o.)

CN: [4S-(4 α ,4 α ,5 α ,6 β ,12 α)]-7-chloro-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,6,10,12,12a-pentahydroxy-1,11-dioxo-2-naphthacene carboxamide

monohydrochloride

RN: 64-73-3 MF: $\text{C}_{21}\text{H}_{21}\text{ClN}_2\text{O}_8 \cdot \text{HCl}$ MW: 501.32 EINECS: 200-592-2

LD₅₀: 275 mg/kg (M, i.v.); 2150 mg/kg (M, p.o.);
94 mg/kg (R, i.v.); 2372 mg/kg (R, p.o.)



From fermentation solutions of a *Streptomyces aureofaciens* mutant.

Reference(s):

- US 2 878 289 (American Cyanamid; 17.3.1959; prior. 28.5.1956).
 US 3 012 946 (American Cyanamid; 12. 12. 1961; appl. 16.11.1960).
 US 3 019 172 (American Cyanamid; 30.1.1962; appl. 14.3.1960).
 US 3 050 446 (American Cyanamid; 21.8.1962; appl. 28.7.1960).
 US 3 154 476 (Olin Mathieson; 27.10.1964; appl. 29.4.1963).
 DE 1 041 213 (American Cyanamid; appl. 24.5.1957; USA-prior. 28.5.1956).
 McCormick, J.R.D. et al.: J. Am. Chem. Soc. (JACSAT) **79**, 4561 (1957).

Formulation(s): tabl. 150 mg, 300 mg (as hydrochloride)

Trade Name(s):

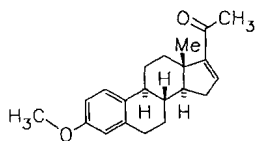
D:	Demebronc (Lederle)-comb. Ledermycin (Novalis Arzn.) Lederstatin (Novalis Arzn.)-comb.	Detravis (Vis); wfm Dimeral (Panther-Osfa Chemie); wfm Diuciclin (Benvegna); wfm Elkamicina (Biotrading); wfm	Neo-Cromacilin (Panther-Osfa Chemie) Oldem (Firma)-comb. Tetradek (SIT) Tollerclin (Scalari) Varibiotic (Cyanamid)-comb.
F:	Ledermycine (Lederle-Novalis); wfm	Fidocin (Farmaroma); wfm Isodemetil (Isola-Ibi); wfm	Veraciclina (AFI)
GB:	Deteclo (Wyeth)-comb. Ledermycin (Wyeth)	Latomicina (Farber-Ref); wfm	numerous combination preparations
I:	Demebronc (Cyanamid)-comb. Demetraciclina (Libral); wfm Detracin (Sierochimica); wfm	Ledermicina (Cyanamid) Lesten (Serono)-comb.; wfm Magis-Ciclina (Tiber); wfm Mirciclina (Francia Farm.); wfm	J: Demethylchlor Tetracycline (Kaken) Ledermycin (Lederle) USA: Declomycin (Lederle Labs.; as hydrochloride)

Demegestone

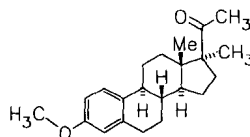
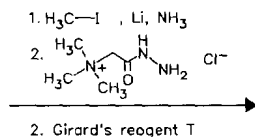
ATC: G03DB05
 Use: progestogen

RN: 10116-22-0 MF: C₂₁H₂₈O₂ MW: 312.45 EINECS: 233-320-6

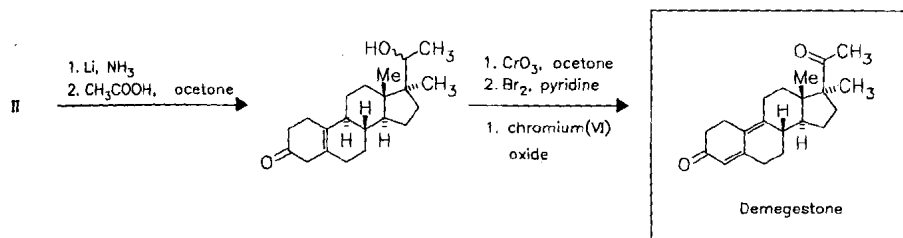
CN: 17-methyl-19-norpregna-4,9-diene-3,20-dione



3-methoxy-20-oxo-19-norpregna-1,3,5(10),16-tetraene (I)
 (from estrone 3-methyl ether)



(II)

**Reference(s):**

US 3 453 267 (Roussel-Uclaf; 1.7.1969; F-prior. 31.12.1964, 25.2.1965, 24.3.1965, 14.6.1965, 3.9.1965, 17.9.1965).

US 3 547 959 (Roussel-Uclaf; 15.12.1970; F-prior. 27.12.1965).

Joly, R. et al.: Bull. Soc. Chim. Fr. (BSCFAS) **1973**, 2694.

starting material:

Burn, D.; Petrov, v.: J. Chem. Soc. (JCSOA9) **1962**, 364.

total synthesis:

Velluz, L. et al.: Tetrahedron (TETRAB), **1966**, Suppl. 8, part II, 495.

Formulation(s): tabl. 500 mg

Trade Name(s):

F: Lutionex (Roussel
Diamant)

Denopamine

(TA-064)

ATC: C01CA

Use: orally active cardiostimulant, β_1 -
receptor agonist

RN: 71771-90-9 MF: C₁₈H₂₃NO₄ MW: 317.39

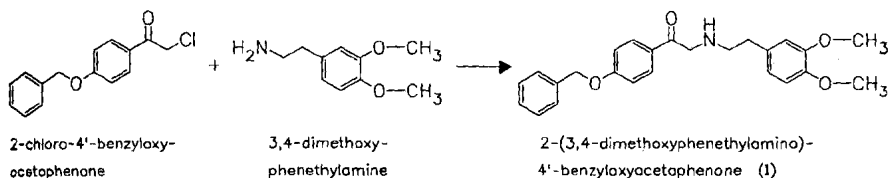
LD₅₀: 198 mg/kg (M, i.v.); 5672 mg/kg (M, p.o.);

9369 mg/kg (R, p.o.)

CN: (R)- α -[2-(3,4-dimethoxyphenyl)ethyl]amino]methyl]-4-hydroxybenzenemethanol

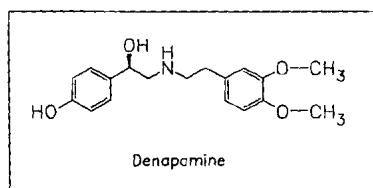
hydrochloride

RN: 64299-19-0 MF: C₁₈H₂₃NO₄ · HCl MW: 353.85



1. NaBH₄
2. racemate resolution with
D(-)-acetylphenylalanine
3. H₂, Pd-C

I



Reference(s):

DOS 2 542 881 (Tanabe; appl. 25.9.1975).

US 4 032 575 (Tanabe; 28.6.1977; appl. 1.10.1975).

US 4 072 759 (Tanabe; 7.2.1978; appl. 10.11.1976; prior. 1.10.1975).

Umino, N. et al.: Chem. Pharm. Bull. (CPBTAL) **27**, 1479 (1979).*enantioselective synthesis starting from optically active 4-hydroxyphenylglycine:*

JP 85 009 702 (Tanabe; appl. 14.11.1977).

JP 85 009 703 (Tanabe; appl. 14.11.1977).

Ikezaki, M. et al.: Yakugaku Zasshi (YKKZAJ) **106**, 80 (1986).*Formulation(s):* gran. 5 %; tabl. 5 mg, 10 mg*Trade Name(s):*

J: Kalgut (Tanabe; 1988)

Deptropine

(Dibenzheptropine)

ATC: R06AX16

Use: antihistaminic, anticholinergic

RN: 604-51-3 MF: C₂₃H₂₇NO MW: 333.48 EINECS: 210-069-0CN: *endo*-3-[(10,11-dihydro-5*H*-dibenzo[*a,d*]cyclohepten-5-yl)oxy]-8-methyl-8-azabicyclo[3.2.1]octane**citrate (1:1)**RN: 2169-75-7 MF: C₂₃H₂₇NO · C₆H₈O₇ MW: 525.60 EINECS: 218-516-1LD₅₀: 32 mg/kg (M, i.v.); 300 mg/kg (M, p.o.);

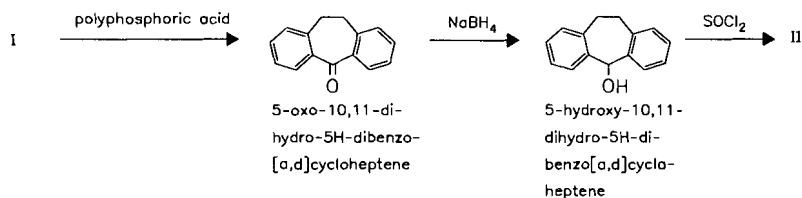
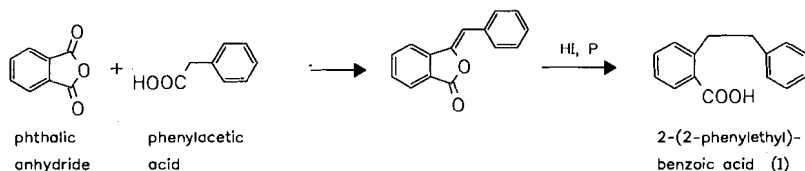
445 mg/kg (R, p.o.);

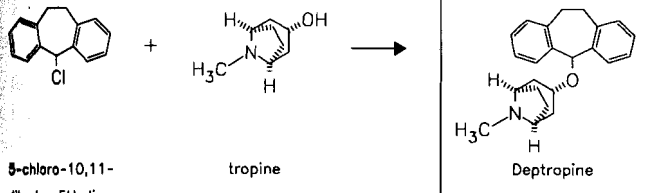
75 mg/kg (dog, p.o.)

methobromideRN: 10139-98-7 MF: C₂₄H₃₀BrNO MW: 428.41LD₅₀: 1150 µg/kg (M, i.v.); 680 mg/kg (M, p.o.);

1200 µg/kg (R, i.v.); 800 mg/kg (R, p.o.);

71 mg/kg (dog, p.o.)

methiodideRN: 38146-43-9 MF: C₂₄H₃₀INO MW: 475.41



5-chloro-10,11-dihydro-5H-dibenzo[a,d]cycloheptene (II)

tropine

Deptropine

Reference(s):

Stelt, C. van der et al.: J. Med. Pharm. Chem. (JMPCAS) 4, 335 (1961).

Formulation(s): tabl. 1 mg

Trade Name(s):

GB: Brontina (Brocades); wfm Brontisol (Brocades)-comb.; wfm I: Brontin (Formenti)

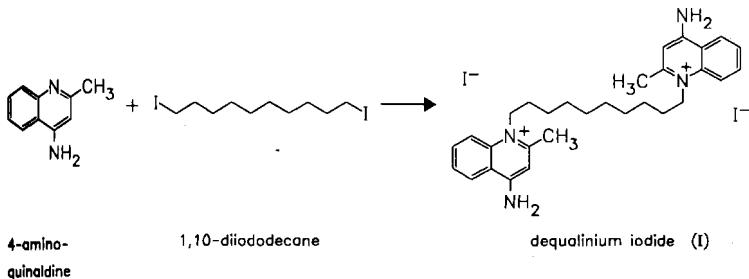
Dequalinium chloride

ATC: D08AH01; G01AC05; R02AA02
Use: bacteriostatic, antifungal

RN: 522-51-0 MF: C₃₀H₄₀Cl₂N₄ MW: 527.58 EINECS: 208-330-9

LD₅₀: 1900 µg/kg (M, i.v.)

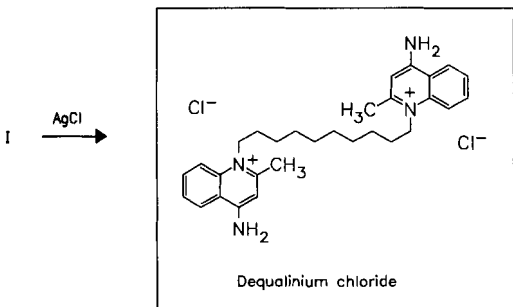
CN: 1,1'-(1,10-decanediyl)bis[4-amino-2-methylquinolinium] dichloride



4-aminoquinaldine

1,10-diiododecane

dequalinium iodide (I)



Reference(s):

GB 745 956 (Allen & Hanburys; appl. 1953).

Formulation(s): different tabl., creams, sol. and gels

Trade Name(s):

D:	Dequafungan Hautspray (Kreussler)	F:	Humex Fournier Kinaldine (Labs. Uργο)-comb.	Lariquin (Manetti Roberts)
	Dequavagyn (Kreussler)		Oroseptol (SmithKline Beecham)-comb.	Osangin (Antonetto)
	Eriosept (Kreussler)		Beecham)-comb.	Rinospray (Midy)-comb.
	Evazol (Ravensberg)	GB:	Labosept (L.A.B.)	Sterox (Granelli)-comb.
	Maltyl (Merckle)	I:	Aperdan (Tiber)-comb.	Transpulmina gola (Sigurtà)-comb.
	Optipect (Thiemann)		Decabis (Gazzoni)	J: Almani S (Tanabe)-comb.
	Phylletten (Arznei Müller-Rorer)		Dequadin (Eurospital)	Dequadin Lozenges (Torii)
	Soor-Gel (Engelhard)		Dequadin (Importex)	Honkon-N (Zenyaku)-comb.
	Sorot (Ravensberg)		Faringina (SIT)	Neues Troch (Toyo Pharmar)
	Tonsillol (Merckle)-comb.		Farmocillina (Zyma)	SP Troche (Meiji Seika)
	numerous combination preparations		Golosan (Lifepharm)	
			Kinogen (Geymonat)-comb.	

Deserpidine

(Desmethoxyreserpine)

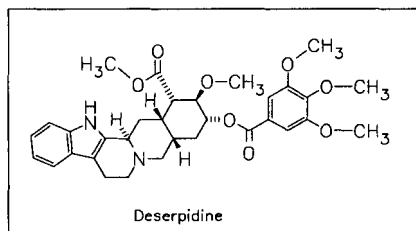
ATC: C02AA05

Use: neuroleptic

RN: 131-01-1 MF: C₃₂H₃₈N₂O₈ MW: 578.66 EINECS: 205-004-8LD₅₀: 500 mg/kg (M, p.o.);

15 mg/kg (R, i.v.)

CN: (3β,16β,17α,18β,20α)-17-methoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]yohimban-16-carboxylic acid methyl ester



- a By extraction of *Rauwolfia serpentina* (L.) Beuth. roots, separation of in greater quantity available reserpine as heavy soluble thiocyanate and column chromatographic purification of the mother liquors.
- b By extraction of *Rauwolfia canescens*, *R. hirsuta*, *R. tetraphylla*, *R. indecora*, *R. vomitoria* Afz. or *R. cubana* roots and purification by fractional crystallization and/or column chromatography on Al₂O₃.

Reference(s):

- a US 2 887 489 (Ciba; 1959; CH-prior. 1956).
- b US 2 982 769 (Ciba; 1961; appl. 1955).

Formulation(s): tabl. 0.25 mg; tabl. 0.25 mg (comb. with 5 mg methylothiazide)

Trade Name(s):

F:	Enduronyl (Abbott)-comb.; wfm	USA:	Harmony (Abbott); wfm	Oreticyl (Abbott)-comb.; wfm
GB:	Enduronyl (Abbott)-comb.; wfm		Harmony (Abbott); wfm	

Desipramine

ATC: N06AA01
 Use: antidepressant

RN: 50-47-5 MF: C₁₈H₂₂N₂ MW: 266.39 EINECS: 200-040-0

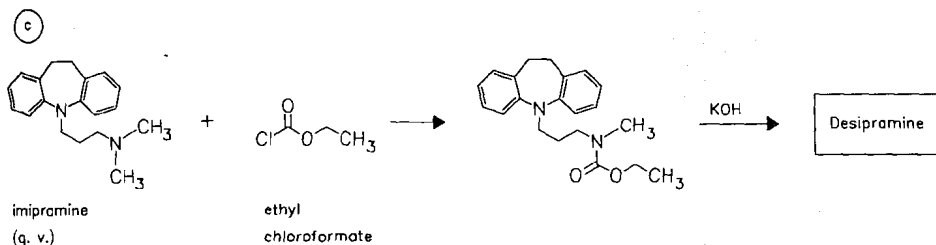
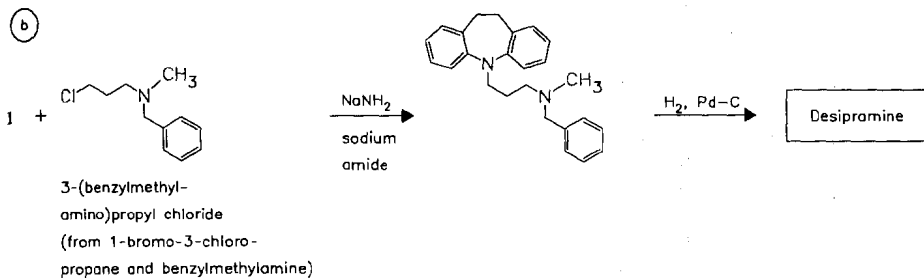
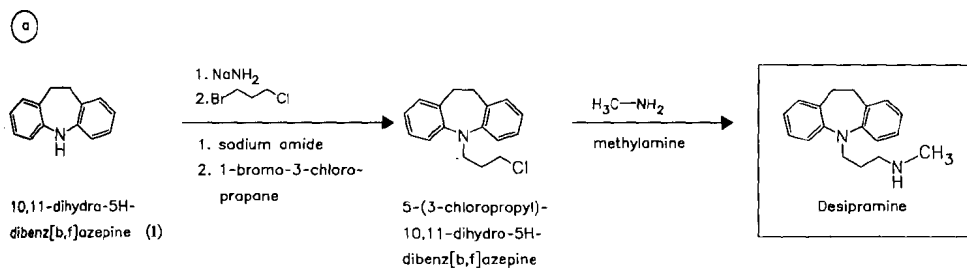
LD₅₀: 22 mg/kg (M, i.v.); 448 mg/kg (M, p.o.);
 29 mg/kg (R, i.v.); 375 mg/kg (R, p.o.)

CN: 10,11-dihydro-*N*-methyl-5*H*-dibenz[*b,f*]azepine-5-propanamine

monohydrochloride

RN: 58-28-6 MF: C₁₈H₂₂N₂ · HCl MW: 302.85 EINECS: 200-373-1

LD₅₀: 37 mg/kg (M, i.v.); 315 mg/kg (M, p.o.);
 19 mg/kg (R, i.v.); 871 mg/kg (R, p.o.);
 25 mg/kg (dog, i.v.)

**Reference(s):**

- a FR-M 796 (Geigy; appl. 3.9.1960; CH-prior. 4.9.1959).
 GB 908 788 (Geigy; appl. 1960; CH-prior. 1959).
 DE 1 189 550 (Geigy; appl. 1960; CH-prior. 1959).
- b US 3 454 698 (Colgate-Palmolive; 8.7.1969; prior. 25.5.1960).
 US 3 454 554 (Colgate-Palmolive; 8.7.1969; prior. 25.5.1960).
- c DE 1 288 599 (Geigy; appl. 13.3.1962; CH-prior. 14.3.1961).
 DE 1 445 800 (Geigy; appl. 2.3.1962; CH-prior. 3.3.1961).

Formulation(s): drg. 25 mg; tabl. 25 mg

Trade Name(s):

D:	Pertofran (Novartis Pharma) Petylyl (ASTA Medica AWD)	F:	Pertofran (Novartis; as hydrochloride)	J:	Pertofran (Fujisawa)
GB:	Pertofran (Geigy); wfm	USA:	Norpramin (Hoechst Marion Roussel; as hydrochloride)		
I:	Nortimil (Chiesi)				

Desloratadine

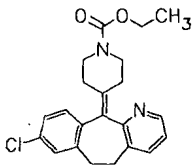
(Sch-34117)

Use: non-sedating antihistamine metabolite of loratadine

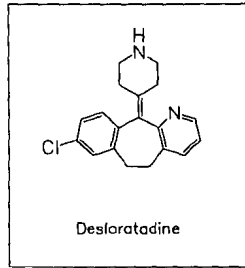
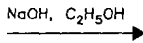
RN: 100643-71-8 MF: C₁₉H₁₉ClN₂ MW: 310.83

CN: 8-Chloro-6,11-dihydro-11-(4-piperidinylidene)-5H-benz[5,6]cyclohepta[1,2-b]pyridine

(a)

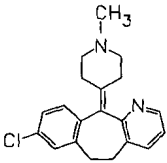
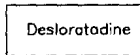


loratadine (q. v.)



Desloratadine

(b)

8-chloroazotadine
(cf. loratadine)

Desloratadine

*Reference(s):***a,b** WO 8 503 707 (Schering Corp.; appl. 8.2.1985; USA-prior. 15.2.1984).*polymorphs:*

WO 9 901 450 (Schering Corp.; appl. 1.7.1998; USA-prior. 2.7.1997).

eye drops containing loratadine metabolites:

WO 9 848 803 (Schering-Plough K.K.; WO-prior. 25.4.1997).

treatment of allergic rhinitis and asthma with desloratadine:

WO 9 834 611 (Sepracor; appl. 10.2.1998; USA-prior. 11.2.1997).

WO 9 620 708 (Sepracor; appl. 11.12.1995; USA-prior. 30.12.1994).

transdermal dosage system:

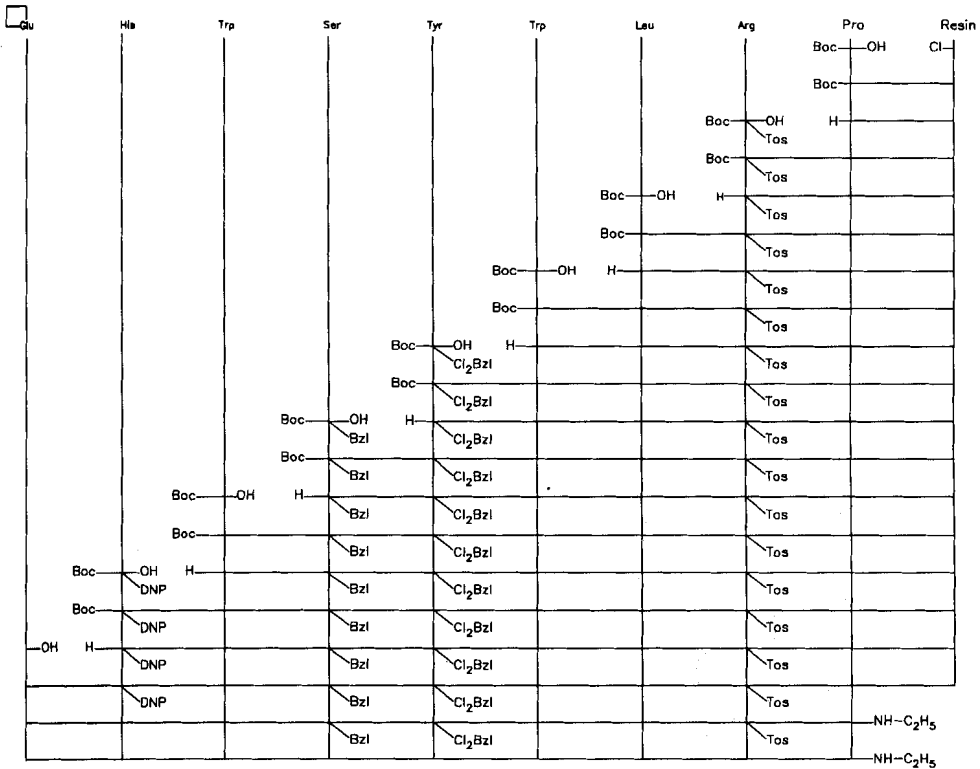
DE 4 442 999 (Hexal Pharma; D-prior. 2.12.1994).

Trade Name(s):

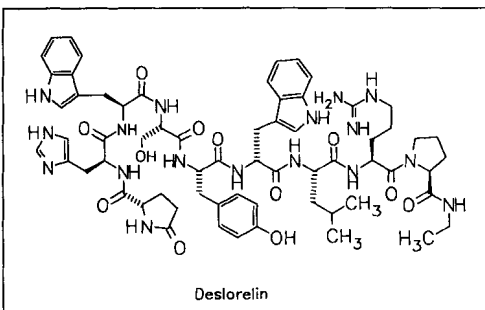
USA: DCL (Schering-Plough; 2000)

Deslorelin

Use: GnRH-agonist (for treatment of precocious puberty)

RN: 57773-65-6 MF: $C_{64}H_{83}N_{17}O_{12}$ MW: 1282.48CN: 6-D-tryptophan-9-(*N*-ethyl-L-prolinamide)-10-deglycinamide luteinizing hormone-releasing factor (pig)

Tos: Tosyl
 Boc: tert-butylcarbonyl
 Cl₂Bzl: 2,4-dichlorobenzyl
 Bzl: benzyl
 DNP: 2,4-dinitrophenyl



Reference(s):

DOS 2 830 629 (Salk Inst.; appl. 12.7.1978; USA-prior. 14.7.1977, 26.6.1978).

US 4 218 439 (Salk Inst.; 19.8.1980; appl. 26.6.1978; prior. 14.7.1977).

Formulation(s): vial 500 µg

Trade Name(s):

GB: Somagard (Monmouth;
1991); wfmUSA: Somagard (Roberts; 1990);
wfm

Desmopressin

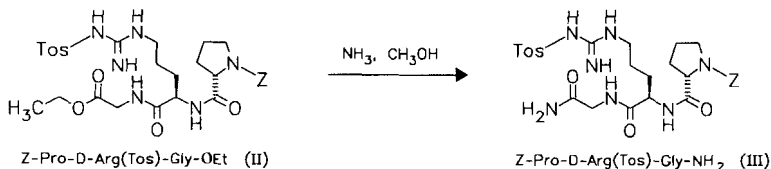
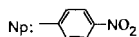
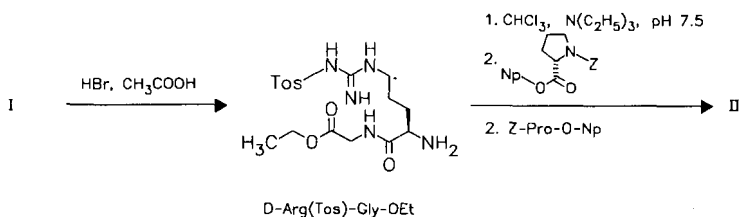
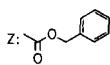
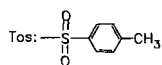
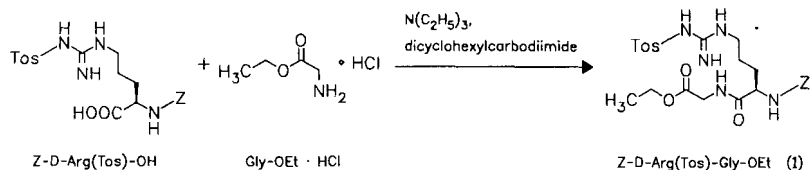
ATC: H01BA02

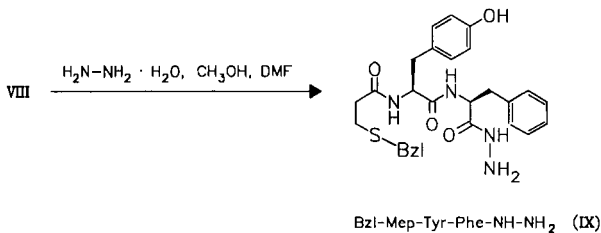
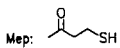
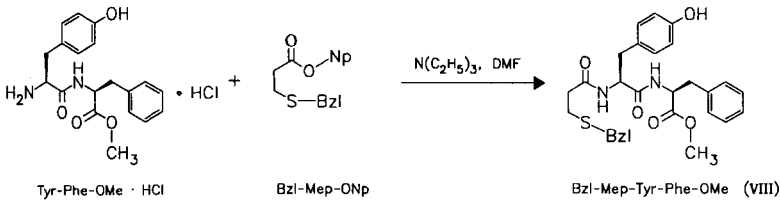
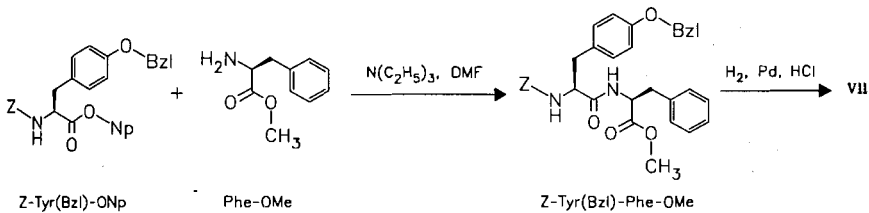
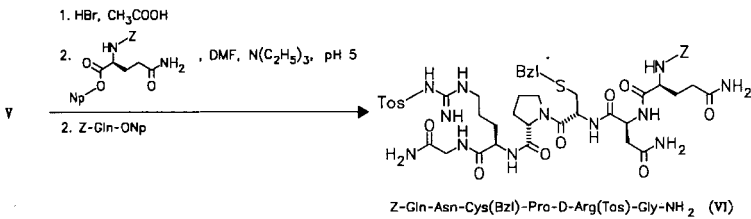
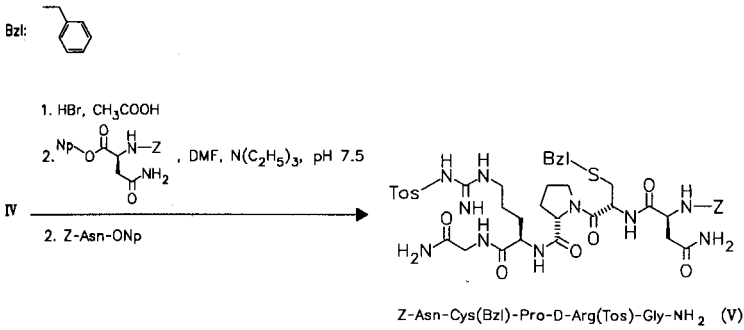
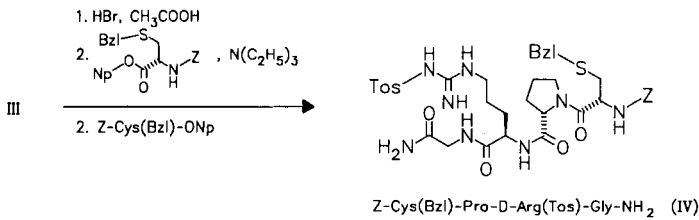
Use: antidiuretic

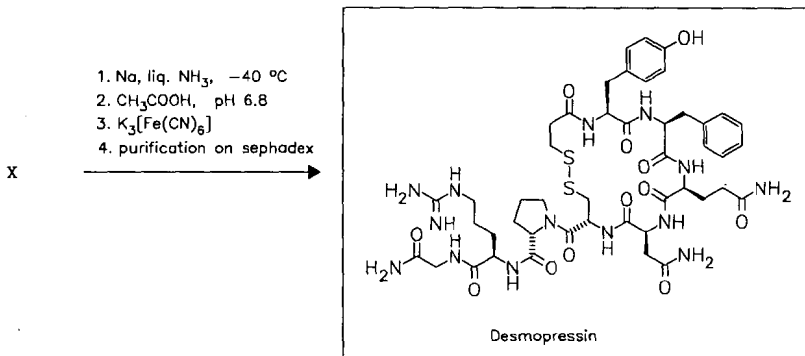
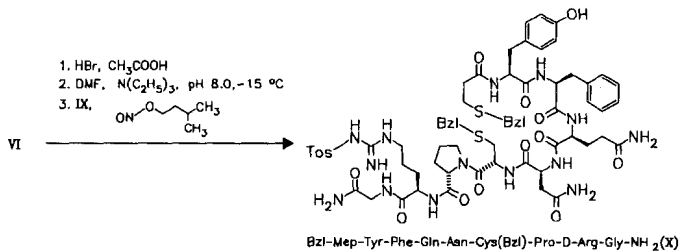
RN: 16679-58-6 MF: C₄₆H₆₄N₁₄O₁₂S₂ MW: 1069.24 EINECS: 240-726-7

CN: 1-(3-mercaptopropanoic acid)-8-D-argininevasopressin

acetate (1:2)

RN: 16789-98-3 MF: C₄₆H₆₄N₁₄O₁₂S₂ · 2C₂H₄O₂ MW: 1189.34



**Reference(s):**

- US 3 454 549 (Sandoz; 8.7.1969; CH-prior. 17.7.1964).
US 3 497 491 (Ceskoslovenska Akad.; 24.2.1970; CS-prior. 15.9.1966).
Huguenin, R.L.; Boissonas, R.A.: Helv. Chim. Acta (HCACAV) **49**, 695 (1966).
DOS 2 723 453 (Ferring; appl. 24.5.1977; S-prior. 24.5.1976).
DOS 2 749 932 (Ferring; appl. 8.11.1977; S-prior. 12.11.1976).
GB 1 539 317 (Ferring; appl. 20.5.1977; S-prior. 24.5.1976).
GB 1 539 318 (Ferring; appl. 4.11.1977; S-prior. 12.11.1976).

Formulation(s): amp. 4 µg; doses spray 0.1 mg; tabl. 0.1 mg, 0.2 mg

Trade Name(s):

D:	DDAVP (Ferring) Minirin (Ferring)	GB:	DDAVP (Ferring) Minirin (Ferring)	USA:	DDAVP (Rhône-Poulenc Rorer; as acetate)
F:	Minirin (Ferring; as acetate)	J:	Desmopressin (Kyowa Hakko)		

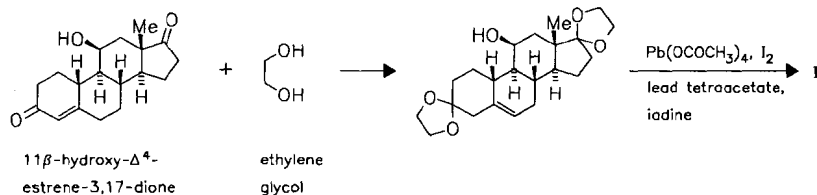
Desogestrel

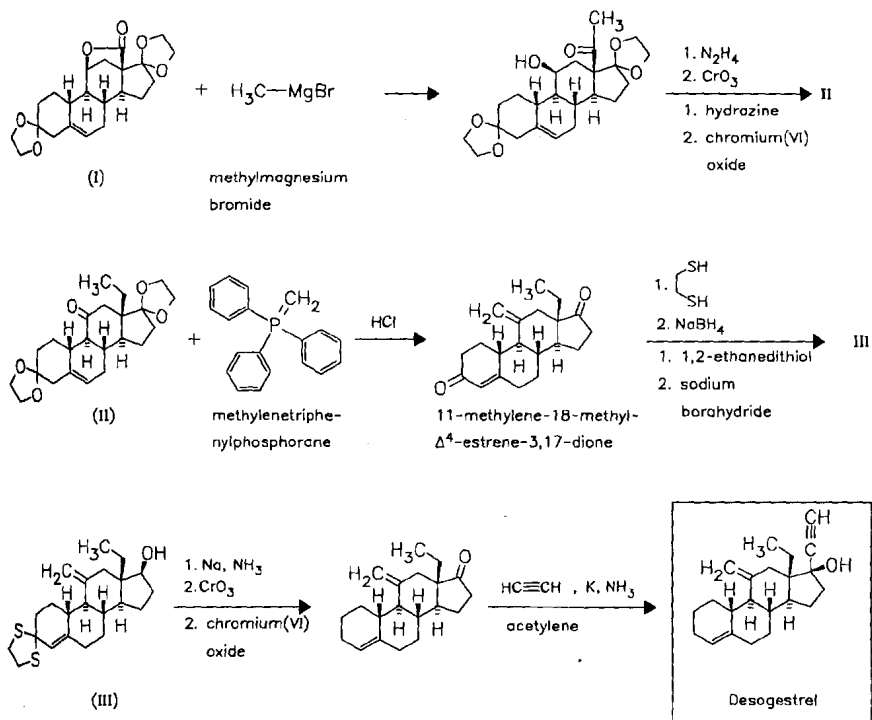
ATC: G03AA

Use: progestogen, oral contraceptive (in
combination with ethinylestradiol)

RN: 54024-22-5 MF: C₂₂H₃₀O MW: 310.48 EINECS: 258-929-4

CN: (17α)-13-ethyl-11-methylene-18,19-dinorpregn-4-en-20-yn-17-ol



**Reference(s):**

- US 3 927 046 (Akzona; 16.12.1975; appl. 3.12.1973; NL-prior. 9.12.1972).
 DE 2 361 120 (Organon; appl. 7.12.1973; NL-prior. 9.12.1972; 15.11.1973).
 NL 7 411 607 (Akzo; appl. 2.9.1974).
 Broek, A.S. van den et al.: Recl. Trav. Chim. Pays-Bas (RTCPA3) **94**, 35 (1975).

Formulation(s): tabl. 150 μg (in combination with ethinylestradiol)

Trade Name(s):

D:	Biviol (Nourypharma)-comb.	Oviol (Nourypharma)-comb.	Mercilon (Organon; 1982)-comb.
	Cyclosa (Nourypharma)-comb.	F: Cydeane (Monsanto)-comb.	I: Mercilon (Organon)-comb.
	Cydeane (Monsanto)-comb.	Mercilon (Organon)-comb.	Planum (Menarini)-comb.
	Lovelle (Organon)-comb.	Varnoline (Organon; 1984)-comb.	Practil (Organon)-comb.
	Marvelon (Organon; 1981)-comb.	GB: Marvelon (Organon)-comb.	Securgin (Menarini)-comb.
			USA: Desogen (Organon)
			Ortho-Cept (Ortho-McNeil Pharmaceutical)

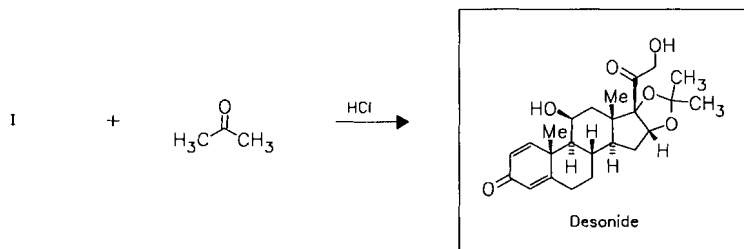
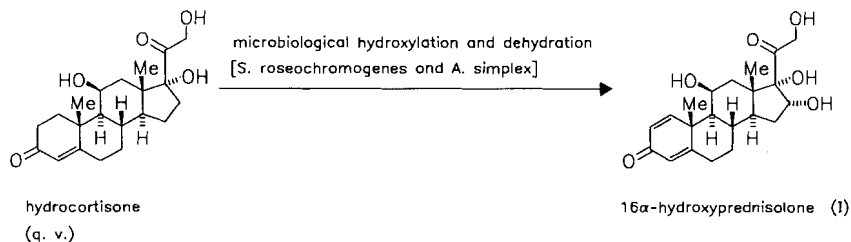
Desonide
(Prednacinolone)

ATC: D07AB08; S01BA11
 Use: topical glucocorticoid

RN: 638-94-8 MF: $\text{C}_{24}\text{H}_{32}\text{O}_6$ MW: 416.51 EINECS: 211-351-6

LD_{50} : 3710 mg/kg (M, p.o.)

CN: (11 β ,16 α)-11,21-dihydroxy-16,17-[(1-methylethylidene)bis(oxy)]pregna-1,4-diene-3,20-dione

**Reference(s):**

US 3 536 586 (Squibb; 27.10.1970; prior. 25.1.1968).
 US 2 990 401 (American Cyanamid; 27.6.1961; prior. 18.6.1958, 11.3.1958).
 Bernstein, S. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 4573 (1959).

synthesis of hydrocortisone:

Allen, W.S.; Bernstein, S.: J. Am. Chem. Soc. (JACSAT) **78**, 1909 (1956).
 Bernstein, S.: Recent Prog. Horm. Res. (RPHRA6) **14**, 1 (1958).

alternative synthesis:

US 3 549 498 (Squibb; 22.12.1970; prior. 2.4.1968).

Formulation(s): cream 1 mg/g

Trade Name(s):

D:	Sterax (Galderma)	I:	Cloessidina (Farmacologico Milanese)	Reticus (Farmila)	
F:	Locapred (Pierre Fabre)		Desonix (Usar)-comb.	Reticus Antimicotico (Farmila)-comb.	
	Locatrop (Pierre Fabre)		PR 100 (Farmacologico Milanese)	J:	Tridesonit (Miles)
	Tridésonit (Dome- Hollister-Stier)		Prenacid (SIFI)	USA:	Des Owen (Galderma)
GB:	Tridesilon (Lagap); wfm				Tridesilon (Bayer)

Desoximetasone

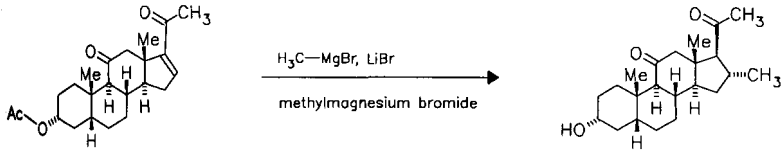
(Desoximethasone)

ATC: D07AC03; D07XC02

Use: topical glucocorticoid

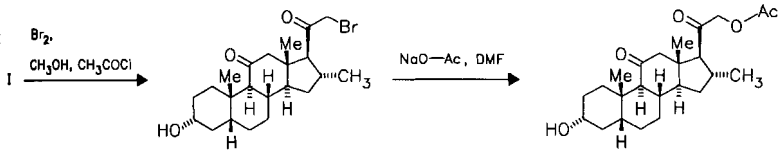
RN: 382-67-2 MF: C₂₂H₂₉FO₄ MW: 376.47 EINECS: 206-845-3

CN: (11 β ,16 α)-9-fluoro-11,21-dihydroxy-16-methylpregna-1,4-diene-3,20-dione

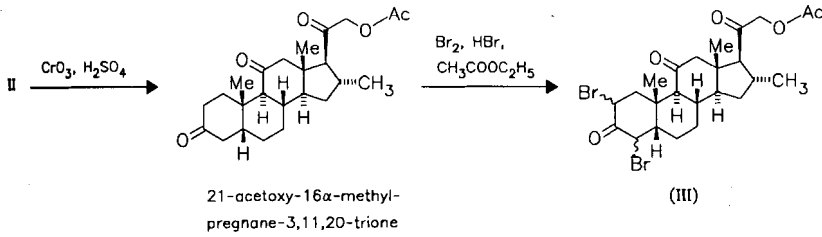


3 α -acetoxy-16-pregnene-11,20-dione
(from deoxycholic acid)

3 α -hydroxy-16 α -methylpregnane-11,20-dione (I)

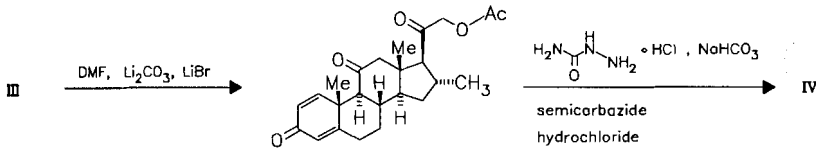


21-acetoxy-3 α -hydroxy-16 α -methylpregnane-11,20-dione (II)

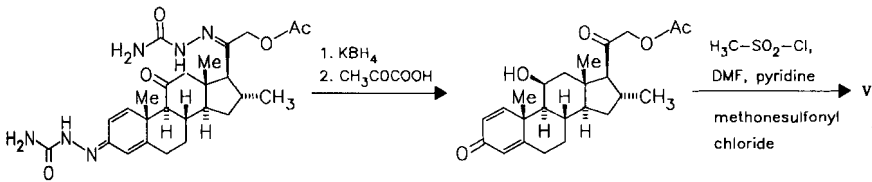


21-acetoxy-16 α -methylpregnane-3,11,20-trione

(III)



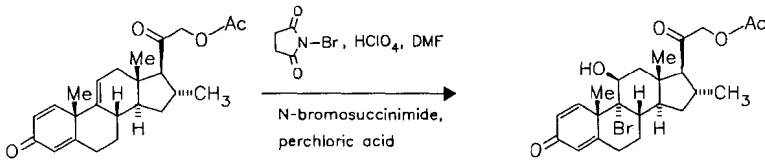
21-acetoxy-16 α -methylpregna-1,4-diene-3,11,20-trione



(IV)

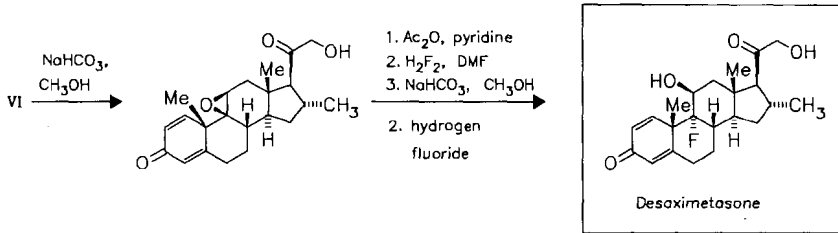
21-acetoxy-11 β -hydroxy-16-methyl-1,4-pregna-diene-3,20-dione

(V)



21-acetoxy-16 α -methyl-
1,4,9(11)-pregnatriene-
3,20-dione (V)

(VI)



Reference(s):

- US 3 099 654 (Roussel-Uclaf; 30.6.1963; F-prior. 17.8.1960).
 DOS 1 159 441 (Roussel-Uclaf; appl. 4.8.1961; F-prior. 17.8.1960).
 FR 1 296 544 (Roussel-Uclaf; appl. 17.8.1960).
 Joly, R. et al.: *Arzneim.-Forsch. (ARZNAD)* **24**, 1 (1974).

synthesis of 21-acetoxy-11 β -hydroxy-16 α -methyl-1,4-pregnadien-3,20-dione:

- DOS 1 205 096 (Roussel-Uclaf; appl. 12.5.1961; F-prior. 14.5.1960, 16.5.1960).

alternative synthesis:

- BE 614 196 (Schering AG; appl. 21.2.1962; D-prior. 22.2.1961).
 US 3 232 839 (Schering AG; 1.2.1966; D-prior. 22.2.1961, 27.6.1963).

Formulation(s): cream 0.25 %, 0.05 %; lotion 0.25 %; ointment 0.35 %

Trade Name(s):

D:	Topisolon (Hoechst)	Topifram (Roussel)	USA: Topicort (Hoechst Marion Roussel)
	Topisolon (Hoechst)-comb.	Diamant)-comb.	
F:	Topicorte (Roussel)	GB: Stiedex LP (Stiefel)	
	Diamant)	I: Flubason (Hoechst)	

Desoxycortone acetate

(Deoxycorticosterone acetate; Deoxycortone acetate)

ATC: H02AA03

Use: mineralocorticoid

RN: 56-47-3 MF: C₂₃H₃₂O₄ MW: 372.51 EINECS: 200-275-9

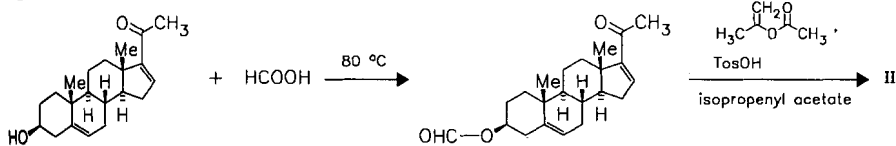
CN: 21-(acetyloxy)pregn-4-ene-3,20-dione

desoxycortone

RN: 64-85-7 MF: C₂₁H₃₀O₃ MW: 330.47 EINECS: 200-596-4

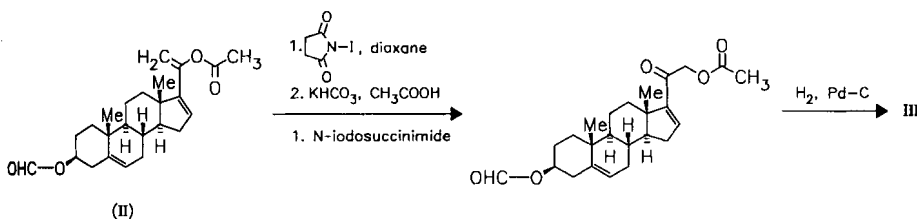
LD₅₀: 1 g/kg (M, route unreported)

a)



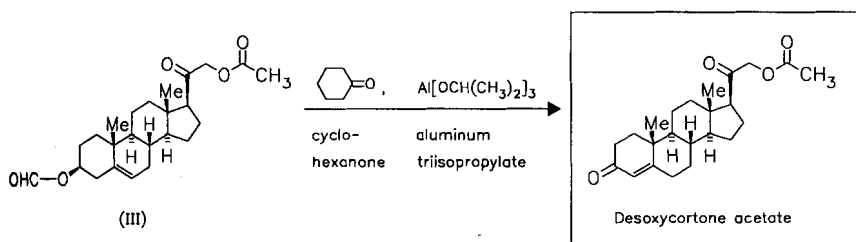
3β-hydroxy-20-oxo-5,16-pregnadiene (I)
(from diosgenin)

formic acid



(II)

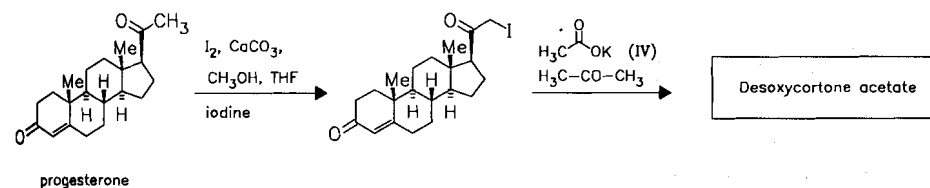
III



(III)

Desoxycortone acetate

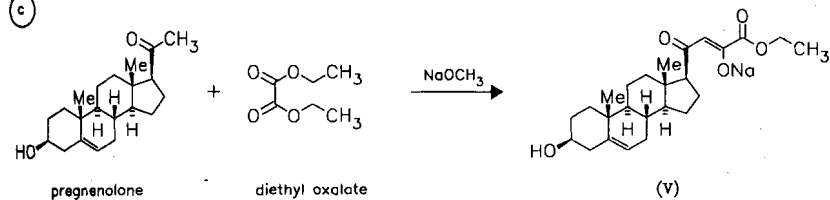
b)



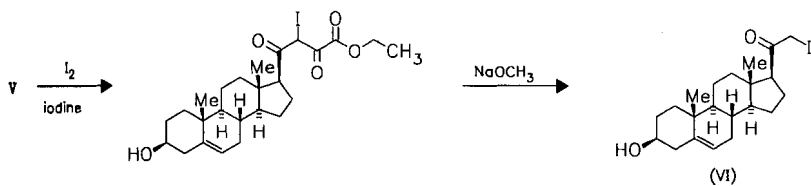
progesterone

Desoxycortone acetate

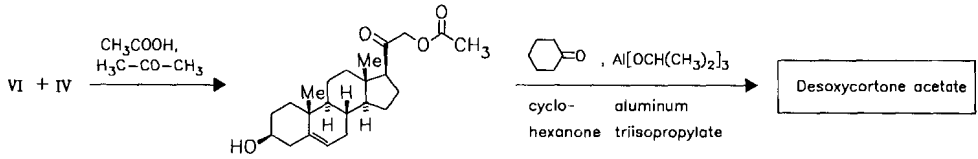
c)



(V)



(VI)



Reference(s):

- a Sondheimer, F. et al.: J. Am. Chem. Soc. (JACSAT) **79**, 5034 (1957).
synthesis of I:
Wall, M.E.: J. Am. Chem. Soc. (JACSAT) **77**, 5665 (1955).
- b Ringold, H.J.; Stork, G.: J. Am. Chem. Soc. (JACSAT) **80**, 250 (1958).
- c Ruschig, H.: Angew. Chem. (ANCEAD) **60**, 247 (1948).
Ruschig, H.: Chem. Ber. (CHBEAM) **88**, 878 (1955).

alternative syntheses:

- DE 871 153 (Hoechst; appl. 1937).
- DE 875 353 (Schering AG; appl. 1938).
- US 2 312 480 (Roche-Organon; 1943, CH-prior. 1937).
- US 2 409 043 (Schering Corp.; 1946, D-prior. 1939).
- US 2 470 903 (W. C. Ross; 1949; GB-prior. 1945).
- Serini, A. et al.: Ber. Dtsch. Chem. Ges. (BDCGAS) **72**, 391 (1939).
- Wilds, A.L.; Shunk, C.H.: J. Am. Chem. Soc. (JACSAT) **70**, 2427 (1948).

review:

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. **13**, 52.

Formulation(s): amp. 10 mg/ml

Trade Name(s):

D:	Docabolin (Nourypharma; as phenylpropionate- comb.); wfm	GB:	Percorten M Crystals (Ciba; as pivalate); wfm	Sinsurrene (Parke Davis)- comb.; wfm	
F:	Syncortyl (Roussel Diamant)	I:	Cortiron (Schering); wfm	J:	Syncorta (Takeda)
			Neodin (Lusofarmaco); wfm	USA:	Doca Acetate (Organon); wfm Percorten (Ciba); wfm

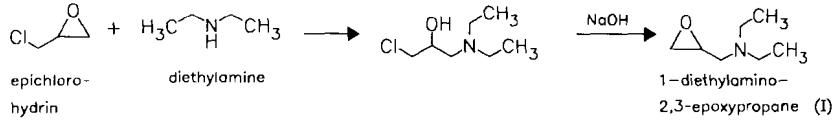
Detajmium bitartrate

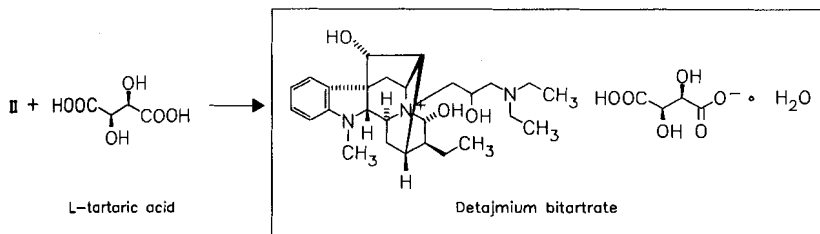
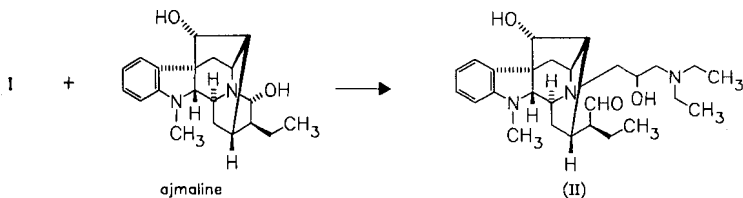
ATC: C01B
Use: antiarrhythmic

RN: 53862-81-0 MF: C₂₇H₄₂N₃O₃ · C₄H₆O₆ · H₂O MW: 624.75
 LD₅₀: 6000 µg/kg (R, i.v.)
 CN: (17R,21α)-4-[3-(diethylamino)-2-hydroxypropyl]-17,21-dihydroxyajmalanum salt with [R(R*,R*)]-2,3-dihydroxybutanedioic acid (1:1) monohydrate

tartrate (1:1)

RN: 33774-52-6 MF: C₂₇H₄₂N₃O₃ · C₄H₆O₆ MW: 606.74
 LD₅₀: 10 mg/kg (R, i.v.); 290 mg/kg (R, p.o.)



**Reference(s):**

DE 2 025 286 (VEB Arzneimittelwerk Dresden; appl. 23.5.1970; DDR-prior. 28.7.1969).
 GB 1 244 597 (VEB Arzneimittelwerk Dresden; appl. 5.7.1970; DDR-prior. 28.7.1969).

Formulation(s): sugar coated tabl. 25 mg

Trade Name(s):

D: Tachmalcor (ASTA Medica
 AWD)

Dexamethasone

(Dexametasone)

ATC: A01AC02; C05AA09; D07AB19;
 D07XB05; D10AA03; H02AB02;
 R01AD03; S01BA01; S01CB01;
 S02BA06; S03BA01

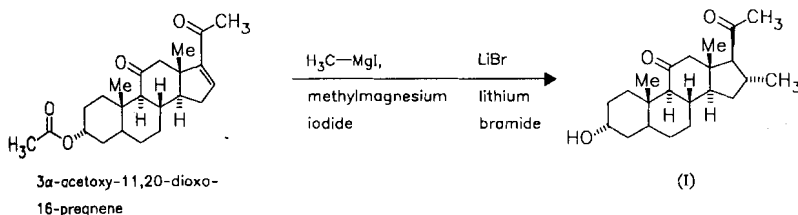
Use: glucocorticoid

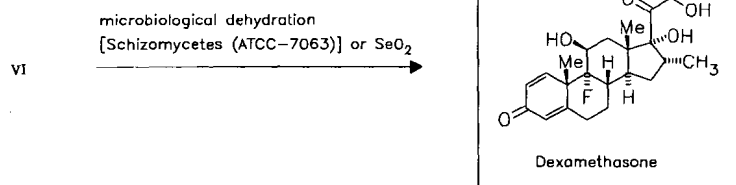
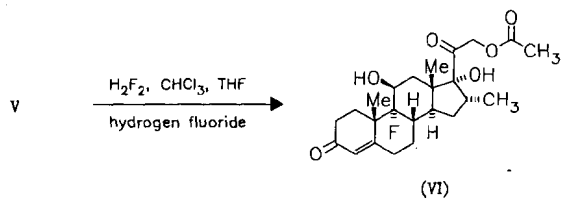
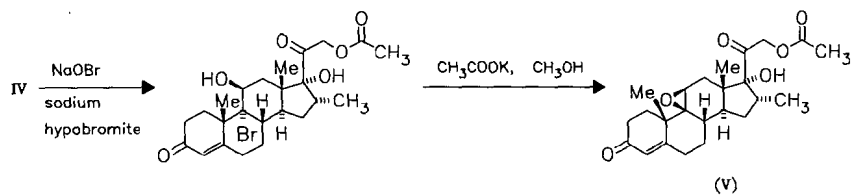
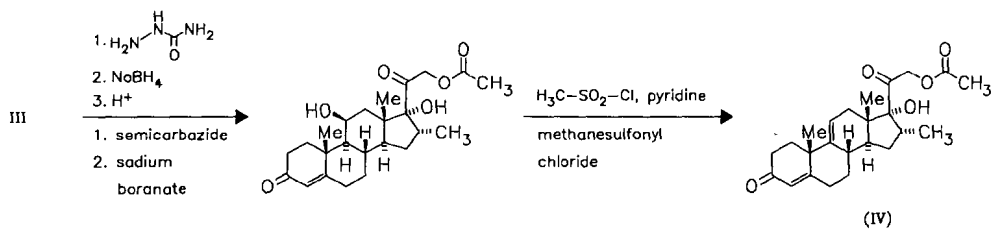
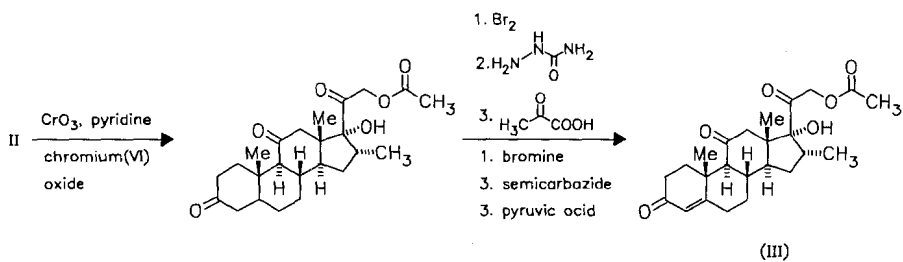
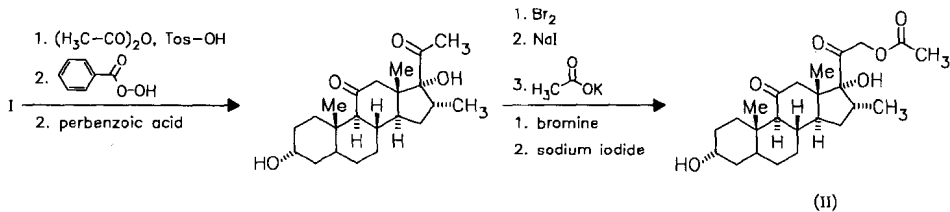
RN: 50-02-2 MF: C₂₂H₂₉FO₅ MW: 392.47 EINECS: 200-003-9

LD₅₀: >3 g/kg (R, p.o.)

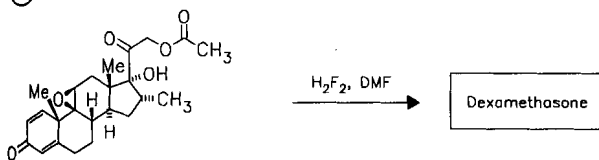
CN: (11β,16α)-9-fluoro-11,17,21-trihydroxy-16-methylpregna-1,4-diene-3,20-dione

(4)





(b)



21-acetoxy-3,20-dioxo-
9 β ,11 β -epoxy-17 α -hydroxy-
16 α -methyl-1,4-pregnadiene (VII)
(from 11-oxo-16-
dehydroprogesterone)

Reference(s):

- a** Arth, G.E. et al.: *J. Am. Chem. Soc. (JACSAT)* **80**, 3160 (1958).
DE 1 113 690 (Merck & Co.; appl. 22.2.1958; USA-prior. 27.2.1957).
Applezweig, N.: *Steroid Drugs*, Vol. **1**, 72 (New York, Toronto, London 1962).
- b** Oliveto, E.P. et al.: *J. Am. Chem. Soc. (JACSAT)* **80**, 4431 (1958).
US 2 852 511 (Olin Mathieson; 1958; prior. 1953).
US 3 007 923 (Lab. Franç. de Chimiothérapie, 7.11.1961; appl. 12.1.1960; F-prior. 22.1.1959).
Applezweig, N.: *Steroid Drugs*, Vol. **1**, 74 (New York, Toronto, London 1962).

synthesis from tigogenin:

Ohta, T. et al.: *Org. Process Res. Dev. (OPRDFK)* **1**, 420 (1997).

synthesis of VII:

Oliveto, E.P. et al.: *J. Am. Chem. Soc. (JACSAT)* **80**, 4431 (1958).
Marker, R.E.; Crooks, H.: *J. Am. Chem. Soc. (JACSAT)* **64**, 1280 (1942).
GB 869 511 (Upjohn; appl. 24.4.1959; USA-prior. 26.5.1958).

alternative synthesis:

US 4 041 055 (Upjohn; 9.8.1977; appl. 17.11.1975).

review:

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. **13**, 57.

Formulation(s): aerosol 0.075 mg/per pump; amp. 5 mg/ml; eye drops 1 mg/ml; f. c. tabl. 0.5 mg, 0.75 mg, 1.5 mg; ointment 0.1 %; sol. 0.03 %; suppos. 2.2 mg

Trade Name(s):

D:	afpred forte Dexa (Hefa-Frenon)	Dexa-Philogout (Azupharma)	Predni-F-Tablinen (Sanorania)
	Anemul (Medopharm)	Dexa Polyspectral (Alcon)	Sokaral (Pharma-Allergan)
	Baycuten (Bayropharm; as acetate)-comb.	Dexa-Rhinospray (Boehringer Ing.)	Solutio Cordes (Ichthyol)
	Chibro-Cadou (Chibret)	Dexa-sine (Thilo)	Spersadex (CIBA Vision)
	Cortidexason Crinale, Salbe (Dermapharm)-comb.	Duodexa N Salbe (Kade)	Tuttozem (Strathmann)
	Cortisumman (Dr. Winzer)	Fortecortin (Merck)	Tuttozem N (Mayo)
	Corto-Tavegil (Novartis Pharma)-comb.	Isopto-Dex (Alcon)-comb.	various combination preparations and generics
	Dexa-Allvoran (TAD)	Lipotalan (Merckle)	F: Décadron (Merck Sharp & Dohme-Chibret)
	Dexa Biciron (Alcon)-comb.	Localison (Dorsch)-comb.	Dectancyl (Roussel)
	Dexagel (Mann)	Millicorten (Novartis Pharma)-comb.	Diamant; as acetate)
	Dexa Loscon (Galderma)	Nystalocal (Nourypharma)-comb.	Maxidex (Alcon)
	Dexamonozon (Medice)	Otobacid (Asche)-comb.	numerous combination preparations
	Dexamytex (Mann)-comb.	Predni (Sanirania)	GB: Decadron (Merck Sharp & Dohme)
		Predni-F-Tablinen (Sanorania)	Maxidex (Alcon)-comb.

	Maxitrol (Alcon)-comb.	various combination preparations	Eurason D (Ciba-Geigy)
	Otomize (Stafford-Miller)		Metasolon (Shionogi)
	Sofradex (Florazel)-comb.	J:	Mitasone (Toyo Pharmar)
I:	Antimicótico liquido/ pomata (IFI)-comb.	Alpermell (Nippon Shinyaku)	Orgadron (Organon-Sankyo)
	Aurizone (SIFI)-comb.	Amumetazon (Choseido)	Rheumadex (Nakataki)-comb.
	Decadron (Merck Sharp & Dohme)	Aphtasolon (Showa Yakka)	Rheumatol (Sankyo)-comb.
	Desalark (Farmacologico Milanese)	Bisno-DS (Ohta)	Santeson (Santa)
	Desamix-neomicina (Savoma)-comb.	Carulon (Yamanouchi)	Sawasone (Sawai)
	Deseronil (Sca)	Corson (Takeda)	Sunia-D Comp. (Zeria Shinyaku)
	Fluorobiopital (Farmila)-comb.	Dab M (Zenyaku)	USA: Dalalone (Forest; as acetate)
	Lasoproct (Bayer)-comb.	Decaderm (Banyu)	Decadron (Merck)
	Luxazone (Allergan)	Decadron (Banyu)	Decadron (Merck; as acetate)
	Nasicortin (Bracco)-comb.	Dectan (Nippon Roussel-Chugai)	Decaspray (Merck)
	Neocortofen (Ripari-Gero)-comb.	Dekisachosei (Choseido)	TobraDex (Alcon)
	Rinedrone (Deca)-comb.	Delenar (Schering-Shionogi)-comb.	several combination preparations and generics
	Tobradere (Alcon)-comb.	Dersene (Ikeda)	
	Visumetazone (Merck Sharp & Dohme)	Dethamedin (Ohta)	
		Dexa A (Shinsei Sawai)	
		Dexaltin (Nippon Kayaku)	
		Dexamamalet (Showa)	
		Dexame (Dojin)	
		Dexasone (Hokuriku)	

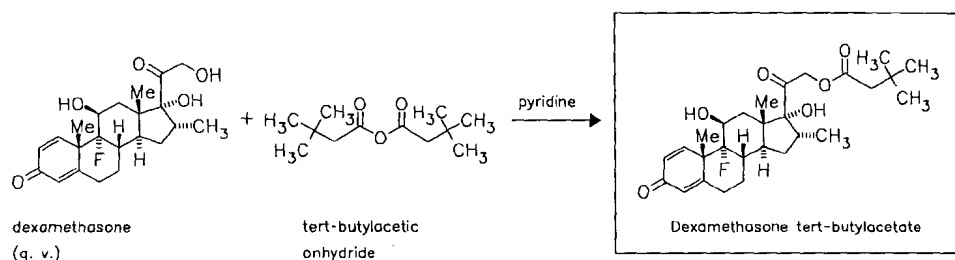
Dexamethasone *tert*-butylacetate

ATC: A01AC; D07AB; R01AD

Use: glucocorticoid

RN: 24668-75-5 MF: C₂₈H₃₉FO₆ MW: 490.61 EINECS: 246-389-2

CN: (11β,16α)-21-(3,3-dimethyl-1-oxobutoxy)-9-fluoro-11,17-dihydroxy-16-methylpregna-1,4-diene-3,20-dione

**Reference(s):**

DOS 2 317 954 (Jelen. Zaklady Farm. Polfa; appl. 10.4.1973; PL-prior. 21.4.1972).

aerosol:

US 3 282 781 (Merck & Co. 1.11.1966; prior. 25.11.1960).

Formulation(s): nasal drops 0.2 mg**Trade Name(s):**

D: Dissiden (Allegopharma)-comb.; wfm

Nasicortin (Merck)-comb.; wfm

USA: Decadron T.B.A. (Merck Sharp & Dohme); wfm

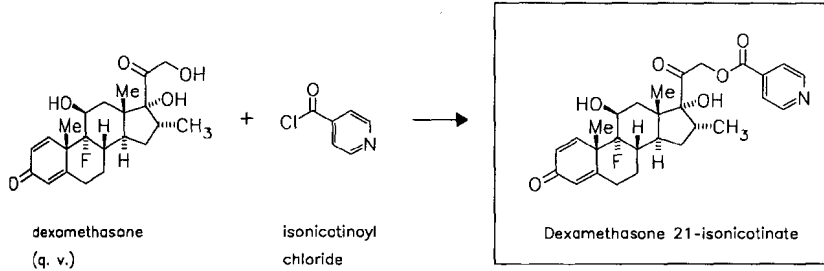
Dexamethasone 21-isonicotinate

ATC: D07AB; S01BA

Use: glucocorticoid

RN: 2265-64-7 MF: $C_{28}H_{32}FNO_6$ MW: 497.56 EINECS: 218-866-5LD₅₀: 3470 mg/kg (M, p.o.);

3562 mg/kg (R, p.o.)

CN: (11 β ,16 α)-9-fluoro-11,17-dihydroxy-16-methyl-21-[(4-pyridinylcarbonyl)oxy]pregna-1,4-diene-3,20-dione**Reference(s):**

ZA 623 489 (Thomae; appl. 1.8.1962; D-prior. 19.8.1961).

Formulation(s): aerosol 0.125 mg/puff, 0.02 mg; eye drops 0.25 mg/ml; sol. 0.025 %**Trade Name(s):**

D: Auxilose (Boehringer Ing.)

Corti Bicorn (S & K Pharma)-comb.

Dexa Bicorn (Alcon)-comb.

Dexa Loscon (Galderma)

Dexa-Rhinospray

(Boehringer Ing.)-comb.

F: Auxisone (Boehringer Ing.)

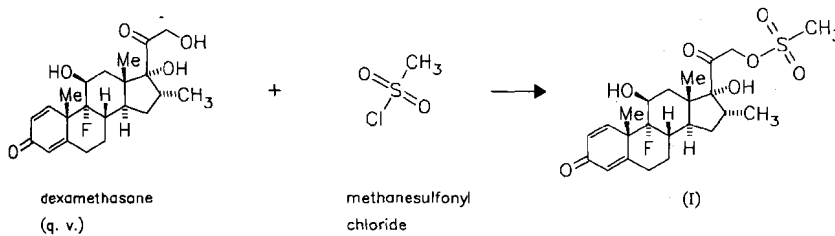
GB: Dexa-Rhinaspray (Boehringer Ing.)-comb.

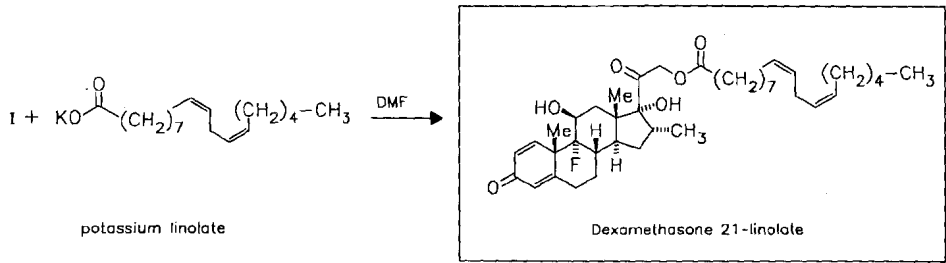
I: Desalfa (Intes)-comb.

Dexamethasone 21-linolate

ATC: D07AB

Use: glucocorticoid

RN: 39026-39-6 MF: $C_{40}H_{59}FO_6$ MW: 654.90 EINECS: 254-254-4CN: [11 β ,16 α ,21-(Z,Z)]-9-fluoro-11,17-dihydroxy-16-methyl-21-[(1-oxo-9,12-octadecadienyl)oxy]-pregna-1,4-diene-3,20-dione

**Reference(s):**

GB 1 292 785 (ISF; valid from 19.4.1971; I-prior. 17.10.1970).

Formulation(s): cream 0.2 %; lotion 0.15 %

Trade Name(s):

I: Kanaderm 200 (Firma)-
comb. with kanamycine
Sitalin (Puropharma)

Sitalin Antibiotico
(Puropharma)-comb. with
bekanamycine

Dexamethasone phosphate

ATC: H02AB; S01BA; S03BA; D07AB

Use: glucocorticoid

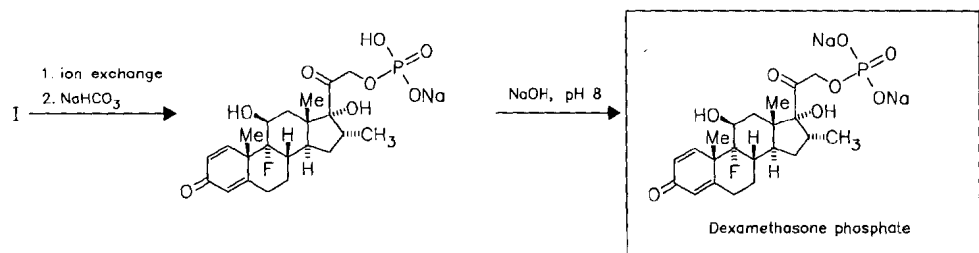
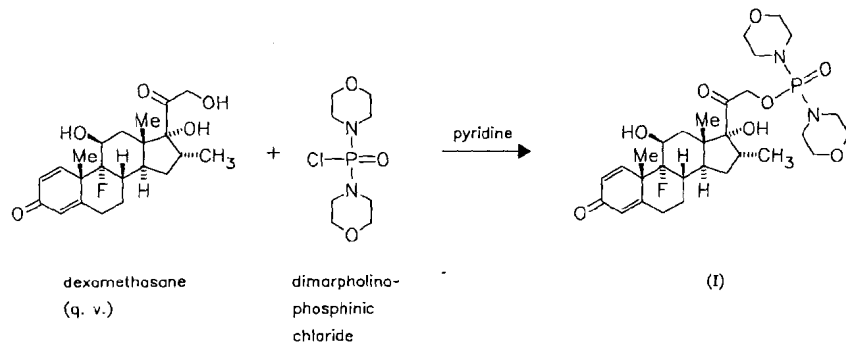
RN: 312-93-6 MF: $C_{22}H_{30}FO_8P$ MW: 472.45 EINECS: 206-232-0

CN: (11 β ,16 α)-9-fluoro-11,17-dihydroxy-16-methyl-21-(phosphonoxy)pregna-1,4-diene-3,20-dione

disodium salt

RN: 2392-39-4 MF: $C_{22}H_{28}FNa_2O_8P$ MW: 516.41 EINECS: 219-243-0

LD₅₀: 1800 mg/kg (M, p.o.)



Reference(s):

DE 1 134 075 (Merck AG, appl. 26.11.1959).

alternative synthesis:

US 2 939 873 (Merck & Co.; 7.6.1960; appl. 26.1.1959; prior. 20.11.1957).

Jrmscher, K.: Chem. Ind. (London) (CHINAG) **1961**, 1035.

Formulation(s):

amp. 5 mg/ml, 48 mg/2 ml, 20 mg/5 ml, 8 mg/2 ml, 120 mg/5 ml; eye drops 1.1 mg/ml; ointment 0.2 %

Trade Name(s):

<p>D: Dexabene (Merckle) Dexa-Brachialin (Steigerwald) Dexa-Effektin (Brenner-Efeka) Spersadexolin (Dispersa)-comb. Totocortin (Winzer) various combination preparations and generics</p> <p>F: Cébédex (Chauvin; as disodium salt) Cébédexacol (Chauvin; as disodium salt)-comb.</p>	<p>I: Decadron Fosfato (Merck Sharp & Dohme) Desalark (Farm. Mil.)</p>	<p>J: Corson (Takeda) Decadron (Banyu) Donray (Kodama) Orgadron (Sankyō) Solcort (Fuji) Teikason (Teika)</p> <p>USA: Decadron Phosphate (Merck) Neo-Decadron Phosphate (Merck)-comb.</p>	<p>Chibro-Cardon (Merck Sharp & Dohme-Chibret; as monosodium salt)-comb. Corticétine (Chauvin; as monosodium salt)-comb. Dexagrane (Leurquin; as monosodium salt) Frakidex (Chauvin; as monosodium salt)-comb. Soludécadron (Merck Sharp & Dohme-Chibret; as monosodium salt)</p>	<p>Eta-Biocortilen (SIFI)-comb. with neomycine Eta-Cortilen (SIFI) Kanazone (SIT)-comb. with kanamycine Soldesam (Farm. Mil.)</p>
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Dexamethasone pivalate

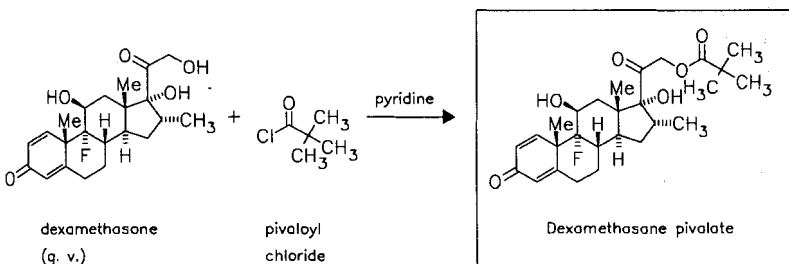
(Dexamethasone trimethylacetate)

ATC: D07AB

Use: glucocorticoid

RN: 1926-94-9 MF: C₂₇H₃₇FO₆ MW: 476.59 EINECS: 217-659-7

CN: (11β,16α)-21-(2,2-dimethyl-1-oxopropoxy)-9-fluoro-11,17-dihydroxy-16-methylpregna-1,4-diene-3,20-dione



Reference(s):

US 3 033 881 (Ciba; 8.5.1962; CH-prior. 4.7.1958).

CH 398 585 (Ciba; appl. 1956)

alternative syntheses:

ES 320 497 (Lab. M. Cuatrecasas; appl. 30.11.1965).

DOS 2 317 954 (Jelen. Zaklady Farm. Polfa; appl. 10.4.1973; PL-prior. 21.4.1972).

Formulation(s): ointment 0.02 %

Trade Name(s):

D: Millicorten-Vioform (Ciba)

Dexamethasone valerate

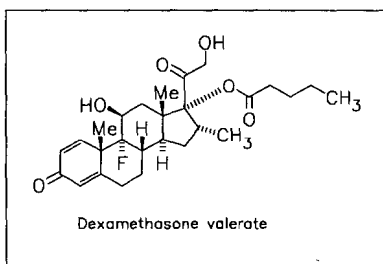
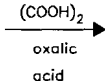
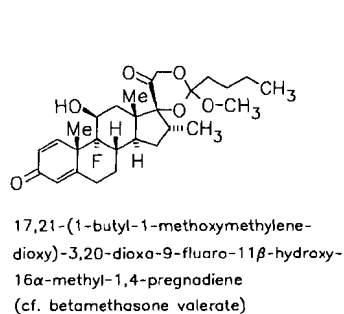
ATC: D07AB

Use: glucocorticoid

RN: 33755-46-3 MF: C₂₇H₃₇FO₆ MW: 476.59 EINECS: 251-669-2LD₅₀: >3 g/kg (M, p.o.);

>3 g/kg (R, p.o.)

CN: (11β,16α)-9-fluoro-11,21-dihydroxy-16-methyl-17-[(1-oxopentyl)oxy]pregna-1,4-diene-3,20-dione



Reference(s):

DOS 2-111 114 (Inst. Luso Farmaco; appl. 9.3.1971; I-prior. 14.3.1970).

alternative syntheses:

DOS 2 055 221 (Lab. Chim. Farm. Blasina; appl. 10.11.1970).

Formulation(s): cream 0.1 %

Trade Name(s):

I: Dermadox (SmithKline
Beecham)J: Voalla (Maruho)
Zaluks (Hokuriku)**Dexbrompheniramine**

ATC: R06AB06

Use: antihistaminic

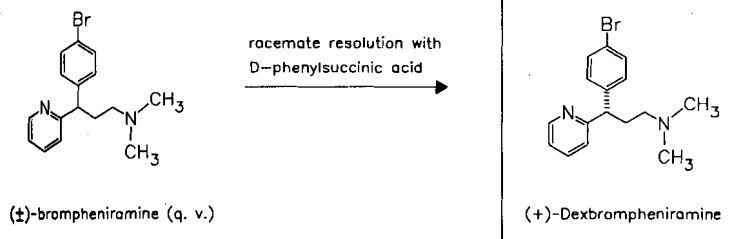
RN: 132-21-8 MF: C₁₆H₁₉BrN₂ MW: 319.25 EINECS: 205-053-5

CN: (S)-γ-(4-bromophenyl)-N,N-dimethyl-2-pyridinepropanamine

maleate (1:1)

RN: 2391-03-9 MF: C₁₆H₁₉BrN₂ · C₄H₄O₄ MW: 435.32 EINECS: 219-236-2LD₅₀: 25 mg/kg (M, i.v.); 176 mg/kg (M, p.o.);

191 mg/kg (R, p.o.)

**Reference(s):**

US 3 030 371 (L. A. Walter; 17.4.1962; appl. 1958).
US 3 061 517 (Schering Corp.; 30.10.1962; prior. 16.2.1962).

Formulation(s): tabl. 2 mg

Trade Name(s):

USA: Disobrom (Geneva)

Dexchlorpheniramine

ATC: R06AB02
Use: antihistaminic

RN: 25523-97-1 MF: C₁₆H₁₉ClN₂ MW: 274.80 EINECS: 247-073-7

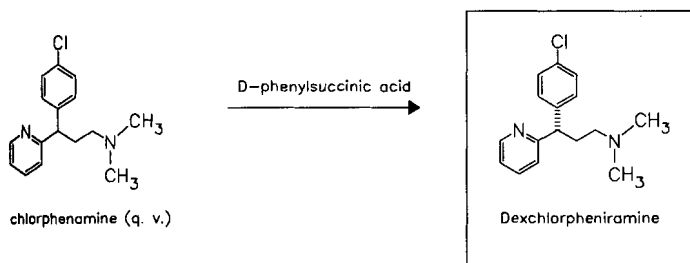
CN: (S)-γ-(4-chlorophenyl)-N,N-dimethyl-2-pyridinepropanamine

maleate (1:1)

RN: 2438-32-6 MF: C₁₆H₁₉ClN₂ · C₄H₄O₄ MW: 390.87 EINECS: 219-450-6

LD₅₀: 28 mg/kg (M, i.v.); 189 mg/kg (M, p.o.);

267 mg/kg (R, p.o.)

**Reference(s):**

GB 834 984 (Schering; appl. 4.7.1958; USA-prior. 4.3.1958).
US 3 030 371 (L. H. Walter; 17.4.1962; appl. 4.3.1958).
US 3 061 517 (Schering Corp.; 30.10.1962; prior. 16.2.1962).

Formulation(s): drg. 6 mg; tabl. 2 mg

Trade Name(s):

D: Celestamine (Essex)-comb.
Polaronil (Byk Essex)

F: Celestamine (Schering-
Plough; as melete)

I: Polaramine (Schering-
Plough; as maleate)

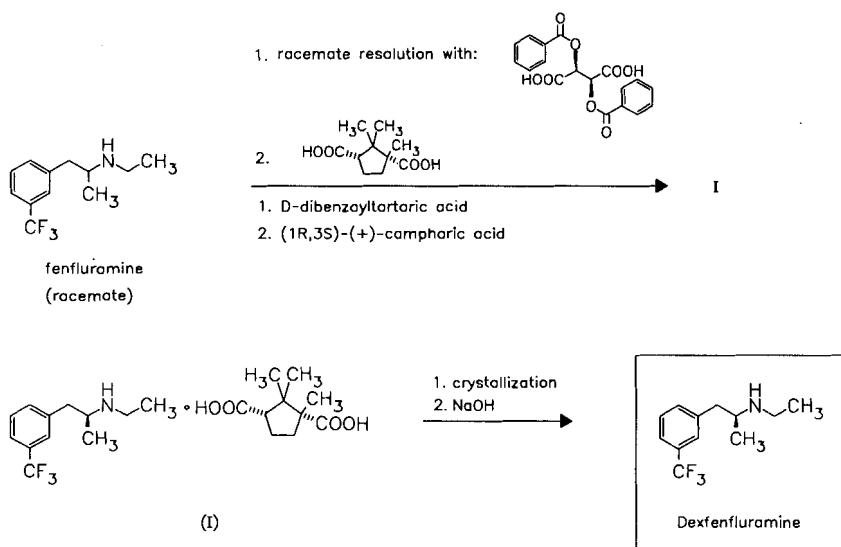
I: Polaramin (Schering-
Plough)

J: Polaramine (Schering-
Shionogi)

USA: Baylarmine (Bay); wfm

Dexchlor Repeat Action
(Schein); wfm

Poladex (T.D.); wfm

Polaramine (Schering);
wfm**Dexfenfluramine**ATC: A08AA04
Use: antiobesity, S-enantiomer of
fenfluramineRN: 3239-44-9 MF: C₁₂H₁₆F₃N MW: 231.26LD₅₀: 115 mg/kg (R, p.o.)CN: (S)-N-ethyl- α -methyl-3-(trifluoromethyl)benzeneethanamine**hydrochloride**RN: 3239-45-0 MF: C₁₂H₁₆F₃N · HCl MW: 267.72 EINECS: 221-806-0**Reference(s):**

DE 1 293 774 (Sience-Union et Cie., Soc. Franç. de Recherche Médicale; appl. 22.6.1965; USA-prior. 27.7.1964).

GB 1 078 186 (Sience-Union et Cie., Soc. Franç. de Recherche Médicale; appl. 16.6.1965; USA-prior. 27.7.1964).

medical use as antidepressant:

EP 2 531 146 (R. J. Wurtman et al.; USA-prior. 16.6.1987).

medical use for intermittent carbohydrate craving:

EP 53 175 (J. R. Wurtman et al.; appl. 15.6.1981; USA-prior. 16.6.1980).

Formulation(s): cps. 15 mg**Trade Name(s):**D: Isomeride (as
hydrochloride); wfmGB: Adifax (Servier; 1990 as
hydrochloride); wfmIsomeride (Servier; 1990 as
hydrochloride)F: Isomeride (Ardix; as
hydrochloride); wfmI: Glypolix (Servier; as
hydrochloride)

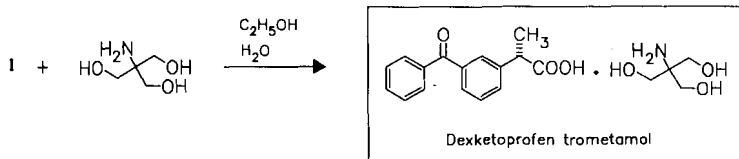
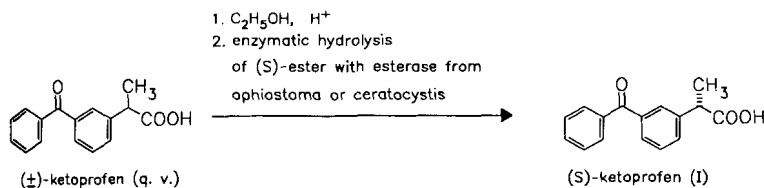
USA: Redux (Wyeth-Ayerst)

Dexketoprofen trometamol

((S)-(+)-Ketoprofen; LM-1158 as acid)

ATC: M01AE17

Use: analgesic, anti-inflammatory

RN: 156604-79-4 MF: C₁₆H₁₄O₃ · C₄H₁₁NO₃ MW: 375.42CN: (S)-3-benzoyl- α -methylbenzeneacetic acid compd. with 2-amino-2-(hydroxymethyl)-1,3-propanediol (1:1)**dexketoprofen**RN: 22161-81-5 MF: C₁₆H₁₄O₃ MW: 254.29**Reference(s):**

WO 9 411 332 (Lab. Menarini; appl. 9.11.1993; E-prior. 10.11.1992).

WO 9 420 449 (Dompé Farmac.; appl. 7.3.1994; I-prior. 9.3.1993).

enantio-selective synthesis of (+)-(S)-2-(3-benzoylphenyl)propionic acid:Fadel, A.: Synlett. (SYNLES) **1**, 48 (1992).**stereoselective hydrolysis of ketoprofene esters using esterase:**

US 5 912 164 (Lab. Menarini; appl. 9.5.1997; GB-prior. 3.3.1993; 3.3.1994; USA-prior. 31.8.1995; 5.9.1995).

WO 9 420 633 (Lab. Menarini; appl. 9.5.1997; GB-prior. 3.3.1993; 3.3.1994; USA-prior. 31.8.1995; 5.9.1995).

WO 9 304 189 (Lab. Menarini; appl. 19.8.1992; GB-prior. 22.8.1991).

Hernaiz, M.J.: J. Mol. Catal. A: Chem. (JMCCF2) **96** (3), 317 (1995).Garcia, M.: Biotechnol. Lett. (BILED3) **19** (10), 999 (1997).

WO 9 015 146 (Rhône-Poulenc; appl. 1.6.1990; USA-prior. 5.6.1989).

Formulation(s): tabl. 12.5 mg, 25 mg**Trade Name(s):**

D: Enantyum (Lab. Menarini; 1998)

Dexpanthenol

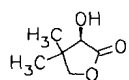
(Pantothényl alcohol; Panthenol)

ATC: A11HA30; D03AX03; S01XA12

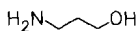
Use: growth factor, wound remedy

RN: 81-13-0 MF: C₉H₁₉NO₄ MW: 205.25 EINECS: 201-327-3LD₅₀: 7 g/kg (M, i.v.); 15 g/kg (M, p.o.)

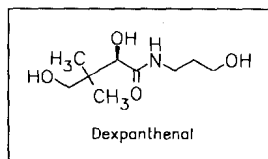
CN: (R)-2,4-dihydroxy-N-(3-hydroxypropyl)-3,3-dimethylbutanamide

D(-)-2-hydroxy-
3,3-dimethyl-
butanolid

+

3-amino-1-
propanol

→



Dexpanthenol

Reference(s):

US 2 413 077 (Roche; 1946; CH-prior. 1942).

use as aerosol:

DAS 2 531 260 (Desitin-Werke; appl. 12.7.1975).

Formulation(s):

amp. 500 mg; emulsion 50 mg; eye and nasal ointment 50 mg; inj. sol. 500 mg/2 ml; nasal spray 50 mg; ointment 5 %, 50 mg; sol. 50 mg; tabl. 100 mg

Trade Name(s):

D:	Bepanthen Roche (Roche)	Ucee (Merck Produkte)	Hydrosol polyvitaminé (Roche)-comb.
	Corveregel (Mann)	Urupan (Merckle)	
	Cutemol (Medopharm)	generics	I: Bepanten (Roche)
	Dexpanthenol Heumann (Heumann)	F: Alvityl (Solvay Pharma)-comb.	Pantenolo(Formulario Naz.)
	Marolderm (Dermapharm)	Bécozyme injectable (Roche)-comb.	J: Pantene (Shionogi)
	Pan-Ophthal (Winzer)	Bepanthen (Roche)	Pantol (Toa Eiyo-Yamanouchi)
	Panthenol Drobena (Drobena)	Cernévit (Clintec Nutrition Clinique)-comb.	USA: Ilopan (Savage)
	Pelina (MIP Pharma)		Ilopan-Choline (Savage)

Dexrazoxane

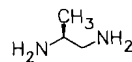
(ICRF-187)

ATC: V03AB; V03AF02

Use: antineoplastic, protectant of anthracycline induced cardiotoxicity, (+)-enantiomer of razoxane (q. v.)

RN: 24584-09-6 MF: C₁₁H₁₆N₄O₄ MW: 268.27

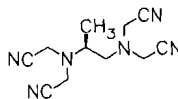
CN: (S)-4,4'-(1-methyl-1,2-ethanediy)bis[2,6-piperazinedione]

(S)-1,2-propane-
diamine

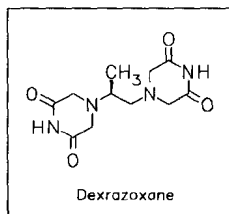
+

paraform-
aldehyde

→

(S)-N,N,N',N'-tetrakis-
(cyanomethyl)-1,2-
propanediamine (I)

1

1. HCl
2. Δ, phenol

Dexrazoxane

Reference(s):

EP 330 381 (Erbamont; appl. 17.2.1989; USA-prior. 17.2.1988)

alternative synthesis:

EP 2 845 594 (Monsanto; appl. 22.3.1988; USA-prior. 23.3.1987).

DE 1 910 283 (National Research Development Corp.; appl. 28.2.1969; USA-prior. 2.7.1968).

GB 1 234 935 (National Research Development Corp.; appl. 3.7.1967).

Formulation(s): lyo. for inf. 500 mg*Trade Name(s):*I: Cardioxane (Eurocetus) USA: Zinecard (Pharmacia &
Eucardion (Dompé Biotec) Upjohn)**Dextromethorphan**

(D-Methorphan)

ATC: R05DA09

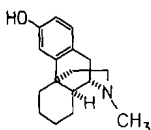
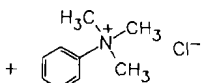
Use: antitussive, analgesic

RN: 125-71-3 MF: $C_{18}H_{25}NO$ MW: 271.40 EINECS: 204-752-2LD₅₀: 210 mg/kg (M, p.o.);

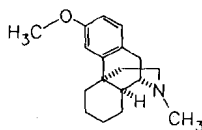
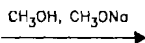
16.286 mg/kg (R, i.v.); 116 mg/kg (R, p.o.)

CN: (9 α ,13 α ,14 α)-3-methoxy-17-methylmorphinan**hydrobromide**RN: 125-69-9 MF: $C_{18}H_{25}NO \cdot HBr$ MW: 352.32 EINECS: 204-750-1LD₅₀: 34 mg/kg (M, i.v.); 165 mg/kg (M, p.o.);

350 mg/kg (R, p.o.)

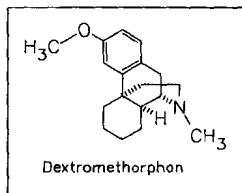
hydrobromide monohydrateRN: 6700-34-1 MF: $C_{18}H_{25}NO \cdot HBr \cdot H_2O$ MW: 370.33(±)-3-hydroxy-N-methylmorphinan
(cf. levorphanol synthesis)

phenyltrimethylammonium chloride



(±)-3-methoxy-N-methylmorphinan (I)

1. D-tartaric acid
2. resolution

*Reference(s):*

US 2 676 177 (Roche; 1954; CH-prior. 1949).

Schneider, O.; Grüssner, A.: *Helv. Chim. Acta (HCACAV)* **34**, 2211 (1951).*medical use as analgesic:*

US 4 316 888 (Nelson Research; 23.2.1982; appl. 15.4.1980).

US 4 446 140 (Nelson Research; 1.5.1984; prior. 10.12.1981, 29.3.1982).

nasal use as antitussive:

US 4 454 140 (Roche; 12.6.1984; appl. 7.9.1982).

Formulation(s): syrup 5 mg, 6.65 mg

Trade Name(s):

D:	Arpha (Fournier Pharma)	Canfodion (Gentili)	Benylin (Warner-Lambert; as hydrobromide)
	NeoTussan (Novartis)	DextroB Afo (Afom)	Bromfed-DM (Muro; as hydrobromide)
	Robitussin plus (Scheurich)-comb.	Euci (Falqui)-comb.	Codimal (Schwarz; as hydrobromide)
	tuss (Rentschler)	Fluprim (Roche)	Diabe-Tuss DM (Paddock; as hydrobromide)
	Wick (Wick Pharma)	Ingro (Farmacologico Milanese)-comb.	Dimetane-DX (Robins; as hydrobromide)
F:	Nodex (Brothier; as hydrobromide)	Iodozan (SmithKline Beecham)-comb.	Donatussin (Laser; as hydrobromide)
	Nortussine (Norgine; as hydrobromide)-comb.	Neoborocillina (Schiapparelli)-comb.	Duratuss DM (UCB; as hydrobromide)
	Tuxium (Galephar; as hydrobromide)	Ozopulmin (Geymonat)-comb.	Fenesin DM (Dura; as hydrobromide)
GB:	Actifed Compound (Wellcome)-comb.; wfm	Resyl (Zyma)-comb.	Muco-Fen (Wakefield; as hydrobromide)
	Actifed Compound Linctus (Wellcome)-comb.; wfm	Romilar (Roche)-comb.	Poly-Histine DM (Sanofi; as hydrobromide)
	Benafed (Parke Davis)-comb.; wfm	Sanabronchiol (Kalda)	Safe Tussin (Kramer; as hydrobromide)
	Cosylan (Parke Davis); wfm	Sedotus Valda (Valda)	Syn-Rx DM (Medeva; as hydrobromide)
	Lotussin (Searle); wfm	Torfan (Abbott)-comb.	Tussar DM (Rhône-Poulenc Rorer; as hydrobromide)-comb.
	Syrtussar (Armour); wfm	Valatux (Farmacologico Milanese)	Tussi-Organidin (Wallace; as hydrobromide)
I:	Actifed (Wellcome)-comb.	Vicks Medinait (Procter & Gamble)-comb.	Tylenol (McNeil; as hydrobromide) generics
	Aricodil (Malesci)-comb.	J: Coughcon (Kyowa)	
	Balsatux (Edmond)-comb.	Yakuhin-Santen)	
	Bechilar (Montefarmaco)	Dextophan (Hishiyama)	
	Benadryl Complex (Parke Davis)-comb.	Hihustan-M (Maruko)	
	Broncal (SmithKline Beecham)-comb.	Medicon (Shionogi)	
	Bronchenolo Tosse (Midy)	Methorcon (Kyowa)	
	Broncobeta (Beta)-comb.	Yakuhin)	
	Broncodex (Pastor Farina)-comb.	Oricolon (Dojin)	
		Radeophan (Tokyo Tanabe)	
		Testamin (Toyama)	
		USA: Anatuss (Merz; as hydrobromide)	

Dextromoramide

ATC: N02AC01

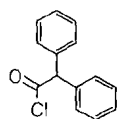
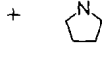
Use: analgesic

RN: 357-56-2 MF: $C_{25}H_{32}N_2O_2$ MW: 392.54 EINECS: 206-613-1LD₅₀: 21 mg/kg (M, i.v.); 168 mg/kg (M, p.o.);

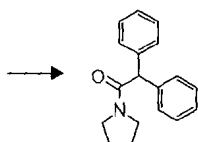
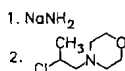
13 mg/kg (R, i.v.); 71.8 mg/kg (R, p.o.)

CN: (S)-1-[3-methyl-4-(4-morpholinyl)-1-oxo-2,2-diphenylbutyl]pyrrolidine

bitartrate (1:1)

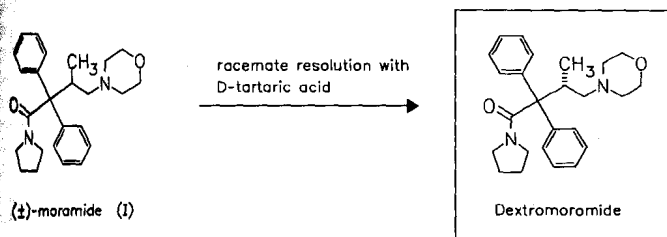
RN: 2922-44-3 MF: $C_{25}H_{32}N_2O_2 \cdot C_4H_6O_6$ MW: 542.63 EINECS: 220-870-7LD₅₀: 71.8 mg/kg (R, p.o.)diphenylacetyl
chloride

pyrrolidine

diphenylacetic
pyrrolidine

1. sodium amide
2. 4-(2-chloropropyl)-morpholine

1

**Reference(s):**

BE 544 757 (Janssen; appl. 5.2.1957; NL-prior. 9.2.1956).
 DE 1 117 126 (Janssen; appl. 5.12.1956; NL-prior. 9.2.1956).
 GB 822 055 (Janssen; appl. 23.10.1956; NL-prior. 9.2.1956).

Formulation(s): suppos. 13.8 mg; tabl. 6.9 mg, 13.8 mg (as bitartrate)

Trade Name(s):

D: Jetricum (Hek); wfm GB: Palfium (B.M. Pharm)
 F: Palfium (Delalande) I: Narcolo (Lusofarmaco)

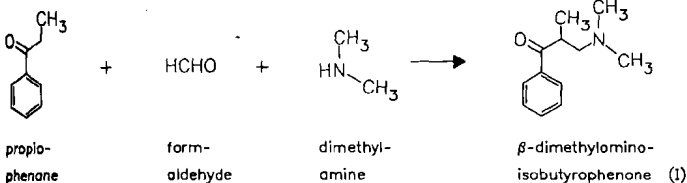
Dextropropoxyphene

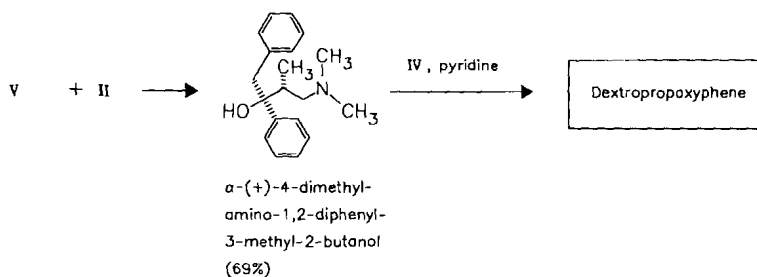
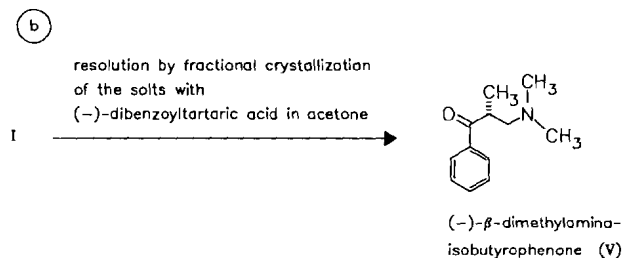
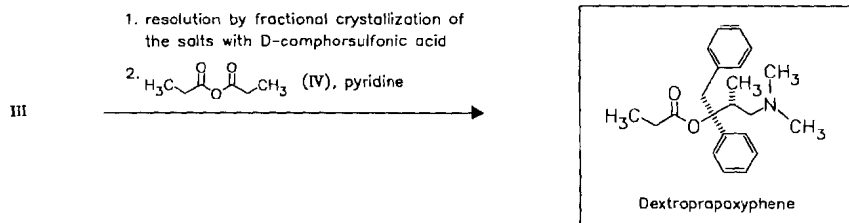
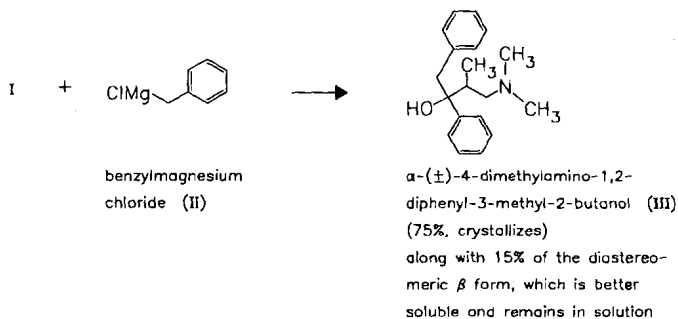
ATC: N02AC04

(Dextropropoxiphene; α-D-Propoxyphene; Propoxyphene) Use: analgesic

RN: 469-62-5 MF: C₂₂H₂₉NO₂ MW: 339.48 EINECS: 207-420-5LD₅₀: 25 mg/kg (M, i.v.); 140 mg/kg (M, p.o.);
135 mg/kg (R, p.o.)

CN: [S-(R*,S*)]-α-[2-(dimethylamino)-1-methylethyl]-α-phenylbenzeneethanol propanoate (ester)

hydrochlorideRN: 1639-60-7 MF: C₂₂H₂₉NO₂ · HCl MW: 375.94 EINECS: 216-683-5LD₅₀: 28 mg/kg (M, i.v.); 282 mg/kg (M, p.o.);
15 mg/kg (R, i.v.); 230 mg/kg (R, p.o.)
29 mg/kg (dog, i.v.); 100 mg/kg (dog, p.o.)**napsylate (1:1) monohydrate**RN: 26570-10-5 MF: C₂₂H₂₉NO₂ · C₁₀H₈O₃S · H₂O MW: 565.73LD₅₀: 973 mg/kg (M, p.o.);
485 mg/kg (R, p.o.); 990 mg/kg (Rf, p.o.)

**Reference(s):**

US 2 728 779 (Lilly; 1955; prior. 1952).

Pohland, A.; Sullivan, H.R.: J. Am. Chem. Soc. (JACSAT) **75**, 4458 (1953); **77**, 3400 (1955).Pohland, A. et al.: J. Org. Chem. (JOCEAH) **28**, 2483 (1963).

Formulation(s): cps. 150 mg (hydrochloride; s. r. formulation); cps. 65 mg (hydrochloride); tabl. 100 mg (napsylate); susp. 50 mg/5 ml (napsylate)

Trade Name(s):

D: Develin retard (Gödecke)

F: Antalvic (Hoechst Houdé; as hydrochloride)

Di-Antalvic (Hoechst

Houdé; as hydrochloride)-comb.

Propofan (Marion Merrell)-comb.

GB: Cosalgesic (Lox)-comb.

Distalgesic (Dista)-comb.

Doloxene (Lilly)

Doloxene Co. (Lilly)-comb.

I: Liberen (Lisapharma)

combination preparations	Darvon-N (Lilly; as napsylate)	Wygesic (Wyeth-Ayerst; as hydrochloride)
USA: Darvocet-N (Lilly; as napsylate)	Propacet (Teva; as napsylate)	numerous combination preparations
Darvon (Lilly; as hydrochloride)		

Dextrothyroxine

(D-Thyroxine)

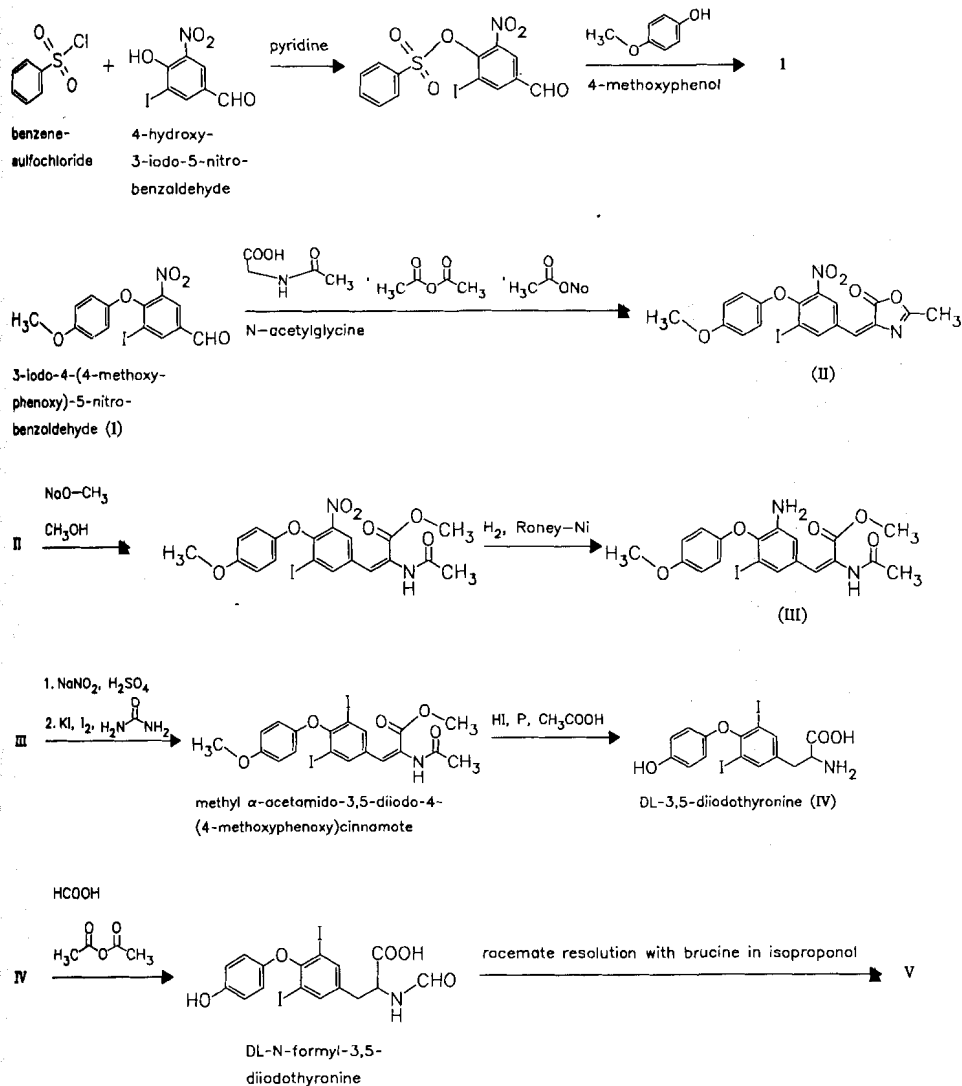
ATC: C10AX01
 Use: cholesterol depressant, antihyperlipidemic

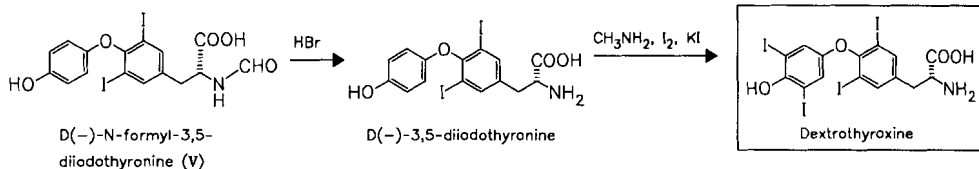
RN: 51-49-0 MF: C₁₅H₁₁I₄NO₄ MW: 776.87 EINECS: 200-102-7

CN: O-(4-hydroxy-3,5-diiodophenyl)-3,5-diiodo-D-tyrosine

sodium salt

RN: 137-53-1 MF: C₁₅H₁₀I₄NNaO₄ MW: 798.85 EINECS: 205-301-2



**Reference(s):**

Nahm, H.; Siedel, W.: Chem. Ber. (CHBEAM) **96**, 1 (1963).
 DE 1 067 826 (Hoechst; appl. 24.12.1955).
 DE 1 077 673 (Hoechst; appl. 19.8.1958).

Formulation(s): tabl. 2 mg

Trade Name(s):

D:	Dynothel (Henning Berlin)	Nadrothyron-D (Nadrol)	USA: Choloxin (Flint); wfm
	Eulipos (Boehringer Mannheim.)	F: Biotirnone (Solac); wfm	
		Débétrol (Choay); wfm	

Dezocine

(Wy-16225)

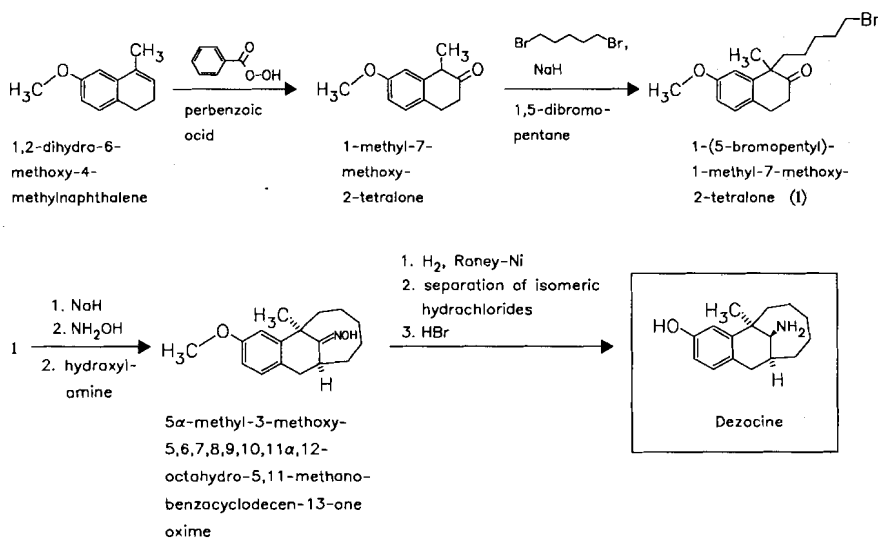
ATC: N02AX03

Use: central acting analgesic, mixed opioid agonist antagonist related to pentazocine

RN: 53648-55-8 MF: C₁₆H₂₃NO MW: 245.37

LD₅₀: 129 mg/kg (M, i.m.); 313 mg/kg (M, p.o.);
 270 mg/kg (R, i.m.); 232 mg/kg (R, p.o.)

CN: [5R-(5 α ,11 α ,13S*)]-13-amino-5,6,7,8,9,10,11,12-octahydro-5-methyl-5,11-methanobenzocyclodecen-3-ol

**Reference(s):**

BE 776 173 (American Home; appl. 2.12.1971; USA-prior. 4.12.1970).
 DE 2 159 324 (American Home; appl. 30.11.1971; USA-prior. 3.12.1970).
 Freed, M.E. et al.: J. Med. Chem. (JMCMAR) **19**, 560 (1976); **16**, 595 (1973).

synthesis of 1-methyl-7-methoxy-2-tetralone:

Howele, F.H.; Taylor, D.A.H.: J. Chem. Soc. (JCSOA9) **1958**, 1248.

pharmaceutical formulations:

US 4 605 671 (American Home; 12.8.1986; appl. 23.7.1985; prior. 28.9.1984).

WO 9 000 390 (American Home; appl. 19.6.1989; S-prior. 8.7.1988).

EP 180 303 (American Home; appl. 27.8.1985; USA-prior. 28.9.1984, 23.7.1985).

Formulation(s): vial and Tubex syringe 5 mg/2 ml, 10 mg/2 ml, 15 mg/2 ml

Trade Name(s):

USA: Dalgan (Wyeth-Ayerst;
1990)

Diacerein

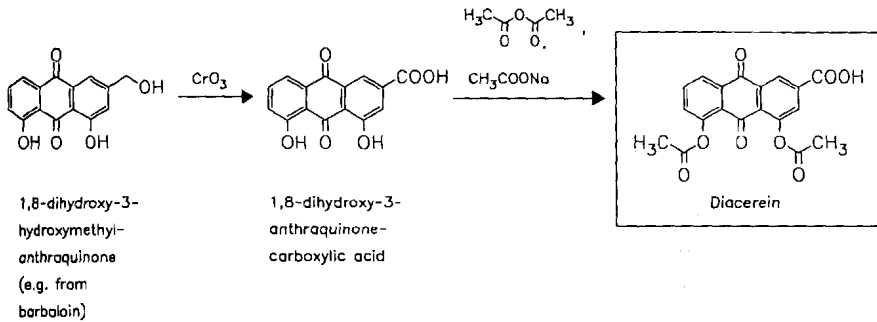
ATC: M01AX21

Use: anti-inflammatory

RN: 13739-02-1 MF: C₁₉H₁₂O₈ MW: 368.30 EINECS: 237-310-2

LD₅₀: 7500 mg/kg (R, route unreported)

CN: 4,5-bis(acetyloxy)-9,10-dihydro-9,10-dioxo-2-anthracenecarboxylic acid

*Reference(s):*

DOS 2 711 493 (C. A. Friedmann; appl. 16.3.1977; SA-prior. 16.3.1976).

Oesterle, O.A.: Arch. Pharm. (Weinheim, Ger.) (ARPMAS) **241**, 604 (1903).

Robinson, R.; Simonsen, J.L.: J. Chem. Soc. (JCSOA9) **1909**, 1085.

Cahn, R.S.; Simonsen, J.L.: J. Chem. Soc. (JCSOA9) **1932**, 2573.

Formulation(s): cps. 50 mg

Trade Name(s):

I: Artrodar (Proter)

Fisiodar (Gentili)

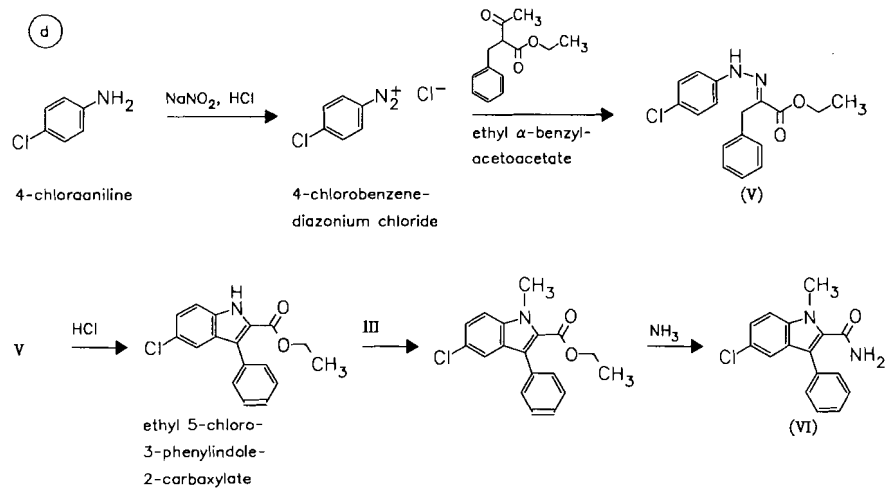
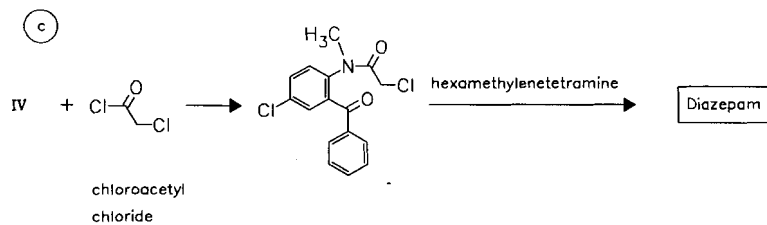
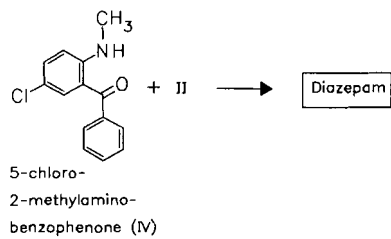
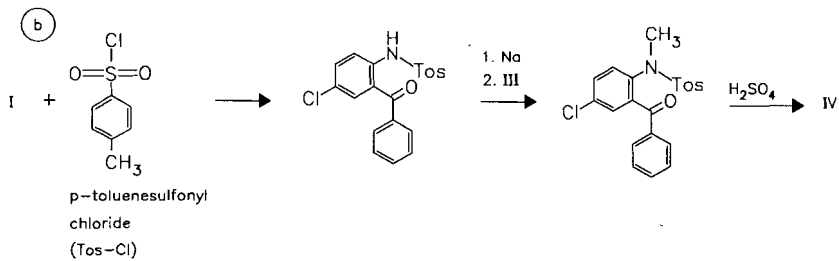
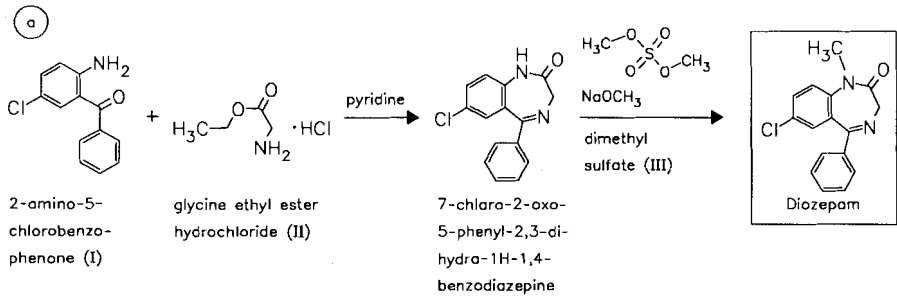
Diazepam

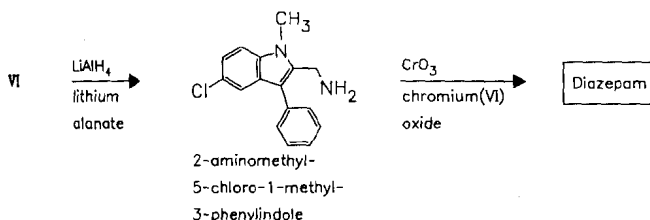
ATC: N05BA01

Use: tranquilizer, hypnotic

RN: 439-14-5 MF: C₁₆H₁₃ClN₂O MW: 284.75 EINECS: 207-122-5

CN: 7-chloro-1,3-dihydro-1-methyl-5-phenyl-2H-1,4-benzodiazepin-2-one





[Alternatively to the Japp-Klingemann reaction phenylpyruvic acid or ethyl phenylpyruvate can be condensed with 4-chlorophenylhydrazine.]

Reference(s):

- a,b** US 3 109 843 (Hoffmann-La Roche; 5.11.1963; appl. 21.6.1962; prior. 28.7.1961).
 US 3 136 815 (Hoffmann-La Roche; 9.6.1964; USA-prior. 10.12.1959).
 DE 1 136 709 (Hoffmann-La Roche; appl. 7.12.1960; USA-prior. 10.12.1959).
 DE 1 145 626 (Hoffmann-La Roche; appl. 7.12.1960; USA Prior. 10.12.1959).
 DE 1 290 143 (Hoffmann-La Roche; prior. 7.12.1960).
 US 3 371 085 (Roche; 27.2.1968; CH-prior. 2.10.1960).
c DAS 2 016 084 (Hoffmann-La Roche; appl. 3.4.1970; CH-prior. 16.10.1969).
 DOS 2 233 482 (Hoffmann-La Roche; appl. 7.7.1972; GB-prior. 8.7.1971).
d Yamamoto, H. et al.: Chem. Ber. (CHBEAM) **101**, 4245 (1968).
 US 3 632 573 (Sumitomo; 4.1.1972; J-prior. 9.10.1967).

variant with α -benzylcyanoacetic acid ester:

US 4 069 230 (Sumitomo; 17.1.1978; J-prior. 4.6.1975, 9.6.1975).

alternative syntheses:

- DAS 1 545 724 (Delmar Chemicals; appl. 14.1.1965; GB-prior. 14.1.1964).
 DAS 1 695 789 (Sumitomo; appl. 2.11.1967; J-prior. 2.11.1966, 16.11.1966, 6.9.1967).
 DAS 1 944 404 (Takeda; appl. 2.9.1969; J-prior. 3.9.1968).
 DOS 2 252 378 (Roche; appl. 25.10.1972; CH-prior. 18.11.1971).
 Sugasawa, T. et al.: J. Heterocycl. Chem. (JHTCAD) **16**, 445 (1979).

purification:

- US 3 102 116 (Hoffmann-La Roche; 27.8.1963; prior. 12.3.1962).
 DAS 1 906 262 (Sumitomo; appl. 7.2.1969; J-prior. 21.2.1968).

Formulation(s): amp. (i.v. or i.m.) 10 mg/2 ml; tabl. 2 mg, 5 mg, 10 mg

Trade Name(s):

D:	Faustan (ASTA Medica AWD)	I:	Aliseum (Zoja)	J:	Cercine (Takeda)
	Lamra (Merckle)		Ansiolin (Roussel)		Horizon (Yamanouchi)
	Stesolid (Dumex)		Eridan (SIT)		Sedaril (Kodama)
	Tranquase (Azuchemie)		Noan (Ravizza)		Serenamin (Toyo Jozo)
	Valiquid (Roche; 1985)		Spasmeridan (UCB)-comb.		Serenzin (Sumitomo; 1968)
	Valium (Roche; 1963)		Spasmomen (Menarini)-comb.	USA:	Diastat (Athena)
F:	Novazam (Génévrier)		Tranquirit (Rhône-Poulenc Rorer)		Dizac (Ohmeda)
	Valium (Roche)		Valium (Roche; 1965)		Valium (Roche Products; 1963)
GB:	Diazemuls (Dumex)		Valpinax (Crinos)-comb.		Valrelease (Roche)
	Stesolid (Dumex)		Valtrax (Valeas)-comb.		
	Valclair (Sinclair)		Vatran (Valeas)		
	Valium (Roche; 1963)				

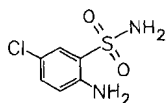
Diazoxide

ATC: C02DA01; V03AH01

Use: antihypertensive, hyperglycemic

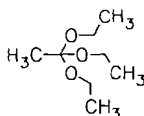
RN: 364-98-7 MF: C₈H₇ClN₂O₂S MW: 230.68 EINECS: 206-668-1LD₅₀: 228 mg/kg (M, i.v.); 444 mg/kg (M, p.o.);

980 mg/kg (R, p.o.)

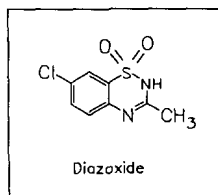
CN: 7-chloro-3-methyl-2*H*-1,2,4-benzothiadiazine 1,1-dioxide

5-chloro-2-aminobenzene-sulfamide

+



triethyl orthoacetate



Diazoxide

Reference(s):

US 2 986 573 (Schering Corp.; 30.5.1961; prior. 18.1.1961).

US 3 345 365 (Schering Corp.; 3.10.1967; prior. 19.9.1960, 18.1.1961, 31.3.1964).

Formulation(s): amp. 300 mg/20 ml (i.v. inj.); cps. 25 mg, 100 mg**Trade Name(s):**

D:	Hypertonalum (Essex Pharma)		Proglicem (Schering-Plough)		Proglicem (Schering-Plough)
F:	Hyperstat (Schering-Plough)	GB:	Eudemine (Fink)	USA:	Hyperstat (Schering)
		I:	Hyperstat (Schering-Plough)		Proglycem (Baker Norton)

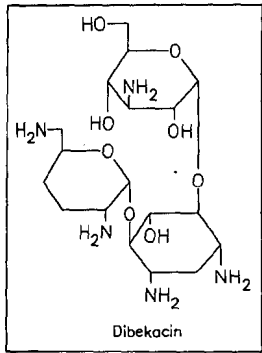
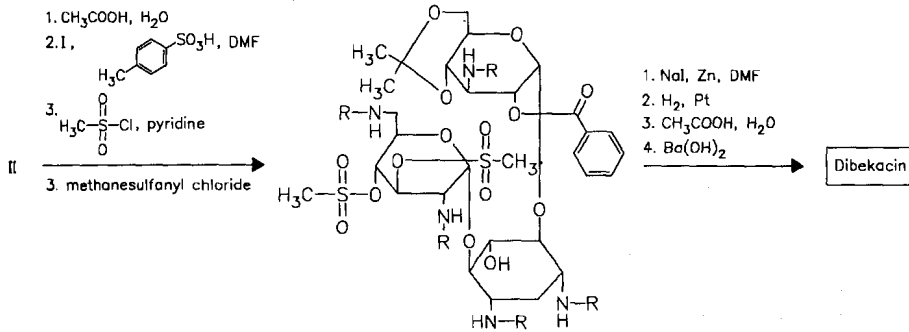
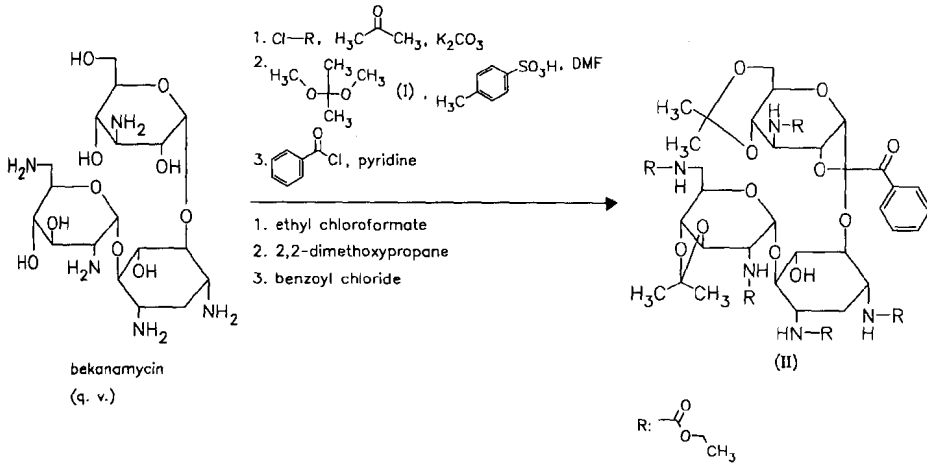
Dibekacin

ATC: J01GB09; J01KD

Use: aminoglycoside antibiotic

RN: 34493-98-6 MF: C₁₈H₃₇N₅O₈ MW: 451.52 EINECS: 252-064-6LD₅₀: 373-380 mg/kg (M, i.p.); 61-68 mg/kg (M, i.v.)CN: *O*-3-amino-3-deoxy- α -D-glucopyranosyl-(1 \rightarrow 6)-*O*-[2,6-diamino-2,3,4,6-tetra-deoxy- α -D-erythro-hexopyranosyl-(1 \rightarrow 4)]-2-deoxy-D-streptamine**sulfate**RN: 58580-55-5 MF: C₁₈H₃₇N₅O₈ · xH₂SO₄ MW: unspecified EINECS: 261-341-0LD₅₀: 62.6 mg/kg (M, i.v.); >6950 mg/kg (M, p.o.);

140 mg/kg (R, i.v.); 6950 mg/kg (R, p.o.)



Reference(s):

DE 2 135 191 (Zaidan Hojin Biseibutsu Kagaku Kenkyu Kai; appl. 14.7.1971; J-prior. 29.7.1970, 11.5.1971).
 Umezawa, S. et al.: Bull. Chem. Soc. Jpn. (BCSJA8) **45**, 3624 (1972).
 Umezawa, H. et al.: J. Antibiot. (JANTAJ) **24**, 485 (1971).

alternative syntheses:

DOS 2 414 416 (Hochst; appl. 26.3.1974).
 DOS 2 654 764 (Zaidan Hojin Biseibutsu Kagaku Kenkyu Kai; appl. 3.12.1976; J-prior. 10.12.1975, 9.12.1975).
 DOS 2 655 731 (Zaidan Hojin Biseibutsu Kagaku Kenkyu Kai; appl. 9.12.1976; J-prior. 11.12.1975).
 DOS 2 756 057 (Zaidan Hojin Biseibutsu Kagaku Kenkyu Kai; appl. 15.12.1977; J-prior. 16.12.1976).
 US 4 169 939 (Zaidan Hojin Biseibutsu Kagaku Kenkyu Kai; 2.10.1979, J-prior. 16.12.1976).
 Migake, T. et al.: Carbohydr. Res. (CRBRAT) **49**, 141 (1976).

Formulation(s): amp. 50 mg/ml, 75 mg/1.5 ml

Trade Name(s):

D: Orbicin (Mack); wfm	I: Icacine (Bristol); wfm	J: Panimycin (Meiji Seika Kaisha)
F: Débékacyl (Bellon); as sulfate	Kappabi (Carlo Erba); wfm	

Dibenzepine

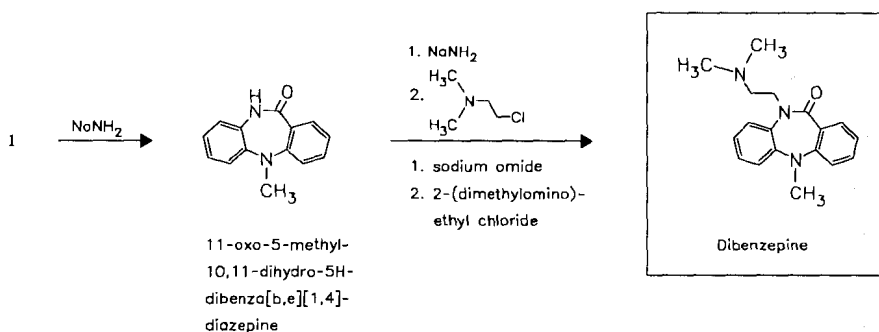
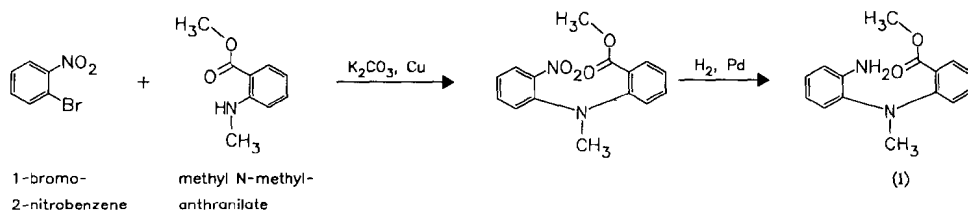
ATC: N06AA08

Use: antidepressant

RN: 4498-32-2 MF: C₁₈H₂₁N₃O MW: 295.39LD₅₀: 22 mg/kg (M, i.v.); 194 mg/kg (M, p.o.);
22 mg/kg (R, i.v.); 220 mg/kg (R, p.o.)

CN: 10-[2-(dimethylamino)ethyl]-5,10-dihydro-5-methyl-11H-dibenzo[b,e][1,4]diazepin-11-one

monohydrochloride

RN: 315-80-0 MF: C₁₈H₂₁N₃O · HCl MW: 331.85 EINECS: 206-255-6LD₅₀: 22 mg/kg (M, i.v.); 174 mg/kg (M, p.o.);
22 mg/kg (R, i.v.); 220 mg/kg (R, p.o.)

Reference(s):

- DE 1 263 774 (Wander; appl. 13.9.1960; CH-prior. 22.9.1959).
 US 3 419 547 (Wander; 31.12.1968; CH-prior. 22.9.1959).
 GB 961 106 (Wander; appl. 22.9.1960; CH-prior. 22.9.1959).
 FR 1 295 371 (Wander; appl. 20.9.1960; CH-prior. 22.9.1959).
 Hunziker, F. et al.: *Arzneim.-Forsch. (ARZNAD)* **13**, 324 (1963).

Formulation(s): amp. 20 mg/ml; drg. 40 mg, 80 mg; s. r. tabl. 240 mg; tabl. 80 mg

Trade Name(s):

D: Noveril (Novartis Pharma); wfm	Noveril (Sandoz); wfm	J: Noveril (Morishita)
F: Ecatril (Sandoz); wfm	GB: Noveril (Wander); wfm	
	I: Noveril (Sandoz)	

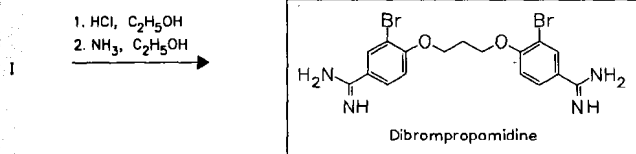
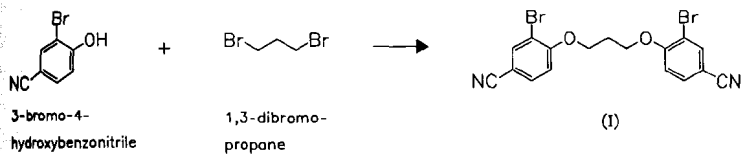
Dibrompropamidine

ATC: D08AC01; S01AX14

Use: chemotherapeutic

RN: 496-00-4 MF: $C_{17}H_{18}Br_2N_4O_2$ MW: 470.17

CN: 4,4'-[1,3-propanediylbis(oxy)]bis[3-bromobenzenecarboximidamide]

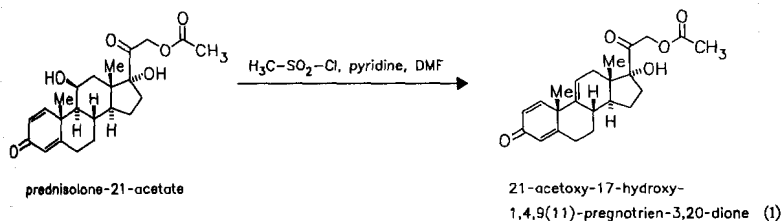
dislithionate (1:2)RN: 614-87-9 MF: $C_{17}H_{18}Br_2N_4O_2 \cdot 2C_2H_6O_4S$ MW: 722.43 EINECS: 210-399-5**Reference(s):**

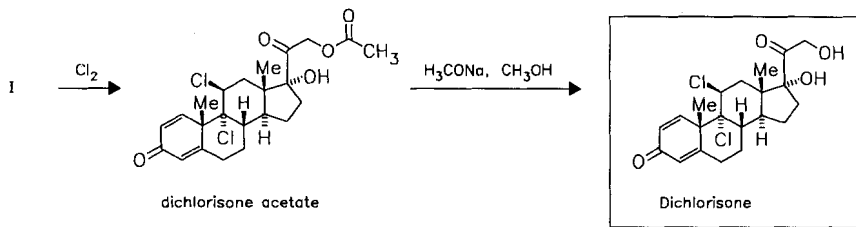
GB 598 911 (May & Baker; appl. 1945).

Formulation(s): eye drops 0.1 %; eye ointment 0.15 %**Trade Name(s):**GB: Brolene (May & Baker)
Brulidine (May & Baker)Golden Eye Ointment
(Typharm)
Otamidyl (May & Baker)Phenergan (May & Baker;
as isethionate)-comb.**Dichlorisone**

ATC: D07AA

Use: topical glucocorticoid

RN: 7008-26-6 MF: $C_{21}H_{26}Cl_2O_4$ MW: 413.34 EINECS: 230-283-8CN: (11 β)-9,11-dichloro-17,21-dihydroxypregna-1,4-diene-3,20-dione**acetate**RN: 79-61-8 MF: $C_{23}H_{28}Cl_2O_5$ MW: 455.38 EINECS: 201-213-3

*Reference(s):*

US 2 894 963 (Schering Corp.; 1959; prior. 1958).

Robinson, C.H. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 2191 (1959).*Formulation(s):* cream 0.25 %*Trade Name(s):*

I: Astroderm (Lagap); wfm

J: Diloderm Cream
(Schering-Shionogi)Neo-Diloderm Cream
(Schering-Shionogi)-comb.**Dichlorophen**

ATC: P02DX

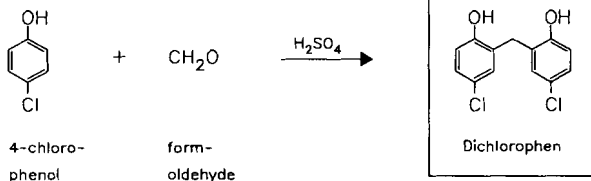
Use: antifungal, antiseptic, anthelmintic

RN: 97-23-4 MF: $\text{C}_{13}\text{H}_{10}\text{Cl}_2\text{O}_2$ MW: 269.13 EINECS: 202-567-1LD₅₀: 1 g/kg (M, p.o.);

17 mg/kg (R, i.v.); 1506 mg/kg (R, p.o.);

2 g/kg (dog, p.o.)

CN: 2,2'-methylenebis(4-chlorophenol)

*Reference(s):*

DRP 530 219 (I. G. Farben; appl. 1927).

GB 1 208 325 (BDH; appl. 22.4.1968; valid from 15.4.1969).

US 2 334 408 (B.T. Bush; 1943; appl. 1941).

DAS 2 551 498 (Bayer; appl. 17.11.1975).

Formulation(s): cream 10 mg; powder 50 mg; sol. 10 mg; spray 10 mg*Trade Name(s):*D: Fissan Brustwarzensalbe
(Fink)-comb.; wfm
Onychofissan (Fink)-
comb.; wfm
Ovis Flüssigkeit/salbe
(Warner)-comb.; wfmOvis Fußbad/Spray
(Warner); wfm
Wespuril (Spitzner)-comb.;
wfm
F: Plath-Lyse (Génévrier);
wfmGB: Anthiphen (May & Baker);
wfm

Diclofenac

ATC: M01AB05; M02AA15; S01BC03

Use: anti-inflammatory, antirheumatic

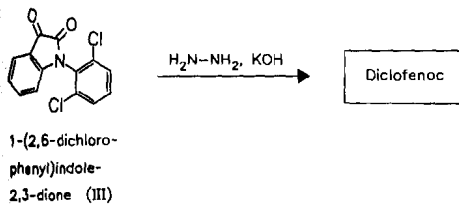
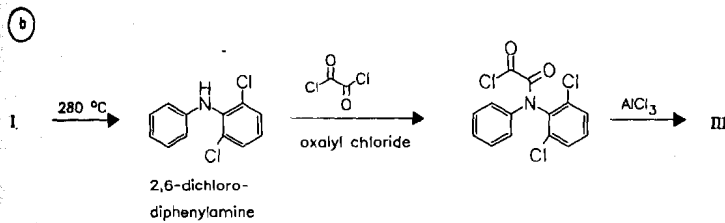
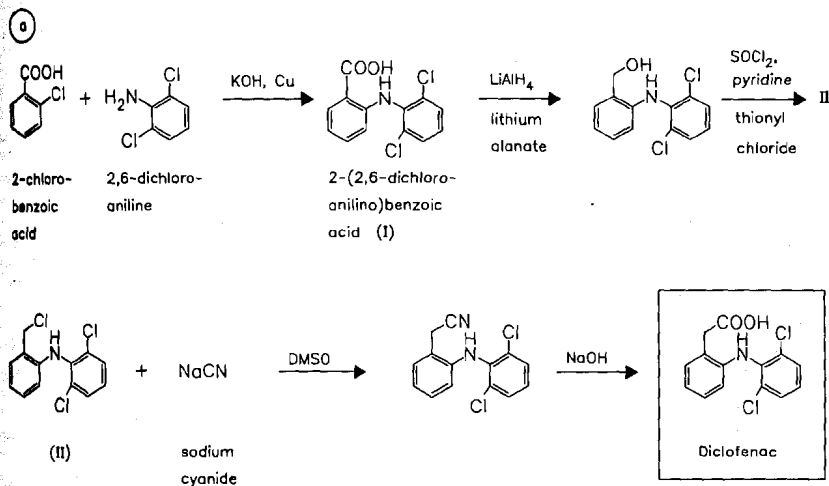
RN: 15307-86-5 MF: C₁₄H₁₁Cl₂NO₂ MW: 296.15 EINECS: 239-348-5LD₅₀: 170 mg/kg (M, p.o.);

62.5 mg/kg (R, p.o.)

CN: 2-[(2,6-dichlorophenyl)amino]benzoic acid

monosodium saltRN: 15307-79-6 MF: C₁₄H₁₀Cl₂NNaO₂ MW: 318.14 EINECS: 239-346-4LD₅₀: 116 mg/kg (M, i.v.); 390 mg/kg (M, p.o.);

117 mg/kg (R, i.v.); 150 mg/kg (R, p.o.)

**Reference(s):**

US 3 558 690 (Geigy; 26.1.1971; CH-prior. 8.4.1965, 25.2.1966, 30.3.1966, 20.12.1967).

DAS 1 543 639 (Ciba-Geigy; appl. 7.4.1966; CH-prior. 8.4.1965).

DAS 1 793 592 (Ciba-Geigy; appl. 7.4.1966; CH-prior. 8.4.1965).

US 3 652 762 (Ciba-Geigy; 28.3.1972; prior. 9.12.1968, 29.9.1969, 14.4.1970).

US 3 778 470 (Geigy; 11.12.1973; appl. 2.10.1970; prior. 4.4.1966).

CH 492 679 (Geigy; appl. 30.3.1966).

alternative synthesis:

DOS 2 613 838 (Ikeda Mohando; appl. 31.3.1976; J-prior. 31.3.1975).

Formulation(s): amp. 75 mg; cps. and drg. 25 mg, 50 mg, 100 mg, 140 mg; eye drops 1 mg, 0.3 mg, 5 mg/5 ml; gel 11.6 mg, 1 %; inj. sol. 75 mg/3 ml; suppos. 12.5 mg, 25 mg, 50 mg, 100 mg; tabl. 25 mg, 50 mg, 75 mg

Trade Name(s):

D:	Allvoran (TAD)	Dolgit-Diclo (Dologiet)	I:	Dicloream (Alfa Wassermann)
	arthrex (BASF Generics)	Dolobasan (Sagitta)		Flogofenac (Ecobi)
	Benfofen (Sanofi)	Duravolten (durachemie)		Forgenac (Zoja)
	Winthrop)	Effekton (Brenner-Efeka/Law)		Novapirina (Zyma)
	Delphimix (Cyanamid)	Jenafenac (Jenapharm)		Voltaren (Ciba-Geigy; 1975)
	Delphinac (Lederle)	Lexobene (Merckle)	J:	Adefuronic (Taiyo)
	Diclac (Hexal)	Monofflam (Lichtenstein)		Dichronic (San-a)
	diclo (ct-Arzneimittel)	Myogit (Pfleger)		Docell (Nippon Kayaku)
	Diclofenbeta (betapharm)	Rehumavincin (Owege)		Irinatolon (Tatumi)
	Diclo KD (Kade)	Rewodina (ASTA Medica AWD)		Neriodin (Teikoku)
	Diclophlogont (Azupharma)	Sigafenac (Kytta-Siegfried)		Nifleriel (Mohan)
	Diclo-Phlogont (Azuchemie)	Toryxil (Baer)		Sofarin (Nippon Chemiphar)
	Diclo-Puren (Isis Puren)	Voltaren (Novartis Pharma; 1976)		Tsudohmin (Toho)
	Diclo-rectal (Beiersdorf)	F:		Voltaren (Fujisawa; 1974)
	Diclo-saar (Chephasaar)	Flector (Génévrier)	USA:	Voltaren (Novartis; as sodium salt)
	Diclo-Spondyryl (Dorsch)	Voltarène (Novartis; 1976)		
	Diclo-Tablinden (Beiersdorf-Tablinden)	Xenid (Biogalénique)		
	Diclo-Wolff (Wolff)	GB: Voltarol (Novartis; 1979)		
		numerous generics		

Diclofenamide

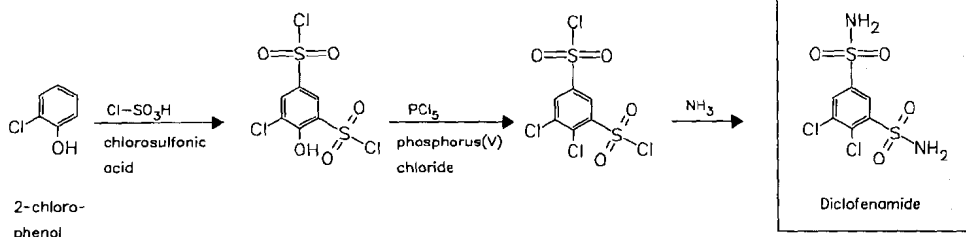
(Dichlorphenamide)

ATC: S01EC02

Use: carboanhydrase inhibitor (against glaucoma)

RN: 120-97-8 MF: C₆H₆Cl₂N₂O₄S₂ MW: 305.16 EINECS: 204-440-6LD₅₀: 643 mg/kg (M, i.v.); 1710 mg/kg (M, p.o.)

CN: 4,5-dichloro-1,3-benzenedisulfonamide

*Reference(s):*

US 2 835 702 (Merck & Co.; 20.5.1958; prior. 2.5.1956).

Formulation(s): tabl. 50 mg*Trade Name(s):*

GB: Daranide (Merck Sharp & Dohme); wfm

I: Antidrafi (SmithKline Beecham)
Fenamida (Farmigea)

Glaumid (SIFI)
J: Daranide (Merck-Banyu)
USA: Daranide (Merck)

Dicloxacillin

ATC: J01CF01

Use: antibiotic

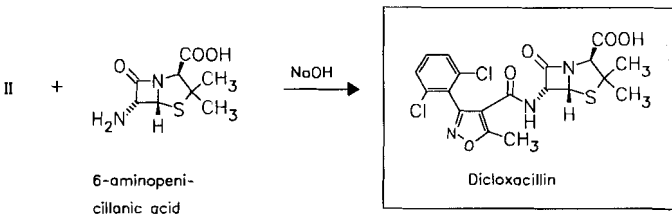
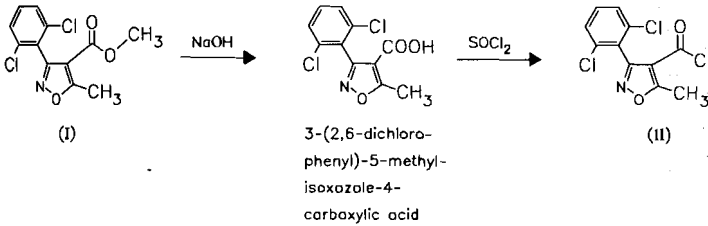
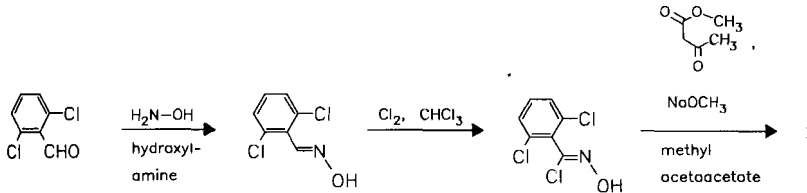
RN: 3116-76-5 MF: $C_{19}H_{17}Cl_2N_3O_5S$ MW: 470.33 EINECS: 221-488-3

CN: [2S-(2 α ,5 α ,6 β)]-6-[[[3-(2,6-dichlorophenyl)-5-methyl-4-isoxazolyl]carbonyl]amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

monosodium salt monohydrate

RN: 13412-64-1 MF: $C_{19}H_{16}Cl_2N_3NaO_5S \cdot H_2O$ MW: 510.33

LD₅₀: 875 mg/kg (M, i.v.); 4560 mg/kg (M, p.o.);
520 mg/kg (R, i.v.); 3579 mg/kg (R, p.o.);
>3 g/kg (dog, p.o.)



Reference(s):

US 3 239 507 (Beecham; 8.3.1966; GB-prior. 17.10.1962).
GB 978 299 (Beecham; appl. 17.10.1962; addition to GB 905 778 from 14.3.1961).
BE 657 504 (Bayer; appl. 23.12.1964; D-prior. 24.12.1963).

Formulation(s): cps. 500 mg (as sodium salt)

Trade Name(s):

D: Dichlor-Stapenor (Bayer)

F: Cefaplus (Labif)-comb.;
wfm

I: Diclocil (Bristol); wfm
Diclo (Firma)

Diclocil (Bristol); wfm
 Diclocillin (Aristochimica);
 wfm
 Diclocillin (Lagap); wfm
 Diclocta (Lusofarmaco)-
 comb.; wfm
 Dicloeta (Lusofarmaco)-
 comb.; wfm
 Diclomax (Pulitzer); wfm

Dicloxapen (Magis); wfm
 Diflor (Coli); wfm
 Etadipen (Ghimas)-comb.;
 wfm
 Novapen (IBP); wfm
 Versaclox (Bristol)-comb.;
 wfm
 numerous combination
 preparations

J: Clocil (Bristre-Banyu)
 Combipenix (Toyo Jozo)-
 comb.
 Diclex (Meiji)
 Staphcillin (Banyu)
 USA: Dycill (Beecham); wfm
 Dynapen (Bristol); wfm
 Pathocil (Wyeth); wfm
 Veracillin (Ayerst); wfm

Dicycloverine (Dicyclomine)

ATC: A03AA07

Use: antispasmodic, anticholinergic

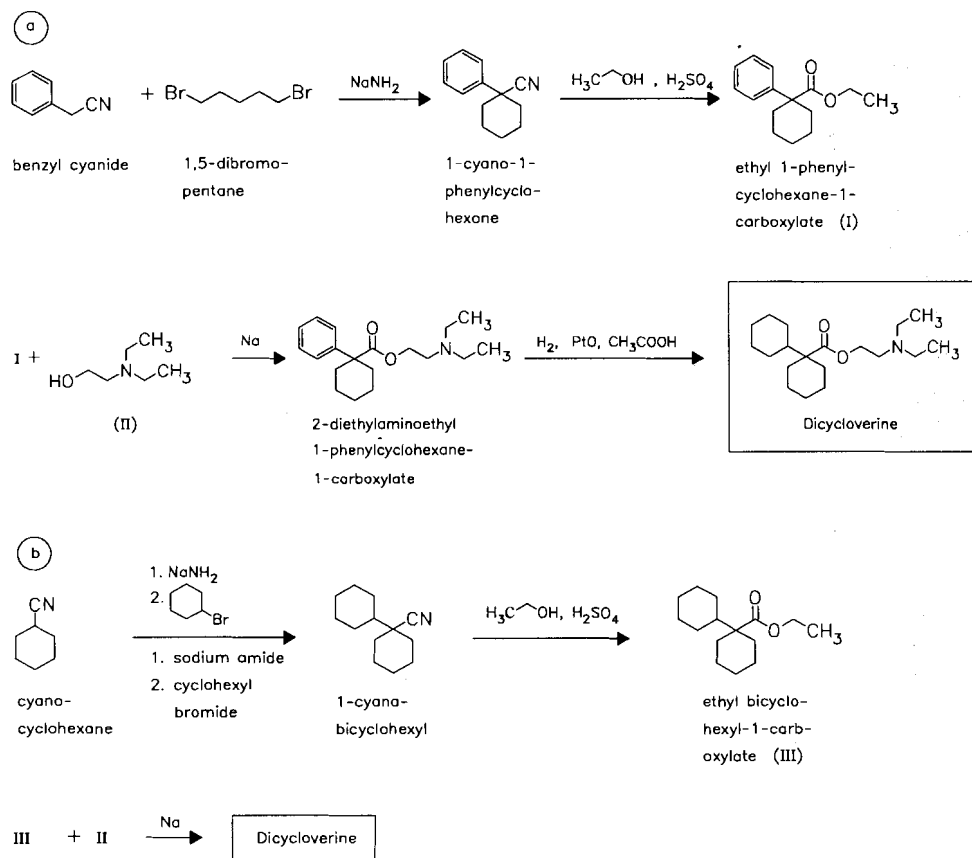
RN: 77-19-0 MF: $C_{19}H_{35}NO_2$ MW: 309.49 EINECS: 201-009-4

CN: [1,1'-bicyclohexyl]-1-carboxylic acid 2-(diethylamino)ethyl ester

hydrochloride

RN: 67-92-5 MF: $C_{19}H_{35}NO_2 \cdot HCl$ MW: 345.96 EINECS: 200-671-1LD₅₀: 31.5 mg/kg (M, i.v.); 625 mg/kg (M, p.o.);

1290 mg/kg (R, p.o.)



Reference(s):

US 2 474 796 (Merrell Comp.; 1949; prior. 1946).

Tilford, C.H. et al.: J. Am. Chem. Soc. (JACSAT) **69**, 2903 (1947).

Formulation(s): cps. 10 mg

Trade Name(s):

D: Atumin (Merrell); wfm Spasmo-Rhoival (Tosse)- comb.; wfm	I: Benty (Merrell) Merankol (Lepetit)-comb.	Mamiesan (Kyowa Yakuhin-Hoei)
GB: Diarrest (Galen)-comb. Kolanticon (Hoechst)- comb. Merbentyl (Florizel)	J: Benty (Shionogi) Benty/Phenobarbital (Shionogi)-comb. Incron (Seiko Eiyo)-comb. Kolantyl (Shionogi)	USA: Benty (Hoechst Marion Roussel; as hydrochloride) generics

Didanosine

(DDI; Dideoxyinosine)

ATC: J05AF02

Use: anti-AIDS therapeutic, symptomatic
oral treatment

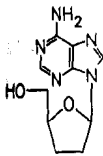
RN: 69655-05-6 **MF:** C₁₀H₁₂N₄O₃ **MW:** 236.23

LD₅₀: >2 g/kg (M, p.o.);

>2 g/kg (R, p.o.);

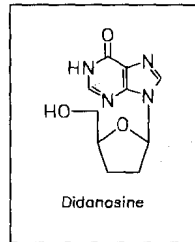
>2 g/kg (dog, p.o.)

CN: 2',3'-dideoxyinosine



2',3'-dideoxy-
adenosine

fermentation with *Acinetobacter Iwoffii* (ATCC 9036) →



Didanosine

Reference(s):

US 4 970 148 (Ajinomoto; 13.11.1990; appl. 7.10.1988; J-prior. 24.12.1987, 7.10.1987, 13.9.1988).

Plunkett, W.; Cohen, S.S.: *Cancer Res. (CNREA8)* **35**, 1547 (1975).

alternative synthesis:

US 5 011 774 (Bristol-Myers Squibb; 30.4.1991; appl. 28.2.1990; prior. 17.7.1987).

Prisbe, E.J.; Martin, J.C.: *Synth. Commun. (SYNCAV)* **15**, 401 (1985).

Horwitz, J.P. et al.: *J. Org. Chem. (JOCEAH)* **32**, 817 (1967).

purification:

US 4 962 193 (Ajinomoto; 9.10.1990; appl. 28.12.1988; J-prior. 22.12.1987).

JP 1 175 991 (Ajinomoto; appl. 29.12.1987).

JP 1 165 390 (Ajinomoto; appl. 22.12.1987).

medical use for treatment of AIDS:

EP 206 497 (Wellcome; appl. 14.5.1986; GB-prior. 15.5.1985, 20.2.1986).

EP 216 510 (US Department of Health; appl. 21.8.1986; USA-prior. 26.8.1985).

US 4 861 759 (US Department of Health; 29.8.1989; appl. 15.5.1989; prior. 11.8.1987, 26.8.1985, 4.12.1986).

US 5 026 687 (National Institute of Health; 25.6.1991; appl. 3.1.1990).

medical use for treatment of hepatitis B virus infections:

WO 9 014 091 (US Department of Health; appl. 15.5.1990; USA-prior. 15.5.1989, 4.12.1986, 11.8.1987).

synthesis of dideoxyadenosine:

The Merck Index, 3091 (Rahway 1989).

Formulation(s): chewable tabl. 10 mg, 25 mg, 50 mg, 100 mg, 150 mg; powder 2 g, 4 g

Trade Name(s):

D: Videx (Bristol-Myers Squibb)
 F: Videx (Bristol-Myers Squibb)

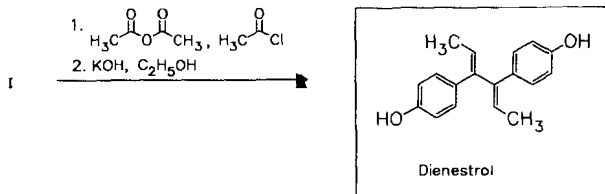
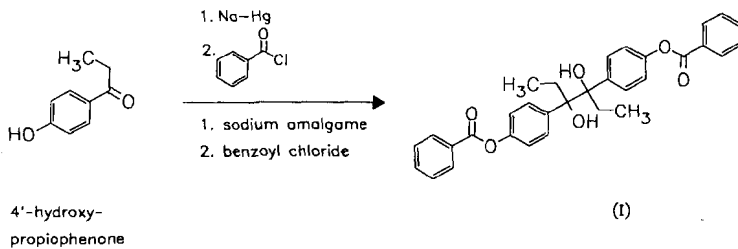
GB: Videx (Bristol-Myers Squibb)
 J: Videx (Bristol-Myers Squibb; 1992)

USA: Videx (Bristol-Myers Squibb; 1991)

Dienestrol
 (Dienoestrol)

ATC: G03CB01; G03CC02
 Use: estrogen

RN: 84-17-3 MF: C₁₈H₁₈O₂ MW: 266.34 EINECS: 201-519-7
 CN: 4,4'-(1,2-diethylidene-1,2-ethanediy)bis[phenol]

*Reference(s):*

GB 566 881 (Boots Pure Drug; appl. 1943).
 US 2 464 203 (Boots; 1949; GB-prior. 1943).
 US 2 465 505 (Roche; 1949; CH-prior. 1944).

alternative synthesis:

Hobday, G.I.; Short, W.F.: J. Chem. Soc. (JCSOA9) **1943**, 609.

review:

Ehrhart, Ruschig **III**, 330.
 Dodds, E.C. et al.: Proc. R. Soc. London, Ser. B (PRLBA4) **127**, 162 (1939).

Formulation(s): cream 0.01 %; tabl. 5 mg, 25 mg

Trade Name(s):

D: Sanoprostal (Pharmakochemie)-comb.; wfm
 F: Cycladiène (Bruneau); wfm

GB: Orho Dienoestrol (Janssen-Cilag)
 I: Sebohermal (Bruschettini)-comb.

USA: Sebohormal (Bruschettini)-comb.
 Ortho Dienestrol (Ortho-McNeil Pharmaceutical)

Diethylcarbamazine

ATC: P02CB02
Use: anthelmintic

RN: 90-89-1 MF: $C_{10}H_{21}N_3O$ MW: 199.30 EINECS: 202-023-3

LD₅₀: 240 mg/kg (M, i.p.)

CN: *N,N*-diethyl-4-methyl-1-piperazinecarboxamide

citrate (1:1)

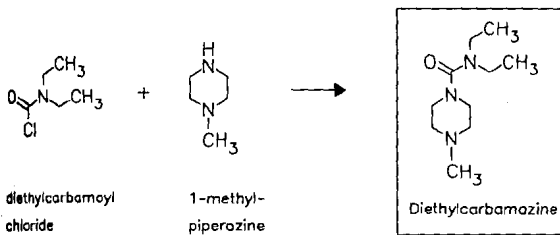
RN: 1642-54-2 MF: $C_{10}H_{21}N_3O \cdot C_6H_8O_7$ MW: 391.42 EINECS: 216-696-6

LD₅₀: 180 mg/kg (M, i.v.); 660 mg/kg (M, p.o.);

1400 mg/kg (R, p.o.)

phosphate (1:1)

RN: 16289-41-1 MF: $C_{10}H_{21}N_3O \cdot H_3PO_4$ MW: 297.29

**Reference(s):**

US 2 467 893 (American Cyanamid; 1949; prior. 1946).

US 2 467 895 (American Cyanamid; 1949; prior. 1946).

Formulation(s): tabl. 50 mg

Trade Name(s):

D: Hetrazan (Lederle); wfm

GB: Banocide (Wellcome); wfm

USA: Hetrazan (Lederle); wfm

F: Notézine (Specia); wfm

J: Hetrazan (Lederle)

Diethylstilbestrol

(Diäthylstilböstrol)

ATC: G03CB02; G03CC05; L02AA01

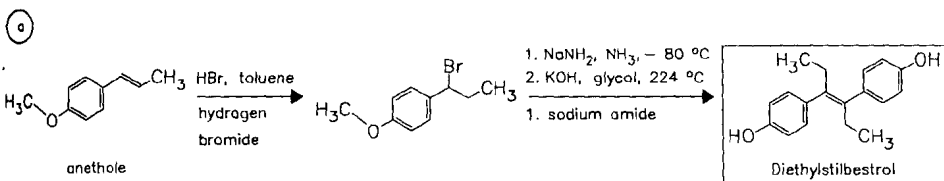
Use: formerly in estrogenic hormone therapy, listed as a known carcinogen

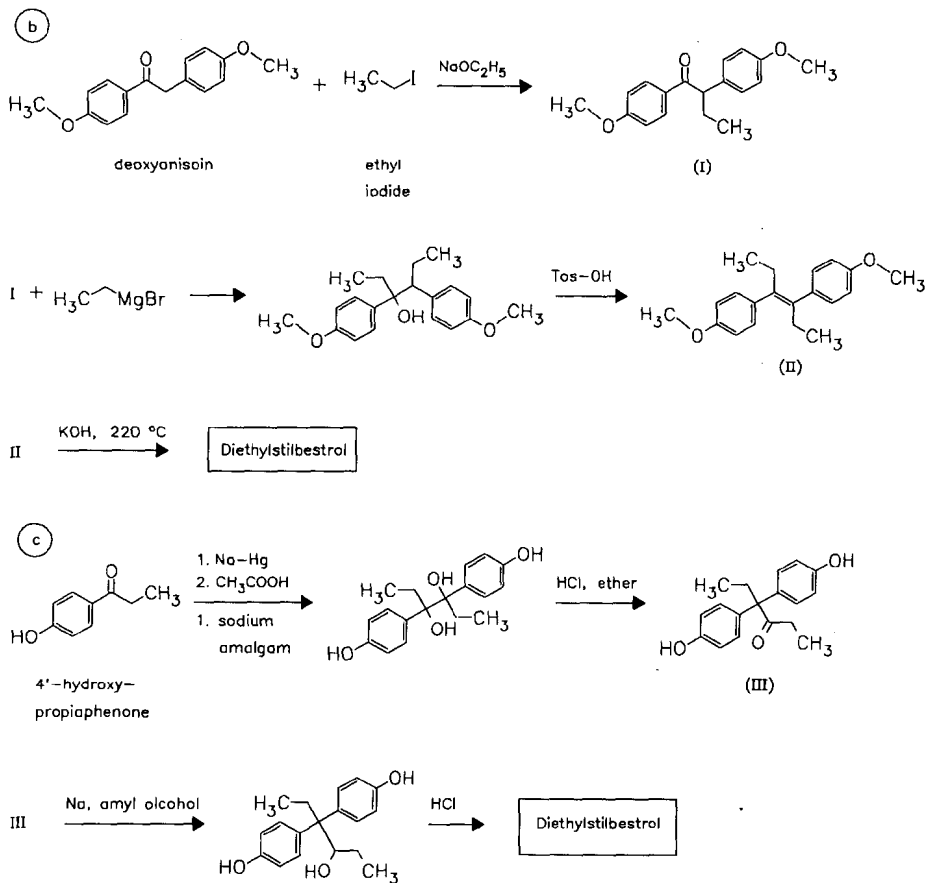
RN: 56-53-1 MF: $C_{18}H_{20}O_2$ MW: 268.36 EINECS: 200-278-5

LD₅₀: 300 mg/kg (M, i.v.); >3 g/kg (M, p.o.);

>3 g/kg (R, p.o.)

CN: (*E*)-4,4'-(1,2-diethyl-1,2-ethenediyl)bis[phenol]



*Reference(s):*

- a US 2 392 852 (Lilly; 1946; prior. 1941).
US 2 402 054 (Lilly; 1946; prior. 1941).
- b Dodds, E.C.: Nature (London) (NATUAS) **141**, 247 (1938).
- c US 2 421 401 (Hoffmann-La Roche; 1947; S-prior. 1943).
DRP 715 542 (Schering AG; appl. 1939).

alternative syntheses:

Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. **8**, 327.
GB 526 927 (Richter Gedcon; appl. 1939; H-prior. 1938).
BE 665 818 (Miles Lab.; appl. 23.6.1965; USA-prior. 24.6.1964).

review:

Solmssen, U.V.: Chem. Rev. (Washington, D. C.) (CHREAY) **37**, 481 (1945).
Ehrhart, Ruschig, **III**, 327.

Formulation(s): tabl. 1 mg, 5 mg

Trade Name(s):

D:	Cyren A (Bayer); wfm	Stilboestrol and Lactid	USA:	Diethylstilbestrol (Lilly);
F:	Distilbène (Gerda)	Acid (Norgine)-comb.;	wfm	
GB:	Menopax Cream	wfm	Tylosterone (Lilly)-comb.;	
	(Nicholas); wfm		wfm	

Diethylstilbestrol dipropionate

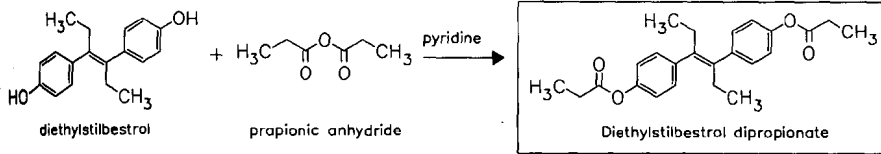
(Diethylstilboestrol-dipropionat; Diäthylstilboestrol-dipropionat)

ATC: G03CB

Use: estrogen

RN: 130-80-3 MF: C₂₄H₂₈O₄ MW: 380.48 EINECS: 204-995-4

CN: (E)-4,4'-(1,2-diethyl-1,2-ethenediyl)bis[phenol] dipropanoate

**Reference(s):**Dodds, E.C. et al.: Proc. R. Soc. London, Ser. B (PRLBA4) **127**, 140 (1939).**Formulation(s):** amp.**Trade Name(s):**D: Klimax "Taeschner"
(Taeschner); wfm

USA: Dibestil (Breon); wfm

Diethylstilbestrol disulfate

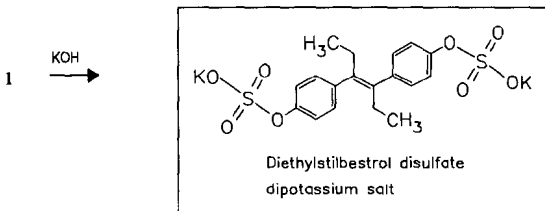
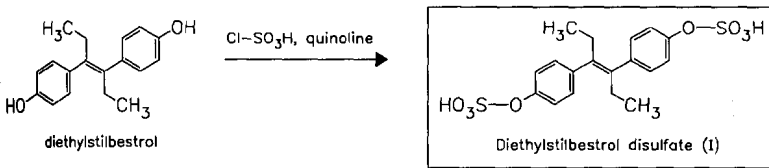
(Diethylstilboestroldisulfat; Diäthylstilboestroldisulfat)

ATC: G03CB

Use: estrogen

RN: 316-23-4 MF: C₁₈H₂₀O₈S₂ MW: 428.48 EINECS: 206-257-7

CN: (E)-4,4'-(1,2-diethyl-1,2-ethenediyl)bis[phenol]bis(hydrogen sulfate)

**Reference(s):**

US 2 234 311 (Ciba; 1941; CH-prior. 1938).

Formulation(s): ointment

Trade Name(s):

I: Idroestril (Maggioni); wfm
 J: Estiol (Hokuriku)

Pappy (Kanto)

Stilbestohormon (Tokyo
 Hosei)

Difenidol
 (Diphenidol)

ATC: A04; D04

Use: anti-emetic, antihistaminic

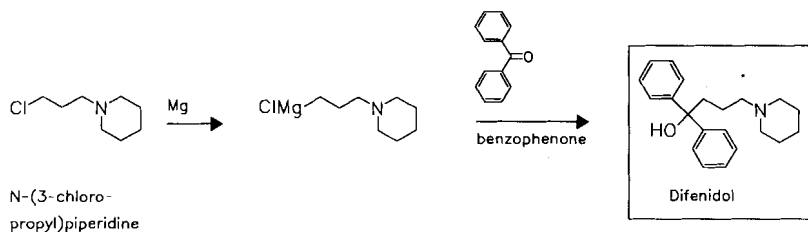
RN: 972-02-1 MF: C₂₁H₂₇NO MW: 309.45 EINECS: 213-540-9

LD₅₀: 32 mg/kg (M, i.v.); 450 mg/kg (M, p.o.);
 815 mg/kg (R, p.o.)

CN: α,α-diphenyl-1-piperidinebutanol

hydrochlorideRN: 3254-89-5 MF: C₂₁H₂₇NO · HCl MW: 345.91 EINECS: 221-850-0

LD₅₀: 37 mg/kg (M, i.v.); 400 mg/kg (M, p.o.);
 29 mg/kg (R, i.v.); 515 mg/kg (R, p.o.)

pamoate (2:1)RN: 26363-46-2 MF: C₂₁H₂₇NO · 1/2C₂₃H₁₆O₆ MW: 1007.28*Reference(s):*

US 2 411 664 (Ciba; 1946; CH-prior. 1941).

Formulation(s): tabl. 25 mg, 50 mg*Trade Name(s):*

J: Ansumin (SS Seiyaku)
 Antiul (Tokyo Hosei)
 Cephadol (Nippon S.)
 Cerachidol (Ono)
 Cerrosa (Toyo Pharmar)
 Degidole (Nihon Yakuhin)
 Gipsydol (Nihon Yakuhin)
 Maniol (Morishita)
 Mecalmin (Yoshitomi-
 Takeda)

Meniedolin (Toyo
 Shinyaku)
 Meranom (Hokuriku)
 Midnighton (Takata)
 Pineroro (Maruko)
 Promodor (Torii)
 Satanolon (Tatsumi)
 Sofalead (Nikken)
 Solnommin (Zensei)
 Tatimil (Mohan)

Verterge (Nippon
 Chemiphar)
 Wansar (Hoei)
 Yophadol (Yoshindo/
 Horita)
 USA: Vontrol (Smith Kline &
 French); wfm

Difenoxin

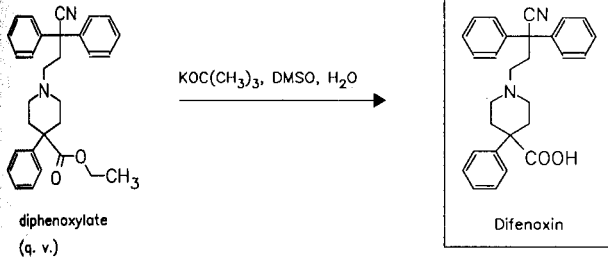
ATC: A07DA04

Use: antidiarrheal, antiperistaltic

RN: 28782-42-5 MF: C₂₈H₂₈N₂O₂ MW: 424.54

CN: 1-(3-cyano-3,3-diphenylpropyl)-4-phenyl-4-piperidinecarboxylic acid

monohydrochlorideRN: 35607-36-4 MF: C₂₈H₂₈N₂O₂ · HCl MW: 461.01 EINECS: 252-640-7LD₅₀: 149 mg/kg (R, p.o.)



Reference(s):

DAS 1 953 342 (Janssen; appl. 23.10.1969; USA-prior. 4.11.1968).
 US 3 646 207 (Janssen; 29.2.1972; appl. 4.11.1968).

Formulation(s): tabl. 0.5 mg

Trade Name(s):

D: Lyspafena (Cilag-Chemie)- I: Motofen (Cilag)-comb.; USA: Motofen (Carrick; as
 comb.; wfm wfm hydrochloride)

Diflorasone diacetate

ATC: D07AC10
 Use: topical glucocorticoid

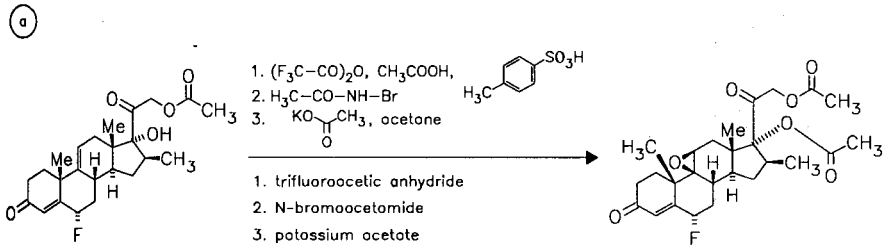
RN: 33564-31-7 MF: C₂₆H₃₂F₂O₇ MW: 494.53 EINECS: 251-575-1

LD₅₀: >3 g/kg (M, p.o.);
 >3 g/kg (R, p.o.)

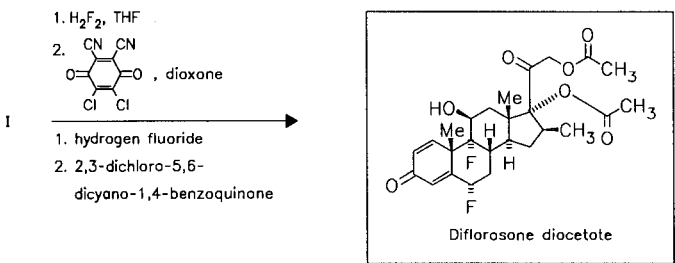
CN: (6α,11β,16β)-17,21-bis(acetyloxy)-6,9-difluoro-11-hydroxy-16-methylpregna-1,4-diene-3,20-dione

diflorasone

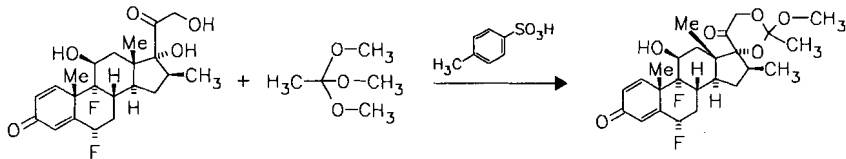
RN: 2557-49-5 MF: C₂₂H₂₈F₂O₅ MW: 410.46 EINECS: 219-875-7



21-acetoxy-3,20-dioxo-
 6α-fluoro-17-hydroxy-
 16β-methyl-4,9(11)-
 pregnadiene



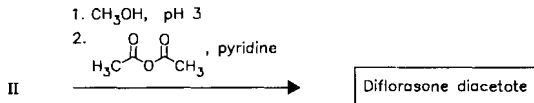
(b)



6 α ,9 α -difluoro-3,20-dioxo-16 β -methyl-11 β ,17,21-trihydroxy-1,4-pregnadiene

trimethyl orthoacetate

(II)

*Reference(s):*

DE 2 308 731 (Upjohn; appl. 22.2.1973; USA-prior. 9.3.1972).

US 3 980 778 (Upjohn; 14.9.1976; appl. 20.5.1975; prior. 25.10.1973, 20.12.1972, 9.3.1972).

NL 7 303 262 (Upjohn; appl. 8.3.1973; USA-prior. 9.3.1972, 20.12.1972).

starting material:

US 3 557 158 (Upjohn; 19.1.1971; prior. 22.1.1962, 18.3.1959, 4.8.1958).

Formulation(s): cream 0.05 %; ointment 0.05 %*Trade Name(s):*

D: Florone (Galderma; 1982)

Sterodelta crema

Diflal (Yamanouchi; 1985)

I: Dermaflor (Brocchieri)

(Gibipharma)

USA: Florone (Dermik; 1978)

Sterodelta (Metapharma)

J:

Diacort (Upjohn-

Maxiflor (Allergan; 1981)

Sumitomo; 1985)

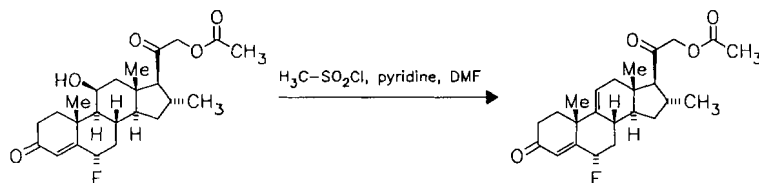
Diflucortolone valerate

ATC: D07AC06

Use: glucocorticoid

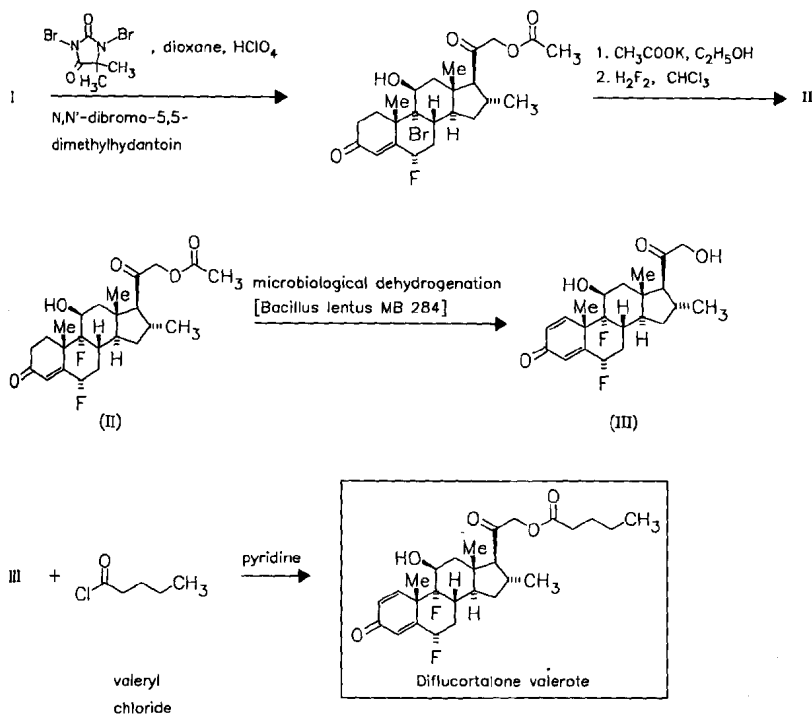
RN: 59198-70-8 MF: C₂₇H₃₆F₂O₅ MW: 478.58 EINECS: 261-655-8LD₅₀: 450 mg/kg (M, i.p.); >4 g/kg (M, p.o.); 180 mg/kg (M, s.c.);

98 mg/kg (R, i.p.); 3.1 g/kg (R, p.o.); 13 mg/kg (R, s.c.)

CN: (6 α ,11 β ,16 α)-6,9-difluoro-11-hydroxy-16-methyl-21-[(1-oxopentyl)oxy]pregna-1,4-diene-3,20-dione**diflucortolone**RN: 2607-06-9 MF: C₂₂H₂₈F₂O₄ MW: 394.46 EINECS: 220-022-6

21-acetoxy-3,20-dioxo-6 α -fluoro-11 β -hydroxy-16 α -methyl-4-pregnene
(cf. fluocortolone synthesis)

(I)



Reference(s):

DE 1 211 194 (Schering; 27.7.1963) continuation of DE 1 169 444.
DE 1 169 444 (Schering; 22.2.1961).
Kieslich, K. et al.: *Arzneim.-Forsch. (ARZNAD)* **26**, 1462 (1976).
(alternative syntheses described)

Formulation(s): cream 0.1 %; ointment 0.1 %

Trade Name(s):

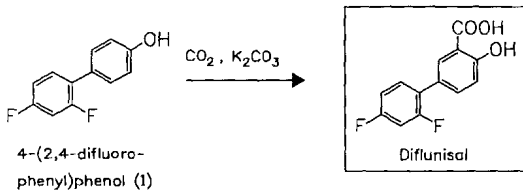
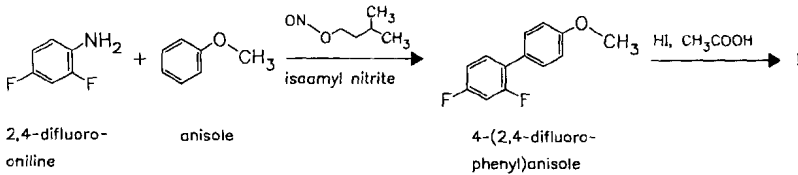
D:	Neribas (Schering)	Dermaflogil (Nuovo Cons. Sanit. Naz.)-comb.	several combination preparations
	Nerisona (Schering)	Dermeval (Firma)	J: Afusona (Toyama)
	Nerisona C (Schering)-comb.	Dermobios (Biotekfarma)-comb.	Arusona (Hotta)
	Travocort (Schering)-comb.	Dervin (Boniscontro & Gazzone)	Dertron (Sankyo)
F:	Nerisona (Schering; as valerate)	Dicortol (Medici)	Lizatolone (Kaken)
	Nerisona C (Schering; as valerate)-comb.	Flu-Cortanest (Piam)	Lorizon (Shinshin)
GB:	Nerisona (Schering)	Impetex (Roche)-comb.	Neridalon (Taiyo)
I:	Cortical (Caber)	Nerisona (Schering)	Nerisona (Nippon Schering)
	Cortifluoral (Schering)-comb.	Nerisona C (Schering)-comb.	Sawatolone (Sawai)
		Temetex (Roche)	Texmeten (Roche)
			Youtolon (Tatsumi)

Diflunisal

ATC: N02BA11

Use: anti-inflammatory, analgesic,
antipyreticRN: 22494-42-4 MF: C₁₃H₈F₂O₃ MW: 250.20 EINECS: 245-034-9LD₅₀: 439 mg/kg (M, p.o.);
392 mg/kg (R, p.o.)

CN: 2',4'-difluoro-4-hydroxy[1,1'-biphenyl]-3-carboxylic acid

**Reference(s):**Hannah, J. et al.: J. Med. Chem. (JMCMAR) **21**, 1093 (1978).

DE 1 618 663 (Merck & Co.; appl. 3.3.1967; USA-prior. 8.9.1966).

DAS 2 532 559 (Merck & Co.; appl. 21.7.1975; USA-prior. 22.7.1974, 16.4.1975, 1.5.1975).

US 3 674 870 (Merck & Co.; 4.7.1972; appl. 9.6.1970; USA-prior. 23.12.1964, 8.9.1966, 19.1.1968).

US 3 681 445 (Merck & Co.; 1.8.1972; appl. 19.1.1968; USA-prior. 23.12.1964, 8.9.1966).

US 3 714 226 (Merck & Co.; 30.1.1973; appl. 9.6.1970; prior. 23.12.1964, 8.9.1966, 19.1.1968).

alternative syntheses:

US 3 992 459 (Merck & Co.; 16.11.1976; appl. 1.5.1975).

US 4 131 618 (Merck & Co.; 26.12.1978; appl. 29.12.1977).

US 4 225 730 (Merck & Co.; 30.9.1980; appl. 11.5.1978; prior. 22.7.1974, 16.4.1975)

Formulation(s): tabl. 250 mg, 500 mg**Trade Name(s):**D: Fluniget (Ferlux; 1982);
wfmF: Dolobis (Merck Sharp &
Dohme-Chibret; 1981)

GB: Dolobid (Morson; 1978)

I: Adomal (Malesci)

Aflogos (Biomedica)

Foscama; as arginine salt)

Artrodol (AGIPS)

Difudol (Edmond)

Difusan (Leben's)

Dolisal (Guidotti)

Dolobid (Merck Sharp &

Dohme; 1979)

Fluodonil (Biologici Italia)

Flustar (Firma)

Reuflos (Roussel)

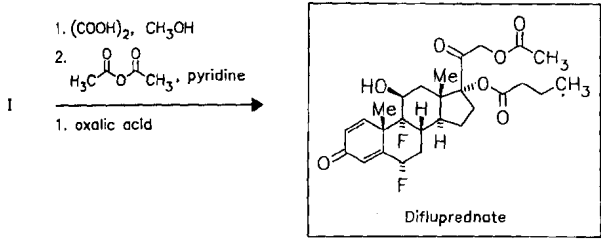
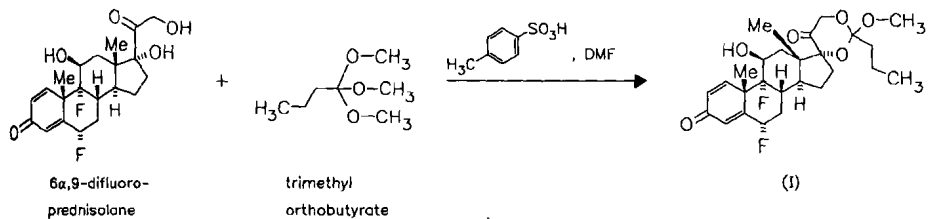
J: Dolobid (Merck-Banyu;
1984)

USA: Dolobid (Merck; 1982)

Difluprednate

ATC: D07AC19
 Use: topical glucocorticoid

RN: 23674-86-4 MF: C₂₇H₃₄F₂O₇ MW: 508.56 EINECS: 245-815-4
 LD₅₀: >4 g/kg (M, p.o.); >4 g/kg (R, p.o.)
 CN: (6 α ,11 β)-21-(acetyloxy)-6,9-difluoro-11-hydroxy-17-(1-oxobutoxy)pregna-1,4-diene-3,20-dione



Reference(s):
 US 3 780 177 (Warner-Lambert; 18.12.1973; I-prior. 6.6.1967).
 ZA 6 803 686 (Warner-Lambert; appl. 21.5.1968; I-prior. 16.6.1967).
 Gardi, R. et al.: J. Med. Chem. (JMCMAR) 15, 556 (1972).

Formulation(s): gel 0.05 %

Trade Name(s):

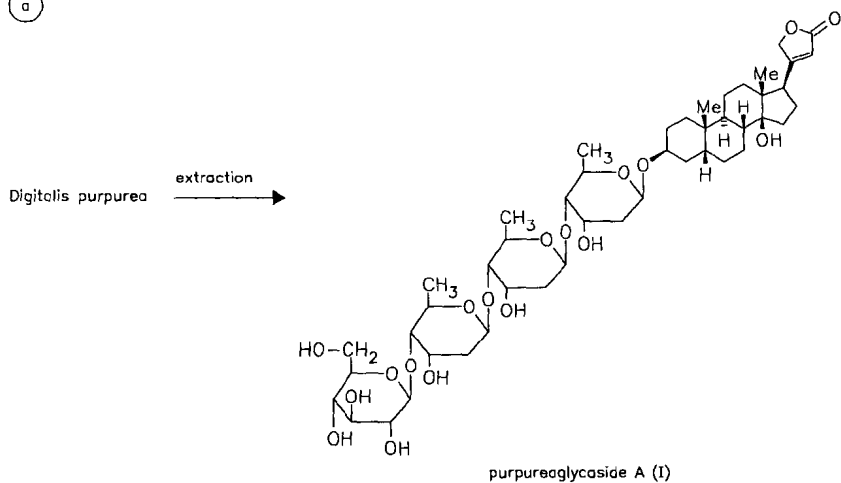
F: Epitopic (Gerda) J: Myser (Mitsubishi Chem.-Tokyo Tanabe)

Digitoxin

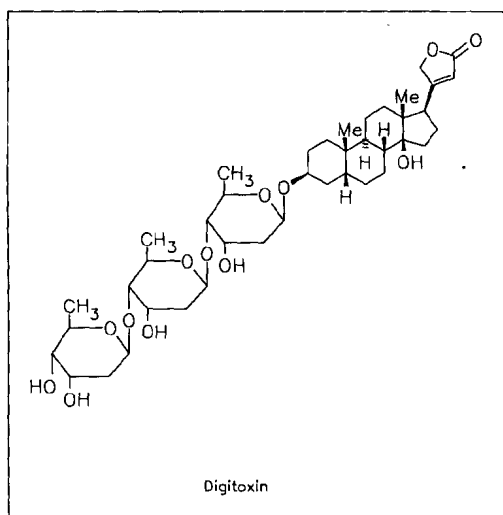
ATC: C01AA04
 Use: cardiac glycoside, cardiotonic

RN: 71-63-6 MF: C₄₁H₆₄O₁₃ MW: 764.95 EINECS: 200-760-5
 LD₅₀: 0.18 mg/kg (cat, p.o.)
 CN: (3 β ,5 β)-3-[(O-2,6-dideoxy- β -D-ribo-hexopyranosyl-(1 \rightarrow 4)-O-2,6-dideoxy- β -D-ribo-hexopyranosyl-(1 \rightarrow 4)-2,6-dideoxy- β -D-ribo-hexopyranosyl)oxy]-14-hydroxycard-20(22)-enolide

a



I $\xrightarrow{\text{enzymatic hydrolysis [Digilanidase]}}$



b

from *Digitalis lanata*

Reference(s):

- a** DRP 646 930 (Sandoz; appl. 1933).
 US 2 449 673 (Wyeth; 1948; prior. 1944).
 US 2 557 916 (Wyeth; 1951; appl. 1948).
 US 2 615 884 (Wyeth; 1952; prior. 1948).
 HU 155 252 (Richter Gedeon; appl. 14.12.1966).
b HU 156 753 (Richter Gedeon; appl. 7.1.1968).
 IN 62 497 (Council of Scientific & Industrial Research; appl. 17.9.1958).

alternative syntheses:

Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. 8, 229.
 DOS 2 006 926 (Deutsche Akademie der Wissenschaften; appl. 16.2.1970; DDR-prior. 15.8.1969).

Formulation(s): amp. 0.1 mg/ml, 0.25 mg/ml; eye drops 0.02 mg/ml; lotion; tabl. 0.05 mg, 0.07 mg, 0.1 mg, 0.25 mg

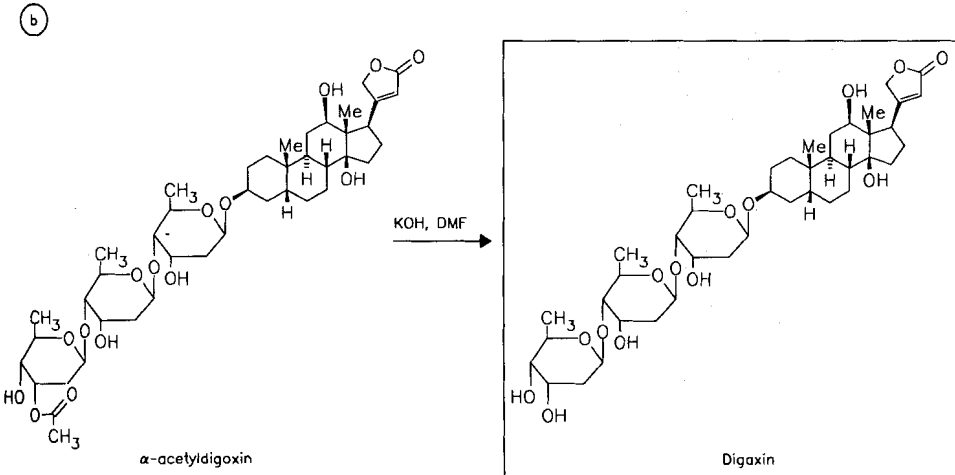
Trade Name(s):

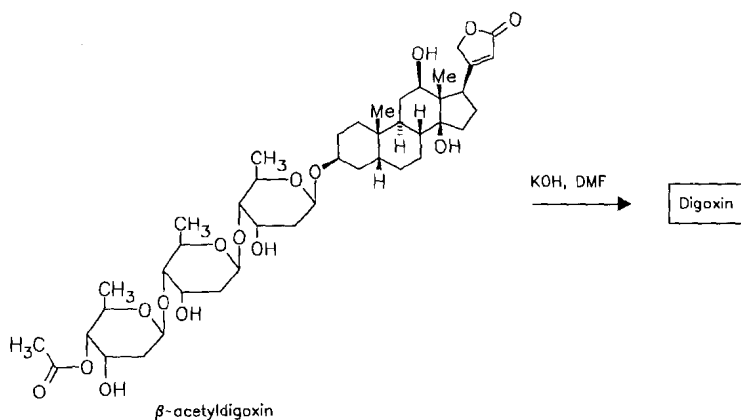
D:	Digicor (Henning)	Dirautheon (Robugen)-comb.	Ditavène (Pharmadéveloppement)-comb.
	Digimed (Hormosan)	Ditaven (Cascan)-comb.	
	Digimed (Trommsdorff)	Ditaven Lot. (Cascan)	GB: Nativelle Digitaline (Wilcox); wfm
	Digimerck (Merck)	mono-glyco-card (R.A.N.)	I: Digifar (Farmila)-comb.
	Digipur (Schaper & Brümmer)	Recorsan-Herzdragees (Recorsan)	Digitalina (Procter & Gamble)
	Digitoxin Didier (Hormosan)	Tardigal (Beiersdorf)	Digitos (Formulario Naz.)
	Digitoxin Hameln (Hameln)	Targital (Beiersdorf) generics	J: Digitoxin (Shionogi)
	Digophton-Augentropfen (ankerpharm)	Digitaline Nativelle (Procter & Gamble)	Digitoxin-Sandoz (Sankyo)
	F:		USA: Crystodigin (Lilly)

Digoxin

ATC: C01AA05

Use: cardiac glycoside, cardiotonic

RN: 20830-75-5 MF: $C_{41}H_{64}O_{14}$ MW: 780.95 EINECS: 244-068-1LD₅₀: 7.670 mg/kg (M, i.v.); 17.78 mg/kg (M, p.o.); 25 mg/kg (R, i.v.); 28.27 mg/kg (R, p.o.)CN: (3 β ,5 β ,12 β)-3-[(*O*-2,6-dideoxy- β -D-ribo-hexopyranosyl-(1 \rightarrow 4)-*O*-2,6-dideoxy- β -D-ribo-hexopyranosyl-(1 \rightarrow 4))-2,6-dideoxy- β -D-ribo-hexopyranosyl]oxy]-12,14-dihydroxycard-20(22)-enolidea from *Digitalis lanata* by extraction

*Reference(s):*

- a GB 337 091 (Wellcome Found.; appl. 1929).
 Smith, S.: J. Chem. Soc. (JCSOA9) **1930**, 508.
 IN 62 497 (Council of Scientific & Industrial Research; appl. 17.9.1958).
 HU 149 778 (Richter Gedeon; appl. 8.12.1959).
 HU 151 897 (Richter Gedeon; appl. 29.2.1964).
 HU 156 753 (Richter Gedeon; appl. 7.6.1968).
 DAS 2 225 039 (VEB Arzneimittelwerke Dresden; appl. 23.5.1972; DDR-prior. 24.1.1972).
 Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. **8**, 231.
- b DD 70 088 (C. Lindig, K. Repke; appl. 1.11.1968).

alternative synthesis:

DD 134 644 (VEB Arzneimittelwerke Dresden; appl. 6.10.1977).

Formulation(s): amp. 0.1 mg/ml, 0.25 mg/ml, 0.2 mg/ml, 0.5 mg/2 ml; cps. 0.1 mg, 0.2 mg; drops;
 tabl. 0.125 mg, 0.25 mg

Trade Name(s):

D:	Digacin (Beiersdorf-Lilly)	GB:	Lanoxin (Glaxo Wellcome)	J:	Digosin (Chugai)
	Dilanacin (ASTA Medica AWD)	I:	Digomal (Malesci)		Digosin Elixir (Chugai)
	Lanicor (Boehringer Mannh.)		Digos (Biologici Italia)		Digoxin (Yamanouchi)
	Lanoxin (Glaxo Wellcome)		Digoss (Formulario Naz.; Sifra)		Lanoxin (Wellcome-Tanabe)
	Novodigal Amp. (Beiersdorf)		Digossina (Scfm)	USA:	Lanoxicaps (Glaxo Wellcome)
F:	Digoxine Nativelle (Procter & Gamble)		Eudigox (Astra-Simes)		Lanoxin (Glaxo Wellcome) generic
			Lanicor (Boehringer Mannh.)		
			Lanoxin (Wellcome)		

Dihydralazine

(Dihydralazine)

ATC: C02DB01

Use: antihypertensive

RN: 484-23-1 MF: $C_8H_{10}N_6$ MW: 190.21 EINECS: 207-605-0

LD₅₀: 300 mg/kg (M, i.v.)

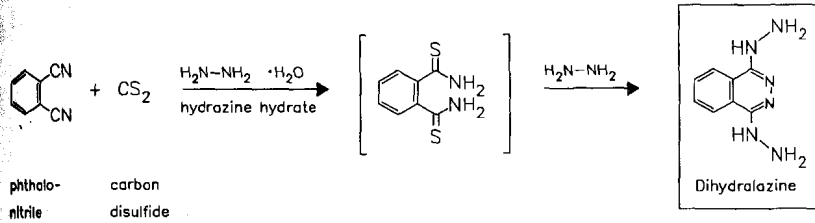
CN: 2,3-dihydro-1,4-phthalazinedione dihydrazone

sulfate (1:1)

RN: 7327-87-9 MF: $C_8H_{10}N_6 \cdot H_2SO_4$ MW: 288.29 EINECS: 230-808-0

LD₅₀: 400 mg/kg (M, p.o.);

400 mg/kg (R, p.o.)



Reference(s):

DE 845 200 (Cassella; appl. 1951).
 DE 847 748 (Ciba; appl. 1949; CH-prior. 1947).

Formulation(s): tabl. 25 mg, 50 mg (as sulfate)

Trade Name(s):

D:	Adelphan-Esidrix (Novartis Pharma)-comb. Depressan (OPW) Dihyzin (Henning Berlin) Nepresol (Novartis Pharma)-comb.	Obsilazin (Isis Pharma)-comb. Triniton (Apogepha) Tri-Torrat (Boehringer Mannh.)-comb.	I:	Trasipressol (Novartis; as hydrogen sulfate)-comb. Adelfan (Novartis)-comb. Ipogen (Cantili)-comb. Nepresol (Novartis)
F:	Népressol (Novartis; as hydrogen sulfate)			

Dihydrocodeine

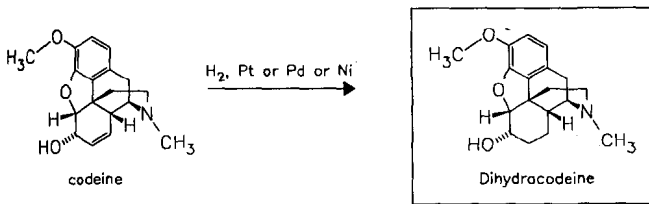
(Drocode)

ATC: N02AA08
 Use: antitussive, analgesic

RN: 125-28-0 MF: C₁₈H₂₃NO₃ MW: 301.39 EINECS: 204-732-3
 LD₅₀: 80 mg/kg (M, i.v.)
 CN: (5α,6α)-4,5-epoxy-3-methoxy-17-methylmorphinan-6-ol

hydrogen tartrate (1:1)

RN: 5965-13-9 MF: C₁₈H₂₃NO₃ · C₄H₆O₆ MW: 451.47 EINECS: 227-747-7
 LD₅₀: 359 mg/kg (R, p.o.)



Reference(s):

Ehrhart, Ruschig I, 118.
 Stein, A.: Pharmazie (PHARAT) 10, 180 (1955).

Formulation(s): cps. 20 mg; sol. 10 mg/g; s. r. tabl. 60 mg, 90 mg, 120 mg; syrup 12.1 mg/5 ml; tabl. 10 mg (as hydrogen tartrate)

Trade Name(s):

D:	Antibex forte (Lappe)-comb.	Antitussivum (Ysatfabrik)-comb. DHC (Mundipharma)	Makatussin (Roland)-comb. Paracodin (Knoll)
----	-----------------------------	--	--

Remedacen (Rhône-Poulenc Rorer)	I:	Remedeine (Napp)-comb.	USA: DHC plus (Purdue Frederick; as bitartrate)
Tiamon (Temmler)-comb.		Alla Paracodina (Knoll)-comb.	Synalgos-DC (Wyeth-Ayerst; as bitartrate)
F: Dicodin (ASTA Medica; as tartrate)		Paracodina (Knoll)	
GB: DF-118 forte (Napp)		Scioppo Knoll paracodina (Knoll)-comb.	
DHC Contiums (Napp)		Tavolette (Knoll)	

Dihydroergocristine

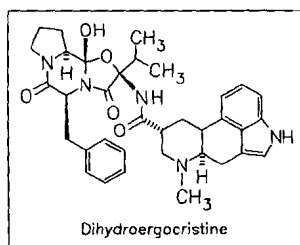
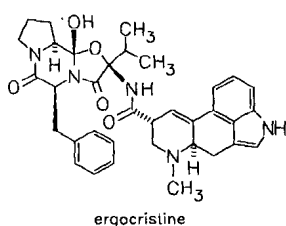
ATC: C04AE04

Use: adrenolytic, sympatholytic

RN: 17479-19-5 MF: C₃₅H₄₁N₅O₅ MW: 611.74 EINECS: 241-493-4CN: (5 α ,10 α)-9,10-dihydro-12'-hydroxy-2'-(1-methylethyl)-5'-(phenylmethyl)ergotaman-3',6',18-trione**monomesylate**RN: 24730-10-7 MF: C₃₅H₄₁N₅O₅ · CH₄O₃S MW: 707.85 EINECS: 246-434-6LD₅₀: 70 mg/kg (M, i.v.); >2500 mg/kg (M, p.o.);

91 mg/kg (R, i.v.); 2643 mg/kg (R, p.o.);

>50 mg/kg (dog, i.v.); >1250 mg/kg (dog, p.o.)



constituent of dihydroergotoxine (q. v.)

Reference(s):Stoll, A.; Hofmann, A.: *Helv. Chim. Acta (HCACAV)* **26**, 2070 (1943).**combination with pentoxifylline:**

BE 865 891 (Roussel-Uclaf; appl. 11.4.1978; F-prior. 12.4.1977).

Formulation(s): amp. 0.3 mg/ml; sol. 1 mg/ml; tabl. 1.5 mg (as mesylate)**Trade Name(s):**

D: Bellaserp (Atmos)-comb.; wfm		Panthesin-Hydergin (Sandoz)-comb.; wfm	Decril (Damor)
Briserin (Sandoz)-comb.; wfm		Rexiloven (Sandoz)-comb.; wfm	Defuina (Teofarma)
Card-Hydergin (Sandoz)-comb.; wfm		Sinedyston (Steiner); wfm	Diertina (Poli)
Decme (Spitzner); wfm		Vertebran N (Rentschler); wfm	Diffuid (Bioprogress)
Decme (Zyma); wfm		Wallerox (Sandoz); wfm	Ergo (Foletto)
Defuina (Natrpharm)-comb.; wfm	F:	Cervilanc (Cassenne)-comb.	Ergotina (Ist. Chim. Inter.)
Enirant Tropflösung (Desitin); wfm		Iskédyl (Pierre Fabre; as mesylate)-comb.	Gral (Boniscontro & Gazzone)
Nehydrin (TAD); wfm	I:	Brinerdina (Sandoz)-comb.	Sandoven (Sandoz)-comb.
			Unergol (Poli)

Dihydroergotamine

ATC: N02CA01

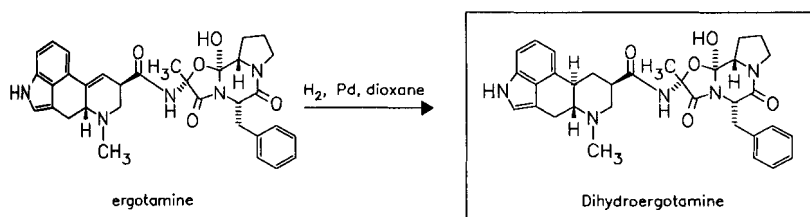
Use: sympatholytic, antimigraine agent

RN: 511-12-6 MF: $C_{33}H_{37}N_5O_5$ MW: 583.69 EINECS: 208-123-3LD₅₀: 118 mg/kg (M, i.v.)CN: (5 α ,10 α)-9,10-dihydro-12'-hydroxy-2'-methyl-5'-(phenylmethyl)ergotaman-3',6',18-trione**monomesylate**RN: 6190-39-2 MF: $C_{33}H_{37}N_5O_5 \cdot CH_4O_3S$ MW: 679.80 EINECS: 228-235-6LD₅₀: >2 g/kg (M, p.o.);

>2 g/kg (R, p.o.)

tartrate (2:1)RN: 5989-77-5 MF: $C_{33}H_{37}N_5O_5 \cdot 1/2C_4H_6O_6$ MW: 1317.46 EINECS: 227-816-1LD₅₀: 118 mg/kg (M, i.v.);

110 mg/kg (R, i.v.)

**Reference(s):**Stoll, A.; Hoffmann, A.: *Helv. Chim. Acta (HCACAV)* **26**, 2070 (1943).

DE 883 153 (Sandoz; appl. 1941; CH-prior. 1940).

nasal formulation:

DOS 2 802 113 (Sandoz; appl. 19.1.1978).

Formulation(s): amp. 1 mg, 2 mg; s. r. cps. 2.5 mg; 5.0 mg; tabl. 1 mg, 2.5 mg (as mesylate)**Trade Name(s):**

D:	Agit (Sanofi Winthrop)	Effortil (Boehringer Ing.)- comb.	F:	Verladyn (Verla)
	Agit (Sanofi Winthrop)- comb.	Embolex (Novartis Pharma)-comb.		Ikaran (Pierre Fabre; as mesylate)
	Angionorm (Farman)	Ergo-Lonarid (Boehringer Ing.)-comb.		Séglor (Sanofi Winthrop; as mesylate)
	clavigrenin (Hormosan)	Ergomimet (Klinge)		Tamik (EG Labo; as mesylate)
	DET-MS (Rentschler)	Ergont (Desitin)	GB:	Dihyergot (Sandoz); wfm
	DHE-Puren (Isis Puren)	ergotam (ct-Arzneimittel)	I:	Diidergot (Sandoz)
	Dihyergot-forte/retard (Novartis Pharma)	Optalidon (Novartis Pharma)		Ikaran (Formenti)
	Dihyergot-plus (Novartis Pharma)-comb.	Tonopres-forte (Boehringer Ing.)	J:	Séglor (Synthelabo)
	Dihytamin (ASTA Medica AWD)	Venelbin (Hoechst)-comb.	USA:	Dihyergot (Sandoz- Sankyo)
				DHE 45 (Novartis)

Dihydroergotoxine(Dihydroergocornine Dihydro- α -ergocryptine)

ATC: C04AE

Use: sympatholytic, cognition adjuvant

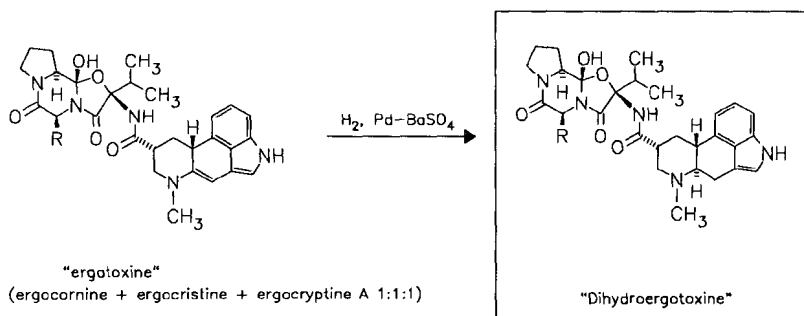
RN: 11032-41-0 MF: unspecified MW: unspecified

LD₅₀: 71 mg/kg (M, s.c.)

CN: dihydroergotoxine

mesylate

RN: 8067-24-1 MF: unspecified MW: unspecified



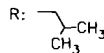
9,10-Dihydroergocornine



9,10-Dihydroergocristine



9,10-Dihydroergocryptine A

**Reference(s):**Stoll, A.; Hofmann, A.: *Helv. Chim. Acta (HCACAV)* **26**, 2070 (1943).

DE 883 153 (Sandoz; appl. 1941; CH-prior. 1940).

nasal formulation:

DOS 2 802 113 (Sandoz; appl. 19.1.1978).

Formulation(s): amp. 0.3 mg/ml, 1.5 mg/5 ml; sol. 1 mg/ml, 2 mg/ml; tabl. 2 mg**Trade Name(s):**

D:	Circanol (3M Medica)	F:	Capergyl (Thérica)	Progeril Papaverina
	Dacoren (Nattermann)		Ergodose (Murat; as mesylate)	(Midy)-comb. with papaverine
	DCKK (Rentschler)		Hydergine (Novartis; as mesylate)	Trelidat (Coop. Farm.)
	Defluina (Nattermann)		Optamine (Théraplax)	Visergil (Sandoz)-comb.
	Enirant (gepepharm)		Pérénan (Sanofi Winthrop)	J: Hydergine (Sandoz-Sankyo)
	Ergodesit (Desitin)	GB:	Hydergine (Novartis)	USA: Circanol (Riker); wfm
	ergoplus (Hormosan)	I:	Coristin (San Carlo)	Deapril (Mead Johnson); wfm
	ergotux (ct-Arzneimittel)		Hydergina (Sandoz)	Hydergine (Sandoz); wfm
	Hydergin/-forte (Novartis Pharma)		Ischelum (Polifarma)	Hydro-Ergoloid (Schein); wfm
	Hydro-Cebral-ratiopharm (ratiopharm)		Ischelum Papaverina (Polifarma)-comb. with papaverine hydrochloride	Hydro-Ergot (Interstate); wfm
	Nehydrin (TAD)		Progeril (Midy)	
	Orphol (Opfermann)			
	Sponsin (Farmanan)			

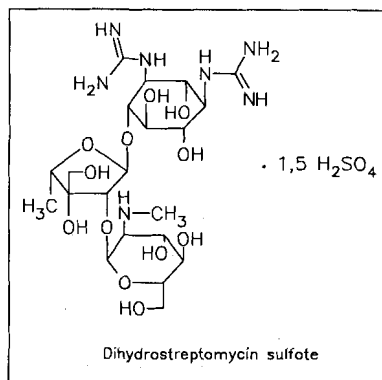
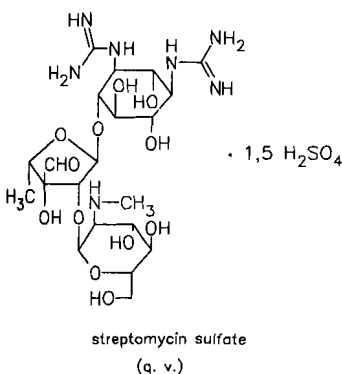
Dihydrostreptomycin sulfate

ATC: S01AA15

Use: antibiotic

RN: 5490-27-7 MF: $C_{21}H_{41}N_7O_{12} \cdot 3/2H_2SO_4$ MW: 1461.43 EINECS: 226-823-7LD₅₀: 186 mg/kg (M, i.v.)CN: O-2-deoxy-2-(methylamino)- α -L-glucopyranosyl-(1 \rightarrow 2)-O-5-deoxy-3-C-(hydroxymethyl)- α -L-lyxofuranosyl-(1 \rightarrow 4)-N,N'-bis(aminoiminomethyl)-D-streptomine sulfate (2:3) (salt)**dihydrostreptomycin**RN: 128-46-1 MF: $C_{21}H_{41}N_7O_{12}$ MW: 583.60 EINECS: 204-888-2LD₅₀: 200 mg/kg (M, i.v.);

200 mg/kg (R, i.v.)

**Reference(s):**

US 2 498 574 (Merck & Co.; 1950; prior. 1946).

GB 642 249 (Squibb; appl. 1947; USA-prior. 1946).

review:

Ehrhart, Ruschig IV, 317.

Formulation(s): amp. 1 g/2 ml; vial 1 g**Trade Name(s):**D: Didrothenat (Grünenthal);
wfm

Dihydrostreptomycin

"Heyl" (Heyl); wfm

Dihydrostreptomycin

"Heyl" Double-mycin

(Heyl)-comb.; wfm

Entera-strept (Heyl)-comb.;

wfm

Penimycin (Winger)-

comb.; wfm

Solvo-strept (Heyl); wfm

F: Abiocine (Lepetit); wfm

Dihydromycine (Specia);
wfm

Dihydrostreptomycin

Diamant (Diamant); wfm

Etercine (Robapharm)-

comb.; wfm

Tri-antibiotique Chibret

(Chibret)-comb.; wfm

numerous combination

preparations; wfm

GB: Guanimycin (Allen &

Hanburys)-comb.; wfm

I: Dihydrostreptomicina Icar

(ISF); wfm

Streptoguanidin

(Lisapharma)-comb.; wfm

Streptomagna (Wyeth)-

comb.; wfm

Streptomicina Morgan

(Morgan); wfm

Trimicina (Farmitalia)-

comb.; wfm

combination preparations;

wfm

Dihydrotachysterol

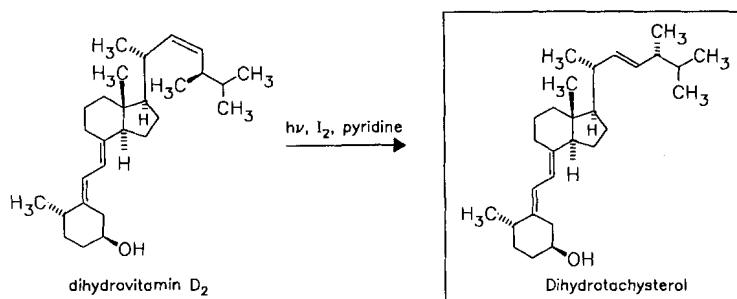
(Dihydrotachysterin)

ATC: A11CC02

Use: calcium regulator, vitamin D-analog

RN: 67-96-9 MF: C₂₈H₄₆O MW: 398.68 EINECS: 200-672-7LD₅₀: 288 mg/kg (M, p.o.)

CN: (3β,5E,7E,10α,22E)-9,10-secoergosta-5,7,22-trien-3-ol

*Reference(s):*

DE 1 108 215 (Merck AG; appl. 22.12.1959).

*synthesis of dihydrovitamin D₂:*Schubert, K.: Biochem. Z. (BIZEA2) **327**, 507 (1956).*alternative syntheses:*

DE 730 017 (IG Farben; appl. 1938).

DE 1 026 748 (Philips Gloilampenfabriken; appl. 1956; NL-prior. 1955).

US 2 228 491 (Winthrop; 1941; D-prior. 1938).

medical use:

DE 1 492 177 (A. Schumacher; appl. 3.11.1965).

Formulation(s): cps. 0.125 mg, 0.5 mg; drops 0.1 %; syrup 0.25 mg/ml*Trade Name(s):*

D:	A.T.10 (Bayer)	F:	Calcamine (Wander); wfm	J:	A.T.10 (Bayer)
	Tachystin (Chauvin	GB:	A.T.10 (Sanofi Winthrop)		Hytakerol (Torii)
	ankerpharm)	I:	A.T.10 (Bayer-Yoshitomi)	USA:	DHT (Roxane)

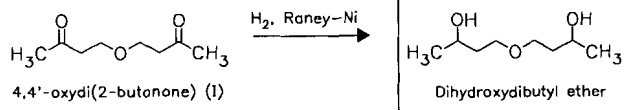
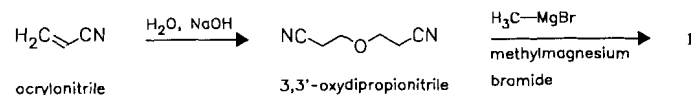
Dihydroxydibutyl ether

ATC: A03

Use: choleric, antispasmodic

RN: 821-33-0 MF: C₈H₁₈O₃ MW: 162.23 EINECS: 212-475-3

CN: 4,4'-oxybis[2-butanol]



Reference(s):

FR 1 267 084 (M. A. Joulty; appl. 1960).

Formulation(s): cps. 500 mg; sol. 0.35 g/ml

Trade Name(s):

F: Dyskinébyl (Novartis)	Discinil Complex	Fluidobil (Lifepharma)-
I: Discinil (Lusofarmaco)	(Lusofarmaco)-comb.	comb.
	Diskin (Benedetti)	

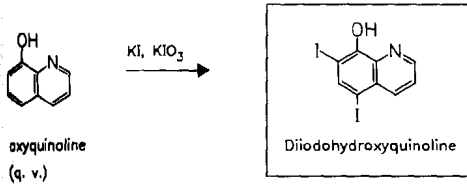
Diiiodohydroxyquinoline

(Diiiodohydroxyquin; Iodoquinol)

ATC: G01AC01

Use: intestinal antiseptic, antiamebic

RN: 83-73-8 MF: C₉H₅I₂NO MW: 396.95 EINECS: 201-497-9
 LD₅₀: 56 mg/kg (M, i.v.)
 CN: 5,7-diiodo-8-quinolinol



Reference(s):

DRP 411 050 (F. Passek; 1925).

Formulation(s): cream 1 % (comb. with hydrocortisone); tabl. 210 mg, 650 mg

Trade Name(s):

D: Entero-sediv (Grünenthal)- comb.; wfm	Ioquin (Abbott); wfm	USA: Vytone (Dermik)
F: Direxiode (Delalande); wfm	GB: Diodoquin (Searle); wfm	Yodoxin (Glenwood)
	I: Diiiodidrossichina (Tariff. Integrativo)	

Diisopromine

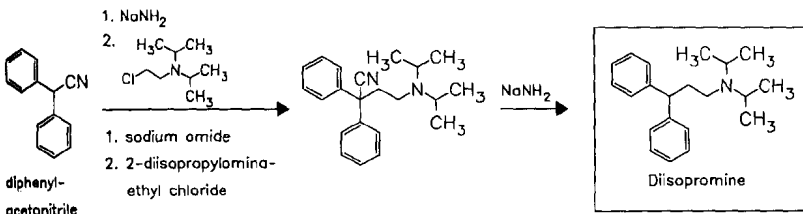
ATC: A03AX02

Use: choloretic, antispasmodic

RN: 5966-41-6 MF: C₂₁H₂₉N MW: 295.47 EINECS: 227-752-4
 CN: N,N-bis(1-methylethyl)-γ-phenylbenzenepropanamine

hydrochloride

RN: 24358-65-4 MF: C₂₁H₂₉N · HCl MW: 331.93 EINECS: 246-201-9



Reference(s):

GB 808 158 (Janssen; appl. 1956; NL-prior. 1955).

Formulation(s): tabl. (comb. with 2 mg diisopromine)*Trade Name(s):*

D: Agofell (Janssen)

Ulcolind (Lindopharm)-
comb.; wfm

F: Mégaby1 (LeBrun); wfm

I: Do-Bil (Dompé); wfm

Dilazep

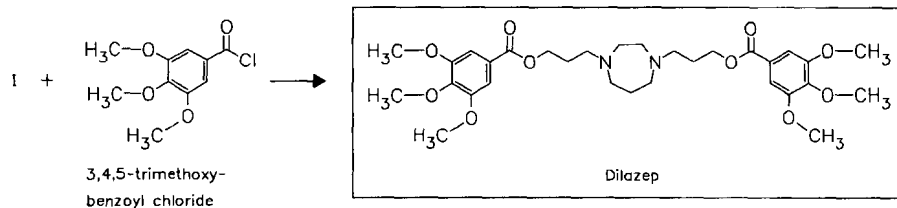
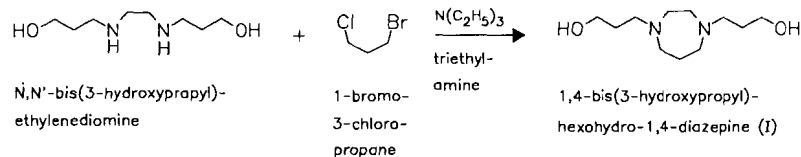
ATC: C01DX10

Use: coronary vasodilator

RN: 35898-87-4 MF: $C_{31}H_{44}N_2O_{10}$ MW: 604.70CN: 3,4,5-trimethoxybenzoic acid (tetrahydro-1*H*-1,4-diazepine-1,4(5*H*)-diyl)di-3,1-propanediyl ester**dihydrochloride**RN: 20153-98-4 MF: $C_{31}H_{44}N_2O_{10} \cdot 2HCl$ MW: 677.62 EINECS: 243-548-8LD₅₀: 16.8 mg/kg (M, i.v.); 2860 mg/kg (M, p.o.);

13.7 mg/kg (R, i.v.); >2150 mg/kg (R, p.o.);

11.2 mg/kg (dog, i.v.); >316 mg/kg (dog, p.o.)

*Reference(s):*

GB 1 107 470 (ASTA-Werke; appl. 2.12.1966; D-prior. 16.12.1965).

DE 1 545 575 (ASTA-Werke; appl. 16.12.1965).

US 3 532 685 (ASTA-Werke; 6.10.1970; D-prior. 16.12.1965).

Formulation(s): drg. 56 mg (as dihydrochloride)*Trade Name(s):*D: Cormelian (ASTA Medica);
wfmI: Cormelian (Schering)
J: Comelian (Kowa)

Dilevalol**((R,R)-Labetalol)**

ATC: C02CB

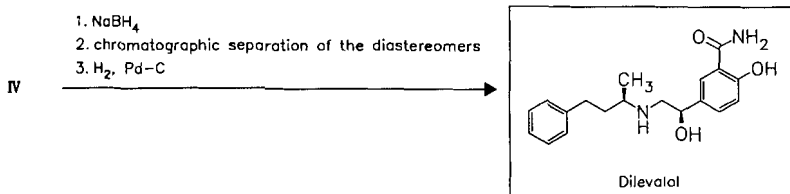
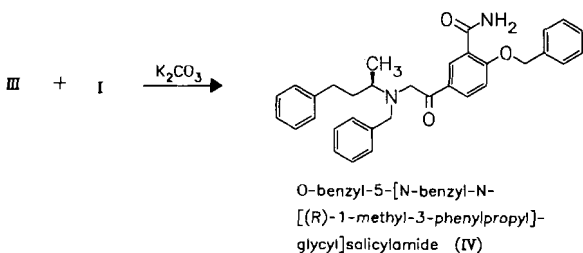
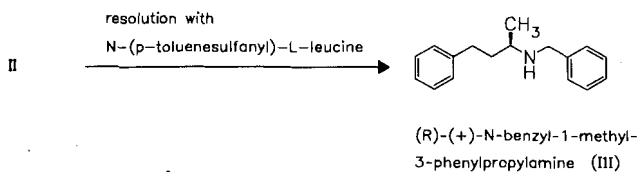
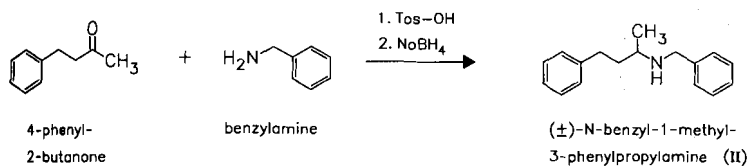
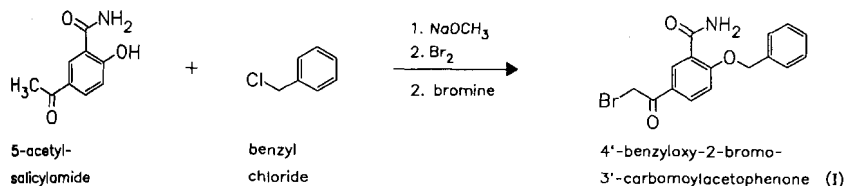
Use: α - and β -adrenoceptor antagonist,
isomer of labetalol, antihypertensiveRN: 75659-07-3 MF: C₁₉H₂₄N₂O₃ MW: 328.41LD₅₀: 1719 mg/kg (M, p.o.);

1228 mg/kg (R, p.o.)

CN: [R-(R*,R*)]-2-hydroxy-5-[1-hydroxy-2-[(1-methyl-3-phenylpropyl)amino]ethyl]benzamide

monohydrochlorideRN: 75659-08-4 MF: C₁₉H₂₄N₂O₃ · HCl MW: 364.87LD₅₀: 1079 mg/kg (M, p.o.);

82 mg/kg (R, i.v.); 1026 mg/kg (R, p.o.)

**Reference(s):**

EP 9 702 (Schering Corp.; appl. 17.9.1979; USA-prior. 20.9.1978).

improvement of diastereomer separation:

DOS 2 616 403 (Schering; appl. 14.4.1976; USA-prior. 17.4.1975).

US 4 173 583 (Schering Corp.; 6.11.1979; appl. 21.9.1978; prior. 17.4.1975).

synthesis without chromatographic purification:

EP 92 787 (Schering Corp.; appl. 20.4.1983; USA-prior. 26.4.1982).

chiral reduction of IV:

EP 382 157 (Schering Corp.; appl. 6.2.1990; USA-prior. 10.2.1989, 26.9.1989).

US 4 948 732 (Schering Corp.; 14.8.1990; prior. 26.9.1989, 10.2.1989).

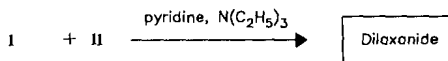
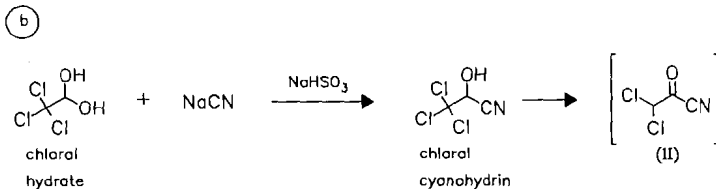
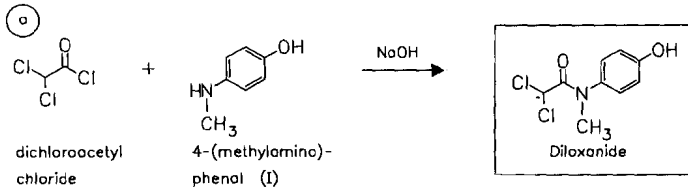
Clifton, J.E. et al.: J. Med. Chem. (JMCMAR) **25**, 670 (1982).Gold, E.H. et al.: J. Med. Chem. (JMCMAR) **25**, 1363 (1982).*Formulation(s):* tabl. 50 mg, 100 mg*Trade Name(s):*

I:	Abetol (CT)	Lolum (Lifepharma)	J:	Dilevalon (Shionogi; 1989
	Alfabetal (Mitim)	Pressalolo (Locatelli)		as hydrochloride); wfm
	Amipress (Salus Research)	Pressalolo (Locatelli)-		Levadil (Schering Corp.;
	Biotens (Kemyos)-comb.	comb.		1990 as hydrochloride);
	Diurolab (Leben's)	Trandate (Glaxo)		wfm
	Ipolab (Leben's)	Trandiur (Teofarma)		

Diloxanide

ATC: P01AC01

Use: antiamebic, antiprotozoal

RN: 579-38-4 MF: C₉H₉Cl₂NO₂ MW: 234.08 EINECS: 209-439-4LD₅₀: 2 g/kg (M, p.o.)CN: 2,2-dichloro-*N*-(4-hydroxyphenyl)-*N*-methylacetamide*Reference(s):*

a GB 767 148 (Boots; appl. 1954).

b GB 786 806 (Boots; appl. 22.7.1955; Compl. 3.7.1956).

Formulation(s): 1.5 g/day

Trade Name(s):

J: Entamide (Boots)

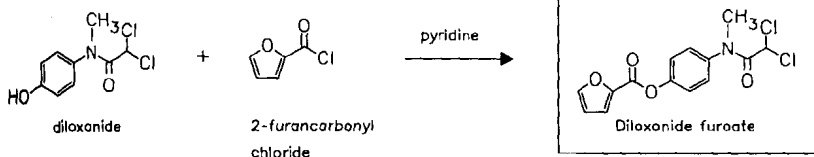
Diloxanide furoate

ATC: P01AX

Use: antiamoebic, antiprotozoal

RN: 3736-81-0 MF: $C_{14}H_{11}Cl_2NO_4$ MW: 328.15 EINECS: 223-108-1

CN: 2-furancarboxylic acid 4-[(dichloroacetyl)methylamino]phenyl ester



Reference(s):

GB 855 556 (Boots; prior. 6.5.1958, 4.6.1958, 14.4.1959).

Formulation(s): tabl. 500 mg

Trade Name(s):

GB: Furamide (Knoll)

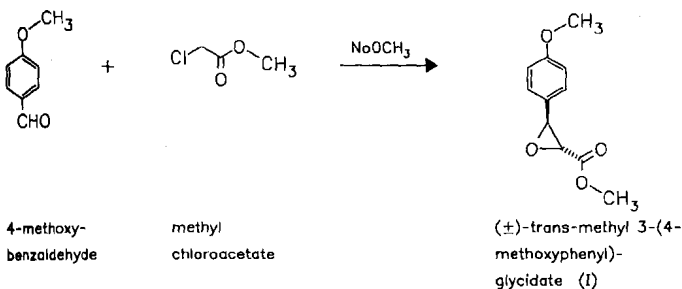
Diltiazem

ATC: C08DB01

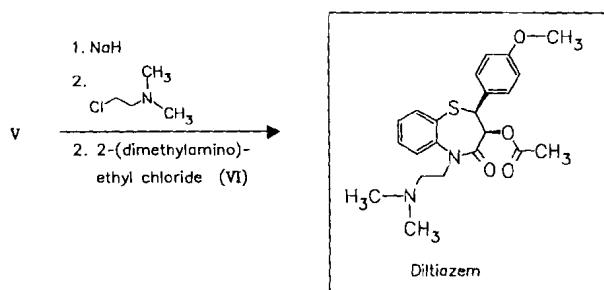
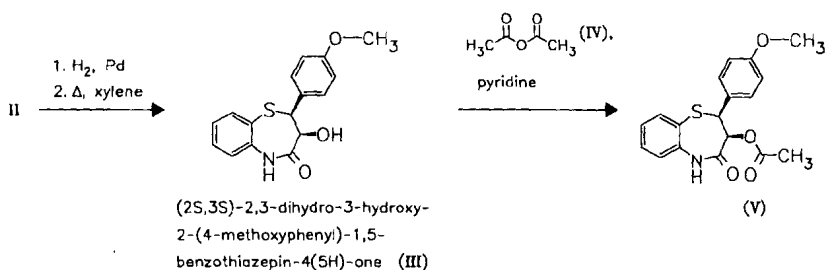
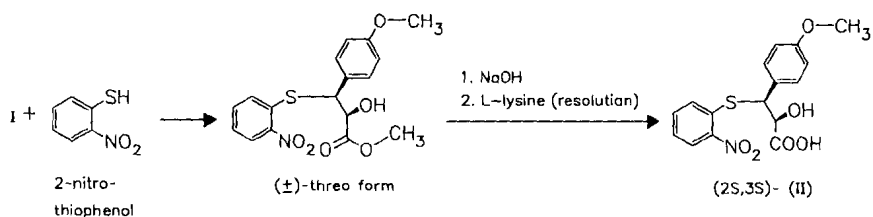
Use: coronary therapeutic (calcium antagonist)

RN: 42399-41-7 MF: $C_{22}H_{26}N_2O_4S$ MW: 414.53 EINECS: 255-796-4LD₅₀: 61 mg/kg (M, i.v.); 740 mg/kg (M, p.o.)CN: (2*S*-*cis*)-3-(acetyloxy)-5-[2-(dimethylamino)ethyl]-2,3-dihydro-2-(4-methoxyphenyl)-1,5-benzothiazepin-4(5*H*)-one**monohydrochloride**RN: 33286-22-5 MF: $C_{22}H_{26}N_2O_4S \cdot HCl$ MW: 450.99 EINECS: 251-443-3LD₅₀: 58 mg/kg (M, i.v.); 508 mg/kg (M, p.o.);

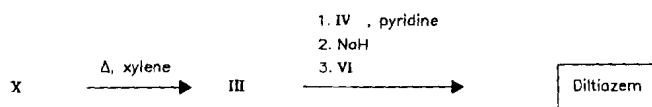
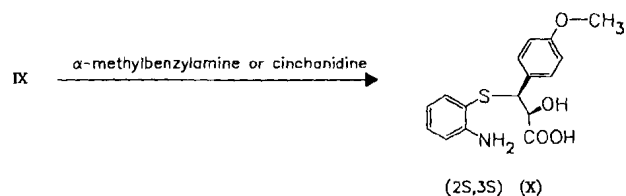
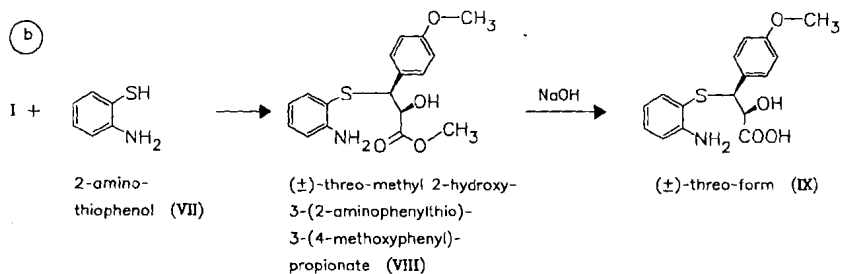
38 mg/kg (R, i.v.); 560 mg/kg (R, p.o.)

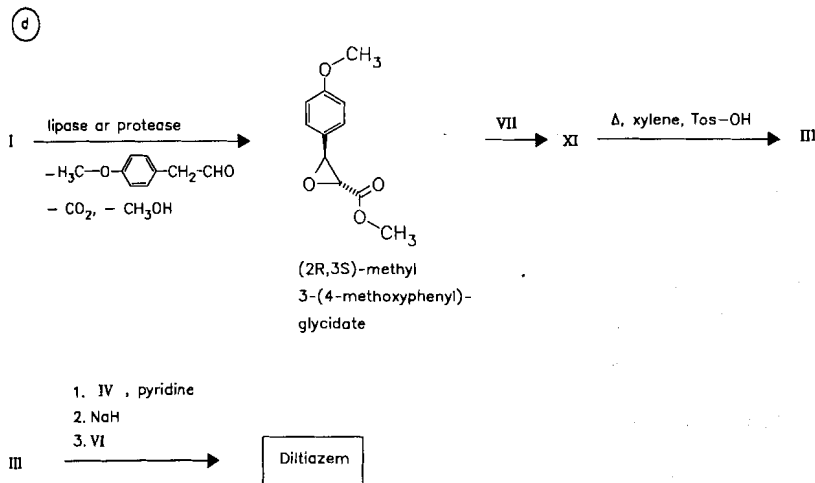
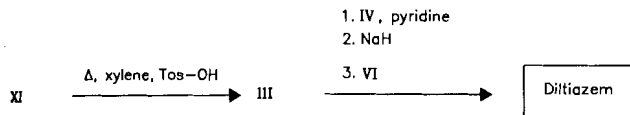
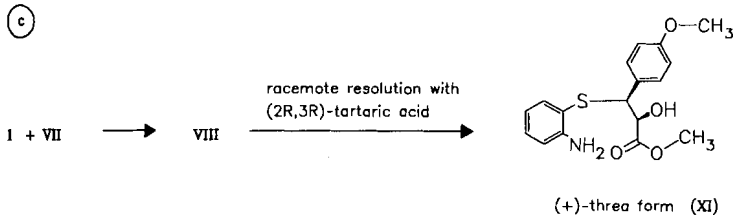


a



b





Reference(s):

- Kugita, H. et al.: Chem. Pharm. Bull. (CPBTAL) (Tokyo) **18**, 2028, 2284 (1970); **19**, 595 (1971).
 DE 1 805 714 (Tanabe; appl. 28.10.1968; J-prior. 28.10.1967, 17.6.1968).
 US 3 562 257 (Tanabe; 9.2.1971; J-prior. 28.10.1967, 17.6.1968).
 a US 4 420 628 (Tanabe Seiyaku; appl. 13.12.1983; J-prior. 27.2.1981, 22.5.1981).
 Inoue, H. et al.: J. Chem. Soc., Perkin Trans. 1 (JCPRB4), **1984**, 1725.
 Inoue, H. et al.: J. Chem. Soc., Perkin Trans. 1 (JCPRB4), **1985**, 421.
 b US 4 416 819 (Tanabe; 22.11.1983; appl. 9.7.1982).
 US 4 438 035 (Tanabe; 20.3.1984; appl. 1.12.1982; J-prior. 7.12.1981).
 c US 5 144 025 (Zambon Group S.p.A.; 1.9.1992; I-prior. 2.4.1990).
 EP 669 327 (Zambon Group A.p.A.; appl. 12.4.1990; I-prior. 13.4.1989).
 d US 5 274 300 (Sepracor; 28.12.1993; appl. 10.2.1089; prior. 26.10.1988).
 US 5 244 803 (Tanabe; 14.9.1993; appl. 7.9.1990; J-prior. 13.9.1989).
 Gentile, A.; Giordano, C.: J. Org. Chem. (JOCEAH) **57**, 6635 (1992).
 Rossy, G. et al. (Synthelabo): Manuf. Chem. (MCHMDI) **1993** (4), 20.

alternative synthesis:

glycidic ester via chlorohydrin route:

US 5 081 240 (Sanofi; 14.1.1992; F-prior. 18.7.1989).

enantioselective Darzens condensation:

Schwartz, A. et al.: J. Org. Chem. (JOCEAH) **57**, 851 (1992).

condensation of cyclic sulfite with 2-aminothiophenol:

Lohray, B.B. et al.: J. Org. Chem. (JOCEAH) **60**, 5983 (1995).

further routes:

DOS 3 337 176 (Ist Lusofarmaco; appl. 12.10.1983; I-prior. 15.10.1982).

DOS 3 415 035 (Shionogi; appl. 19.4.1984; J-prior. 21.4.1983).

EP 158 303 (Abic; appl. 5.4.1985; IL-prior. 13.4.1984).

combination with dihydropyridines:

US 4 504 476 (A. Schwartz et al.; 12.3.1985; appl. 16.9.1983).

inhalative formulation:

EP 133 252 (Gödecke AG; appl. 19.7.1984; D-prior. 20.7.1983).

slow and controlled release formulations:

EP 315 197 (Gödecke AG; appl. 4.11.1988; D-prior. 6.11.1987).

EP 318 398 (Ethypharm; appl. 25.11.1988; F-prior. 26.11.1987).

EP 320 097 (Elan Corp.; appl. 14.10.1988; IE-prior. 16.10.1987, 20.11.1987, 18.3.1988).

EP 340 105 (Sanofi; appl. 25.4.1989; F-prior. 27.4.1988).

US 4 859 470 (Alza Corp.; 22.8.1989; appl. 2.6.1988).

US 5 000 962 (Schering Corp.; 19.3.1991; appl. 25.8.1989).

Formulation(s): amp. 10 mg, 100 mg; cps. 60 mg, 90 mg, 120 mg, 180 mg, 240 mg; lyo. 25 mg; s. r. cps. 90 mg, 120 mg, 180 mg, 240 mg; s. r. tabl. 120 mg, 180 mg; tabl. 30 mg, 60 mg, 90 mg

Trade Name(s):

D:	Corazet (Mundipharma)		Mono-Tildiem (Labs.		Diladel (Delalande Isnardi)
	Dilicardin (Azupharma)		Synthélabo)		Dilem (Ist. Chim. Inter.)
	Dilsal (TAD)		Tildiem (Labs. Synthélabo;		Dilzene (Sigma-Tau)
	Dil-Sanorania (Sanorania)		1980)		Tildiem (Synthelabo)
	Dilta (AbZ-Pharma)	GB:	Adizem XL (Napp)		Zilden (Schiapparelli)
	Diltahexal (Hexal)		Angitil SR (Trinity)	J:	Clarute (Santen)
	Diltaretard (betapharm)		Britiazim (Thames)		Gadoserin (Toho)
	Dilti (ct-Arzneimittel)		Dilzem SR (Elan)		Helsibon (Tobishi)
	Diltiuc (durachemie)		Slozem (Lipha)		Herbesser (Tanabe; 1987)
	Dilzem (Gödecke; 1981)		Tildiem (Lorex; 1984)		Pazeadin (Taiyo)
	dilzereal (realpharma)		Viazem XL (Du Pont)		Tiaves (Rorer)
F:	Bi-Tildiem (Labs.	I:	Altiazem (Lusofarmaco;		Ziruvate (Choseido-
	Synthélabo)		1984)		Kayaku)
	Deltrazen (Pharmacia &		Angizem (Inverni della	USA:	Cardizem (Hoechst Marion
	Upjohn SA)		Beffa)		Roussel; 1982)
	Diacor (Labs. Houdé)		Carzem (Rottapharm)		Dilacor XR (Watson)
	Dilrène (Dakota)		Citizem (CT)		Tiazec (Forest)

Dimazole

(Diamthazole)

ATC: D01AE17

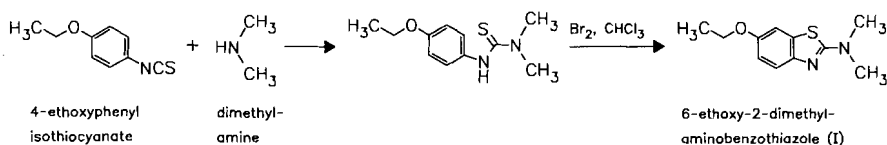
Use: antifungal

RN: 95-27-2 MF: C₁₅H₂₃N₃OS MW: 293.44 EINECS: 202-406-5

CN: 6-[2-(diethylamino)ethoxy]-N,N-dimethyl-2-benzothiazolamine

dihydrochlorideRN: 136-96-9 MF: C₁₅H₂₃N₃OS · 2HCl MW: 366.36 EINECS: 205-270-5LD₅₀: 98 mg/kg (M, i.v.); 430 mg/kg (M, p.o.);

880 mg/kg (R, p.o.)



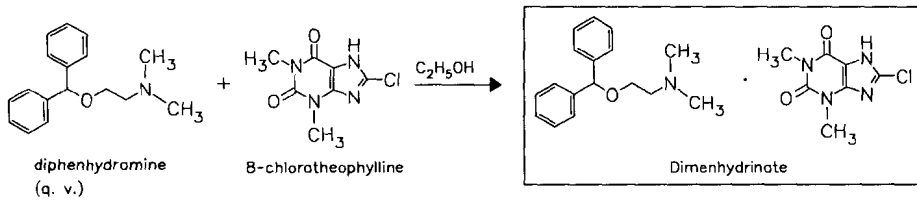
Dimenhydrinate

ATC: A04AD49

Use: anti-emetic

RN: 523-87-5 MF: C₁₇H₂₁NO · C₇H₇ClN₄O₂ MW: 469.97 EINECS: 208-350-8LD₅₀: 203 mg/kg (M, p.o.);
200 mg/kg (R, i.v.); 1320 mg/kg (R, p.o.)

CN: 2-(diphenylmethoxy)-N,N-dimethylethanamine, compd. with 8-chlorotheophylline

**Reference(s):**

US 2 499 058 (Searle; 1950; prior. 1949).

US 2 534 813 (Searle; 1950; appl. 1950).

Formulation(s): drg. 10 mg, 20 mg, 50 mg, 150 mg, 200 mg (s. r. cps.); sol. for inj. 62 mg/10 ml (i.v.), 100 mg/2 ml (i.m.); suppos. 40 mg, 70 mg, 80 mg, 150 mg; tabl. 50 mg**Trade Name(s):**

D:	Arlevert (Hennig)-comb. Dimen (Heumann) Mandros (Dolorgiet) Migraeflux (Henning)- comb. Reisetabletten ratiopharm (ratiopharm) RubiMen (RubiPharm) Superprep/-forte (Hermes) Vertigo-Vomex (Yamanouchi)	F:	Vomacur (Hexal) Vomex (Yamanouchi) Dramamine (Monsanto) Mercialm (Lab. Phygiène)- comb. Nausicalm (Lab. Brother SA)	J:	Travelgum (ASTA Medica) Valontan (Recordati) Xamamina (SmithKline Beecham)- generics Dramamine (Dainippon) Vomiles (Fujisawa)
GB:	Dramamine (Searle)	USA:	Dimenhydrinate (Wyeth- Ayerst)		
I:	Lomarin (Geymonat) Motozina (Biomedica) Foscama)				

Dimercaprol

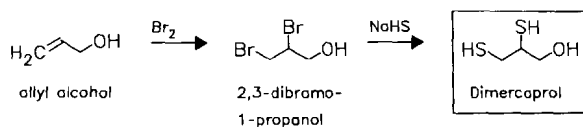
(Dithioglycerin)

ATC: V03AB09

Use: antidote (heavy metal poisonings)

RN: 59-52-9 MF: C₃H₈OS₂ MW: 124.23 EINECS: 200-433-7LD₅₀: 56 mg/kg (M, i.v.); 217 mg/kg (M, p.o.)

CN: 2,3-dimercapto-1-propanol

**Reference(s):**

US 2 402 665 (Du Pont; 1946; appl. 1942).

US 2 432 797 (Minister of Supply of the United Kingdom; 1947; GB-prior. 1942).

US 2 436 137 (Du Pont; 1948; appl. 1944).

Stocken, L.A.; Thompson, R.H.S.: Biochem. J. (BIJOAK) **40**, 529, 535, 548 (1946).

synthesis via 2,3-dichloropropanol:

Ing, H.R.: J. Chem. Soc. (JCSOA9) 1948, 1393.

Formulation(s): amp. 100 mg

Trade Name(s):

D: Sulfactin Homburg
(Homburg); wfm

I: B.A.L. Boots (Boots Italia)
J: Bal (Daiichi)

USA: BAL (Hynson Westcott & Dunning); wfm

F: B.A.L (L'Arguenon)

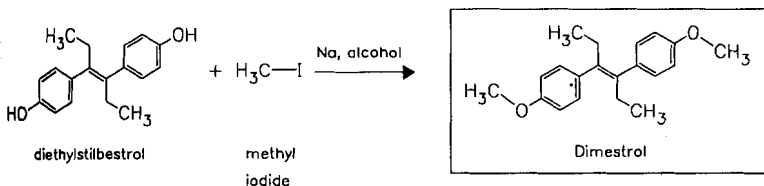
Dimestrol
(Dimethoxydiethylstilbene)

ATC: G03
Use: estrogen

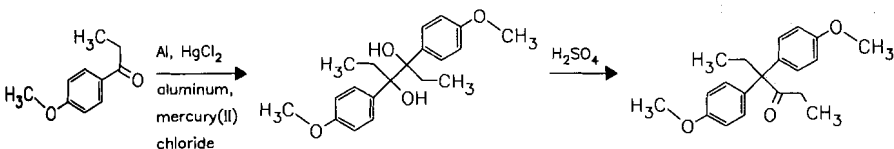
RN: 130-79-0 MF: C₂₀H₂₄O₂ MW: 296.41 EINECS: 204-994-9

CN: (E)-1,1'-(1,2-diethyl-1,2-ethenediyl)bis[4-methoxybenzene]

(a)

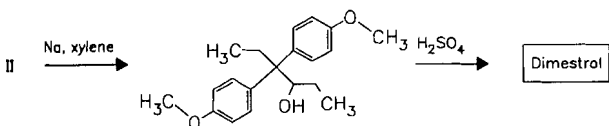


(b)

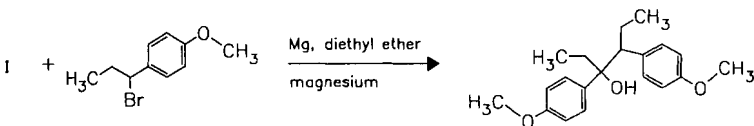


4'-methoxypropiophenone (I)

(II)

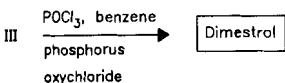


(c)



1-bromo-1-(4-methoxyphenyl)propane

(III)



Reference(s):

- a Reid, E.E.; Wilson, E.: J. Am. Chem. Soc. (JACSAT) **64**, 1625 (1942).
 b Sisido, K.; Nozaki, H.: J. Am. Chem. Soc. (JACSAT) **70**, 776 (1948).
 c GB 584 253 (B.T. Bush; appl. 1943; USA-prior. 1941).
 GB 584 705 (B.T. Bush; appl. 1943; USA-prior. 1941).
 DE 897 559 (Bayer; appl. 1938).

alternative synthesis:

DE 824 043 (Boehringer Ing.; appl. 1949).

review:

Solmssen, U.V.: Chem. Rev. (Washington, D. C.) (CHREAY) **36**, 481 (1945).

Trade Name(s):

D: Depot-Oestromon (Merck);
 wfm

Dimetacrine

ATC: N06AA18

Use: antidepressant, thymoleptic

RN: 4757-55-5 MF: C₂₀H₂₆N₂ MW: 294.44

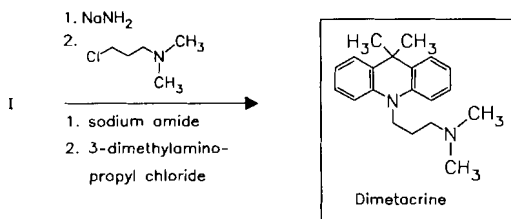
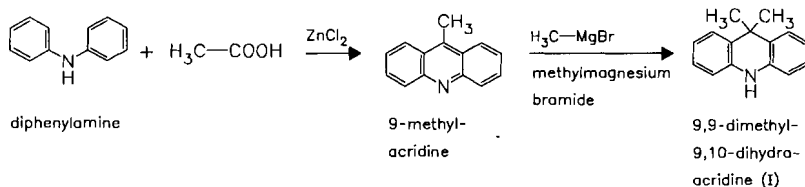
LD₅₀: 39600 µg/kg (M, i.v.); 1293 mg/kg (M, p.o.);
 1850 mg/kg (R, p.o.)

CN: N,N,9,9-tetramethyl-10(9H)-acridinepropanamine

tartrate (1:1)

RN: 3759-07-7 MF: C₂₀H₂₆N₂ · C₄H₆O₆ MW: 444.53 EINECS: 223-166-8

LD₅₀: 40.9 mg/kg (M, i.v.); 755 mg/kg (M, p.o.);
 38 mg/kg (R, i.v.); 1671 mg/kg (R, p.o.)

*Reference(s):*

- DE 1 224 315 (Kefalas; appl. 7.9.1961; GB-prior. 16.9.1960).
 GB 933 875 (Kefalas S/A; appl. 16.9.1960; valid from 13.9.1961).
 US 3 284 454 (Siegfried; 8.11.1966; CH-prior. 18.12.1961, 3.8.1962).
 Molnar, I.; Wagner-Jauregg, T.: Helv. Chim. Acta (HCACAV) **48**, 1782 (1965).

Formulation(s): drg. 100 mg (as hydrochloride)

Trade Name(s):

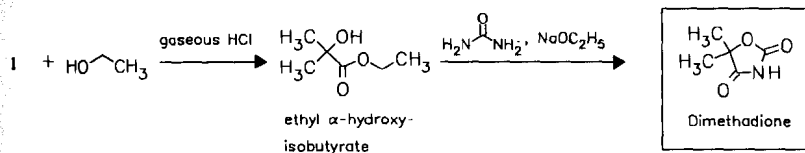
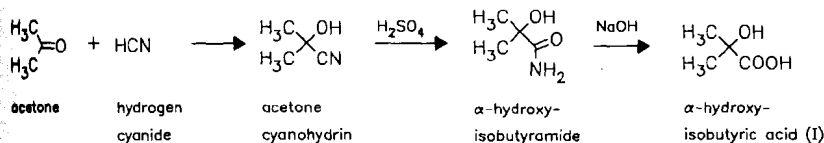
D: Istonil (Siegfried); wfm J: Istonyl (Nippon Chemiphar)

Dimethadione

Use: anticonvulsant

RN: 695-53-4 MF: C₅H₇NO₃ MW: 129.12 EINECS: 211-781-4LD₅₀: 850 mg/kg (M, i.p.)

CN: 5,5-dimethyl-2,4-oxazolidinedione



Reference(s):

Stoughton, R.W.: J. Am. Chem. Soc. (JACSAT) **63**, 2376 (1941).

Trade Name(s):

USA: Eupractone (Travenol);
wfm

Dimethicone

(Dimethylpolysiloxane; Simethicone)

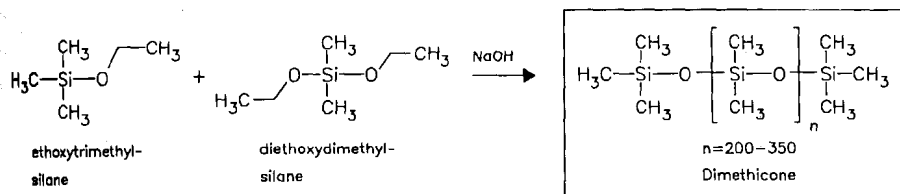
ATC: A09A

Use: antacid, antiflatulant

RN: 8050-81-5 MF: unspecified MW: unspecified

LD₅₀: 900 mg/kg (dog, i.v.)

CN: simethicone



Reference(s):

US 2 441 098 (Corning Glass; 1948; appl. 1946).

from dimethyldichlorosilane, e. g.:

DE 1 007 063 (General Electric; appl. 1956; USA-prior. 1955).

DOS 2 148 669 (Wacker-Chemie; appl. 29.9.1971).

DOS 2 521 742 (Wacker-Chemie; appl. 15.5.1975).

Formulation(s): cream 4 oz.; lotion 4 oz.

Trade Name(s):

D:	Absorber HFV (Arteva Pharma)	Gel de polysilane (Labs. UPSA)	Gasless (Hishiyama)
	Aegrosan (Opfermann)	Rennie Deflantine (Labs. Roche Nicholas SA)-comb.	Gaspanon (Kotani)
	Busala (Pharma Selz)	numerous combination preparations	Gasteel (Fuso)
	Ceolat (Solvay Arzneimittel)		Gaszeron (Nichiiko)
	Dimeticon-ratiopharm (ratiopharm)	GB: Infacol (Pharmax)	Gersmin (Kowa)
	Espumislan (Berlin-Chemie)	numerous combination preparations	Harop (Toyo Pharmer)
	ILIO-Funktion	I: Mylicon (Parke Davis)	Magarte (Mohan)
	Kautabletten (Robugen)	Olio Silic (Tariff. Integrativo)	Polysilo (Toa)
	Meteosan (Novartis)	Polisilon (Midy)-comb.	Silies (Nippon Shoji)
	sab simplex (Parke Davis)	Silisan (Lipha)-comb.	Sili-Met-San S (Nippon Shoji)
	Symadal (Chauvin ankerpharm)	J: Aeropax (Green Cross)	Spalilin (Maruishi)
F:	Gastrobul (Lab. Guerbet)-comb.	Ganatone (Hokuriku)	USA: Eucerin (Beiersdorf)
		Gasace (Kanto)	Moisturel (Westwood-Squibb)
		Gascon (Kissei)	

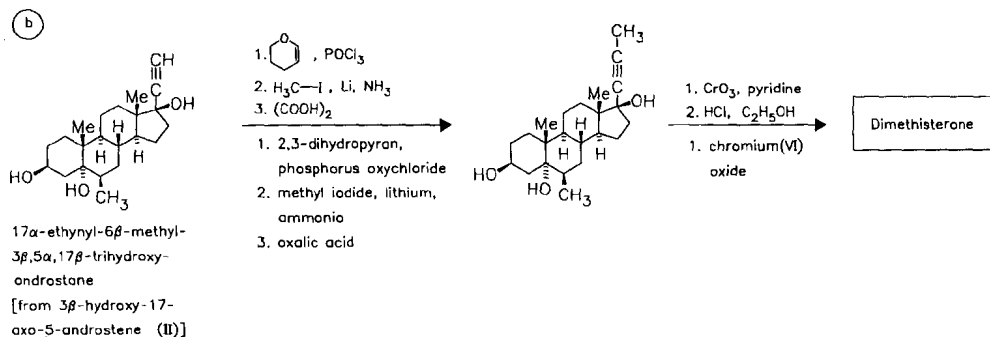
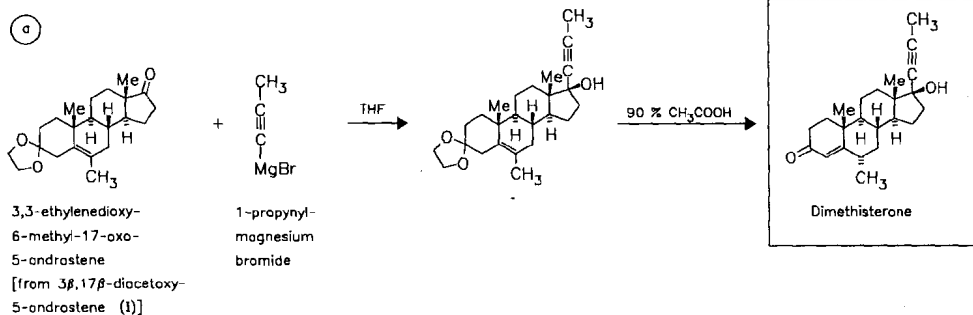
Dimethisterone

ATC: G03D

Use: progestogen

RN: 79-64-1 MF: C₂₃H₃₂O₂ MW: 340.51 EINECS: 201-215-4

CN: (6 α ,17 β)-17-hydroxy-6-methyl-17-(1-propynyl)androst-4-en-3-one



Reference(s):

a US 2 927 119 (British Drug Houses; 1.3.1960; appl. 15.5.1958; GB-prior. 21.5.1957).

*synthesis of I:*Petrov, V. et al.: J. Chem. Soc. (JCSOA9) **1957**, 4105; **1960**, 3676.

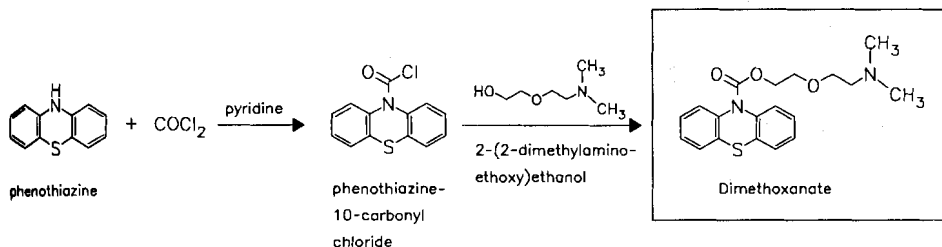
b US 2 939 819 (British Drug Houses; 7.6.1960; GB-prior. 25.1.1957).

Petrov, V. et al.: J. Chem. Soc. (JCSOA9) **1959**, 1957.*synthesis of II:*Petrov, V. et al.: J. Chem. Soc. (JCSOA9) **1957**, 4099.Ruzicka, L.; Hofman, K.: Helv. Chim. Acta (HCACAV) **20**, 1280 (1937).*Formulation(s):* tabl. 5-15 mg*Trade Name(s):*GB: Secrosteron (Duncan,
Flockhart); wfmJ: Secrosteron (Santen-
Yamanouchi)USA: Oracon (Mead Johnson);
wfm**Dimethoxanate**

Use: antitussive

RN: 477-93-0 MF: C₁₉H₂₂N₂O₃S MW: 358.46 EINECS: 207-520-9CN: 10*H*-phenothiazine-10-carboxylic acid 2-[2-(dimethylamino)ethoxy]ethyl ester**monohydrochloride**RN: 518-63-8 MF: C₁₉H₂₂N₂O₃S · HCl MW: 394.92 EINECS: 208-255-1LD₅₀: 580 mg/kg (M, p.o.);

1500 mg/kg (R, p.o.)

*Reference(s):*

DE 1 036 259 (Ayerst; appl. 1955; USA-prior. 1955).

Formulation(s): syrup 12.5 mg/5 ml*Trade Name(s):*F: Cotrane (Clin-Midy); wfm
Cotrane (Midyfarm); wfmI: Cothera (Ayerst); wfm
Perlatos (Farm. Mil.); wfm

Tussizid (Beolet); wfm

Dimethyltubocurarinium chloride

ATC: M03AA04

(Metocurine chloride)

Use: muscle relaxant

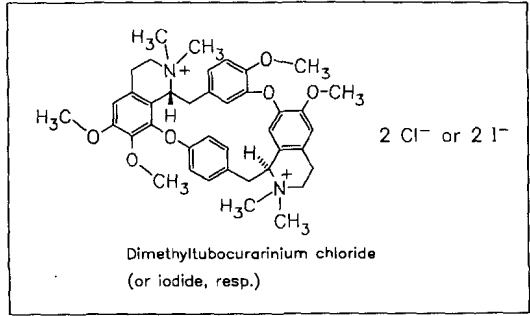
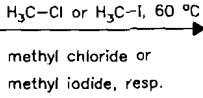
RN: 33335-58-9 MF: C₄₀H₄₈Cl₂N₂O₆ MW: 723.74 EINECS: 251-461-1

CN: 6,6',7',12'-tetramethoxy-2,2',2'-tetramethyltubocurarinium dichloride

iodideRN: 7601-55-0 MF: C₄₀H₄₈I₂N₂O₆ MW: 906.64 EINECS: 231-510-3LD₅₀: 230 µg/kg (M, i.v.);

35 µg/kg (R, i.v.)

row tubocurore
(or tubocurore iodide)



Reference(s):
US 2 581 903 (Eli Lilly; 1952; prior. 1949).

Formulation(s): vial 2 mg/ml (20 ml)

Trade Name(s):

D: Methyl Curarin HAF (Ethicon); wfm
USA: Mecostrin (Squibb); wfm
Metubine Jodide (Lilly)

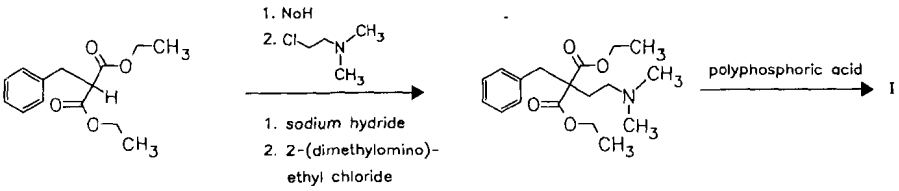
Dimetindene
(Dimethindene)

ATC: D04AA13; R06AB03
Use: antihistaminic, antipruritic

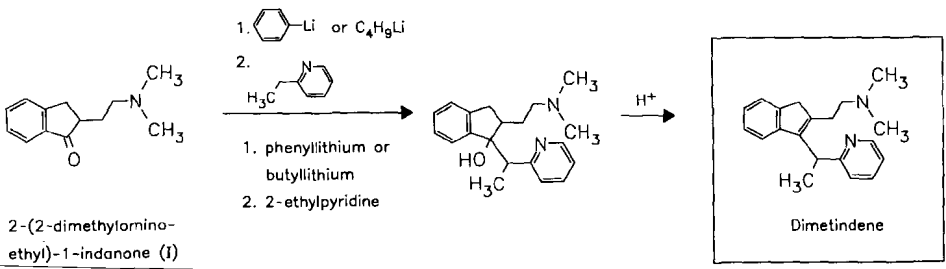
RN: 5636-83-9 MF: C₂₀H₂₄N₂ MW: 292.43 EINECS: 227-083-8
LD₅₀: 27 mg/kg (R, i.v.); 618 mg/kg (R, p.o.);
45 mg/kg (dog, i.v.)
CN: N,N-dimethyl-3-[1-(2-pyridinyl)ethyl]-1H-indene-2-ethanamine

maleate (1:1)

RN: 3614-69-5 MF: C₂₀H₂₄N₂ · C₄H₄O₄ MW: 408.50 EINECS: 222-789-2
LD₅₀: 26.8 mg/kg (R, i.v.); 618 mg/kg (R, p.o.)



diethyl benzyl-
malonate



2-(2-dimethylamino-
ethyl)-1-indanone (I)

Reference(s):

US 2 947 756 (Ciba; 2.8.1960; appl. 5.5.1959; prior. 12.8.1958, 3.11.1958, 10.2.1959).
 US 2 970 149 (Ciba; 31.1.1961; appl. 3.11.1958).

Formulation(s): amp. 4 mg; drg. 1 mg; drops 1 mg/ml; gel 1 mg/g; s. r. drg. 2.5 mg; s. r. tabl. 2.5 mg; syrup 0.122 mg/ml

Trade Name(s):

D:	Fenistil (Zyma-Blaes) Vibrocil (Zyma)-comb.		Vibrocil (Zyma)-comb.; wfm	J:	Foristal (Ciba-Geigy-Takeda)
GB:	Fenostil (Zyma); wfm Fenostil-Retard (Zyma); wfm	I:	Fengel (Zyma) Fenistil (Zyma) Vibrocil (Zyma)-comb.	USA:	Forhistal (Ciba); wfm Triten (Marion); wfm

Dimetotiazine

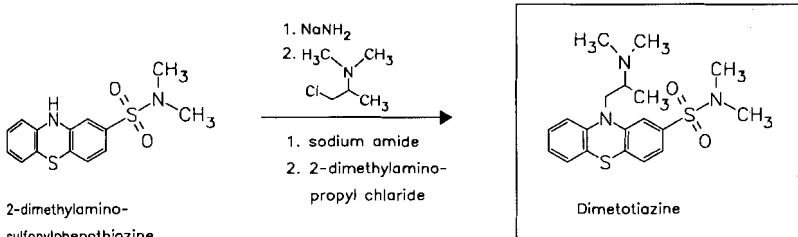
(Dimethothiazine; Fonazine)

ATC: N02CX05
 Use: antiallergic, antihistaminic, antimigraine agent

RN: 7456-24-8 MF: C₁₉H₂₅N₃O₂S₂ MW: 391.56 EINECS: 231-229-6
 LD₅₀: 100 mg/kg (M, i.v.); 740 mg/kg (M, p.o.)
 CN: 10-[2-(dimethylamino)propyl]-N,N-dimethyl-10H-phenothiazine-2-sulfonamide

mesylate

RN: 7455-39-2 MF: C₁₉H₂₅N₃O₂S₂ · CH₄O₃S MW: 487.67



Reference(s):

GB 814 512 (Rhône-Poulenc; appl. 15.7.1957; F-prior. 1.8.1956, 18.12.1956).
 FR 1 179 968 (Rhône-Poulenc; appl. 1.8.1956).

Formulation(s): cps. 20 mg (base); suppos. 50 mg; tabl. 25 mg (mesylate)

Trade Name(s):

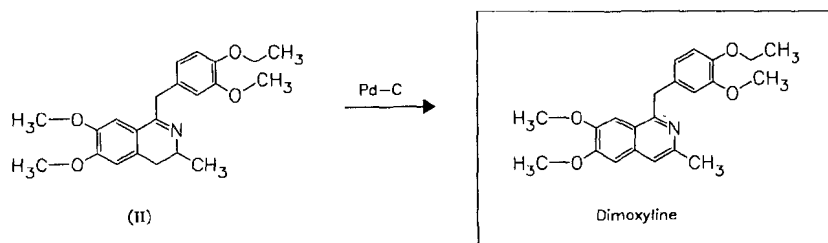
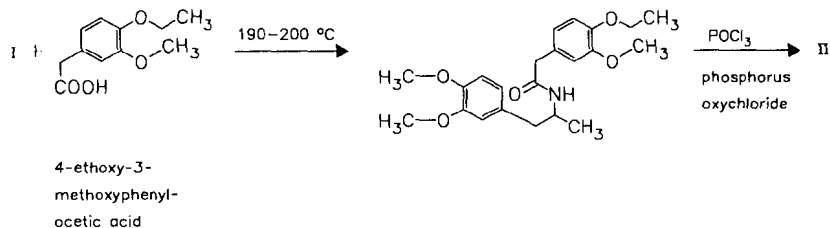
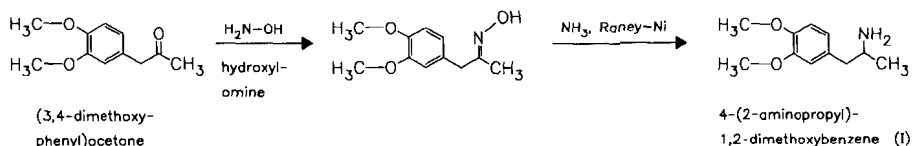
D:	Migristene (Rhodia Pharma); wfm	I:	Alius (Roussel)	J:	Neomestin (Taiyo)
F:	Migristène (Specia); wfm	J:	Bistermin (Toyo Shinyaku)		Serevirol (Fuji Zoki)
GB:	Banistyl (May & Baker); wfm		Calsekin (Kanto-Isei)		
			Demethotiazine (Mohan)		
			Migristene (Shionogi)		

Dimoxyline

(Dioxyline)

ATC: A03
 Use: antispasmodic, vasodilator

RN: 147-27-3 MF: C₂₂H₂₅NO₄ MW: 367.45
 CN: 1-[4-ethoxy-3-methoxyphenyl)methyl]-6,7-dimethoxy-3-methylisoquinoline

phosphate (1:1)RN: 5667-46-9 MF: $C_{22}H_{25}NO_4 \cdot H_3PO_3$ MW: 449.44 EINECS: 227-126-0*Reference(s):*

US 2 728 769 (Eli Lilly; 1955; prior. 1949).

Formulation(s): tabl. 100 mg*Trade Name(s):*

I: Paverona (Lilly); wfm

USA: Paveril (Lilly); wfm

Dinoprost(Prostaglandin F_{2α})

ATC: G02AD01

Use: oxytocic, abortifacient

RN: 551-11-1 MF: $C_{20}H_{34}O_5$ MW: 354.49LD₅₀: 56 mg/kg (M, i.v.); 1300 mg/kg (M, p.o.);

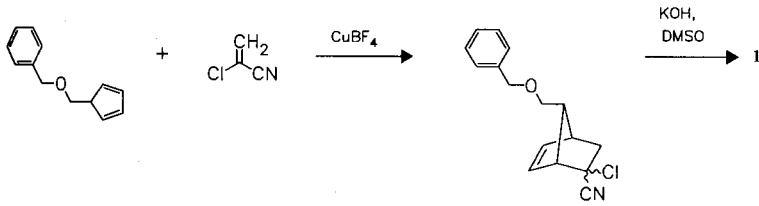
106 mg/kg (R, i.v.); 1170 mg/kg (R, p.o.);

2.5-5.0 mg/kg (rabbit, i.m., i.v.)

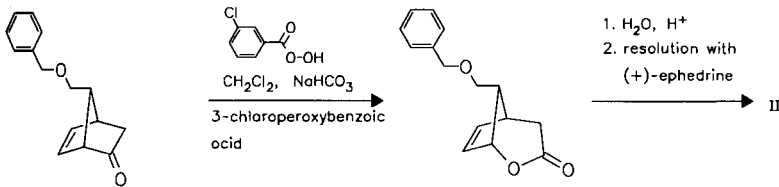
CN: (5Z,9α,11α,13E,15S)-9,11,15-trihydroxyprosta-5,13-dien-1-oic acid

tromethamine salt (1:1)RN: 38562-01-5 MF: $C_{20}H_{34}O_5 \cdot C_4H_{11}NO_3$ MW: 475.62 EINECS: 254-002-3LD₅₀: 331 mg/kg (M, i.v.); 711 mg/kg (M, p.o.);

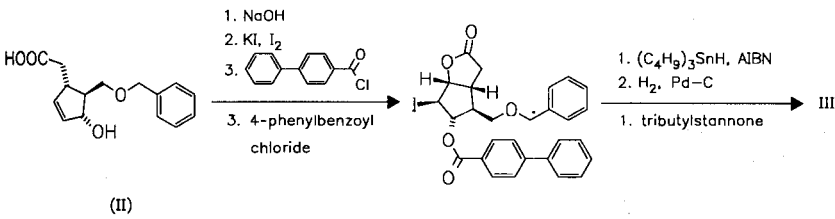
101 mg/kg (R, i.v.); 665 mg/kg (R, p.o.)



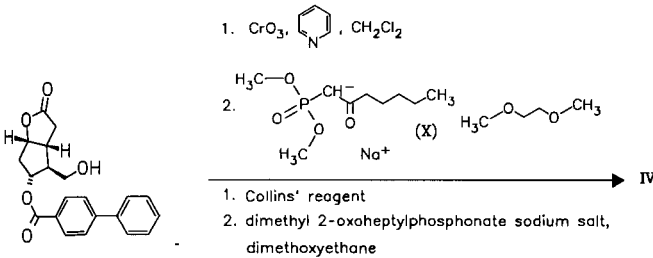
2,4-cyclopentadienylmethyl benzyl ether + 2-chloroacrylonitrile



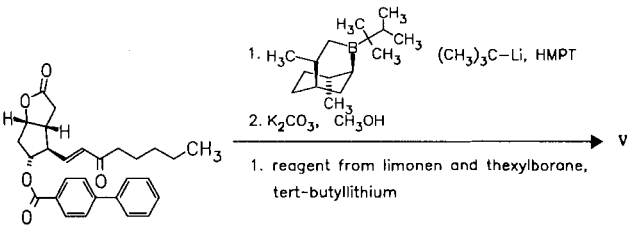
7-(benzyloxymethyl)-3-oxo-5-norbornene (I)



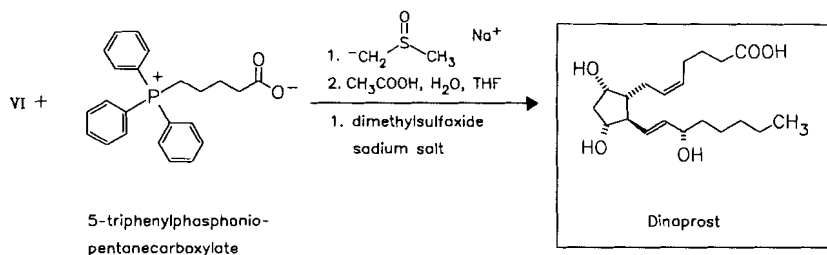
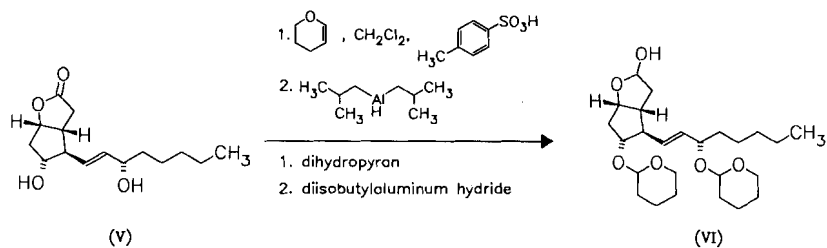
(II)



(-)-Corey lactone (III)



(IV)

*Reference(s):*

- Corey, E.J. et al.: J. Am. Chem. Soc. (JACSAT) **91**, 5675 (1969).
 Corey, E.J. et al.: J. Am. Chem. Soc. (JACSAT) **92**, 397 (1970).
 Corey, E.J. et al.: J. Am. Chem. Soc. (JACSAT) **92**, 2586 (1970).
 Corey, E.J. et al.: J. Am. Chem. Soc. (JACSAT) **93**, 1491 (1971).

alternative syntheses:

- Fried, J. et al.: J. Am. Chem. Soc. (JACSAT) **94**, 4342, 4343 (1972).
 Corey, E.J. et al.: Tetrahedron Lett. (TELEAY) **1970**, 307.
 Bundy, G.L. et al.: J. Am. Chem. Soc. (JACSAT) **94**, 2123 (1972).
 Corey, E.J.; Varma, R.K.: J. Am. Chem. Soc. (JACSAT) **93**, 7319 (1971).
 Schneider, W.P.; Murray, H.C.: J. Org. Chem. (JOCEAH) **38**, 397 (1973).
 Tanouchi, T. et al.: Chem. Lett. (CMLTAG) **1976**, 739.
 NL 6 505 799 (Unilever; 6.5.1965).
 DOS 2 145 125 (Upjohn; 9.9.1971; USA-prior. 11.9.1970, 2.7.1971).
 DOS 2 328 131 (Schering AG; 30.5.1973).
 US 3 933 892 (Hoffmann-La Roche; 20.1.1976; prior. 18.1.1974, 12.2.1973).

isolation:

- GB 1 040 544 (Karolinska Inst.; valid from 21.2.1963; prior. 19.3.1962).

racemic prostaglandin F_{2α}:

- US 3 933 891 (Upjohn; 20.1.1976; prior. 8.7.1974, 3.10.1973, 17.6.1975, 2.7.1971, 11.11.1970).
 US 3 987 083 (Upjohn; 19.10.1976; prior. 6.12.1974, 14.3.1969).
 US 3 983 155 (Upjohn; 28.9.1976; prior. 6.12.1974, 14.3.1969).
 US 3 983 154 (Upjohn; 28.9.1976; prior. 6.12.1974, 14.3.1969).
 US 3 983 153 (Upjohn; 28.9.1976; prior. 6.12.1974, 14.3.1969).
 US 3 981 880 (Upjohn; 21.9.1976; prior. 6.12.1974, 14.3.1969).
 US 3 980 691 (Upjohn; 14.9.1976; prior. 6.12.1974, 14.3.1969).
 US 3 959 346 (Upjohn; 25.5.1976; prior. 6.12.1974, 14.3.1969).

tromethamine salt:

- US 3 657 327 (Upjohn; 18.4.1972; prior. 1.6.1970).

use for control of conception cyclus:

- DOS 1 943 492 (Upjohn; appl. 27.8.1969; USA-prior. 29.8.1968).

review:

- Prostaglandin Research (Ed. P. Crabbé) p. 1, 121 New York, San Francisco, London 1977.

Formulation(s): amp. 5 mg/ml

Trade Name(s):

D:	Minprostin F _{2α} (Pharmacia & Upjohn)	I:	Prostin F _{2α} (Upjohn); wfm		Prostarmon-F (Ono)
F:	Prostine F _{2α} (Pharmacia & Upjohn SA)	J:	Glandinon (Mochida)		Zinoprost (Ono)
GB:	Prostin F2 (Pharmacia & Upjohn)		Penacelan-F (Glaxo-Fuji)	USA:	Prostin F _{2α} (Upjohn); wfm
			Pronalgon (Upjohn)		
			Prosmon (Fuji)		
			Prostamodin (Kanebo)		

Dinoprostone

(Prostaglandin E₂)

ATC: G02AD02

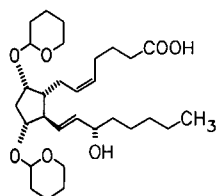
Use: oxytocic, abortifacient

RN: 363-24-6 MF: C₂₀H₃₂O₅ MW: 352.47 EINECS: 206-656-6

LD₅₀: 23.2 mg/kg (M, i.v.); 750 mg/kg (M, p.o.);

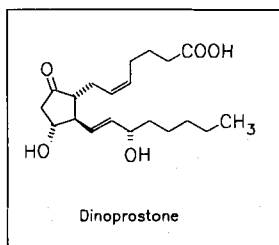
59.5 mg/kg (R, i.v.); 500 mg/kg (R, p.o.)

CN: (5Z,11α,13E,15S)-11,15-dihydroxy-9-oxoprostano-5,13-dien-1-oic acid



prostaglandin F₂ 9,11-bis-(tetrahydropyranyl ether)
(cf. dinoprost synthesis)

1. Jones oxidation
(CrO₃, H₂SO₄, acetone, -10 °C)
2. CH₃COOH, H₂O
1. chromium(VI) oxide



Dinoprostone

Reference(s):

Corey, E.J. et al.: J. Am. Chem. Soc. (JACSAT) **92**, 397 (1970).

alternative syntheses:

US 3 948 981 (Upjohn; 6.4.1976; prior. 18.12.1974, 3.10.1973, 2.7.1971, 11.9.1970).

Schneider, W.P. et al.: J. Chem. Soc., Chem. Commun. (JCCCAT) **1973**, 254.

Heather, J.B. et al.: Tetrahedron Lett. (TELEAY) **1973**, 2313.

isolation:

GB 1 040 544 (Karlsruhe Inst.; valid from 21.2.1963; prior. 29.3.1962).

further literature:

cf. dinoprost synthesis

medical use as broncholytic:

ZA 681 055 (American Home Products; appl. 31.1.1968; USA-prior. 20.2.1967).

review:

Prostaglandin Research (Ed. P. Crabbé) p. 1, 121, New York, San Francisco, London 1977.

Formulation(s): amp. 0.5 g/0.5 ml, 0.75 mg/0.75 ml; rectangular tabl. 0.5 mg; syringe with gel 0.5 mg; vaginal gel 0.5 mg/3 g, 1 mg/3 g, 2 mg/3 g; vaginal tabl. 3 mg

Trade Name(s):

D:	Minprostin E ₂ (Pharmacia & Upjohn)	F:	Prépidil gel (Pharmacia & Upjohn SA)	GB:	Prepidil (Pharmacia & Upjohn)
	Prepidil Gel (Pharmacia & Upjohn)		Prostine E ₂ (Pharmacia & Upjohn SA)		Propress RS (Ferring)

	Prostin E2 (Pharmacia & Upjohn)	J:	Prostadiel-E (Taiyo) Prostaglandin E ₂ (Kaken)	Prepidil (Pharmacia & Upjohn)
I:	Prepidil gel (Upjohn)		Prostarmon-E (Ono)	Prostin E ₂ (Pharmacia & Upjohn)
	Prostin E ₂ (Upjohn)	USA:	Cervidil (Forest)	

Diodone

(Jodopyracet)

ATC: V08AA10

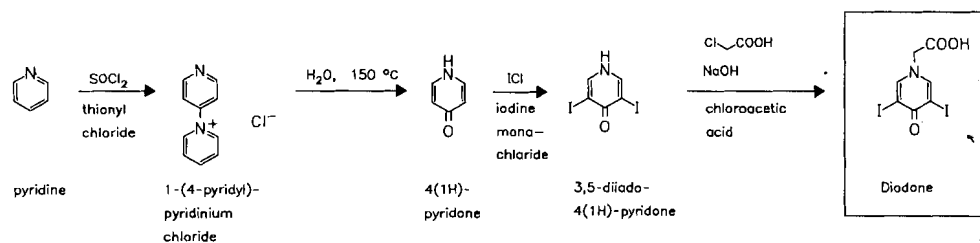
Use: X-ray contrast medium

RN: 101-29-1 MF: C₇H₅I₂NO₃ MW: 404.93 EINECS: 202-932-5

CN: 3,5-diiodo-4-oxo-1(4H)-pyridineacetic acid

meglumine saltRN: 3736-90-1 MF: C₇H₅I₂NO₃ · C₇H₁₇NO₅ MW: 600.14LD₅₀: 5900 mg/kg (R, i.v.)**diethanolamine salt (1:1)**RN: 300-37-8 MF: C₇H₅I₂NO₃ · C₄H₁₁NO₂ MW: 510.07 EINECS: 206-089-4LD₅₀: 6400 mg/kg (M, i.v.);

5400 mg/kg (R, i.v.)

morpholine salt (1:1)RN: 3737-08-4 MF: C₇H₅I₂NO₃ · C₄H₉NO MW: 492.05**Reference(s):**

DRP 554 702 (E. Koenigs, H. Greiner; 1929).

DRP 579 224 (I. G. Farben; 1930).

US 1 993 039 (I. G. Farben; 1935; D-prior. 1931).

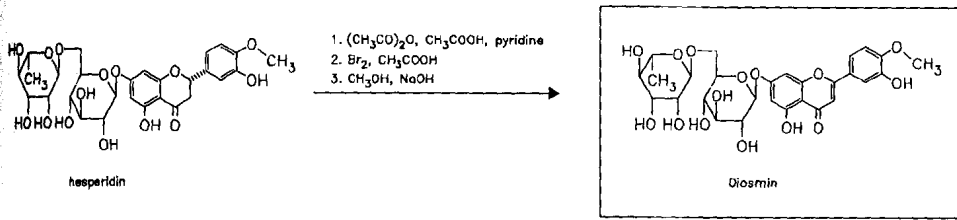
GB 517 382 (ICI; appl. 1938).

Formulation(s): amp. 35 %, 50 %, 70 %**Trade Name(s):**D: Broncho-Abrodil
(Schering); wfmGB: Umbradil (Astra)-comb.;
wfmI: Joduron (Bracco); wfm
J: Pyraceton (Daiichi)**Diosmin**

ATC: C05CA03

Use: antihemorrhagic, vein tonic

RN: 520-27-4 MF: C₂₈H₃₂O₁₅ MW: 608.55 EINECS: 208-289-7CN: 7-[[[6-O-(6-deoxy- α -L-mannopyranosyl)- β -D-glucopyranosyl]oxy]-5-hydroxy-2-(3-hydroxy-4-methoxyphenyl)-4H-1-benzopyran-4-one



Reference(s):

- Zemplén, G.; Bognár, R.: Ber. Dtsch. Chem. Ges. (BDCGAS) 76, 452 (1943).
 Lorette, N.B. et al.: J. Org. Chem. (JOCEAH) 16, 930 (1951).
 Horowitz, R.M.: J. Org. Chem. (JOCEAH) 21, 1184 (1956).

technical method:

DOS 2 602 314 (Hommel; appl. 22.1.1976; CH-prior. 16.5.1975).

Formulation(s): cps. 300 mg; cream 4 g/100 g; tabl. 150 mg

Trade Name(s):

D:	Tovene (Solvay Arzneimittel)	Endium (Labs. Europhta)	Daflon (Servier)
F:	Daflon (Servier)	Flebosmil (Socopharm)	Diosven (CT)
	Dio (Labs. Scienex)	Litosmil (Evans Medical)	Doven (Prophin)
	Diosmil (Rhône-Poulenc Rorer)	Médiveine (Elerté)	Venosmine (Geymonat)
	Diovenor (Innothéra)	Préparation H Veinotonic (Whitehall)	
		I: Arvenum (Stroder)	

Diperodon

(Diperocainum)

ATC: D04AB

Use: local anesthetic

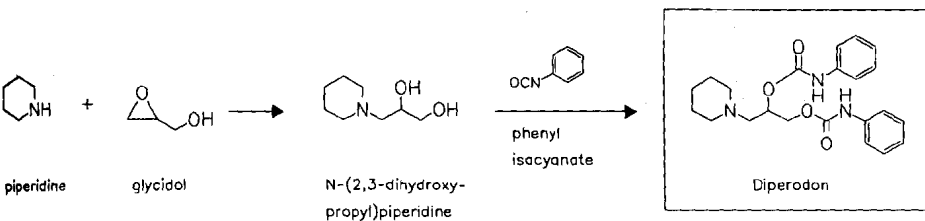
RN: 101-08-6 MF: $\text{C}_{22}\text{H}_{27}\text{N}_3\text{O}_4$ MW: 397.48 EINECS: 202-913-1

CN: 3-(1-piperidiny)-1,2-propanediol bis(phenylcarbamate) (ester)

monohydrochloride

RN: 537-12-2 MF: $\text{C}_{22}\text{H}_{27}\text{N}_3\text{O}_4 \cdot \text{HCl}$ MW: 433.94 EINECS: 208-659-8

LD₅₀: 890 mg/kg (M, s.c.)



Reference(s):

- US 2 004 132 (T. H. Rider; 1935; prior. 1931).
 Rider, T.H.: J. Am. Chem. Soc. (JACSAT) 52, 1528, 2115 (1930).

Formulation(s): ointment (comb.)

Trade Name(s):

USA: Diothane (Merrell); wfm

Proctodon (Rowell); wfm

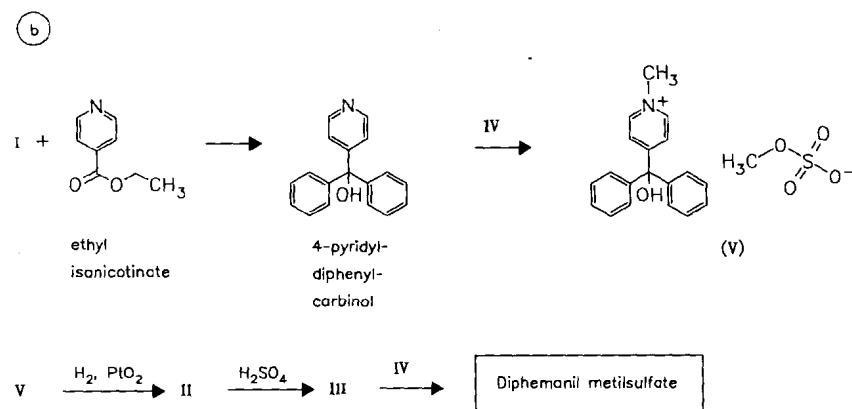
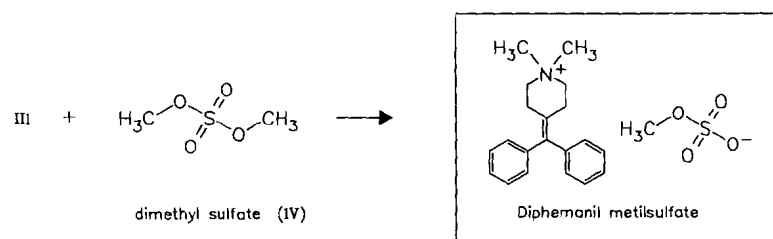
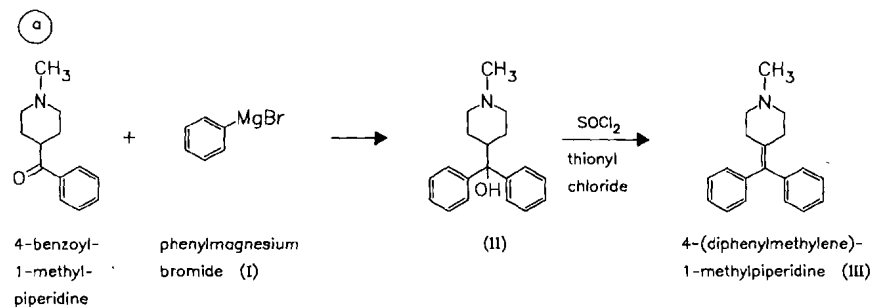
Diphepanil metilsulfate

ATC: D11AA

Use: anticholinergic, antispasmodic

RN: 62-97-5 MF: $C_{20}H_{24}N \cdot CH_4O_3S$ MW: 374.53 EINECS: 200-552-4LD₅₀: 4012 $\mu\text{g}/\text{kg}$ (M, i.v.); 317 mg/kg (M, p.o.);5 mg/kg (R, i.v.); 1107 mg/kg (R, p.o.)

CN: 4-diphenylmethylene-1,1-dimethylpiperidinium methyl sulfate



Reference(s):

US 2 739 968 (Schering Corp.; 1956; prior. 1951).

Formulation(s): cream 2%; tabl. 50 mg, 100 mg

Trade Name(s):

F: Prantal (Cétrane); wfm

I: Prantal (Schering-Plough)

J: Prantal (Schering-Shionogi)

USA: Prantal (Schering); wfm

Diphenadione

ATC: B01AA10

Use: anticoagulant, rodenticide

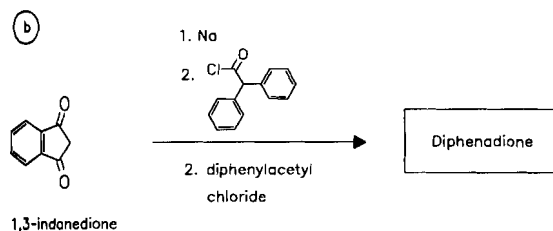
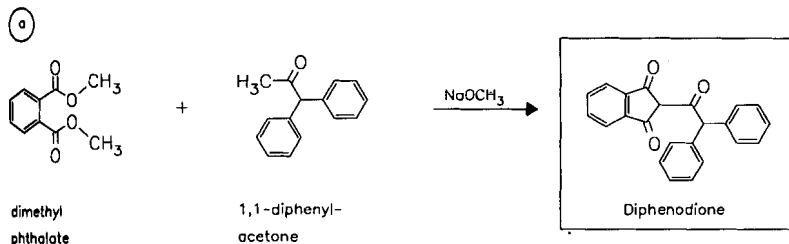
RN: 82-66-6 MF: C₂₃H₁₆O₃ MW: 340.38 EINECS: 201-434-5

LD₅₀: 28.3 mg/kg (M, p.o.);

1500 µg/kg (R, p.o.);

3 mg/kg (dog, p.o.)

CN: 2-(diphenylacetyl)-1*H*-indene-1,3(2*H*)-dione



Reference(s):

US 2 672 483 (Upjohn; 1954; prior. 1951).

Formulation(s): tabl. 20 mg, 50 mg

Trade Name(s):

USA: Dipaxin (Upjohn); wfm

Diphenhydramine

ATC: D04AA32; R06AA02

Use: antihistaminic, anti-emetic, sedative, antitussive

RN: 58-73-1 MF: C₁₇H₂₁NO MW: 255.36 EINECS: 200-396-7

LD₅₀: 29 mg/kg (M, i.v.); 160 mg/kg (M, p.o.);

42 mg/kg (R, i.v.); 390 mg/kg (R, p.o.)

CN: 2-(diphenylmethoxy)-*N,N*-dimethylethanamine

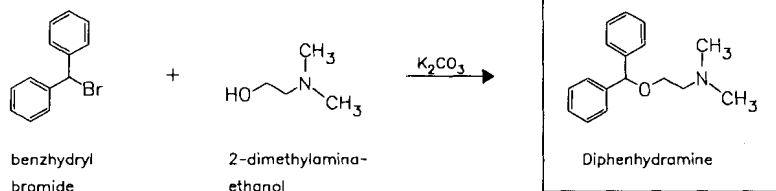
hydrochloride

RN: 147-24-0 MF: C₁₇H₂₁NO · HCl MW: 291.82 EINECS: 205-687-2

LD₅₀: 20 mg/kg (M, i.v.); 64 mg/kg (M, p.o.);

35 mg/kg (R, i.v.); 500 mg/kg (R, p.o.);

24 mg/kg (dog, i.v.)

*Reference(s):*

US 2 421 714 (Parke Davis & Co.; 1947; prior. 1944).

US 2 427 878 (Parke Davis; 1947; appl. 1947).

alternative synthesis:

US 2 397 799 (Geigy; 1946; CH-prior. 1942).

Formulation(s): drops 12.5 mg; s. r. cps. 30 mg; suppos. 10 mg, 20 mg, 50 mg; syrup 2.67 mg/ml, 12.5 mg/ml; tabl. 25 mg, 50 mg (as hydrochloride)

Trade Name(s):

D:	Anaestecomp (Ritsert)-comb.	Sedopretten (Schöning-Berlin)	Benadazol (Hokuriku; as tannate)
	Benadryl (Warner-Lambert)	Sedovegan (Wolff)	Benadazol-S (Hokuriku; as salicylate)
	Betadorm (Woelm)-comb.	Valeriana comb. Hevert (Hevert)-comb.	Benapon (Dainippon)
	Dibenzyl-Rhenix (Pharma Wernigerode)-comb.	Visano Cor (Kade)-comb.	Benasin (Kanto)
	Dolestan (Whitehall-Much)	F:	Neo-Restar (Ohta; as maleate)
	Dolestan (Whitehall-Much)-comb.	Actifed Jour et unit (Warner-Lambert; as hydrochloride)-comb.	Restamin (Kowa)
	Dormigoa (Scheurich)	Butix gel (Labs. Pierre Fabre Santé; as hydrochloride)	Restar (Ohta; as salicylate)
	Dormutil (Isis Pharma)	Nautamine (Synthélabo)	Restin (Mohan; as salicylate)
	Emesan (Lindopharm)	Onctose hydrocortisone (Monot; as methyl sulfate)-comb.	Reston (Kowa Yakuhin)
	Halbmond-Tabletten (Whitehall-Much)	GB:	Salibena (Fuso; as salicylate)
	Hevert-Dorm (Hevert)	Medinex (Whitehall)	Vena (Tanabe)
	Lupovalin (Pharma Selz)	Nytol (Stafford-Miller)	Venerlon (Sanwa; as tannate)
	Moradorm (Bouhon)-comb.	numerous combination preparations	Zeresmin (Juzen-Yamanouchi; as salicylate)
	nervo OPT (Optimed)	I:	USA: Actifed (Warner-Lambert; as hydrochloride)
	Nytol (Block Drug Company)	Allergan (Bouty)	Benadryl (Parke Davis; as hydrochloride)
	Palacril (Warner-Lambert)-comb.	Asmarectal (Serpero)-comb.	Dytuss (Lunseo; as hydrochloride)
	Palmicol (RIAM)	Benadryl (Parke Davis)-comb.	Maximum (Pfizer Consumer; as hydrochloride)
	Pheramin (Kanoldt)	Benylin (Parke Davis)-comb.	Tylenol (McNeil; as hydrochloride)
	Praesidin (Medopharm)-comb.	Difeni (Formulario Naz.)	Unisom (Pfizer Consumer; as hydrochloride)
	Reisegold (Whitehall-Much)-comb.	Fluvaleas (Valeas)-comb.	generics
	Reisegold tabs (Whitehall-Much)	combination preparations	
	S.8 Tabletten (Chefaro)	J:	
	Sediat (Pfleger)	Benadin Salicylate (Kongo; as salicylate)	
		Benadol (Taisho)	

Diphenoxylate

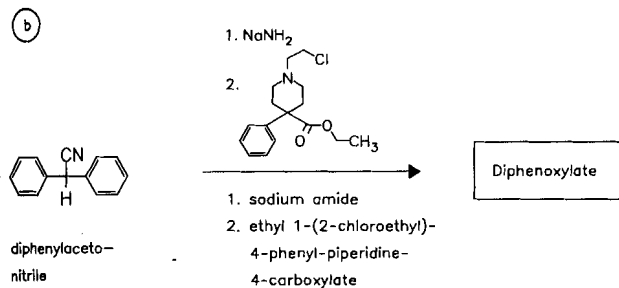
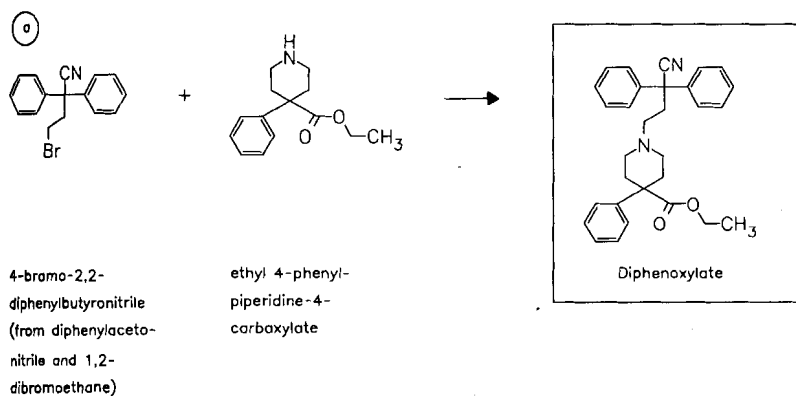
ATC: A07DA01

Use: antidiarrheal, antiperistaltic

RN: 915-30-0 MF: $C_{30}H_{32}N_2O_2$ MW: 452.60 EINECS: 213-020-1LD₅₀: 337 mg/kg (M, p.o.);

221 mg/kg (R, p.o.)

CN: 1-(3-cyano-3,3-diphenylpropyl)-4-phenylpiperidine-4-carboxylic acid ethyl ester

hydrochlorideRN: 3810-80-8 MF: $C_{30}H_{32}N_2O_2 \cdot HCl$ MW: 489.06 EINECS: 223-287-6LD₅₀: 221 mg/kg (R, p.o.)**Reference(s):**

US 2 898 340 (Janssen; 4.8.1959; NL-prior. 5.7.1957).

US 4 086 234 (Searle; 25.4.1978; appl. 7.11.1975).

Formulation(s): tabl. 2.5 mg (comb. with 0.025 mg atropine sulfate)**Trade Name(s):**D: Reasec (Janssen-Cilag)-
comb. with atropine sulfateGB: Lomotil (Searle)-comb.
Tropergen (Norgine)-comb.USA: Lomotil (Searle; as
hydrochloride)F: Diarsed (Sanofi Winthrop;
as hydrochloride)

I: Reasec (Cilag)-comb.

Lonox (Geneva; as
hydrochloride)

Diphenylpyraline

ATC: R06AA07

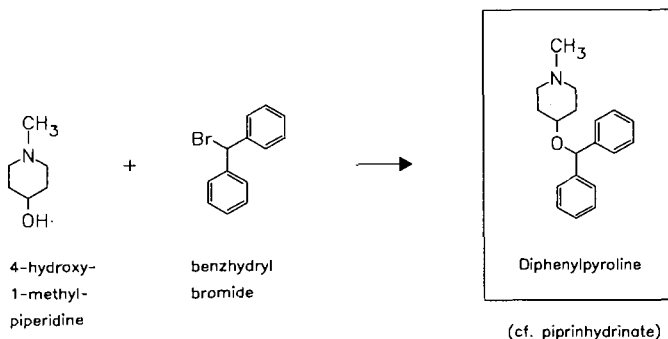
Use: antiallergic, antihistaminic

RN: 147-20-6 MF: C₁₉H₂₃NO MW: 281.40 EINECS: 205-686-7LD₅₀: 42 mg/kg (M, i.v.); 250 mg/kg (M, p.o.)

CN: 4-(diphenylmethoxy)-1-methylpiperidine

hydrochlorideRN: 132-18-3 MF: C₁₉H₂₃NO · HCl MW: 317.86 EINECS: 205-049-3LD₅₀: 52 mg/kg (M, i.v.); 210 mg/kg (M, p.o.);

28.8 mg/kg (R, i.v.); 698 mg/kg (R, p.o.)

**Reference(s):**

US 2 479 843 (Nopco Chem. Comp.; 1949; prior. 1948).

DE 934 890 (Promonta; appl. 1951).

Formulation(s): gel 15 mg/g**Trade Name(s):**

D:	Arbid (Bayer Vital)-comb. Perdiphen (Schwabe; Spitzner)-comb. Proctospre (Hennig) Tempil N (Temmler)-comb. Topoderm (gepepharm)- comb.	F:	Belfène (Roger Bellon); wfm	I:	Ipercron (Maggioni)- comb.; wfm
		GB:	Escornade Spansule (Smith Kline & French)-comb.; wfm	J:	Plokon (Nippon Shinyaku)
			Histryl (Smith Kline & French); wfm	USA:	Diafen (Riker); wfm Hispril (Smith Kline & French); wfm
			Lergoban (Riker); wfm		

Dipivefrine

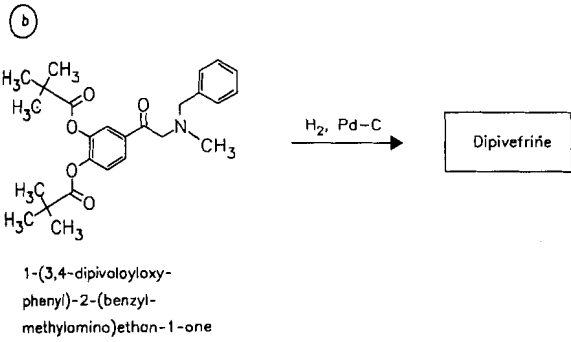
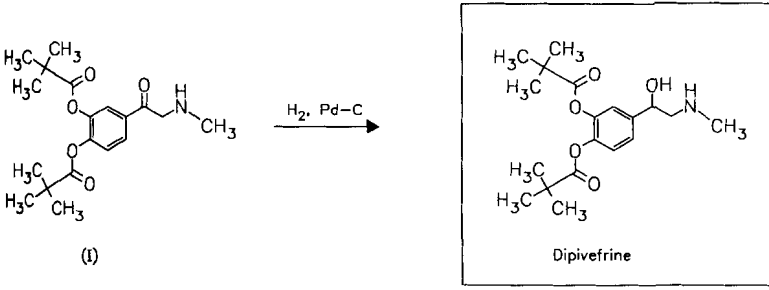
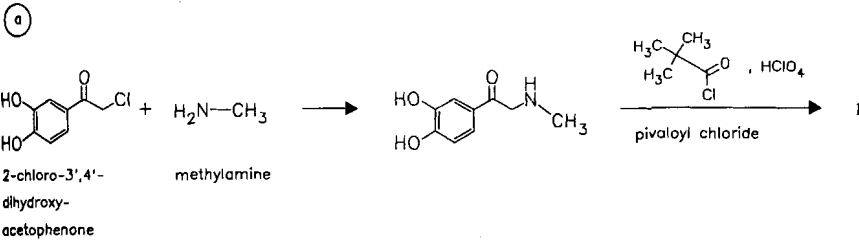
ATC: S01EA02

Use: antiglaucoma

RN: 52365-63-6 MF: C₁₉H₂₉NO₃ MW: 351.44

CN: (±)-2,2-dimethylpropanoic acid 4-[1-hydroxy-2-(methylamino)ethyl]-1,2-phenylene ester

hydrochlorideRN: 64019-93-8 MF: C₁₉H₂₉NO₃ · HCl MW: 387.90



Reference(s):

- a DOS 2 343 657 (Interx Res. Corp.; appl. 30.8.1973; USA-prior. 31.8.1972).
US 3 809 714 (Interx; 7.5.1974; prior. 31.8.1972) also racemate resolution.
Hussain, A.; Truelove, J.E.: J. Pharm. Sci. (JPMSAE) **65**, 1510 (1976).
- b DOS 2 152 058 (Klinge; appl. 19.10.1971).
US 3 839 584.

Formulation(s): eye drops 1 mg/ml (as hydrochloride)

Trade Name(s):

D:	D-Epifrin (Pharm-Allergan; 1978)	Thilodigon (Alcon; 1985)-comb.	J:	Pivalephrine (Okami-Santen)
	Glaucothil (Alcon; 1978)	F:	Propine (Allergan)	
	Thiloadren (Alcon; 1980)-comb.	GB:	Propine (Allergan; 1984)	
		I:	Propine (Allergan)	

Dipotassium clorazepate

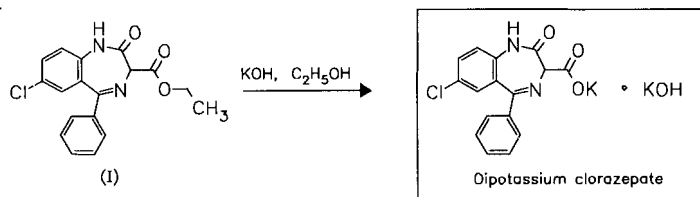
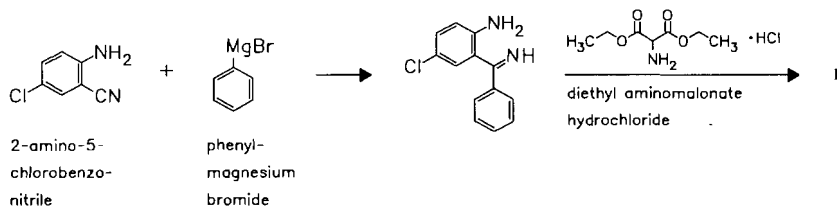
(Clorazepate dipotassium)

ATC: N05BA05

Use: tranquilizer

RN: 57109-90-7 MF: $C_{16}H_{10}ClKN_2O_3 \cdot KOH$ MW: 408.92 EINECS: 260-565-6LD₅₀: 173 mg/kg (M, i.v.); 700 mg/kg (M, p.o.);
279 mg/kg (R, i.v.); 880 mg/kg (R, p.o.)

CN: 7-chloro-2,3-dihydro-2-oxo-5-phenyl-1H-1,4-benzodiazepine-3-carboxylic acid monopotassium salt compd. with potassium hydroxide

free acidRN: 23887-31-2 MF: $C_{16}H_{11}ClN_2O_3$ MW: 314.73 EINECS: 245-926-8**Reference(s):**

US 3 516 988 (J. Schmitt; 23.6.1970; F-prior. 15.6.1964, 12.4.1965).

DE 1 518 764 (C. M. Industries S.A.; appl. 14.6.1965; F-prior. 15.6.1964, 12.4.1965).

DE 1 795 690 (C. M. Industries S.A.; appl. 14.6.1965).

precursors:

DOS 1 795 832 (C. M. Industries S.A.; appl. 14.6.1965; F-prior. 15.6.1964, 12.4.1965).

Formulation(s): cps. 5 mg, 10 mg, 20 mg; drops 5 mg; f. c. tabl. 20 mg, 50 mg; lyo. 50 mg, 100 mg**Trade Name(s):**

D:	Tranxilium 50 (Sanofi Winthrop)	Tranxéne (Sanofi Winthrop)	J:	Cephadol (Nippon Shinyaku)
F:	Noctran 10 (Menarini)-comb.	GB: Tranxene (Boehringer Ing.)	USA:	Gen-XENE (Alra) Tranxene (Abbott)
		I:	Transene (Sanofi Winthrop)	

Diprophylline

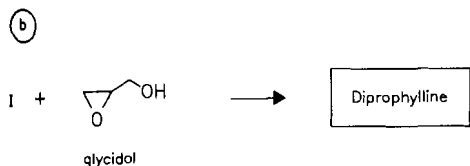
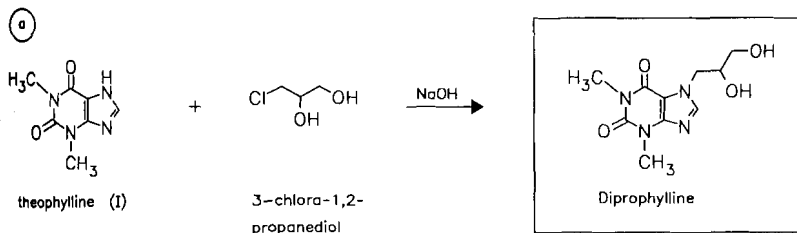
(Diprophyllin; Dyphylline)

ATC: R03DA01

Use: expectorant, bronchodilator

RN: 479-18-5 MF: $C_{10}H_{14}N_4O_4$ MW: 254.25 EINECS: 207-526-1LD₅₀: 1080 mg/kg (M, i.v.); 1954 mg/kg (M, p.o.);
860 mg/kg (R, i.v.)

CN: 7-(2,3-dihydroxypropyl)-3,7-dihydro-1,3-dimethyl-1H-purine-2,6-dione



Reference(s):

- a US 2 575 344 (State Univ. Iowa; 1951; prior. 1946).
- b Roth, H.J.: Arch. Pharm. Ber. Dtsch. Pharm. Ges. (APBDAJ) **292/64**, 234 (1959).

Formulation(s): drg. 150 mg; suppos. 200 mg, 400 mg; tabl. 200 mg, 400 mg

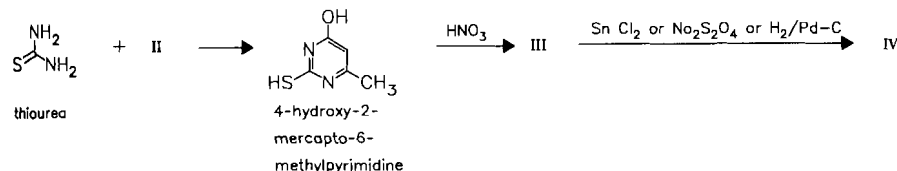
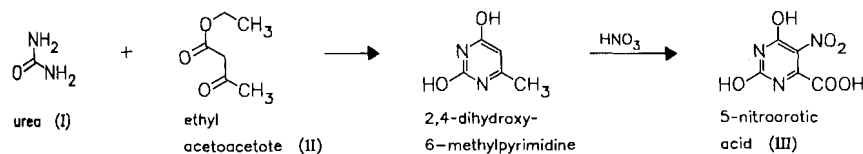
Trade Name(s):

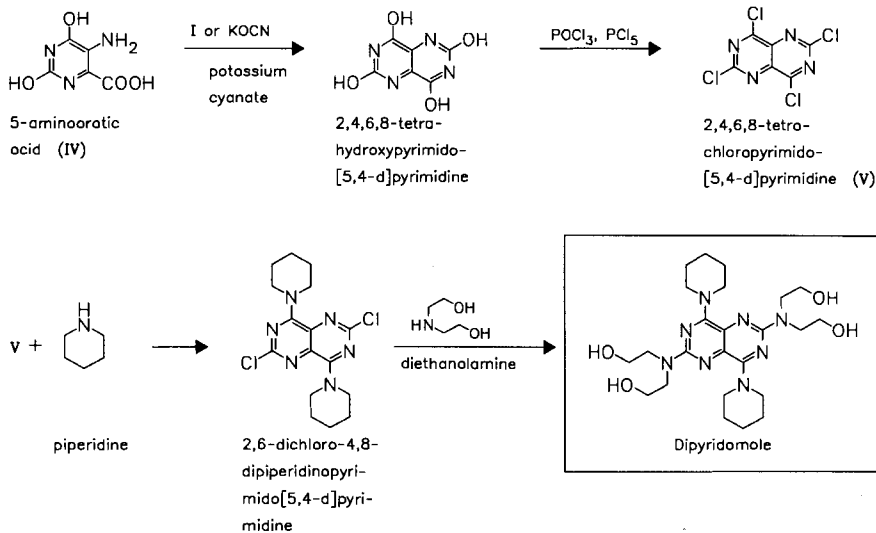
D: Neophyllin-Clys (Trommsdorff)-comb. Ozothin (SmithKline Beecham)	I: Cortinal Aerosol (Teofarma)-comb. Katasma (Bruschettini)	Neophyllin-M (Eisai) Prophylline (Shionogi) Rominophyllin (Grelan) Theourin (Kanto)
F: Ozothine Diprophylline (SCAT)-comb.	J: Astmamasit (Showa) Corphyllin (Nippon Shinyaku)	USA: Dilor (Savage) Dyline (Seatrice)
GB: Silbephylline (Berk); wfm	Dihydrophylline (Tokyo Hosei)	Dylix (Lunsco) Lufyllin (Wallace)

Dipyridamole

ATC: B01AC07
Use: coronary vasodilator

RN: 58-32-2 MF: C₂₄H₄₀N₈O₄ MW: 504.64 EINECS: 200-374-7
LD₅₀: 150 mg/kg (M, i.v.); 2150 mg/kg (M, p.o.);
195 mg/kg (R, i.v.); 8400 mg/kg (R, p.o.)
CN: 2,2',2'',2'''-[(4,8-di-1-piperidinylpyrimido[5,4-d]pyrimidine-2,6-diyl)dinitrilo]tetrakis[ethanol]



*Reference(s):*

DE 1 116 676 (Thomae; appl. 1955).
 GB 807 826 (Thomae; appl. 1956; D-prior. 1955).
 US 3 031 450 (Thomae; 24.4.1962; D-prior. 1959).

2,4,6,8-tetrahydroxypyrimido[5,4-*d*]pyrimidine:

DE 845 940 (Dr. G. F. Fischer; appl. 1950).
 Fischer, F.G.; Roch, J.: Justus Liebig's Ann. Chem. (JLACBF) **572**, 216 (1951).

catalytic hydrogenation of 5-nitroorotic acid with Pd-C:

DOS 2 600 542 (Lonza; appl. 8.1.1976; CH-prior. 13.1.1975).

2,4,6,8-tetrachloropyrimido[5,4-*d*]pyrimidine:

Fischer, F.G.; Roch, J.; Neumann, W.P.: Justus Liebig's Ann. Chem. (JLACBF) **631**, 147 (1960).

alternative syntheses:

GB 799 177 (Thomae; appl. 1955; D-prior. 1954).
 DE 1 093 801 (Thomae; appl. 1954).
 DE 1 151 806 (Thomae; appl. 30.4.1959).
 DAS 1 962 261 (Yamanouchi; appl. 12.12.1969; J-prior. 25.1.1969).

combination with acetylsalicylic acid (thrombocyte aggregation inhibitor):

FR-appl. 2 368 280 (Théramex; appl. 20.10.1976).
 FR-appl. 2 368 272 (Théramex; appl. 20.10.1976).

Formulation(s): amp. 10 mg/2 ml; cps. 75 mg; drg. 25 mg, 75 mg; f. c. tabl. 75 mg

Trade Name(s):

D:	Asasantin (Boehringer Ing.)	Protangix (Expanpharm)	Persumbrax (Boehringer Ing.)-comb.
	Curantyl (Berlin-Chemie)	GB: Persantin retard (Boehringer Ing.)	J: Anginal (Yamanouchi)
	Persantin (Boehringer Ing.)	I: Corosan (Farmacologico Milanese)	Permitin (Zensei)
F:	Cleridium 150 (Euro Generics)	Coroxin (Malesci)	Persantine (Boehringer-Takeda)
	Perkod (Biogalénique)	Novodil (OFF)	USA: Persantine (Boehringer Ing.)
	Persantine (Boehringer Ing.)	Persantin (Boehringer Ing.)	

Disopyramide

ATC: C01BA03
Use: antiarrhythmic

RN: 3737-09-5 MF: $C_{21}H_{29}N_3O$ MW: 339.48 EINECS: 223-110-2

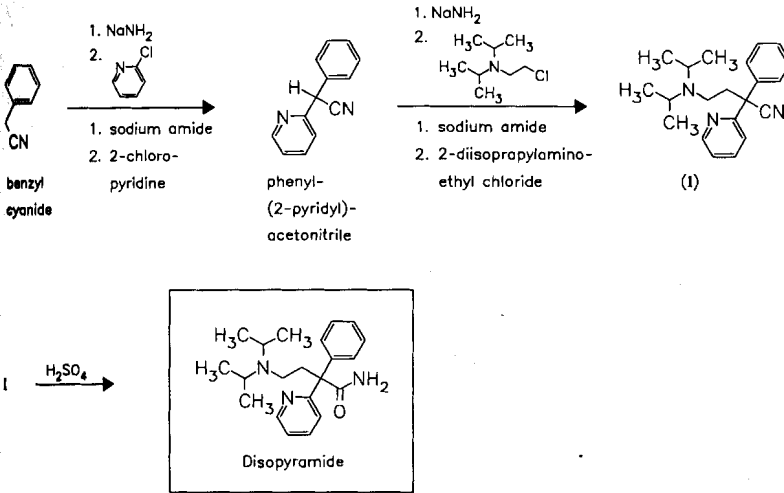
LD₅₀: 30 mg/kg (M, i.v.); 352 mg/kg (M, p.o.);
39.1 mg/kg (R, i.v.); 333 mg/kg (R, p.o.)

CN: α -[2-[bis(1-methylethyl)amino]ethyl]- α -phenyl-2-pyridineacetamide

phosphate (1:1)

RN: 22059-60-5 MF: $C_{21}H_{29}N_3O \cdot H_3PO_4$ MW: 437.48 EINECS: 244-756-1

LD₅₀: 81 mg/kg (M, i.v.); 820 mg/kg (M, p.o.);
41 mg/kg (R, i.v.); 880 mg/kg (R, p.o.)

**Reference(s):**

US 3 225 054 (Searle; 21.12.1965; appl. 3.7.1962; prior. 17.5.1961).
DE 1 470 216 (Searle; appl. 16.5.1962; USA-prior. 17.5.1961).

Formulation(s): cps. 128.8 mg, 193.2 mg, 257.6 mg; s. r. cps. 161.25 mg, 193.2 mg, 322.5 mg (as dihydrogen phosphate)

Trade Name(s):

D:	Diso-Duriles (Astra)	F:	Isorythm (Lipha Santé)	J:	Rythmodan (MR)
	Disonorm (Solvay		Rythmodan (Roussel)	USA:	Norpace (Searle; as
	Arzneimittel)	GB:	Dirythmin (Astra)		phosphate)
	Norpace (Heumann)		Norpace (Searle)		
	Rythmodul (Albert-		Rythmodan (Roussel)		
	Roussel, Hoechst)	I:	Ritmodan (Roussel)		

Distigmine bromide

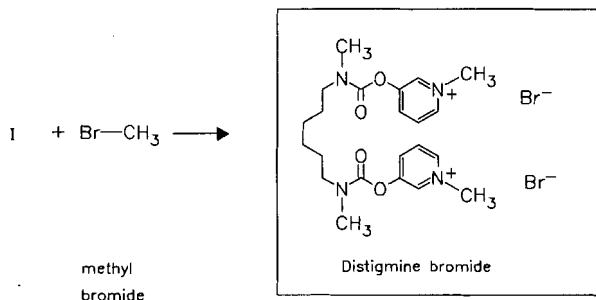
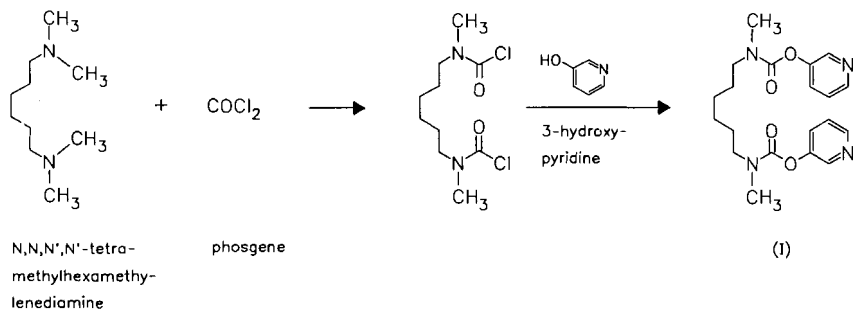
(Hexamarium bromide)

ATC: N07AA03
Use: parasympathomimetic

RN: 15876-67-2 MF: $C_{22}H_{32}Br_2N_4O_4$ MW: 576.33 EINECS: 240-013-0

LD₅₀: 300 μ g/kg (M, i.v.); 10.5 mg/kg (M, p.o.);
740 μ g/kg (R, i.v.); 10 mg/kg (R, p.o.)

CN: 3,3'-[1,6-hexanediy]bis[(methylimino)carbonyl]oxy]bis[1-methylpyridinium] dibromide

**Reference(s):**

US 2 789 981 (Österr. Stickstoffwerke; 1957; A-prior. 1954).

Formulation(s): amp. 0.5 mg; tabl. 5 mg

Trade Name(s):

D: Ubretid (Nycomed)

GB: Ubretid (Rhône-Poulenc Rorer)

J: Ubretid (Torii)

Disulfiram

ATC: P03AA04; V03AA01

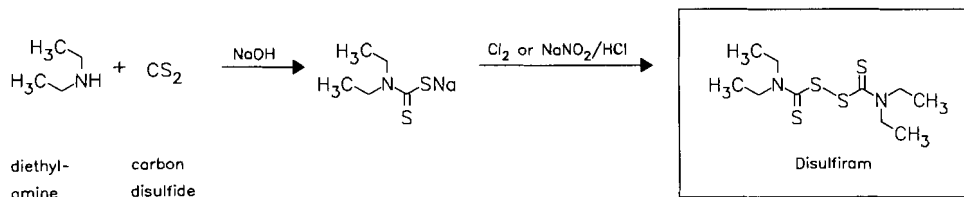
Use: alcohol deterrent

RN: 97-77-8 MF: $C_{10}H_{20}N_2S_4$ MW: 296.55 EINECS: 202-607-8

LD₅₀: 1980 mg/kg (M, p.o.);

500 mg/kg (R, p.o.)

CN: tetraethylthioperoxydicarbonic diamide ($[(H_2N)C(S)]_2S_2$)

**Reference(s):**

US 1 782 111 (Naugatuck; 1930; appl. 1925).

US 1 796 977 (Roessler & Hasslacher; 1931; appl. 1928).

US 2 375 083 (Monsanto; 1945; prior. 1943).

US 2 464 799 (Sharples Chemicals; 1949; prior. 1945).

Formulation(s): tabl. 100 mg, 200 mg, 500 mg

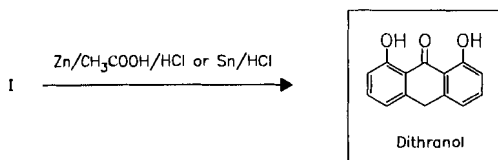
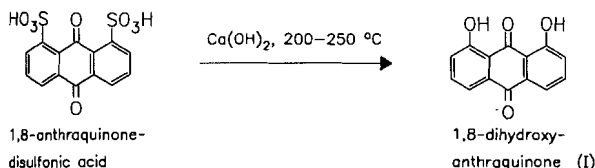
Trade Name(s):

D:	Antabus (Byk Gulden; Byk Tosse)	GB:	Antabuse (Dumex)	Nocbin (Tokyo Tanabe)
F:	Esperal (Sanofi Winthrop T.T.D.-B ₃ -B ₄ (AJC Pharma)-comb.	I:	Antabuse (Crinos)	USA: Antabuse (Wyeth-Ayerst)
		J:	Antabuse "D" (Tokyo Tanabe)	

Dithranol
(Anthralin)

ATC: D05AC01
Use: antipsoriatic

RN: 1143-38-0 MF: C₁₄H₁₀O₃ MW: 226.23 EINECS: 214-538-0
CN: 1,8-dihydroxy-9(10H)-anthracenone



Reference(s):

DRP 296 091 (Bayer; appl. 1915).
Zahn, K.; Koch, H.: Ber. Dtsch. Chem. Ges. (BDCGAS) **71**, 172 (1938).

Formulation(s): cream 0.5 mg/g, 1 mg/g, 2 mg/g; ointment 0.5 %, 1 %, 2 %, 3 %; pencils sticks 0.2 g/10 g, 0.5 g/10 g

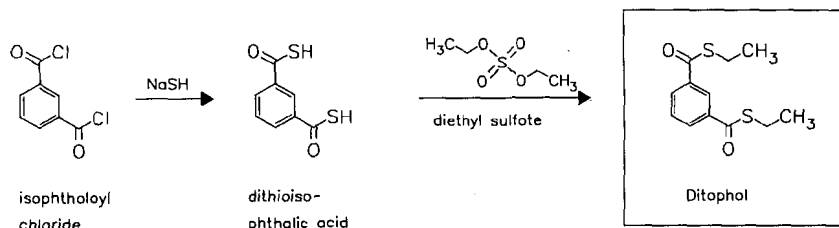
Trade Name(s):

D:	Psoradexan (Hermal)-comb.	Micanol (Evans)	Drithocrema (Dermik)
	Psoralon (Hermal)-comb.	Psorin (Thames)-comb.	Micanol (Bioglan)
F:	Anaxeryl (Bailly)-comb.	I:	Pentagamma (IBP)-comb.;
			wfm
GB:	Dithrocream (Dermal)	USA:	Dritho-Scalp (Dermik)

Ditophal

ATC: D08
Use: chemotherapeutic (leprosy)

RN: 584-69-0 MF: C₁₂H₁₄O₂S₂ MW: 254.37
CN: 1,3-benzenedicarbothioic acid S,S-diethyl ester

**Reference(s):**

GB 791 734 (ICI; appl. 1954).

Formulation(s): cream 96 %**Trade Name(s):**

GB: Etisul (ICI); wfm

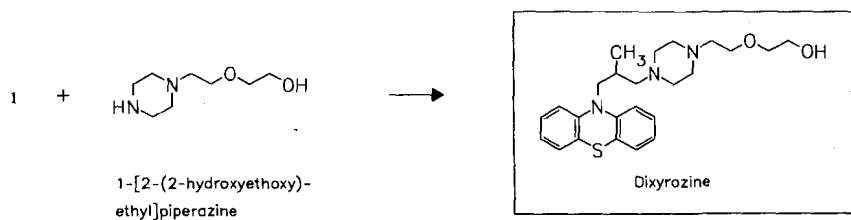
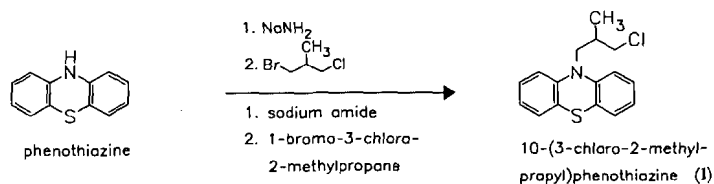
Dixyrazine

ATC: N05AB01

Use: neuroleptic, antihistaminic

RN: 2470-73-7 MF: C₂₄H₃₃N₃O₂S MW: 427.61 EINECS: 219-591-3LD₅₀: 37.5 mg/kg (R, i.v.); 400 mg/kg (R, p.o.)

CN: 2-[2-[4-[2-methyl-3-(10H-phenothiazin-10-yl)-propyl]-1-piperazinyl]ethoxy]ethanol

**Reference(s):**

GB 861 420 (UCB; appl. 17.4.1959; B-prior. 19.4.1958).

Formulation(s): amp. 10 mg; drops 22 mg; tabl. 10 mg, 25 mg**Trade Name(s):**

D: Esuco (UCB); wfm

F: Esucos (Ucépha); wfm

I: Esucos (SIT)

Dobutamine

ATC: C01CA07

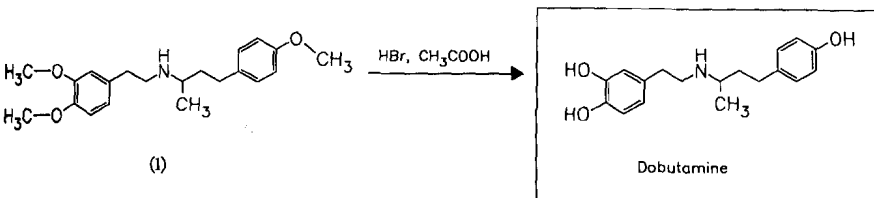
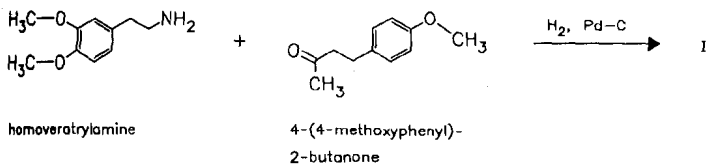
Use: cardiotonic

RN: 34368-04-2 MF: C₁₈H₂₃NO₃ MW: 301.39

CN: (±)-4-[2-[[3-(4-hydroxyphenyl)-1-methylpropyl]amino]ethyl]-1,2-benzenediol

hydrochloride

RN: 49745-95-1 MF: C₁₈H₂₃NO₃ · HCl MW: 337.85 EINECS: 256-464-1



Reference(s):

DOS 2 317 710 (Lilly; appl. 9.4.1973; USA-prior. 12.4.1972).
 US 3 987 200 (Lilly; 19.10.1976; prior. 12.4.1972, 15.1.1975).

Formulation(s): vial (lyo.) 280 mg (as hydrochloride)

Trade Name(s):

D: Dobutamin (ASTA Medica AWD; Fresenius; Hexal; Parke Davis)	F: Dobutrex (Eli Lilly)	I: Dobutrex (Lilly)
	GB: Dobutrex (Lilly; 1977)	J: Dobutrex (Shionogi; 1982)
		USA: Dobutrex (Lilly; 1978)

Docarpamine

(TA-870; TA-8704)

ATC: C02LX
 Use: cardiotonic, diuretic

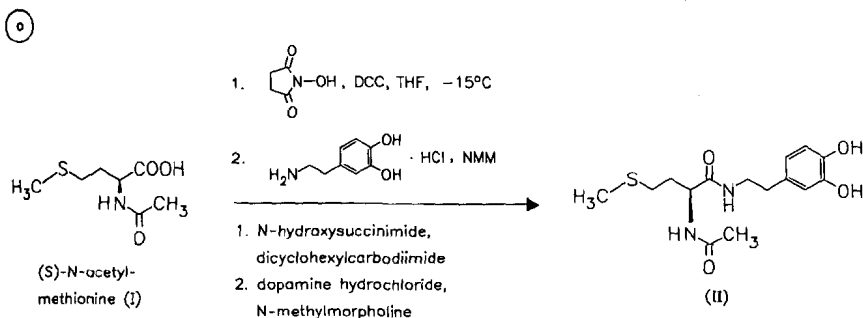
RN: 74639-40-0 MF: C₂₁H₃₀N₂O₈S MW: 470.54

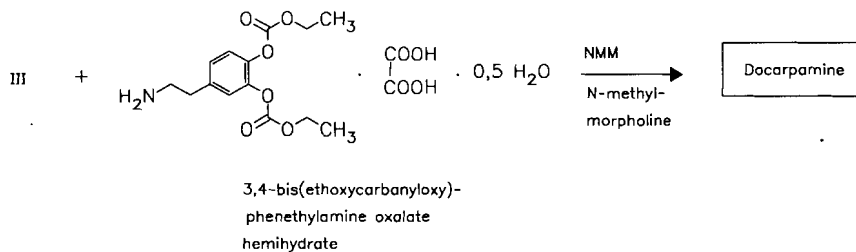
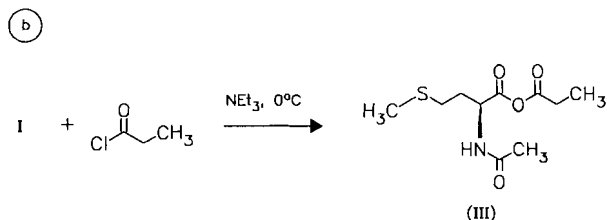
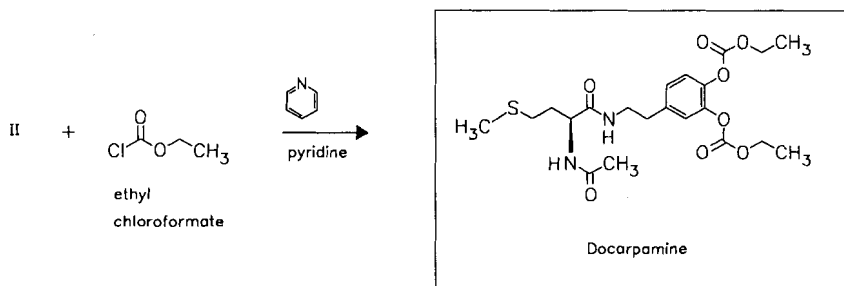
LD₅₀: 2800 mg/kg (M, i.v.)

CN: (S)-carbonic acid 4-[2-[[2-(acetyl-amino)-4-(methylthio)-1-oxobutyl]amino]ethyl]-1,2-phenylene diethyl ester

(RS)-form

RN: 143289-50-3 MF: C₂₁H₃₀N₂O₈S MW: 470.54



**Reference(s):**

EP 7 441 (Tanabe Seiyaku; appl. 6.2.1980; J-prior. 30.6.1978).
 JP 4 112 858 (Tanabe Seiyaku; appl. 14.4.1992; J-prior. 30.8.1990).
 JP 7 165 684 (Tanabe Seiyaku; appl. 27.6.1995; J-prior. 22.7.1994).

oral pharmaceuticals containing dopamine derivatives:

JP 06 183 964 (Tanabe Seiyaku; appl. 5.7.1994; J-prior. 24.12.1992).

Formulation(s): gran. 75 mg/g

Trade Name(s):

J: Tanadopa (Tanabe Seiyaku)

Docetaxel

(NSC-628503; RP-56976)

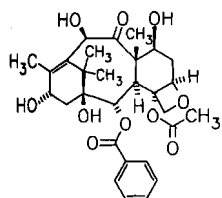
ATC: L01CD02

Use: antineoplastic, microtubule inhibitor

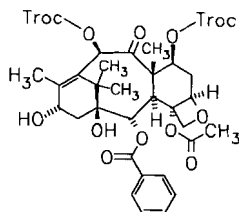
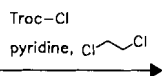
RN: 114977-28-5 MF: C₄₃H₅₃NO₁₄ MW: 807.89

CN: [2aR-[2α,4β,4aβ,6β,9α(αR*,βS*),11α,12α,12α,12bα]]-β-[(1,1-dimethylethoxy)carbonyl]amino]-α-hydroxybenzenepropanoic acid 12b-(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,-12b-dodecahydro-4,6,11-trihydroxy-4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl ester

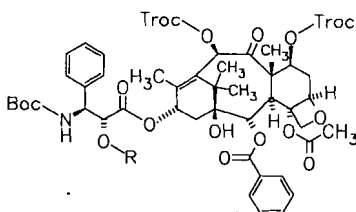
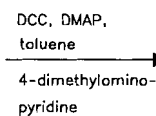
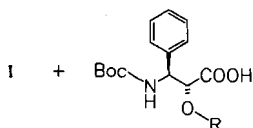
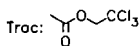
a



10-deacetybaccatin III
(extracted and purified
from leaves of
Taxus baccata L.)

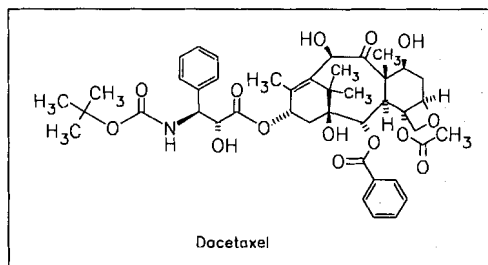
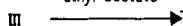
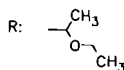
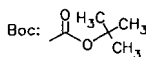


(I)



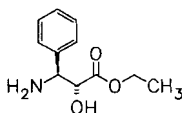
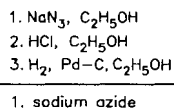
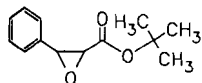
(III)

threa-2-(1-ethoxyethoxy)-
3-(tert-butoxy-
carbonylamino)-3-
phenylpropionic acid (II)



aa

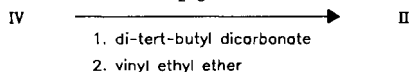
synthesis of intermediate II



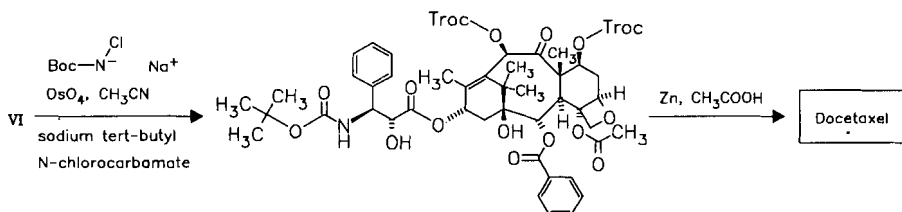
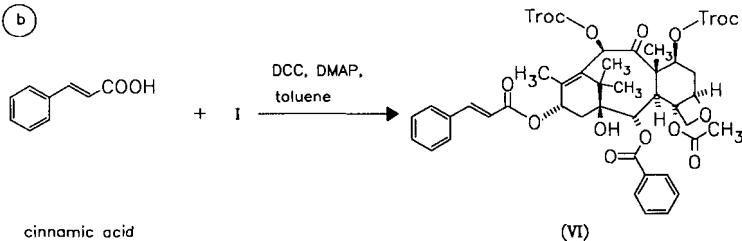
ethyl threo-3-amino-
2-hydroxy-3-phenyl-
propionate (IV)

tert-butyl
3-phenylglycidate

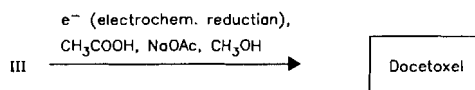
1. Boc-O-Boc (V), CH_2Cl_2
2. $\text{H}_2\text{C}=\text{O}-\text{CH}_3$, CH_2Cl_2 , H^+
3. LiOH , $\text{C}_2\text{H}_5\text{OH}$



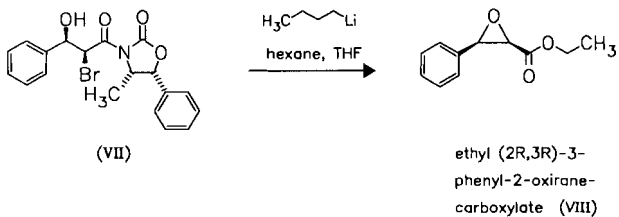
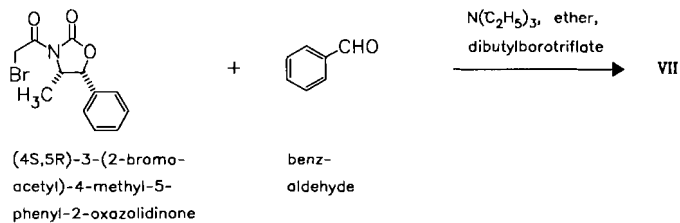
(b)

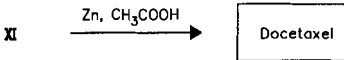
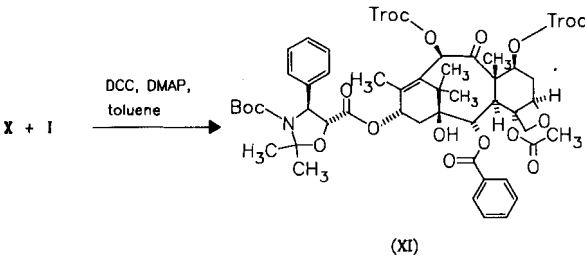
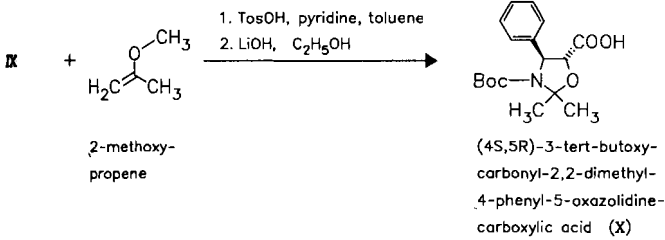
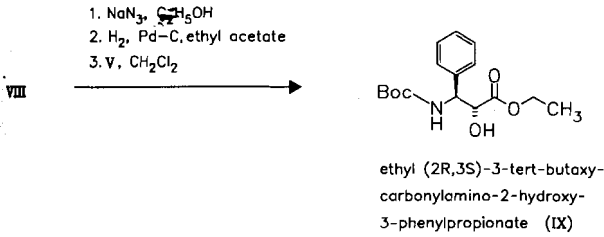


(c)

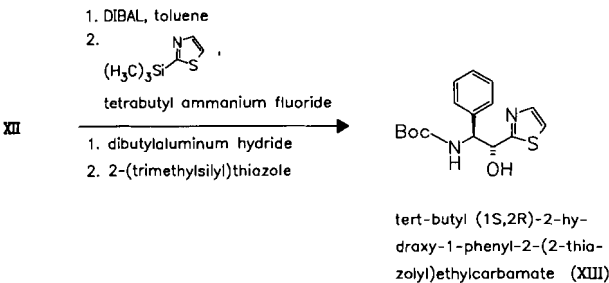
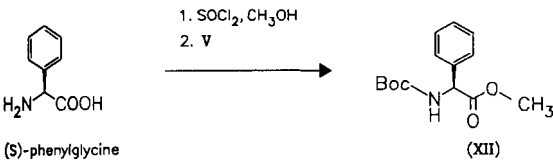


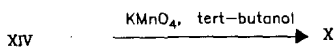
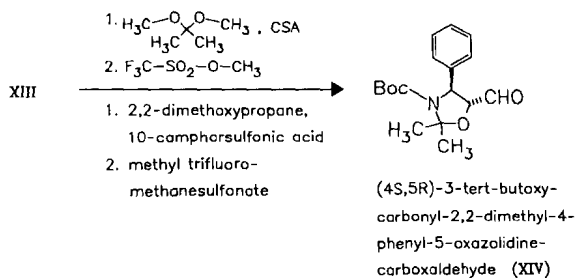
(d)



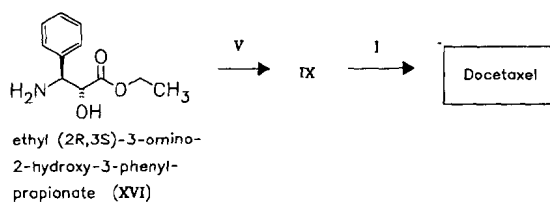
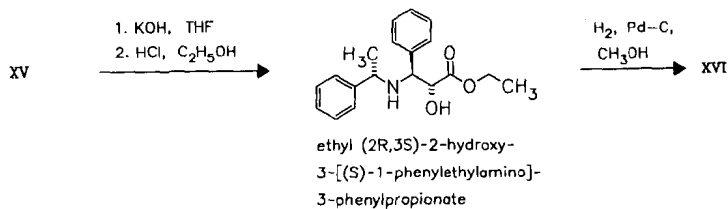
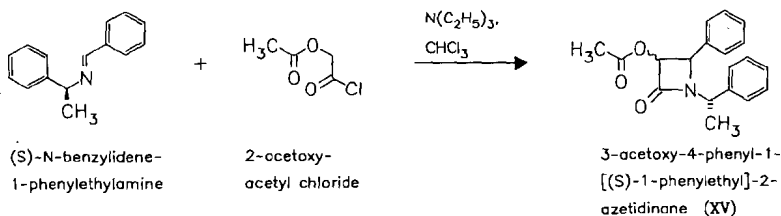


(dc) alternative synthesis of intermediate X:

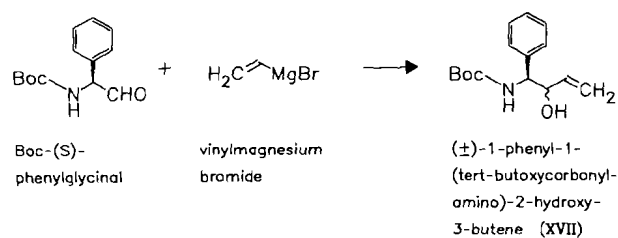


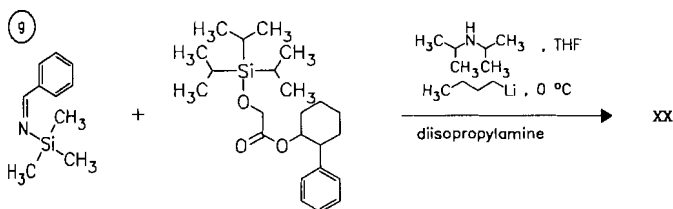
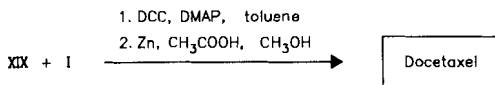
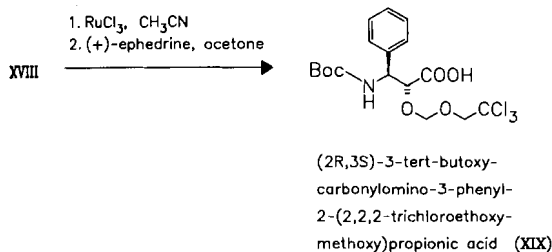
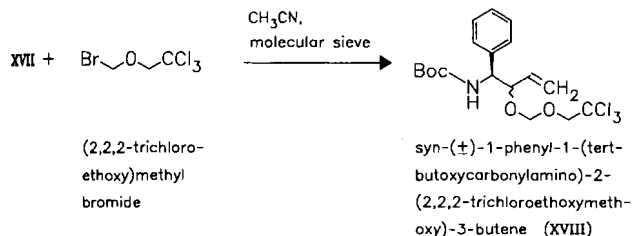


e

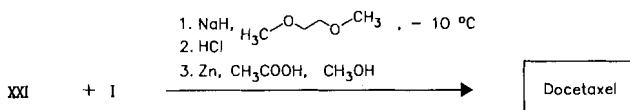
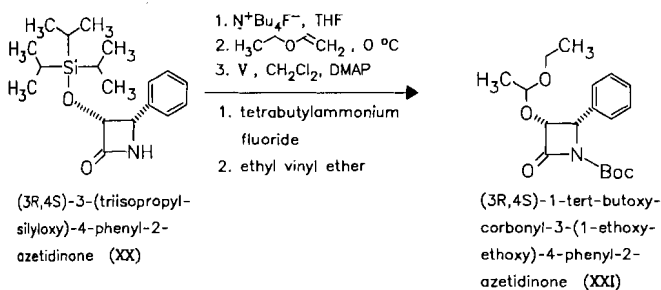


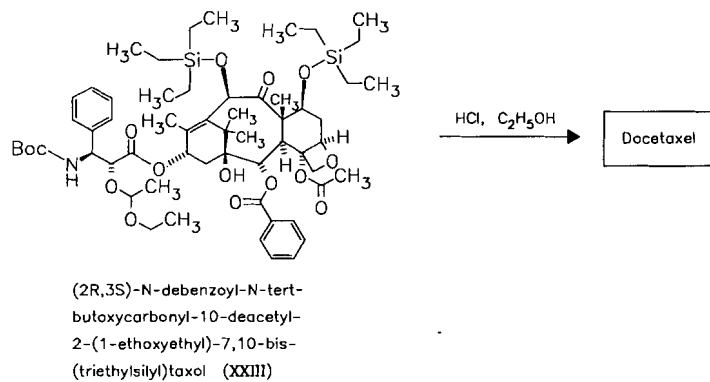
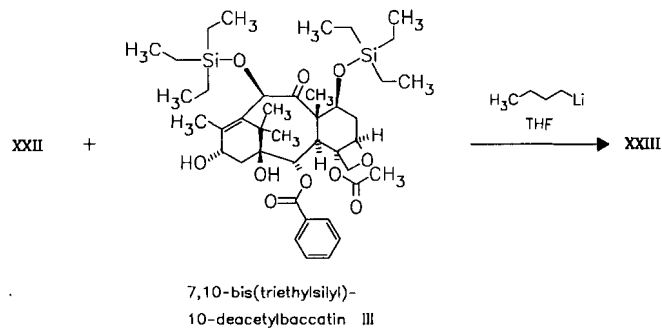
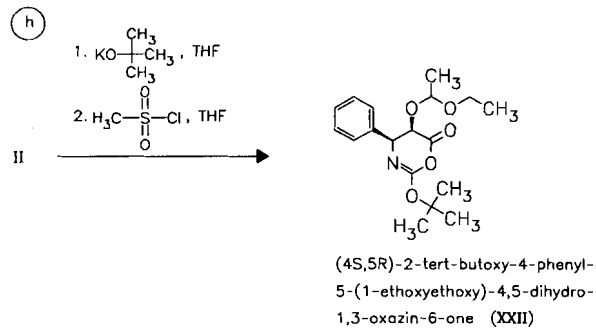
f





N-(trimethylsilyl)benzaldehyde imine





Reference(s):

- a EP 336 841 (Rhône-Poulenc Sante; appl. 5.4.1989; F-prior. 6.4.1988).
Gueritte-Vogelein, F. et al.: J. Med. Chem. (JMCMAR) **34**, 992-998 (1992).
EP 522 958 (Rhône-Poulenc Rorer; appl. 8.7.1992; F-prior. 10.7.1991).
- aa Denis, J.N. et al.: J. Org. Chem. (JOCEAH) **51**, 46-50 (1986).
- b EP 253 738 (Rhône-Poulenc Sante; appl. 16.7.1987; F-prior. 17.7.1986).
- c WO 9 318 210 (Rhône-Poulenc Rorer; appl. 11.3.1993; F-prior. 13.3.1992).
- d WO 9 209 589 (Rhône-Poulenc Rorer; appl. 22.11.1991; F-prior. 23.11.1990, 25.7.1991).
WO 9 407 879 (Rhône-Poulenc Rorer; appl. 4.10.1993; F-prior. 5.10.1992).
WO 9 410 169 (Rhône-Poulenc Rorer; appl. 28.10.1993; F-prior. 30.10.1992).
WO 9 407 876 (Rhône-Poulenc Rorer; appl. 4.10.1993; F-prior. 5.10.1992).
- da Dondoen, A. et al.: Synthesis (SYNTBF) **2**, 181 (1995).
- e WO 9 317 997 (Rhône-Poulenc Rorer; appl. 8.3.1993; F-prior. 10.3.1992).
WO 9 407 847 (Rhône-Poulenc Rorer; appl. 4.10.1993; F-prior. 5.10.1992).
- f EP 528 729 (Rhône-Poulenc Rorer; appl. 17.8.1992; F-prior. 19.8.1991).
- g WO 9 418 164 (Res. Found. SUNY; appl. 28.1.1994; USA-prior. 1.2.1993).
WO 9 306 094 (Univ. Florida State; appl. 22.9.1992; USA-prior. 3.4.1992, 23.9.1991).
- h US 5 254 703 (Univ. Florida State; appl. 6.4.1992; USA-prior. 6.4.1992).

purification of 10-deacetylbaccatin III by partition chromatography:

WO 9 421 622 (Rhône-Poulenc Rorer; appl. 18.3.1994; F-prior. 22.3.1993).

callus cell induction and the preparation of taxanes:

EP 568 821 (Squibb; appl. 6.4.1993; USA-prior. 7.4.1992).

purification of (2R,3R)-cis- β -phenylglycidic acid by crystallization with α -methylbenzylamine:

WO 9 113 066 (Rhône-Poulenc Rorer; appl. 20.2.1991; F-prior. 21.2.1990).

total synthesis of taxanes:

Nicolaou, K.C. et al.: Angew. Chem. (ANCEAD) **107**, 2247-2259 (1995).

composition comprising taxanes in solution with ethanol:

EP 522 936 (Rhône-Poulenc Rorer; appl. 3.7.1992; F-prior. 8.7.1991).

composition with phospholipids/surfactants:

WO 9 528 923 (Rhône-Poulenc Rorer; appl. 24.4.1995; F-prior. 25.4.1994).
US 5 415 869 (Res. Found. SUNY; appl. 12.11.1993; USA-prior. 12.11.1993).
WO 9 412 171 (Rhône-Poulenc Rorer; appl. 26.11.1993; F-prior. 2.12.1992).

formulations with cyclodextrin:

WO 9 519 994 (CNRS; appl. 24.1.1995; F-prior. 25.1.1994).

combinations with antineoplastic agents:

FR 2 697 752 (Rhône-Poulenc Rorer; appl. 10.11.1992; F-prior. 10.11.1992).

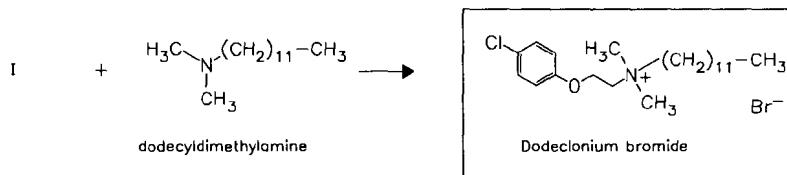
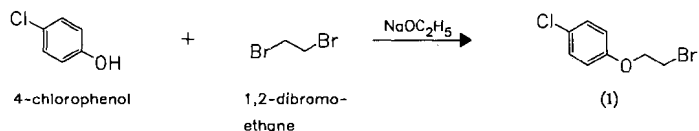
use to treat malaria:

FR 2 707 165 (Rhône-Poulenc Rorer; appl. 6.7.1993; F-prior. 6.7.1993).
WO 9 412 172 (Th. Jefferson Univ.; appl. 2.12.1993; USA-prior. 2.12.1992, 26.1.1993).

Formulation(s): vial 20 mg, 80 mg

Trade Name(s):

D:	Taxotere (Rhône-Poulenc Rorer)	GB:	Taxotere (Rhône-Poulenc Rorer)	USA:	Taxotere (Rhône-Poulenc Rorer)
F:	Taxotère (Bellon)	J:	Taxotere (Rhône-Poulenc Rorer)		

Dodeclonium bromideATC: D08AJ
Use: antisepticRN: 15687-13-5 MF: C₂₂H₃₉BrClNO MW: 448.92 EINECS: 239-779-9
CN: N-[2-(4-chlorophenoxy)ethyl]-N,N-dimethyl-1-dodecanaminium bromide*Reference(s):*Gautier, J.A. et al.: Bull. Soc. Chim. Fr. (BSCFAS) **1957**, 1014.Gautier, J.A. et al.: C. R. Hebd. Seances Acad. Sci. (COREAF) **240**, 2154 (1955).*germicidal aerosol combination:*

FR 2 616 065 (J. Y. Pabst; appl. 2-6-1987).

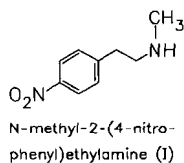
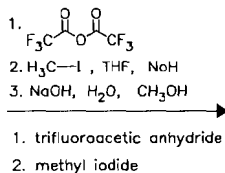
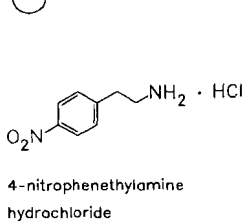
Formulation(s): cream 100 g/0.4 g; suppos. 1.3 mg*Trade Name(s):*F: Derméol (RPR Cooper)-
comb.Sedorrhoide (RPR
Cooper)-comb.**Dofetilide**

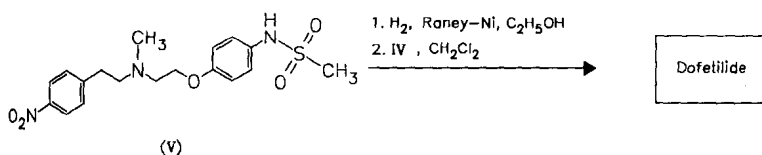
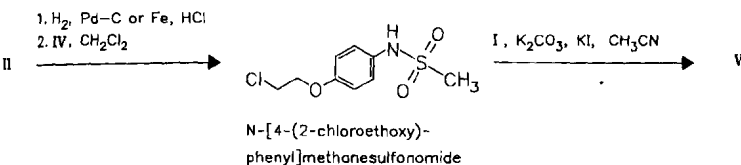
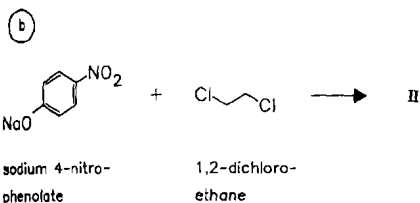
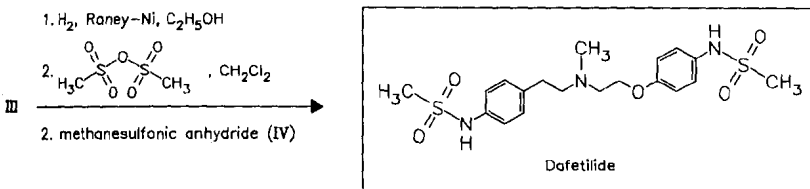
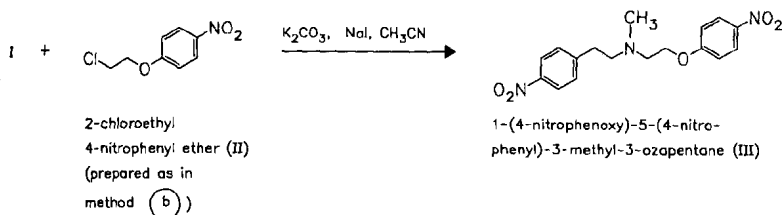
(UK-68798)

Use: class III antiarrhythmic agent

RN: 115256-11-6 MF: C₁₉H₂₇N₃O₅S₂ MW: 441.57

CN: N-[4-[2-[Methyl[2-[4-[(methylsulfonyl)amino]phenoxy]ethyl]amino]ethyl]phenyl]methanesulfonamide





Reference(s):

EP 245 997 (Pfizer; appl. 29.4.1987; GB-prior. 1.5.1986).

Cross, P.E.; Arrowsmith, J.E.; Geoffrey, N.; Gwilt, M.; Burges, R.A.; Higgins, A.J.: J. Med. Chem. (JMCMAR) **33**, 1151 (1990).

dofetilide polymorphs:

WO 9 921 829 (Pfizer; appl. 9.10.1998; GB-prior. 27.10.1997).

alternative preparation of N-methyl-(4-nitrophenethyl)amine:

Dale, W.J.; Buell, C.J.: J. Org. Chem. (JOCEAH) **21**, 45 (1956).

Theodore, L.J.; Nelson, W.L.; Dave, B.; Giacomini, J.: J. Med. Chem. (JMCMAR) **33** (2), 873 (1990).

alternative preparation of 2-chloroethyl 4-nitrophenyl ether:

Katrak: J. Indian. Chem. Soc. (JICSAH) **13**, 334 (1936).

McMahon, R.E. et al.: J. Med. Chem. (JMCMAR) **6**, 343 (1963).

US 3 937 726 (Hoechst A. G.; 10.2.1976; D-prior. 22.4.1966).

Trade Name(s):

D: Tikosyn (Pfizer; 2000)

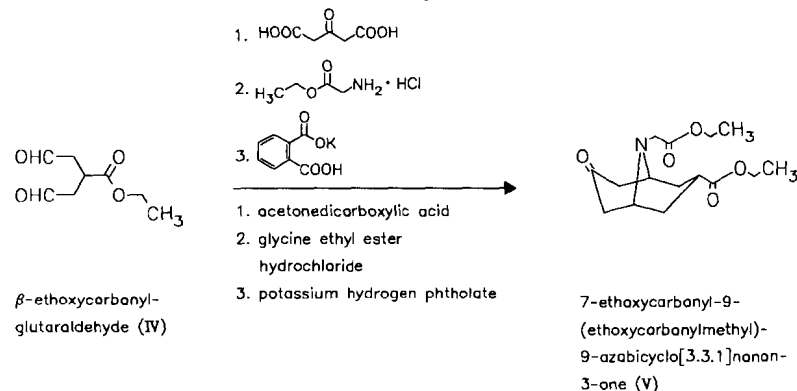
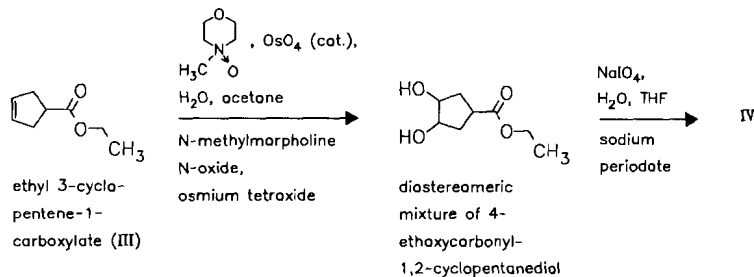
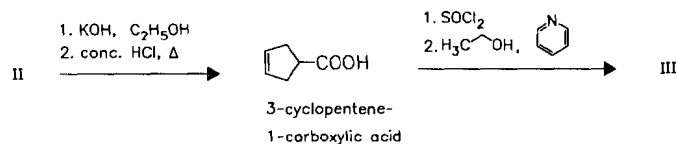
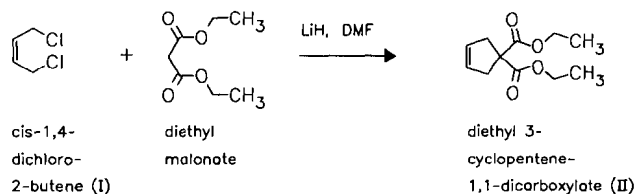
GB: Tikosyn (Pfizer; 2000)

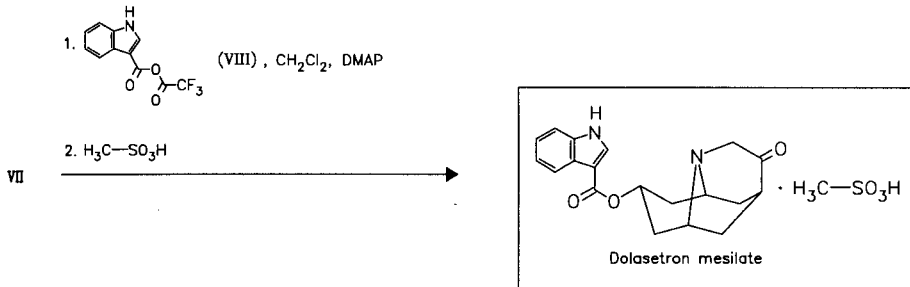
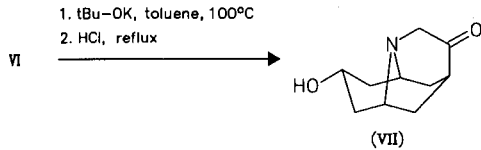
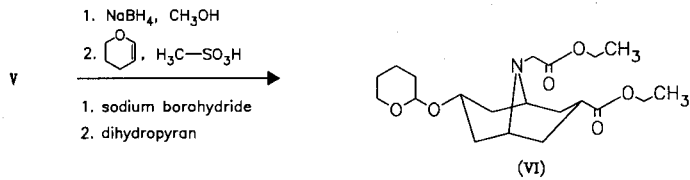
USA: Tikosyn (Pfizer; 1999)

Dolasetron mesilate

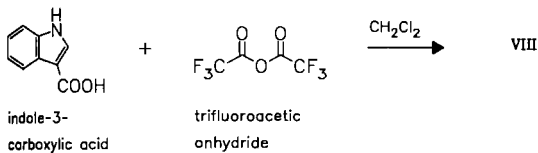
(MDL-73147EF)

ATC: A04AA04

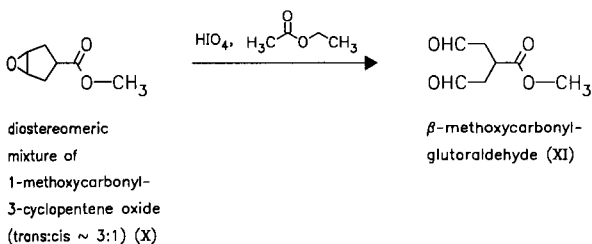
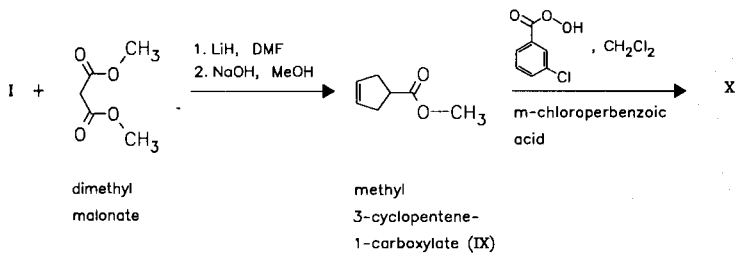
Use: antiemetic agent (5-HT₃-receptor antagonist)RN: 115956-13-3 MF: C₁₉H₂₀N₂O₃ · CH₄O₃S MW: 420.49CN: (2 α ,6 α ,8 α ,9 α)-1*H*-Indole-3-carboxylic acid octahydro-3-oxo-2,6-methano-2*H*-quinolizin-8-yl ester**base**RN: 115956-12-2 MF: C₁₉H₂₀N₂O₃ · CH₄O₃S MW: 420.49

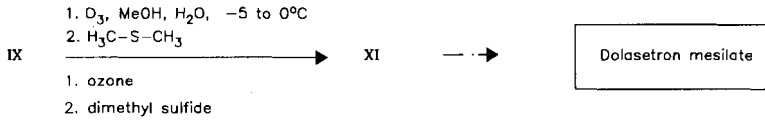


synthesis of intermediate VIII



alternative preparation via β -methoxycarbonylglutaraldehyde



**Reference(s):**

EP 339 669 (Merrell Dow Pharm. Inc.; appl. 28.4.1989; USA-prior. 29.4.1988).

EP 266 730 (Merrell Dow Pharm. Inc.; appl. 2.11.1987; USA-prior. 3.11.1986).

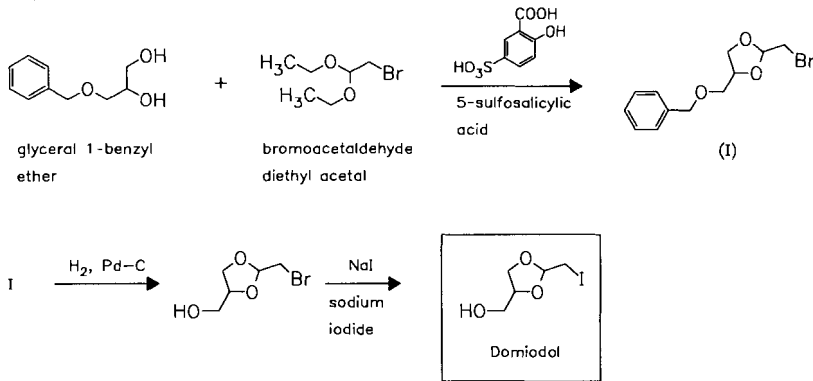
Formulation(s): amp. 12.5 mg/0.625 ml, 100 mg/5 ml; f. c. tabl. 50 mg, 200 mg**Trade Name(s):**

D: Anemet (Hoechst Marion Roussel; 1997) USA: Anzemet (Hoechst Marion Roussel; 1997)

Domiodol

ATC: R05CB08

Use: mucolytic agent

RN: 61869-07-6 MF: C₅H₉IO₃ MW: 244.03
LD₅₀: 79-89 mg/kg (M, i.v.); 140-145 mg/kg (M, p.o.)
CN: 2-(iodomethyl)-1,3-dioxolane-4-methanol**Reference(s):**

DOS 2 610 704 (Maggioni; appl. 13.3.1976; I-prior. 2.4.1975).

Formulation(s): sachet 60 mg; sugar coated tabl. 60 mg; syrup 0.6 %**Trade Name(s):**

I: Mucolitico (Maggioni-Winthrop)

Domiphen bromide

(Phenododecinium bromide)

ATC: A01AB06

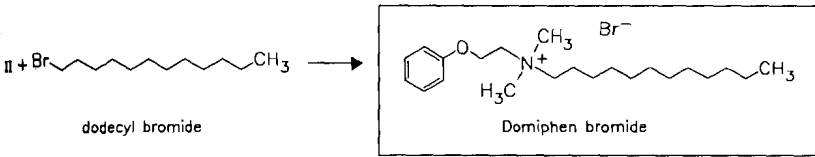
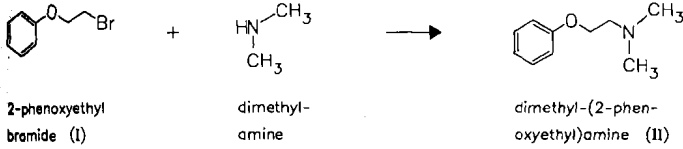
Use: disinfectant

RN: 538-71-6 MF: C₂₂H₄₀BrNO MW: 414.47 EINECS: 208-702-0LD₅₀: 31 mg/kg (M, i.v.);

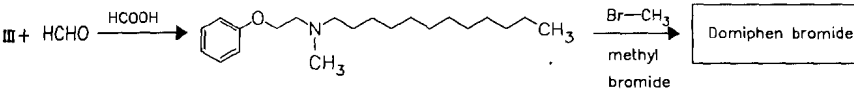
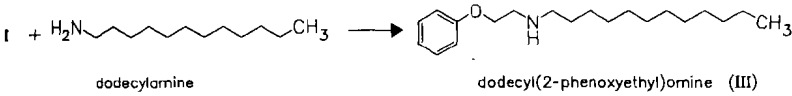
18 mg/kg (R, i.v.)

CN: N,N-dimethyl-N-(2-phenoxyethyl)-1-dodecanaminium bromide

a



b

**Reference(s):**

US 2 581 336 (Ciba; 1952; CH-prior. 1944).

Formulation(s): tabl. 0.5 mg**Trade Name(s):**

GB: Bradosol Plus (Novartis Consumer)-comb.

Iodosan Nasale (SmithKline Beecham)-comb.

USA: Bradosol Bromide (Ciba-Geigy); wfm

I: Bradoral (Zyma)

J: Brado (Novartis-Takeda)-comb.

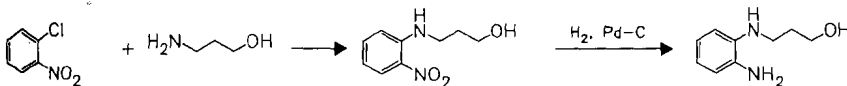
Domperidone

ATC: A03FA03

Use: anti-emetic

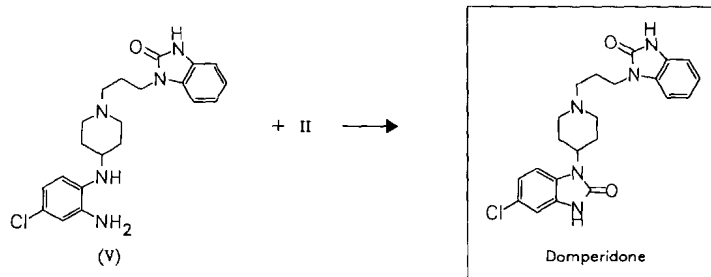
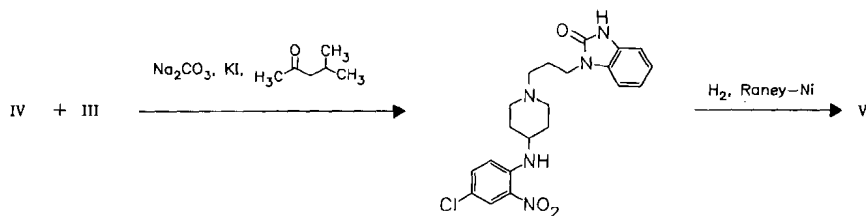
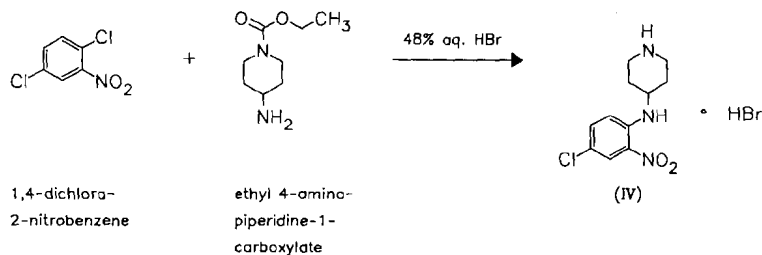
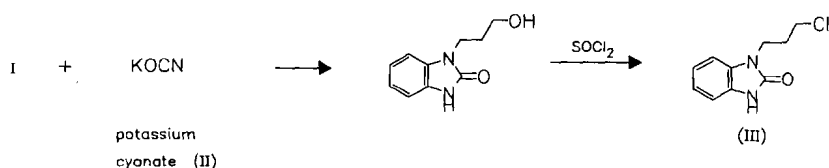
RN: 57808-66-9 MF: C₂₂H₂₄ClN₅O₂ MW: 425.92 EINECS: 260-968-7LD₅₀: 46500 µg/kg (M, i.v.); >8 g/kg (M, p.o.);
41700 µg/kg (R, i.v.); 5243 mg/kg (R, p.o.);
42700 µg/kg (dog, i.v.); >160 mg/kg (dog, p.o.)

CN: 5-chloro-1-[1-[3-(2,3-dihydro-2-oxo-1H-benzimidazol-1-yl)propyl]-4-piperidinyl]-1,3-dihydro-2H-benzimidazol-2-one



1-chloro-2-nitrobenzene + 3-amino-1-propanol

(I)

**Reference(s):**

US 4 066 772 (Janssen; 3.1.1978; prior. 21.7.1975, 17.5.1976).
DE 2 632 870 (Janssen; appl. 21.7.1976; USA-prior. 21.7.1975).

Formulation(s): eff. gran. 10 mg; f. c. tabl. 10 mg; suppos. 30 mg; susp. 10 mg/ml; tabl. 10 mg

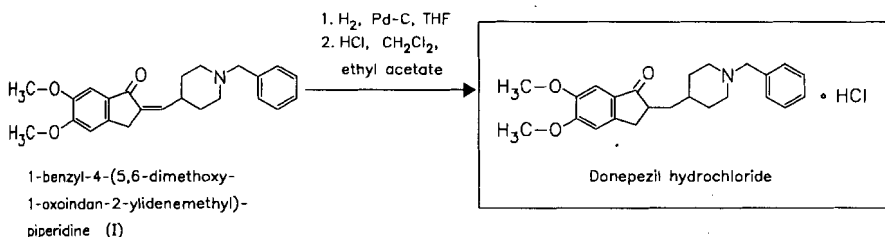
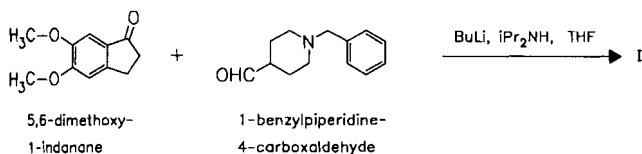
Trade Name(s):

D:	Motilium (Byk Gulden; 1979)		Motilium (Sanofi Winthrop; 1982)		Peridon (Fisons; Italchimici)
F:	Motilium (Janssen-Cilag; 1983)	I:	Fobidon (Biomedica Foscama)	J:	Nauzelin (Kyowa Hakko; 1982)
GB:	Domperamol (Servier)-comb.		Gastronorm (Janssen)		
			Mod (Irbi)		
			Motilium (Janssen; 1982)		

Donepezil hydrochloride

(E-2020)

ATC: N06DA02

Use: cognition disorders,
acetylcholinesterase inhibitorRN: 120011-70-3 MF: C₂₄H₂₉NO₃ · HCl MW: 415.96CN: 2,3-dihydro-5,6-dimethoxy-2-[[1-(phenylmethyl)-4-piperidinyl]methyl]-1*H*-inden-1-one hydrochloride**base**RN: 120014-06-4 MF: C₂₄H₂₉NO₃ MW: 379.50**Reference(s):**

EP 296 560 (Eisai Co.; appl. 22.6.1988; J-prior. 22.6.1987).

Imura, J. et al.: J. Labelled Compd. Radiopharm. (JLCRD4) **27**, 835-839 (1989).**Formulation(s):** tabl. 5 mg, 10 mg**Trade Name(s):**

D: Aricept (Eisai/Pfizer)

GB: Aricept (Eisai/Pfizer)

USA: Aricept (Eisai/Pfizer)

Dopamine

ATC: C01CA04

Use: sympathomimetic

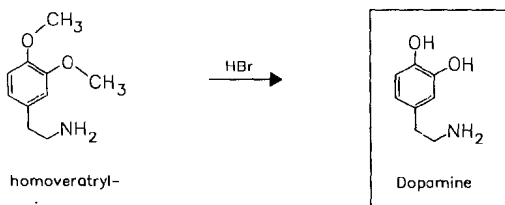
RN: 51-61-6 MF: C₈H₁₁NO₂ MW: 153.18 EINECS: 200-110-0LD₅₀: 59 mg/kg (M, i.v.)

CN: 4-(2-aminoethyl)-1,2-benzenediol

hydrochlorideRN: 62-31-7 MF: C₈H₁₁NO₂ · HCl MW: 189.64 EINECS: 200-527-8LD₅₀: 156 mg/kg (M, i.v.); 4361 mg/kg (M, p.o.);

4800 µg/kg (R, i.v.); 2859 mg/kg (R, p.o.);

79 mg/kg (dog, i.v.)



homoveratryl-
amine
(cf. papaverine
synthesis)

Dopamine

Reference(s):

Schöpf; Bayerle: Justus Liebigs Ann. Chem. (JLACBF) **513**, 196 (1934).

alternative with HCl:

DE 247 906 (K. W. Rosenmund et al.; 1909).

Hahn, G.; Stiehl, K.: Ber. Dtsch. Chem. Ges. (BDCGAS) **69**, 2640 (1936).

FR-appl. 2 332 748 (P. Fabre; appl. 28.11.1975).

combination with "nitro"-preparations (for treatment of cardiogenic shock):

DOS 2 649 162 (Nattermann; appl. 28.10.1976).

Formulation(s): vial 50 mg, 200 mg, 250 mg, 500 mg (for inf. sol.)

Trade Name(s):

D:	Dopamin AWD (ASTA Medica AWD)	Dopamin Fresenius (Fresenius-Klinik)	Dopamin ratiopharm (ratiopharm)	F:	Dopamine 200 Lucien (Lucien)	Dopamine Nativelle (Procter & Gamble)	Dopamin Solvay (Solvay Arzneimittel)	Dopamine Pierre Fabre (Pierre Fabre)
GB:	Intropin (Arnar-Stone); wfm	I:	Revivan (Astra-Simes)	J:	Inovan (Kyowa Hakko)	USA:	generics	

Dopexamine

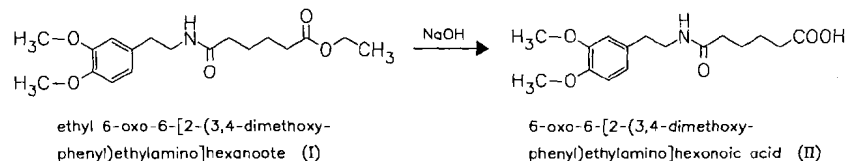
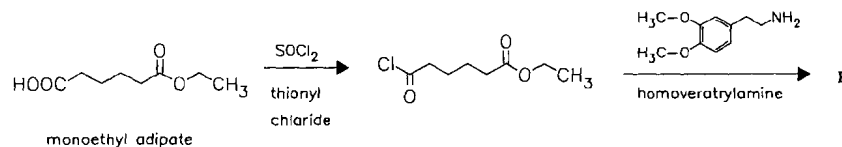
ATC: C01CA14
Use: cardiotonic

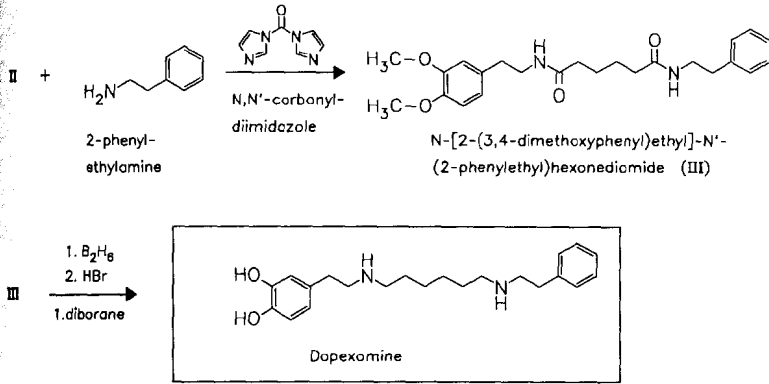
RN: 86197-47-9 MF: $C_{22}H_{32}N_2O_2$ MW: 356.51

CN: 4-[2-[[6-[(2-phenylethyl)amino]hexyl]amino]ethyl]-1,2-benzenediol

dihydrochloride

RN: 86484-91-5 MF: $C_{22}H_{32}N_2O_2 \cdot 2HCl$ MW: 429.43



**Reference(s):**

EP 72 061 (Fisons, appl. 22.7.1982; GB-prior. 5.8.1981, 9.10.1981, 17.11.1981).

synthesis of II:

Kametani, T. et al.: Yakugaku Kenkyu (YKKKA8) **37**, 23 (1966); C.A. (CHABA8) **65**, 15320 (1966).

Formulation(s): amp. 50 mg/5 ml for inf.

Trade Name(s):

D: Dopacard (Ipsen Pharma; as hydrochloride)	F: Dopacard (Ipsen/Biotech)	GB: Dopacard (Speywood; as hydrochloride)
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Dornase alfa

(rhDNase)

ATC: R05CB13

Use: cystic fibrosis therapeutic

RN: 143831-71-4 MF: unspecified MW: unspecified

CN: deoxyribonuclease (human clone 18-1 protein moiety reduced)

Dornase alfa is produced by genetically engineered Chinese Hamster ovary cells containing DNA encoding for the native human protein deoxyribonuclease I. It is purified by tangential flow filtration and column chromatography.

Reference(s):

WO 9 007 572 (Genentech; appl. 12.7.1990; USA-prior. 23.12.1988, 8.12.1989).

Shak, S. et al.: Proc. Natl. Acad. Sci. USA (PNASA6) **87**(23), 9188 (1990).

Formulation(s): amp. 2.5 mg/2.5 ml

Trade Name(s):

D: Pulmozyme (Roche)	GB: Pulmozyme (Roche)	USA: Pulmozyme (Genentech)
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Dorzolamide

(L-671152; MK-507)

ATC: S01EC03

Use: antiglaucoma, topical carbonic anhydrase inhibitor

RN: 120279-96-1 MF: C₁₀H₁₆N₂O₄S₃ MW: 324.45

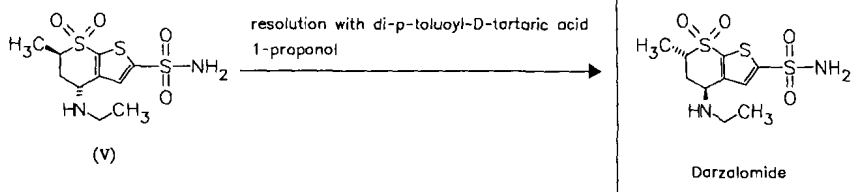
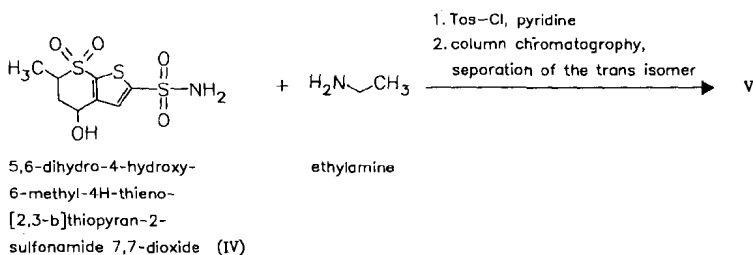
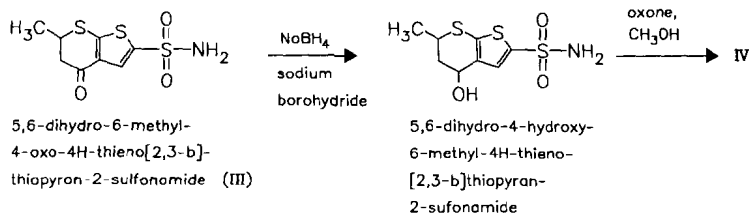
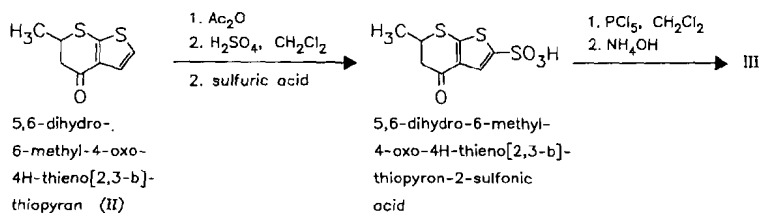
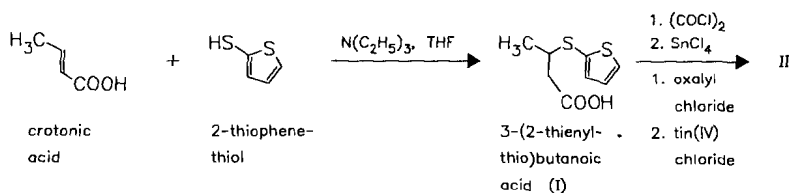
CN: (4S-trans)-4-(ethylamino)-5,6-dihydro-6-methyl-4H-thieno[2,3-b]thiopyran-2-sulfonamide 7,7-dioxide

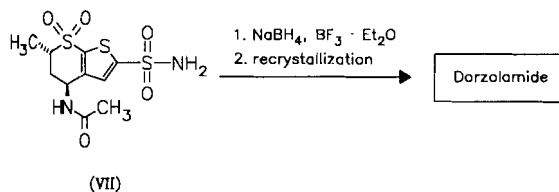
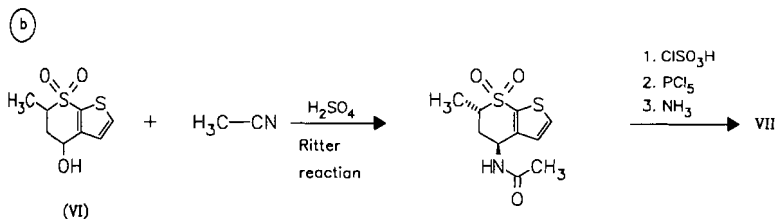
trans-base

RN: 120279-89-2 MF: C₁₀H₁₆N₂O₄S₃ MW: 324.45

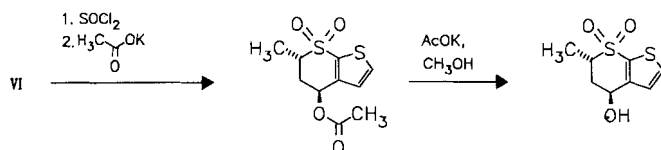
monohydrochlorideRN: 130693-82-2 MF: $C_{10}H_{16}N_2O_4S_3 \cdot HCl$ MW: 360.91**maleate (1:1)**RN: 147600-19-9 MF: $C_{10}H_{16}N_2O_4S_3 \cdot C_4H_4O_4$ MW: 440.52

a

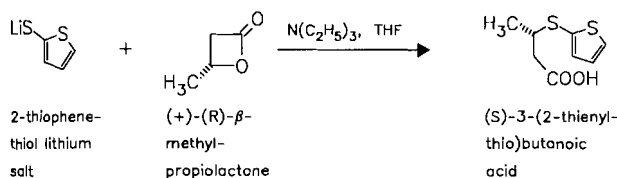




(c) preparation of the optically active thienothiopyran intermediate



(d) stereoselective synthesis of intermediate I



Reference(s):

- a** US 4 797 413 (Merck & Co.; appl. 10.1.1989; USA-prior. 12.12.1984, 19.9.1985, 14.5.1986).
b EP 617 037 (Merck & Co.; appl. 17.3.1994; USA-prior. 22.3.1993, 10.2.1994).
c JP 06 107 666 (Kanegafuchi Chem.; appl. 19.4.1994; J-prior. 28.9.1992).
d US 4 968 815 (Merck & Co.; appl. 6.11.1990; USA-prior. 16.4.1990).
 US 4 968 814 (Merck & Co.; appl. 6.11.1990; USA-prior. 18.4.1990).

combination with calcium antagonists:

WO 9 323 082 (Alcon Lab.; appl. 12.5.1993; USA-prior. 13.5.1992).

combination with β-adrenergic antagonists:

EP 509 752 (Merck & Co.; appl. 14.4.1992; USA-prior. 17.4.1991, 13.2.1992).
 EP 457 586 (Merck & Co.; appl. 16.5.1991; USA-prior. 17.5.1990).
 EP 375 319 (Merck & Co.; appl. 18.12.1989; USA-prior. 19.12.1988).

Formulation(s): eye drops 22.3 mg/ml (as hydrochloride)

Trade Name(s):

D: Trusopt (Chibret)

GB: Trusopt (Merck Sharp & Dohme; as hydrochloride)

USA: Trusopt (Merck; 1995 as hydrochloride)

Dosulepin

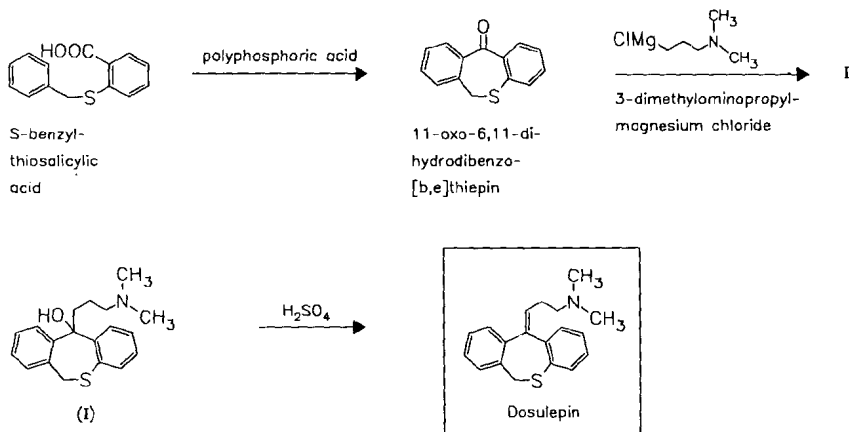
(Dothiepin)

ATC: N06AA16

Use: antidepressant, thymoleptic

RN: 113-53-1 MF: C₁₉H₂₁NS MW: 295.45 EINECS: 204-031-2LD₅₀: 31 mg/kg (M, i.v.)CN: 3-dibenzo[*b,e*]thiepin-11(6*H*)-ylidene-*N,N*-dimethyl-1-propanamine**hydrochloride**RN: 897-15-4 MF: C₁₉H₂₁NS · HCl MW: 331.91 EINECS: 212-978-8LD₅₀: 29.2 mg/kg (M, i.v.); 209 mg/kg (M, p.o.);

24 mg/kg (R, i.v.); 260 mg/kg (R, p.o.)

**Reference(s):**

BE 618 591 (Spofa; appl. 6.6.1962; CS-prior. 8.6.1961).

Formulation(s): cps. 25 mg, 50 mg, 75 mg.; susp. 25 mg**Trade Name(s):**

D: Idom (Kanoldt)

GB: Prothiaden (Knoll; as

F: Prothiaden (Knoll; as hydrochloride)

hydrochloride)

I: Protiaden (Roosts Italia)

Doxapram

ATC: R07AB01

Use: central respiratory stimulant

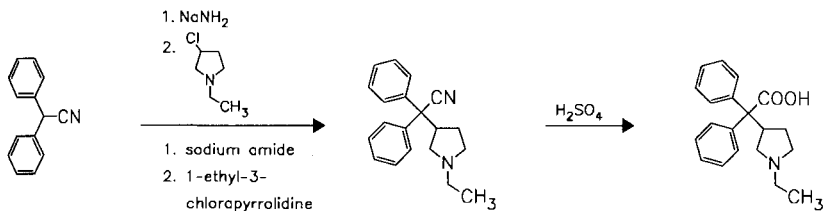
RN: 309-29-5 MF: C₂₄H₃₀N₂O₂ MW: 378.52 EINECS: 206-216-3LD₅₀: 268 mg/kg (M, i.p.)

CN: 1-ethyl-4-[2-(4-morpholinyl)ethyl]-3,3-diphenyl-2-pyrrolidinone

monohydrochloride monohydrateRN: 7081-53-0 MF: C₂₄H₃₀N₂O₂ · HCl · H₂O MW: 432.99LD₅₀: 85 mg/kg (M, i.v.); 270 mg/kg (M, p.o.);

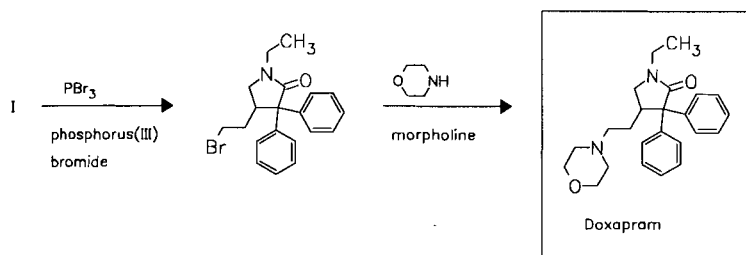
72 mg/kg (R, i.v.); 261 mg/kg (R, p.o.);

40 mg/kg (dog, i.v.); 150 mg/kg (dog, p.o.)



diphenyl-acetonitrile

(I)



Reference(s):

US 3 192 230 (A. H. Robins; 29.6.1965; prior. 9.2.1961).
 Lunsford, C.D. et al.: J. Med. Chem. (JMCMAR) 7, 302 (1964).

Formulation(s): amp. 20 mg/ml

Trade Name(s):

D: Dopram (Brenner); wfm	I: Doxapril (Carlo Erba); wfm	J: Dopram (Kissei)
F: Dopram (Martinet); wfm	Doxapril (Farmalabor);	USA: Dopram (Robins; as
GB: Dopram (Anpharm)	wfm	hydrochloride)

Doxazosin

ATC: C02CA04
 Use: α_1 -receptor antagonist, antihypertensive

RN: 74191-85-8 MF: $C_{23}H_{25}N_5O_5$ MW: 451.48
 LD₅₀: >1000 mg/kg (M, R, p.o.)
 CN: 1-(4-amino-6,7-dimethoxy-2-quinazoliny)-4-[(2,3-dihydro-1,4-benzodioxin-2-yl)carbonyl]piperazine

hydrochloride

RN: 70918-01-3 MF: $C_{23}H_{25}N_5O_5 \cdot HCl$ MW: 487.94

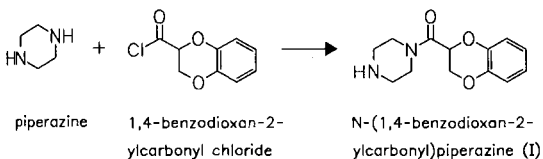
mesylate

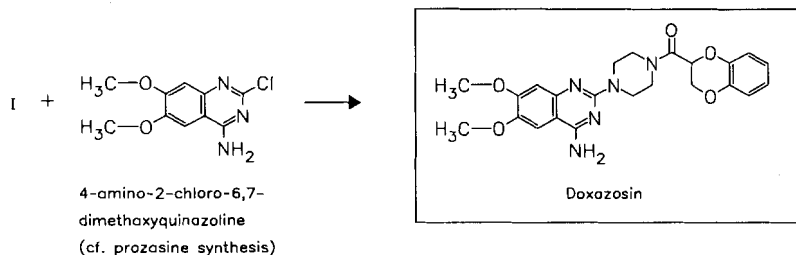
RN: 77883-43-3 MF: $C_{23}H_{25}N_5O_5 \cdot CH_3O_3S$ MW: 547.59

LD₅₀: 2935 mg/kg (M, p.o.);

>5 g/kg (R, p.o.);

>1 g/kg (dog, p.o.)



**Reference(s):**

DE 2 847 623 (Pfizer; appl. 2.11.1978; GB-prior. 5.11.1977).
 US 4 188 390 (Pfizer; 12.2.1980; GB-prior. 5.11.1977).
 EP 848 001 (Alfa Chem.; appl. 17.10.1997; I-prior. 13.12.1996).
 WO 9 935 143 (Knoll; appl. 18.12.1998; D-prior. 6.1.1998)

medical use for treatment of atherosclerosis:

US 4 758 569 (Pfizer; 19.7.1988; appl. 26.8.1987).

osmotic device:

US 4 837 111 (Alza; 6.6.1989; appl. 21.3.1988).

Formulation(s): tabl. 1 mg, 2 mg, 4 mg

Trade Name(s):

D:	Cardular (Pfizer; 1989 as mesylate) Diblocin (Astra; 1989 as mesylate)	I:	Cardura (Roerig; 1989 as mesylate) Dedralen (Lifepharm; 1989 as mesylate)	J:	Cardinalin (Pfizer)
GB:	Cardura (Invicta; 1989 as mesylate)	USA:	Cardura (Pfizer; 1990 as mesylate)		

Doxefazepam

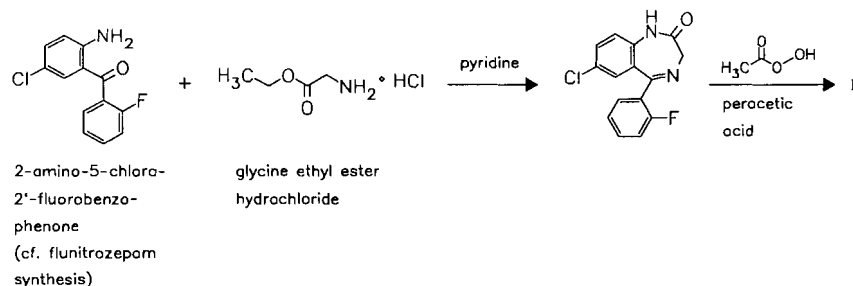
ATC: N05CD12

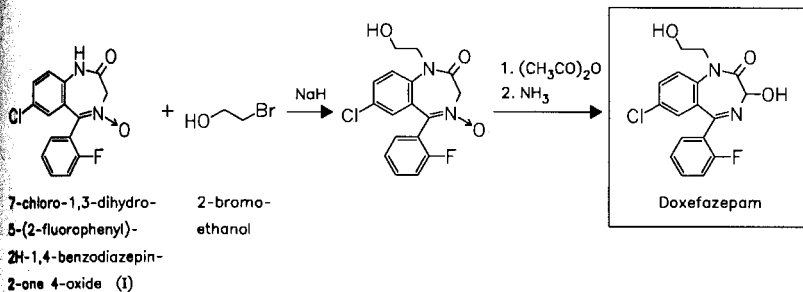
Use: hypnotic

RN: 40762-15-0 MF: C₁₇H₁₄ClFN₂O₃ MW: 348.76

LD₅₀: >74 mg/kg (M, i.p.); 1500 mg/kg (M, p.o.);
586 mg/kg (R, i.p.); 1500 mg/kg (M, p.o.)

CN: 7-chloro-5-(2-fluorophenyl)-1,3-dihydro-3-hydroxy-1-(2-hydroxyethyl)-2H-1,4-benzodiazepin-2-one



**Reference(s):**

Tamagnone, G.F. et al.: *Arzneim.-Forsch. (ARZNAD)* **25**, 720 (1975).

DOS 2 338 058 (Schiapparelli; appl. 26.7.1973; E-prior. 28.7.1972).

synthesis of 7-chloro-1,3-dihydro-5-(2-fluorophenyl)-2H-1,4-benzodiazepin-2-one 4-oxide:

SA 6 802 239 (Hoffmann-La Roche; USA-prior. 21.4.1967, 23.10.1967).

Trade Name(s):

I: Doxans (Schiapparelli Searle); wfm

Doxepin

ATC: N06AA12

Use: antidepressant, tranquilizer

RN: 1668-19-5 MF: $\text{C}_{19}\text{H}_{21}\text{NO}$ MW: 279.38

LD₅₀: 26 mg/kg (M, i.v.); 135 mg/kg (M, p.o.);

16 mg/kg (R, i.v.); 147 mg/kg (R, p.o.)

CN: 3-dibenz[*b,e*]oxepin-11(6*H*)-ylidene-*N,N*-dimethyl-1-propanamine

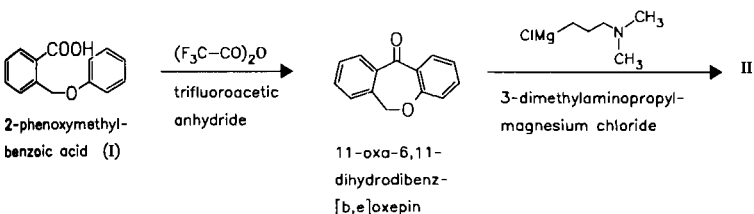
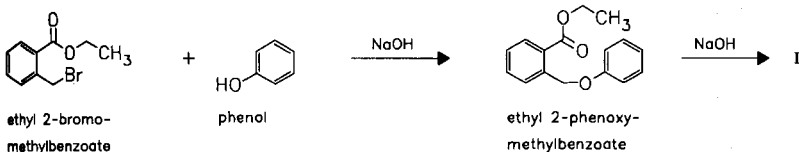
hydrochloride

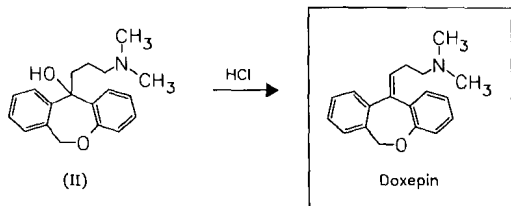
RN: 1229-29-4 MF: $\text{C}_{19}\text{H}_{21}\text{NO} \cdot \text{HCl}$ MW: 315.84 EINECS: 214-966-8

LD₅₀: 15 mg/kg (M, i.v.); 180 mg/kg (M, p.o.);

13 mg/kg (R, i.v.); 147 mg/kg (R, p.o.);

>27 mg/kg (dog, i.v.)



**Reference(s):**

US 3 420 851 (Pfizer; 7.1.1969; appl. 19.12.1962; prior. 13.3.1962).

DE 1 232 161 (Boehringer Mannh.; appl. 7.10.1961).

Formulation(s): amp. 25 mg/2 ml; coloured tabl. 50 mg, 100 mg; drg. 5 mg, 10 mg, 20 mg; drops 10 mg/ml; f. c. tabl. 25 mg, 50 mg, 75 mg, 100 mg

Trade Name(s):

D: Aponal (Boehringer Mannh./AWD)
Maren (Krewel Meuselbach)
Sinquan (Pfizer)

F: Quitaxon (Boehringer Mannh.; as hydrochloride)
Sinequan (Pfizer; as hydrochloride)
GB: Sinequan (Pfizer; as hydrochloride)

I: Sinequan (Pfizer); wfm
USA: Sinequan (Pfizer; as hydrochloride)
Zonalon (GenDerm)

Doxifluridine

(5'-dFUR)

ATC: L01BB

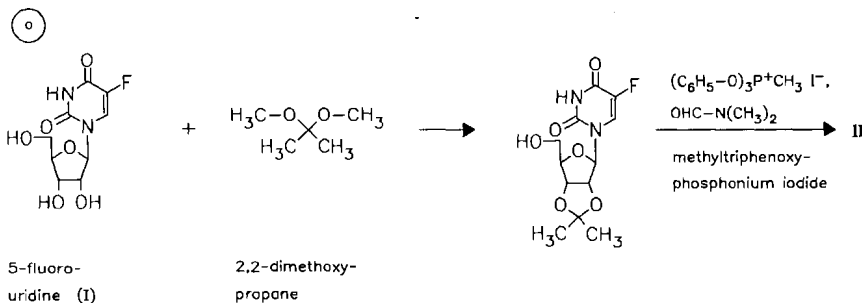
Use: antineoplastic, antimetabolite

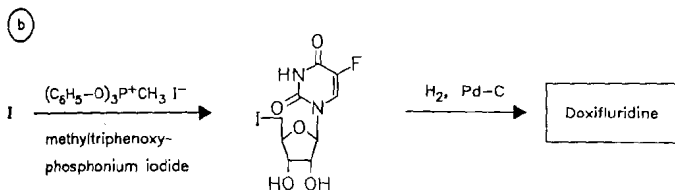
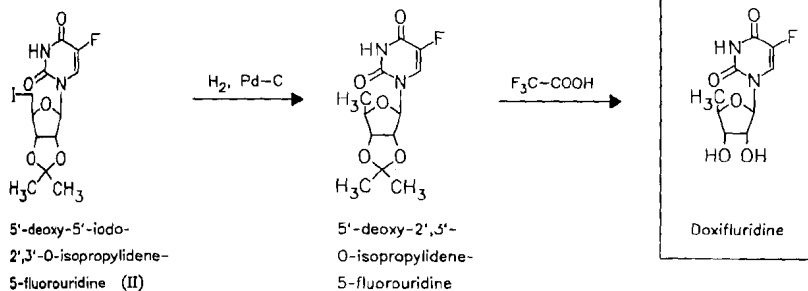
RN: 3094-09-5 MF: $\text{C}_9\text{H}_{11}\text{FN}_2\text{O}_5$ MW: 246.19 EINECS: 221-440-1

LD_{50} : >2000 mg/kg (M, i.p.); >1 g/kg (M, i.v.); >5000 mg/kg (M, p.o.);

>2000 mg/kg (R, i.p.); >1 g/kg (R, i.v.); 3390 mg/kg (R, p.o.); 3471 mg/kg (Rm, p.o.); 3390 mg/kg (Rf, p.o.)

CN: 5'-deoxy-5-fluorouridine



**Reference(s):**

- a,b DOS 2 756 653 (Hoffmann-La Roche; appl. 19.12.1977; USA-prior. 20.12.1976).
 US 4 071 680 (Hoffmann-La Roche; appl. 20.12.1976).
 Cook, A.F. et al.: J. Med. Chem. (JMCMAR) **22**, 1330 (1979).

additional synthesis:

- EP 21 231 (Hoffmann-La Roche; appl. 10.6.1980; CH-prior. 15.6.1979).
 Hrebabecky, H.; Beranek, J.: Collect. Czech. Chem. Commun. (CCCCAK) **43**, 3268 (1978).
 Kiss, J. et al.: Helv. Chim. Acta (HCACAV) **65**, 1522 (1982).
 Scott, J.W. et al.: J. Carbohydr., Nucleosides, Nucleotides (JCNAF) **8**, 171 (1981).
 Ajmera, S.; Danenberg, V.: J. Med. Chem. (JMCMAR) **25**, 999 (1982).
 Rosowsky, A. et al.: J. Med. Chem. (JMCMAR) **25**, 1034 (1982).

combination with purine nucleosides or nucleotides:

- EP 189 755 (Hoffmann-La Roche; appl. 9.10.1985).

Formulation(s): cps. 100 mg, 200 mg

Trade Name(s):

J: Furtulon (Nippon Roche;
1987)

Doxofylline

(ABC-12/3)

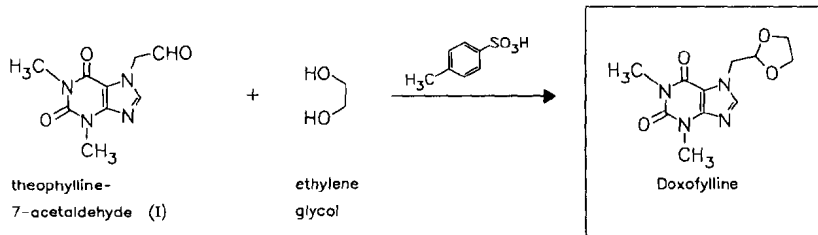
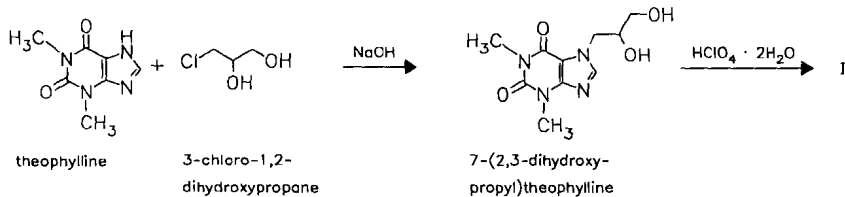
ATC: R03DA11

Use: antiasthmatic, bronchodilator

RN: 69975-86-6 MF: $\text{C}_{11}\text{H}_{14}\text{N}_4\text{O}_4$ MW: 266.26 EINECS: 274-239-6

LD₅₀: 216 mg/kg (M, i.v.); 841 mg/kg (M, p.o.);
445 mg/kg (R, i.p.); 315 mg/kg (R, i.v.); 966 mg/kg (R, p.o.)

CN: 7-(1,3-dioxolan-2-ylmethyl)-3,7-dihydro-1,3-dimethyl-1H-purine-2,6-dione

**Reference(s):**

DE 2 827 497 (ABC; appl. 22.6.1978; I-prior. 4.6.1978).

US 4 187 308 (ABC; 5.2.1980; I-prior. 4.6.1978).

Avico, U. et al.: *Farmaco, Ed. Sci. (FRPSAX)* **17**, 73 (1962).**synthesis of theophylline-7-acetaldehyde:**Maney, P.V.: *J. Am. Pharm. Assoc. (JPHAA3)* **35**, 266 (1946).Toffoli, F. et al.: *Farmaco, Ed. Sci. (FRPSAX)* **11**, 516 (1956).**Formulation(s):** amp. 100 mg/10 ml; cps. 300 mg; sachet 200 mg; s. r. tabl. 300 mg; tabl. 400 mg**Trade Name(s):**

I: Ansimar (ABC; 1988)

Doxorubicin

(Adriamycin)

ATC: L01DB01

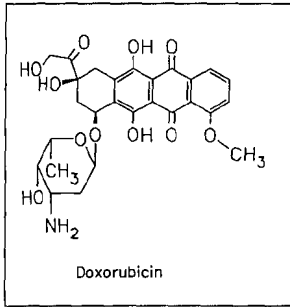
Use: antineoplastic, antibacterial

RN: 23214-92-8 MF: $\text{C}_{27}\text{H}_{29}\text{NO}_{11}$ MW: 543.53 EINECS: 245-495-6LD₅₀: 10 mg/kg (M, i.v.); 570 mg/kg (M, p.o.);

10.510 mg/kg (R, i.v.);

2.4 mg/kg (dog, i.v.)

CN: (8*S*-*cis*)-10-[3-amino-2,3,6-trideoxy- α -L-*lyxo*-hexopyranosyl]oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-5,12-naphthacenedione**hydrochloride**RN: 25316-40-9 MF: $\text{C}_{27}\text{H}_{29}\text{NO}_{11} \cdot \text{HCl}$ MW: 579.99 EINECS: 246-818-3LD₅₀: 1245 $\mu\text{g}/\text{kg}$ (M, i.v.); 698 mg/kg (M, p.o.);12510 $\mu\text{g}/\text{kg}$ (R, i.v.)



From culture of mutant F. I. 106 of *Streptomyces peucetius* var. *caesius*.

Reference(s):

DE 1 770 204 (Soc. Farmaceutici Italia; prior. 13.4.1968).
 US 3 590 028 (Soc. Farmaceutici Italia; 29.6.1971; appl. 18.4.1968; I-prior. 18.4.1967).
 GB 1 161 278 (Soc. Farmaceutici Italia; appl. 16.4.1968; I-prior. 18.4.1967).

alternative syntheses:

partial synthesis from daunorubicin:

DOS 1 917 874 (Soc. Farmaceutici Italia; appl. 8.4.1969; I-prior. 12.4.1968).

partial synthesis from adriamycinon:

US 4 058 519 (Soc. Farmaceutici Italia; 15.11.1977; GB-prior. 22.3.1974).
 US 4 098 798 (Soc. Farmaceutici Italia; 4.7.1978; GB-prior. 22.3.1974).

daunorubicin (from cultures of Streptomyces peucetius F. I. 1762):

GB 1 003 383 (Soc. Farmaceutici Italia; appl. 11.11.1963; I-prior. 16.11.1962).

doxorubicin-14-octanoate:

DOS 2 260 438 (Soc. Farmaceutici Italia; appl. 11.12.1972).
 US 3 803 124 (Soc. Farmaceutici Italia; 9.4.1974; I-prior. 12.4.1968, 4.5.1971).

stable liposome composition:

WO 9 202 208 (Liposome Technology Inc.; appl. 2.8.1991; USA-prior. 8.8.1990).

Formulation(s): vial (lyo.) 10 mg, 20 mg, 50 mg, 150 mg (as hydrochloride)

Trade Name(s):

D:	Adriblastin (Pharmacia & Upjohn; 1972)	GB:	Caelyx (Schering-Plough; as hydrochloride)	USA:	Adriamycin (Pharmacia & Upjohn; 1974)
	Adrimedac (medac)	I:	Adriblastina (Farmitalia; 1971)		Doxil (Sequus)
	Caelyx (Essex Pharma)	J:	Adriacin (Kyowa Hakko; 1975)		Rubex (Bristol-Myers Squibb)
	Ribodoxo (ribosepharm)				
F:	Adriblastine (Pharmacia & Upjohn; 1974)				

Doxycycline

ATC: J01AA02
 Use: antibiotic

RN: 564-25-0 MF: C₂₂H₂₄N₂O₈ MW: 444.44 EINECS: 209-271-1

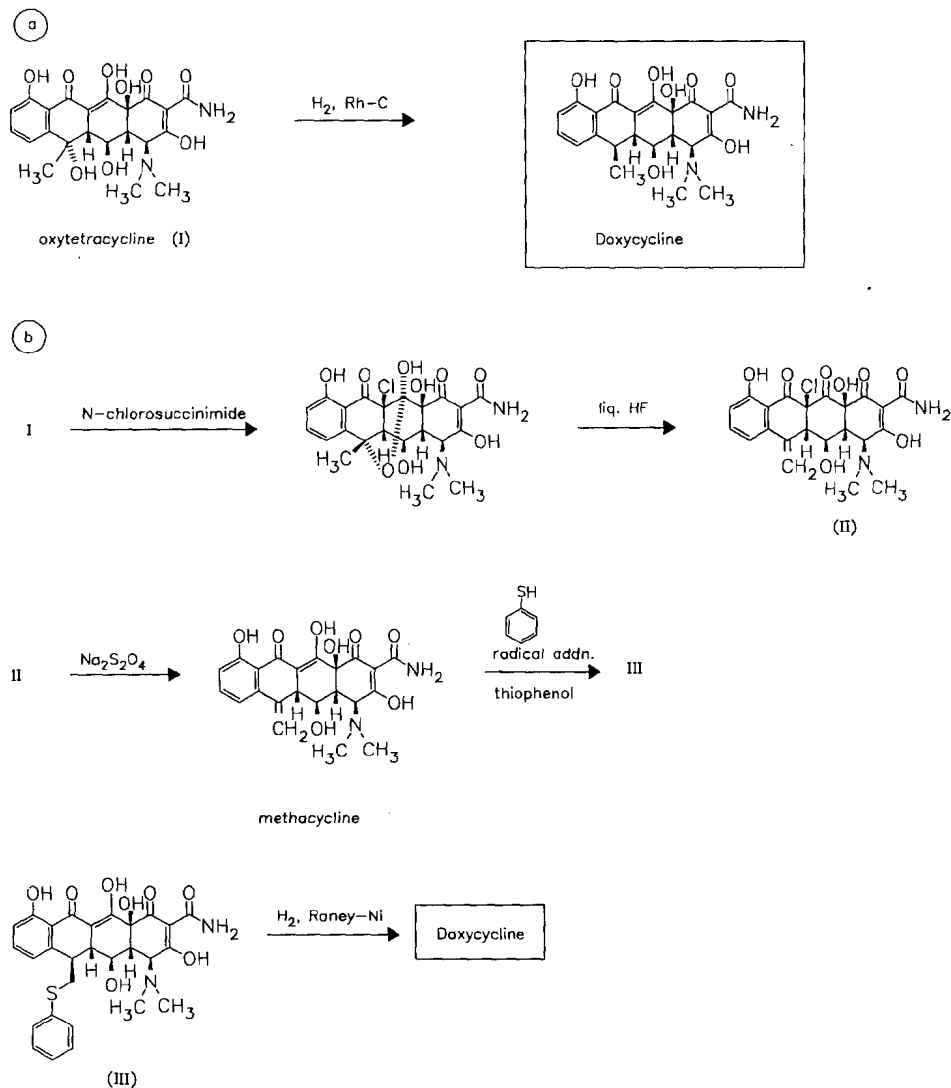
LD₅₀: 241 mg/kg (M, i.v.); 1870 mg/kg (M, p.o.);
 228 mg/kg (R, i.v.); >2 g/kg (R, p.o.);
 >100 mg/kg (dog, i.v.); >500 mg/kg (dog, p.o.)

CN: [4S-(4 α ,4 α ,5 α ,5 α ,6 α ,1,2 α)]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-2-naphthacenecarboxamide

monohydrochlorideRN: 10592-13-9 MF: $C_{22}H_{24}N_2O_8 \cdot HCl$ MW: 480.90 EINECS: 234-198-7LD₅₀: 290 mg/kg (M, i.v.); 1890 mg/kg (M, p.o.);

137 mg/kg (R, i.v.); 1700 mg/kg (R, p.o.);

>500 mg/kg (dog, p.o.)

monohydrateRN: 17086-28-1 MF: $C_{22}H_{24}N_2O_8 \cdot H_2O$ MW: 462.46**hyclate**RN: 24390-14-5 MF: $C_{22}H_{24}N_2O_8 \cdot 1/2C_2H_6O \cdot HCl \cdot 1/2H_2O$ MW: 1025.89**Reference(s):**

- a US 3 019 260 (American Cyanamid; 30.1.1962; prior. 13.5.1959).
DE 1 082 905 (American Cyanamid; appl. 3.11.1958; USA-prior. 5.11.1957).
- b US 3 200 149 (Pfizer; 10.8.1965; prior. 23.5.1960).
DAS 1 793 556 (Pfizer; appl. 19.5.1961; USA-prior. 23.5.1960).
DE 1 298 522 (Pfizer; appl. 23.5.1961; USA-prior. 23.5.1960).
Blackwood, R.K. et al.: J. Am. Chem. Soc. (JACSAT) **85**, 3943 (1963).

stereospecific hydrogenation of metacycline with diaceto(triphenylphosphine)rhodium(II) complex to doxycycline:

DAS 2 554 524 (Pfizer; appl. 4.12.1975; USA-prior. 28.1.1975).

Formulation(s): tabl. 50 mg, 100 mg, 200 mg

Trade Name(s):

<p>D: Azudoxat (Azuchemie) Clinofug (Wolff) Mesopafin 100 (Merckle) Mucotectan (Boehringer Ing.) Neodox (Rosen Pharma) Sigadoxin (Kytta-Siegfried) Supracyclin 100/200 (Grünenthal) Vibramycin N (Pfizer) Vibravenös (Pfizer)</p> <p>F: Doxyceline Plantier (ASTA Medica) Doxygram (Pharma 2000) Doxylets (Galephar) Granudoxy (Pierre Fabre) Monocline (Doms-Adrian) Spanor (Biotherapie)</p>	<p>GB: Doxatet (Cox); wfm Doxylar (Lagap); wfm Nordox (Norton); wfm Vibramycin Acne Pack (Trinity)-comb.</p> <p>I: Bassado (Poli) Doxina (Ipfi) Farmodoxi (Lifepharma) Gram-Val (Polifarma) Miraclin (Farmacologico Milanese) Monodoxin (Crosara) Ribociclina (Puropharma)-comb. Unacil (Firma)</p>	<p>J: Hydramycin (Sankyo) Liomycin (Daiichi) Roximycin (Kyorin) Vibramycin (Taito Pfizer)</p> <p>USA: Doryx (Warner Chilcott Professional Products; as hydrate) Monodox (Oclassen; as monohydrate) Vibramycin (Pfizer; as calcium salt) Vibramycin (Pfizer; as hydrate) Vibramycin (Pfizer; as monohydrate)</p>
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Doxylamine

ATC: R06AA09
Use: antihistaminic

RN: 469-21-6 MF: C₁₇H₂₂N₂O MW: 270.38 EINECS: 207-414-2

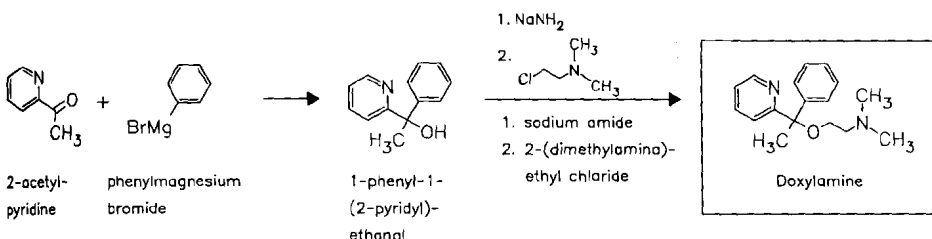
LD₅₀: 62 mg/kg (M, i.v.); 470 mg/kg (M, p.o.)

CN: N,N-dimethyl-2-[1-phenyl-1-(2-pyridinyl)ethoxy]ethanamine

succinate (1:1)

RN: 562-10-7 MF: C₁₇H₂₂N₂O · C₄H₆O₄ MW: 388.46 EINECS: 209-228-7

LD₅₀: 62 mg/kg (M, i.v.); 470 mg/kg (M, p.o.)



Reference(s):

Sperber, N. et al.: J. Am. Chem. Soc. (JACSAT) **71**, 887 (1949).

Formulation(s): eff. tabl. 25 mg; tabl. 25 mg (as succinate)

Trade Name(s):

<p>D: Gittalun (Boehringer Ing.) Hewedomir forte (Hevert) Hoggar N (Stada)</p>	<p>Mereprine (Cassella-med) Praedisup (Chephasaar)-comb.</p>	<p>Sedaplus (Rosen Pharma) Wick Formel 44 S (Wick Pharma)-comb.</p>
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F:	Donormyl (Oberlin)-comb. Méréprine (Marion Merrell)	Nethaprin expect (Merrell Dow)-comb.; wfm Syndol (Merrell Dow)- comb.; wfm	Vicks Medinait (Procter & Gamble)-comb. USA: Unisom Nighttime Sleep- Aid (Pfizer; as succinate)
GB:	Nethaprin Dospan (Merrell Dow)-comb.; wfm	I: Doxised (Corvi)	

Drofenine

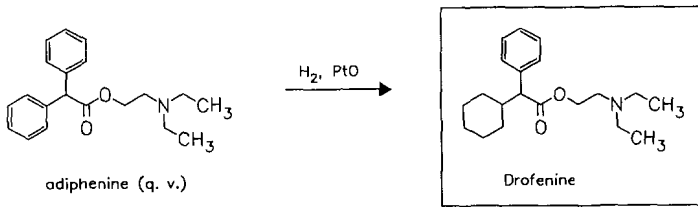
(Hexahydroadiphenine)

ATC: A03DA49

Use: antispasmodic

RN: 1679-76-1 MF: C₂₀H₃₁NO₂ MW: 317.47LD₅₀: 37 mg/kg (R, i.v.)

CN: α-cyclohexylbenzeneacetic acid 2-(diethylamino)ethyl ester

hydrochlorideRN: 548-66-3 MF: C₂₀H₃₁NO₂ · HCl MW: 353.93 EINECS: 208-954-1LD₅₀: 47 mg/kg (M, i.v.); 3700 mg/kg (M, p.o.)**Reference(s):**

CH 219 301 (Ciba; appl. 1938).

Formulation(s): drg. 20 mg, 25 mg (comb. with 220 mg propyphenazone)**Trade Name(s):**

D:	Spasmo-Cibalgin/comp. (Novartis Pharma)	F:	Spasmo-Cibalgine (Ciba)- comb.; wfm	I:	Spasmocibalgina (Novartis)-comb.
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Dronabinol

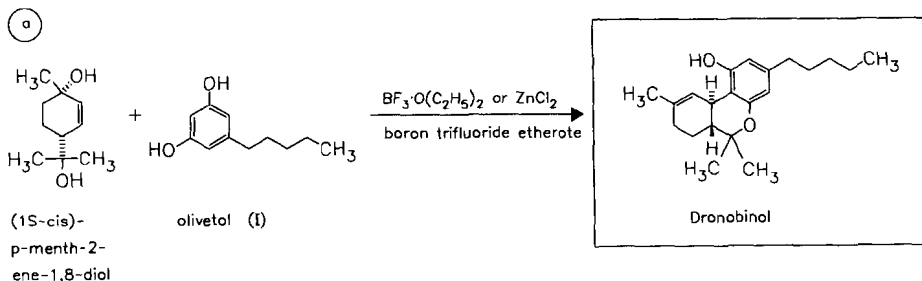
(δ-9-THC)

ATC: A04A

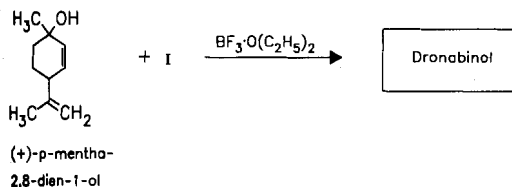
Use: anti-emetic, active ingredient of marijuana

RN: 1972-08-3 MF: C₂₁H₃₀O₂ MW: 314.47LD₅₀: 168 mg/kg (M, i.p.); 42 mg/kg (M, i.v.); 482 mg/kg (M, p.o.);

373 mg/kg (R, i.p.); 29 mg/kg (R, i.v.); 666 mg/kg (R, p.o.)

CN: (6a*R*-*trans*)-6a,7,8,10a-tetrahydro-6,6,9-trimethyl-3-pentyl-6*H*-dibenzo[*b,d*]pyran-1-ol

b



c

**Reference(s):**

- a Handrick, G.R. et al.: Tetrahedron Lett. (TELEAY) **1979**, 681.
 b US 4 116 979 (Sheehan Inst. for Research; 26.9.1978; appl. 7.2.1977; prior. 28.11.1975, 24.6.1975).
 US 4 381 399 (Aerojet; 26.4.1983; appl. 21.12.1981).
 c US 4 279 824 (L. O. McKinney; 21.7.1981; appl. 1.11.1979).

alternative methods:

US 3 734 930 (US Dep. of Health; 22.5.1973; appl. 22.9.1971).

Straight, R. et al.: Biochem. Med. (BIMDA2) **8**, 341 (1973).

Ribi, E. et al.: Prep. Biochem. (PRBCBQ) **3**, 209 (1973).

review:

Mechoulam, R. et al.: Chem. Rev. (Washington, D. C.) (CHREAY) **76**, 75 (1976).

Formulation(s): cps. 2.5 mg, 5 mg, 10 mg

Trade Name(s):

USA: Marinol (Roxane)

Droperidol

(Dehydrobenzperidol)

ATC: N01AX01; N05AD08

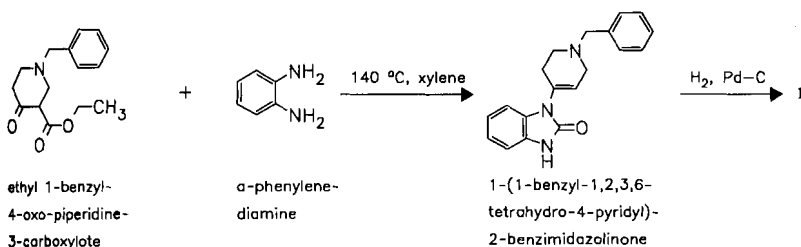
Use: neuroleptic, anesthetic
(neuroleptanesthesia)

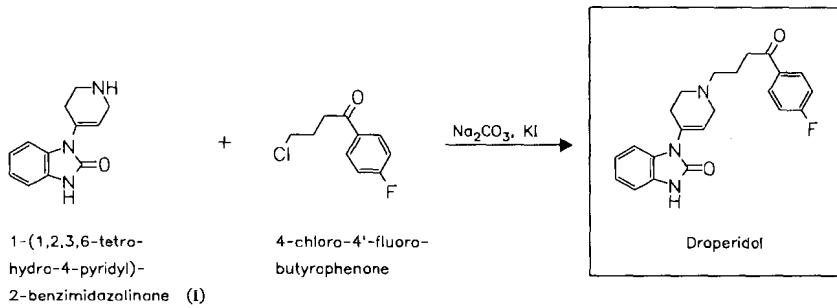
RN: 548-73-2 MF: $\text{C}_{22}\text{H}_{22}\text{FN}_3\text{O}_2$ MW: 379.44 EINECS: 208-957-8

LD₅₀: 20 mg/kg (M, i.v.);

30 mg/kg (R, i.v.); 750 mg/kg (R, p.o.)

CN: 1-[1-[4-(4-fluorophenyl)-4-oxobutyl]-1,2,3,6-tetrahydro-4-pyridinyl]-1,3-dihydro-2H-benzimidazol-2-one



**Reference(s):**

GB 989 755 (Janssen; appl. 24.12.1962; USA-prior. 22.12.1961).

US 3 141 823 (Janssen; 21.7.1964; appl. 4.9.1962).

US 3 161 645 (Janssen; 15.12.1964; appl. 18.12.1962).

Formulation(s): amp. 2.5 mg/ml, 5 mg/2 ml, 12.5 mg/5 ml, 25 mg/10 ml; tabl. 10 mg; vial 5 mg/2 ml, 12.5 mg/5 ml, 25 mg/10 ml

Trade Name(s):

D:	Dehydrobenzperidol (Janssen-Cilag) Thalamonal (Janssen-Cilag)-comb.	GB:	Droleptan (Janssen-Cilag) I: Leptofen (Carlo Erba)-comb. Sintodian (Carlo Erba)	USA:	Droperidol (Astra) Inapsine (Janssen; McNeil); wfm Innovar (Janssen); wfm
F:	Droleptan (Janssen-Cilag)	J:	Droleptan (Sankyo)		

Dropropizine

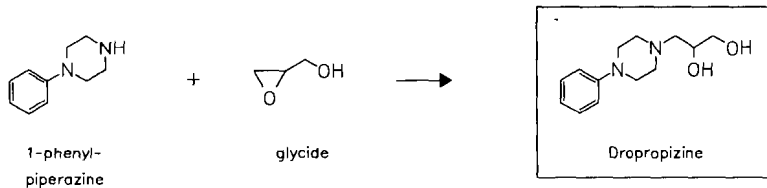
ATC: R05DB19

Use: antitussive

RN: 17692-31-8 MF: $\text{C}_{13}\text{H}_{20}\text{N}_2\text{O}_2$ MW: 236.32 EINECS: 241-683-7

LD_{50} : 200 mg/kg (R, i.v.); 750 mg/kg (R, p.o.)

CN: 3-(4-phenyl-1-piperazinyl)-1,2-propanediol

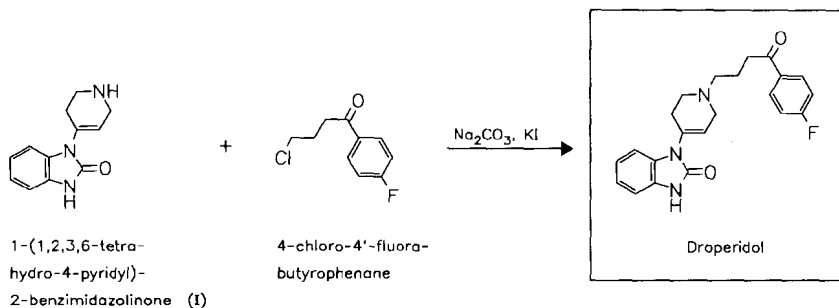
**Reference(s):**

DE 1 178 435 (H. Morren; appl. 13.3.1962; B-prior. 16.3.1961, 21.2.1962).

Formulation(s): syrup 15 mg, 57 mg

Trade Name(s):

D:	Dehydrobenzperidol (Janssen-Cilag) Thalamonal (Janssen-Cilag)-comb. with fentanyl hydrogen citrate	I:	Elisir Terpina (Schiapparelli Salute)-comb. Guaiacalcium Complex (Celsius)-comb. Ribex (Formenti)		Ribexen Espet. (Formenti)-comb. Tiocalmina (Ottolenghi)-comb. Tussamag (Zilliken)-comb.
F:	Catabex (Darcy)-comb.				

**Reference(s):**

GB 989 755 (Janssen; appl. 24.12.1962; USA-prior. 22.12.1961).

US 3 141 823 (Janssen; 21.7.1964; appl. 4.9.1962).

US 3 161 645 (Janssen; 15.12.1964; appl. 18.12.1962).

Formulation(s): amp. 2.5 mg/ml, 5 mg/2 ml, 12.5 mg/5 ml, 25 mg/10 ml; tabl. 10 mg; vial 5 mg/2 ml, 12.5 mg/5 ml, 25 mg/10 ml

Trade Name(s):

D: Dehydrobenzperidol
(Janssen-Cilag)
Thalamonal (Janssen-
Cilag)-comb.

GB: Droleptan (Janssen-Cilag)

I: Leptofen (Carlo Erba)-
comb.

Sintodian (Carlo Erba)

F: Droleptan (Janssen-Cilag)

J: Droleptan (Sankyo)

USA: Droperidol (Astra)

Inapsine (Janssen;
McNeil); wfm

Innovar (Janssen); wfm

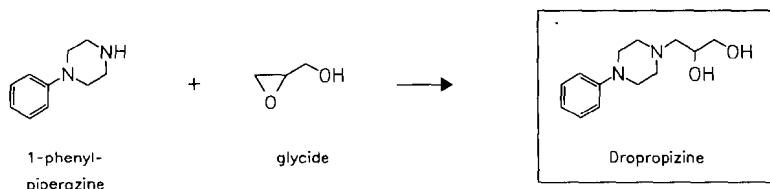
Dropropizine

ATC: R05DB19

Use: antitussive

RN: 17692-31-8 MF: $\text{C}_{13}\text{H}_{20}\text{N}_2\text{O}_2$ MW: 236.32 EINECS: 241-683-7LD₅₀: 200 mg/kg (R, i.v.); 750 mg/kg (R, p.o.)

CN: 3-(4-phenyl-1-piperazinyl)-1,2-propanediol

**Reference(s):**

DE 1 178 435 (H. Morren; appl. 13.3.1962; B-prior. 16.3.1961, 21.2.1962).

Formulation(s): syrup 15 mg, 57 mg

Trade Name(s):

D: Dehydrobenzperidol
(Janssen-Cilag)
Thalamonal (Janssen-
Cilag)-comb. with fentanyl
hydrogen citrate

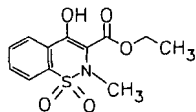
I: Elisir Terpina
(Schiapparelli Salute)-
comb.
Guaiacalcium Complex
(Celsius)-comb.

F: Catabex (Darcy)-comb.

Ribex (Formenti)

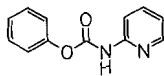
Ribexen Espet. (Formenti)-
comb.Tiocalmina (Ottolenghi)-
comb.

Tussamag (Zilliken)-comb.

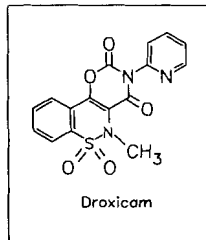


3-ethoxycarbonyl-
4-hydroxy-2-methyl-
2H-1,2-benzothiazine
1,1-dioxide
(cf. piroxicam synthesis)

+



2-phenoxy-carbonyl-
aminopyridine



Droxicam

Reference(s):

EP 99 770 (Provesan, Esteve; appl. 8.6.1983; F-prior. 15.6.1982).
US 4 563 452 (Provesan, Esteve; 7.1.1986; appl. 8.6.1983; F-prior. 15.6.1982).

alternative synthesis:

EP 242 289 (Provesan; appl. 13.4.1987; F-prior. 15.4.1986).
EP 412 014 (Esteve; appl. 2.8.1990; F-prior. 4.8.1989).

Formulation(s): cps. 20 mg

Trade Name(s):

I: Dobenam (Angelini)

Droxar (Upjohn)

Dyclonine

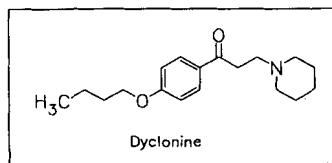
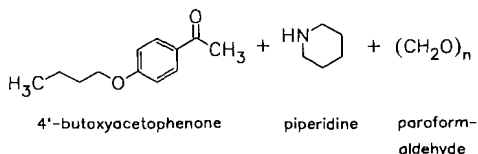
ATC: N01BX02

Use: local anesthetic (only topic)

RN: 586-60-7 MF: C₁₈H₂₇NO₂ MW: 289.42
CN: 1-(4-butoxyphenyl)-3-(1-piperidinyl)-1-propanone

hydrochloride

RN: 536-43-6 MF: C₁₈H₂₇NO₂ · HCl MW: 325.88 EINECS: 208-633-6
LD₅₀: 20 mg/kg (M, i.v.);
9500 µg/kg (dog, i.v.)



Dyclonine

Reference(s):

US 2 771 391 (Allied Laboratories; 1956; prior. 1953).
US 2 868 689 (Allied Laboratories; 1959; appl. 1956).

Formulation(s): sol. 0.5 %, 1 %

Trade Name(s):

J: Epicain Ace (S. S. Pharm.)-
comb.

Epirocain (Eisai)

USA: Dyclone (Astra; as
hydrochloride)

Dydrogesterone

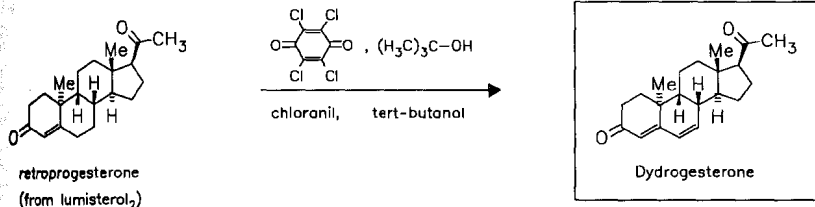
ATC: G03DB01
Use: progestogen

RN: 152-62-5 MF: C₂₁H₂₈O₂ MW: 312.45 EINECS: 205-806-8

LD₅₀: >7200 mg/kg (M, p.o.);

>4600 mg/kg (R, p.o.)

CN: (9β,10α)-pregna-4,6-diene-3,20-dione



Reference(s):

US 3 198 792 (North American Philips; 3.8.1965; prior. 8.4.1959, 12.6.1962).

Westerhof, P.; Reerink, E.H.: Recl. Trav. Chim. Pays-Bas (RTCPA3) **79**, 771 (1960) (also starting material).

alternative synthesis:

Rappoldt, M.P.; Westerhof, P.: Recl. Trav. Chim. Pays-Bas (RTCPA3) **80**, 43 (1961).

Formulation(s): tabl. 10 mg

Trade Name(s):

D:	Duphaston (Solvay Arzneimittel)	Femapak 40 (Solvay)- comb.	J:	Duphaston (Daiichi)
F:	Duphaston (Solvay Pharma)	Femoston 1/10 (Solvay)- comb.	USA:	Duphaston (Philips Roxane); wfm Gynorest (Mead Johnson); wfm
GB:	Duphaston (Solvay)	I:	Dufaston (UCM)	

Ebastine

ATC: D04AA; R06AA; R06AX22

Use: antihistaminic

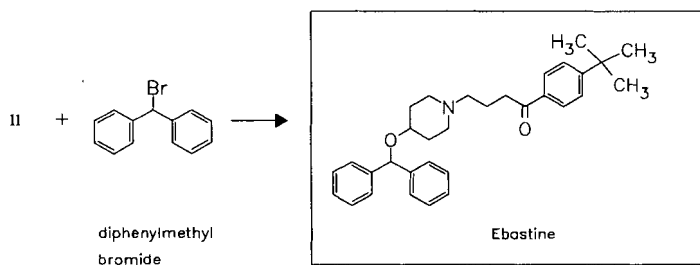
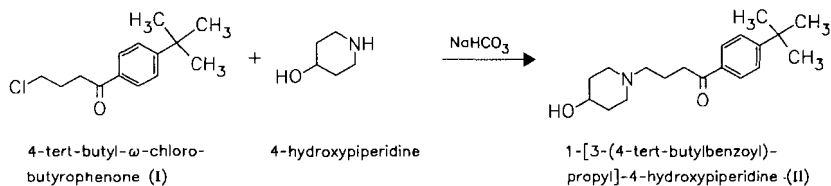
RN: 90729-43-4 MF: C₃₂H₃₉NO₂ MW: 469.67LD₅₀: 500 mg/kg (M, i.v.); >4 g/kg (M, p.o.);

>4 g/kg (R, p.o.);

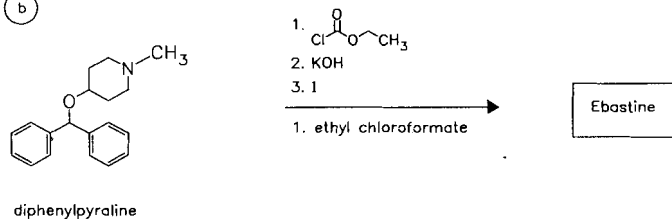
>160 mg/kg (dog, p.o.)

CN: 1-[4-(1,1-dimethylethyl)phenyl]-4-[4-(diphenylmethoxy)-1-piperidiny]-1-butanone

a



b

**Reference(s):**

EP 134 124 (Fordonal; appl. 2.8.1984; GB-prior. 5.8.1983).

US 4 550 116 (Fordonal; 29.10.1985; appl. 24.7.1984; GB-prior. 5.8.1983).

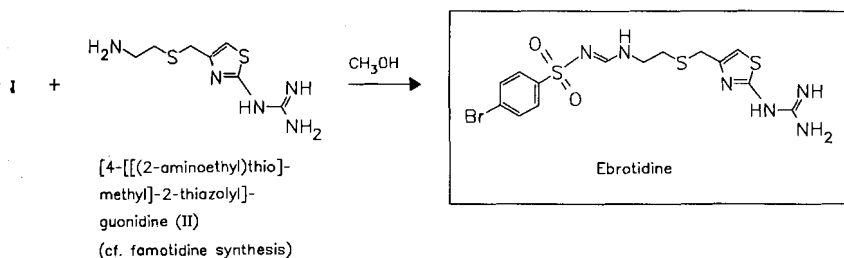
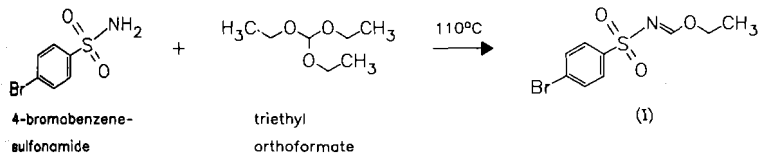
Formulation(s): sol. 10 mg/10 ml; tabl. 5 mg, 10 mg**Trade Name(s):**J: Ebastel (Dainippon-Meiji
Seika)**Ebrotidine**

(F1-3542)

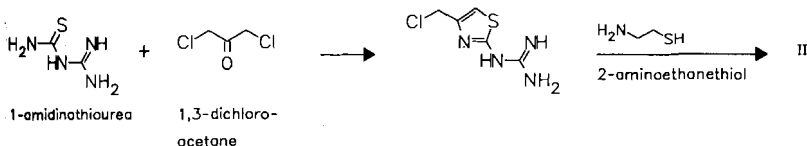
ATC: A02B09

Use: gastric antisecretory, H₂-receptor
antagonist, gastroprotectiveRN: 100981-43-9 MF: C₁₄H₁₇BrN₆O₂S₃ MW: 477.43

CN: [N(E)]-N-[[[2-[[[2-[(Aminoiminomethyl)amino]-4-thiazolyl]methyl]thio]ethyl]amino]-methylene]-4-bromobenzenesulfonamide



preparation of 4-[[[(2-aminoethyl)thio]methyl]-2-thiazolyl]guanidine (II):



Reference(s):

- EP 159 012 (Ferrer Internacional; appl. 16.4.1985; E-prior. 18.4.1984).
 Anglada, L.; Marquez, M.; Sacristan, A.; Ortiz, J.A.: Eur. J. Med. Chem. (EJMCA5) **23** (1), 97 (1988).
 Anglada, L.; Raga, M.; Marquez, M.; Sacristan, A.; Castello, J.M.; Ortiz, J.A.: Arzneim.-Forsch. (ARZNAD) **47** (4a), 431 (1997).

new bromobenzenesulphonamide derivatives – used as histamine receptor antagonists to inhibit acid secretion:
 WO 9 614 306 (Ferrer Int.; WO-prior. 4.11.1994).

synthesis of 4-[[[(2-aminoethyl)thio]methyl]-2-thiazolyl]guanidine:

- DE 2 817 078 (ICI; appl. 19.4.1978; GB-prior. 20.4.1977).
 Rozman, E.; Galceran, M.T.; Anglada, L.; Albet, C.: J. Pharm. Sci. (JPMSAE) **83** (2), 252 (1994).

Formulation(s): tabl. 400 mg

Trade Name(s):

ES: Ebrocit (Ferrer; Labs. Robert; 1997)

Ecabet sodium

(TA-2711)

Use: ulcer therapeutic

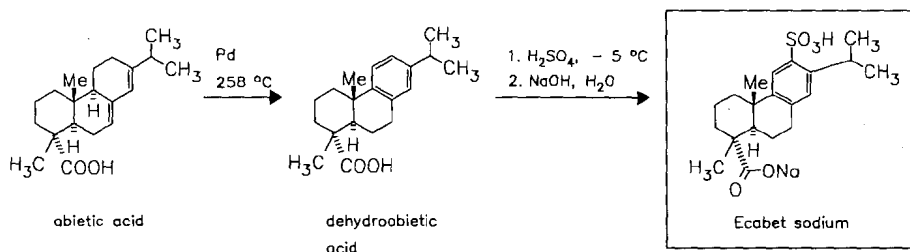
RN: 86408-72-2 MF: $\text{C}_{20}\text{H}_{27}\text{NaO}_5\text{S}$ MW: 402.49

LD_{50} : >2 g/kg (R, p.o.)

CN: [1*R*-(1 α ,4 α ,10 α)]-1,2,3,4,4a,9,10,10a-octahydro-1,4a-dimethyl-7-(1-methylethyl)-6-sulfo-1-phenanthrenecarboxylic acid monosodium salt

free acid

RN: 33159-27-2 MF: $\text{C}_{20}\text{H}_{28}\text{O}_5\text{S}$ MW: 380.51

*Reference(s):*

- Fieser, L.F. et al.: J. Am. Chem. Soc. (JACSAT) **60**, 2631 (1938).
 Wada, H. et al.: Chem. Pharm. Bull. (CPBTAL) **33** (4), 1472 (1985).
 EP 78 152 (Tanabe Seiyaku; appl. 21.10.1982; GB-prior. 22.10.1981, 29.6.1982).

oral preparations:

- JP 07 165 572 (Tanabe Seiyaku; appl. 9.12.1993; J-prior. 9.12.1993).

Formulation(s): gran. 66.7 %

Trade Name(s):

- J: Gastrom (Tanabe Seiyaku-Nippon; Boehringer Ing.)

Econazole

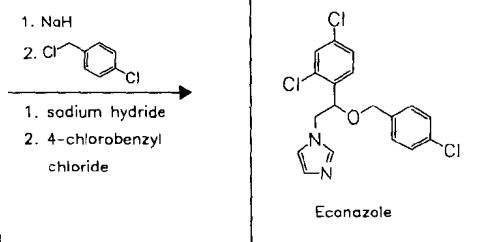
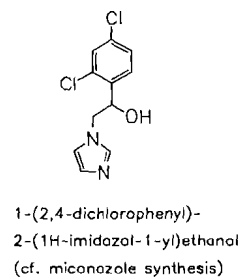
ATC: D01AC03; G01AF05

Use: fungicide, antifungal

RN: 27220-47-9 MF: $\text{C}_{18}\text{H}_{15}\text{Cl}_3\text{N}_2\text{O}$ MW: 381.69 EINECS: 248-341-6
 CN: 1-[2-[(4-chlorophenyl)methoxy]-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole

mononitrate

RN: 24169-02-6 MF: $\text{C}_{18}\text{H}_{15}\text{Cl}_3\text{N}_2\text{O} \cdot \text{HNO}_3$ MW: 444.70 EINECS: 246-053-5
 LD₅₀: 38 mg/kg (M, i.v.); 463 mg/kg (M, p.o.);
 50 mg/kg (R, i.v.); 668 mg/kg (R, p.o.);
 >160 mg/kg (dog, p.o.)

*Reference(s):*

- DAS 1 940 388 (Janssen; appl. 8.8.1969; USA-prior. 19.8.1968).
 US 3 717 655 (Janssen; 20.2.1973; prior. 19.8.1968).
 Godefroi, E.F. et al.: J. Med. Chem. (JMCMAR) **12**, 784 (1969).

Formulation(s): cream 1 g/100 g; lotion 1 g/100 g; pastes 10 mg; powder 1 g/100 g; sol. 1 g/100 g; spray 1 g/100 g (as nitrate)

Trade Name(s):

D:	Epi Pevaryl (Janssen-Cilag)	Ecostatín (Bristol-Myers Squibb)	Micofugal (Biopharma)
	Gyno-Pevaryl (Janssen-Cilag)	Gyno Pevaryl (Janssen-Cilag)	Micogin (Crosara)
F:	Dermazol (Bailleul)	Pevaryl (Janssen-Cilag; 1978)	Micos (AGIPS)
	Fongéryl (L'Arguenon)		Micosten (Bergamon)
	Gyno-Pévaryl (Janssen-Cilag; 1976)	I:	Pargin (Gibipharma)
	Pevaryl (Janssen-Cilag; 1976)	Amicel (Salus)	Pevaryl (Cilag; 1978)
	Pevisone (Janssen-Cilag)-comb.	Chemionazolo (Broccieri)	Pevisone (Cilag)-comb.
GB:	Econacort (Bristol-Myers Squibb)-comb.	Dermazol (CT)	Skilar (Bonomelli Farm.)
		Eco Mi (Geymonat)	Skilar (Italchemie)
		Ecodergin (Von Boch)	J:
		Ecorex (Tosi-Novara)	Palavale (Otsuka; 1981)
		Ifenec (Italfarmaco)	USA:
			Spectazole (Ortho Dermatological; 1983)

Ecothiopate iodide

(Echothiopate iodide)

ATC: S01EB03

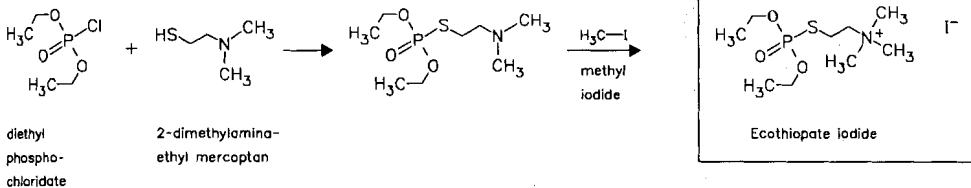
Use: cholinesterase inhibitor

RN: 513-10-0 MF: C₉H₂₃INO₃PS MW: 383.23 EINECS: 208-152-1

LD₅₀: 5100 µg/kg (M, p.o.);

174 µg/kg (R, p.o.)

CN: 2-[(diethoxyphosphinyl)thio]-N,N,N-trimethylethanaminium iodide



Reference(s):

US 2 911 430 (Campbell Pharmaceuticals; 3.11.1959; prior. 15.1.1958).

Formulation(s): eye drops 1.25 mg/ml

Trade Name(s):

D:	Ophthorenin (Winzer); wfm	GB:	Phospholine Jodide (Ayerst); wfm	USA:	Echodide (Alcon); wfm
	Phospholinjodid				Phospholine Jodide (Ayerst); wfm
	Augentropfen (Winzer); wfm	I:	Phospholine Jodide (Chinoïn); wfm		
F:	Phospholine Iodide (Promedica)	J:	Phospholin Jodide (Tobishi)		

Edetic acid

(Acide edetique; Acidum edeticum; Tetracemin)

ATC: V03AB03

Use: antidote, chelating agent

RN: 60-00-4 MF: C₁₀H₁₆N₂O₈ MW: 292.24 EINECS: 200-449-4

LD₅₀: 28.5 mg/kg (M, i.v.); 30 mg/kg (M, p.o.)

CN: N,N'-1,2-ethanediylbis[N-(carboxymethyl)glycine]

disodium salt

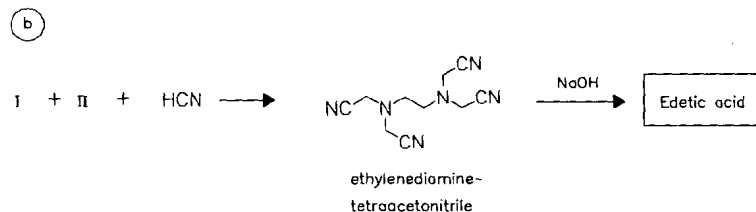
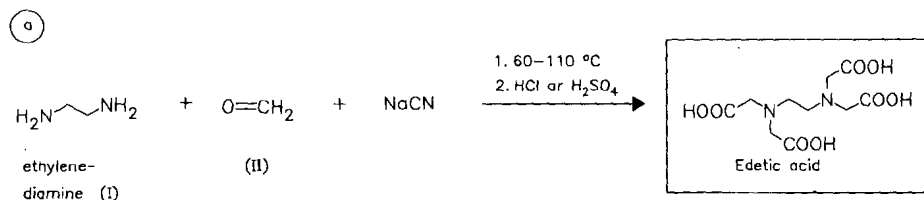
RN: 139-33-3 MF: C₁₀H₁₄N₂Na₂O₈ MW: 336.21 EINECS: 205-358-3

disodium salt dihydrateRN: 6381-92-6 MF: $C_{10}H_{14}N_2Na_2O_8 \cdot 2H_2O$ MW: 372.24**calcium disodium salt**RN: 62-33-9 MF: $C_{10}H_{12}CaN_2Na_2O_8$ MW: 374.27 EINECS: 200-529-9**calcium disodium salt hydrate**RN: 23411-34-9 MF: $C_{10}H_{12}CaN_2Na_2O_8 \cdot xH_2O$ MW: unspecified**dipotassium salt**RN: 2001-94-7 MF: $C_{10}H_{14}K_2N_2O_8$ MW: 368.42 EINECS: 217-895-0**dipotassium salt monohydrate**RN: 58167-76-3 MF: $C_{10}H_{14}K_2N_2O_8 \cdot H_2O$ MW: 386.44**dipotassium salt dihydrate**RN: 25102-12-9 MF: $C_{10}H_{14}K_2N_2O_8 \cdot 2H_2O$ MW: 404.45**tetrasodium salt**RN: 64-02-8 MF: $C_{10}H_{12}N_2Na_4O_8$ MW: 380.17 EINECS: 200-573-9LD₅₀: 330 mg/kg (M, i.p.)**trisodium salt**RN: 150-38-9 MF: $C_{10}H_{13}N_2Na_3O_8$ MW: 358.19 EINECS: 205-758-8LD₅₀: 2150 mg/kg (M, p.o.);

2150 mg/kg (R, p.o.)

iron(III) sodium saltRN: 15708-41-5 MF: $C_{10}H_{12}FeN_2NaO_8$ MW: 367.05 EINECS: 239-802-2LD₅₀: 5 g/kg (M, p.o.);

5 g/kg (R, p.o.)

**Reference(s):**

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 8, 198.

a DOS 2 150 994 (BASF; appl. 13.10.1971).

DOS 1 493 480 (BASF; appl. 30.4.1965).

DOS 2 049 223 (BASF; appl. 7.10.1970).

b DRP 694 780 (I.G. Farben; appl. 1937).

Formulation(s): inj. sol. 200 mg/ml (as calcium disodium salt)**Trade Name(s):**D: Calcium Vitis (Neopharma)
Complete all-in-one-
Lösung (Pharm-Allergan)-
comb.Duracare (Pharm-
Allergan)-comb.
Oxysept (Pharm-Allergan)-
comb.F: Calcitétracémate disodique
(L'Arguenon)
Chelatron (L'Arguenon)
Kélocyanor (L'Arguenon);
as cobalt salt)

Nutraflow (Alcon)-comb.

Soaclens (Alcon)-comb.

Polyclean (Alcon)-comb.

GB: Limclair (Sinclair)

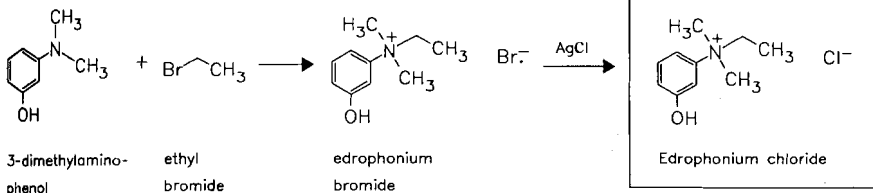
Edrophonium chloride

ATC: N07A

Use: cholinergic, antidote to curare principles

RN: 116-38-1 MF: C₁₀H₁₆ClNO MW: 201.70 EINECS: 204-138-4LD₅₀: 8500 µg/kg (M, i.v.)CN: *N*-ethyl-3-hydroxy-*N,N*-dimethylbenzenaminium chloride**hydroxide**RN: 473-37-0 MF: C₁₀H₁₇NO₂ MW: 183.25LD₅₀: 9 mg/kg (M, i.v.); 600 mg/kg (M, p.o.)**bromide**RN: 302-83-0 MF: C₁₀H₁₆BrNO MW: 246.15LD₅₀: 9 mg/kg (M, i.v.); 600 mg/kg (M, p.o.);

15 mg/kg (dog, i.v.)

**Reference(s):**

US 2 647 924 (Hoffmann-La Roche; 1953; prior. 1950).

Formulation(s): amp. 10 mg/ml; vial 10 mg/10 ml**Trade Name(s):**

GB: Tensilon (Roche); wfm

USA: Enlon (Ohmeda)

Tensilon (ICN)

J: Antirex (Kyorin)

Reversol (Organon)

Efavirenz

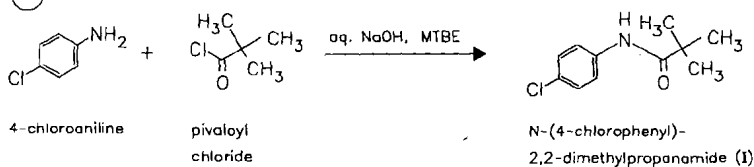
(DMP-266; L-743726)

ATC: J05AG03

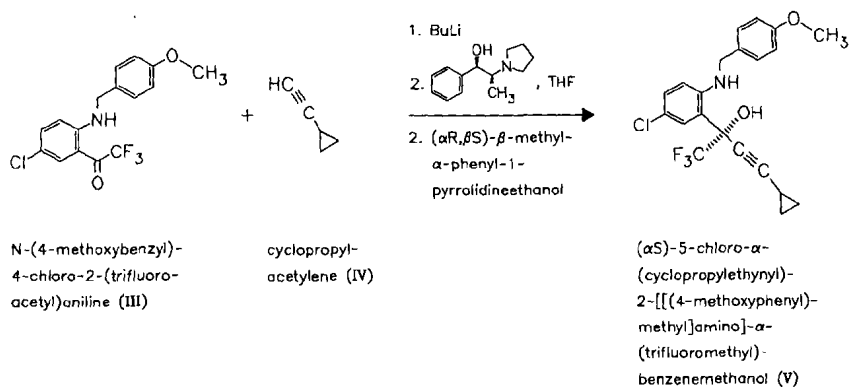
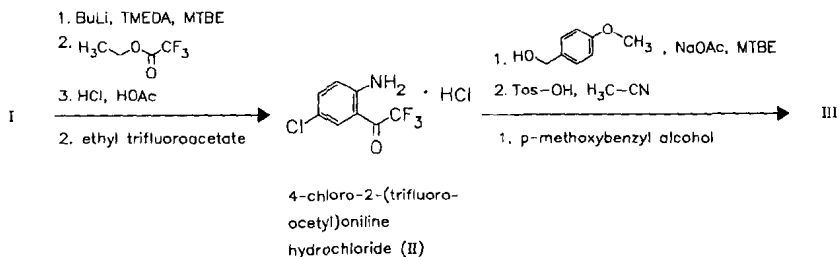
Use: antiviral for AIDS, reverse transcriptase inhibitor

RN: 154598-52-4 MF: C₁₄H₉ClF₃NO₂ MW: 315.68CN: (4*S*)-6-Chloro-4-(cyclopropylethynyl)-1,4-dihydro-4-(trifluoromethyl)-2*H*-3,1-benzoxazin-2-one**(R)-enantiomer**RN: 154801-74-8 MF: C₁₄H₉ClF₃NO₂ MW: 315.68**racemate**RN: 177530-93-7 MF: C₁₄H₉ClF₃NO₂ MW: 315.68

a

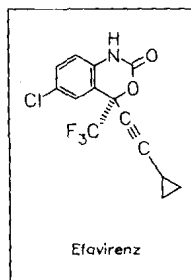


MTBE: methyl tert-butyl ether



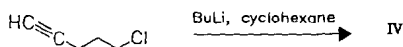
V

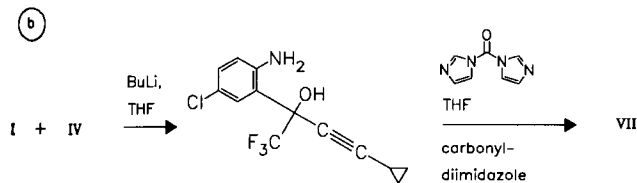
$\text{Ce}(\text{NO}_3)_3 \cdot \text{NH}_4\text{NO}_3$
 $\text{CH}_3\text{CN, H}_2\text{O}$
 ceric ammonium nitrate



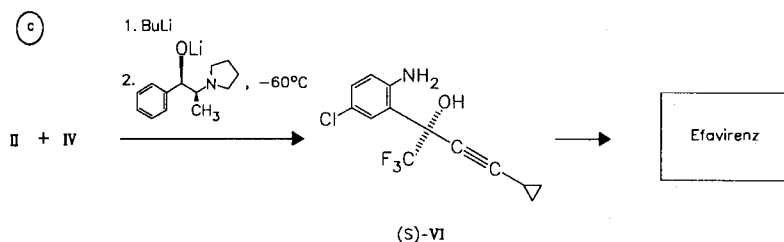
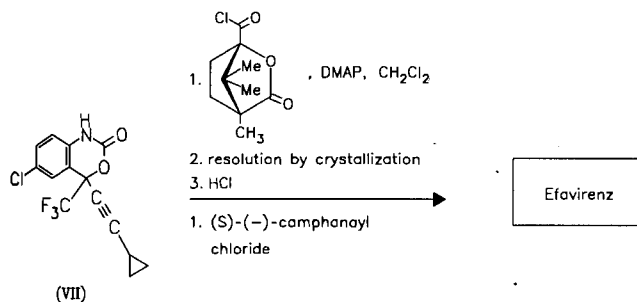
aa

preparation of cyclopropylacetylene





(±)-2-(2-amino-5-chlorophenyl)-4-cyclopropyl-1,1,1-trifluoro-3-butyne-2-ol (VI)



Reference(s):

- a Thompson, A.S. et al.: *Tetrahedron Lett. (TELEAY)* **36** (49), 8937-40 (1995).
Thompson, A.S. et al.: *J. Am. Chem. Soc. (JACSAT)* **120**, 2028-2038 (1998).
Pierce, M.E. et al.: *J. Org. Chem. (JOCEAH)* **63** (23), 8536-8543 (1998).
WO 9 637 457 (Merck + Co.; appl. 21.5.1996; USA-prior. 25.5.1995).
- aa WO 9 622 955 (Merck + Co.; appl. 19.1.1996; USA-prior. 23.1.1995).
WO 9 827 034 (Du Pont Merck; appl. 15.12.1997; USA-prior. 16.12.1996).
- b EP 582 455 (Merck + Co.; appl. 3.8.1993; USA-prior. 7.8.1992, 27.4.1993).
WO 9 520 389 (Merck + Co.; appl. 24.1.1995; USA-prior. 28.1.1994).
WO 9 834 928 (Merck + Co.; appl. 9.2.1998; USA-prior. 12.2.1997).
Radesca, L.A. et al.: *Synth. Commun. (SYNCAV)* **27** (24), 4373-4384 (1997).
WO 9 845 278 (Du Pont; appl. 2.4.1998; USA-prior. 7.4.1997).
- c Tan, L. et al.: *Angew. Chem. (ANCEAD)* **111** (5), 724 (1999).

process for the crystallization using an anti-solvent:

WO 9 833 782 (Merck + Co.; appl. 2.2.1998; USA-prior. 5.2.1997).

antiviral combinations:

WO 9 844 913 (Triangle Pharm.; appl. 7.4.1998; USA-prior. 7.4.1997).

WO 9 852 570 (Glaxo; appl. 14.5.1998; GB-prior. 17.5.1997).

Formulation(s): cps. 50 mg, 100 mg, 200 mg

Trade Name(s):

D: SUSTIVA (Du Pont; 1999) USA: Sustiva (Du Pont; 1998)

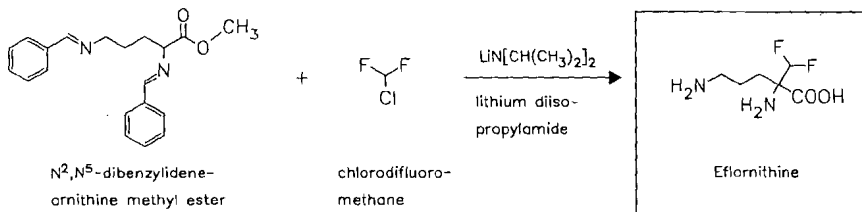
Eflornithine

(DFMO; RMI-71782)

ATC: P01CX03

Use: antineoplastic, antiprotozoal,
inhibitor of ornithine decarboxylase,
antipneumocystisRN: 67037-37-0 MF: $C_6H_{12}F_2N_2O_2$ MW: 182.17LD₅₀: >3000 mg/kg (M, i.p.); >5000 mg/kg (M, p.o.);
1364 µg/kg (R, intracerebral)

CN: 2-(difluoromethyl)-DL-ornithine

monohydrochlorideRN: 68278-23-9 MF: $C_6H_{12}F_2N_2O_2 \cdot HCl$ MW: 218.63 EINECS: 269-532-0**monohydrochloride monohydrate**RN: 96020-91-6 MF: $C_6H_{12}F_2N_2O_2 \cdot HCl \cdot H_2O$ MW: 236.65*Reference(s):*

US 4 413 141 (Merrell-Toraude; 1.11.1983; appl. 17.9.1982; prior. 11.7.1977, 2.7.1979).

US 4 330 559 (Merrell-Toraude; 18.5.1982; appl. 3.2.1981; prior. 11.7.1977, 10.4.1979).

Bey, P. et al.: *J. Org. Chem. (JOCEAH)* **44**, 2732 (1979).Metcalf, B.W. et al.: *J. Am. Chem. Soc. (JACSAT)* **100**, 2551 (1978).*synthesis of (-)-isomer:*

EP 357 029 (Merrell Dow; appl. 30.8.1989; USA-prior. 31.8.1988).

pharmaceutical composition:

BE 881 209 (Merrell-Toraude; appl. 16.5.1980; USA-prior. 10.4.1979).

combination with interferon:

US 4 499 072 (Merrell Dow; 12.2.1985; appl. 24.1.1983; prior. 29.11.1982).

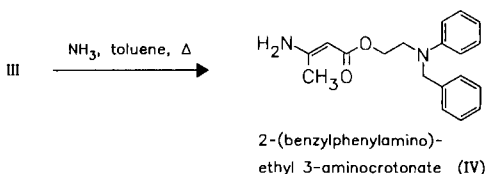
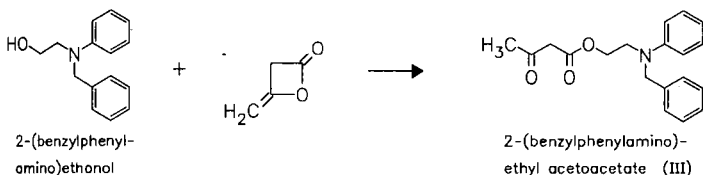
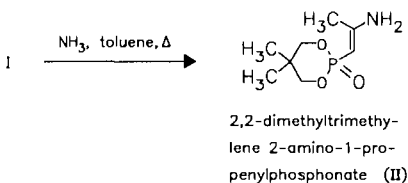
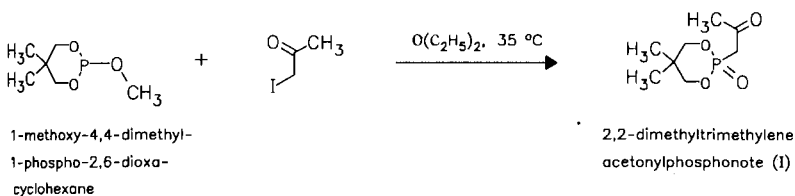
Formulation(s): vial 200 mg/ml (20 g as hydrochloride hydrate)*Trade Name(s):*USA: Ornidyl (Ilex Oncology; as
hydrochloride hydrate);
wfmOrnidyl (Marion Merrell
Dow; 1990); wfm

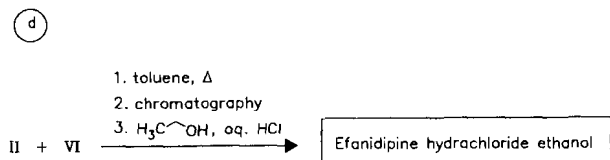
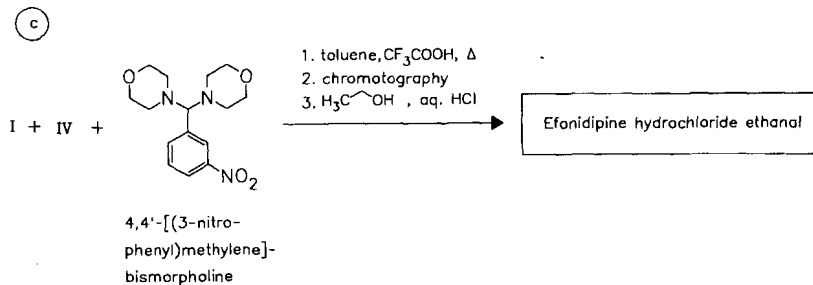
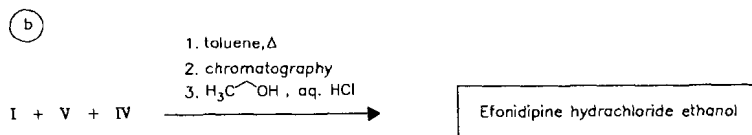
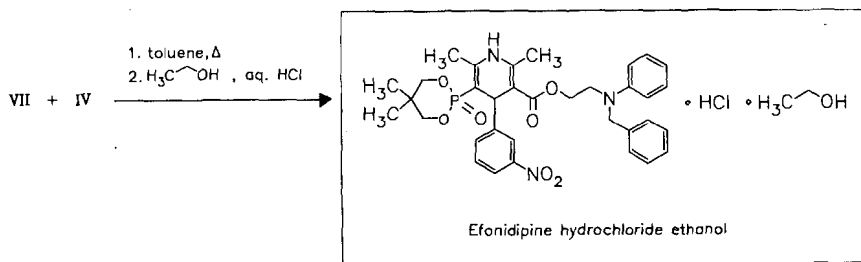
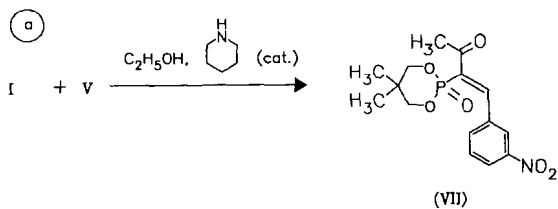
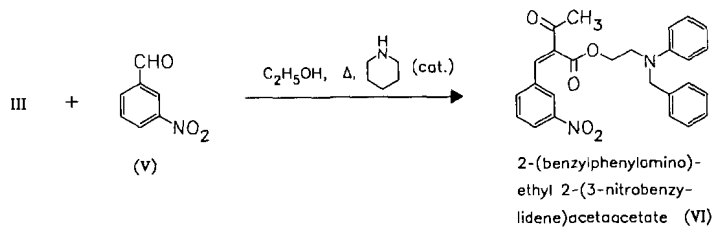
Efonidipine hydrochloride ethanol

(NZ-105)

ATC: C08CA

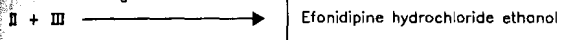
Use: antihypertensive, calcium channel blocker

RN: 111011-76-8 MF: $C_{34}H_{38}N_3O_7P \cdot C_2H_6O \cdot HCl$ MW: 714.20LD₅₀: > 5 g/kg (R, p.o.)CN: (±)-5-(5,5-dimethyl-1,3,2-dioxaphosphorinan-2-yl)-1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-3-pyridinecarboxylic acid 2-[phenyl(phenylmethyl)amino]ethyl ester *P*-oxide monohydrochloride compd. with ethanol (1:1)**efonidipine**RN: 111011-63-3 MF: $C_{34}H_{38}N_3O_7P$ MW: 631.67**hydrochloride**RN: 111011-53-1 MF: $C_{34}H_{38}N_3O_7P \cdot HCl$ MW: 668.13**(R)-base**RN: 128194-13-8 MF: $C_{34}H_{38}N_3O_7P$ MW: 631.67**(S)-base**RN: 128194-12-7 MF: $C_{34}H_{38}N_3O_7P$ MW: 631.67



⊙

1. v
2. toluene, Δ
3. chromatography
4. $\text{H}_3\text{C}-\text{OH}$, aq. HCl



Reference(s):

Seto, K.; Sakoda, R.; Tanaka, S.: 10th Int. Symp. Med. Chem. (Aug. 15-19, Budapest) 1988, 301.

preparation of efonidipine hydrochloride ethanol:

WO 8 704 439 (Nissan Chemical Industries; appl. 5.8.1987; J-prior. 22.1.1986, 23.1.1986; USA-prior. 14.4.1986; J-prior. 25.11.1986).

preparation of optically active (dihydropyridyl)phosphonate esters:

JP 02 011 592 (Nissan Chemical Industries; appl. 16.1.1990; J-prior. 29.6.1988).

use of topical ophthalmic composition:

WO 9 323 082 (Alcon Laboratories; appl. 25.11.1993; USA-prior. 13.5.1992).

pharmaceutical compositions:

EP 344 603 (Zeria Pharmaceutical & Co.; Nissan Chemical Industries; appl. 6.12.1986; J-prior. 30.5.1988, 2.3.1989).

combination with immunosuppressive, cardiovascular and cerebral activity:

DE 4 430 128 (Hoechst; appl. 29.2.1996; D-prior. 25.8.1994).

Formulation(s): tabl. 10 mg, 20 mg

Trade Name(s):

J: Landel (Nissan Chem.-Shionogi-Zeria)

Elliptinium acetate

ATC: L01C; L01XX

Use: antineoplastic

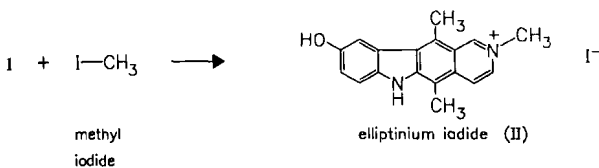
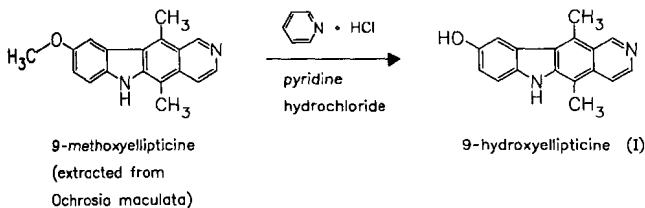
RN: 58337-35-2 MF: $\text{C}_{18}\text{H}_{17}\text{N}_2\text{O} \cdot \text{C}_2\text{H}_3\text{O}_2$ MW: 336.39 EINECS: 261-216-0

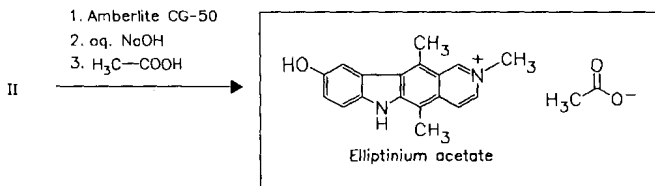
CN: 9-hydroxy-2,5,11-trimethyl-6H-pyrido[4,3-b]carbazolium acetate (salt)

Iodide

RN: 58447-24-8 MF: $\text{C}_{18}\text{H}_{17}\text{IN}_2\text{O}$ MW: 404.25 EINECS: 261-259-5

LD₅₀: 5 mg/kg (M, i.p.)



**Reference(s):**

DOS 2 618 223 (Anvar; appl. 26.4.1976; F-prior. 25.4.1975).

Formulation(s): vial (lyo.) 50 mg

Trade Name(s):

F: Celiptium (Pasteur Vaccins)

Emedastine

ATC: R06AE

Use: antihistaminic

RN: 87233-61-2 MF: $\text{C}_{17}\text{H}_{26}\text{N}_4\text{O}$ MW: 302.42

CN: 1-(2-ethoxyethyl)-2-(hexahydro-4-methyl-1H-1,4-diazepin-1-yl)-1H-benzimidazole

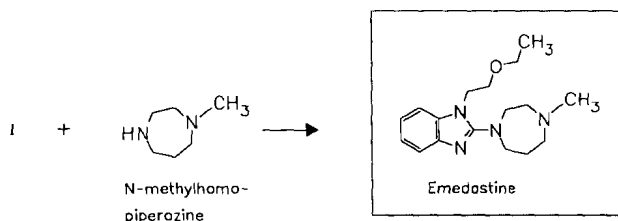
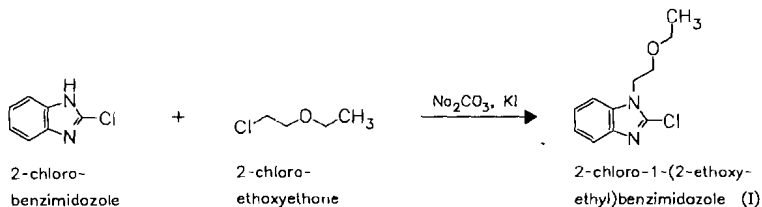
fumarate (1:2)

RN: 87233-62-3 MF: $\text{C}_{17}\text{H}_{26}\text{N}_4\text{O} \cdot 2\text{C}_4\text{H}_4\text{O}_4$ MW: 534.57

LD₅₀: 93 mg/kg (M, i.v.); 2206 mg/kg (M, p.o.); 609 mg/kg (M, s.c.);

72 mg/kg (R, i.v.); 1854 mg/kg (R, p.o.); 643 mg/kg (R, s.c.);

193 mg/kg (dog, p.o.)

**Reference(s):**

EP 79 545 (Kanebo; appl. 5.11.1982; J-prior. 6.11.1981).

percutaneous administration:

EP 440 811 (Kanebo; appl. 23.8.1990; J-prior. 28.8.1989).

Formulation(s): cps. 1 mg, 2 mg (as difumarate)

Trade Name(s):

J: Daren (Kanebo; 1992)

Lemicut (Kowa)

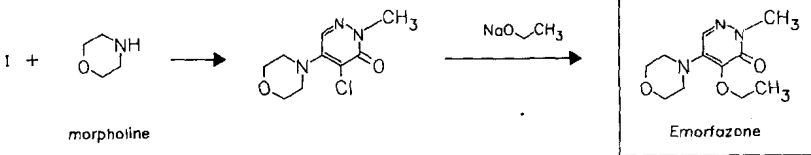
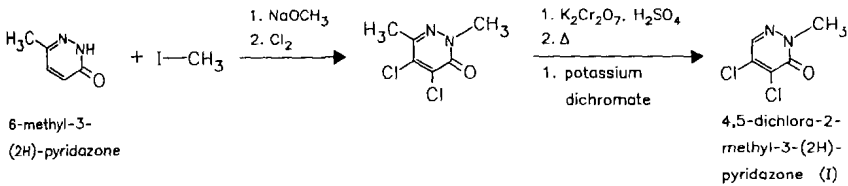
Emorfazone

ATC: N02

Use: anti-inflammatory, analgesic

RN: 38957-41-4 MF: $C_{11}H_{17}N_3O_3$ MW: 239.28 EINECS: 254-220-9LD₅₀: 700 mg/kg (M, i.p.)

CN: 4-ethoxy-2-methyl-5-(4-morpholinyl)-3-(2H)-pyridazinone



Reference(s):

DOS 2 225 218 (Morishita; appl. 24.5.1972).

GB 1 351 569 (Morishita; appl. 15.5.1972).

synthesis of 4,5-dichloro-2-methyl-3(2H)-pyridazine:

Homer, R.F. et al.: J. Chem. Soc. (JCSOA9) **1948**, 2191.

Formulation(s): tabl. 100 mg, 200 mg

Trade Name(s):

J: Pentoil (Morishita; 1984)

Enalapril

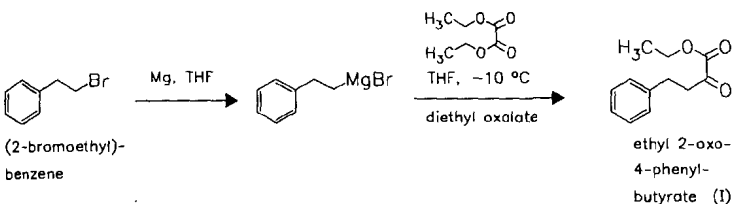
ATC: C09AA02

Use: antihypertensive (ACE inhibitor)

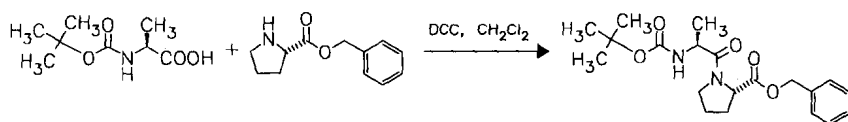
RN: 75847-73-3 MF: $C_{20}H_{28}N_2O_5$ MW: 376.45

CN: (S)-1-[N-[1-(ethoxycarbonyl)-3-phenylpropyl]-L-alanyl]-L-proline

maleate (1:1)

RN: 76095-16-4 MF: $C_{20}H_{28}N_2O_5 \cdot C_4H_4O_4$ MW: 492.53 EINECS: 278-375-7

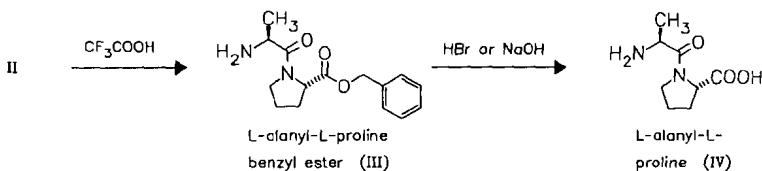
(a)



N-tert-butoxy-
carbonyl-L-alanine

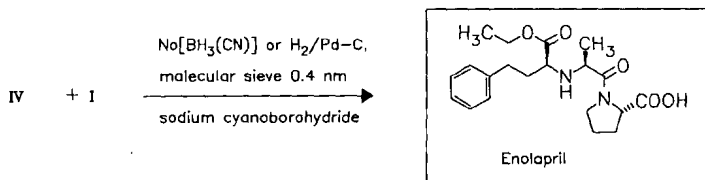
L-proline
benzyl ester

(II)



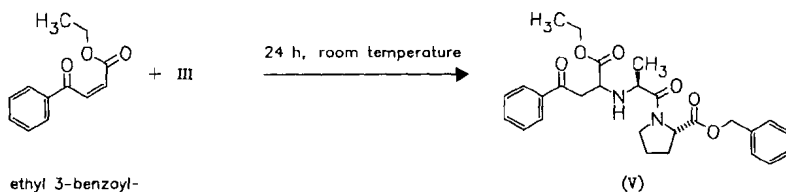
L-alanyl-L-proline
benzyl ester (III)

L-alanyl-L-
proline (IV)



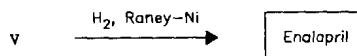
Enalapril

(b)



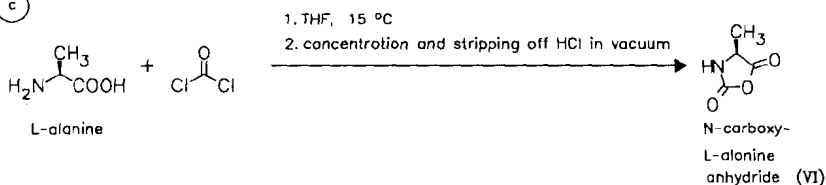
ethyl 3-benzoyl-
acrylate

(V)



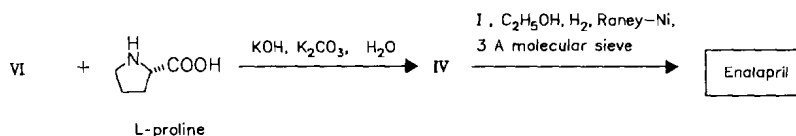
Enalapril

(c)



L-alanine

N-carboxy-
L-alanine
anhydride (VI)



L-proline

Enalapril

Reference(s):

Patchett, A.A. et al.: Nature (London) (NATUAS) **288**, 280 (1980).

ethyl 2-oxo-4-phenylbutyrate:

Weinstock, L.M. et al.: Synth. Commun. (SYNCAV) **11**, 943 (1981).

- a Wyvrat, M.J. et al.: J. Org. Chem. (JOCEAH) **49**, 2816 (1984).
US 4 374 829 (Merck & Co.; 22.2.1983; prior. 11.12.1978).
EP 12 401 (Merck & Co.; appl. 10.12.1979; USA-prior. 11.12.1978).
US 4 472 380 (Merck & Co.; 18.9.1984; prior. 11.12.1979).
Huffmann, H.A. et al.: Tetrahedron Lett. (TELEAY) **40**, 331 (1999).
- b US 4 442 030 (Merck & Co.; 10.4.1984; prior. 7.6.1982).
- c Blacklock, T.J. et al.: J. Org. Chem. (JOCEAH) **53**, 836 (1988).

processes which employ reaction of activated derivatives of N-[1(S)-ethoxycarbonyl-3-phenylpropyl]-L-alanine with L-proline:

US 4 716 235 (Kanegafuchi; 29.12.1987; J-prior. 27.8.1985).

DOS 3 542 735 (Uriach; appl. 3.12.1985; E-prior. 2.7.1985).

US 4 652 668 (Biomeasure; 24.3.1987; appl. 3.7.1985).

condensation of L-alanyl-L-proline with 3-phenylpropionaldehyde and cyanides via the corresponding aminonitrile:

EP 79 521 (Merck & Co.; appl. 3.11.1982; USA-prior. 9.11.1981, 9.8.1982).

Formulation(s): tabl. 2.5 mg, 5 mg, 10 mg, 20 mg (as hydrogen maleate)

Trade Name(s):

D:	Pres (Boehringer Ing.; 1984)	GB:	Innovace (Merck Sharp & Dohme; 1986)		Naprilene (Sigma-Tau; 1985)
	Xanef (Merck Sharp & Dohme; 1984)		Innozide (Merck Sharp & Dohme)-comb.	J:	Renivace (Banyu; 1986)
F:	Co-Renitec (Merck Sharp & Dohme-Chibret)-comb.	I:	Converten (Neopharmed; 1985)	USA:	Lexxel (Astra Merck)
	Renitec (Merck Sharp & Dohme-Chibret; 1985)		Enapren (Merck Sharp & Dohme; 1985)		Vaseretic (Merck; 1987)-comb. with hydrochlorothiazide
					Vasotec (Merck; 1986)

Enalaprilat

(Enalaprilic acid)

ATC: C09AA02; C09BA02

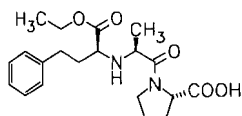
Use: angiotensin-converting enzyme inhibitor (for i.v. application as antihypertensive and in congestive heart failure, active metabolite of enalapril (q. v.))

RN: 76420-72-9 MF: C₁₈H₂₄N₂O₅ MW: 348.40 EINECS: 278-459-3

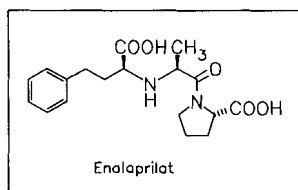
CN: (S)-1-[N-(1-carboxy-3-phenylpropyl)-L-alanyl]-L-proline

dihydrate

RN: 84680-54-6 MF: C₁₈H₂₄N₂O₅ · 2H₂O MW: 384.43



aq. NaOH →



Reference(s):

Patchett, A.A. et al.: Nature (London) (NATUAS) **288**, 280 (1980).Wyoratt, M.J. et al.: J. Org. Chem. (JOCEAH) **49**, 2816 (1984).

US 4 374 829 (Merck & Co.; 22.2.1983; USA-prior. 11.12.1978).

cf. literature cited under enalapril

Formulation(s): amp. 1.25 mg/1.25 ml

Trade Name(s):

D: Pres i.v. (Boehringer Ing.)

Xanef i.v. (MSD)

USA: Vasotec i.v. (Merck)

Endralazine

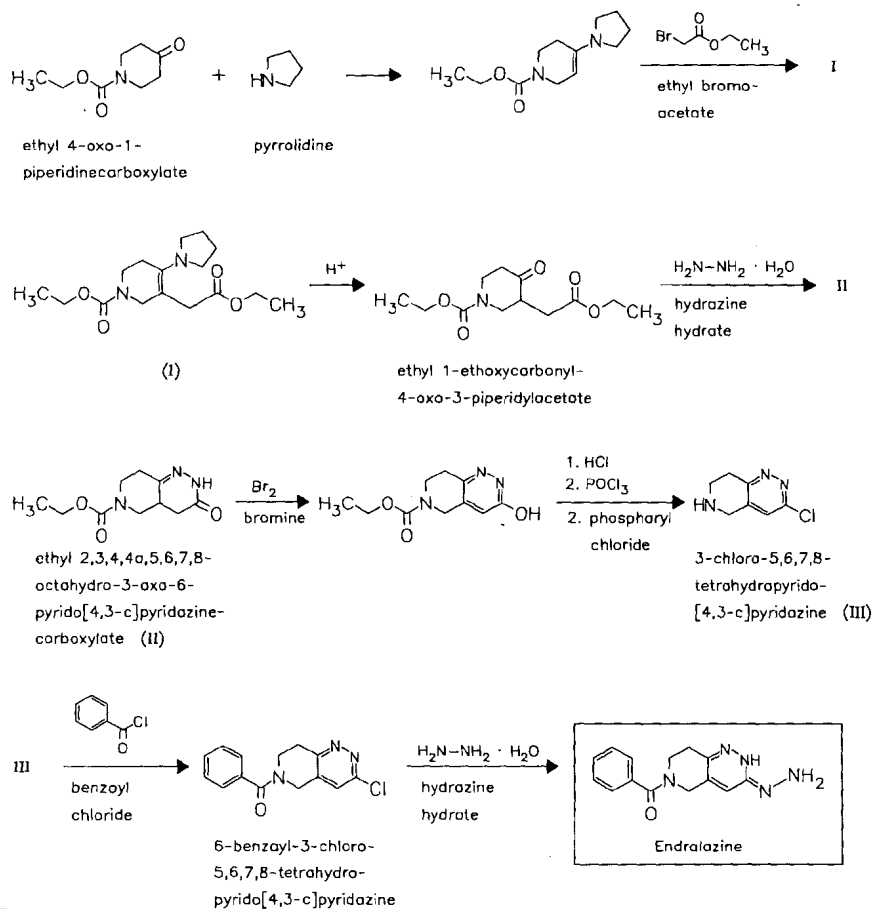
ATC: C02DB03

Use: antihypertensive

RN: 39715-02-1 MF: $C_{14}H_{15}N_3O$ MW: 269.31

CN: 6-benzoyl-5,6,7,8-tetrahydropyrido[4,3-c]pyridazin-3(2H)-one 3-hydrazone

monomesylate

RN: 65322-72-7 MF: $C_{14}H_{15}N_3O \cdot CH_4O_3S$ MW: 365.41LD₅₀: 246 mg/kg (M, i.p.)

Reference(s):

DOS 2 221 808 (Sandoz; appl. 4.5.1972; CH-prior. 11.5.1971, 26.5.1971, 28.5.1971, 15.10.1971).

CH 565 797 (Sandoz; appl. 16.3.1972).

Schenker, E.; Salzmann, R.: *Arzneim.-Forsch. (ARZNAD)* **29**, 1835 (1979).

Formulation(s): cps. 5 mg, 10 mg (as mesylate)

Trade Name(s):

D: Miretilan (Sandoz); wfm

Enflurane

ATC: N01AB04

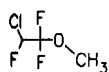
Use: inhalation anesthetic

RN: 13838-16-9 MF: C₃H₂ClF₅O MW: 184.49 EINECS: 237-553-4

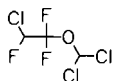
LD₅₀: 5 ml/kg (M, p.o.);

5450 µl/kg (R, p.o.)

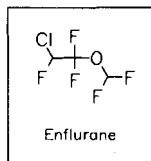
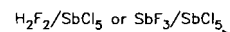
CN: 2-chloro-1-(difluoromethoxy)-1,1,2-trifluoroethane



2-chloro-1,1,2-trifluoroethyl methyl ether



2-chloro-1,1,2-trifluoroethyl dichloromethyl ether



Enflurane

Reference(s):

DE 1 643 591 (Air Reduction Comp.; prior. 2.10.1967).

US 3 469 011 (Air Reduction Comp.; 23.9.1969; appl. 3.10.1966).

US 3 527 813 (Air Reduction Comp.; 8.9.1970; prior. 3.10.1966, 4.9.1968).

Terrell, R.C. et al.: *J. Med. Chem. (JMCMAR)* **14**, 517 (1971).

Formulation(s): liquid for inhalation 125 ml, 250 ml

Trade Name(s):

D: Enfluran-Pharmacia

Ethrane (Abbott; 1976)

USA: Ethrane (Ohmeda)

Inhalationsflüssigkeit

GB: Ethrane (Abbott); wfm

(Pharmacia & Upjohn)

J: Ethrane (Dainippon; 1981)

Enoxacin

ATC: J01MA04

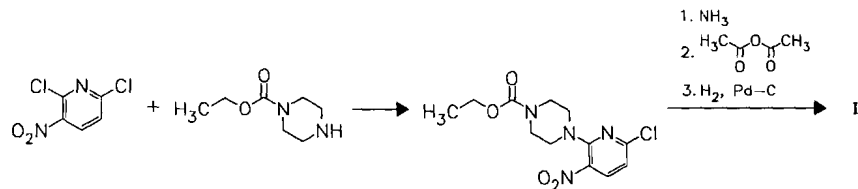
Use: antibiotic (gyrase inhibitor), antibacterial

RN: 74011-58-8 MF: C₁₅H₁₇FN₄O₃ MW: 320.32

LD₅₀: >5000 mg/kg (M, p.o.);

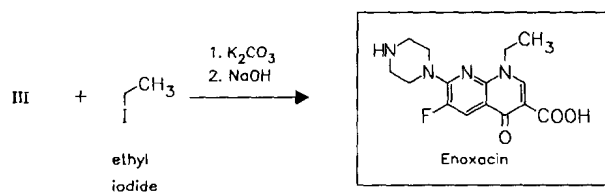
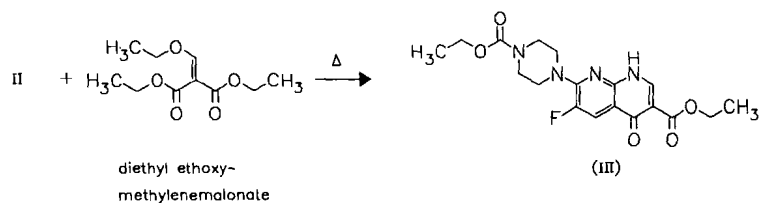
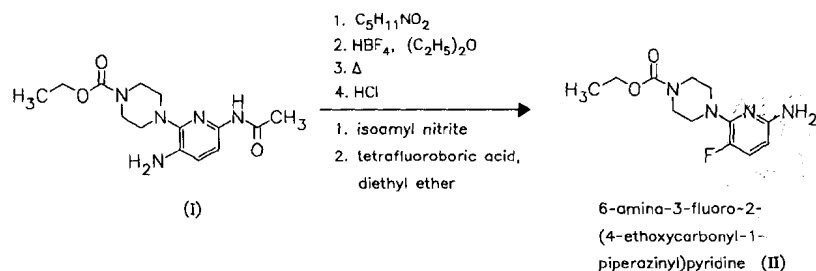
>5000 mg/kg (R, p.o.)

CN: 1-ethyl-6-fluoro-1,4-dihydro-4-oxo-7-(1-piperazinyl)-1,8-naphthyridine-3-carboxylic acid



2,6-dichloro-
3-nitro-
pyridine

1-ethoxycarbonyl-
piperazine



Reference(s):

EP 9 425 (Roger Bellon, Dainippon; appl. 24.8.1979; J-prior. 25.8.1978, 20.12.1978, 29.12.1978).
US 4 352 803 (Dainippon; 5.10.1982; J-prior. 25.8.1978).
US 4 359 578 (Dainippon; 5.10.1982; J-prior. 25.8.1978).

Formulation(s): f. c. tabl. 200 mg, 300 mg, 400 mg

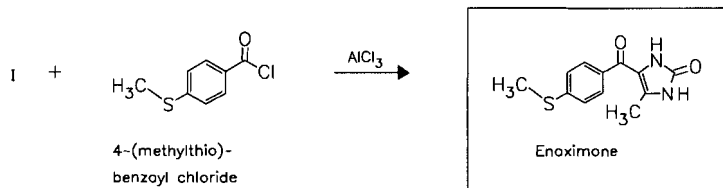
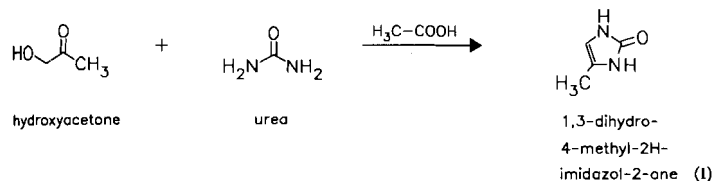
Trade Name(s):

D:	Enoxor (Pierre Fabre Pharma)	GB:	Comprecin (Parke Davis); wfm	J:	Flumark (Dainippon; 1986)
F:	Enoxor (Sinbio)	I:	Bactidan (Recordati)	USA:	Penetrex (Rhône-Poulenc Rorer)

Enoximone
(RMI-17043)

ATC: C01CE03
Use: cardiotonic, phosphodiesterase inhibitor

RN: 77671-31-9 MF: $\text{C}_{12}\text{H}_{12}\text{N}_2\text{O}_2\text{S}$ MW: 248.31
CN: 1,3-dihydro-4-methyl-5-[4-(methylthio)benzoyl]-2H-imidazol-2-one

**Reference(s):**

DOS 3 021 792 (Richardson-Merrell; appl. 11.6.1980; USA-prior. 18.6.1979, 7.2.1980).

GB 2 055 364 (Richardson-Merrell; appl. 18.6.1980; USA-prior. 18.6.1979, 7.2.1980).

US 4 405 635 (Richardson-Merrell; appl. 13.9.1982; prior. 18.6.1979, 7.2.1980, 13.6.1980, 18.2.1981, 30.4.1982).

EP 58 435 (Richardson-Merrell; appl. 18.2.1982; USA-prior. 18.2.1981).

Schnettler, R.A. et al.: J. Med. Chem. (JMCMAR) **25**, 1477 (1982).

synthesis of 1,3-dihydro-4-methyl-2H-imidazol-2-one:

WO 8 602 070 (Pfizer; appl. 26.9.1984).

Formulation(s): amp. 100 mg/20 ml

Trade Name(s):

D: Perfan (Hoechst)

GB: Perfan (Hoechst; 1989)

I: Perfan (Lepetit)

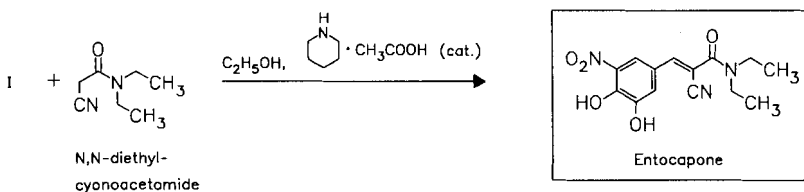
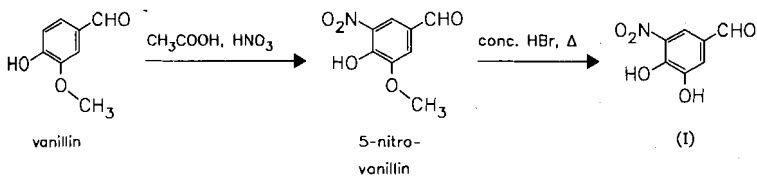
Entacapone

ATC: N04BX02

Use: antiparkinsonian

RN: 130929-57-6 MF: C₁₄H₁₅N₃O₅ MW: 305.29

CN: (*E*)-2-Cyano-3-(3,4-dihydroxy-5-nitrophenyl)-*N,N*-diethyl-2-propenamide

**Reference(s):**

DE 3 740 383 (Orion Yhtymä Oy; appl. 27.11.1987; FI-prior. 28.11.1986).

*preparation of 5-nitrovanillin:*Menke; Bentley: J. Am. Chem. Soc. (JACSAT) **20**, 316 (1898)*Formulation(s):* f. c. tabl. 200 mg; tabl. 200 mg*Trade Name(s):*

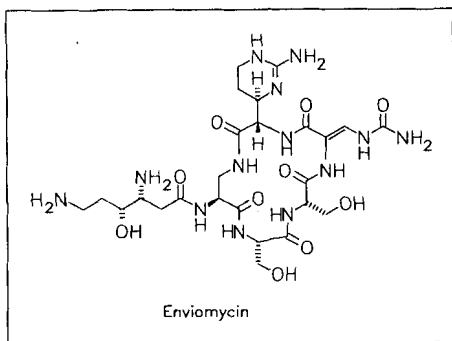
D:	Comtess (Orion Pharma; 1998)	F:	Comtan (Novartis)	I:	Comtan (Novartis)
		GB:	Comtess (Orion)	USA:	Comtan (Orion)

Enviomycin

(Tuberactinomycin N)

ATC: J04AB

Use: antibiotic

RN: 33103-22-9 MF: C₂₅H₄₃N₁₃O₁₀ MW: 685.70LD₅₀: 370 mg/kg (M, i.v.); >3 g/kg (M, p.o.);
640 mg/kg (R, i.v.); >3 g/kg (R, p.o.)CN: (R)-1-(*threo*-4-hydroxy-L-3,6-diaminohexanoic acid)-6-[L-2-(2-amino-1,4,5,6-tetrahydro-4-pyrimidinyl)glycine]viomycin**sulfate (2:3)**RN: 53760-33-1 MF: C₂₅H₄₃N₁₃O₁₀ · 3/2H₂SO₄ MW: 1665.63From fermentation solutions of *Streptomyces griseoverticillatus* var. *tuberacticus* FERM P-619.*Reference(s):*

DOS 2 133 181 (Toyo Jozo; appl. 30.6.1971; J-prior. 30.6.1970).

US 3 892 732 (Toyo Jozo; 1.7.1975; J-prior. 30.6.1970).

Ando, T. et al.: J. Antibiot. (JANTAJ) **24**, 680 (1971).*Formulation(s):* vial 1 g (as sulfate)*Trade Name(s):*

J: Tuberactin (Toyo Jozo) TUM (Toyo Jozo)

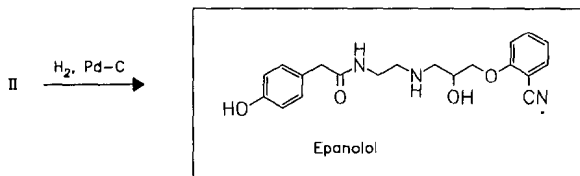
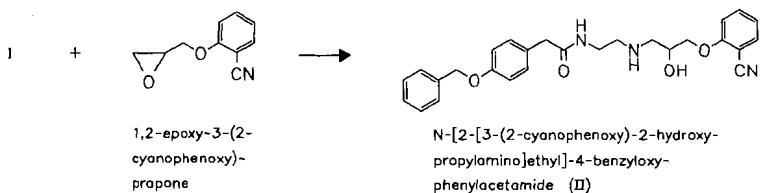
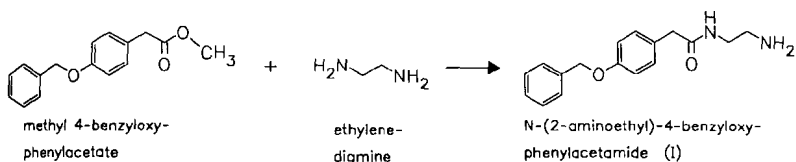
Epanolol

(ICI-141292)

ATC: C07AB10

Use: β₁-adrenoceptor antagonist,
antihypertensiveRN: 86880-51-5 MF: C₂₀H₂₃N₃O₄ MW: 369.42

CN: N-[2-[[3-(2-cyanophenoxy)-2-hydroxypropyl]amino]ethyl]-4-hydroxybenzeneacetamide

**Reference(s):**

- DE 2 362 568 (ICI; appl. 20.6.1974; GB-prior. 17.9.1973).
 DOS 2 525 133 (ICI; appl. 5.6.1975; GB-prior. 5.6.1974).
 US 4 141 987 (ICI; 27.2.1979; GB-prior. 5.6.1974).
 US 4 221 807 (ICI; 9.9.1980; GB-prior. 5.6.1974).
 US 4 260 632 (ICI; 7.4.1981; GB-prior. 5.6.1974).
 US 4 327 113 (ICI; 27.4.1982; GB-prior. 5.6.1974).
 US 4 387 099 (ICI; 7.6.1983; GB-prior. 5.6.1974).
 Large, M.S.; Smith, L.H.: J. Med. Chem. (JMCMAR) **25**, 1286 (1982).

synthesis of N-(2-aminoethyl)-4-benzyloxyphenylacetamide:

DOS 2 362 568 (ICI; appl. 17.12.1973; GB-prior. 15.12.1972, 17.9.1973).

Formulation(s): tabl.

Trade Name(s):

GB: Visacor (ICI); wfm

Eperisone

ATC: A03AC

Use: skeletal muscle relaxant

RN: 64840-90-0 MF: C₁₇H₂₅NO MW: 259.39

LD₅₀: 1024 mg/kg (M, p.o.);

1850 mg/kg (R, p.o.)

CN: 1-(4-ethylphenyl)-2-methyl-3-(1-piperidinyl)-1-propanone

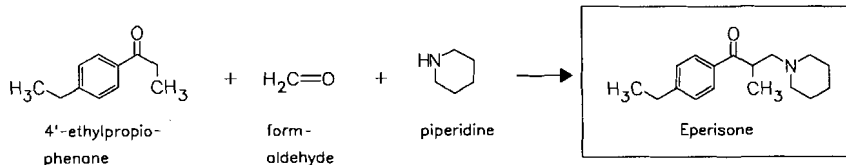
hydrochloride

RN: 56839-43-1 MF: C₁₇H₂₅NO · HCl MW: 295.85

LD₅₀: 43 mg/kg (M, i.v.); 324 mg/kg (M, p.o.);

51 mg/kg (R, i.v.); 1002 mg/kg (R, p.o.);

>750 mg/kg (dog, p.o.)

*Reference(s):*

DOS 2 458 638 (Eisai; appl. 11.12.1974; J-prior. 14.12.1973).

US 4 181 803 (Eisai; 1.1.1980; J-prior. 14.12.1973).

US 39 995 047 (Eisai; 30.11.1976; J-prior. 14.12.1973).

alternative syntheses:

JP 7 930 178 (Asahi; appl. 5.8.1977).

JP 7 932 480 (Asahi; appl. 19.8.1977).

JP 7 936 274 (Asahi; appl. 24.8.1977).

Formulation(s): tabl. 50 mg (as hydrochloride)*Trade Name(s):*

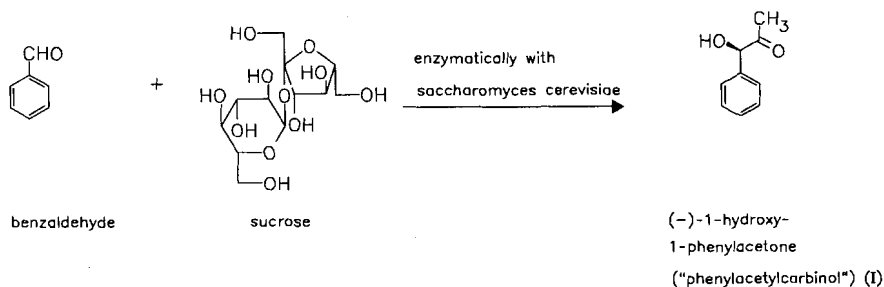
J:	Atines (Takeda)	Evonton (Tatsumi)	Rinpral (Nichiiko)
	Dechozyl (Sawai)	Miolease (Hotta)	Sunbazon (Toyo Jozo)
	Epenard (Taiyo)	Myonabase (Kotobuki)	
	Epeso (Teikoku)	Myonal (Eisai; 1983)	

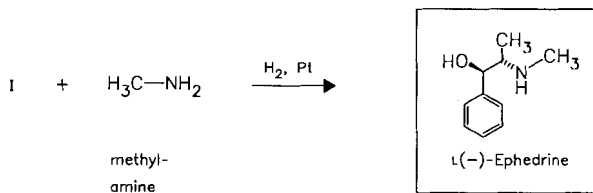
L(-)-EphedrineATC: R01AA03; R01AB05; R03CA02;
S01FB02

Use: sympathomimetic

RN: 299-42-3 MF: C₁₀H₁₅NO MW: 165.24 EINECS: 206-080-5LD₅₀: 74 mg/kg (M, i.v.); 689 mg/kg (M, p.o.);
600 mg/kg (R, p.o.)

CN: [R-(R*,S*)]-α-[1-(methylamino)ethyl]benzenemethanol

hydrochlorideRN: 50-98-6 MF: C₁₀H₁₅NO · HCl MW: 201.70 EINECS: 200-074-6LD₅₀: 95 mg/kg (M, i.v.); 400 mg/kg (M, p.o.);
69 mg/kg (R, i.v.)**sulfate (2:1)**RN: 134-72-5 MF: C₁₀H₁₅NO · 1/2H₂SO₄ MW: 428.55 EINECS: 205-154-4LD₅₀: 812 mg/kg (M, p.o.);
102 mg/kg (R, i.v.); 404 mg/kg (R, p.o.)

*Reference(s):*

Budesinsky-Protiva, 24-27.

US 1 956 950 (E. Billhuber; 1934; D-prior. 1930).

DD 51 651 (D. Gröger, H.-P. Schmauder, H. Frömmel; appl. 15.10.1965).

DL-ephedrine by *hydrogenation of N-methylaminopropiophenone*:

DRP 469 782 (E. Merck; appl. 1926).

Formulation(s): amp. 10 mg, 25 mg, 50 mg (as hydrochloride); drg. 2.5 mg, 10 mg; sol. 100 mg/10 ml; syrup 100 mg/100 ml, 1g/1000 ml (as hydrochloride); syrup 26.7 mg/100 ml (as sulfate); tabl. 10 mg, 25 mg, 50 mg

Trade Name(s):

<p>D: Antiföhnnon (Südmedica)-comb. Asthma 6-N (Hobein)-comb. Ephepect (Bolder)-comb. Ephetonin (Merck); wfm Equisil (Klein)-comb. Felsol (Roland)-comb. Fomagrippin (Michallik)-comb. Hevertopect (Hevert)-comb. Medigel (Medice)-comb. Perdiphen (Schwabe/Spitzner)-comb. Pulmocordio (Hevert)-comb. Rhinoguttæ (Leyh)-comb. Stipo Nasenspray (Repha)-comb.</p>	<p>F: Ephedroides "3" (Silbert et Ripert); wfm generic and numerous combination preparations</p> <p>GB: CAM (Shire) numerous combination preparations</p> <p>I: Codeinol (Saba)-comb. Deltatarinolo (Lepetit)-comb. Paidorinovit (SIT)-comb. Rinopumilene (Montefarmaco) Rinovit (SIT)-comb. combination preparations</p>	<p>J: Ephedrine "Nagai" (Dainippon) numerous generic and combination preparations</p> <p>USA: Broncholate (Sanofi; as hydrochloride)-comb. Kie (Laser; as hydrochloride)-comb. Marax (Pfizer; as sulfate) Pretz-D (Parnell; as sulfate)-comb. Quadrinal (Knoll Labs.; as hydrochloride)-comb. Rynatuss (Wallace; as tannate)-comb. numerous combination preparations</p>
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Epicillin

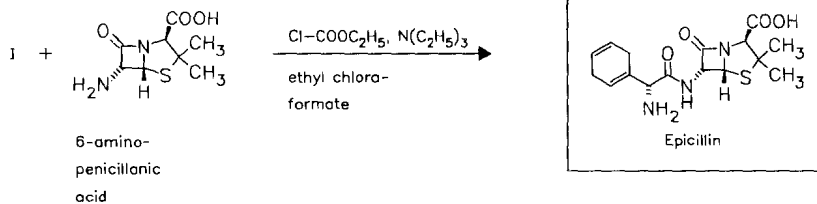
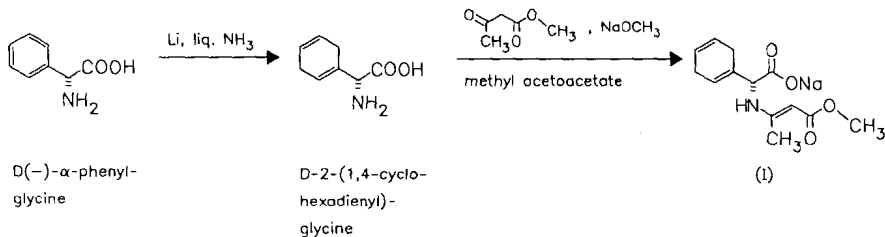
ATC: J01CA07

Use: antibiotic

RN: 26774-90-3 MF: C₁₆H₂₁N₃O₄S MW: 351.43 EINECS: 248-001-7LD₅₀: 3870 mg/kg (M, i.p.)

CN: [2S-[2α,5α,6β(S*)]]-6-[(amino-1,4-cyclohexadien-1-ylacetyl)amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

monosodium saltRN: 34735-40-5 MF: C₁₆H₂₀N₃NaO₄S MW: 373.41

**Reference(s):**

US 3 485 819 (Squibb; 23.12.1969; USA-prior. 2.7.1968).

DAS 1 967 020 (Squibb; appl. 23.6.1969; USA-prior. 2.7.1968).

microbiological acylation by means of Aphanocladium aranearum (ATCC 20453).

US 4 073 687 (Shionogi; 14.2.1978; J-prior. 12.5.1976).

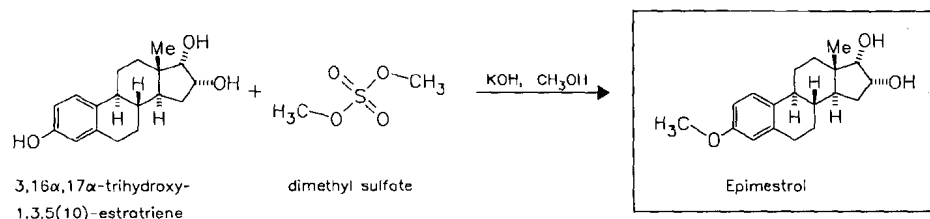
Formulation(s): f. c. drg. 1000 mg; vial 2125.4 mg, 5313.5 mg (as sodium salt)**Trade Name(s):**

D: Spectacillin (Sandoz); wfm F: Dexacilline (Squibb); wfm I: Dexacillin (Squibb); wfm

Epimestrol

ATC: G03GB03

Use: estrogen (ovulation stimulant), anterior, pituitary activator

RN: 7004-98-0 MF: C₁₉H₂₆O₃ MW: 302.41 EINECS: 230-278-0CN: (16 α ,17 α)-3-methoxyestra-1,3,5(10)-triene-16,17-diol**Reference(s):**

NL 95 257 (Organon; appl. 1958).

starting material and alternative synthesis:

US 2 584 271 (Searle; 1952; prior. 1948).

Prelog, V. et al.: *Helv. Chim. Acta* (HCACAV) **28**, 250 (1945).**alternative synthesis:**Caglioti, L.; Magi, M.: *Tetrahedron* (TETRAB) **19**, 1127 (1963).

Formulation(s): tabl. 5 mg

Trade Name(s):

D: Stimovul (Organon); wfm I: Stimovul (Organon Italia) J: Stimovul (Ravasini)

Epinastine hydrochloride
(WAL-801CL)

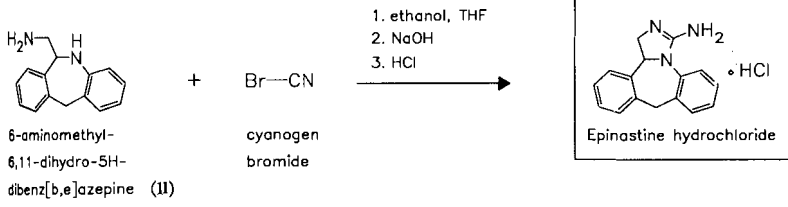
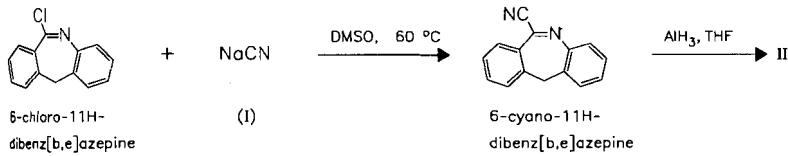
ATC: R06AX24
Use: antihistaminic

RN: 108929-04-0 MF: C₁₆H₁₅N₃ · HCl MW: 285.78
LD₅₀: 17 mg/kg (R, i.v.); 192 mg/kg (R, p.o.)
CN: 9,13b-dihydro-1*H*-dibenz[*c,f*]imidazo[1,5-*a*]zepin-3-amine monohydrochloride

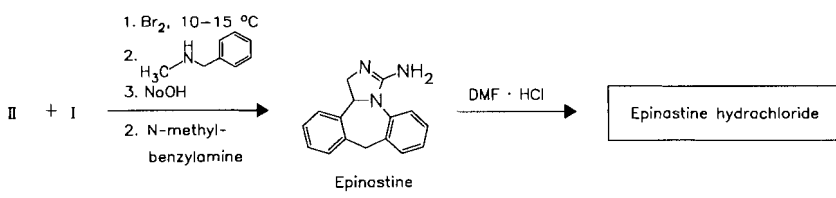
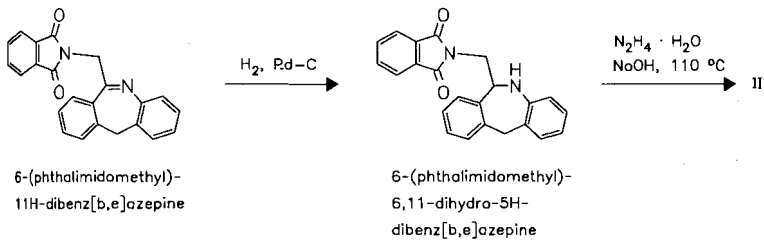
epinastine

RN: 80012-43-7 MF: C₁₆H₁₅N₃ MW: 249.32

(a)



(b)



Reference(s):

a DE 3 008 944 (Boehringer Ing.; appl. 5.3.1981; D-prior. 8.3.1980).

starting material:

Hunziker, E. et al.: Helv. Chim. Acta (HCACAV) **49/II**, 1433 (1966); **50/I**, 245 (1967).

b EP 496 306 (Boehringer Ing.; appl. 18.1.1992; D-prior. 25.1.1991).

composition with PAF-antagonists:

WO 8 910 143 (Schering Corp.; appl. 24.4.1989; USA-prior. 27.4.1988).

Formulation(s): tabl. 10 mg, 20 mg

Trade Name(s):

J: Alesion (Nippon
Boehringer Ing./Sakyo)

Epinephrine

(Adrenaline)

ATC: A01AD01; B02BC09; C01CA24;
R03AA01; S01EA01

Use: sympathomimetic, vasoconstrictor

RN: 51-43-4 MF: $C_9H_{13}NO_3$ MW: 183.21 EINECS: 200-098-7

LD₅₀: 217 µg/kg (M, i.v.);

150 µg/kg (R, i.v.);

100 µg/kg (dog, i.v.)

CN: (R)-4-[1-hydroxy-2-(methylamino)ethyl]-1,2-benzenediol

hydrochloride

RN: 55-31-2 MF: $C_9H_{13}NO_3 \cdot HCl$ MW: 219.67 EINECS: 200-230-3

LD₅₀: 140 µg/kg (M, i.v.);

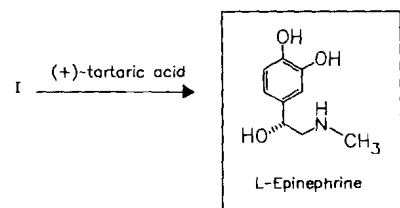
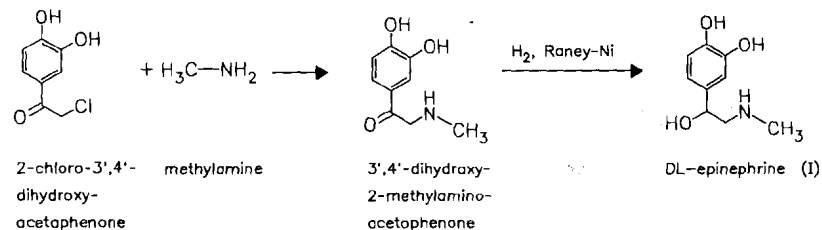
24 mg/kg (R, p.o.)

tartrate (1:1)

RN: 51-42-3 MF: $C_9H_{13}NO_3 \cdot C_4H_6O_6$ MW: 333.29 EINECS: 200-097-1

LD₅₀: 1780 µg/kg (M, i.v.); 4 mg/kg (M, p.o.);

82 µg/kg (R, i.v.)



Reference(s):

DRP 152 814 (Hoechst; 1903).

DRP 157 300 (Hoechst; 1903).

DRP 222 451 (Hoechst; 1908).

Tullar, B.F.: J. Am. Chem. Soc. (JACSAT) **70**, 2067 (1948).

Formulation(s): amp. 0.05 mg/10 ml, 1 mg/ml, 2.05 mg/2.05 ml (as hydrochloride); eye drops 2 mg/ml, 5 mg/ml; eye ointment 1 mg/g (as tartrate)

Trade Name(s):

D:	Adrenalin 1:1000 JENAPHARMA (Jenapharm) Adrenalin Medihaler (Kettelhack-Riker) Anaphylaxie-Besteck Lösung Z.J. (SmithKline Beecham) Fastjekt (Allergopharma) Suprarenin (Hoechst) numerous combination preparations		Dyspné-Inhal (Augot) Eppy 1 % (Allergan France) Glaucaдрine (Merck Sharp & Dohme-Chibret)-comb. numerous combination preparations and generics		Eppy (Merck Sharp & Dohme) Rinantipiol (Antipiol)- comb. Xylocaina (Astra-Simes) Xylonor (Ogna)-comb.
F:	Anahelp (Stallergènes) Anakit (Dome-Hollister- Stier)	GB:	Accusite (Matrix)-comb. Epipen (ALK) Eppy (Chauvin) Simplene (Chauvin) combination preparations	J:	Vaponefrin (Tokyo M.I.)
		I:	Adrenal (Lifepharm) Adrenalina Ism (Nuovo ISM)	USA:	Epi E-Z Pen (Dey) EpiPen (Dey) Sensorcaine with Epinephrine (Astra)-comb. Sus-Phrine (Forest) Xylocaine with Epinephrine (Astra)-comb.

Epirizole

(Mepirizole)

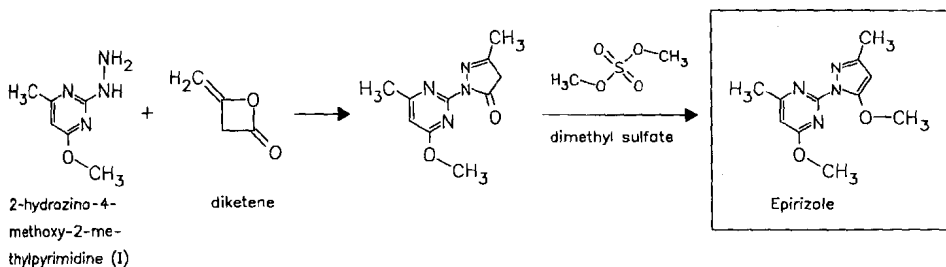
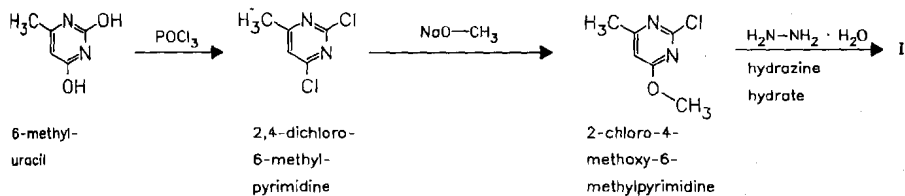
ATC: M01A; N02B; S01B

Use: analgesic, anti-inflammatory

RN: 18694-40-1 MF: C₁₁H₁₄N₄O₂ MW: 234.26 EINECS: 242-507-1LD₅₀: 550 mg/kg (M, i.v.); 740 mg/kg (M, p.o.);

214 mg/kg (R, i.v.); 445 mg/kg (R, p.o.)

CN: 4-methoxy-2-(5-methoxy-3-methyl-1H-pyrazol-1-yl)-6-methylpyrimidine

**Reference(s):**

FR-M 6 793 (Daiichi Seiyaku; appl. 31.8.1967).

DAS 2 237 632 (Daiichi Seiyaku; appl. 31.7.1972; J-prior. 31.7.1971, 5.8.1971).

*intermediates:*Vanderhaeghe, H.; Claesen, M.: *Bull. Soc. Chim. Belg. (BSCBAG)* **68**, 30 (1959).*Formulation(s):* tabl. 50 mg, 100 mg*Trade Name(s):*

I: Diacon (IBI); wfm

J: Analock (Taito Pfizer)

Mebron (Daiichi)

Epirubicin(Pidorubicin; 4'-*epi*-Adriamycin)

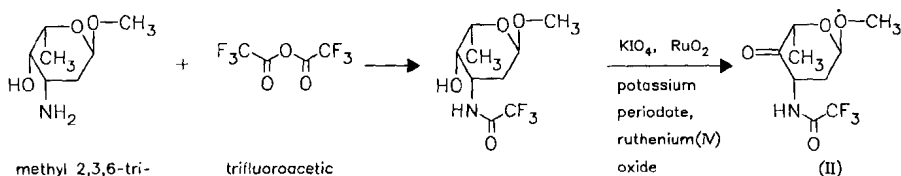
ATC: L01DB03

Use: antineoplastic

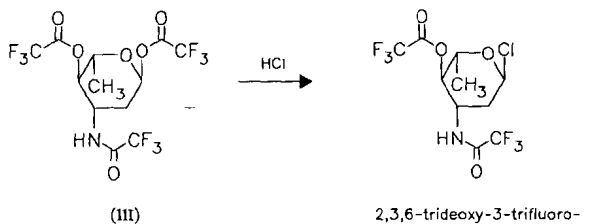
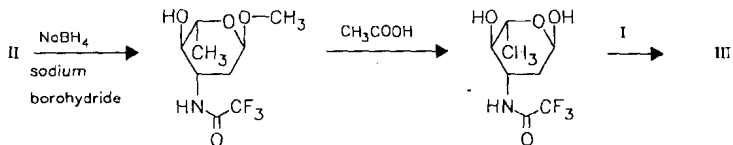
RN: 56420-45-2 MF: C₂₇H₂₉NO₁₁ MW: 543.53LD₅₀: 16.07 mg/kg (M, i.v.);

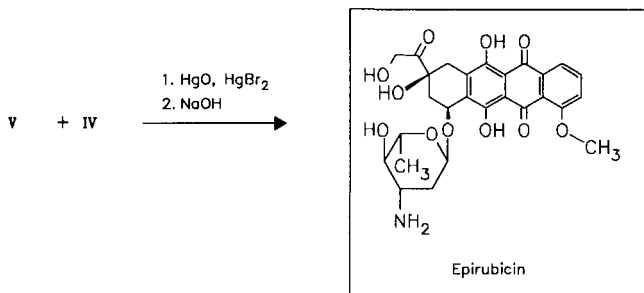
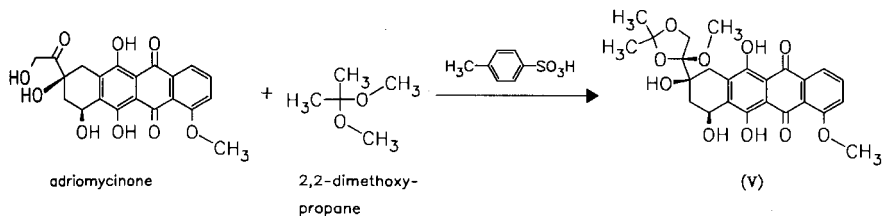
14.27 mg/kg (R, i.v.);

2 mg/kg (dog, i.v.)

CN: (8*S*-*cis*)-10-[(3-amino-2,3,6-trideoxy- α -L-arabino-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-5,12-naphthacenedione**hydrochloride**RN: 56390-09-1 MF: C₂₇H₂₉NO₁₁ · HCl MW: 579.99methyl 2,3,6-trideoxy-3-amino- α -L-lyxo-hexopyranoside

trifluoroacetic anhydride (I)

2,3,6-trideoxy-3-trifluoroacetamido-4-O-trifluoroacetyl- α -L-arabino-hexopyranosyl chloride (IV)



Reference(s):

Arcamone, F. et al.: J. Med. Chem. (JMCMAR) **18**, 703 (1975).
 DOS 2 510 866 (Farmitalia; appl. 20.3.1975; GB-prior. 22.3.1974).
 US 4 058 519 (Farmitalia; 15.11.1977; appl. 19.3.1975; GB-prior. 22.3.1974).

alternative synthesis:

DOS 2 618 822 (Farmitalia; appl. 29.4.1976; GB-prior. 30.4.1975).

purification:

GB 2 133 005 (Farmitalia; appl. 16.12.1983).

Formulation(s): vial 10 mg, 20 mg, 50 mg (as hydrochloride)

Trade Name(s):

D: Farmorubicin (Pharmacia & Upjohn; 1984)	GB: Phamarubicin (Pharmacia & Upjohn; 1985)	J: Farmorubicin (Farmitalia)
F: Farmorubicine (Pharmacia & Upjohn; 1986)	I: Farmorubicina (Farmitalia; 1984)	

Epitiostanol

(Epithioandrostanol; Epithiostanol)

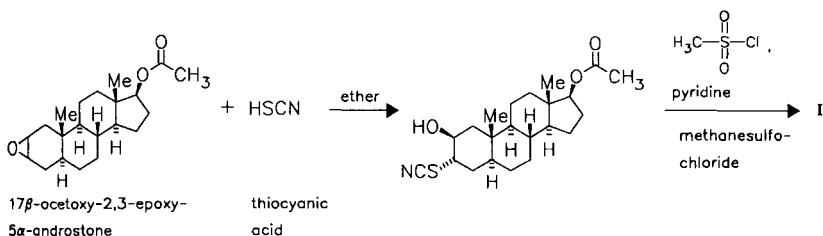
ATC: G03B; L02BA

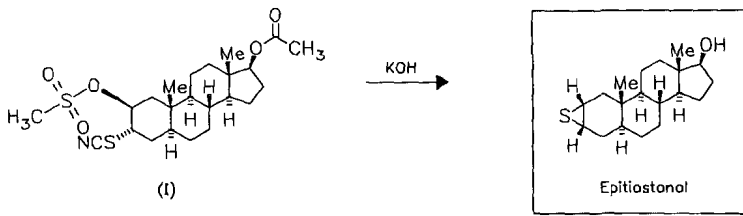
Use: antiestrogen, antineoplastic

RN: 2363-58-8 MF: C₁₉H₃₀OS MW: 306.51

LD₅₀: 1160 mg/kg (M, i.p.)

CN: (2 α ,3 α ,5 α ,17 β)-2,3-epithioandrostan-17-ol



*Reference(s):*

GB 977 599 (Shionogi; valid from 19.12.1962; J-prior. 19.12.1961).

NL 6 400 226 (Shionogi; appl. 15.1.1964).

Takeda, K. et al.: *Tetrahedron (TETRAB)* **21**, 329 (1965).*Formulation(s):* vial 10 mg*Trade Name(s):*

J: Thiodrol (Shionogi)

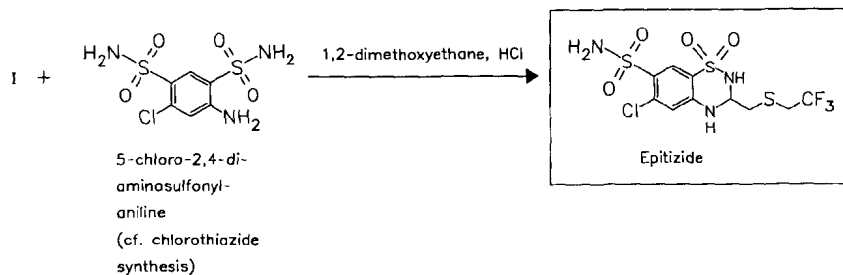
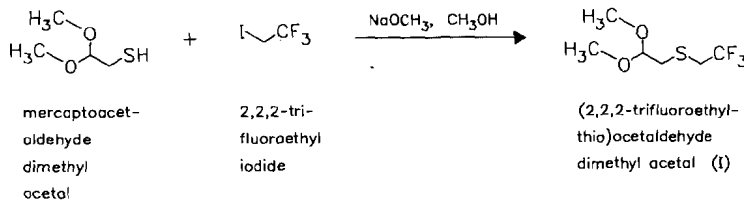
Epitizide
(Epithiazide)

ATC: C02L

Use: antihypertensive, diuretic

RN: 1764-85-8 MF: C₁₀H₁₁ClF₃N₃O₄S₃ MW: 425.86 EINECS: 217-181-9

CN: 6-chloro-3,4-dihydro-3-[[[(2,2,2-trifluoroethyl)thio]methyl]-2H-1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide

*Reference(s):*

US 3 009 911 (Pfizer; 21.11.1961; prior. 3.6.1960, 14.9.1960, 4.1.1961).

Formulation(s): 4 mg*Trade Name(s):*

GB: Thiaver (Riker); wfm

Epoprostenol(PGI₂; Prostacyclin)

ATC: B01AC09

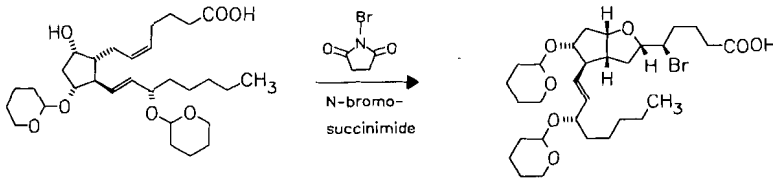
Use: anticoagulant, platelet aggregation inhibitor

RN: 35121-78-9 MF: C₂₀H₃₂O₅ MW: 352.47

CN: (5Z,9α,11α,13E,15S)-6,9-epoxy-11,15-dihydroxy-prosta-5,13-dien-1-oic acid

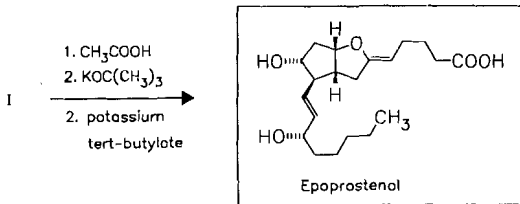
monosodium saltRN: 61849-14-7 MF: C₂₀H₃₁NaO₅ MW: 374.45 EINECS: 263-273-7

a



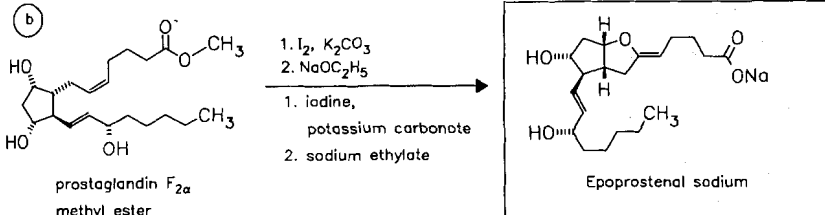
prostaglandin F_{2α} 11,15-bis-(tetrahydropyran-2-yl) ether
(cf. dinoprost synthesis)

(I)



Epoprostenol

b



Epoprostenol sodium

Reference(s):Corey, E.J. et al.: J. Am. Chem. Soc. (JACSAT) **99**, 2006 (1976).Nicolaou, K.C. et al.: Lancet (LANCAO) **1977**, 1058.**review:**

The Merck Index, 12th Ed., 1352 (Rahway 1996).

Formulation(s): vial (lyo.) 0.5 mg (as sodium salt)**Trade Name(s):**

GB: Flolan (Glaxo Wellcome)

USA: Flolan (Glaxo Wellcome;
as sodium salt)

Eprazinone

ATC: R05CB04

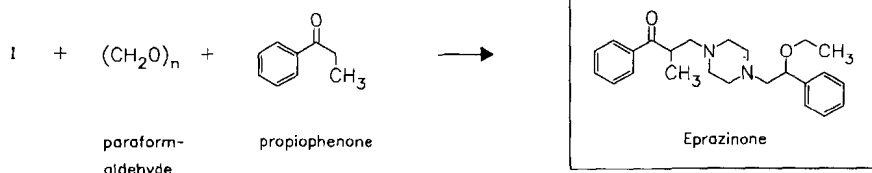
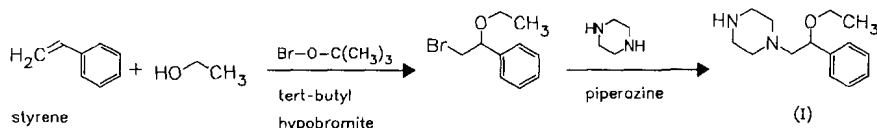
Use: antitussive

RN: 10402-90-1 MF: $C_{24}H_{32}N_2O_2$ MW: 380.53 EINECS: 233-873-3LD₅₀: 111 mg/kg (M, i.p.); 246 mg/kg (M, s.c.)

CN: 3-[4-(2-ethoxy-2-phenylethyl)-1-piperazinyl]-2-methyl-1-phenyl-1-propanone

dihydrochlorideRN: 10402-53-6 MF: $C_{24}H_{32}N_2O_2 \cdot 2HCl$ MW: 453.45 EINECS: 233-872-8LD₅₀: 20 mg/kg (M, i.v.); 286 mg/kg (M, p.o.);

763 mg/kg (R, p.o.)

**Reference(s):**

DAS 1 695 431 (Mauvernay; appl. 9.6.1967; GB-prior. 27.6.1966).

JP-appl. 540 22-379 (Asahi; appl. 21.7.1977).

JP-appl. 540 22-380 (Asahi; appl. 21.7.1977).

JP-appl. 540 22-381 (Asahi; appl. 21.7.1977).

JP-appl. 540 22-382 (Asahi; appl. 21.7.1977).

Formulation(s): tabl. 5 mg, 20 mg, 50 mg; cps. 100 mg; suppos. 50 mg, 100 mg (as dihydrochloride)**Trade Name(s):**

D: Eftapan (Merckle)

I: Mucitux (Recordati); wfm

F: Mucitux (Riom)

J: Resplen (Chugai)

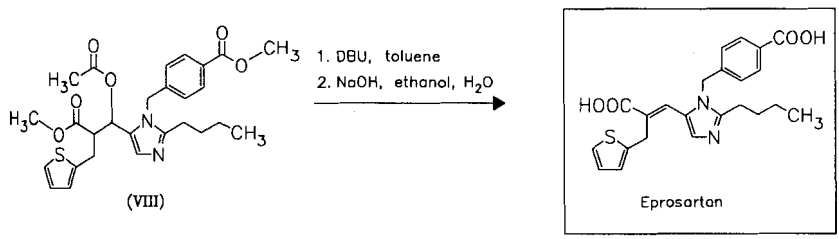
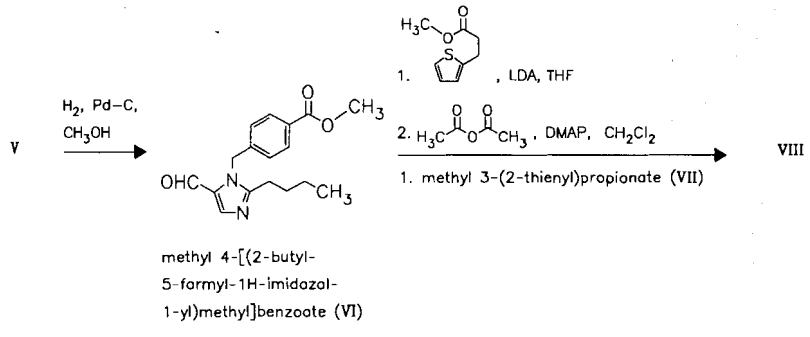
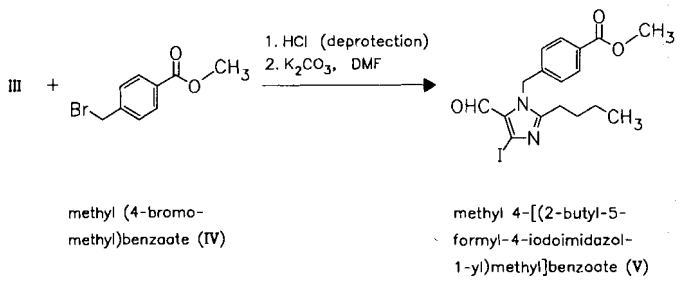
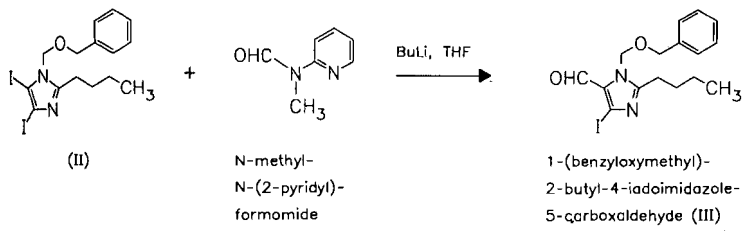
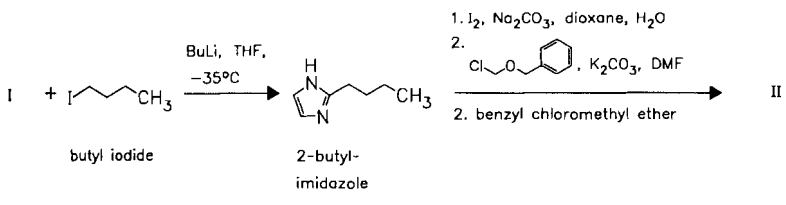
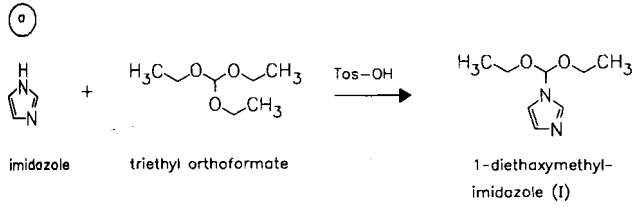
Eprosartan

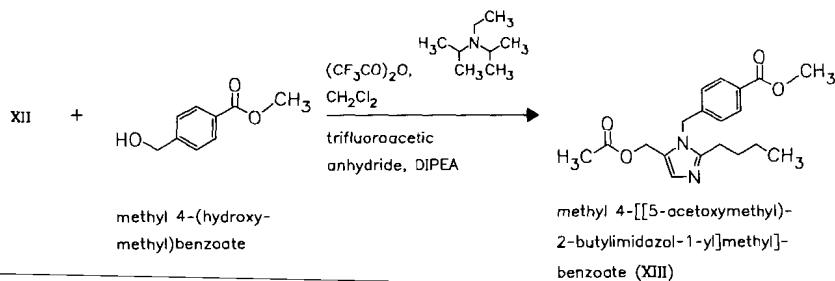
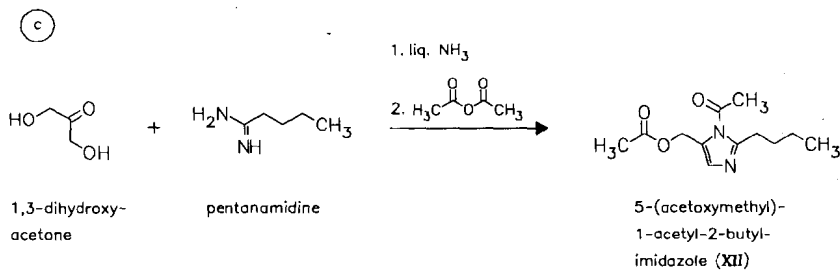
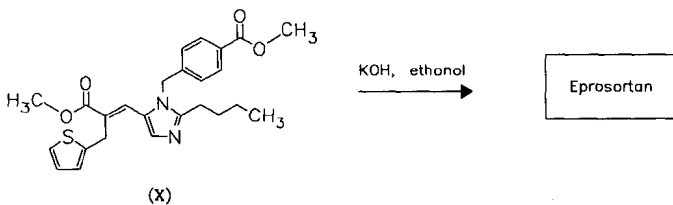
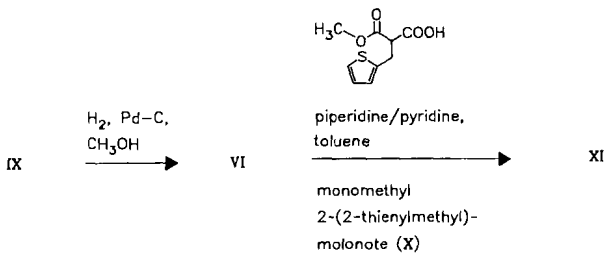
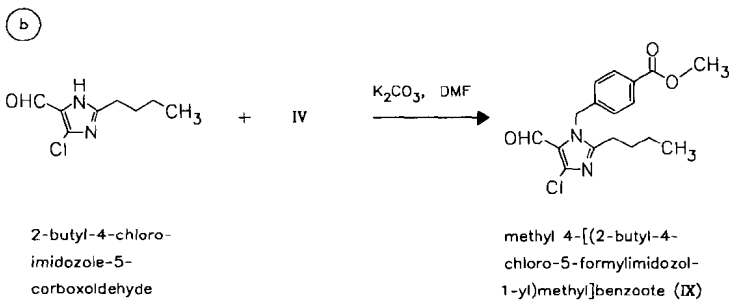
(SKB 108566; SKF 108566)

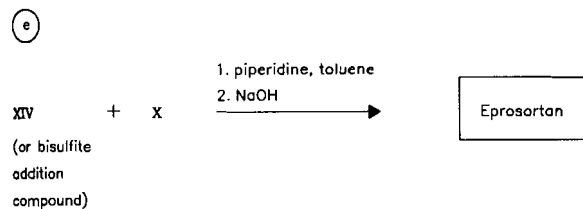
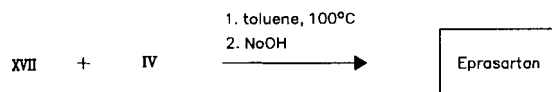
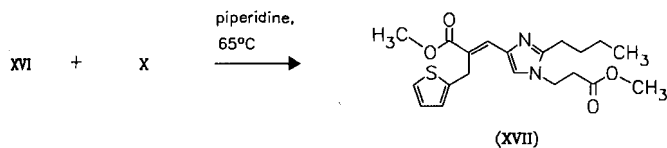
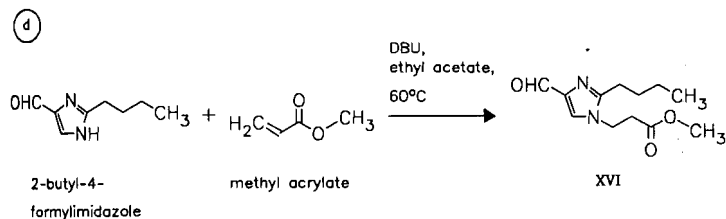
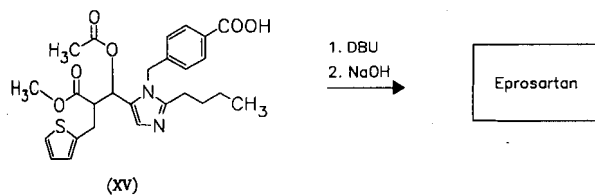
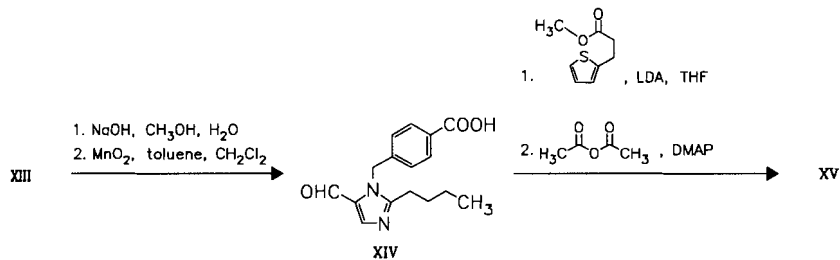
ATC: C09CA02

Use: antihypertensive, angiotensin II antagonist

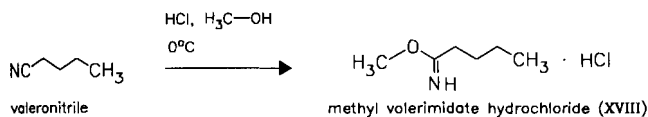
RN: 133040-01-4 MF: $C_{23}H_{24}N_2O_4S$ MW: 424.52CN: (E)- α -[[2-Butyl-1-[(4-carboxyphenyl)methyl]-1H-imidazol-5-yl]methylene]-2-thiophenepropanoic acid**mesylate**RN: 144143-96-4 MF: $C_{23}H_{24}N_2O_4S \cdot CH_4O_3S$ MW: 520.63

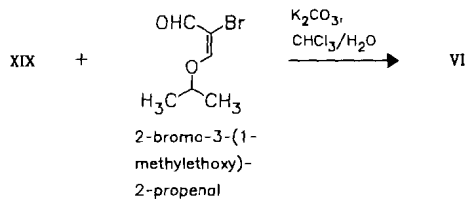
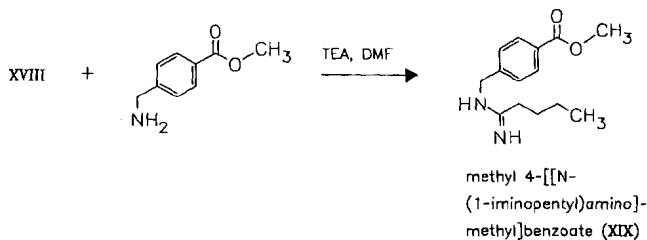






(f) alternative synthesis of VI





Reference(s):

- Wittenberger, S.J. et al.: *Synth. Commun. (SYNCAV)* **23**, 3231 (1993).
Keenan, R.M. et al.: *J. Med. Chem. (JMCMAR)* **36**, 1880 (1993).
EP 403 159 (SmithKline Beecham; appl. 7.6.1990; USA-prior. 14.6.1989).
- Weinstock, J. et al.: *J. Med. Chem. (JMCMAR)* **34**, 1514 (1991).
- US 5 185 351 (SmithKline Beecham; 9.2.1993; USA-prior. 14.6.1989; 6.4.1990; 14.12.1990).
- WO 9 835 962 (SmithKline Beecham; appl. 13.2.1998; USA-prior. 14.2.1997)
- WO 9 835 963 (SmithKline Beecham; appl. 13.2.1998; USA-prior. 14.2.1997).
- Shilera, S.C. et al.: *J. Org. Chem. (JOCEAH)* **62**, 8449 (1997).

Eprosartan dihydrate:

WO 9 736 874 (SmithKline Beecham; appl. 26.3.1997; USA-prior. 29.3.1996).

combination with ACE inhibitors:

EP 629 408 (MS Dohme-Chibret; appl. 14.12.1993; EP-prior. 16.6.1993).

WO 9 702 032 (Merck + Co.; appl. 26.6.1996; USA-prior. 30.6.1995).

pharmaceutical compositions and use in the treatment of macular degeneration, infarction, left ventricular hypertrophy:

WO 9 210 179 (SmithKline Beecham; appl. 12.12.1991; GB-prior. 14.12.1990).

WO 9 210 180 (SmithKline Beecham; appl. 12.12.1991; GB-prior. 14.12.1990).

WO 9 210 181 (SmithKline Beecham; appl. 12.12.1991; GB-prior. 14.12.1990).

use in the treatment of diabetic nephropathy, retinopathy, atheroma, angina pectoris, stroke or prevention of restenosis or improving cognitive function:

WO 92 101 82-88 (SmithKline Beecham; appl. 12.12.1991; GB-prior. 14.12.1990).

use to treat symptomatic heart failure:

WO 9 830 216 (Merck + Co.; appl. 7.1.1998; USA-prior. 10.1.1997).

Formulation(s): f. c. tabl. 300 mg, 400 mg, 600 mg

Trade Name(s):

D:	Teveten (Hoechst Marion Roussel; SmithKline Beecham)	GB:	Teveten (SmithKline Beecham; 1997)	USA:	Teveten (SmithKline Beecham)
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Eprozinol

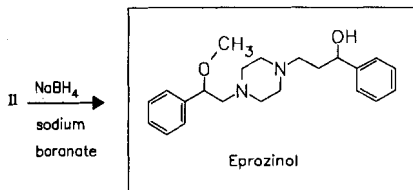
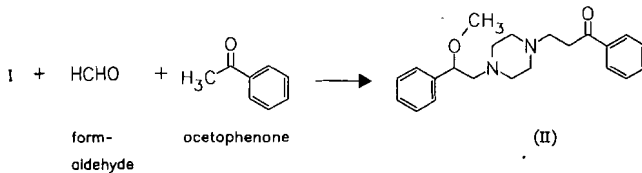
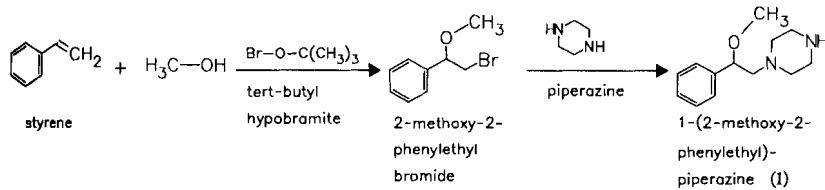
ATC: R03DX02
Use: antiasthmatic

RN: 32665-36-4 MF: $C_{22}H_{30}N_2O_2$ MW: 354.49 EINECS: 251-146-9

LD₅₀: 350 mg/kg (M, p.o.);

640 mg/kg (R, p.o.)

CN: 4-(2-methoxy-2-phenylethyl)- α -phenyl-1-piperazinepropanol

**Reference(s):**

GB 1 188 505 (Roland-Y ves Mauvernay; appl. 27.6.1966; valid from 27.6.1967).

US 3 705 244 (Roland-Y ves Mauvernay; 5.12.1972; GB-prior. 27.6.1966).

Formulation(s): suppos. 100 mg, 25 mg; syrup 15 mg/5 ml; tabl. 50 mg

Trade Name(s):

F: Eupnéron (Lyocentre)

Eupnéron xantique
(Lyocentre)

I: Brovel (Lepetit)

Eptifibatide

(C 68-22; SB-1; Sch-60936; Intrifiban)

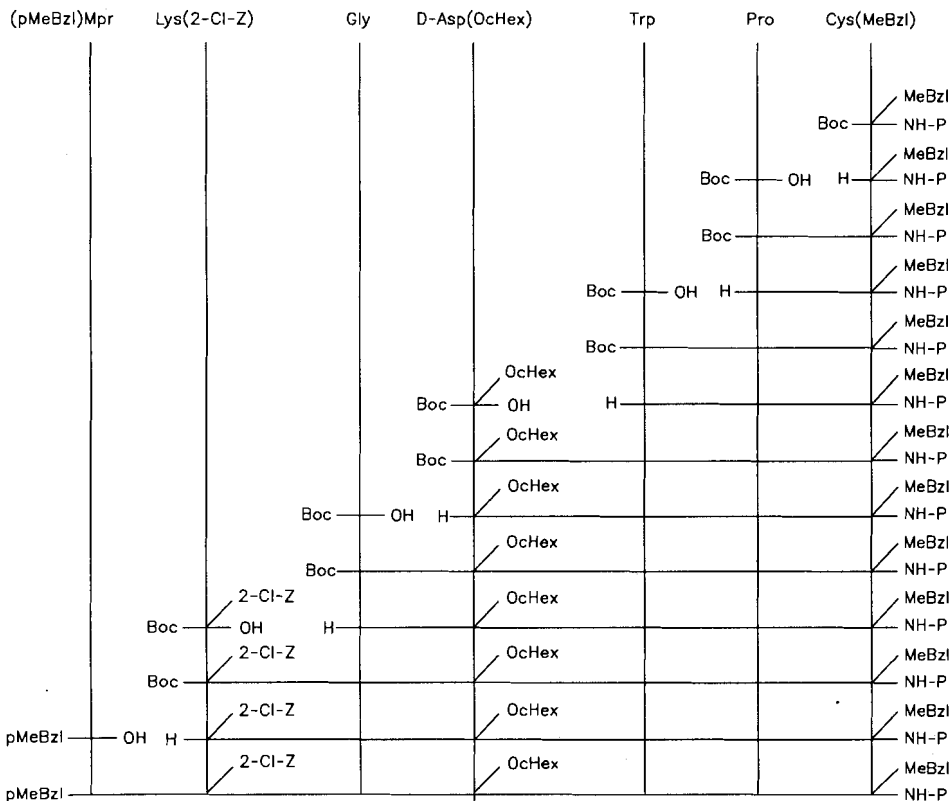
ATC: B01AC16

Use: platelet antiaggregatory, GPIIb/
receptor antagonist, fibrinogen
receptor antagonist

RN: 188627-80-7 MF: $C_{35}H_{49}N_{11}O_9S_2$ MW: 831.98

CN: N⁶-(Aminoiminomethyl)-N²-(3-mercapto-1-oxopropyl)-L-lysylglycyl-L- α -aspartyl-L-tryptophyl-L-prolyl-L-cysteinamide cyclic (1 \rightarrow 6)-disulfide

⊙ solid-phase synthesis:



(cleavage from resin) HF/anisole

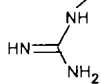
H NH₂

(cyclization) K₃Fe(CN)₆

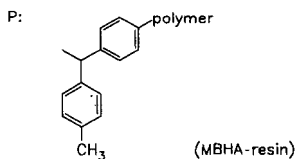
H S NH₂

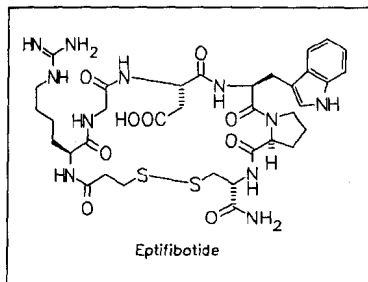
(Lys-sidechain modification to homoarginine) 3,5-dimethylpyrazole-1-carboxamide nitrate

H S NH₂



Mpr: mercaptopropionic acid
 pMeBzl: p-methylbenzyl
 MeBzl: toluenyl
 2-Cl-Z: 2-chlorobenzoyloxycarbonyl
 OcHex: cyclohexyloxy
 Boc: tert-butoxycarbonyl





(b) fragment synthesis in solutions:

Mpr	Lys	Gly	Asp	Trp	Pro	Cys
	Boc	TFA				
		OH	H ⁺			OH
Trt		TFA				
OH	Boc					OH
Trt		TFA				
OSu	H ⁺					OH
Trt		TFA				
		OH	Z	tBu		OH
				OH	H	
		OH	Z	tBu		OH
		OH				H
		OH				Trt
Mpr	Har	Gly				OH
		OH	H ⁺	tBu		OH
Trt				tBu		Phac
				tBu		OH
Trt				tBu		H
						NH ₂
						Trt
						NH ₂
S				tBu		S
						NH ₂
S						S
						NH ₂

Mpr: mercaptopropionic acid

Har: homoarginine

* : persilylation

Phac: phenyloxycarbonyl

Trt: trityl

OSu: succinimidooxy

TFA: trifluoroacetyl

Boc: tert-butoxycarbonyl

Z: benzyloxycarbonyl

tBu: tert-butyl

Reference(s):

a Scarborough, R.M., et al: *J. Biol. Chem. (JBCHA3)* **268**, 1066-1073 (1993).

WO 9 015 620 (Cor Therap.; appl. 15.6.1990; USA-prior. 20.2.1990).

b Callens, R.: IBC's 2nd Internat. Conf. on Peptide Technologies San Diego 1999.

Formulation(s): vials for inj. 20 mg/10 ml, 75 mg/10 ml

Trade Name(s):

USA: Integrilin (Cor
Therapeutics/Schering-
Plough; 1998)

Erdosteine

(RV-144)

ATC: R05CB15

Use: mucolytic agent

RN: 84611-23-4 MF: $C_8H_{11}NO_4S_2$ MW: 249.31

LD₅₀: >3.5 g/kg (M, i.v.); >10 g/kg (M, p.o.);

>3.5 g/kg (R, i.v.); >10 g/kg (R, p.o.)

CN: (±)-[2-oxo-2-[(tetrahydro-2-oxo-3-thienyl)amino]ethyl]thio]acetic acid

monopotassium salt

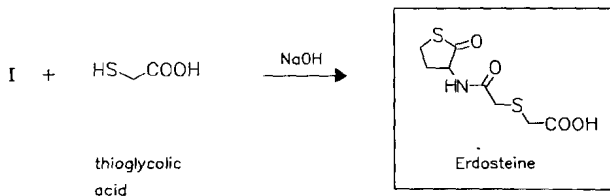
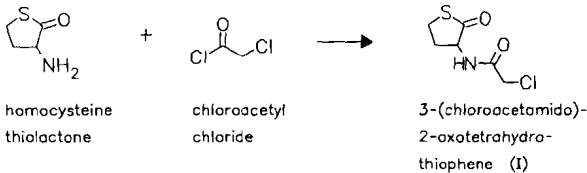
RN: 84611-25-6 MF: $C_8H_{10}KNO_4S_2$ MW: 287.40

monosodium salt

RN: 84611-24-5 MF: $C_8H_{10}NNaO_4S_2$ MW: 271.29

(S)-enantiomer

RN: 159701-33-4 MF: $C_8H_{11}NO_4S_2$ MW: 249.31



Reference(s):

EP 61 386 (Refarmed Rech. Pharm.; appl. 11.3.1982; F-prior. 19.3.1981).

combination with antibiotics:

DE 3 509 244 (Edmond Pharma; appl. 14.3.1985; I-prior. 14.3.1984).

Formulation(s): cps. 300 mg

Trade Name(s):

F: Edirel (Inava)

Vectrine (Pharma 2000)

Ergocalciferol

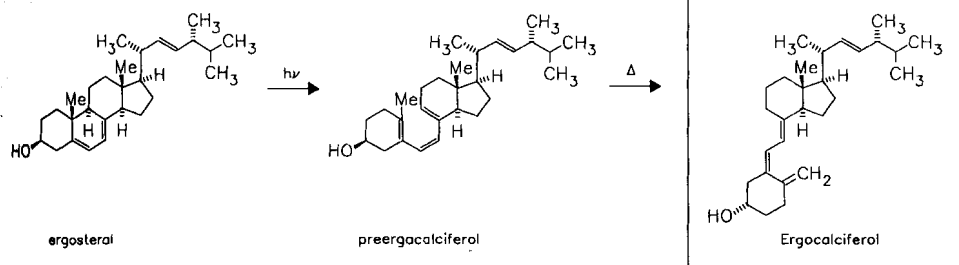
(Vitamin D; Calciferol)

ATC: A11CC01

Use: antirachitic

RN: 50-14-6 MF: C₂₈H₄₄O MW: 396.66 EINECS: 200-014-9LD₅₀: 23.7 mg/kg (M, p.o.);

10 mg/kg (R, p.o.)

CN: (3 β ,5Z,7E,22E)-9,10-secoergosta-5,7,10(19),22-tetraen-3-ol**Reference(s):**

Kirk-Othmer Encycl. Chem. Technol., Vol. 21, 549 ff.

Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. 18, 236 ff.

Formulation(s): 200 iu, 400 iu in comb.**Trade Name(s):**

D:	Cal-C-Vita (Hoffmann-La Roche)-comb.	Savitol (Medipharma)	numerous combination preparations
	Cobidec (Parke Davis)-comb.	Vitalipid (Pharmacia & Upjohn)-comb.	GB: Abidec (Warner-Lambert)-comb.
	Frubiase (Boehringer Ing.)-comb.	further combination preparations	Dalivit (Eastern)-comb.
	Geriatric (Pharmaton)-comb.	F: Azedavit (Whitehall)-comb.	numerous combination preparations
	Lofenalac (Lappe)-comb.	Dossibil (Thérica)-comb.	I: Ostelin-800 (Teofarma) combination preparations
	Multiviol (Hermes)-comb.	Pharmaton (Boehringer Ing.)-comb.	J: Chocola D (Eisai)
	Natabec (Warner-Lambert)-comb.	Stérogyl (Roussel)	USA: Calciferol (Schwarz) further combination preparations
	Omnival (Nordmark)-comb.	Stérogyl 15 (Roussel)	
	Osspulvit (Madaus)-comb.	Vitalipide (Pharmacia & Upjohn)-comb. with vitamin A	
	Pregnavit (Merckle)-comb.	Zyma D2 (Novartis)	

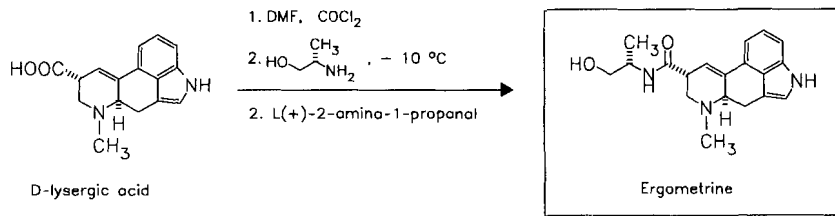
Ergometrine

(Ergobasine; Ergonovine)

ATC: G02AB03

Use: oxytocic

RN: 60-79-7 MF: C₁₉H₂₃N₃O₂ MW: 325.41 EINECS: 200-485-0LD₅₀: 144 mg/kg (M, i.v.)CN: [8 β (S)]-9,10-didehydro-N-(2-hydroxy-1-methylethyl)-6-methylergoline-8-carboxamide**maleate (1:1)**RN: 129-51-1 MF: C₁₉H₂₃N₃O₂ · C₄H₄O₄ MW: 441.48 EINECS: 204-953-5LD₅₀: 8260 µg/kg (M, i.v.)

tartrate (2:1)RN: 129-50-0 MF: $C_{19}H_{23}N_3O_2 \cdot 1/2C_4H_6O_6$ MW: 800.91 EINECS: 204-951-4**Reference(s):**

- Stoll, A.; Hofmann, A.: *Helv. Chim. Acta (HCACAV)* **26**, 956 (1943).
 US 2 090 430 (Sandoz; 1937; CH-prior. 1936).
 US 2 447 214 (Sandoz; 1948; CH-prior. 1942).
 US 2 736 728 (Lilly; 1956; appl. 1954).
 US 2 774 763 (Lilly; 1956; appl. 1955).
 US 2 809 920 (Sandoz; 1957; CH-prior. 1953).
 US 3 141 887 (Soc. Farmaceutici Italia; 21.7.1964; I-prior. 18.10.1961).

Formulation(s): sol. 50 mg/100 ml (as maleate)

Trade Name(s):

D:	Secalysat-EM (Ysatfabrik)	Ermetrin (Takeda)	Ergotrate Maleate (Lilly); wfm
GB:	Syntmetrine (Novartis)	USA: Ergonovine Maleate	
J:	Ergoton-B (Azusa-Tokyo Tanabe)	(Bioline; City Chem.; Goldline; Wyeth); wfm	
	Ergotop (Hishiyama)		

Ergotamine

ATC: N02CA02

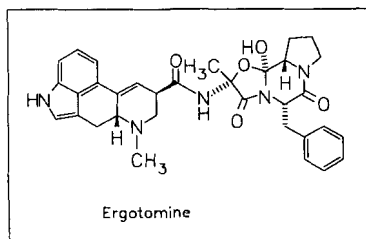
Use: antimigraine agent

RN: 113-15-5 MF: $C_{33}H_{35}N_5O_5$ MW: 581.67 EINECS: 204-023-9LD₅₀: 52 mg/kg (M, i.v.);

80 mg/kg (R, i.v.)

CN: (5 α)-12'-hydroxy-2'-methyl-5'-(phenylmethyl)ergotaman-3',6',18-trione**tartrate (2:1)**RN: 379-79-3 MF: $C_{33}H_{35}N_5O_5 \cdot 1/2C_4H_6O_6$ MW: 1313.43 EINECS: 206-835-9LD₅₀: 62 mg/kg (M, i.v.);

80 mg/kg (R, i.v.)



By extraction of *Secale cornutum* (ergot) with e. g. benzene (1. step: extraction of the neutral substances from the slightly acidic cellular substance; 2. step: extraction of the ammonia alkaline substance).

Fermentation of *Claviceps purpurea*.

Reference(s):

Stoll, A.: *Helv. Chim. Acta (HCACAV)* **28**, 1283 (1945).

Formulation(s): cps. 1 mg; suppos. 2 mg; tabl. 1 mg, 2 mg (as tartrate)

Trade Name(s):

D:	Avamigran (ASTA Medica AWD)-comb.	RubieNex (RubiePharm)-comb.	I:	Cafergot (Sandoz)-comb.
	Cafergot (Novartis Pharma)	numerous combination preparations		Ergota (Sifra)
	Ergoffin (ASTA Medica AWD)-comb.	F:	Gynergène (Novartis)-comb.	Ergotan (Salf)
	Ergo-Kranit (Krewel Meuselbach)		Migwell (Glaxo Wellcome)-comb.	Gynergen (Sandoz)
	ergo-sanol (Sanol)	GB:	Cafergot (Novartis)-comb.	Virdex (Fulton)-comb.
	Ergotamin Medihaler (Kettelhack-Riker)		Lingraine (Sanofi Winthrop)	J:
	Gynergen (Sandoz)		Medihaler-Ergotamine (3M Health Care)	Cafergot (Sandoz-Sankyo)-comb.
	Migrätan (Berlin-Chemie)-comb.		Migril (Glaxo Wellcome)-comb.	Ergoton A (Azusa-Tokyo Tanabe)
	Migrexia (Sanorania)			Migretamine (Hokuriku)
				USA:
				Ercaf (Geneva)
				Ergomar (Lotus; as tartrate)
				Wigraine (Organon)

Erythromycin

ATC: D10AF02; D10AF52; J01FA01; S01AA17

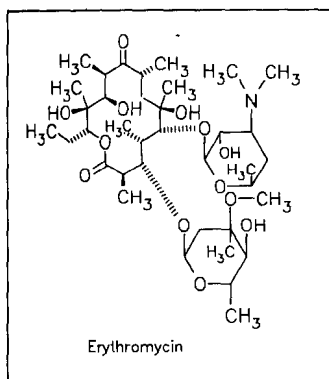
Use: antibiotic

RN: 114-07-8 MF: $C_{37}H_{67}NO_{13}$ MW: 733.94 EINECS: 204-040-1

LD₅₀: 426 mg/kg (M, i.v.); 2580 mg/kg (M, p.o.);

4600 mg/kg (R, p.o.)

CN: [3R-(3R*,4S*,5S*,6R*,7R*,9R*,11R*,12R*,13S*,14R*)]-4-[(2,6-dideoxy-3-C-methyl-3-O-methyl- α -L-ribo-hexopyranosyl)oxy]-14-ethyl-7,12,13-trihydroxy-3,5,7,9,11,13-hexamethyl-6-[[3,4,6-trideoxy-3-(dimethylamino)- β -D-xyllo-hexopyranosyl]oxy]oxacyclotetradecane-2,10-dione



From fermentation solutions of *Streptomyces erythreus*.

Reference(s):

US 2 653 899 (Lilly; 1953; prior. 1952).

US 2 823 203 (Abbott; 1958; appl. 1954).

US 2 833 696 (Abbott; 6.5.1958; prior. 1.3.1954).

Formulation(s): cps. 250 mg; f. c. tabl. 250 mg, 500 mg; gel 0.5 mg/100 g, 1 g/100 g, 2 g/100 g (2 %), 4 g/100 g; sol. 0.2 g/10 g, 1.68 g/100 ml; spray 20 mg/ml; s. r. tabl. 250 mg, 333 mg, 500 mg; suppos. 250 mg (as free base)

Trade Name(s):

D:	Aknc Cordes (Ichthyol)	Udima-Ery (Dermapharm)	Mucolysin (Proter)-comb;
	Aknederm (gepepharm)	generic	wfm
	Aknefug-EL (Wolff)	F: Ery (Bouchara; as	Neobalsamocetina
	Aknemago (Strathmann)	propionate)	Supposte (Alfa Farm.)-
	Aknemycin (Hermal)	Eryfluid (Pierre Fabre)	comb.; wfm
	Aknin-Winthrop (Sanofi	Logécine (Jacques Logeais)	Neobismocetina (Lepetit)-
	Winthrop)	Propiocrine (Roussel; as	comb.; wfm
	Bisolvonat (Thomae)-	propionate)	Proterytrin (Proter); wfm
	comb.	Stimycine (Stiefel)	Proterytrin pomata
	Eromerzin (Merrell)-comb.	numerous generics	(Proter)-comb.; wfm
	Eryaknen (Galderma)	GB: Benzamycin (Bioglan)	Stellamicina (Pierrel); wfm
	Erybeta (betapharm)	Erymax (Elan)	J: Erythrocin (Dainippon;
	Erycinum (Cytochemie)	Erythrocin (Abbott); wfm	Abbott)
	Erycinum (Schering)	Erythromid (Abbott); wfm	Ilotycin (Shionogi)
	Erydermec (Hexal)	Erythroped (Abbott); wfm	USA: A/T/S (Hoechst Marion
	Ery-Diolan (Engelhardt)	Ilotycin (Lilly); wfm	Roussel)
	Eryhexal (Hexal)	Retcin (DDSA); wfm	Benzamycin (Dermik)
	ERY-REU (Reusch)	I: Cicloeritrina (Proter)-	Emgel (Glaxo Wellcome)
	Erythrogenat (Azupharma)	comb.; wfm	Eryc (Warner Chilcott
	Erythro Hefa (Hefa	Erimec (Isola-Ibi); wfm	Professional Products)
	Pharma)	Eritro (Formulario Naz.)	Erycette (Ortho
	Eupragin (Alcon)	Eritrobios (Nuovo Cons.	Dermatological)
	Infectomycin	Sanit. Naz.); wfm	Erygel (Allergan)
	(Infectopharm)	Eritrobiotic (Panther-Osfa	Erymax (Allergan)
	Lederpaedit (Lederle)	Chemie) wfm	Ery-Tab (Abbott)
	Monomycin (Grünenthal)	Estomicina (Bergamon	Erythra-Derm (Paddock)
	Paediathrocin (Abbott)	Soc. It.); wfm	Ilotycin (Dista)
	Paediathrocin	Ilosone (Lilly); wfm	PCE (Abbott)
	Suppositorien (Abbott)	Lauromicina (Dukron)-	T-Stat (Westwood-Squibb)
	Pharyngocin (Upjohn)	comb.; wfm	Theramycin Z (Medicis)
	Sanasepton (Pharbita)	Manilina (Archifar); wfm	generic and combination
	Stiemycine (Stiefel)	Marocid (Lifepharm);	preparations
	Synergomycin (Abbott)-	wfm	
	comb.	Mistral (Dessy); wfm	

Erythromycin estolate

ATC: D10AF02; D10AF52; J01FA01;
S01AA17

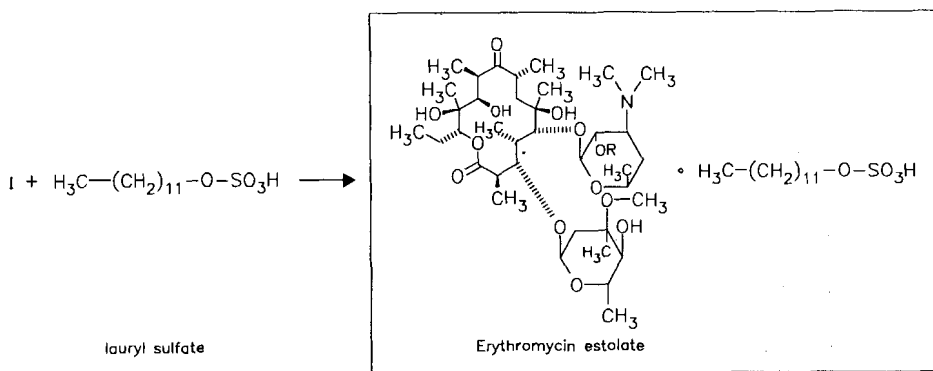
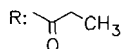
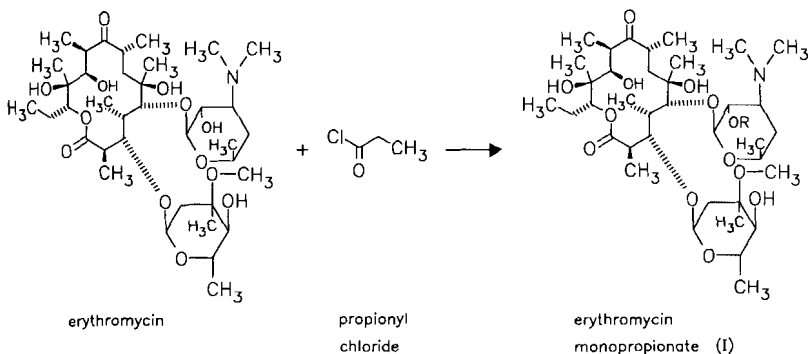
Use: antibiotic

RN: 3521-62-8 MF: $C_{40}H_{71}NO_{14} \cdot C_{12}H_{26}O_4S$ MW: 1056.40 EINECS: 222-532-4

LD₅₀: >6450 mg/kg (M, p.o.);

1447 mg/kg (R, p.o.)

CN: erythromycin 2'-propanoate dodecyl sulfate (salt)



Reference(s):

US 3 000 874 (Eli Lilly; 19.9.1961; prior. 8.4.1959).
DE 1 114 499 (Eli Lilly; 27.6.1959).

Formulation(s): · cleavable tabl. 125 mg, 250 mg; cps. 250 mg; susp. 125 mg/5 ml, 250 mg/5 ml; syrup 250 mg (base equivalent)

Trade Name(s):

D: Infectomycin (Infectopharm)	Togiren (Schwarzhaupt); wfm	I: Ilosone (Lilly)
Neo-Erycinum (Schering); wfm	F: Propiocine (Roussel); wfm	Marocid (Lifepharma)
Sanasepton (Pharbita)	Rubitracine (Takeda)-comb.; wfm	Stellamicina (Pierrel)
	GB: Ilosone (Lilly)	J: Ilosone (Shionogi)
		USA: Ilosone (Dista)

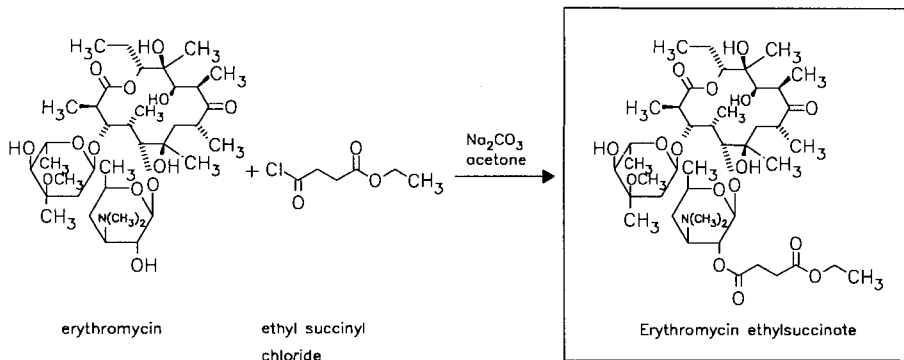
Erythromycin ethylsuccinate

ATC: D10AF02; D10AF52; J01FA01;
S01AA17
Use: antibiotic

RN: 1264-62-6 MF: $\text{C}_{43}\text{H}_{75}\text{NO}_{16}$ MW: 862.06 EINECS: 215-033-8

LD_{50} : >10 g/kg (M, p.o.)

CN: erythromycin 2'-(ethyl butanedioate)

**Reference(s):**

DE 1 121 056 (Abbott; appl. 1957; USA-prior. 1956).

chewing tablets:

DOS 2 758 942 (Abbott; appl. 30.12.1977).

Formulation(s): f. c. tabl. 400 mg; powder 1 g/4.5 g; susp. 125 mg/5 ml; syrup 100 mg/5 ml, 200 mg/5 ml, 400 mg/5 ml, 600 mg/5 ml (base equivalent)

Trade Name(s):

D:	Dura Erythromycin 1000 Granulat (durachemie) Durapaediat (durachemie)	Erythrogram (Pharma 2000)	Rossomicina sosp. (Pierrel); wfm
	Erythrocin Granulat/- Ampullen (Abbott)	GB: Arpimycin (Rozemont) Erymin (Elan)	J: Eryromylen (Kissei) Erythrocin (Abbott-Dainippon)
	Erythromycin-ratiopharm (ratiopharm)	Erythrocin I. M. (Abbott)	Erythro ES (Sankyo)
	Monomycin (Grünenthal)	Erythroped A (Abbott)	Erythromycin ES (Taito Pfizer)
	Paediathrocin (Abbott)	I: Eritrocina (Abbott) Eritroger bustine (Isnardi); wfm	Esinol (Toyama)
	combination preparations	Neobalsamocetina sosp. (Alfa Farm.)-comb.; wfm	Evesin (Torii)
F:	Abboticine (Abbott)	Proterytrin (Proter); wfm	USA: E.E.S. (Abbott)
	Ery 125 e 250 (Bouchara)	Proterytrin cps e i.m.	Eryped (Abbott)
	Erycocci (Pharmafarm)	(Proter); wfm	Eryzole (Alra)
	Erythrocin (Abbott)		Pediazole (Ross)

Erythromycin gluceptate

(Erythromycin glucoheptonate)

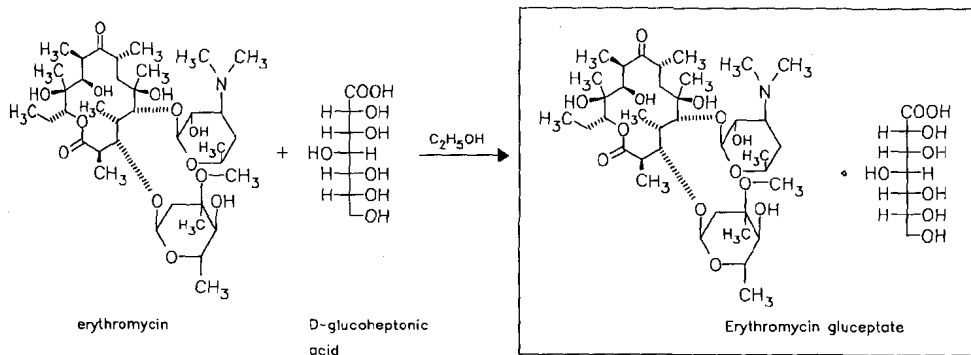
ATC: J01FA01; S01AA17

Use: antibiotic

RN: 23067-13-2 MF: C₃₇H₆₇NO₁₃ · C₇H₁₄O₈ MW: 960.12 EINECS: 245-407-6LD₅₀: 453 mg/kg (M, i.v.);

288 mg/kg (R, i.v.)

CN: D-glycero-D-gulo-heptonic acid compd. with erythromycin (1:1)

**Reference(s):**

US 2 852 429 (Lilly; 1958; appl. 1953).

DE 941 640 (Lilly; appl. 1954; USA-prior. 1953).

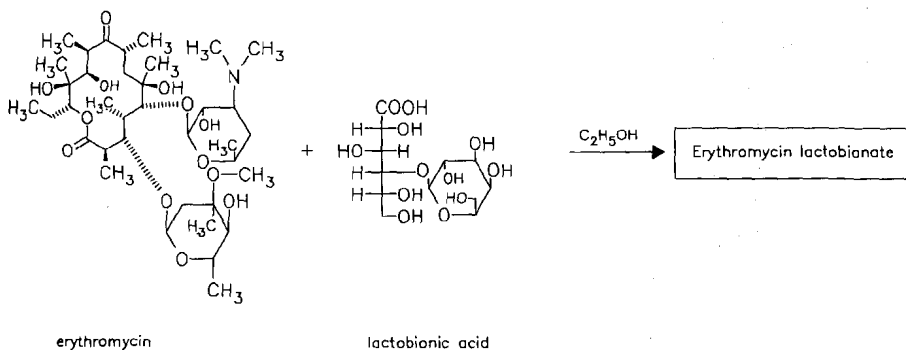
Formulation(s): vial 1 g (base equivalent)**Trade Name(s):**D: Erycinum Trockensubstanz USA: Ilotycin gluceptate (Dista)
(Schering); wfm**Erythromycin lactobionate**

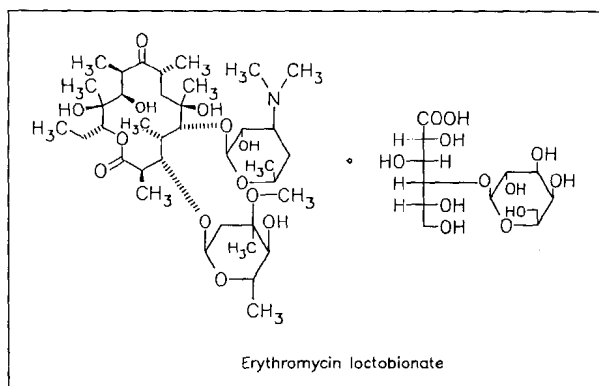
ATC: J01FA01; S01AA17

Use: antibiotic

RN: 3847-29-8 MF: $C_{37}H_{67}NO_{13} \cdot C_{12}H_{22}O_{12}$ MW: 1092.23 EINECS: 223-348-7LD₅₀: 735 mg/kg (M, i.p.)

CN: 4-O-β-D-galactopyranosyl-D-gluconic acid compd. with erythromycin (1:1)



**Reference(s):**

US 2 761 859 (Abbott; 1956; appl. 1953).

Formulation(s): vial 500 mg, 1000 mg (base equivalent)**Trade Name(s):**

D:	Erythrocin I.V. (Abbott)	I:	Eritro (Formulario Naz.)
GB:	Erythrocin I.V.	J:	Erythromycin (Santen)
	Lactobionate (Abbott); wfm	USA:	Erythrocin Lactobionate- I.V. (Abbott); wfm

Erythromycin monopropionate mercaptosuccinate

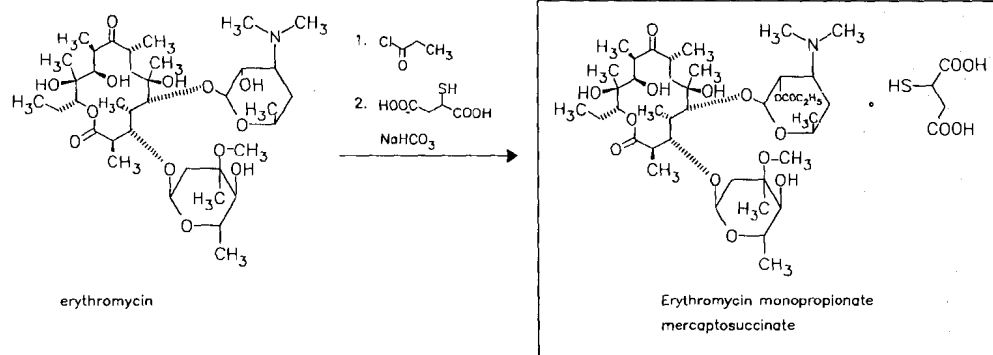
(RV-11)

ATC: J01FA

Use: macrolide antibiotic

RN: 84252-06-2 MF: $C_{40}H_{71}NO_{14} \cdot C_4H_6O_4S$ MW: 940.16LD₅₀: >3000 mg/kg (M, p.o.)

CN: erythromycin-2'-propanoate mercaptobutanedioate (1:1)

**Reference(s):**

EP 57 489 (Pierrel; appl. 2.1.1982; F-prior. 2.2.1981).

EP 174 395 (Pierrel; appl. 2.1.1982; F-prior. 2.2.1982).

US 4 476 120 (Refarmed; 10.9.1984; appl. 2.2.1982; I-prior. 2.2.1981).

Formulation(s): gran. 200 mg; tabl. 500 mg

Trade Name(s):

I: Zalig (Pierrel; 1989)

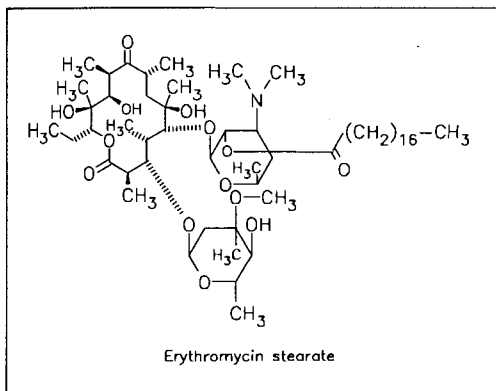
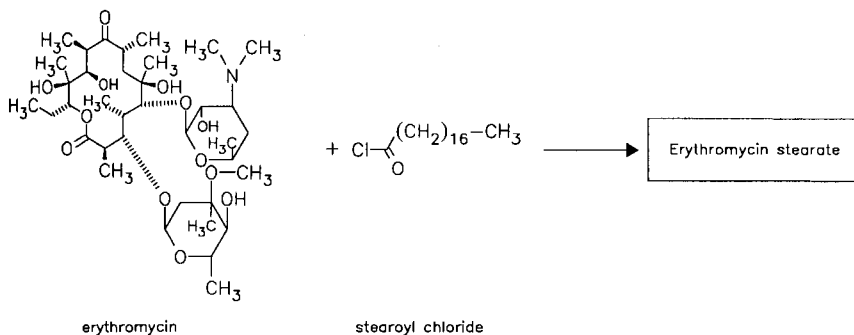
Erythromycin stearate

ATC: D07CC02

Use: antibiotic

RN: 97327-17-8 MF: $C_{55}H_{101}NO_{14}$ MW: 1000.41LD₅₀: 3112 mg/kg (M, p.o.)

CN: erythromycin 2'-octadecanoate



Reference(s):

US 2 862 921 (Upjohn; 1958; appl. 1953).

Formulation(s): f. c. tabl. 250 mg, 500 mg

Trade Name(s):

D:	Dura Erythromycin (durachemie)	Emestid 500 (Abbott); wfm	J:	Erythrocin (Abbott- Dainippon)
	Erythrocin Filmtabletten (Abbott)	GB: Erythrocin (Abbott)		
F:	Abboticine (Abbott); wfm	I: Eritrocina Cpr (Abbott)	USA:	Erythrocin Stearate (Abbott)
				generic

Escin

(Aescin)

ATC: C05CX; C05CX01

Use: anti-inflammatory (inhibition of edema formation and decrease of vessel fragility), vein therapeutic

RN: 6805-41-0 MF: C₅₄H₈₄O₂₃ MW: 1101.24 EINECS: 229-880-6LD₅₀: 6.7 mg/kg (M, i.p.); 2 mg/kg (M, i.v.); 165 mg/kg (M, p.o.); 38.59 mg/kg (M, s.c.);
10.15 mg/kg (R, i.p.); 1600 g/kg (R, i.v.); 833 mg/kg (R, p.o.); 150 mg/kg (R, s.c.)

CN: 3,5-epoxypicene escin deriv.

sodium salt

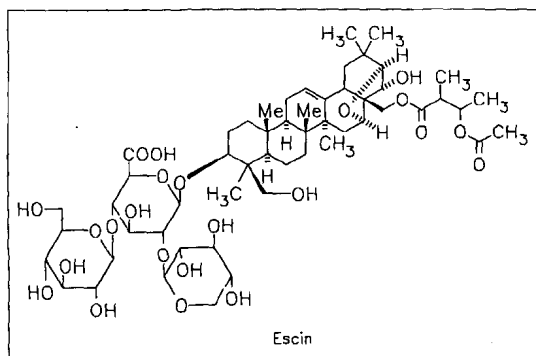
RN: 20977-05-3 MF: unspecified MW: unspecified EINECS: 244-133-4

LD₅₀: 8299 µg/kg (M, i.p.); 4730 mg/kg (M, i.v.); 134 mg/kg (M, p.o.); 92.53 mg/kg (M, s.c.);

9180 µg/kg (R, i.p.); 8131 µg/kg (R, i.v.); 400 mg/kg (R, p.o.); 131 mg/kg (R, s.c.);

9130 µg/kg (g. p., i.v.);

5 mg/kg (rabbit, i.v.)



Extraction of *Aesculus hippocastanum* L. (horse-chestnut) and purification on cation-exchanger (H⁺-form), resp. precipitation with cholesterol.

Reference(s):**extraction and purification:**

DE 916 664 (Riedel-de Haen; appl. 1952).

DE 950 027 (Klinge; appl. 1951).

DAS 1 034 816 (VEB Arzneimittelwerk Dresden; appl. 1955).

DAS 1 045 597 (Dr. W. Schwabe; appl. 1953).

GB 820 787 (Klinge; appl. 1956).

GB 820 788 (Klinge; appl. 1956).

DE 1 058 208 (Klinge; appl. 1953).

DAS 1 095 989 (Madaus; appl. 11.3.1959).

US 3 163 636 (Klinge; 29.12.1964; D-prior. 14.6.1960).

DAS 1 182 385 (Chem. Fabrik Tempelhof; appl. 29.1.1962).

US 3 238 190 (Madaus; 1.3.1966; prior. 31.1.1961, 23.10.1963).

DOS 1 617 570 (J. Klosa; appl. 13.4.1967).

DOS 1 617 581 (Knoll; appl. 11.8.1967).

DAS 1 617 413 (Klinge; appl. 31.8.1967).

DE 1 667 884 (Knoll; appl. 20.1.1968).

DOS 1 902 608 (Nattermann; appl. 20.1.1969; A-prior. 31.5.1968).

DOS 2 339 760 (Klinge; appl. 6.8.1973).

DAS 2 733 204 (LEK; appl. 22.7.1977; YU-prior. 12.8.1976).

"water soluble" (*X-ray amorphous*) escin:

DE 1 282 852 (Madaus; appl. 14.12.1962).

DOS 1 902 609 (Nattermann; appl. 20.1.1969).

DOS 2 257 755 (LEK; appl. 24.11.1972; YU-prior. 6.12.1971).

GB 1 550 845 (Madaus; appl. 7.7.1976; D-prior. 11.7.1975).

separation of α - and β -escin:

DAS 1 125 117 (Klinge; appl. 14.6.1960).

US 3 110 711 (Klinge; 12.11.1963; D-prior. 14.6.1960).

conversion of β - into α -escin:

US 3 450 691 (Klinge; 17.6.1969; appl. 7.6.1967).

Formulation(s): amp. 5 mg (as sodium salt); cps. 2 mg; drg. 10 mg, 15 mg, 20 mg; gel 1 g/100 g-comb.; s. r. drg. 40 mg

Trade Name(s):

D:	Essaven (Nattermann)-comb.	Veno Kattwiga (Kattwiga)-comb.	Opino (Bayropharm)-comb.
	Galleb forte (Hoyer)-comb.	Venoplant (Schwabe)-comb.	Premium (SIT)-comb.
	Heweven (Hevert)-comb.	Venostasin (Klinge)-comb.	Rectoreparil (IBI)-comb.
	Opino, Gel (Troponwerke)-comb.	F:	Reparil (IBI)-comb.
	Opino retard (Troponwerke)-comb.	Flogencyl (Parke Davis)	Somatoline (Manetti Roberts)-comb.
	Opino spezial (Troponwerke)-comb.	Reparil (Madaus)	Tioscina (Inverni della Beffa)-comb.
	Pe-Ce Ven (Terra-Bio-Chemie)-comb.	numerous combination preparations	J:
	Proveno (Madaus)-comb.	I:	Tochief (Ohta)
	Reparil (Madaus)	Bres (Farmacologico Milanese)-comb.	Tochikinon (Toho)
	Revicain (Wiedemann)-comb.	Dermocinetic (Irbi)-comb.	Yochimin (Choseido-Seiyaku)
		Essaven (Nattermann)-comb.	
		Etascin (Rorer)-comb.	

Esmolol

ATC: C07AB09

Use: anti-arrhythmic, β -adrenoceptor antagonist, perioperative prophylactic use in supraventricular tachycardia

RN: 81147-92-4 MF: $C_{16}H_{25}NO_4$ MW: 295.38

CN: (\pm)-4-[2-hydroxy-3-[(1-methylethyl)amino]propoxy]benzenepropanoic acid methyl ester

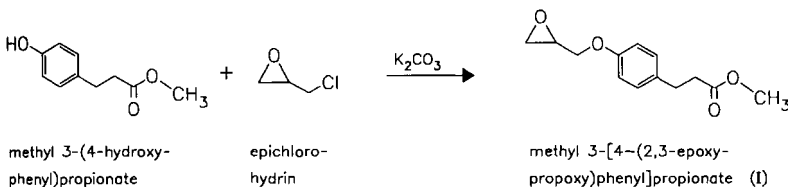
hydrochloride

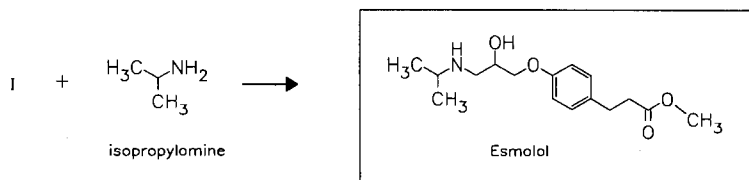
RN: 81161-17-3 MF: $C_{16}H_{25}NO_4 \cdot HCl$ MW: 331.84

LD₅₀: 93 mg/kg (M, i.v.);

71 mg/kg (R, i.v.);

32 mg/kg (dog, i.v.)



*Reference(s):*

- EP 41 491 (Hässle; appl. 27.5.1981; S-prior. 2.6.1980).
 EP 53 435 (American Hospital Supply; appl. 29.10.1981; USA-prior. 28.11.1980).
 Erhardt, P.W. et al.: J. Med. Chem. (JMCMAR) **25**, 1408 (1982).
 US 4 387 103 (American Hospital Supply; 7.6.1983; prior. 28.11.1980).

injectable formulation:

- US 4 857 552 (Du Pont; 15.8.1989; prior. 8.6.1988).
 US 4 593 119 (American Hospital Supply; 3.6.1986; prior. 28.11.1980).

alternative synthesis:

- ES 549 138 (Sune Coma; appl. 21.11.1985).

Formulation(s): amp. 2.5 g/10 ml; vial 100 mg/10 ml (as hydrochloride)

Trade Name(s):

D: Brevibloc (Baxter) F: Brevibloc (Isotec; 1989) USA: Brevibloc (Ohmeda; 1987)

Estazolam

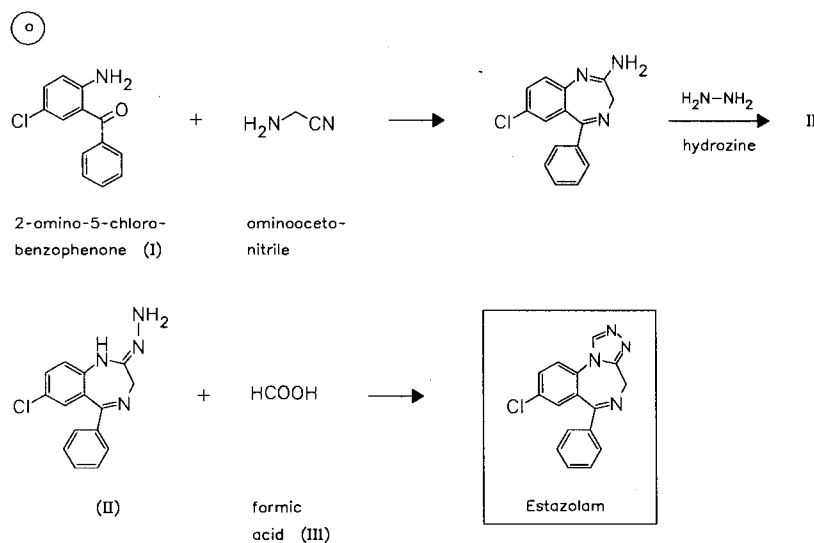
ATC: N05CD04

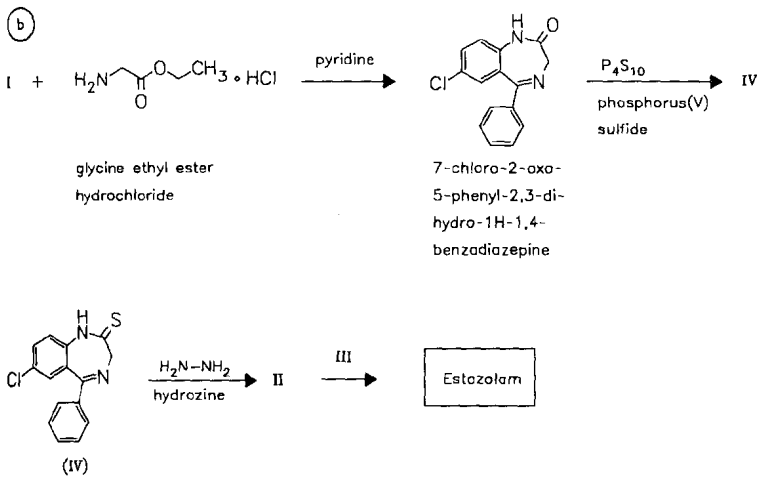
Use: hypnotic, sedative, tranquilizer

RN: 29975-16-4 MF: C₁₆H₁₁ClN₄ MW: 294.75 EINECS: 249-982-4

LD₅₀: 600 mg/kg (M, p.o.);
 2500 mg/kg (R, p.o.)

CN: 8-chloro-6-phenyl-4*H*-[1,2,4]triazolo[4,3-*a*][1,4]benzodiazepine



**Reference(s):**

- US 3 701 782 (Upjohn; 31.10.1972; prior. 10.2.1972).
 Hester, J.B. et al.: J. Med. Chem. (JMCMAR) **14**, 1078 (1971).
 US 4 116 956 (Takeda; 26.9.1978; J-prior. 5.11.1968, 17.12.1968, 25.12.1968, 13.2.1968).
 DOS 1 955 349 (Takeda; appl. 4.11.1969; J-prior. 5.11.1968).
 DOS 1 965 894 (Takeda; appl. 4.11.1969; J-prior. 5.11.1968, 17.12.1968, 25.12.1968, 13.2.1969).
 DOS 2 012 190 (Upjohn; appl. 14.3.1970; USA-prior. 17.3.1969).
 US 3 987 052 (Upjohn; 19.10.1976; prior. 17.3.1969, 29.10.1969).
 DOS 2 114 441 (Takeda; appl. 25.3.1971; J-prior. 27.3.1970, 23.4.1970, 28.5.1970).
 US 4 102 881 (Takeda; 25.7.1978; J-prior. 27.3.1970, 23.4.1970, 28.5.1970).
 DOS 2 302 525 (Upjohn; appl. 19.1.1973; USA-prior. 31.1.1972).

review:

Schulte, E.: Dtsch. Apoth. Ztg. (DAZEA2) **115**, 1253, 1828 (1975).

Formulation(s): tabl. 1 mg, 2 mg

Trade Name(s):

F: Nuctalon (Cassenne; 1978) I: Esilgan (Cyanamid; 1983); wfm J: Eurodin (Takeda; 1975) USA: ProSom (Abbott)

Estradiol

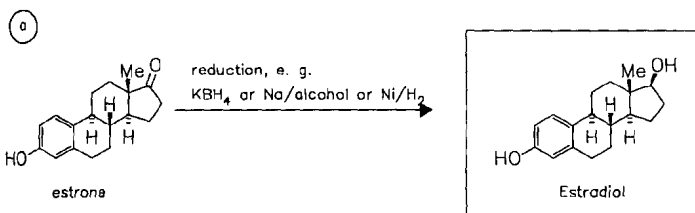
(Oestradiol)

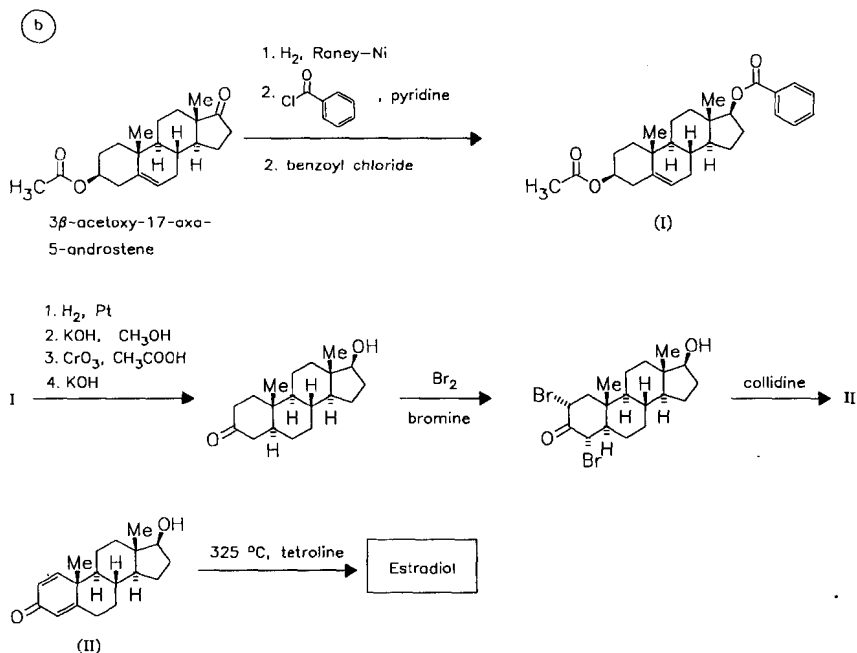
ATC: G03CA03

Use: estrogen

RN: 50-28-2 MF: C₁₈H₂₄O₂ MW: 272.39 EINECS: 200-023-8

CN: (17β)-estra-1,3,5(10)-triene-3,17-diol



*Reference(s):*

- a Ehrhart, Ruschig, **III**, 317.
US 2 096 744 (Schering Corp.; 1937; D-prior. 1932).
DRP 698 796 (Schering AG; appl. 1932).
- b Inhoffen, H.H.; Zühlsdorff, G.: Ber. Dtsch. Chem. Ges. (BDCGAS) **74**, 1911 (1941).
US 2 361 847 (Schering Corp. 1944; D-prior. 1937).
Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. **8**, 657.

starting material:

The Merck Index, 12th Ed., 630 (1996).

alternative syntheses:

- GB 485 388 (Lab. Franç. de Chimiothérapie; appl. 1936).
US 2 225 419 (Schering Corp.; 1940; D-prior. 1937).
US 3 128 238 (Lilly; 7.4.1974; appl. 14.9.1962).

total synthesis:

Eder, U. et al.: Chem. Ber. (CHBEAM) **109**, 2948 (1976).

Formulation(s): gel 0.5 mg/g, 1 mg/g; tabl. 2 mg, 4 mg; transdermal plaster 0.75 mg, 1.5 mg, 2 mg, 3 mg, 4 mg, 8 mg; vaginal tabl. 0.025 mg

Trade Name(s):

D:	Aknefug Emulsion (Wolff)-comb.	Estramon (Hexal)	Linoladiol-H (Wolff)-comb.
	Cerella (Asche)	Estrifam /-forte (Novo Nordisk; Rhône-Poulenc Rorer)	Menorest (Novo Nordisk; Rhône-Poulenc Rorer)
	Crinohermal fem. (Hermal)-comb.	ESTRING (Pharmacia & Upjohn)	Osmil (Novartis Pharma)-comb.
	Cutanum (Jenapharm)	Evorel (Janssen-Cilag)	Sandrena (Organon)
	DERMESTRIL (Opfermann)	Fem7 (Merck)	Sisare Gel (Nourypharma)
	Estracomb TTS (Novartis Pharma)-comb.	Kliogest (Novo Nordisk; Rhône-Poulenc Rorer)-comb.	Tradelia (Sanofi Winthrop)
	Estraderm (Novartis Pharma)	Linoladiol (Wolff)-comb.	Trisequens (Novo Nordisk; Rhône-Poulenc Rorer)-comb.

F:	Vagifem (Novo Nordisk; Rhône-Poulenc Rorer)	GB:	Cycloprogynova (ASTA Medica)	USA:	Alora (Procter & Gamble)
	Estrofem (Novo Nordisk)		Hormonin (Shire)		Climara (Berlex)
	Oestrogel (Besins-Iscovesco)		Trisequens (Novo)-comb. numerous generics		Estraderm (Novartis)
	Prémarin (Wyeth-Ayerst)-comb.	I:	Estraderm (Ciba-Geigy)		Estring (Pharmacia & Upjohn)
	Trisequens (Novo Nordisk)-comb.	J:	Ovahormon Pasta (Teikoku Zoki)		Estro-Plus (Rocky Mtn.)-comb. FemPatch (Parke Davis) Vivelle (Novartis)

Estradiol benzoate

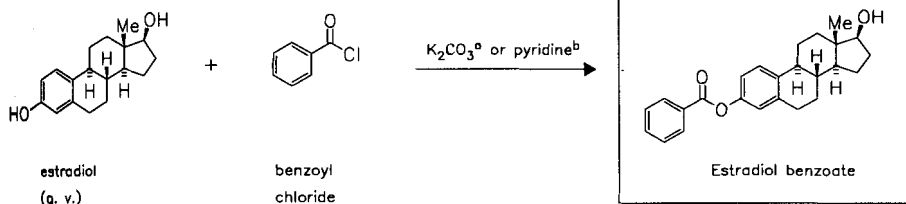
(Oestradiolbenzoat)

ATC: G03CA

Use: estrogen

RN: 50-50-0 MF: C₂₅H₂₈O₃ MW: 376.50 EINECS: 200-043-7

CN: (17β)-estra-1,3,5(10)-triene-3,17-diol 3-benzoate

**Reference(s):**

- a US 2 054 271 (Schering Corp.; 1933; D-prior. 1932).
GB 485 388 (Lab. Franç. de Chimiothérapie; appl. 1936).
b DRP 641 994 (Schering AG; appl. 1932).

alternative synthesis:

- US 2 225 419 (Schering Corp.; 1940; D-prior. 1937).
US 2 156 599 (Ciba; 1939; CH-prior. 1936).

Formulation(s): amp. 2 mg/ml, 10 mg/ml, 50 mg/2 ml; sol. 5 mg/100 ml**Trade Name(s):**

D:	Alpicort F (Wolff)-comb.	GB:	Benztrone (Paines & Byrne); wfm	Pelanin Inj. (Mochida)
	Jephagynon (Wolff)-comb.			Profollior B (Schering)
F:	Ney Normin (vitOrgan)-comb.	I:	Benztrone (Amsa)	Progynon B (Nihon Schering)
	Syngynon (Jenapharm)		Duo-Ormogyn (Amsa)-comb.	
	Benzo-Gynoestryl (Roussel)		Menovis (Parke Davis)-comb.	USA: Gynetone Inj. (Schering)-comb.; wfm
	Dermestril (Sanofi)		Progynon (Schering)	Testradial (Consolidated Midland)-comb.; wfm
	Winthrop)	J:	Estradin Susp. (Santen-Yamanouchi)	Testradial (Truxton)-comb.; wfm
	Estraderm (Novartis)		Femihormon (Tokyo Hoesei)	Trimonal (Vitarine)-comb.; wfm
	Estreva (Théramex)		Follikelmon (Kyorin)	
	Estrofem (Specia)		Ovahormon Benzoat Susp. (Teikoku Zoki)	numerous generics; wfm
	Menorest (Specia)			
	Oesclim (Fournier)			

Estradiol cypionate

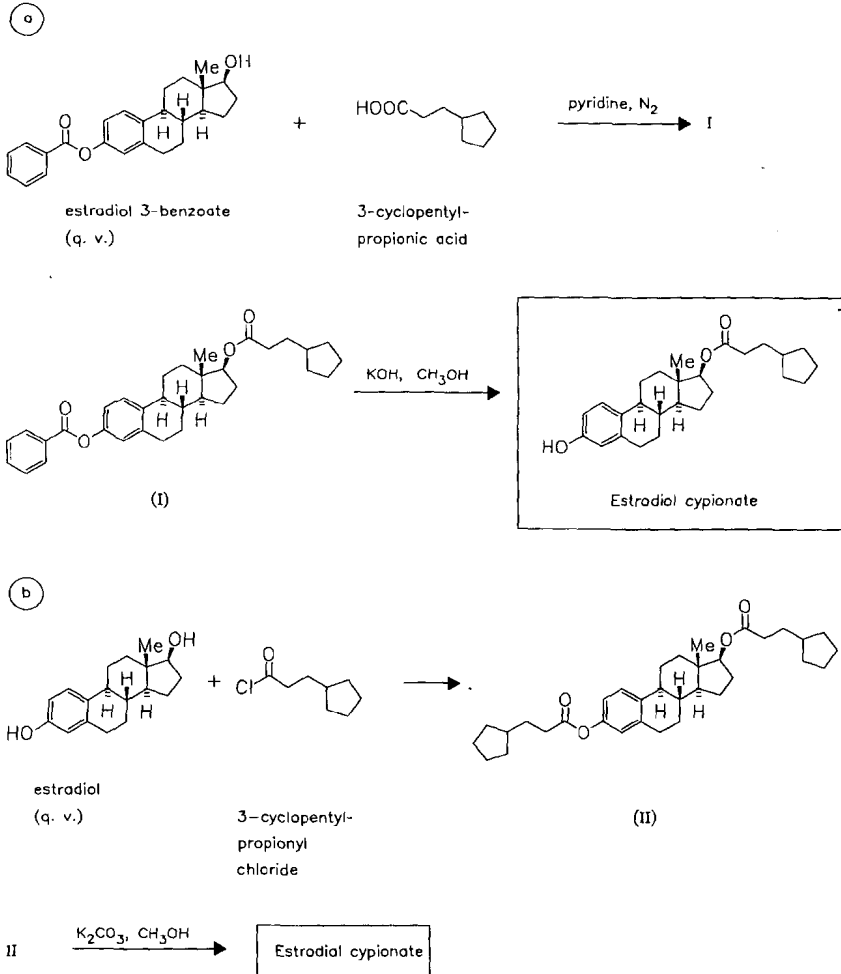
(Oestradiol-17-cyclopentylpropionat)

ATC: G03C

Use: estrogen

RN: 313-06-4 MF: C₂₆H₃₆O₃ MW: 396.57 EINECS: 206-237-8LD₅₀: >1 g/kg (M, i.p.)

CN: (17β)-estra-1,3,5(10)-triene-3,17-diol 17-cyclopentanepropanoate

**Reference(s):****a** FR 1 215 503 (Lab. Rolland; appl. 1955).**b** US 2 611 773 (Upjohn; 1952; prior. 1951).**Formulation(s):** amp. 10 mg (1 mg/ml), 25 mg (5 mg/ml), 50 mg (5 mg/ml)**Trade Name(s):****D:** Femovirin Amp. (Albert-Roussel)-comb.; wfm**F:** Oestradiol-retard Rolland (L'Hépatrol); wfm**I:** Cicloestradiolo (Farmigea); wfm

Estradiolo Depositum (Orma); wfm

Neoginon Depositum (Lusofarmaco); wfm

J: Depo-Estradiol (Upjohn-Kodama) USA: Depo-Estradiol (Upjohn); wfm

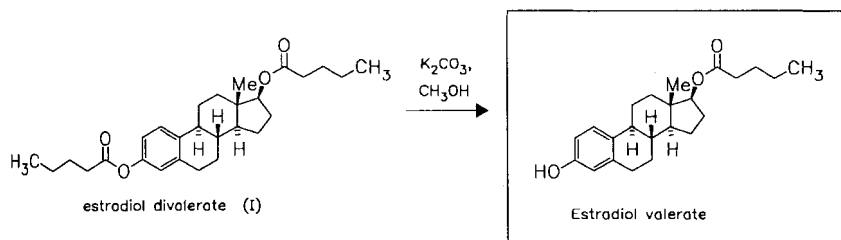
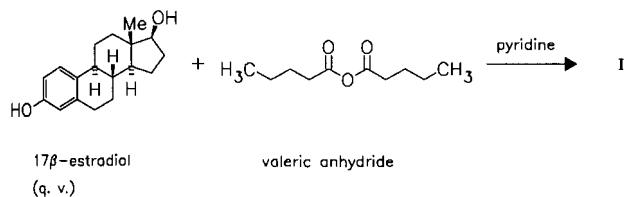
Estradiol valerate

ATC: G03CA
Use: estrogen

RN: 979-32-8 MF: C₂₃H₃₂O₃ MW: 356.51 EINECS: 213-559-2

LD₅₀: 1224 mg/kg (M, p.o.)

CN: (17β)-estra-1,3,5(10)-triene-3,17-diol 17-pentanoate



Reference(s):

US 2 205 627 (Ciba; 1940; CH-prior. 1936).

US 2 233 025 (Ciba; 1941; CH-prior. 1936).

use as antidepressant:

DOS 2 758 549 (Schering AG; appl. 23.12.1977).

Formulation(s): amp. 5 mg/ml, 10 mg/ml; drg. 1 mg, 2 mg; drops 2 mg/0.5 ml; f. c. tabl. 2 mg; tabl. 2 mg, 4 mg

Trade Name(s):

D:	Gynokadin (Kade)	Progynova (Schering)	Estate (Savage); wfm
	Merimono (Novartis Pharma)	J: Pelanin Depot (Mochida)	Estral-L (Pasadena Res.); wfm
	Progynon Depot (Schering)	Progynon Depot (Nihon Schering)	Estraval (Kay); wfm
	Progynova (Schering)	USA: Ardefem (Burgin-Arden); wfm	Estravel-P.A. (Tutag); wfm
	numerous combination preparations	Atladiol (Atlas); wfm	Feminate (Western Res.); wfm
F:	Climène (Schering)-comb.	Delestrogen (Squibb); wfm	Femogen L.A. (Fellows); wfm
	Divina (Innothéra)-comb.	Depogen (Hyrex); wfm	Repo-Estra (Central); wfm
	Progynova (Schering)	Depogen (Sig); wfm	Repo-Estro Med (Medics); wfm
GB:	Cyclo-Progynova (ASTA Medica)-comb.	Dioval (Keene); wfm	Reposo E (Canfield); wfm
	Progynova (Schering)	Ditrate DS (Savage); wfm	Retestrin (Rocky Mtn.); wfm
I:	Gravibinan (Schering)-comb.	Dura-Estate (Ries); wfm	Span-Est (Scrip); wfm
	Gynodian Depot (Schering)-comb.	Dura-Estradiol (Myers-Carter); wfm	Testaval (Legere); wfm
	Progynon Depot (Schering)	Dura-Estradiol (Ruckstuhl); wfm	Valergen (Hyrex); wfm
		Duratrad (Ascher); wfm	

numerous combination
preparations; wfm

Estradiol undecylate

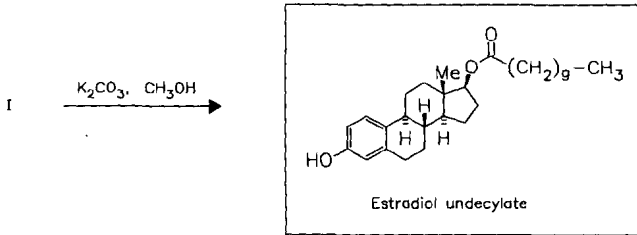
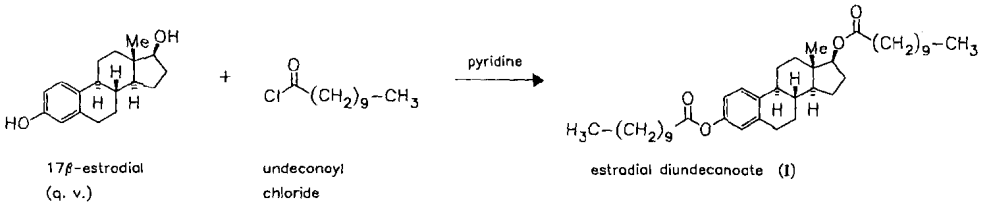
(Oestradiolundecanoat)

ATC: G03CA

Use: estrogen

RN: 3571-53-7 MF: C₂₉H₄₄O₃ MW: 440.67 EINECS: 222-677-3

CN: (17β)-estra-1,3,5(10)-triene-3,17-diol 17-undecanoate



Reference(s):

US 2 990 414 (Syntex; 27.1.1961; appl. 18.3.1948; MEX-prior. 26.3.1957).

Formulation(s): amp. 100 mg/ml

Trade Name(s):

F: Oestradiol-Retard

Théramex (Théramex)

J: Depogin (Shiongi)

USA: Delestrec (Squibb); wfm

Estramustine phosphate

ATC: L01AA

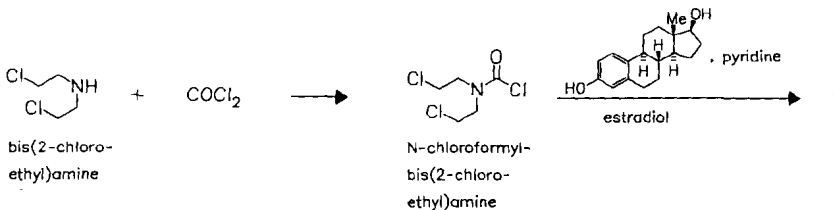
Use: antineoplastic

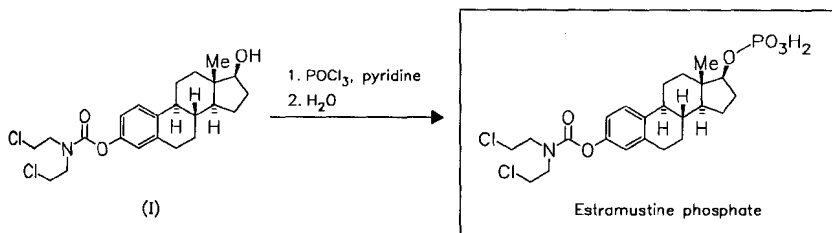
RN: 4891-15-0 MF: C₂₃H₃₂Cl₂NO₆P MW: 520.39 EINECS: 225-512-3

CN: (17β)-estra-1,3,5(10)-triene-3,17-diol 3-[bis(2-chloroethyl)carbamate] 17-(dihydrogen phosphate)

disodium salt

RN: 52205-73-9 MF: C₂₃H₃₀Cl₂NNa₂O₆P MW: 564.35



**Reference(s):**

GB 1 016 959 (Leo; appl. 9.4.1963; valid from 24.3.1964).
 US 3 299 104 (Leo; 17.1.1967; GB-prior. 9.4.1963).
 GB 1 523 035 (Leo; appl. 10.3.1976; valid from 8.3.1977).

complex compounds with alcohols (for purification):

US 4 115 414 (Leo; 19.9.1978; GB-prior. 10.3.1976).
 DE 2 710 293 (Leo; appl. 9.3.1977; GB-prior. 10.3.1976)

Formulation(s): cps. 151.8 mg, 303.6 mg (as disodium salt); vial 621 mg (as meglumine salt)

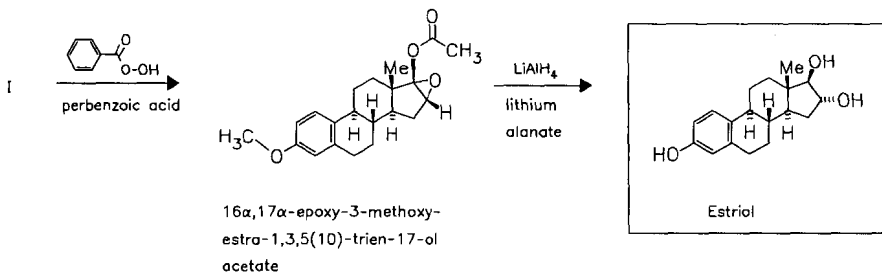
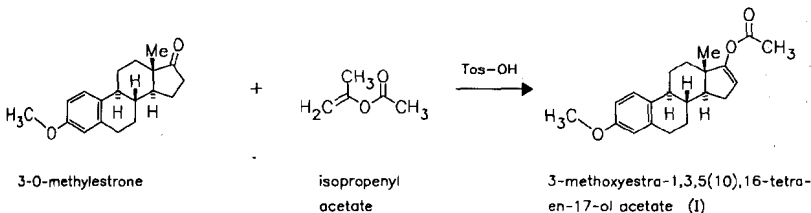
Trade Name(s):

D: Cellmustin (cell pharm)	F: Estracyt (Pharmacia & Upjohn)	J: Estracyt (Nippon Shinyaku)
Estracyt (Pharmacia & Upjohn)	GB: Estracyt (Pharmacia & Upjohn)	USA: Emcyt (Pharmacia & Upjohn; as sodium salt)
Multosin (Takeda)	I: Estracyt (Farmitalia)	
Prostamustin (Azupharma)		

Estriol

ATC: G03CA04

Use: estrogen

RN: 50-27-1 MF: $\text{C}_{18}\text{H}_{24}\text{O}_3$ MW: 288.39 EINECS: 200-022-2LD₅₀: >2 g/kg (R, p.o.)CN: (16 α ,17 β)-estra-1,3,5(10)-triene-3,16,17-triol**Reference(s):**

Gallagher. T.F. J. Am. Chem. Soc. (JACSAT) 76, 2943 (1954).

alternative syntheses:

Butenandt, A.; Schäffler, E.L.: *Z. Naturforsch. (ZNTFA2)* **1**, 82 (1946).
 Huffmann, M.N. et al.: *Science (Washington, D.C.) (SCIEAS)* **100**, 312 (1944).
 Huffmann, M.N.; Lott, M.H.: *J. Am. Chem. Soc. (JACSAT)* **69**, 1835 (1947).
 US 1 967 351 (Pres. and Board of Trustees of St. Louis; 1934; appl. 1930).
 The Merck Index, 12th Ed., 631 (Rahway 1996).

Formulation(s): cream 0.5 mg/g; drg. 1 mg; f. c. tabl. 2 mg; ovula 0.03 mg, 0.5 mg; tabl. 1 mg, 2 mg

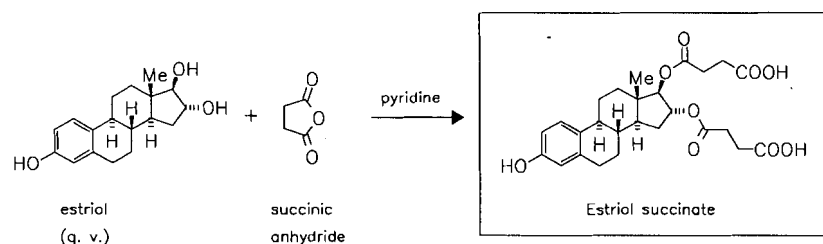
Trade Name(s):

D:	Cordes (Ichthyol)	F:	Gydrelle (Iprad)	Ortho Gynest Depot (Cilag)	
	Estiol (Jenapharm)		Physiogine (Organon)	Ovestin (Organon Italia)	
	Gynäsan (Bastian-Werk)- comb.		Trophicrème (Sanofi	J:	Climatol (Santen)
	Oekolp (Kade)		Winthrop)	Estriel (Mochida)	
	Ortho-Gynest (Janssen- Cilag)		Trophigil (Sanofi	Molin (Teikoku Zoki)	
	Ovestin (Organon)	GB:	Winthrop)-comb.	Ovopause (Organon)	
	Ovo-Vinces 200 (Wolff)		Hormonin (Shire)-comb.	Season (Teikoku Zoki)	
	Synapause (Nourypharma)		Ortho-Gynest (Janssen- Cilag)	USA:	Estro Plus Tab. (Rocky Mtn.)-comb.; wfm
	Xapro (Jenapharm)		Ovestin (Organon)	Hormonin (Carnrick)- comb.; wfm	
	numerous combination préparations	I:	Trisequens (Novo Nordisk)-comb.		
			Colpogyn (Angelini)		

Estriol succinate

ATC: G03C

Use: estrogen

RN: 514-68-1 MF: C₂₆H₃₂O₉ MW: 488.53 EINECS: 208-185-1CN: (16 α ,17 β)-estra-1,3,5(10)-triene-3,16,17-triol 16,17-bis(hydrogen butanedioate)**disodium salt**RN: 113-22-4 MF: C₂₆H₃₀Na₂O₉ MW: 532.50*Reference(s):*

GB 879 014 (Organon; appl. 26.5.1960; NL-prior. 29.5.1959).

Formulation(s): tabl. 2 mg, 4 mg (as disodium salt); vial 20 mg (as disodium salt)

Trade Name(s):

D:	Orgastypin (Organon)	Synapause (Nourypharma);	F:	Synapause (Organon); wfm
	Teknika); wfm	wfm	I:	Ovestin (Organon Italia)

Estrone

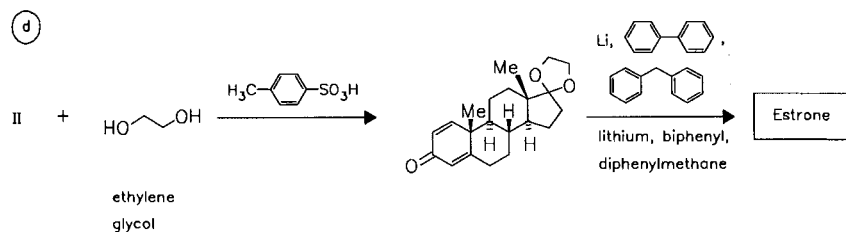
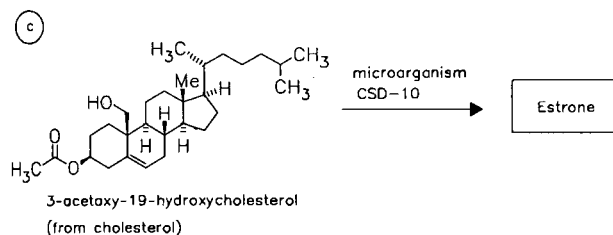
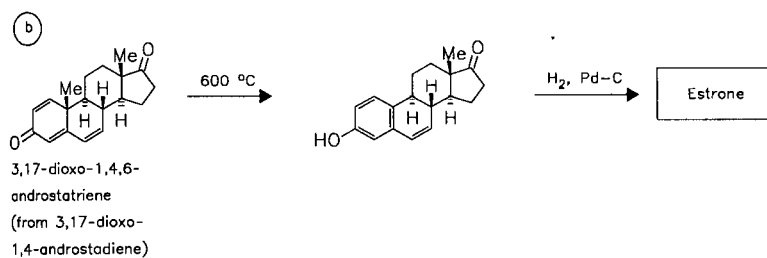
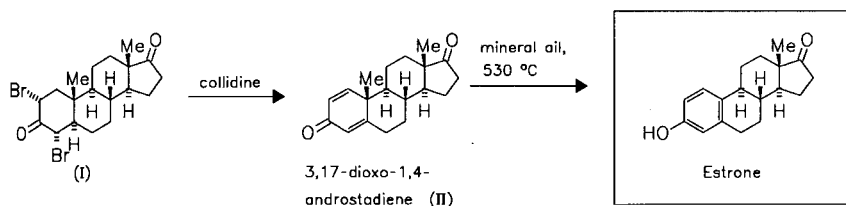
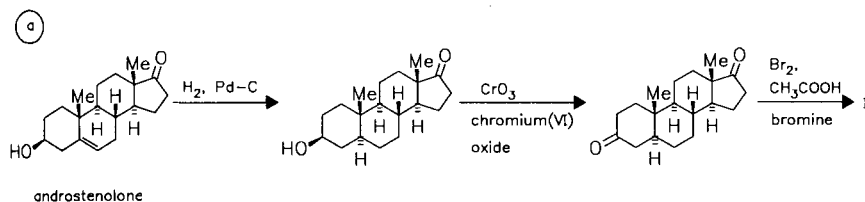
(Oestron)

ATC: G03CA07; G03CC04

Use: estrogen

RN: 53-16-7 MF: C₁₈H₂₂O₂ MW: 270.37 EINECS: 200-164-5

CN: 3-hydroxyestra-1,3,5(10)-trien-17-one

**Reference(s):**a,b Ehrhart, Ruschig, **III**, 315.c Sih, Ch. et al.: *J. Am. Chem. Soc. (JACSAT)* **87**, 2765 (1965).

starting material:

Kalvoda, J. et al.: *Helv. Chim. Acta (HCACAV)* **46**, 1361 (1963).

d Dryden, H.L. et al.: *J. Am. Chem. Soc. (JACSAT)* **86**, 742 (1964).

production of conjugated estrogens:

US 2 565 115 (Squibb; 1951; prior. 1948).

US 2 720 483 (Olin Mathieson; 1955; prior. 1951).

US 4 154 820 (Akzona; 15.5.1979; prior. 26.9.1977, 23.2.1976).

total syntheses:

EP 37 973 (Hoechst; appl. 2.4.1981; D-prior. 12.4.1980).

Morand, P.; Lyall, J.: *Chem. Rev. (Washington, D. C.) (CHREAY)* **68**, 85 (1968).

Velluz, L. et al.: *Angew. Chem. (ANCEAD)* **72**, 725 (1960).

Velluz, L. et al.: *Angew. Chem. (ANCEAD)* **77**, 185 (1965).

Smith, H. et al.: *J. Chem. Soc. (JCSOA9)* **1963**, 5072.

Smith, H. et al.: *Experientia (EXPEAM)* **19**, 177 (1963).

Anachenko, S.N.; Torgov, J.V.: *Tetrahedron Lett. (TELEAY)* **1963**, 1553; **1964**, 171.

Blickenstaff, R.T.; Ghosh, A.C.; Wolf, G.C.: *Total Synthesis of Steroids (Organic Chemistry Vol. 30)* p. 58-63, 142-145, Academic Press, New York, London 1974.

Formulation(s): e. g. 1.4 mg in comb.; amp. 20 mg; drg. 0.625 mg, 1.25 mg, 2.5 mg; vial 20 mg

Trade Name(s):

D:	Coniugen (Klinge)-comb.; wfm	Premarin (Wyeth; as estrogen conjugate)	Menformon (Organon); wfm
	GT 50 B (Gewo)-comb.; wfm	Prempak (Wyeth)-comb.	Natural Estrogenic Substance (Legere); wfm
	Menrium (Roche)-comb.; wfm	J: Estropan (Mochida)-comb.	Nestronaq (Noyes); wfm
	Oestro-Feminal (Mack, Illert.; as estrogen conjugate)-comb.; wfm	USA: Di-Genik (Savage)-comb.; wfm	Ogen (Abbott; as estropipate); wfm
	Ovaribran (Thomae; as estrogen conjugate)-comb.; wfm	Di-Met (Organon)-comb.; wfm	Prinn (Scirp); wfm
	Ovowop (Hor-Fer-Vit)- comb.; wfm	Duogen (Smith, Miller & Patch)-comb.; wfm	Propagon-S (Spanner); wfm
F:	Colpormon (Lipha Santé)	Estro-V (Webcon); wfm	Spanestrin (Savage)-comb.; wfm
	Prémarin (Wyeth-Lederle)	Estrusol (Smith, Miller & Patch); wfm	Theelin (Parke Davis); wfm
	Synergon (Lipha Santé)- comb.	Follestrol (Blue Line); wfm	Wynastron (Wyeth); wfm
		Foygen (Foy); wfm	further combination preparations and generic; wfm
		Hormestrin (Smith, Miller & Patch)-comb.; wfm	
GB:	Hormonin (Shire)-comb.	Mal-O-Fem (Fellows)- comb.; wfm	
I:	Emopremarin (Wyeth; as estrogen conjugate)	Menagen (Parke Davis); wfm	

Etacrynic acid

(Äthacrynsäure; Acide étacrynique)

ATC: C03CC01

Use: diuretic

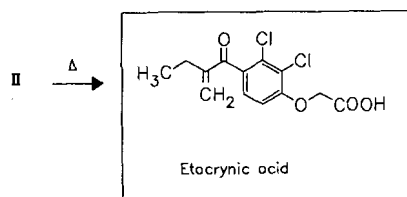
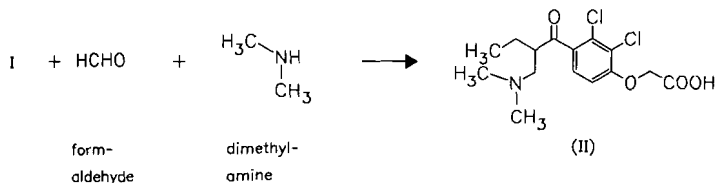
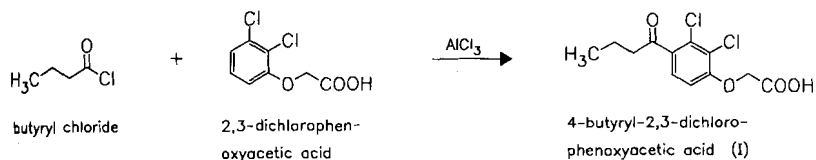
RN: 58-54-8 MF: $C_{13}H_{12}Cl_2O_4$ MW: 303.14 EINECS: 200-384-1

LD₅₀: 176 mg/kg (M, i.v.); 600 mg/kg (M, p.o.);
1 g/kg (R, p.o.)

CN: [2,3-dichloro-4-(2-methylene-1-oxobutyl)phenoxy]acetic acid

sodium salt

RN: 6500-81-8 MF: $C_{13}H_{11}Cl_2NaO_4$ MW: 325.12



Reference(s):

BE 612 755 (Merck & Co. appl. 17.1.1962; USA-prior. 19.1.1961).
 US 3 255 241 (Merck & Co.; 7.6.1966; prior. 19.1.1961, 6.12.1961).

alternative synthesis:

DE 1 276 030 (Merck & Co.; appl. 18.12.1964; USA-prior. 23.12.1963).

Formulation(s): tabl. 25 mg, 50 mg (as free acid); vial 53.6 mg (as sodium salt)

Trade Name(s):

D:	Hydromedin (Merck Sharp & Dohme)	GB:	Edecrin (Merck Sharp & Dohme)	J:	Edecil (Merck-Banyu)
F:	Edecrine (Merck Sharp & Dohme); wfm	I:	Ac Etacr (Formulario Naz.) Edecrin (Merck Sharp & Dohme)	USA:	Edecrin (Merck Sharp & Dohme)
					Reomax (Bioindustria)

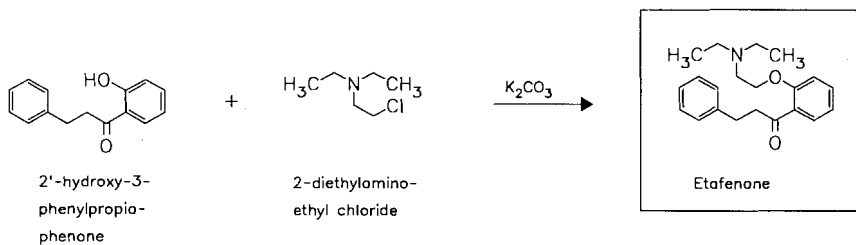
Etafenone

ATC: C01DX07
 Use: coronary vasodilator

RN: 90-54-0 MF: C₂₁H₂₇NO₂ MW: 325.45 EINECS: 202-002-9
 CN: 1-[2-[2-(diethylamino)ethoxy]phenyl]-3-phenyl-1-propanone

hydrochloride

RN: 2192-21-4 MF: C₂₁H₂₇NO₂ · HCl MW: 361.91 EINECS: 218-587-9
 LD₅₀: 28 mg/kg (M, i.v.); 352 mg/kg (M, p.o.);
 20.8 mg/kg (R, i.v.); 716 mg/kg (R, p.o.);
 50 mg/kg (dog, p.o.)

**Reference(s):**

DAS I 265 758 (S. p. A. Lab. Guidotti; appl. 25.5.1960).

Formulation(s): amp. 25 mg; drg. 75 mg; s. r. cps. 50 mg (as hydrochloride)

Trade Name(s):

D:	Baxacor (Helopharm); wfm Baxacor (Mack, Illert.); wfm Digi-Baxacor (Mack, Illert.)-comb.; wfm Iso Baxacor (Helopharm)- comb.; wfm	I:	Dialicor (Guidotti)	J:	Asamedel (Maruko)	Pagano-Cor (Helopharm); wfm Seda-Baxacor (Helopharm)-comb.; wfm Seda-Baxacor (Mack, Illert.)-comb.; wfm	Cardilicor (Uji) Corodilan (Meiji) Dialicor (Kissei) Esanthin-S (Kyoritsu Yakuhin) Etafenarin (Taiyo) Korofenon (Nissin)
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Etamiphylline

(Dietamiphylline)

ATC: R03DA06

Use: cardiotoxic, diuretic

RN: 314-35-2 MF: $C_{13}H_{21}N_5O_2$ MW: 279.34 EINECS: 206-244-6

LD₅₀: 1237 mg/kg (M, p.o.)

CN: 7-[2-(diethylamino)ethyl]-3,7-dihydro-1,3-dimethyl-1*H*-purine-2,6-dione

monohydrochloride

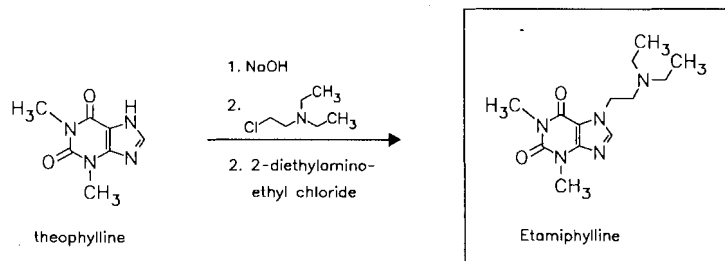
RN: 17140-68-0 MF: $C_{13}H_{21}N_5O_2 \cdot HCl$ MW: 315.81 EINECS: 241-204-1

LD₅₀: 127 mg/kg (M, i.v.)

camphersulfonate (1:1)

RN: 19326-29-5 MF: $C_{13}H_{21}N_5O_2 \cdot C_{10}H_{16}O_4S$ MW: 511.64 EINECS: 242-962-6

LD₅₀: 604 mg/kg (M, s.c.)

**Reference(s):**

GB 669 070 (A. J.-M. Moussalli et al.; appl. 1949; F-prior. 1948).

Klosa, J.: Arch. Pharm. Ber. Dtsch. Pharm. Ges. (APBDJ) **288/60**, 301 (1955).

Formulation(s): 75 mg in comb.; suppos. 200 mg, 500 mg; tabl. 100 mg (as camphersulfonate)

Trade Name(s):

D: Longtussin duplex (Fink)-comb.; wfm Ultratussin (Fink)-comb.; wfm	GB: Dechophylline (Millot-Solac)-comb.; wfm Iodaphylline (Millot-Solac; as iodomethylate); wfm Millophylline (Dales; as camphersulfonate); wfm	Convivial (Malescil)-comb.; wfm Decofillina (Malescil)-comb.; wfm Jod-Metil-Fillina (Malescil; as iodomethylate); wfm
F: Camphophylline (Millot; as camphersulfonate); wfm Iodaphylline (Millot; as iodomethylate); wfm Milh�eparine (Millot)-comb. with heparin; wfm	I: Aricodil (Malescil)-comb.; wfm Benzofillina (Courtois; as p-aminobenzoate); wfm	Spasmodil complex (ABC)-comb.; wfm

Etamivan

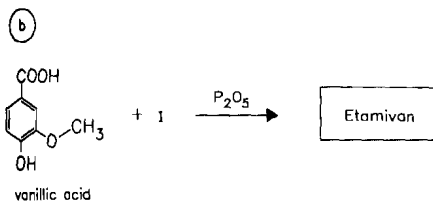
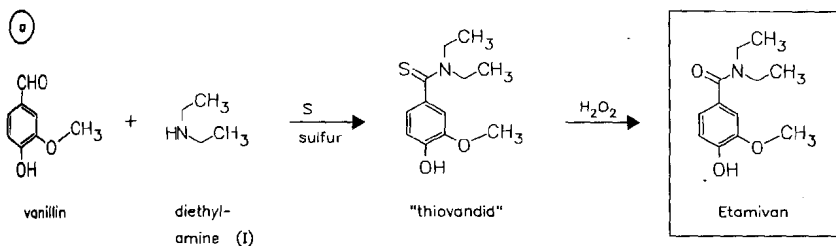
(Ethamivan)

ATC: R07AB04

Use: analeptic (central and respiratory stimulant)

RN: 304-84-7 MF: C₁₂H₁₇NO₃ MW: 223.27 EINECS: 206-157-3

LD₅₀: 15 mg/kg (M, i.v.); 67 mg/kg (M, p.o.);
28 mg/kg (R, i.p.); 17 mg/kg (R, i.v.); 154 mg/kg (R, p.o.);
30 mg/kg (dog, i.v.); 300 mg/kg (dog, p.o.)

CN: *N,N*-diethyl-4-hydroxy-3-methoxybenzamide**Reference(s):**

US 2 641 612 (Osterr. Stickstoffwerke AG; 1953; A-prior. 1949).

Formulation(s): drg. 10 mg in comb.; drops 20 mg/ml in comb.**Trade Name(s):**

D: Normotin-R rapid (OTW)-comb.	GB: Clairvan (Sinclair); wfm Vandid (Riker); wfm	I: Corivanil (Sirt-BBP); wfm Romecor (Benvegna); wfm
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Etamsylate

(Ethamsylate)

ATC: B02BX01

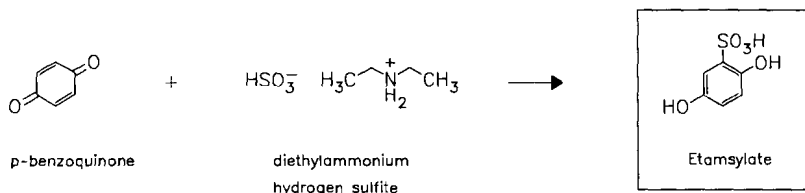
Use: hemostatic (capillary protective)

RN: 88-46-0 MF: C₆H₆O₅S MW: 190.18 EINECS: 201-833-4

CN: 2,5-dihydroxybenzenesulfonic acid

diethylammonium salt (1:1)RN: 2624-44-4 MF: C₆H₆O₅S · C₄H₁₁N MW: 263.31 EINECS: 220-090-7LD₅₀: 785 mg/kg (M, i.v.); 8300 mg/kg (M, p.o.);

1350 mg/kg (R, i.v.); 7500 mg/kg (R, p.o.)

**Reference(s):**

GB 895 709 (Lab. OM S.A.; appl. 31.12.1959; CH-prior. 28.1.1959).

Formulation(s): amp. 250 mg/2 ml; tabl. 250 mg, 500 mg**Trade Name(s):**

D: Altodor (Deutsche OM)	I: Dicynone (Delalande Isnardi)	J: Transil (Malesci)-comb. Aglumir (Eisai)
F: Dicynone (Synthélabo)		Dicynone (Torii)
GB: Dicynene (Delandale)	Esclin (Ravizza)	

Ethacridine

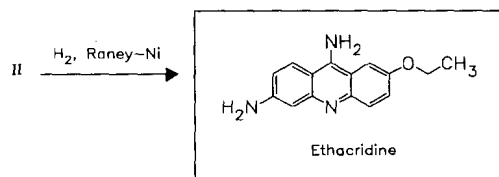
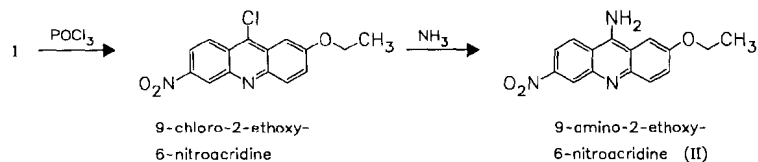
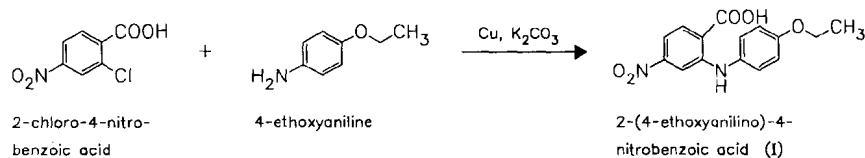
(Acrinol; Aethacridin)

ATC: B05CA08; D08AA01

Use: wound antiseptic, intestinal disinfectant

RN: 442-16-0 MF: C₁₅H₁₅N₃O MW: 253.31 EINECS: 207-130-9

CN: 7-ethoxy-3,9-acridinediamine

lactate (1:1)RN: 1837-57-6 MF: C₁₅H₁₅N₃O · C₃H₆O₃ MW: 343.38 EINECS: 217-408-1LD₅₀: 42 mg/kg (M, i.p.); 120 mg/kg (M, s.c.)

Reference(s):

DRP 360 421 (Hoechst; 1922).

DRP 393 411 (Hoechst; 1923).

improved method for 9-amino-2-ethoxy-6-nitroacridine:

DAS 1 952 086 (Hoechst; appl. 16.10.1969).

Formulation(s): drg. 200 mg; eye drops 1 mg/g (as free base); gargle tabl. 25 mg (as hydrochloride); ointment 2 mg/g; sol. 0.1 %; tabl. 0.1 g

Trade Name(s):

D: Biseptol (Winzer)	numerous combination preparations	I: Rivanolo (Tariff. Integrativo)
Metifex (Cassella-med)		J: Hectalin (Daiichi)
Rivanol (Chinosolfabrik)	F: Dentinox (Pharmastra)-comb.	Rimaon (Takeda)
Uroseptol (Fresenius-Praxis; as acetate)	Pyorex (Bailly)-comb.	

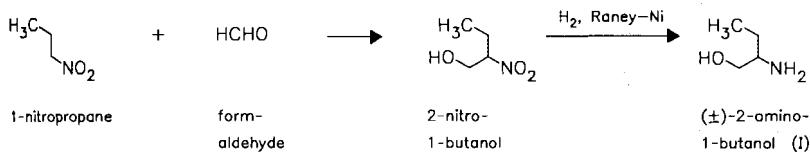
Ethambutol

ATC: J04AK02

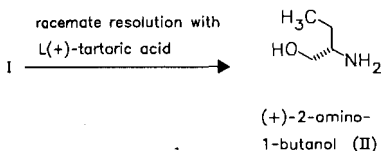
Use: tuberculostatic

RN: 74-55-5 MF: C₁₀H₂₄N₂O₂ MW: 204.31 EINECS: 200-810-6LD₅₀: 240 mg/kg (M, i.v.); 8700 mg/kg (M, p.o.)CN: [*S*-(*R**,*R**)]-2,2'-(1,2-ethanediyldiimino)bis[1-butanol]**dihydrochloride**RN: 1070-11-7 MF: C₁₀H₂₄N₂O₂ · 2HCl MW: 277.24

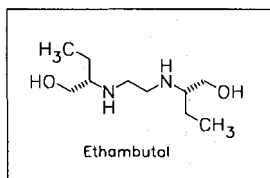
(a)



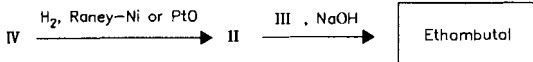
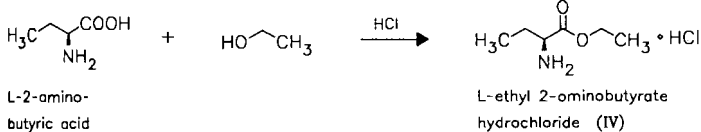
racemate resolution with
L(+)-tartaric acid

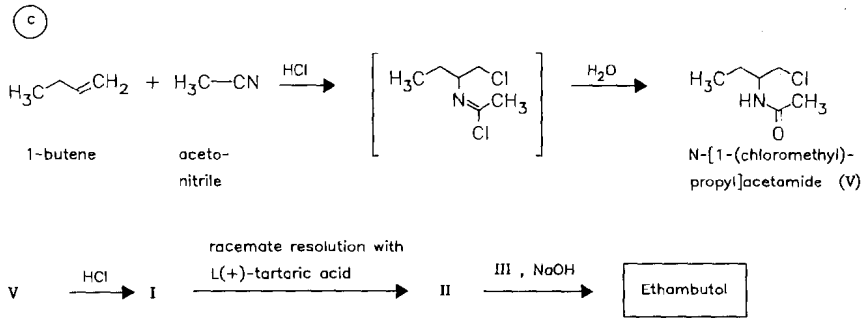


Cl-CH₂-CH₂-Cl (III)
NaOH
1,2-dichloro-ethane



(b)



**Reference(s):**

- a Wilkinson, R.G. et al.: J. Am. Chem. Soc. (JACSAT) **83**, 2212 (1961).
 Wilkinson, R.G. et al.: J. Med. Pharm. Chem. (JMPCAS) **5**, 835 (1962).
 US 3 176 040 (American Cyanamid; 30.3.1965; prior. 2.6.1960).
 BE 600 640 (American Cyanamid; appl. 24.2.1961; USA-prior. 2.6.1960, 20.12.1960).
 BE 613 545 (American Cyanamid; appl. 6.2.1962; USA-prior. 23.1.1962).
racemate resolution of (+)-2-aminobutanol with tartaric acid:
 US 3 553 257 (American Cyanamid; 5.1.1971; prior. 16.9.1966).
reaction with 1,2-dichloroethane:
 US 3 769 347 (American Cyanamid; 30.10.1973; prior. 11.2.1971).
 DOS 2 205 269 (American Cyanamid; appl. 4.2.1972; USA-prior. 11.2.1971).
 US 3 944 616 (American Cyanamid; 16.3.1976; prior. 29.10.1974).
 FR 2 351 090 (Soc. Chim. Grande Paroisse; appl. 11.5.1976).
- b DAS 2 446 320 (Denki Kagaku Kogyo; appl. 27.9.1974; J-prior. 28.9.1973).
 GB 1 469 014 (Denki Kagaku Kogyo; appl. 30.9.1974; J-prior. 28.9.1973).
reduction with sodium diethylaluminum hydride:
 JP-appl. 780 06-127 (Crc co di Ricerca; appl. 22.5.1973; CH-prior. 1.3.1973).
- c US 3 944 617 (American Cyanamid; 16.3.1976; prior. 1.8.1974).
 US 3 944 618 (American Cyanamid; 16.3.1976; prior. 1.8.1974).
 US 3 944 619 (American Cyanamid; 16.3.1976; prior. 1.8.1974).
 GB 1 541 290 (American Cyanamid; appl. 9.2.1976).

*alternative syntheses:**from 1,2-epoxybutane:*

- US 3 953 513 (Gruppo Lepetit; 27.4.1976; GB-prior. 29.11.1973).
 DOS 2 454 950 (Gruppo Lepetit; appl. 20.11.1974; GB-prior. 29.11.1973).
 DAS 2 410 988 (Polska Akad. Nauk Inst. Chem. Organ.; appl. 7.3.1974; PL-prior. 20.3.1973).

from 3,4-epoxybutene (butadiene monoxide):

- DAS 2 263 715 (Soc. Farmaceutici Italia; appl. 28.12.1972; I-prior. 30.12.1971).

from 1-hydroxy-2-butanone:

- DOS 2 547 654 (BASF; appl. 24.10.1975).

asymmetric hydrogenation of 2-acylamino-crotonic acid derivatives:

- BE 862 627 (American Cyanamid; appl. 4.1.1978; USA-prior. 7.1.1977).
 DOS 2 800 461 (American Cyanamid; appl. 5.1.1978; USA-prior. 7.1.1977).

racemate resolution of (±)-2-aminobutanol with (+)-N-benzoyl-trans-2-aminocyclohexanecarboxylic acid:

- GB 1 471 838 (Nippon Soda; appl. 26.3.1975; J-prior. 4.4.1974).

Formulation(s): amp. 400 mg/4 ml, 1000 mg/10 ml; f. c. tabl. 100 mg, 250 mg, 400 mg, 500 mg (as dihydrochloride); vial 1 g

Trade Name(s):

D: EMB-Fatol (Fatol)

Myambutol (Lederle)

F: Dexambutol (L'Arguenon)

Dexambutol-INH (L'Arguenon)-comb. with isoniazid	I:	Etambu (Formulario Naz.) Etambu (Lifepharma) Etanicozid (Piam)-comb.	Esanbutol (Lederle) Ethambutol (Lederle- Takeda)
Myambutol (Wyeth- Lederle)		Etapiam (Piam) Etibi (Zoja)	USA: Myambutol (Lederle Labs.; as hydrochloride)
GB: Myambutol (Lederle); wfm Mynak (Lederle)-comb. with isoniazid; wfm	J:	Miambutol (Cyanamid) Miazide (Cyanamid)-comb. Ebutol (Kaken)	

Ethaverine

ATC: A03
Use: antispasmodic

RN: 486-47-5 MF: C₂₄H₂₉NO₄ MW: 395.50 EINECS: 207-633-3

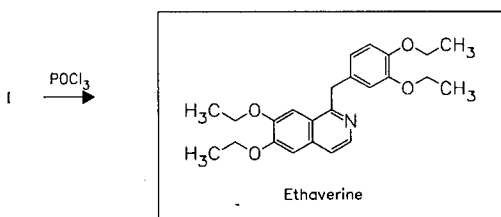
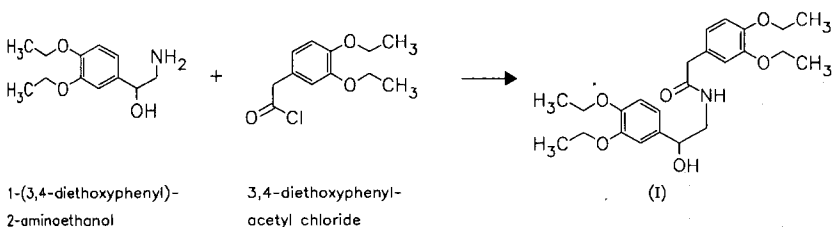
LD₅₀: 45600 µg/kg (M, i.v.)

CN: 1-[(3,4-diethoxyphenyl)methyl]-6,7-diethoxyisoquinoline

hydrochloride

RN: 985-13-7 MF: C₂₄H₂₉NO₄ · HCl MW: 431.96 EINECS: 213-573-9

LD₅₀: 86 mg/kg (M, i.v.)

**Reference(s):**

US 1 962 224 (E. Wolf; 1934; D-prior. 1930).

Formulation(s): suppos. 30 mg in comb. (as hydrochloride)

Trade Name(s):

D:	Migräne-Kranit (Krewel Meuselbach)	Ceracin (Panthox & Burck)-comb.; wfm	Isovox (U.S. Pharmaceutical); wfm
F:	Etadil (Charpentier); wfm Plaquierine (Monal); wfm Surparine (Licardy)-comb.; wfm	Etaverina (Biologici Italia); wfm Predem (Biologici Italia)- comb.; wfm	Laverin (Lemmon); wfm Pasmol (RAM Labor); wfm Tensodin (Knoll)-comb.; wfm
I:	Azimol ITA (ITA)-comb.; wfm	USA: Ethaquin (Ascher); wfm Ethatab (Meyer); wfm	

Ethchlorvynol

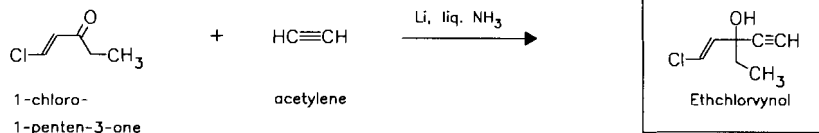
ATC: N05CM08

Use: hypnotic, sedative

RN: 113-18-8 MF: C₇H₉ClO MW: 144.60LD₅₀: 290 mg/kg (M, p.o.);

55 mg/kg (dog, i.v.)

CN: 1-chloro-3-ethyl-1-penten-4-yn-3-ol

*Reference(s):*

US 2 746 900 (Pfizer; 1956; prior. 1953).

McLamore, W.M. et al.: J. Org. Chem. (JOCEAH) **20**, 109 (1955).*Formulation(s):* cps. 200 mg, 500 mg, 750 mg*Trade Name(s):*GB: Arvynol (Pfizer); wfm
Serenesil (Abbott); wfmJ: Arvynol (Taito Pfizer)
Nostel (Dainippon)

USA: Placidyl (Abbott)

Ethenzamide

(Ethoxybenzamide)

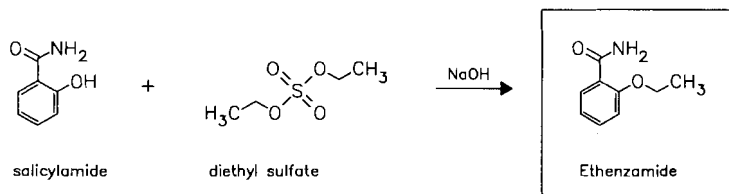
ATC: N02BA07

Use: analgesic

RN: 938-73-8 MF: C₉H₁₁NO₂ MW: 165.19 EINECS: 213-346-4LD₅₀: 700 mg/kg (M, p.o.);

2630 mg/kg (R, p.o.)

CN: 2-ethoxybenzamide

*Reference(s):*

GB 656 746 (Lundbeck; appl. 1948; DK-prior. 1947).

Formulation(s): drg. 150 mg in comb.; tabl. 100 mg in comb.*Trade Name(s):*D: Antiföhnnon (Südmedica)-
comb.
Glutisal (Ravensberg)-
comb.
Kolton grippale N (Byk
Gulden)-comb.F: Céphil (Boiron)-comb.
I: Etocil (Biomedica
Foscama)-comb.
Etocil Pirina (Biomedica
Foscama)-comb.
J: Amisal (Daiichi)-comb.Ethoxybenzamide (Juzen
Kagaku)
Grelan High S (Grelan)-
comb.
Grelan Shin A (Grelan)
Konjisui Soft (Tanpai)

Pyripan A (Tanabe)-comb.

Sedes A (Shionogi)

Synpyrin F (Sumitomo)

Ethiazide

(Aethiazidum)

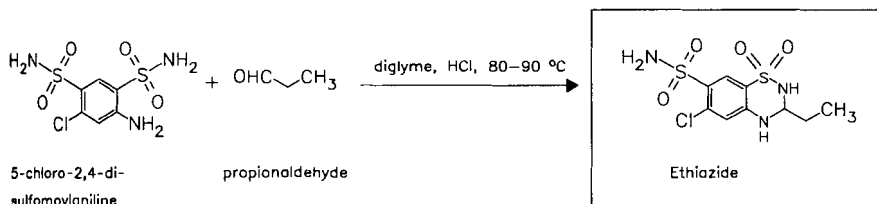
ATC: C03BA

Use: diuretic

RN: 1824-58-4 MF: C₉H₁₂ClN₃O₄S₂ MW: 325.80 EINECS: 217-358-0LD₅₀: >310 mg/kg (M, i.v.); >2 g/kg (M, p.o.);

>10 g/kg (R, p.o.)

CN: 6-chloro-3-ethyl-3,4-dihydro-2H-1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide

*Reference(s):*

GB 861 367 (Ciba; appl. 1959; USA-prior. 1958).

*Trade Name(s):*J: Ethiazide (Tokyo Tanabe);
wfm**Ethinamate**

ATC: N05C

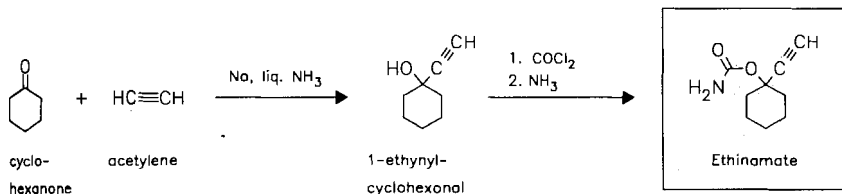
Use: hypnotic, sedative

RN: 126-52-3 MF: C₉H₁₃NO₂ MW: 167.21 EINECS: 204-789-4LD₅₀: 108 mg/kg (M, i.v.); 490 mg/kg (M, p.o.);

157 mg/kg (R, i.v.); 331 mg/kg (R, p.o.);

144 mg/kg (dog, i.v.); 190 mg/kg (dog, p.o.)

CN: 1-ethynylcyclohexanol carbamate

*Reference(s):*

US 2 816 910 (Schering; 1957; D-prior. 1953).

DE 1 021 843 (Rheinpreussen; appl. 1953).

Formulation(s): cps. 500 mg*Trade Name(s):*

D: Valamin (Asche); wfm

J: Valamin (Schering)

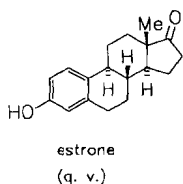
USA: Valamid (Dista); wfm

Ethinylestradiol

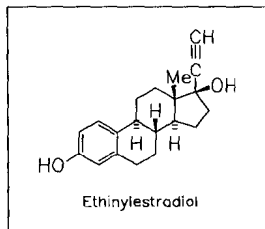
(Aethinylöstradiol; Ethinylöestradiol)

ATC: G03CA01; L02AA03

Use: estrogen (in combination with progestogen as oral contraceptive)

RN: 57-63-6 MF: C₂₀H₂₄O₂ MW: 296.41 EINECS: 200-342-2LD₅₀: 1737 mg/kg (M, p.o.);
1200 mg/kg (R, p.o.)CN: (17 α)-19-norpregna-1,3,5(10)-trien-20-yne-3,17-diol

+

K or Na, liq. NH₃*Reference(s):*Inhoffen, H.H. et al.: Ber. Dtsch. Chem. Ges. (BDCGAS) **71**, 1024 (1938).
DRP 702 063 (Ciba; appl. 1938; CH-prior. 1937).*Formulation(s):* tabl. 0.02 mg, 0.025 mg, 0.05 mg; drg. 1 mg*Trade Name(s):*

D:	Biviol (Nourypharma)-comb.	Neorlest (Parke-Davis)-comb.	Synphasec (Grünenthal)-comb.
	Cilest (Janssen-Cilag)-comb.	Neo-Stedirile (Wyeth)-comb.	Tetragynon (Schering)-comb.
	Concephan (Grünenthal)-comb.	Non-Ovlon (Jenapharm)-comb.	Triette (Brenner-Efeka)-comb.
	Cyclosan (Nourypharma)-comb.	Nuriphasic (Nourypharma)-comb.	Trigoa (LAW)-comb.
	Diane 35 (Schering)-comb.	Östro-Primolut (Schering)-comb.	Triguilar (Schering)-comb.
	EVE (Grünenthal)-comb.	Ovanon (Nourypharma)-comb.	Trinordiol (Wyeth)-comb.
	Femigoa (LAW)-comb.	Ovanon (Nourypharma)-comb.	TriNoum (Janssen-Cilag)-comb.
	Femovan (Schering)-comb.	Oviol (Nourypharma)-comb.	Trisiston (Jenapharm)-comb.
	Femranette mikro (Brenner-Efeka)-comb.	Ovovesta (Organon)-comb.	TriStep (Asche)-comb.
	Gravistat (Jenapharm)-comb.	Ovysmen (Wyeth)-comb.	Turisteron (Jenapharm)
	Leios (Wyeth)-comb.	Perikursal (Wyeth)-comb.	Valette (Jenapharm)-comb.
	Lovelle (Organon)-comb.	Pramino (Janssen-Cilag)-comb.	Yermonil (Novartis Pharma)-comb.
	Lyndiol (Organon)-comb.	Pregnon (Schering)-comb.	numerous combination preparations
	Marvelon (Organon)-comb.	Progynon C (Schering)	Adepal (Wyeth-Lederle)
	Microgynon (Schering)-comb.	Promisiston (Schering)-comb.	Cilest (Janssen-Cilag)
	Minisiston (Jenapharm)-comb.	Prosiston (Schering)-comb.	Cycleane (Monsanto)
	Minulet (Wyeth)-comb.	Sequilar (Schering)-comb.	Diane 35 (Schering)
	Miranova (Schering)-comb.	Sequostat (Jenapharm)-comb.	Effiprev (Effik)
	MonoStep (Asche)-comb.	Sinovula (Asche)-comb.	Ethinyl-Estradiol Roussel (Roussel)
	Neo-Eunomin (Grünenthal)-comb.	Stediril (Wyeth)-comb.	Harmonet (Wyeth-Lederle)
	Neogynon (Schering)-comb.		Méliane (Schering)
			Minidril (Wyeth-Lederle)
			Minulet (Wyeth-Lederle)

F:

	Tri-Minulet (Wyeth-Lederle) generic and numerous combination preparations	Novogyn (Schering)-comb. Ovranet (Wyeth)-comb. Planum (Menarini)-comb. Practil (Organon Italia)-comb. Securgin (Menarini)-comb. Trigynon (Schering)-comb. Triminulet (Wyeth)-comb. Trinordiol (Wyeth)-comb. Trinovum (Cilag)-comb.	Lo/Ovral (Wyeth-Ayerst) Modicon (Ortho-McNeil Pharmaceutical) Nelova (Warner Chilcott) Nordette (Wyeth-Ayerst) Norethin (Roberts) Norethindrone and Ethinyl Estradiol (Watson) Norinyl (Searle) Ortho-Cept (Ortho-McNeil Pharmaceutical) Ortho-Cyclen (Ortho-McNeil Pharmaceutical) Ortho Novum (Ortho-McNeil Pharmaceutical) Ortho-Tri-Cyclen (Ortho-McNeil Pharmaceutical) Ovral (Wyeth-Ayerst) Tri-Levlen (Berlex) Tri-Norinyl (Searle) Triphasil (Wyeth-Ayerst)
GB:	Marvelon (Schering) numerous combination preparations		
I:	Binordiol (Wyeth)-comb. Bivlar (Schering)-comb. Diane (Schering)-comb. Egogyn (Schering)-comb. Etinilestradiolo (Amsa) Eugynon (Schering)-comb. Evanor (Wyeth)-comb. Ginoden (Schering)-comb. Mercilon (Organon Italia)-comb. Microgynon (Schering)-comb. Milvane (Schering)-comb. Minulet (Wyeth)-comb.	J:	Estrogen (Nichinan Kogyo) Ovahormon Strong (Teikoku Zoki)
		USA:	Alesse (Wyeth-Ayerst) Brevicon (Searle) Demulen (Searle) Desogen (Organon) Estrostep (Parke Davis) Ethinodiol Diacetate and Ethinyl Estradiol (Watson) Levlen (Berlex)

Ethionamide

(Etionamide)

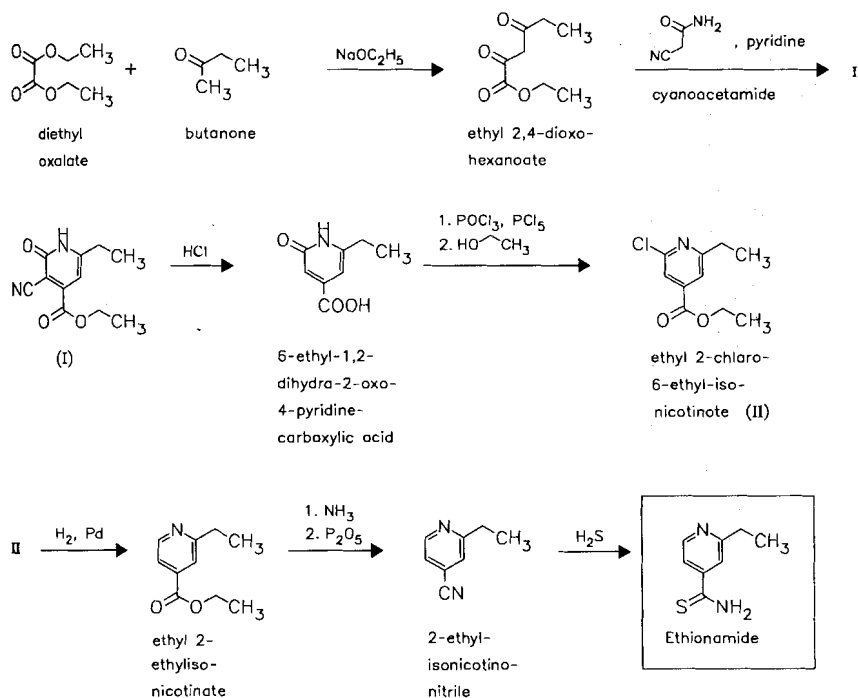
ATC: J04AD03

Use: tuberculostatic

RN: 536-33-4 MF: C₈H₁₀N₂S MW: 166.25 EINECS: 208-628-9

LD₅₀: 1 g/kg (M, p.o.);
1320 mg/kg (R, p.o.)

CN: 2-ethyl-4-pyridinecarbothioamide



Reference(s):

GB 800 250 (Chimic et Atomistique; appl. 1957; F-prior. 1956).

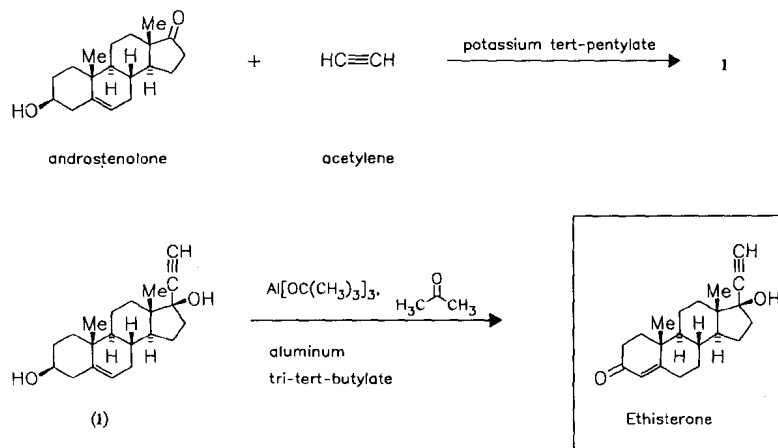
Libermann, S. et al.: C. R. Hebd. Seances Acad. Sci. (COREAF) **242**, 2409, 2412 (1956).*Formulation(s):* s. c. tabl. 250 mg; tabl. 100 mg*Trade Name(s):*

D:	Trécator (Théraplix); wfm	J:	Ethimide (Tanabe)	Thioniden (Kaken)
F:	Trécator (Théraplix); wfm		Ethinamin (Takeda)	Tubermin (Meiji)
GB:	Trescatyl (May & Baker); wfm		Itiocide (Kyowa)	Tuberoid (Sankyo)
	Trescazide (May & Baker)-comb.; wfm		Sertinon (Daiichi)	Tuberoson (Shionogi)
			Teberus (Dainippon)	USA: Trecator-SC (Wyeth-Ayerst)
			Thiomid (Nikken)	

Ethisterone

ATC: G03DC04

Use: progestogen

RN: 434-03-7 MF: C₂₁H₂₈O₂ MW: 312.45 EINECS: 207-096-5CN: (17 α)-17-hydroxypregn-4-en-20-yn-3-one*Reference(s):*

US 2 272 131 (Ciba; 1942; CH-prior. 1937).

Ehrhart, Ruschig **III**, 343.*alternative synthesis:*

US 4 041 055 (Upjohn; 9.8.1977; appl. 17.11.1975).

*review:*Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. **13**, 30.*Formulation(s):* cps. 50 mg, 100 mg, 250 mg; tabl. 25 mg*Trade Name(s):*

D:	Cycloestrol-A.H.	Lutogynestryl (Roussel)-comb.; wfm	Orasecron (Schering Chemicals); wfm
	Progesterone (Bruneau); wfm	GB: Amenoren (Roussel)-comb.; wfm	I: Pre Ciclo (Ibis)-comb.; wfm
F:	Cycloestrol-A.H.	Menstrogen (Organon)-comb.; wfm	J: Estormon (Hokuriku)-comb.
	Progesterone (Bruneau)-comb.; wfm		

Oophormin Luteum (Teikoku Zoki)	Ora-Lutin (Parke Davis); wfm	Progesteral (Organon); wfm
USA: Duosterone (Roussel)- comb.; wfm	Prodroxan (Dorsey); wfm Progestab (Beecham); wfm	Syngestrotabs (Pfizer); wfm Trosinone (Abbott); wfm

Ethoheptazine

ATC: N02A
Use: analgesic

RN: 77-15-6 MF: C₁₆H₂₃NO₂ MW: 261.37 EINECS: 201-007-3

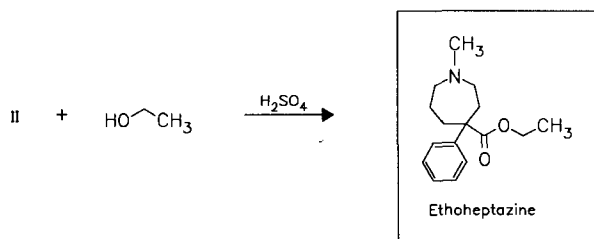
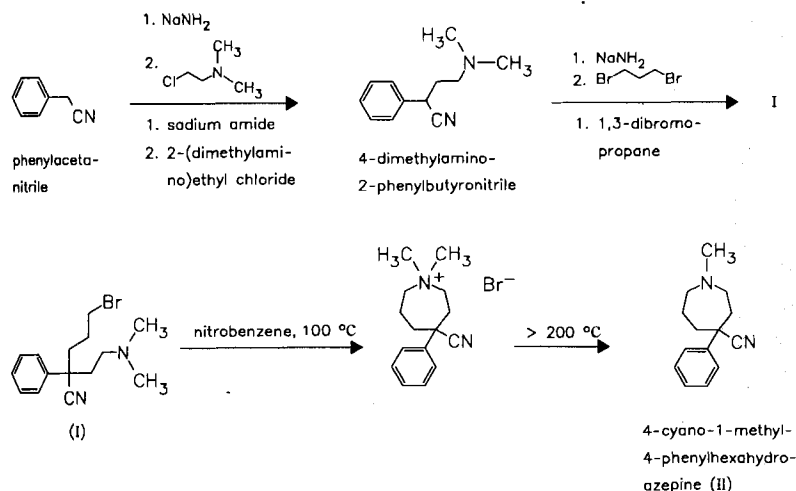
LD₅₀: 65 mg/kg (M, i.v.); 318 mg/kg (M, p.o.);
34 mg/kg (R, i.v.); 355 mg/kg (R, p.o.)

CN: hexahydro-1-methyl-4-phenyl-1*H*-azepine-4-carboxylic acid ethyl ester

citrate (1:1)

RN: 6700-56-7 MF: C₁₆H₂₃NO₂ · C₆H₈O₇ MW: 453.49 EINECS: 229-743-0

LD₅₀: 580 mg/kg (R, p.o.)

**Reference(s):**

US 2 666 050 (American Home Products; 1954; prior. 1952).

Formulation(s): tabl. 75 mg in comb.

Trade Name(s):

GB: Equagesic (Wyeth)-comb.

I: Panalgin (Padil); wfm

combination preparations;
wfm

J: Zactirin (Banyu)-comb.

USA: Equagesic (Wyeth); wfm
Mepro (Schein); wfm
Zactane (Wyeth); wfm

Zactirin (Wyeth); wfm

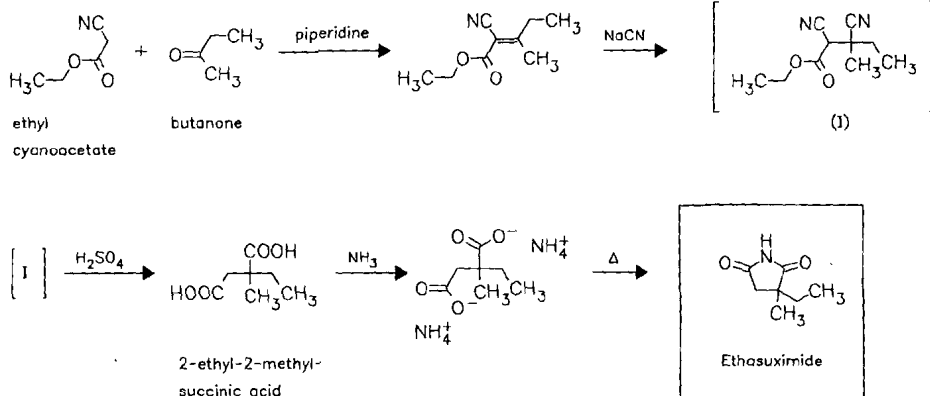
Ethosuximide

ATC: N03AD01

Use: antiepileptic, antiparkinsonian

RN: 77-67-8 MF: C₇H₁₁NO₂ MW: 141.17 EINECS: 201-048-7LD₅₀: 780 mg/kg (M, i.v.); 1530 mg/kg (M, p.o.)

CN: 3-ethyl-3-methyl-2,5-pyrrolidinedione

**Reference(s):**

US 2 993 835 (Parke Davis; 25.7.1961; prior. 27.10.1958).

Sahay, S.; Sircar, G.: J. Chem. Soc. (JCSOA9) **1927**, 1252.**Formulation(s):** cps. 250 mg; sol. 50 g/100 g; syrup 250 mg/5 ml**Trade Name(s):**

D:	Petnidan (Desitin)	Zarontin (Parke Davis)	Zarontin (Parke Davis-Sankyo)
	Suxilep (Jenapharm)	I: Zarontin (Parke Davis)	
	Suxinutin (Parke Davis)	J: Emeside (Technish-Kodama)	USA: Zarontin (Parke Davis)
F:	Zarontin (Parke Davis)		
GB:	Emeside (Labs. for Applied Biology)	Epileo Petitmal (Eisai)	

Ethotoin

(Aethotoin)

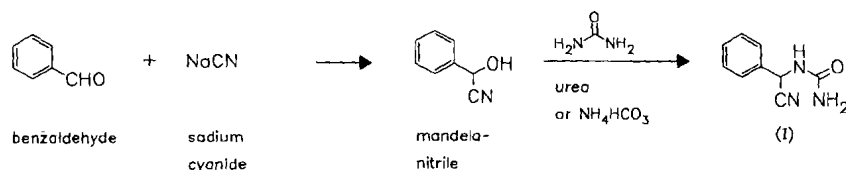
ATC: N03AB01

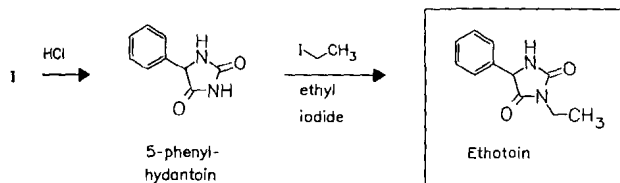
Use: antiepileptic

RN: 86-35-1 MF: C₁₁H₁₂N₂O₂ MW: 204.23 EINECS: 201-665-1LD₅₀: 1750 mg/kg (M, p.o.);

1500 mg/kg (R, p.o.)

CN: 3-ethyl-5-phenyl-2,4-imidazolidinedione



**Reference(s):**Pinner, A.: Chem. Ber. (CHBEAM) **21**, 2325 (1888).

US 2 793 157 (Abbott; 1957; appl. 1954).

Formulation(s): tabl. 250 mg, 500 mg**Trade Name(s):**

GB: Peganone (Abbott); wfm J: Accenon (Dainippon) USA: Peganone (Abbott)

Ethoxzolamide

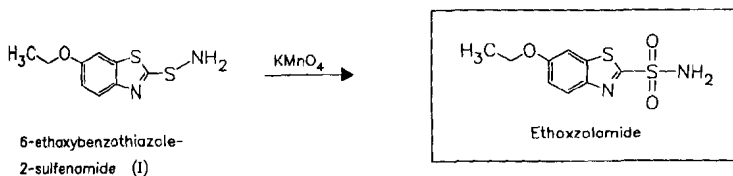
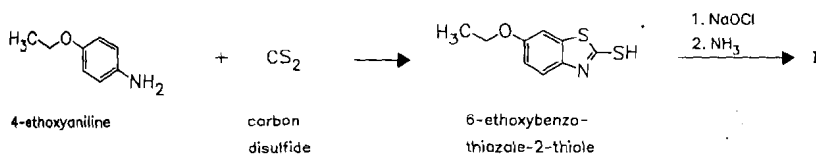
(Ethoxzolamide)

ATC: C03BA

Use: diuretic (carboanhydrase inhibitor)

RN: 452-35-7 MF: $\text{C}_9\text{H}_{10}\text{N}_2\text{O}_3\text{S}_2$ MW: 258.32 EINECS: 207-199-5

CN: 6-ethoxy-2-benzothiazolesulfonamide

**Reference(s):**

US 2 868 800 (Upjohn; 1959; appl. 1954).

Formulation(s): tabl. 125 mg**Trade Name(s):**

D: Redupresin (Thilo); wfm I: Glaucotensil (Farmila); wfm

Ethyl biscoumacetate

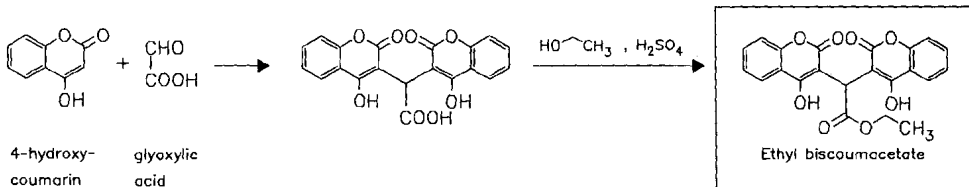
ATC: B01AA08

Use: anticoagulant, antithrombotic

RN: 548-00-5 MF: $\text{C}_{22}\text{H}_{16}\text{O}_8$ MW: 408.36 EINECS: 208-940-5LD₅₀: 750 mg/kg (M, p.o.);

840 mg/kg (R, p.o.)

CN: 4-hydroxy- α -(4-hydroxy-2-oxo-2H-1-benzopyran-3-yl)-2-oxo-2H-1-benzopyran-3-acetic acid ethyl ester

*Reference(s):*

US 2 482 510 (Spójené farmaceutické Zovody; 1949).

US 2 482 511 (Spójené farmaceutické Zovody; 1949).

US 2 482 512 (Spójené farmaceutické Zovody; 1949).

Formulation(s): tabl. 300 mg*Trade Name(s):*

D: Tromexan (Geigy); wfm

GB: Tromexan (Geigy); wfm

F: Tromexane (Geigy); wfm

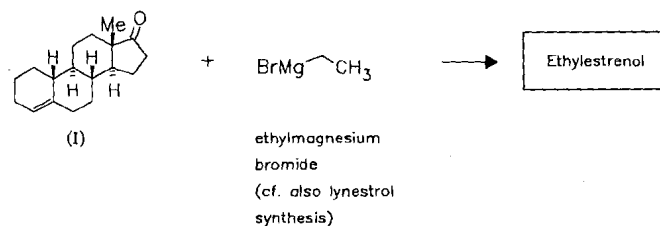
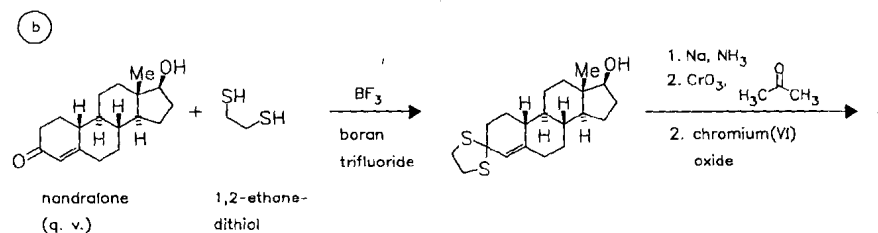
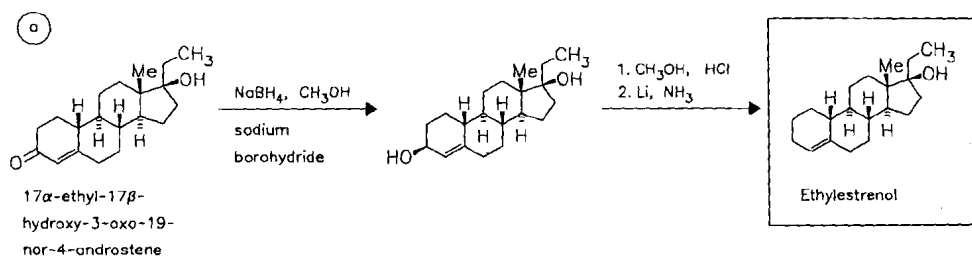
I: Etilbis (Tanff. Integrativo)

Ethylestrenol

(Äthylestrenol; Äthyoestrenol)

ATC: A14AB02

Use: anabolic

RN: 965-90-2 MF: $\text{C}_{20}\text{H}_{32}\text{O}$ MW: 288.48 EINECS: 213-523-6LD₅₀: >666.7 mg/kg (M, p.o.)CN: (17 α)-19-norpregn-4-en-17-ol

Reference(s):

- a US 2 878 267 (Organon; 1959; N-prior. 1957).
 b Winter, M.S. de et al.: Chem. Ind. (London) (CHINAG) **1959**, 905.

alternative synthesis:

US 3 112 328 (Organon; 26.11.1963; NL-prior. 24.8.1956).

Formulation(s): sol. 2 mg/5 ml; tabl. 2 mg

Trade Name(s):

F:	Orgaboline (Organon); wfm Orgaboline infantile (Organon); wfm	GB:	Orabolin (Organon); wfm I: Orgabolin (Ravasini Organon); wfm	J:	Orgabolin (Organon- Sankyo)	USA:	Maxibolin (Organon); wfm
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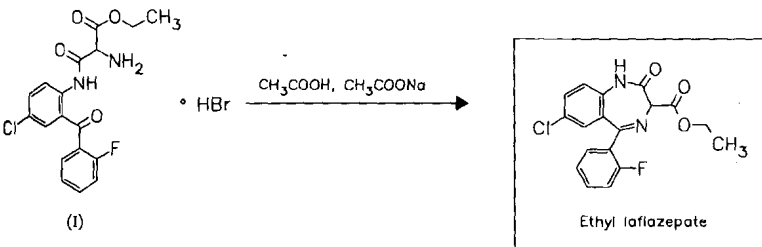
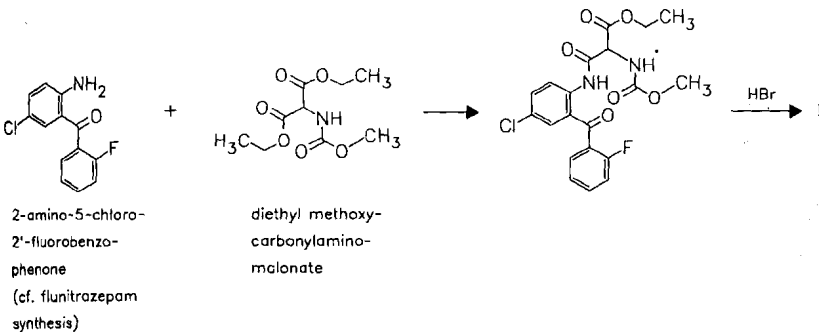
Ethyl loflazepate

ATC: N05BA18
 Use: tranquilizer

RN: 29177-84-2 MF: C₁₈H₁₄ClFN₂O₃ MW: 360.77 EINECS: 249-489-4

LD₅₀: 5506 mg/kg (M, p.o.);
 >10 g/kg (R, p.o.)

CN: 7-chloro-5-(2-fluorophenyl)-2,3-dihydro-2-oxo-1*H*-1,4-benzodiazepine-3-carboxylic acid ethyl ester

**Reference(s):**

- BE 854 249 (Clin-Midy; appl. 5.5.1977; GB-prior. 5.5.1976).
 DOS 2 719 608 (Clin-Midy; appl. 2.5.1977; GB-prior. 5.5.1976).
 GB 1 538 165 (Clin-Midy; appl. 5.5.1977; prior. 5.5.1976).

alternative synthesis:

EP 22 710 (Clin-Midy; appl. 8.7.1980; F-prior. 12.7.1979).

Formulation(s): tabl. 2 mg

Trade Name(s):

F: Victan (Sanofi Winthrop); wfm
 I: Victan (Midy); wfm
 J: Meilax (Meiji Seika)

Ethylmorphine

(Codéthyline)

ATC: R05DA01; S01XA06

Use: antitussive, analgesic

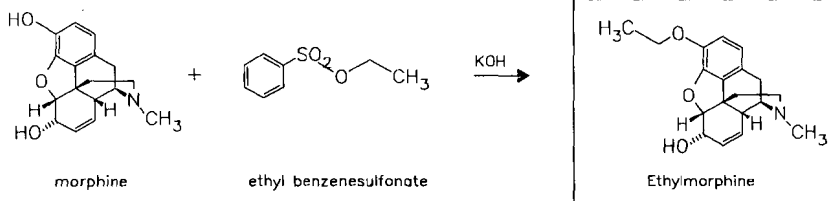
RN: 76-58-4 MF: C₁₉H₂₃NO₃ MW: 313.40 EINECS: 200-970-7
 LD₅₀: 120 mg/kg (M, i.p.); 520 mg/kg (M, p.o.); 136 mg/kg (M, s.c.);
 110 mg/kg (R, i.p.); 62 mg/kg (R, i.v.); 810 mg/kg (R, p.o.); 200 mg/kg (R, s.c.)
 CN: (5 α ,6 α)-7,8-didehydro-4,5-epoxy-3-ethoxy-17-methylmorphinan-6-ol

hydrochloride

RN: 125-30-4 MF: C₁₉H₂₃NO₃ · HCl MW: 349.86 EINECS: 204-734-4
 LD₅₀: 771 mg/kg (M, p.o.); 265 mg/kg (M, s.c.);
 200 mg/kg (R, s.c.)

hydrochloride dihydrate

RN: 6746-59-4 MF: C₁₉H₂₃NO₃ · HCl · 2H₂O MW: 385.89
 LD₅₀: 200 mg/kg (M, s.c.)

*Reference(s):*

Ehrhart, Ruschig I, 118
 DRP 131 980 (E. Merck AG; 1902).

Formulation(s): drg. 5 mg; tabl. 5 mg, 15 mg (as hydrochloride dihydrate)

Trade Name(s):

D:	Frubiapect (Dieckmann)- comb.; wfm Nedolon (Merck)-comb.; wfm Noviform-Aethylmorphin Dispersa Augensalbe (Dispersa Baeschlin)- comb.; wfm Theralene pectoral Sirup (Rhône-Poulenc Pharma)- comb.; wfm Tussedat Pastillen (Sagitta)-comb.; wfm	F:	Bronpax pates (Biocodex)- comb. Codéthyline Houdé (Hoechst Houdé) Ephydion (Aérocid)-comb. Poléry (Veyron et Froment)-comb. Pulmosodyl (Bridoux)- comb. Sédophon pectoral (Mayoly-Spindler)-comb. Trachyl (Novartis) Tussipax (Thérica)-comb.	I:	Végétosérum (Jumer)- comb. Codetilina Eucaliptolo Houdé (Teofarma)-comb. Dionina (Tariff. Integrativo; as hydrochloride) Etilm (Tariff. Integrativo; as hydrochloride) Mindol Merck (Bracco)- comb.
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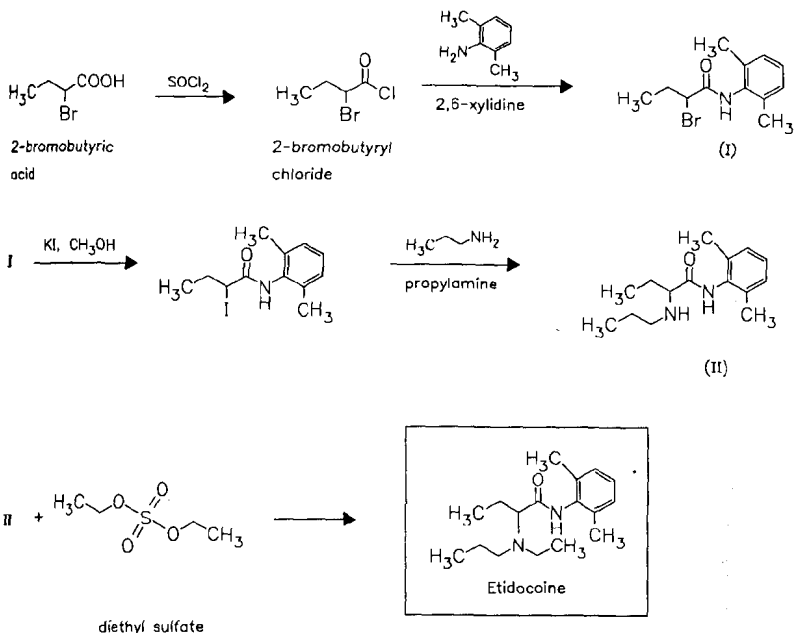
Etidocaine

ATC: N01BB07

Use: local anesthetic

RN: 36637-18-0 MF: C₁₇H₂₈N₂O MW: 276.42 EINECS: 253-143-8LD₅₀: 47.5 mg/kg (M, i.p.)

CN: (±)-N-(2,6-dimethylphenyl)-2-(ethylpropylamino)butanamide

monohydrochlorideRN: 36637-19-1 MF: C₁₇H₂₈N₂O · HCl MW: 312.89 EINECS: 253-144-3LD₅₀: 6700 µg/kg (M, i.v.)**Reference(s):**

US 3 812 147 (Astra; 21.5.1974; prior. 22.12.1970, 19.7.1971).

US 3 862 321 (Astra; 21.1.1975; prior. 22.12.1970, 19.7.1971, 4.3.1974).

DOS 2 162 744 (Astra; appl. 17.12.1971; USA-prior. 22.12.1970, 19.7.1971).

Formulation(s): amp. 5 mg/2 ml, 10 mg/ml, 12.5 mg/5 ml (as hydrochloride)**Trade Name(s):**

D: Dur-Anest (Astra)

Duranest Adrénaline
(Astra)

USA: Duranest (Astra)

F: Duranest (Astra)

Etidronic acid

ATC: M05BA01

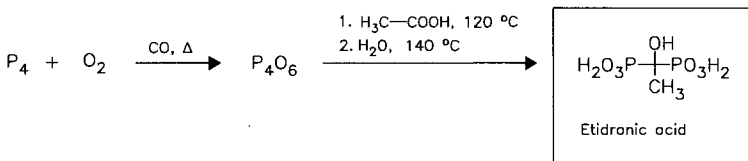
Use: calcium regulator

RN: 2809-21-4 MF: C₂H₈O₇P₂ MW: 206.03 EINECS: 220-552-8LD₅₀: 1800 mg/kg (M, p.o.)

CN: (1-hydroxyethylidene)bis[phosphonic acid]

disodium saltRN: 7414-83-7 MF: $C_2H_6Na_2O_7P_2$ MW: 249.99 EINECS: 231-025-7LD₅₀: 49 mg/kg (M, i.v.); 2050 mg/kg (M, p.o.);

73 mg/kg (R, i.v.); 1340 mg/kg (R, p.o.)

**Reference(s):**

FR 1 531 913 (Procter & Gamble; appl. 19.7.1967; USA-prior. 20.7.1966).

alternative syntheses:

US 3 366 675 (Procter & Gamble; 30.1.1968; prior. 30.3.1965).

NL 6 606 548 (Procter & Gamble; appl. 12.5.1966; USA-prior. 13.5.1965).

NL 6 610 762 (Procter & Gamble; appl. 29.7.1966; USA-prior. 29.7.1965, 31.5.1966).

Formulation(s): amp. 300 mg/6 ml; tabl. 200 mg, 400 mg (as disodium salt)**Trade Name(s):**

D:	Diphos (Procter & Gamble)	GB:	Didronel (Procter & Gamble; 1992)	USA:	Didronel (MGI)
F:	Didronel (Procter & Gamble)	I:	Etidron (Gentili)		Didronel (Procter & Gamble; as disodium salt)

Etifelmine

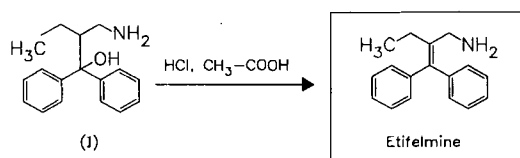
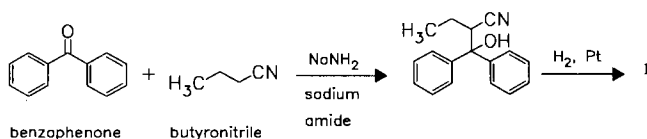
Use: antihypotensive

RN: 341-00-4 MF: $C_{17}H_{19}N$ MW: 237.35

CN: 2-(diphenylmethylene)-1-butanamine

gluconate (1:1)RN: 28599-37-3 MF: $C_{17}H_{19}N \cdot C_6H_{12}O_7$ MW: 433.50**hydrochloride**RN: 1146-95-8 MF: $C_{17}H_{19}N \cdot HCl$ MW: 273.81LD₅₀: 28.6 mg/kg (M, i.v.); 115 mg/kg (M, p.o.);

17.4 mg/kg (R, i.v.); 148 mg/kg (R, p.o.)

nicotinate (1:1)RN: 31149-45-8 MF: $C_{17}H_{19}N \cdot C_6H_5NO_2$ MW: 360.46

Reference(s):

DE 1 122 514 (Giulini; appl. 8.9.1959).

Formulation(s): drg. 11 mg in comb.

Trade Name(s):

D: Gilutensin (Giulini)-comb.; wfm	Orthoheptamin (Giulini)-comb.; wfm	J: Tensinase-D (Nippon Chemiphar)
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Etilefrine

ATC: C01CA01
 Use: sympathomimetic, circulatory analeptic

RN: 709-55-7 MF: C₁₀H₁₅NO₂ MW: 181.24 EINECS: 211-910-4

LD₅₀: 770 mg/kg (M, p.o.);

114 mg/kg (R, p.o.)

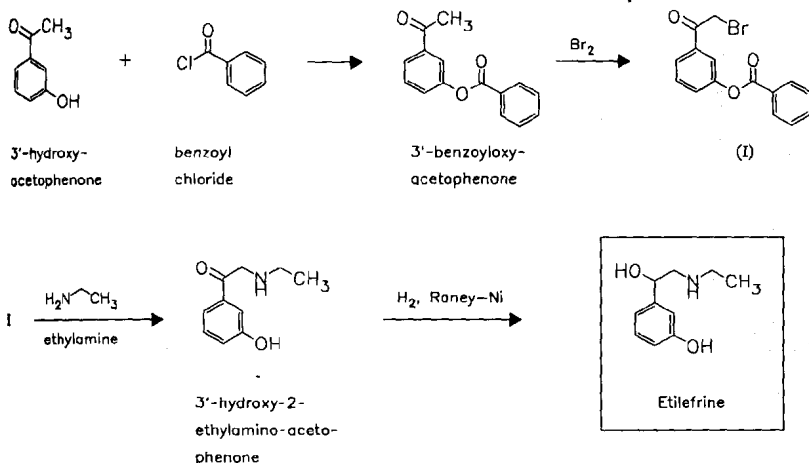
CN: α-[(ethylamino)methyl]-3-hydroxybenzenemethanol

hydrochloride

RN: 943-17-9 MF: C₁₀H₁₅NO₂ · HCl MW: 217.70 EINECS: 213-398-8

LD₅₀: 860 mg/kg (M, s.c.);

>420 mg/kg (R, s.c.)



Reference(s):

DRP 520 079 (H. Legerlotz; 1926).

DRP 522 790 (H. Legerlotz; 1929).

Formulation(s): amp. 10 mg/ml; drops 5 mg/ml, 7.5 mg/ml; sol. 7.5 mg/ml; s. r. cps. 20 mg, 25 mg; tabl. 5 mg, 25 mg (as hydrochloride)

Trade Name(s):

D: Adrenam (NAM Neukönigsförder)	Circuvit (Pharma Wernigerode)	Kreislauf Katovit (Boehringer Ing.)
Bioflutin (Südmedica)	Confidol (Medopharm)	Thomasin (Apogepha)
Cardanat (Temmler)	Effortil Depot (Boehringer Ing.)	numerous combination preparations and generics
Cardialgine (MIP Pharma)	Etilefrin (Chephasaar)	F: Effortil (Boehringer Ing.)
Circupon RR-Kapseln (gegepharm)	Eti-Puren (Isis Puren)	I: Effortil (Boehringer Ing.)

J: Effortil (Boehringer-Tanabe)

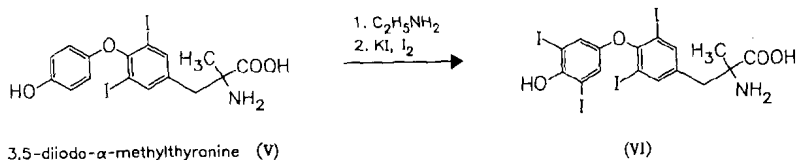
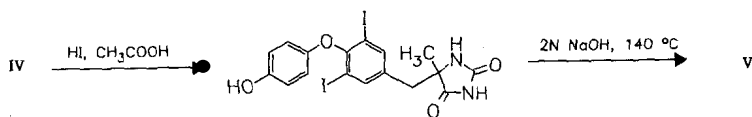
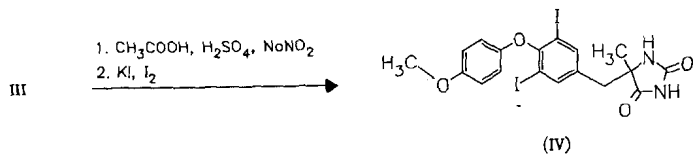
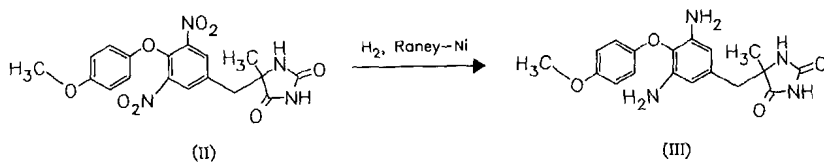
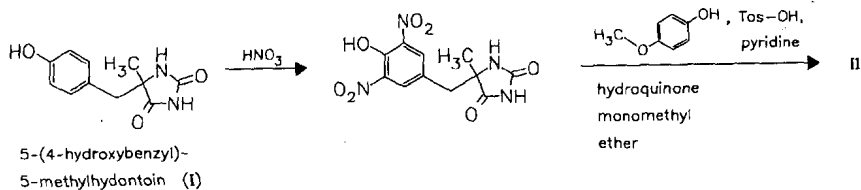
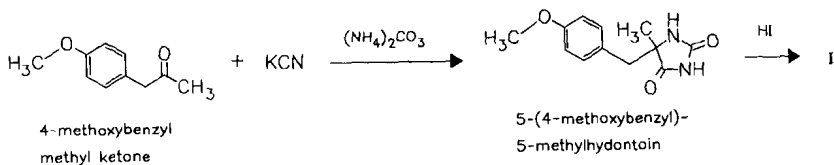
Etiroxate

ATC: C10A
Use: antiarteriosclerotic (cholesterol depressant and antihyperlipidemic)

RN: 17365-01-4 MF: $C_{18}H_{17}I_4NO_4$ MW: 818.95
CN: *O*-(4-hydroxy-3,5-diiodophenyl)-3,5-diiodo- α -methyl-DL-tyrosine ethyl ester

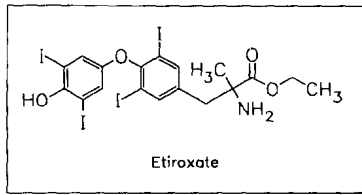
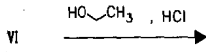
hydrochloride

RN: 55327-22-5 MF: $C_{18}H_{17}I_4NO_4 \cdot HCl$ MW: 855.41 EINECS: 259-593-1



3,5-diiodo- α -methyltyrosine (V)

(VI)



Reference(s):

- DE 1 493 533 (Chemie Grünenthal; appl. 10.4.1964).
 DAS 1 493 567 (Chemie Grünenthal; appl. 7.10.1965).
 US 3 930 017 (Chemie Grünenthal; 30.12.1975; D-prior. 7.10.1965).
 US 4 110 470 (Chemie Grünenthal; 29.8.1978; D-prior. 7.10.1965).

Formulation(s): cps. 20 mg

Trade Name(s):

D: Skleronorm (Grünenthal);
 wfm

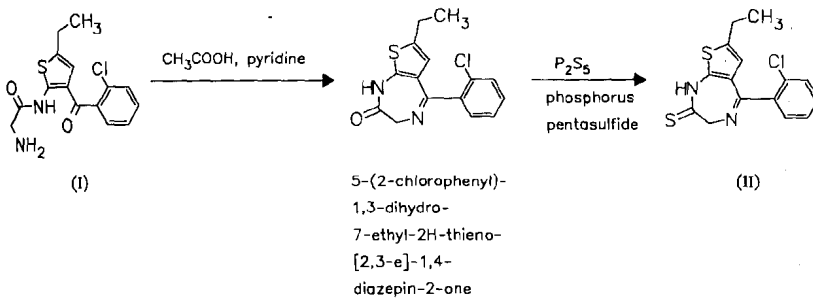
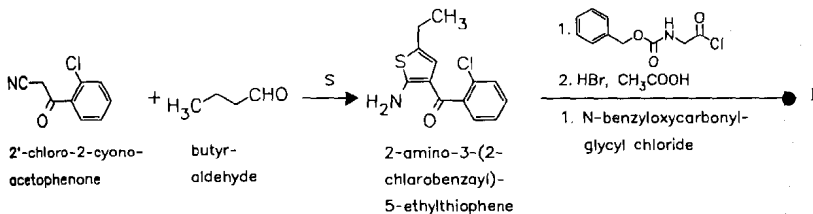
Etizolam

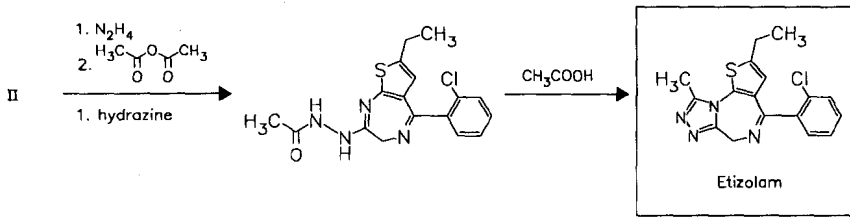
ATC: N05BA19; N05CD
 Use: benzodiazepine tranquilizer,
 anxiolytic, sedative

RN: 40054-69-1 MF: $\text{C}_{17}\text{H}_{15}\text{ClN}_4\text{S}$ MW: 342.85

LD₅₀: 4258-4358 mg/kg (M, p.o.); >5000 mg/kg (M, s.c.);
 3619-3509 mg/kg (R, p.o.); >5000 mg/kg (R, s.c.)

CN: 4-(2-chlorophenyl)-2-ethyl-9-methyl-6H-thieno[3,2-f][1,2,4]triazolo[4,3-a][1,4]diazepine



**Reference(s):**Nakanishi, M. et al.: J. Med. Chem. (JMCMAR) **16**, 214 (1973).Nakanishi, M. et al.: Arzneimittel-Forsch. (ARZNAD) **22**, 1905 (1972).Tahara, T. et al.: Arzneimittel-Forsch. (ARZNAD) **28**, 1153 (1978).

DOS 2 229 845 (Yoshitomi; appl. 19.6.1972; J-prior. 18.6.1971, 21.6.1971, 30.6.1971, 8.7.1971, 10.7.1971, 13.7.1971).

US 3 904 641 (Yoshitomi; 9.9.1975; J-prior. 18.6.1971, 21.6.1971, 30.6.1971, 8.7.1971, 10.7.1971, 13.7.1971).

Formulation(s): drops 0.05 %; tabl.0.5 mg, 1 mg**Trade Name(s):**

I: Depas (Pierrel)

Pasaden (Farmades)

J: Depas (Yoshitomi)

Etodolac

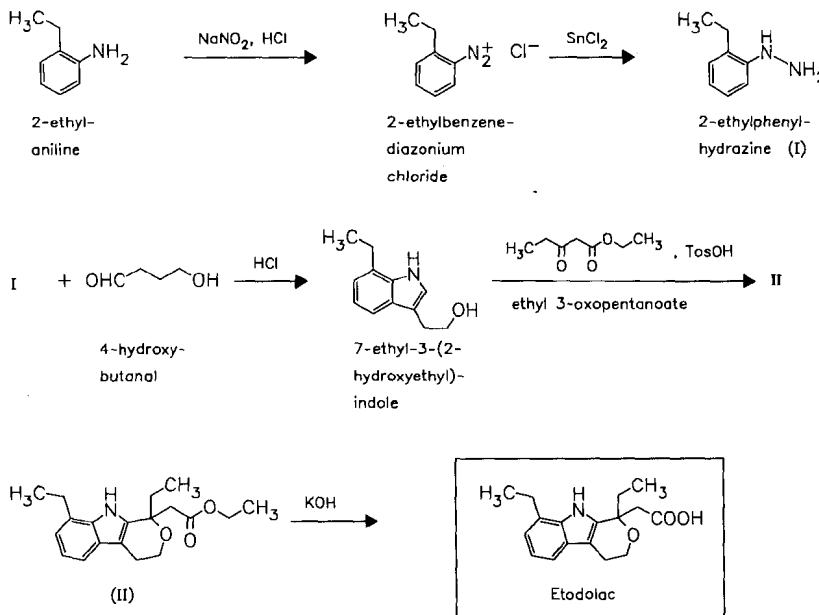
(Etodolic acid; Etodolsäure)

ATC: M01AB08

Use: anti-inflammatory, analgesic

RN: 41340-25-4 MF: $\text{C}_{17}\text{H}_{21}\text{NO}_3$ MW: 287.36LD₅₀: 593 mg/kg (M, p.o.);

94 mg/kg (R, p.o.)

CN: 1,8-diethyl-1,3,4,9-tetrahydropyrano[3,4-*b*]indole-1-acetic acid

Reference(s):

US 3 939 178 (American Home Products; 17.2.1976; appl. 15.9.1972).
 US 3 843 681 (American Home Products; 22.10.1974; appl. 1.6.1971).
 GB 1 391 005 (American Home Products; appl. 1.6.1972; USA-prior. 1.6.1971).
 DOS 2 226 340 (American Home Products; appl. 30.5.1972; USA-prior. 1.6.1971).
 FR 2 140 154 (American Home Products; appl. 1.6.1972; USA-prior. 1.6.1971).
 Demerson, C.A. et al.: J. Med. Chem. (JMCMAR) **18**, 189 (1975).
 Demerson, C.A. et al.: J. Med. Chem. (JMCMAR) **19**, 391 (1976).

racemate resolution:

US 4 520 203 (American Home Products; 28.5.1985; appl. 16.8.1983).
 US 4 544 757 (American Home Products; 1.10.1985; appl. 16.2.1984).

Formulation(s): cps. 200 mg, 300 mg; s. r. tabl. 400 mg, 600 mg; tabl. 100 mg, 200 mg, 400 mg, 500 mg

Trade Name(s):

F:	Lodine (Wyeth)	I:	Edolan (Lepetit; 1987)	Ostelac (Wyeth)
GB:	Lodine SR (Monmouth; 1985)	J:	Lodine (Wyeth; 1987)	USA: Lodine (Wyeth-Ayerst)
			Hypen (Nippon Shinyaku)	

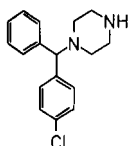
Etodroxizine

ATC: N05C
 Use: tranquilizer, hypnotic

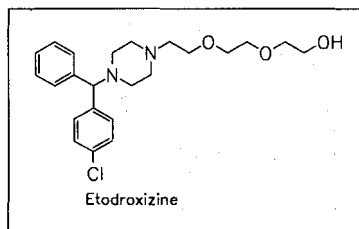
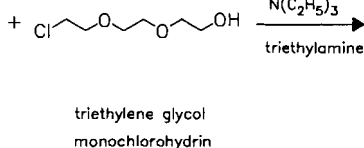
RN: 17692-34-1 MF: C₂₃H₃₁ClN₂O₃ MW: 418.97

LD₅₀: 70 mg/kg (M, i.v.); 540 mg/kg (M, p.o.);
 58 mg/kg (R, i.v.); 920 mg/kg (R, p.o.)

CN: 2-[2-[2-[4-[(4-chlorophenyl)phenylmethyl]-1-piperazinyl]ethoxy]ethoxy]ethanol



1-(4-chlorobenzhydryl)piperazine
 (cf. buclizine synthesis)

**Reference(s):**

GB 817 231 (UCB; appl. 1957; B-prior. 1956).

Formulation(s): tabl. 50 mg

Trade Name(s):

D:	Vesparax (UCB)-comb.; wfm	F:	Drimyl (Cassenne); wfm
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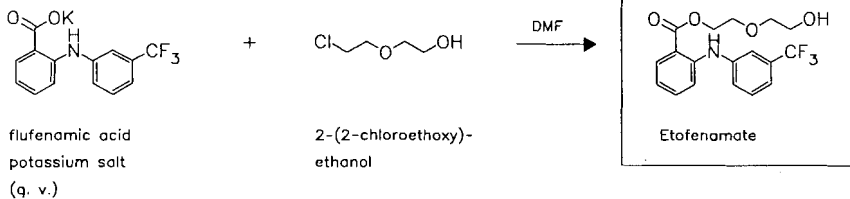
Etofenamate

ATC: M02AA06
 Use: anti-inflammatory

RN: 30544-47-9 MF: C₁₈H₁₈F₃NO₄ MW: 369.34 EINECS: 250-231-8

LD₅₀: 75 mg/kg (M, i.v.); 743 mg/kg (M, p.o.);
 139 mg/kg (R, i.v.); 292 mg/kg (R, p.o.)

CN: 2-[[3-(trifluoromethyl)phenyl]amino]benzoic acid 2-(2-hydroxyethoxy)ethyl ester

**Reference(s):**

DE 1 939 112 (Troponwerke; appl. 1.8.1969).

US 3 692 818 (Troponwerke; 19.9.1972; D-prior. 1.8.1969).

Formulation(s): amp. 1 g/2 ml; cream 100 mg/g; gel 50 mg/g; lotion 100 mg/g**Trade Name(s):**

D:	Algesalona (Solvay Arzneimittel)		Traumon (Bayer Vital; 1984)
	Rheumon (Bayer Vital; 1977)	I:	Bayrogel (Bayrofarm; 1980)

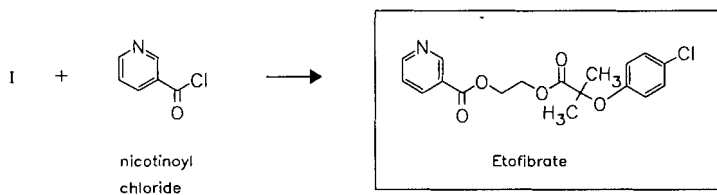
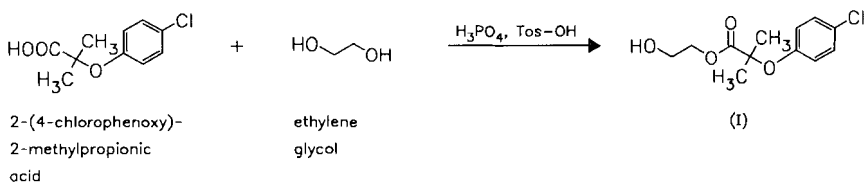
Etofibrate

ATC: C01AB09

Use: antihyperlipidemic, cholesterol depressant

RN: 31637-97-5 MF: C₁₈H₁₈ClNO₅ MW: 363.80 EINECS: 250-743-1

CN: 3-pyridinecarboxylic acid 2-[2-(4-chlorophenoxy)-2-methyl-1-oxopropoxy]ethyl ester

**Reference(s):**

DOS 1 941 217 (Merz & Co.; appl. 13.8.1969).

DOS 2 519 535 (Alter S.A.; Madrid; appl. 2.5.1975; E-prior. 29.5.1974).

DOS 2 531 254 (Merz & Co.; 12.7.1975; GB-prior. 5.9.1974).

DOS 2 542 413 (Alter S.A.; appl. 23.9.1975; E-prior. 4.6.1975).

DOS 2 542 414 (Alter S.A.; appl. 23.9.1975; E-prior. 4.6.1975).

US 3 723 446 (Merz & Co.; 27.3.1973; appl. 12.8.1970; D-prior. 13.8.1969).

Formulation(s): s. r. cps. 500 mg

Trade Name(s):

D: Lipo-Merz (Merz & Co.;
1974)

Etofylline

(Oxyethyltheophylline; Hydroxyäthyltheophyllin)

ATC: C03BD

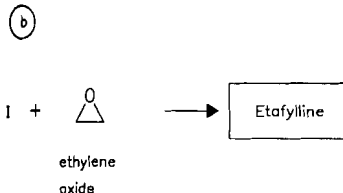
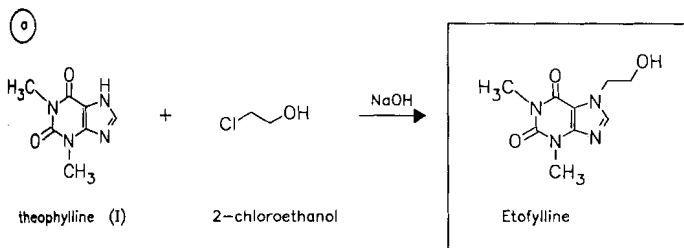
Use: cardiotonic, bronchodilator

RN: 519-37-9 MF: C₉H₁₂N₄O₃ MW: 224.22 EINECS: 208-269-8

LD₅₀: 344 mg/kg (M, i.v.); 400 mg/kg (M, p.o.);

486 mg/kg (R, i.v.); 710 mg/kg (R, p.o.)

CN: 3,7-dihydro-7-(2-hydroxyethyl)-1,3-dimethyl-1*H*-purine-2,6-dione



Reference(s):

US 2 715 125 (Gane's Chem. Works; 1955; prior. 1953).

Formulation(s): drg. 50 mg, 80 mg in comb.

Trade Name(s):

D: Coroverlan (Verla)
Eucebral (Südmedica)-
comb.

F: Oxyphylline (Amido); wfm
I: Teostallarid (SmithKline
Beecham)

J: Oxyphylline (Sankyo)

Etomidate

ATC: N01AX07

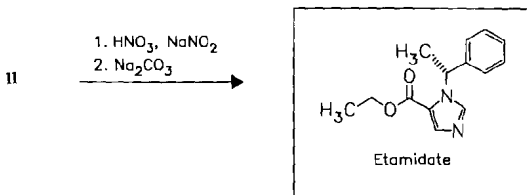
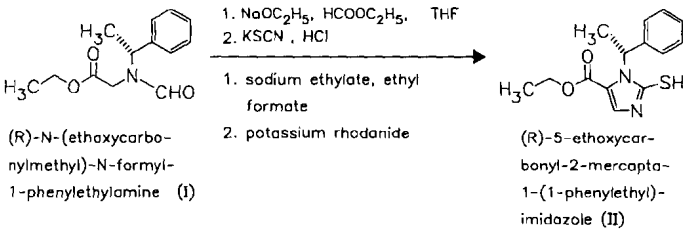
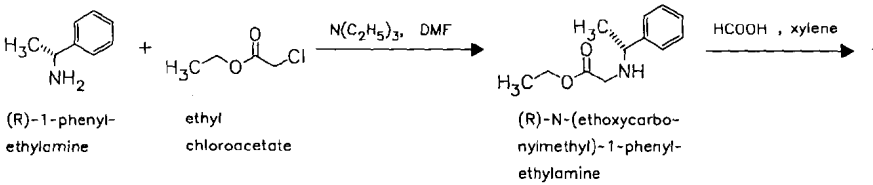
Use: anesthetic, hypnotic

RN: 33125-97-2 MF: C₁₄H₁₆N₂O₂ MW: 244.29 EINECS: 251-385-9

LD₅₀: 29.5 mg/kg (M, i.v.); 650 mg/kg (M, p.o.);

14.8 mg/kg (R, i.v.)

CN: (R)-1-(1-phenylethyl)-1*H*-imidazole-5-carboxylic acid ethyl ester

**Reference(s):**

US 3 354 173 (Janssen; 21.11.1967; prior. 16.4.1964).
 DAS 1 545 988 (Janssen; appl. 14.4.1965; USA-prior. 16.4.1964).
 Janssen, P.A.J. et al.: *Arzneim.-Forsch. (ARZNAD)* **21**, 1234 (1971).

injection solution:

DOS 2 937 290 (Janssen; appl. 14.9.1979; USA-prior. 14.9.1978).

Formulation(s): amp. 2 mg/ml, 20 mg/10 ml

Trade Name(s):

D:	Hypnomidate (Janssen-Cilag)	F:	Hypnomidate (Janssen-Cilag)
	Radearcon (ASTA Medica AWD)	GB:	Hypnomidate (Janssen)
		USA:	Amidate (Abbott); wfm

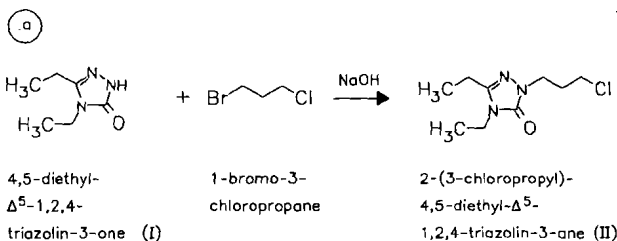
Etoperidone

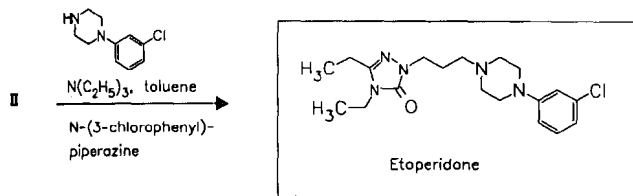
ATC: N06AB09

Use: antidepressant

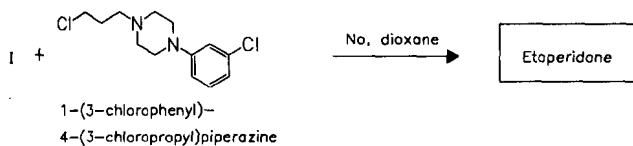
RN: 52942-31-1 MF: C₁₉H₂₈ClN₅O MW: 377.92

CN: 2-[3-[4-(3-chlorophenyl)-1-piperazinyl]propyl]-4,5-diethyl-2,4-dihydro-3H-1,2,4-triazol-3-one





(b)

**Reference(s):**

DOS 2 351 739 (Angelini Francesco; appl. 15.10.1973; I-prior. 16.10.1972).

US 3 857 845 (Angelini Francesco; 31.12.1974; I-prior. 16.10.1972).

use as antiparkinsonian:

US 4 162 318 (Angelini Francesco; 24.7.1979; I-prior. 5.5.1976).

US 4 132 791 (Angelini Francesco; 2.1.1979; I-prior. 5.5.1976).

combination with L-dopa as antiparkinsonian:

US 4 131 675 (Angelini Francesco; 26.12.1978; prior. 9.2.1978).

Formulation(s): cps. 25 mg, 50 mg**Trade Name(s):**

I: Staff (Sigma-Tau); wfm

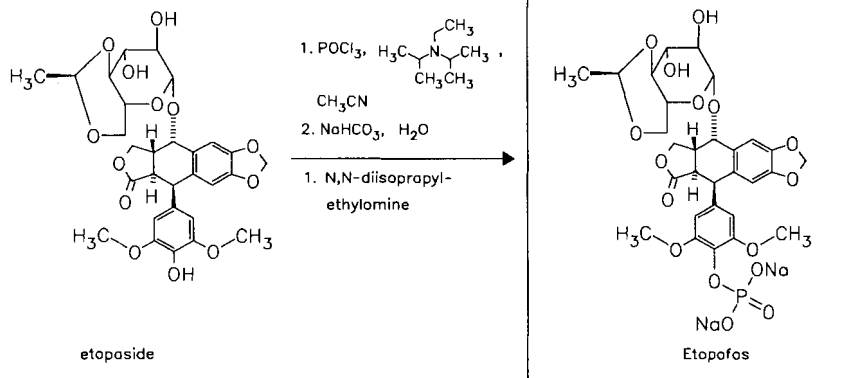
Etopophos

(BMY-40481-30)

ATC: L01CB

Use: antineoplastic (podophyllotoxin derivative)

RN: 122405-33-8 MF: $C_{29}H_{31}Na_2O_{16}P$ MW: 712.51CN: [5R-[5 α ,5a β ,8a α ,9 β (R*)]]-5-[3,5-dimethoxy-4-(phosphonoxy)phenyl]-9-[(4,6-O-ethylidene- β -D-glucopyranosyl)oxy]-5,8,8a,9-tetrahydrofuro[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one disodium salt**hexahydrate**RN: 151062-35-0 MF: $C_{29}H_{31}Na_2O_{16}P \cdot 6H_2O$ MW: 820.60**free acid**RN: 117091-64-2 MF: $C_{29}H_{33}O_{16}P$ MW: 668.54

**Reference(s):**

GB 2 207 674 (Bristol-Myers Squibb; appl. 3.8.1988; USA-prior. 27.5.1988, 4.8.1987).

synthesis of etoposide-4'-phosphate:

EP 511 563 (Bristol-Myers Squibb; appl. 16.4.1992; USA-prior. 29.4.1991, 20.2.1992).

EP 567 089 (Nippon Kayaku; appl. 21.4.1993; J-prior. 24.4.1992).

preparation of etoposide without extensive purification:

EP 652 226 (Bristol-Myers Squibb; appl. 3.11.1994; USA-prior. 4.11.1993).

stable hexahydrate with improved storage stability:

EP 548 834 (Bristol-Myers Squibb; appl. 18.12.1992; USA-prior. 23.12.1991).

Formulation(s): vial 100 mg

Trade Name(s):

USA: Etopophos (Bristol-Myers)

Etoposide

(VP-16-213)

ATC: L01CB01

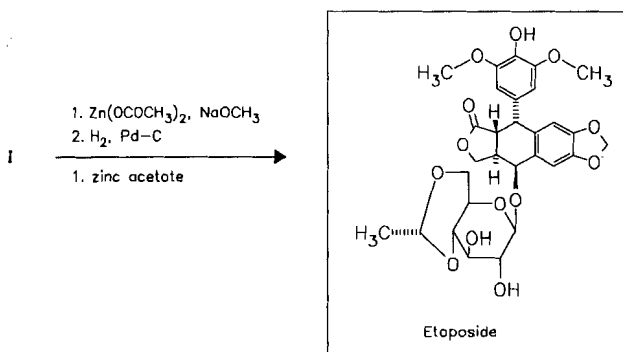
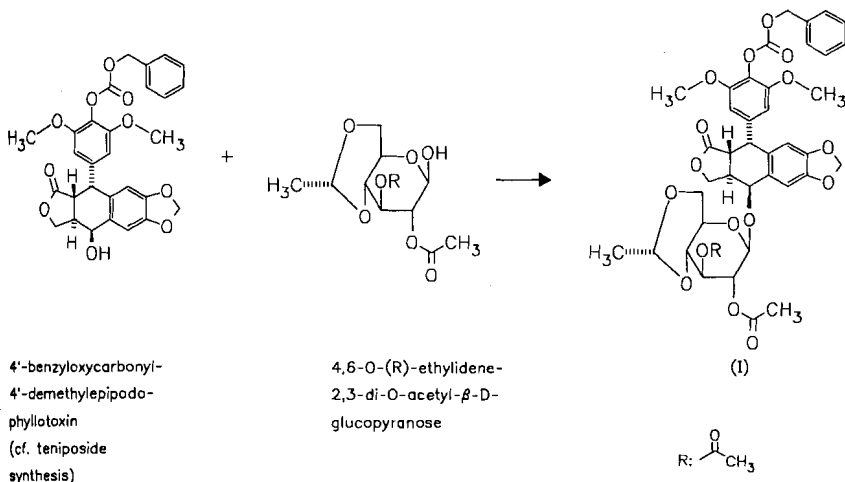
Use: antineoplastic, podophyllotoxin derivative

RN: 33419-42-0 MF: $\text{C}_{29}\text{H}_{32}\text{O}_{13}$ MW: 588.56 EINECS: 251-509-1

LD₅₀: 15.07 mg/kg (M, i.v.); 215 mg/kg (M, p.o.);

75 mg/kg (R, i.v.); 1784 mg/kg (R, p.o.)

CN: [5R-[5 α ,5 β ,8 α ,9 β (R*)]]-9-[(4,6-O-ethylidene- β -D-glucopyranosyl)oxy]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)furo[3',4':6,7]naphtho[2,3-d]-1,3-dioxol-6(5aH)-one

**Reference(s):**

- DE 1 643 521 (Sandoz; prior. 9.12.1967).
 US 5 637 680 (Nippon Kayaku; 10.6.1997; J-prior. 24.4.1992).
 CH 514 578 (Sandoz; appl. 27.2.1968).
 Keller-Juseen, C. et al.: J. Med. Chem. (JMCMAR) **14**, 936 (1971).
 EP 778 282 (Nippon Kayaku; appl. 3.12.1996; J-prior. 4.12.1995, 8.12.1995).
 Allevi, P. et al.: J. Org. Chem. (JOCEAH) **58**, 4175 (1993).

Formulation(s): cps. 50 mg, 100 mg; vial 100 mg/5 ml, 150 mg/7.5 ml, 500 mg/25 ml, 1 g/50 ml

Trade Name(s):

D:	Etomedac (medac) Vepesid (Bristol-Myers Squibb; 1980)	GB:	Vepesid (Bristol-Myers Squibb; 1981)	J:	Lastet (Nippon Kayaku; 1987) Vepesid (Bristol Squibb; 1987)
F:	Celltop (ASTA Medica) Etopophos (Bristol-Myers Squibb)	I:	Vepesid (Bristol It. Sud; 1982); wfm	USA:	Ve Pesid (Bristol-Myers Squibb; 1983)

Etozolin

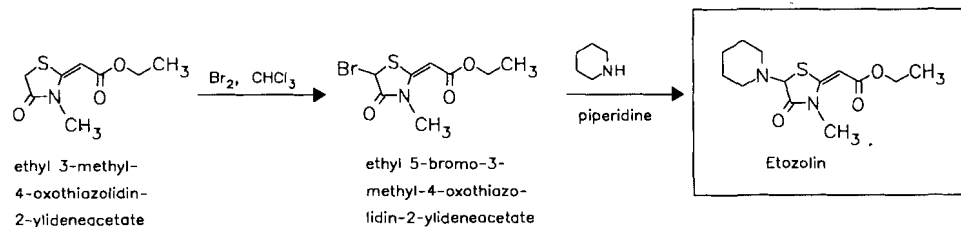
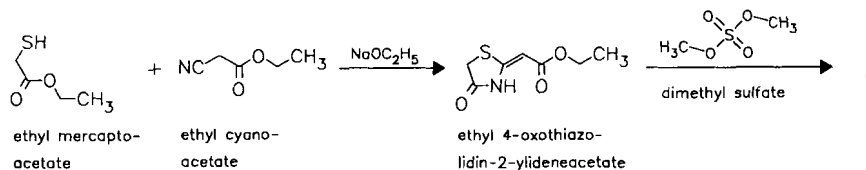
ATC: C03CX01

Use: diuretic

RN: 73-09-6 MF: C₁₃H₂₀N₂O₃S MW: 284.38 EINECS: 200-794-0LD₅₀: 8670 mg/kg (M, p.o.);

10250 mg/kg (R, p.o.)

CN: [3-methyl-4-oxo-5-(1-piperidinyl)-2-thiazolidinylidene]acetic acid ethyl ester

**Reference(s):**

US 3 072 653 (Warner-Lambert; 8.1.1963; appl. 6.3.1961).

DE 1 160 441 (Warner-Lambert; appl. 21.10.1961; USA-prior. 6.3.1961).

GB 1 022 047 (Warner-Lambert; appl. 23.11.1962).

GB 1 022 048 (Warner-Lambert; appl. 23.11.1962).

Satzinger, G.: Justus Liebigs Ann. Chem. (JLACBF) **665**, 150 (1963).**Formulation(s):** tabl. 200 mg, 400 mg**Trade Name(s):**

D: Elkapin (Gödecke); wfm

I: Elkapin (Parke Davis)

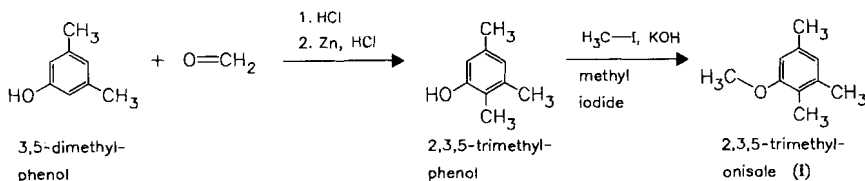
Etretinate

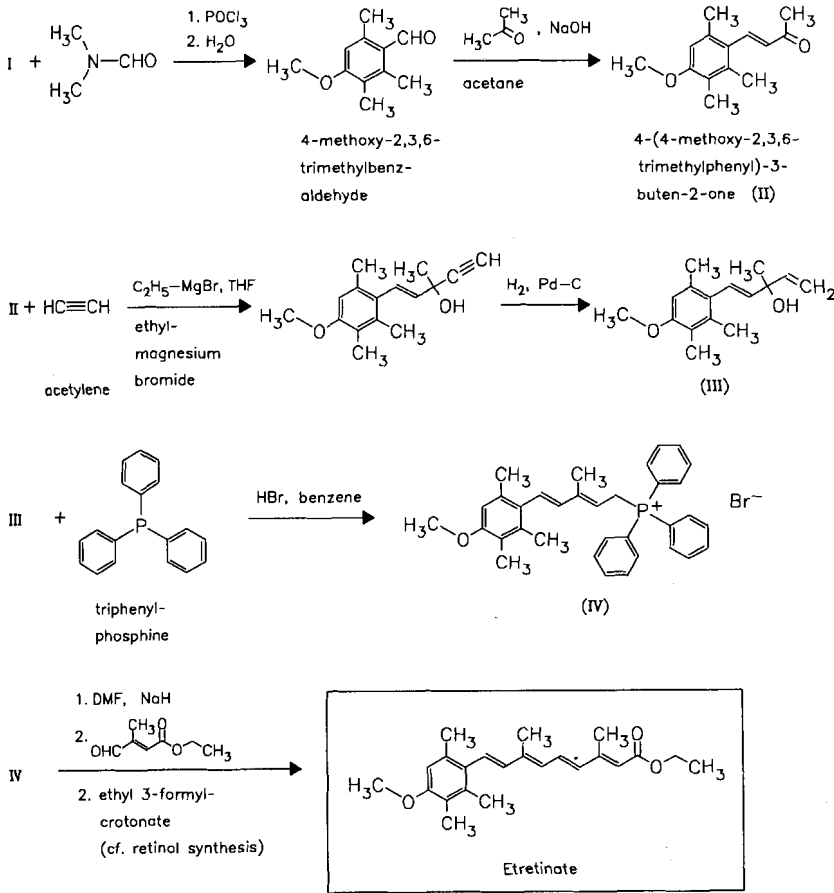
ATC: D05BB01

Use: antipsoriatic

RN: 54350-48-0 MF: C₂₃H₃₀O₃ MW: 354.49 EINECS: 259-119-3LD₅₀: 1176 mg/kg (M, i.p.); >2000 mg/kg (M, p.o.);

>2000 mg/kg (R, i.p.); >4000 (R, p.o.)

CN: (*all-E*)-9-(4-methoxy-2,3,6-trimethylphenyl)-3,7-dimethyl-2,4,6,8-nonatetraenoic acid ethyl ester



Reference(s):

Mayer, H. et al.: *Experientia (EXPEAM)* **34**, 1105 (1978).
 US 4 105 681 (Roche; 8.8.1978; prior. 22.3.1974; 1.8.1975; 13.8.1976).
 DOS 2 414 619 (Roche; appl. 26.3.1974; CH-prior. 30.3.1973).
 US 4 215 215 (Hoffmann-La Roche; 29.7.1980; prior. 6.7.1979).

medical use:

US 4 200 647 (Hoffmann-La Roche; 29.4.1980; appl. 12.12.1978; CH-prior. 21.12.1977).

Formulation(s): cps. 10 mg, 25 mg

Trade Name(s):

D:	Tigason (Roche; 1982); wfm	GB:	Tigason (Roche); wfm	USA:	Tegison (Roche; 1986)
F:	Tigason (Roche); wfm	J:	Tigason (Roche)		

Etymemazine

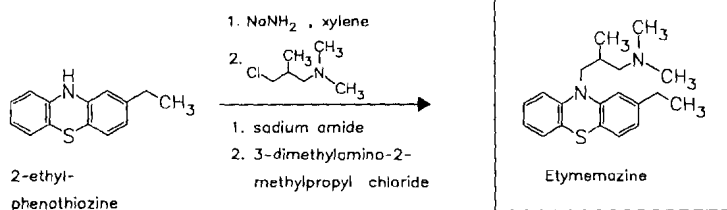
(Áthylisobutrazin; Ethotrimpezazine; Ethylisobutrazine)

ATC: R06AD

Use: antihistaminic, tranquilizer, hypnotic

RN: 523-54-6 MF: C₂₀H₂₆N₂S MW: 326.51

CN: 2-ethyl-N,N,β-trimethyl-10H-phenothiazine-10-propanamine

monohydrochlorideRN: 3737-33-5 MF: C₂₀H₂₆N₂S · HCl MW: 362.97 EINECS: 223-111-8LD₅₀: 70 mg/kg (M, i.v.)**Reference(s):**

DE 1 034 638 (Rhône-Poulenc; appl. 1955; F-prior. 1954).

Trade Name(s):F: Nuital (Vaillant-Defresne);
wfm**Etyndiol acetate**

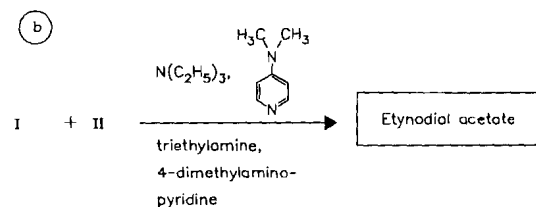
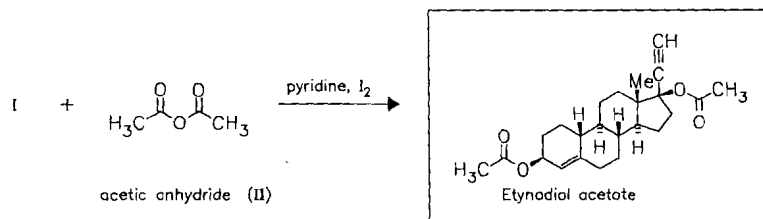
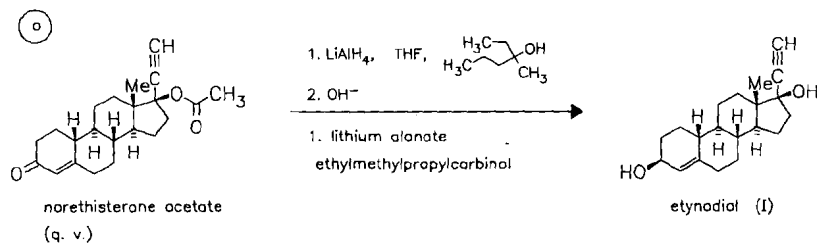
(Äthynodioldiacetat; Etyndiol diacetat; Etyndiol diacetate)

ATC: G03AA

Use: progestogen (in combination with estrogen as oral contraceptive)

RN: 297-76-7 MF: C₂₄H₃₂O₄ MW: 384.52 EINECS: 206-044-9

CN: (3β,17α)-19-norpregn-4-en-20-yne-3,17-diol diacetate



Reference(s):

- a** US 3 176 013 (Searle; 30.3.1965; appl. 25.7.1963).
 DE 1 668 604 (Gedeon Richter; appl. 7.9.1967; H-prior. 7.9.1969).
 DE 2 137 557 (Gedeon Richter; appl. 27.7.1971; H-prior. 29.7.1970).
b DE 2 137 856 (Searle; appl. 29.7.1971; USA-prior. 30.6.1970).

alternative synthesis:

DD 91 649 (G. Teichmüller et al.; appl. 2.3.1971).

Formulation(s): tabl. 1 mg

Trade Name(s):

D: Alfames E (Kade)-comb.; wfm Ovulen (Boehringer Mannh.)-comb.; wfm Ovulen (Searle)-comb.; wfm	GB: Femulen (Searle) I: Luteolas (Serono)-comb.; wfm Luteonorm (Serono); wfm Metrulen (SPA)-comb.; wfm	Ovaras (Serono)-comb.; wfm J: Ovulen (Dainippon)-comb. USA: Demulen 21/28 (Searle)- comb.
F: Luto-métrodiol (Monsanto; as diacetate)	Miniluteolas (Serono)- comb.; wfm	

Exalamide

ATC: D01AE

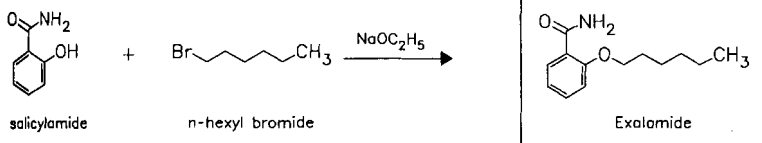
Use: topical antifungal

RN: 53370-90-4 MF: C₁₃H₁₉NO₂ MW: 221.30 EINECS: 258-504-3

LD₅₀: 13.21 g/kg (M, p.o.);

>5 g/kg (R, p.o.)

CN: 2-(hexyloxy)benzamide

*Reference(s):*

GB 726 786 (Herts Pharm.; appl. 1952).

pharmaceutical formulation:

GB 872 891 (Smith & Nephew; appl. 1957).

Bevin, E.M. et al.: J. Pharm. Pharmacol. (JPPMAB) **4**, 872 (1952).

Formulation(s): ointment 5 %; sol. 5 %

Trade Name(s):

J: Hyperan (S. S. Pharm.)

Exifone

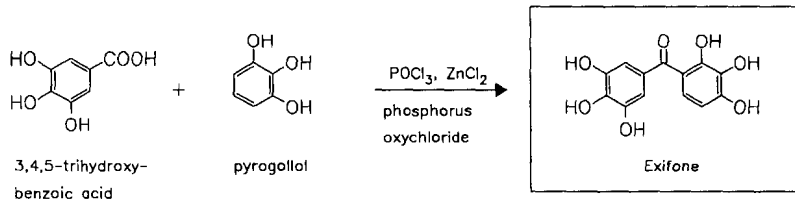
ATC: N07X

Use: cognition enhancer, nootropic

RN: 52479-85-3 MF: C₁₃H₁₀O₇ MW: 278.22 EINECS: 257-945-9

LD₅₀: 355 mg/kg (R, i.p.); 1425 mg/kg (R, p.o.)

CN: (2,3,4-trihydroxyphenyl)(3,4,5-trihydroxyphenyl)methanone



Reference(s):

DE 2 501 443 (Lab. Pharmascience; appl. 15.1.1975; F-prior. 15.1.1974).

GB 1 495 331 (Lab. Pharmascience; appl. 15.1.1975; F-prior. 15.1.1974).

Formulation(s): tabl. 200 mg

Trade Name(s):

F: Adlone (Pharmascience;
1988); wfm

Fadrozole

(CGS-16949A)

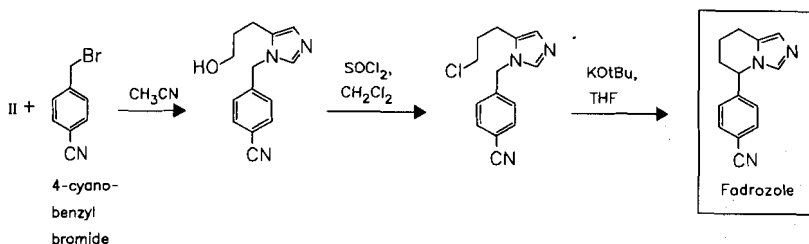
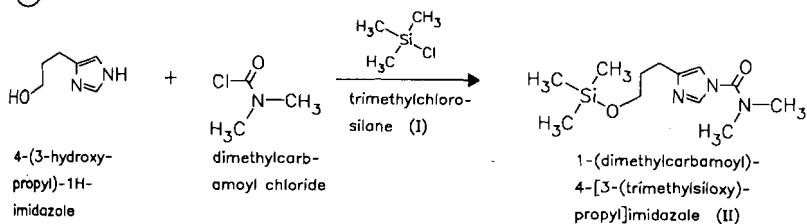
ATC: L01
 Use: antineoplastic, non-steroidal
 aromatase inhibitor

RN: 131833-76-6 MF: C₁₄H₁₃N₃ MW: 223.28

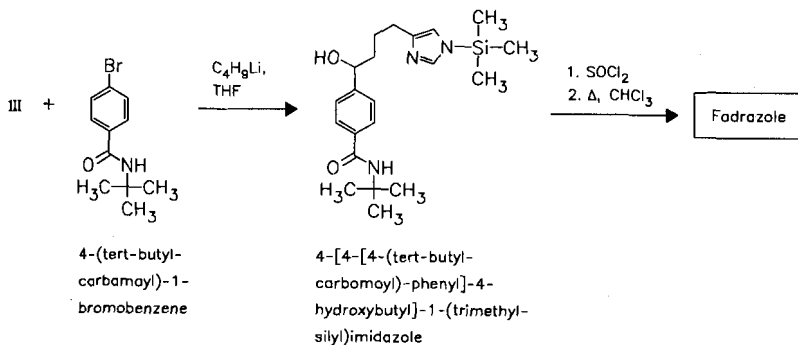
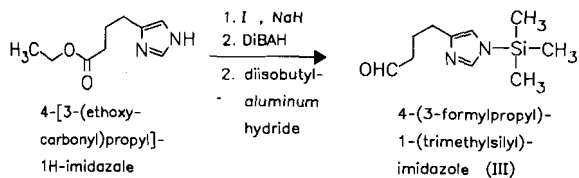
CN: (±)-4-(5,6,7,8-tetrahydroimidazo[1,5-a]pyridin-5-yl)benzonitrile

monohydrochlorideRN: 102676-96-0 MF: C₁₄H₁₃N₃ · HCl MW: 259.74**(S)-form**RN: 102676-86-8 MF: C₁₄H₁₃N₃ MW: 223.28

a



b



Reference(s):

EP 165 904 (Ciba-Geigy AG; appl. 17.6.1985; USA-prior. 20.6.1984; 20.6.1985).

administration of (-)-fadrozole:

WO 9 528 156 (Sepracor Inc.; appl. 11.4.1995; USA-prior. 14.4.1994).

*preparation of starting materials:*Ganellin, C.R. et al.: J. Med. Chem. (JMCMAR) **39** (19), 3806 (1996).Pasini, C.: Gazz. Chim. Ital. (GCITA9) **87**, 1464, 1473 (1957)Akabori: Ber. Dtsch. Chem. Ges. B (BDCBAD) **66** 151, 156 (1933).*Formulation(s):* tabl. 1 mg (as hydrochloride)*Trade Name(s):*

J: Afema (Ciba-Geigy)

USA: Arensin (Ciba-Geigy)

Famciclovir

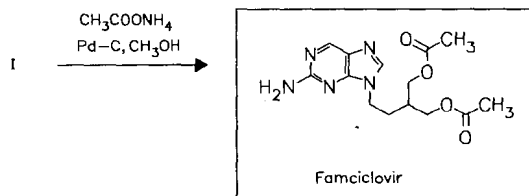
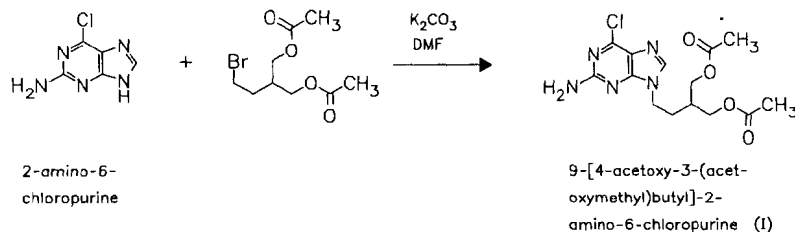
(BRL-42810)

ATC: J05AB09; S01AD07

Use: antiviral

RN: 104227-87-4 MF: C₁₄H₁₉N₅O₄ MW: 321.34

CN: 2-[2-(2-amino-9H-purin-9-yl)ethyl]-1,3-propanediol diacetate (ester)

*Reference(s):*

EP 182 024 (Beecham Group; appl. 9.9.1985; GB-prior. 16.8.1985).

alternative preparation of intermediate I:

WO 9 528 402 (SmithKline Beecham; appl. 19.4.1995; GB-prior. 19.4.1994).

Formulation(s): f. c. tabl. 125 mg, 250 mg, 500 mg*Trade Name(s):*

D: Famvir (SmithKline Beecham)

GB: Famvir (SmithKline Beecham)

USA: Famvir (SmithKline Beecham)

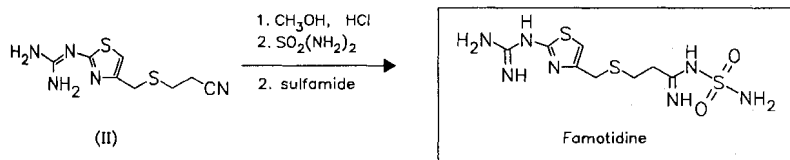
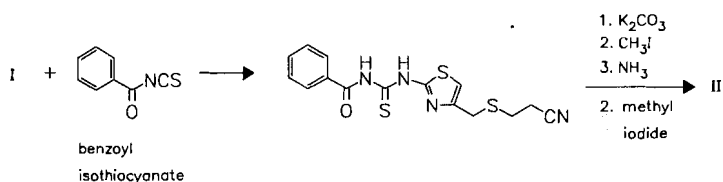
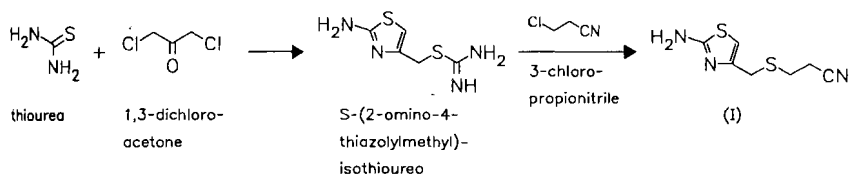
Famotidine

ATC: A02BA03
 Use: ulcer therapeutic, H₂-receptor antagonist

RN: 76824-35-6 MF: C₈H₁₅N₇O₂S₃ MW: 337.45

LD₅₀: 244.4 mg/kg (M, i.v.)

CN: 3-[[[2-[(aminoiminomethyl)amino]-4-thiazolyl]methyl]thio]-N-(aminosulfonyl)propanimidamide



Reference(s):

- DOS 2 951 675 (Yamanouchi; appl. 21.12.1979; J-prior. 2.8.1979).
 DOS 3 008 056 (Yamanouchi; appl. 3.3.1980; J-prior. 6.3.1979, 23.6.1979).
 GB 2 052 478 (Yamanouchi; appl. 6.3.1980; J-prior. 6.3.1979, 23.6.1979).
 GB 2 055 800 (Yamanouchi; appl. 20.12.1979; J-prior. 2.8.1979).
 US 4 283 408 (Yamanouchi; 11.8.1981; J-prior. 2.8.1979).

synthesis of S-[2-aminothiazol-4-ylmethyl]isothiurea:

Sprague, J.M.; Lund, A.H.; Ziegler, C.: J. Am. Chem. Soc. (JACSAT) **68**, 2155 (1946).

preparation of 4-chloromethylthiazol-2-ylamine hydrochloride:

Passarotti, C.M.; Valenti, M.; Marini, M.: Boll. Chim. Farm. (BCFAAI) **134** (11), 639-643 (1995).

Formulation(s): f. c. tabl. 10 mg, 20 mg, 40 mg; oral susp. 40 mg/5 ml; vial (lyo.) 20 mg

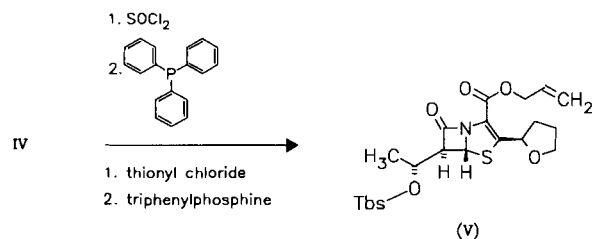
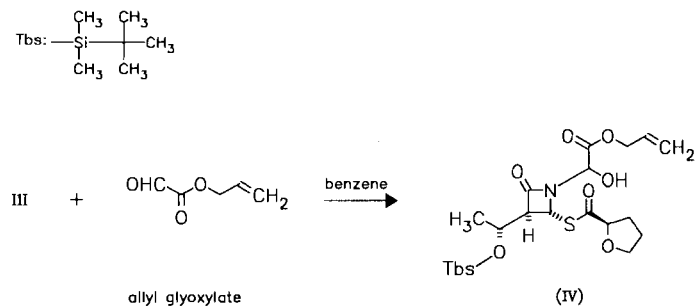
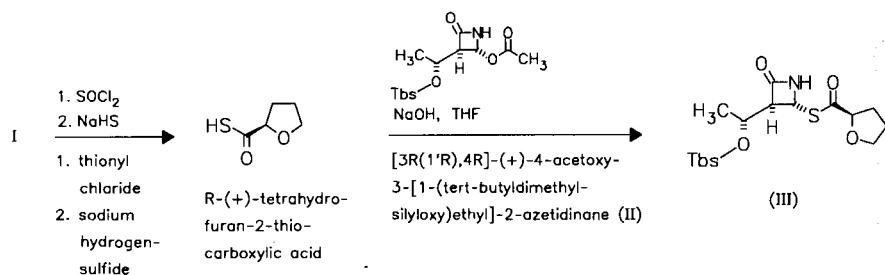
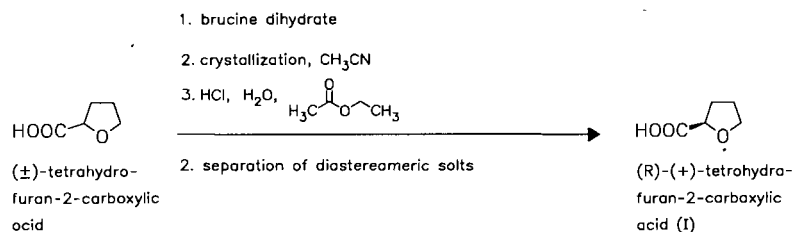
Trade Name(s):

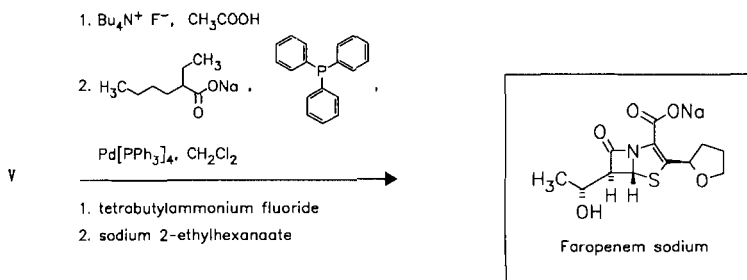
D:	Ganor (Boehringer Ing.) Pepdul (MSD) Chibropharm; 1986)	GB:	Pepcid (Morse; 1987) I: Famodil (Sigma-Tau) Gastridin (Merck Sharp & Dohme)	USA:	Mylanta (Johnson & Johnson-Merck) Pepcid (Merck; 1986) Pepcid (Johnson & Johnson-Merck)
F:	Pepcidac (Labs. Jean-Paul Martin) Pepdine (Merck Sharp & Dohme-Chibret)	J:	Motiax (Neopharmed) Gaster (Yamanouchi; 1985)		

Faropenem sodium

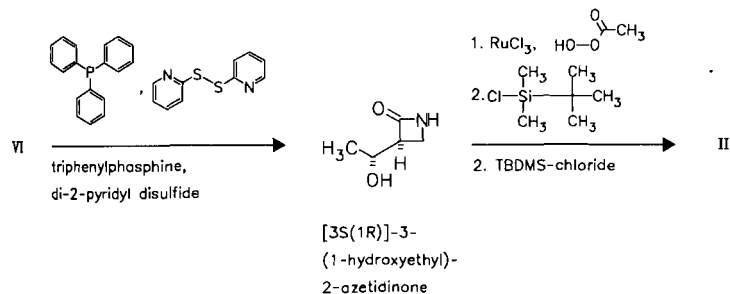
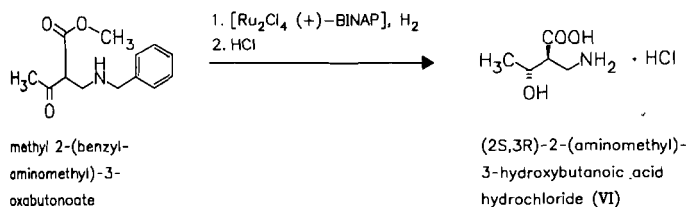
(Fuopenem; SUN 5555)

Use: penem antibiotic

RN: 122547-49-3 MF: $C_{12}H_{14}NNaO_3S$ MW: 307.30CN: [5*R*-[3(*R**),5 α ,6 α (*R**)]]-6-(1-Hydroxyethyl)-7-oxo-3-(tetrahydro-2-furanyl)-4-thia-1-azabicyclo[3.2.0]-hept-2-ene-2-carboxylic acid**sodium salt hydrate**RN: 158365-51-6 MF: $C_{12}H_{14}NNaO_3S \cdot 5/2H_2O$ MW: 704.68**acid**RN: 106560-14-9 MF: $C_{12}H_{15}NO_5S$ MW: 285.32



preparation of intermediate II:



Reference(s):

EP 199 446 (Suntory; appl. 7.3.1986; J-prior. 9.3.1985).
WO 9 203 443 (Suntory; appl. 16.8.1991; J-prior. 20.8.1990).

preparation of intermediate II:

EP 369 691 (Takasago Int. Corp.; appl. 10.11.1989; J-prior. 15.11.1988).
EP 371 875 (Takasago Int. Corp.; appl. 28.11.1989; J-prior. 29.11.1988).
EP 488 611 (Takasago Int. Corp.; appl. 25.11.1991; J-prior. 30.11.1990).
Murahashi, S. et al.: *Tetrahedron Lett. (TELEAY)* **32** (19), 2145 (1991).

alternative preparation of (3S,1'R)-3-(1'-hydroxyethyl)azetidin-2-one:

Fuganti, C. et al.: *J. Chem. Soc. Perkin Trans. 1 (JCPRB4)* **1** (19), 2247 (1993).
Fuganti, C. et al.: *Bioorg. Med. Chem. Lett. (BMCLE8)* **2** (7), 723 (1994).

preparation of racemic tetrahydrofuran-2-carboxylic acid:

Wienhaus; Sorge: *Ber. Dtsch. Chem. Ges. (BDCGAS)* **46**, 1929 (1913).
Kaufmann; Adams: *J. Am. Chem. Soc. (JACSAT)* **45**, 3041 (1923).
Wilson: *J. Chem. Soc. (JCSOA9)* **1945**, 58, 59.

preparation of (R)-(+)-tetrahydrofuran-2-carboxylic acid:

Ramón, A. et al.: *J. Med. Chem. (JMCMAR)* **38**, 2830 (1995).
Belanger, P.C., Williams, H.W.R.: *Can. J. Chem. (CJCHAG)* **61**, 873 (1983).

Formulation(s): tabl. 150 mg, 200 mg

Trade Name(s):

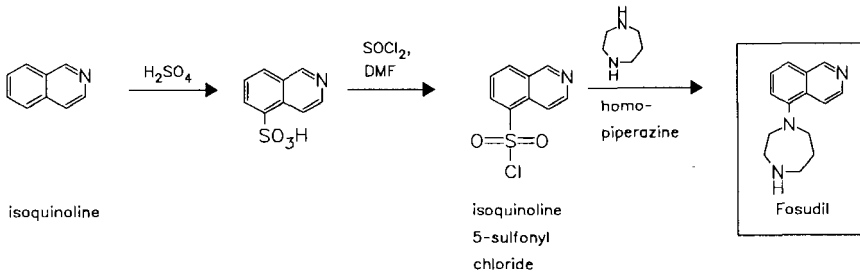
J: Farom (Suntory; 1999)

Fasudil

(AT-877; HA-1077)

ATC: J01CA12

Use: vasodilator, calcium channel blocker

RN: 103745-39-7 MF: $C_{14}H_{17}N_3O_2S$ MW: 291.38CN: hexahydro-1-(5-isoquinolinylsulfonyl)-1*H*-1,4-diazepine**monohydrochloride**RN: 105628-07-7 MF: $C_{14}H_{17}N_3O_2S \cdot HCl$ MW: 327.84

Reference(s):

EP 187 371 (Asahi Chem.; appl. 23.12.1985; J-prior. 27.12.1984).

Formulation(s): amp. 30 mg/2 ml (as hydrochloride)

Trade Name(s):

J: Eril (Asahi Kasei; as
hydrochloride)

Fasdil (Asahi Chem.)

Febuprol

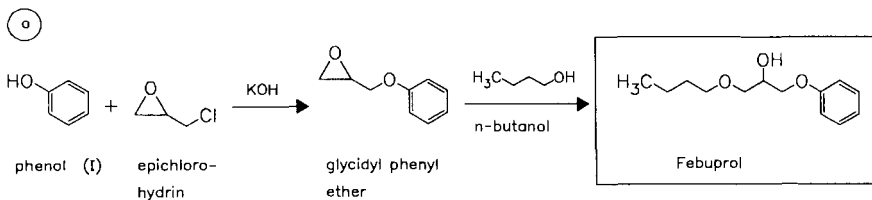
ATC: A05AB

Use: choleric

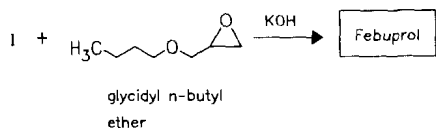
RN: 3102-00-9 MF: $C_{13}H_{20}O_3$ MW: 224.30 EINECS: 221-454-8LD₅₀: 436 mg/kg (M, i.p.); 3050 mg/kg (M, p.o.);

400 mg/kg (R, i.p.); 2370 mg/kg (R, p.o.)

CN: 1-butoxy-3-phenoxy-2-propanol



(b)

*Reference(s):*

DOS 2 207 254 (Klinge; appl. 16.2.1971).

DOS 2 120 396 (Klinge; appl. 26.4.1971).

US 3 839 587 (Klinge; 1.10.1974; D-prior. 26.4.1971, 16.2.1971).

Minor, W.F. et al.: J. Am. Chem. Soc. (JACSAT) **76**, 2993 (1954).*Formulation(s):* cps. 100 mg*Trade Name(s):*

D: Valbil (Procter & Gamble)

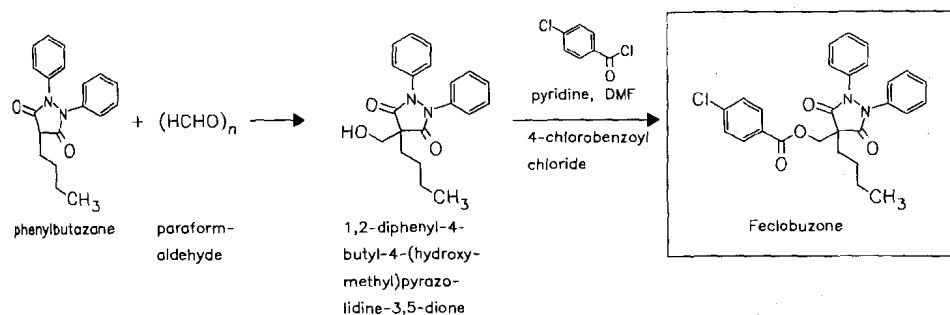
Feclobuzone

ATC: M01A; N02B; S01B

Use: anti-inflammatory, analgesic, antipyretic

RN: 23111-34-4 MF: $\text{C}_{27}\text{H}_{25}\text{ClN}_2\text{O}_4$ MW: 476.96

CN: 4-chlorobenzoic acid (4-butyl-3,5-dioxo-1,2-diphenyl-4-pyrazolidinyl)methyl ester

*Reference(s):*

DE 1 809 821 (Lab. del Dr. Esteve; appl. 20.11.1968; E-prior. 23.11.1967).

Trade Name(s):

D: Feclobuzon-Dragees (Atmos); wfm

Felbamate

(W-554; ADD-03055)

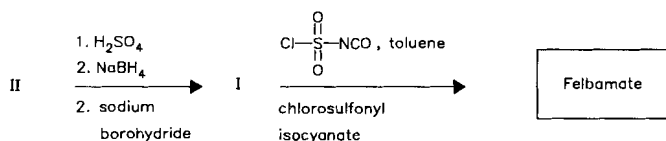
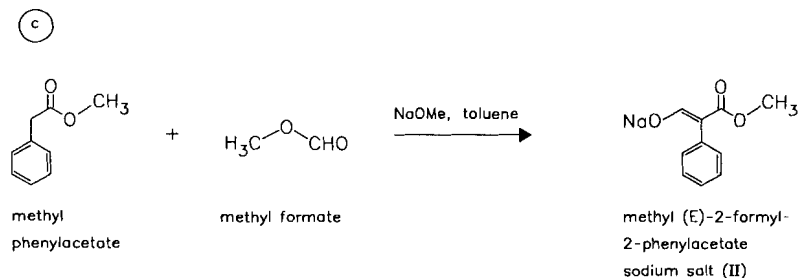
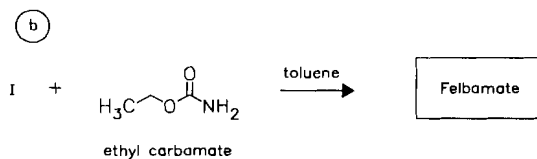
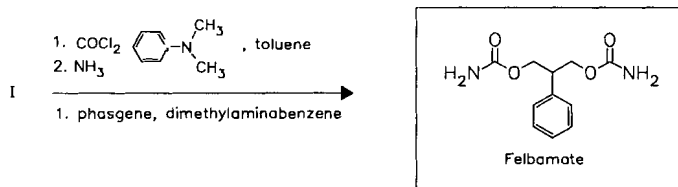
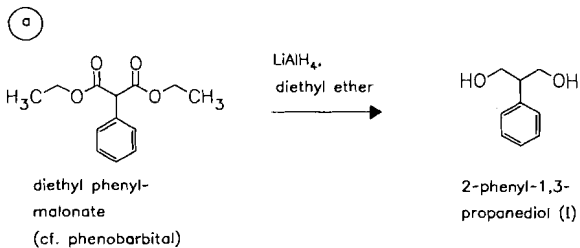
ATC: N03AX10

Use: anticonvulsant

RN: 25451-15-4 MF: $\text{C}_{11}\text{H}_{14}\text{N}_2\text{O}_4$ MW: 238.24 EINECS: 247-001-4LD₅₀: >5 g/kg (R, p. o.);

>5 g/kg (M, p. o.)

CN: 2-Phenyl-1,3-propanediol dicarbamate



Reference(s):

- a US 4 982 016 (Carter-Wallace; 1.1.1991; USA-prior. 6.6.1989).
 b US 4 868 327 (Carter-Wallace; 20.2.1991; USA-prior. 3.6.1987).
 Ludwig, B.J. et al.: J. Med. Chem. (JMCMAR) **12**, 462 (1969).
 c WO 9 406 737 (Schering Corp./Avondale Chem.; appl. 14.9.1993; USA-prior. 18.9.1992).
 WO 9 427 941 (Avondale Chem.; appl. 18.2.1994; USA-prior. 25.5.1993).

alternative reduction of diethyl phenylmalonate to I:
 US 5 091 595 (Choi, Y.M.; 25.2.1992; appl. 7.6.1989).

Formulation(s): oral susp. 600 mg/5 ml; syrup 600 mg/ml; tabl. 400 mg, 600 mg

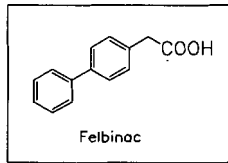
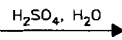
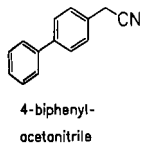
Trade Name(s):

D: Taloxa (Essex Pharma) USA: Felbatol (Wallace
 I: Taloxa (Schering-Plough) Laboratories; 1993); wfm

Felbinac

ATC: M01AB; M02AA08
 Use: anti-inflammatory, analgesic

RN: 5728-52-9 MF: C₁₄H₁₂O₂ MW: 212.25 EINECS: 227-233-2
 LD₅₀: 508 mg/kg (M, i.p.); 675 mg/kg (M, p.o.); 730 mg/kg (M, s.c.);
 164 mg/kg (R, p.o.); 148 mg/kg (R, s.c.);
 1280 mg/kg (rabbit, s.c.);
 320 mg/kg (dog, s.c.)
 CN: [1,1'-biphenyl]-4-acetic acid

**Reference(s):**

FR-M 7 166 (R. Hurmer, J. Vernin; appl. 21.7.1967).
 US 3 784 704 (American Cyanamid; 8.1.1974; prior. 13.10.1972).
 Child, R.G. et al.: J. Pharm. Sci. (JPMSAE) **66**, 466 (1977).

alternative synthesis:

JP 61 036 243 (Lederle; appl. 30.7.1984).
 EP 212 617 (Lederle; appl. 19.8.1986; J-prior. 23.8.1985).
 JP 63 233 947 (Mitsubishi; appl. 23.3.1987).
 JP 1 132 544 (Mitsubishi; appl. 18.11.1987).
 JP 55 094 486 (Sumitomo; appl. 11.1.1979).
 Byron, D.J.; Gray, G.W.; Wilson, R.C.: J. Chem. Soc. C (JSOAX) **1966**, 840.

anti-inflammatory ointment:

EP 127 840 (Lederle; appl. 22.5.1984; J-prior. 1.6.1983).

analgesic patch:

JP 1 085 913 (Saitama Daiichi; appl. 26.9.1987).

cyclodextrin inclusion compound:

JP 61 030 551 (Lederle; appl. 23.7.1984).

inhibition of blood platelet aggregation:

US 3 966 978 (American Cyanamid; 29.6.1976; appl. 25.4.1975).

medical use for treatment of ocular inflammation:

US 3 991 206 (American Cyanamid; 9.11.1976; appl. 15.1.1976).

Formulation(s): gel 30 mg/g (as 1,1'-iminobis[2-propanol] salt)

Trade Name(s):

D: Target (Whitehall-Much)- comb.	I: Dolinac (Irbi) Traxam (Cyanamid)	Napageln (Lederle; 1988) Seltouch (Lederle; Takeda;
GB: Traxam (Wyeth)	J: Daitac (Lederle; 1989)	Teikoku)

Felodipine

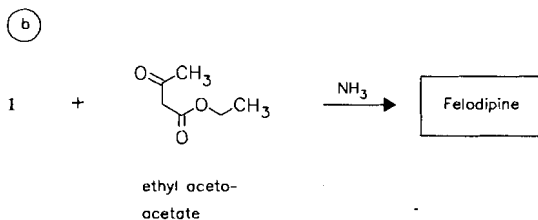
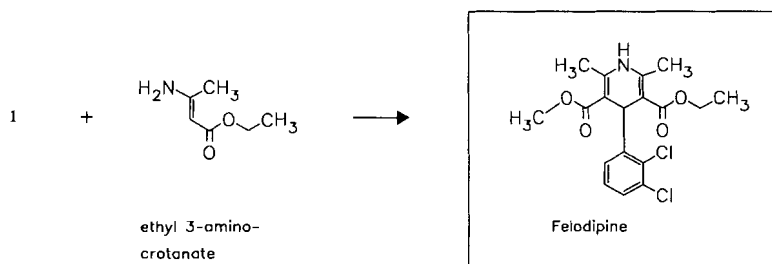
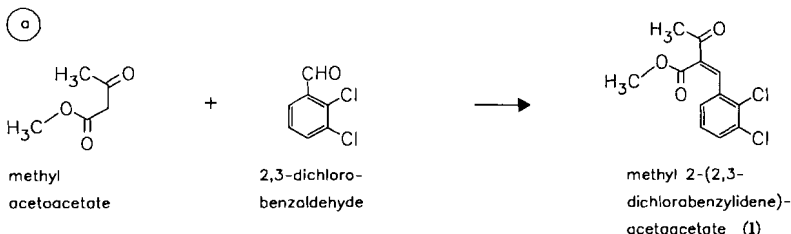
ATC: C02DE; C08CA02

Use: calcium antagonist, antihypertensive

RN: 72509-76-3 MF: C₁₈H₁₉Cl₂NO₄ MW: 384.26LD₅₀: 3100 µg/kg (M, i.v.); 250 mg/kg (M, p.o.);

5400 µg/kg (R, i.v.); 1050 mg/kg (R, p.o.)

CN: 4-(2,3-dichlorophenyl)-1,4-dihydro-2,6-dimethyl-3,5-pyridinedicarboxylic acid ethyl methyl ester

**Reference(s):**

EP 7 293 (Hässle; appl. 12.6.1979; S-prior. 30.6.1978).

sustained release formulation:

EP 249 587 (Hässle; appl. 25.3.1987; S-prior. 11.4.1986).

combination with metoprolol:

EP 311 582 (Hässle; appl. 22.9.1988; S-prior. 8.10.1987).

Formulation(s): s. r. tabl. 2.5 mg, 5 mg, 10 mg**Trade Name(s):**D: Mobloc (Astra/Promed)-
comb.

Modip (Astra/Promed)

Munobal (Hoechst)

F: Flodil (Astra)

Logimax (Astra)

GB: Plendil (Astra; 1990)

I: Feloday (Novartis)

Plendil (Sca)

Prevex (Schering-Plough)

J: Munobal (Hoechst-Nippon

HMR)

Splendil (Ciba-Geigy-
Kissei)

USA: Lexxel (Astra Merck)

Plendil (Astra Merck)

Felypressin

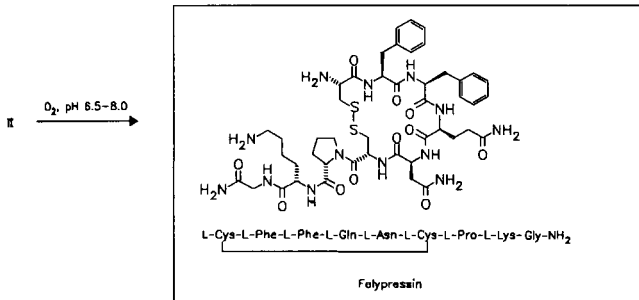
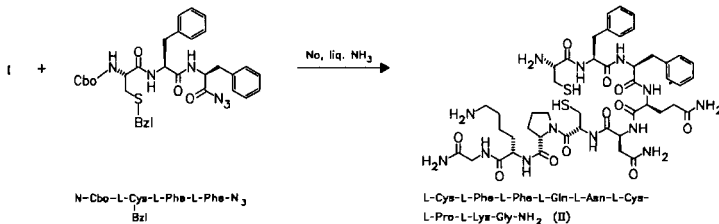
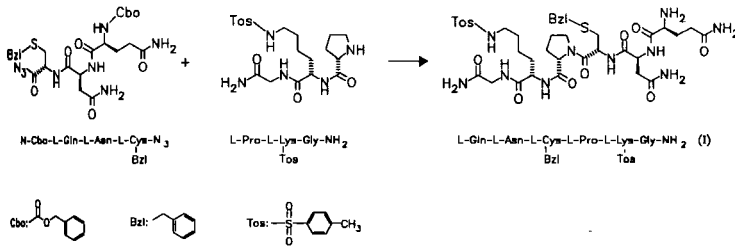
ATC: H01BA

Use: vasoconstrictor effective peptide hormone

RN: 56-59-7 MF: C₄₆H₆₅N₁₃O₁₁S₂ MW: 1040.24 EINECS: 200-282-7LD₅₀: >10 g/kg (M, p.o.);

5 g/kg (R, p.o.)

CN: 2-L-phenylalanine-8-L-lysinevasopressin

**Reference(s):**

GB 928 607 (Sandoz; appl. 13.6.1960; CH-prior. 24.7.1959).

US 3 232 923 (Sandoz; 1.2.1966; CH-prior. 24.7.1959).

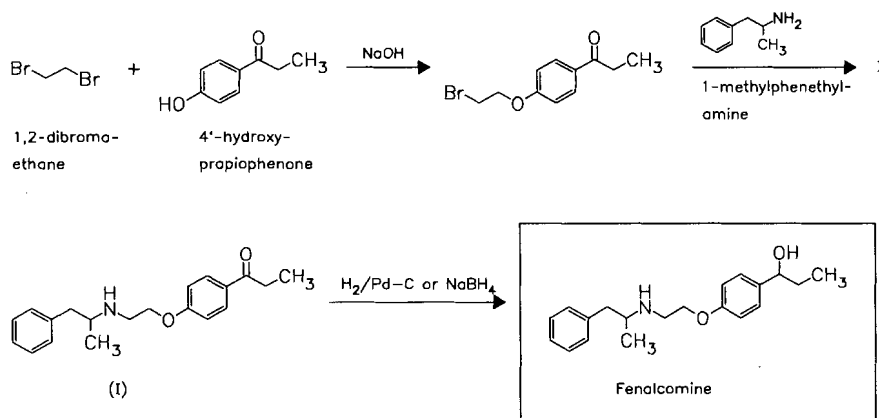
Formulation(s): amp. 0.03 iu in comb.**Trade Name(s):**D: Xylonest mit Octapressin
(Astra)-comb.F: Collupressine (Lab.
Oberlin)-comb.I: Citanest (Astra-Simes)-
comb.

J: Octapressin (Sandoz)

Fenalcomine

ATC: C01D

Use: coronary therapeutic, cardiac stimulant

RN: 34616-39-2 MF: C₂₀H₂₇NO₂ MW: 313.44CN: α -ethyl-4-[2-[(1-methyl-2-phenylethyl)amino]ethoxy]benzenemethanol**hydrochloride**RN: 34535-83-6 MF: C₂₀H₂₇NO₂ · HCl MW: 349.90 EINECS: 252-075-6**Reference(s):**

FR-M 7 255 (Laroche Navarron; appl. 23.1.1968).

Formulation(s): cps. 50 mg (as hydrochloride)**Trade Name(s):**

F: Cordoxène (Laroche Navarron); wfm

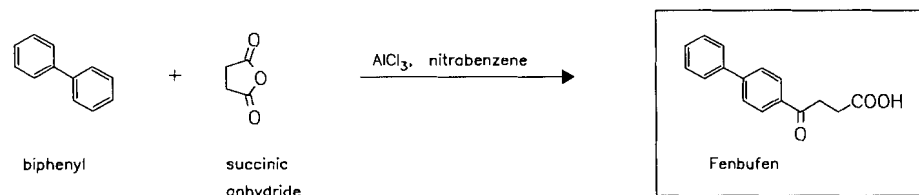
Fenbufen

ATC: M01AE05

Use: anti-inflammatory, analgesic

RN: 36330-85-5 MF: C₁₆H₁₄O₃ MW: 254.29 EINECS: 252-979-0LD₅₀: 795 mg/kg (M, p.o.);

200 mg/kg (R, p.o.)

CN: γ -oxo[1,1'-biphenyl]-4-butanoic acid

Reference(s):

DOS 2 147 111 (American Cyanamid; appl. 21.9.1971; USA-prior. 21.9.1970).
 US 3 784 701 (American Cyanamid; 8.1.1974; appl. 21.9.1970).
 Child, R.G. et al.: *Arzneim.-Forsch. (ARZNAD)* **30** (I), 695 (1980).

Formulation(s): cps. 300 mg; tabl. 200 mg, 300 mg, 450 mg

Trade Name(s):

D: Lederfen (Lederle); wfm GB: Lederfen (Wyeth)
 F: Cinopal (Labs. Novalis) I: Cinopal (Cyanamid)

Fenbutrazate

(Phenbutrazate)

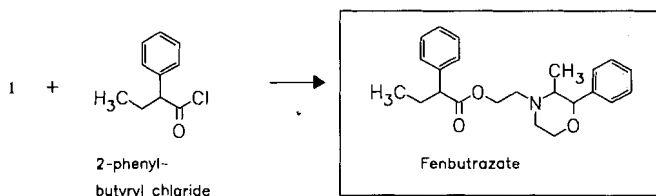
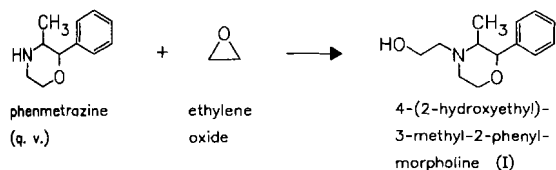
ATC: A08AA

Use: central stimulant, appetite depressant,
anorectic

RN: 4378-36-3 MF: $C_{23}H_{29}NO_3$ MW: 367.49 EINECS: 224-480-8
 CN: α -ethylbenzeneacetic acid 2-(3-methyl-2-phenyl-4-morpholinyl)ethyl ester

comb. with phenmetrazine-8-chlorotheophyllinate monohydrochloride

RN: 8004-38-4 MF: $C_{23}H_{29}NO_3 \cdot C_{18}H_{20}ClN_5O_3 \cdot HCl$ MW: 793.79

*Reference(s):*

US 3 018 222 (Ravensberg; 23.1.1962; D-prior. 28.8.1956).

Formulation(s): drg. 20 mg

Trade Name(s):

D: Cafilon (Ravensberg); wfm F: Cafilon (Merck-Clévenot); J: Cafilon (Yamanouchi)-
 Cafilon (Ravensberg)- wfm comb. with phenmetrazine-
 comb. with phenmetrazine- 8-chlorotheophyllinate
 8-chlorotheophyllinate; wfm
 wfm

Fencamfamin

ATC: N06BA06

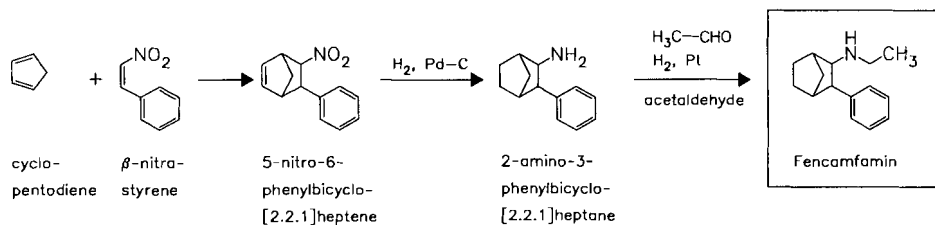
Use: psychostimulant

RN: 1209-98-9 MF: $C_{15}H_{21}N$ MW: 215.34
 LD₅₀: 83 mg/kg (R, p.o.)
 CN: *N*-ethyl-3-phenylbicyclo[2.2.1]heptan-2-amine

hydrochlorideRN: 2240-14-4 MF: C₁₅H₂₁N · HCl MW: 251.80 EINECS: 218-805-2LD₅₀: 15.7 mg/kg (M, i.v.); 135 mg/kg (M, p.o.);

23.5 mg/kg (R, i.v.); 83 mg/kg (R, p.o.);

15 mg/kg (dog, i.v.); 30 mg/kg (dog, p.o.)

**Reference(s):**

DE 1 110 159 (E. Merck AG; appl. 1.8.1959).

Formulation(s): drg. 10 mg**Trade Name(s):**D: Reactivan (Cascan)-comb.; I: Reactivan (Bracco)-comb.;
wfm wfm**Fencarbamide**

(Phencarbamide)

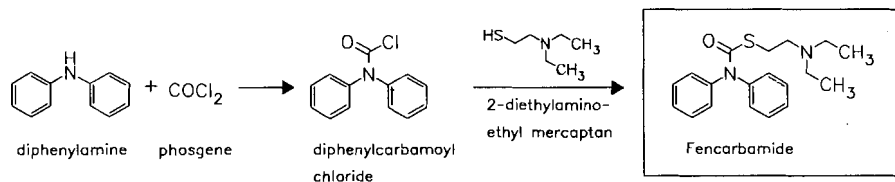
ATC: A03AC

Use: antispasmodic

RN: 3735-90-8 MF: C₁₉H₂₄N₂OS MW: 328.48 EINECS: 223-103-4LD₅₀: 32 mg/kg (M, i.v.);

30 mg/kg (R, i.v.); 370 mg/kg (R, p.o.)

CN: diphenylcarbamothioic acid S-[2-(diethylamino)ethyl] ester

**Reference(s):**

DE 1 146 693 (Bayer; appl. 18.9.1958).

Formulation(s): suppos. 10 mg; tabl. 10 mg (as napadisilate)**Trade Name(s):**D: Spasmo-Dolviran (Bayer)-
comb.; wfm Spasmo-Compralgy
(Bayer-Pharma)-comb.; I: Spasmo-Dolviran (Bayer)-
comb.; wfm
F: Gélosédine (Bayer-
Pharma)-comb.; wfm

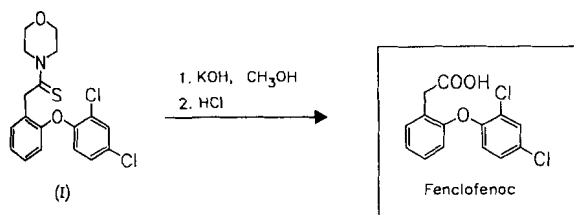
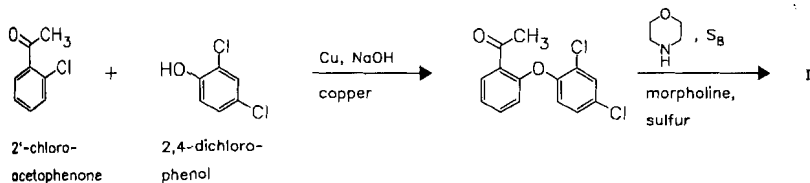
Fenclofenac

ATC: M01A; N02B; S01B
 Use: anti-inflammatory, analgesic

RN: 34645-84-6 MF: C₁₄H₁₀Cl₂O₃ MW: 297.14 EINECS: 252-126-2

LD₅₀: 2280 mg/kg (R, p.o.)

CN: 2-(2,4-dichlorophenoxy)benzeneacetic acid

**Reference(s):**

DOS 2 117 826 (Reckitt & Colman; appl. 13.4.1971; GB-prior. 14.4.1970).

GB 1 308 327 (Reckitt & Colman; valid from 19.4.1971; prior. 14.4.1970).

US 3 766 263 (Reckitt & Colman; 16.10.1973; GB-prior. 14.4.1970).

Formulation(s): tabl. 300 mg

Trade Name(s):

GB: Flenac (Reckitt & Colman);

wfm

Fendiline

ATC: C08EA01
 Use: coronary vasodilator

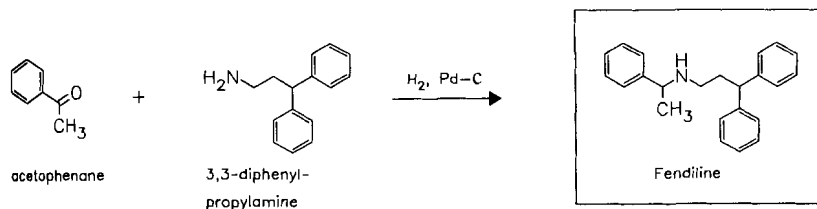
RN: 13042-18-7 MF: C₂₃H₂₅N MW: 315.46 EINECS: 235-915-6

CN: γ -phenyl-N-(1-phenylethyl)benzenepropanamine

hydrochloride

RN: 13636-18-5 MF: C₂₃H₂₅N · HCl MW: 351.92 EINECS: 237-121-5

LD₅₀: 14.5 mg/kg (M, i.v.); 950 mg/kg (M, p.o.)



Reference(s):

DE 1 171 930 (Chinoïn; appl. 24.7.1962; H-prior. 10.8.1961, 10.3.1962, 19.3.1962, 30.3.1962).

US 3 262 977 (Chinoïn; 26.7.1966; H-prior. 10.3.1962, 30.3.1962).

GB 954 735 (Chinoïn; appl. 10.8.1962; H-prior. 10.8.1961, 10.3.1962, 19.3.1962, 30.3.1962).

Formulation(s): drg. 50 mg, 75 mg, 100 mg*Trade Name(s):*

D: Sensit (Thiemann)

Olbiacor (Salus Research)

I: Difmecor (UCM)

Sensit-F (Organon Italia)

Fendosal

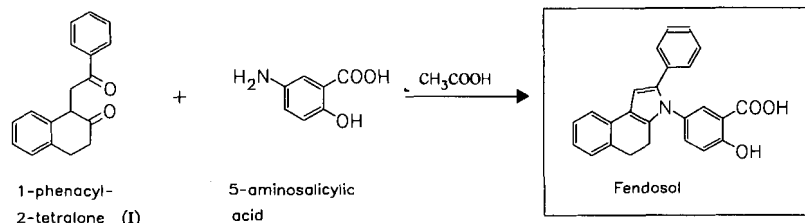
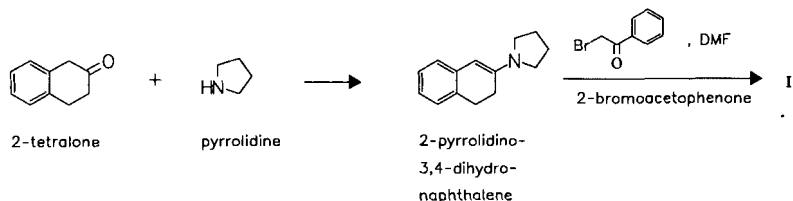
ATC: M01A

Use: anti-inflammatory

RN: 53597-27-6 MF: C₂₅H₁₉NO₃ MW: 381.43LD₅₀: 740 mg/kg (M, p.o.);

450 mg/kg (R, p.o.)

CN: 5-(4,5-dihydro-2-phenyl-3H-benz[e]indol-3-yl)-2-hydroxybenzoic acid

*Reference(s):*

DOS 2 407 671 (Hoechst; appl. 18.2.1974; USA-prior. 1.3.1973).

Anderson, V.B. et al.: J. Med. Chem. (JMCMAR) **19**, 318 (1976).*use for thrombosis prevention:*

DOS 2 502 156 (Hoechst; appl. 21.1.1975; USA-prior. 25.1.1974).

Trade Name(s):

USA: Alnovin (Hoechst-Roussel); wfm

Fenetylline

(Fenethylamine)

ATC: N06B

Use: psychotonic, CNS stimulant

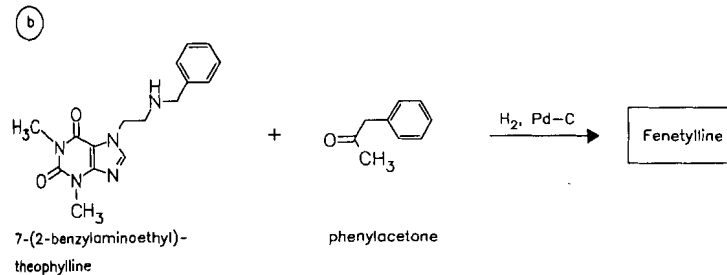
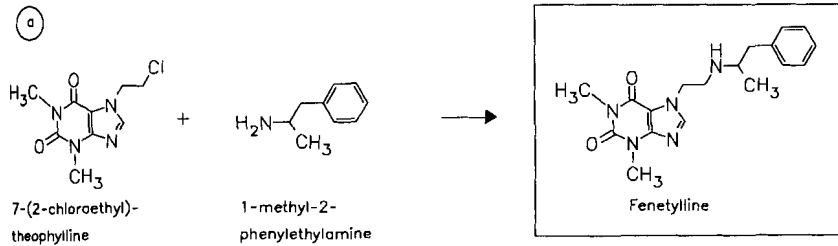
RN: 3736-08-1 MF: C₁₈H₂₃N₃O₂ MW: 341.42LD₅₀: 347 mg/kg (M, p.o.);

100 mg/kg (R, p.o.)

CN: 3,7-dihydro-1,3-dimethyl-7-[2-[(1-methyl-2-phenylethyl)amino]ethyl]-1H-purine-2,6-dione

monohydrochlorideRN: 1892-80-4 MF: C₁₈H₂₃N₅O₂ · HCl MW: 377.88 EINECS: 217-580-8LD₅₀: 55 mg/kg (M, i.v.); 347 mg/kg (M, p.o.);

100 mg/kg (R, p.o.)

**Reference(s):**

DE 1 123 329 (Degussa; appl. 18.10.1958; addition to DE 1 095 285; appl. 25.9.1956).

US 3 029 239 (Degussa; 10.4.1962; D-prior. 17.4.1954).

Formulation(s): f. c. tabl. 50 mg (as hydrochloride)**Trade Name(s):**D: Captagon (ASTA Medica
AWD)

F: Captagon (Gerda); wfm

Captagon (Promdeica);
wfm**Fenfluramine**

ATC: A08AA02

Use: appetite depressant, anorexic

RN: 458-24-2 MF: C₁₂H₁₆F₃N MW: 231.26 EINECS: 207-276-3LD₅₀: 145 mg/kg (M, p.o.);

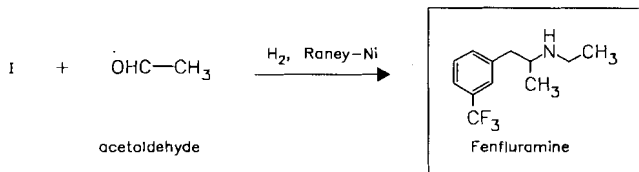
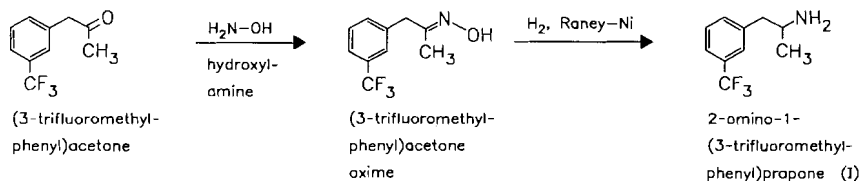
130 mg/kg (R, p.o.);

100 mg/kg (dog, p.o.)

CN: N-ethyl- α -methyl-3-(trifluoromethyl)benzeneethanamine**hydrochloride**RN: 404-82-0 MF: C₁₂H₁₆F₃N · HCl MW: 267.72 EINECS: 206-968-2LD₅₀: 90 mg/kg (M, i.v.); 170 mg/kg (M, p.o.);

69 mg/kg (R, p.o.);

23 mg/kg (dog, i.v.); 100 mg/kg (dog, p.o.)

**Reference(s):**

FR-M 1 658 (Science-Union; appl. 4.4.1961; MC-prior. 5.11.1960).

Formulation(s): cps. 20 mg, 60 mg; s. r. cps. 60 mg; tabl. 20 mg, 40 mg (as hydrochloride)

Trade Name(s):

D:	Ponderax (Boehringer Ing.); wfm	F:	Pondéral (Biopharma; as hydrochloride)	Pesos (Valeas)
	Ponderax (Itherapia); wfm	GB:	Ponderax (Servier); wfm	Ponderal (Servier)
		I:	Dimafen (Stroder)	USA: Pondimin (Robins)

Fenipentol

ATC: A05AX

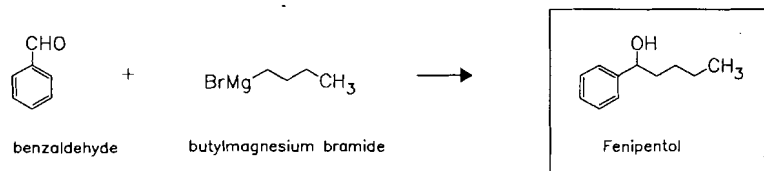
Use: choleric

RN: 583-03-9 MF: C₁₁H₁₆O MW: 164.25 EINECS: 209-493-9

LD₅₀: 2900 mg/kg (M, p.o.);

5432 mg/kg (R, p.o.)

CN: α-butylbenzenemethanol

**Reference(s):**

GB 915 815 (Thomae; appl. 11.4.1960; valid from 6.4.1961).

US 3 084 100 (Thomae; 2.4.1963; appl. 30.3.1961).

Adams, R.M.; Vander-Werf, C.A.: J. Am. Chem. Soc. (JACSAT) **72**, 4368 (1950).

Engelhorn, R.: Arzneim.-Forsch. (ARZNAD) **10**, 255 (1960).

Koss, F.W. et al.: Arzneim.-Forsch. (ARZNAD) **12**, 1026 (1962).

Formulation(s): cps. 100 mg

Trade Name(s):

D: Febichol (medphano)	I: Critichol (Angelini)-comb.	Pentabil (OFF)
F: Euralan (Badrial)-comb.; wfm	Menabil Complex (Menarini)-comb.	Pancorat (Esai) Suiclisin (Hikken)

Fenofibrate

(Procetofene)

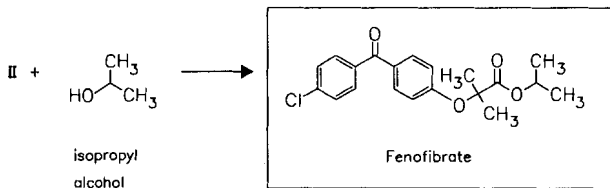
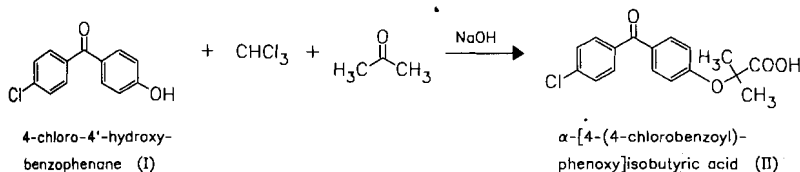
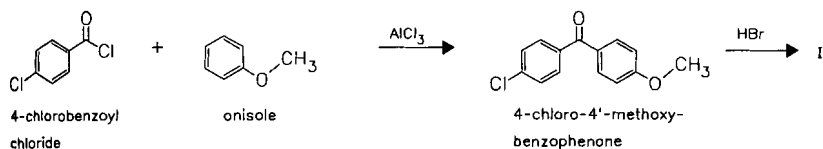
ATC: C01AB05

Use: cholesterol depressant,
antihyperlipidemicRN: 49562-28-9 MF: C₂₀H₂₁ClO₄ MW: 360.84 EINECS: 256-376-3LD₅₀: 1600 mg/kg (M, p.o.);

>2 g/kg (R, p.o.);

>4 g/kg (dog, p.o.)

CN: 2-[4-(4-chlorobenzoyl)phenoxy]-2-methylpropanoic acid 1-methylethyl ester

**Reference(s):**

US 4 058 552 (Orchimed; 15.11.1977; CH-prior. 31.1.1969).

DOS 2 250 327 (Lab. Fournier; appl. 13.10.1972; GB-prior. 14.10.1971).

Sornay, R. et al.: *Arzneim.-Forsch. (ARZNAD)* **26**, 885, 889 (1976).

EP-appl. 2 151 (Devinter; appl. 10.11.1978; F-prior. 14.11.1977).

Formulation(s): cps. 100 mg, 200 mg, 300 mg; s. r. cps. 250 mg**Trade Name(s):**

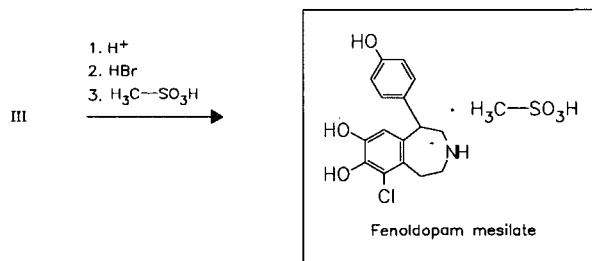
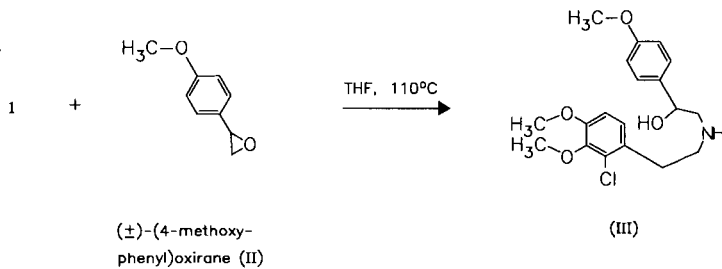
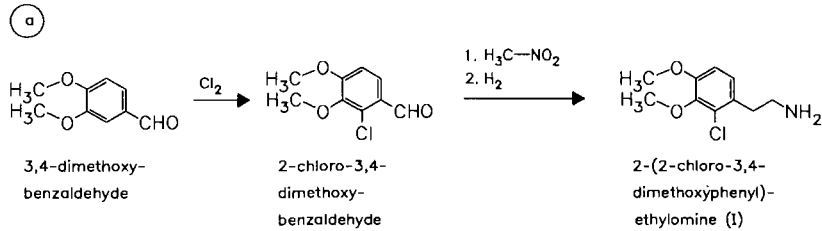
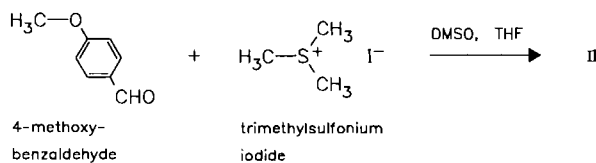
D: durafenat (durachemie)	Sécalip (Biotherapie)	Liposit (SIT)
Lipanthyl (Fournier Pharma; 1978)	GB: Lipantil Micro (Fournier)	Nolipax (Salus Research)
Lipidil (Fournier Pharma)	I: Lipanthyl (Duropharma)	Scleril (AGIPS)
Normalip (Knöll)	Lipidax (UCB)	Tilene (Francia Farm.)
F: Lipanthyl (Fournier; 1975)	Lipoclar (Crinos)	Volutine (Geymonat)
	Lipofene (Teofarma)	

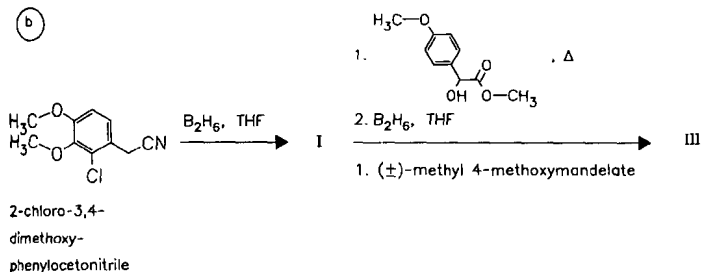
Fenoldopam mesilate

(SKF 82526-J)

ATC: C01CA19

Use: antihypertensive

RN: 67227-57-0 MF: $C_{16}H_{16}ClNO_3 \cdot CH_4O_3S$ MW: 401.87CN: (\pm)-6-Chloro-2,3,4,5-tetrahydro-1-(4-hydroxyphenyl)-1*H*-3-benzazepine-7,8-diol methanesulfonate**base**RN: 67227-56-9 MF: $C_{16}H_{16}ClNO_3$ MW: 305.76**hydrochloride**RN: 181217-39-0 MF: $C_{16}H_{16}ClNO_3 \cdot HCl$ MW: 342.22**(aa) intermediate II**

**Reference(s):**

- a US 4 160 765 (SmithKline; 10.7.1979; USA-prior. 17.11.1976).
US 4 171 359 (SmithKline; 16.10.1979; USA-prior. 12.4.1978).
aa US 4 197 297 (SmithKline; 8.4.1980; USA-prior. 17.11.1976).
b Weinstock, J. et al.: J. Med. Chem. (JMCMAR) **23** (9), 973-975 (1980).

synergistic antihypertensive compositions:

- EP 22 330 (SmithKline; appl. 26.6.1980; USA-prior. 10.7.1979).
EP 81 006 (SmithKline; appl. 8.12.1981).

controlled release dosage forms comprising separate portions of (R)- and (S)-enantiomers:

- WO 9 840 053 (Darwin Discovery; appl. 11.3.1998; GB-prior. 11.3.1997).

Formulation(s): vial for inj. 10 mg/ml

Trade Name(s):

USA: Carlopam (Neurex; 1999)

Fenoprofen

ATC: M01AE04
Use: antirheumatic

RN: 31879-05-7 MF: $\text{C}_{15}\text{H}_{14}\text{O}_3$ MW: 242.27 EINECS: 250-850-3

LD₅₀: 1400 mg/kg (M, p.o.)

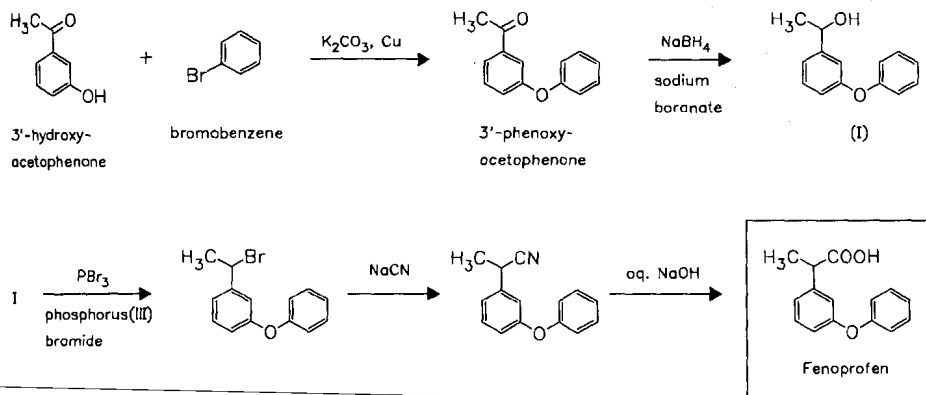
CN: (±)-α-methyl-3-phenoxybenzeneacetic acid

calcium salt dihydrate

RN: 53746-45-5 MF: $\text{C}_{30}\text{H}_{26}\text{CaO}_6 \cdot 2\text{H}_2\text{O}$ MW: 558.64

LD₅₀: 471 mg/kg (M, i.v.); 439 mg/kg (M, p.o.);

526 mg/kg (R, i.v.); 415 mg/kg (R, p.o.)



Reference(s):

DOS 1 941 625 (Lilly; appl. 16.8.1969; USA-prior. 15.8.1968, 28.5.1969).
 US 3 600 437 (Eli Lilly; 17.8.1971; prior. 15.8.1968, 9.5.1969, 28.5.1969).

alternative syntheses:

DOS 2 646 792 (Mitsubishi Petrochemical; appl. 16.10.1976; J-prior. 23.10.1975, 31.7.1976).
 US 4 016 196 (Nisshin Flour Milling; 5.4.1977; J-prior. 27.7.1974, 29.7.1974).
 DAS 2 709 504 (Sagami; appl. 4.3.1977; J-prior. 4.3.1976, 27.12.1976).

Formulation(s): powder 200 mg, 300 mg; tabl. 300 mg, 600 mg (as calcium salt dihydrate)

Trade Name(s):

D: Feprona (Lilly; 1975); wfm	I: Progesic (Lilly); wfm	J: Fenopron (Shionogi-Yamanouchi; 1982)
F: Nalgésic (Lilly)	I: Fepron (Lilly)	USA: Nalfon (Dista; 1976)
GB: Fenopron (Novex)		

Fenoterol

ATC: G02CA03; R03AC04; R03CC04
 Use: bronchodilator

RN: 13392-18-2 MF: C₁₇H₂₁NO₄ MW: 303.36

CN: 5-[1-hydroxy-2-[[2-(4-hydroxyphenyl)-1-methylethyl]amino]ethyl]-1,3-benzenediol

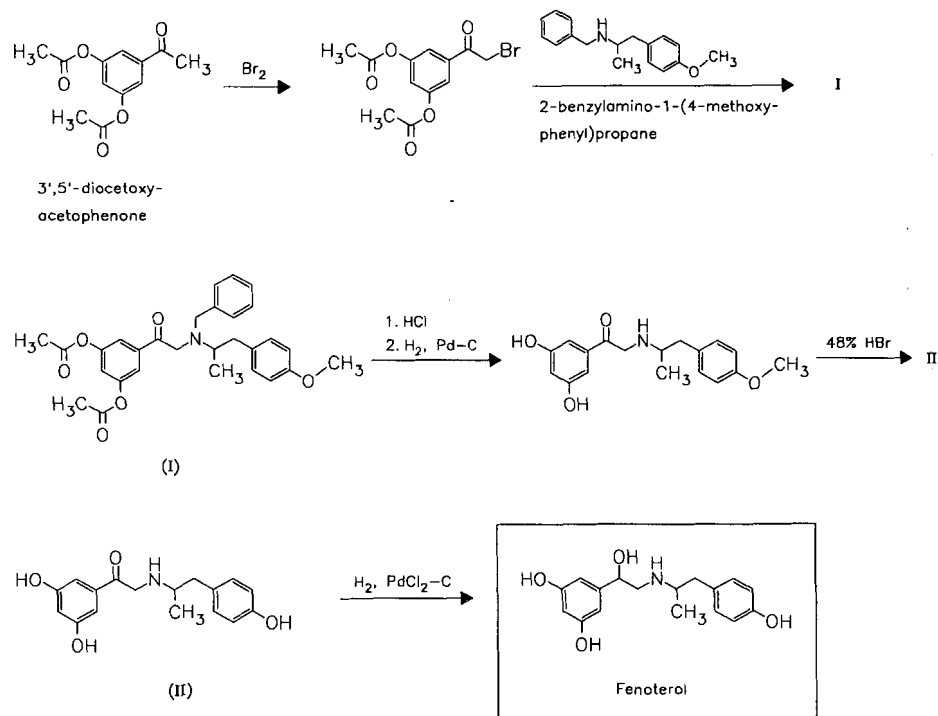
hydrobromide

RN: 1944-12-3 MF: C₁₇H₂₁NO₄ · HBr MW: 384.27 EINECS: 217-742-8

LD₅₀: 42 mg/kg (M, i.v.); 1990 mg/kg (M, p.o.);

65 mg/kg (R, i.v.); 1600 mg/kg (R, p.o.);

150 mg/kg (dog, p.o.)



Reference(s):

DE 1 286 047 (Boehringer Ing.; appl. 30.11.1962).
 US 3 341 593 (Boehringer Ing.; 12.9.1967; D-prior. 30.11.1962).

alternative syntheses:

DOS 2 413 102 (Boehringer Ing.; appl. 19.3.1974).

Formulation(s): aerosol 0.05 mg/puff in comb; amp. 0.025 mg/ml, 0.5 mg/10 ml; cps. 200 µg; sol. for inhalation 0.5 mg/ml in comb., 1 mg/ml; tabl. 2.5 mg, 5 mg

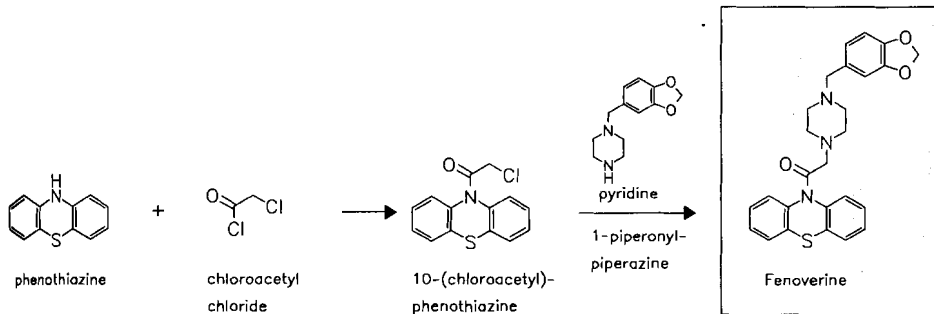
Trade Name(s):

D: Berodual Aerosol (Boehringer Ing.) Berotec (Boehringer Ing.) Berotec-Dosier-Aerosol (Boehringer Ing.) Ditec (Boehringer Ing.) Partusisten (Boehringer Ing.)	F: Bérotec (Boehringer Ing.; as hydrobromide) Bronchodual (Boehringer Ing.; as hydrobromide) GB: Berotec (Boehringer Ing.; as hydrobromide) Duovent (Boehringer Ing.; as hydrobromide)	I: Dosberotec (Boehringer Ing.) Duovent (Boehringer Ing.)- comb. Iprafen (Chiesi)-comb. J: Berotec (Boehringer Ing.; as hydrobromide)
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Fenoverine

ATC: A03AX05
 Use: antispasmodic

RN: 37561-27-6 MF: C₂₆H₂₅N₃O₃S MW: 459.57 EINECS: 253-552-1
 LD₅₀: 2874 mg/kg (M, p.o.)
 CN: 10-[[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]acetyl]-10H-phenothiazine

**Reference(s):**

FR 2 092 639 (A. Buzas, R. Pierre; appl. 3.6.1970).

Formulation(s): cps. 100 mg

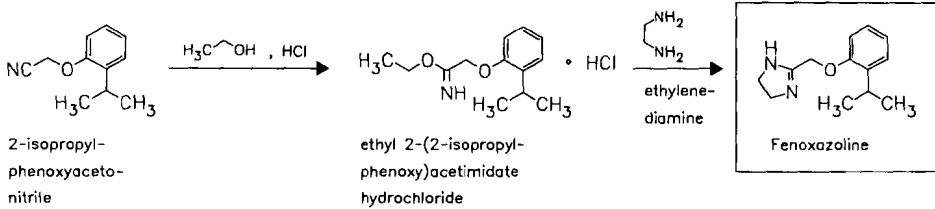
Trade Name(s):

F: Spasmopriv (Bouchard)	Spasmopriv (Vaillant-Defresne)	I: Spasmopriv (Lusofarmaco)
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Fenoxazoline

ATC: R01AA12
 Use: vasoconstrictor, local anesthetic

RN: 4846-91-7 MF: C₁₃H₁₈N₂O MW: 218.30 EINECS: 225-437-6
 CN: 4,5-dihydro-2-[[2-(1-methylethyl)phenoxy]methyl]-1H-imidazole

monohydrochlorideRN: 23029-57-4 MF: $C_{13}H_{18}N_2O \cdot HCl$ MW: 254.76**Reference(s):**

FR 1 365 971 (Lab. Dausse; appl. 19.2.1963).

US 3 198 703 (Lab. Dausse; 3.8.1965; appl. 4.5.1961).

Formulation(s): nasal drops 0.05 %, 0.1 %; nasal spray 1 mg (as hydrochloride)**Trade Name(s):**

D: Snup (Karlspharma); wfm F: Aturgyl (Synthélabo)

Déturgylone (Synthélabo)

Fenoxedil

ATC: C01D

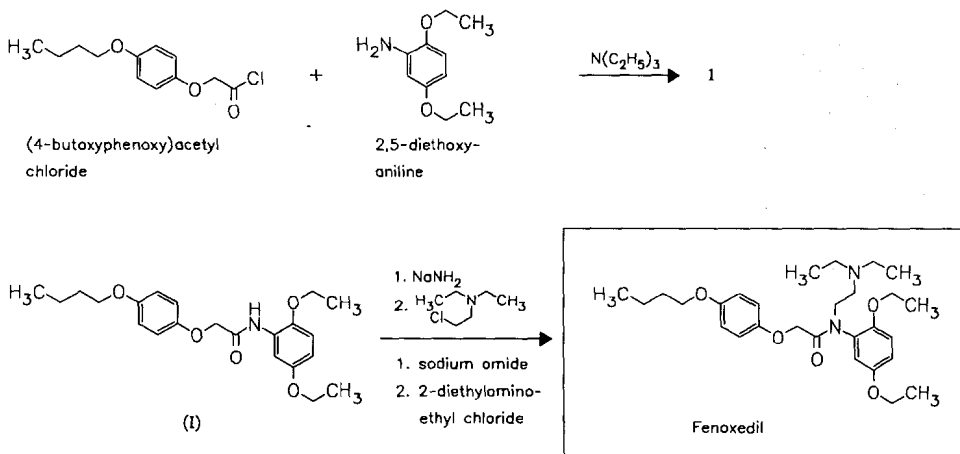
Use: vasodilator

RN: 54063-40-0 MF: $C_{28}H_{42}N_2O_5$ MW: 486.65

CN: 2-(4-butoxyphenoxy)-N-(2,5-diethoxyphenyl)-N-[2-(diethylamino)ethyl]acetamide

monohydrochlorideRN: 27471-60-9 MF: $C_{28}H_{42}N_2O_5 \cdot HCl$ MW: 523.11 EINECS: 248-478-1LD₅₀: 17 mg/kg (M, i.v.); 750 mg/kg (M, p.o.);

10 mg/kg (R, i.v.); 2400 mg/kg (R, p.o.)

**Reference(s):**

DE 1 964 712 (C.E.R.P.H.A.; appl. 23.12.1969; F-prior. 26.12.1968).

US 3 818 021 (C.E.R.P.H.A.; 18.6.1974; F-prior. 24.12.1968).

Formulation(s): cps. 100 mg

Trade Name(s):

F: Suplexedil (Anphar-Rolland); wfm

Suplexedil (L'Hépatrol); wfm

Fenozolone

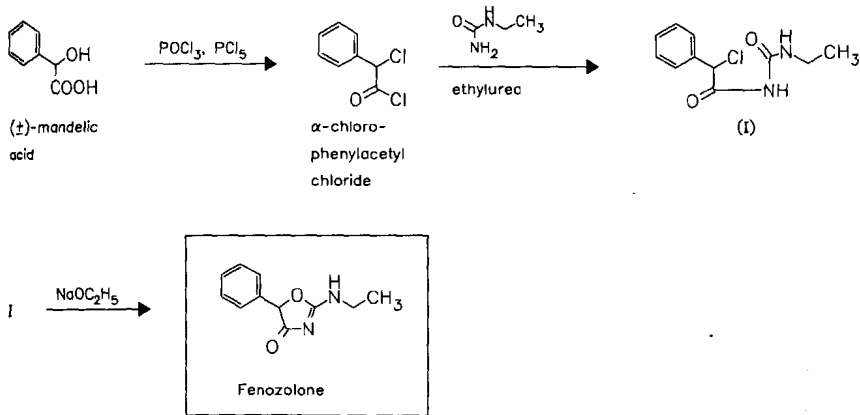
(Phenozolone)

ATC: N06BA08

Use: psychoanalectic

RN: 15302-16-6 MF: $C_{11}H_{12}N_2O_2$ MW: 204.23 EINECS: 239-339-6LD₅₀: 425 mg/kg (M, p.o.)

CN: 2-(ethylamino)-5-phenyl-4(5H)-oxazolone

*Reference(s):*

DE 1 297 108 (Lab. Dausse; appl. 20.2.1962; F-prior. 24.2.1961, 23.5.1961, 18.1.1962).

Formulation(s): tabl. 10 mg*Trade Name(s):*

F: Ordinator (Synthelabo)

Fenpentadiol

(Phenpentanediol)

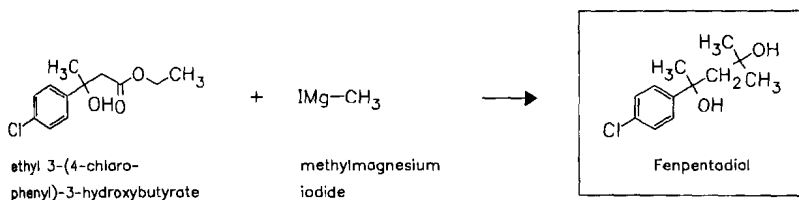
ATC: N06A; N06B

Use: antidepressant

RN: 15687-18-0 MF: $C_{12}H_{17}ClO_2$ MW: 228.72 EINECS: 239-782-5LD₅₀: 940 mg/kg (M, p.o.);

1140 mg/kg (R, p.o.)

CN: 2-(4-chlorophenyl)-4-methyl-2,4-pentanediol

*Reference(s):*

FR-M 1 984 (Albert Rolland; appl. 26.7.1962).

Formulation(s): cps. 100 mg

Trade Name(s):

F: Trédum (Anphar-Rolland); Trédum (L'Hépatrol); wfm
wfm

Fenpiverinium bromide
(Fenpipramide methylbromide)

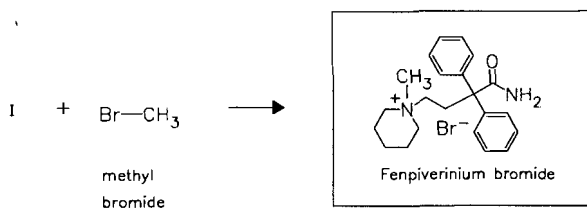
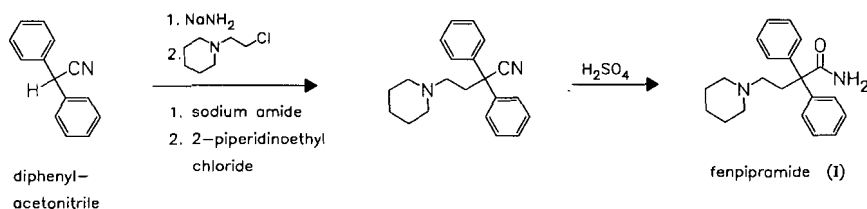
ATC: A03AB21

Use: anticholinergic, antispasmodic

RN: 125-60-0 MF: C₂₂H₂₉BrN₂O MW: 417.39 EINECS: 204-744-9

LD₅₀: 13.5 mg/kg (M, i.v.); 800 mg/kg (M, p.o.)

CN: 1-(4-amino-4-oxo-3,3-diphenylbutyl)-1-methylpiperidinium bromide



Reference(s):

DE 731 560 (Hoechst; appl. 1941).

DE 858 552 (Hoechst; appl. 1950).

Formulation(s): amp. 0.1 mg in comb.; suppos. 0.03 mg, 0.1 mg in comb.; tabl. 0.1 mg in comb.

Trade Name(s):

D: Baralgin (Albert-Roussel)-comb.; wfm
Baralgin compositum (Albert-Roussel)-comb.; wfm

F: Baralgine (Hoechst)-comb.; wfm

I: Baralgina (Hoechst Italia)-comb.

Fenquizone

ATC: C03BA13

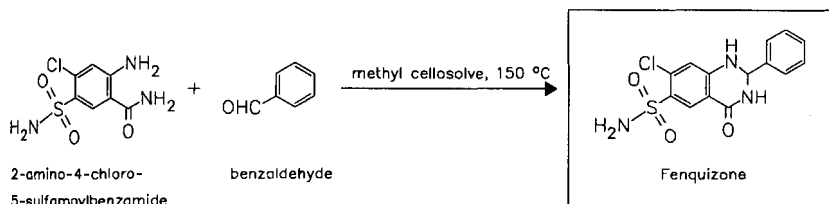
Use: diuretic

RN: 20287-37-0 MF: C₁₄H₁₂ClN₃O₃S MW: 337.79 EINECS: 243-689-5

CN: 7-chloro-1,2,3,4-tetrahydro-4-oxo-2-phenyl-6-quinazolinesulfonamide

potassium salt

RN: 52246-40-9 MF: C₁₄H₁₁ClKN₃O₃S MW: 375.88

**Reference(s):**

Biressi, M.E. et al.: *Farmaco, Ed. Sci. (FRPSAX)* **24**, 199 (1969).

Formulation(s): cps. 11.13 mg (as potassium salt)

Trade Name(s):

I: Idrolone (Maggioni-Winthrop)

Fenspiride

ATC: R03BX01; R03DX03

Use: antiasthmatic, bronchodilator, α -adrenergic blocker

RN: 5053-06-5 MF: $\text{C}_{15}\text{H}_{20}\text{N}_2\text{O}_2$ MW: 260.34 EINECS: 225-751-3

LD₅₀: 230 mg/kg (M, i.p.)

CN: 8-(2-phenylethyl)-1-oxa-3,8-diazaspiro[4.5]decan-2-one

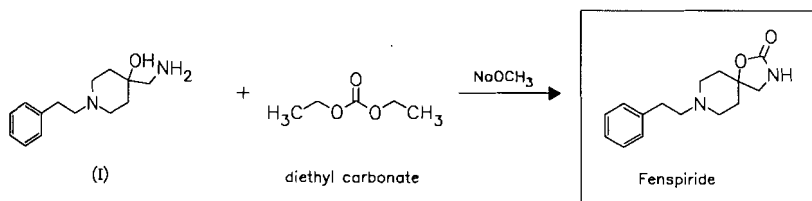
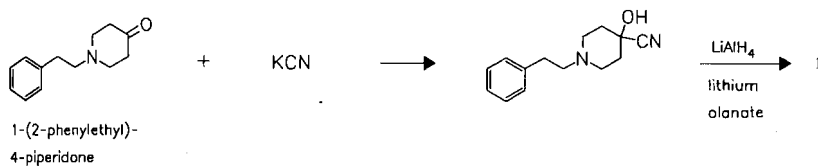
monohydrochloride

RN: 5053-08-7 MF: $\text{C}_{15}\text{H}_{20}\text{N}_2\text{O}_2 \cdot \text{HCl}$ MW: 296.80 EINECS: 225-752-9

LD₅₀: 106 mg/kg (M, i.v.); 250 mg/kg (M, p.o.);

122 mg/kg (R, i.v.); 437 mg/kg (R, p.o.);

74 mg/kg (dog, i.v.)

**Reference(s):**

US 3 399 192 (Science Union; 27.8.1968; GB-prior. 22.4.1964).

preparation of 1-(2-phenylethyl)-4-piperidone:

Beckett et al.: *J. Med. Pharm. Chem. (JMPCAS)* **1**, 37, 51 (1959).

Elperm et al.: *J. Am. Chem. Soc. (JACSAT)* **80**, 4916 (1958).

Dutta, A.K.; Xu, C., Reith, M.F.A.: *J. Med. Chem. (JMCMAR)* **39** (3), 749 (1966).

Janssens, F. et al.: *J. Med. Chem. (JMCMAR)* **28** (12), 1925 (1985).

Formulation(s): cps. 40 mg, 80 mg; suppos. 40 mg, 80 mg

Trade Name(s):

F:	Pneumorel (Euthérapie; as hydrochloride)	I:	Espiran (ICT) Fenspir (Ibirm)	Fluiden (Lafare) Pneumorel (Stroder)
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Fentanyl

ATC: N01AH01; N02AB03

Use: analgesic, narcotic

RN: 437-38-7 MF: $C_{22}H_{28}N_2O$ MW: 336.48 EINECS: 207-113-6

LD₅₀: 2900 µg/kg (M, i.v.); 368 mg/kg (M, p.o.);

2910 µg/kg (R, i.v.); 18 mg/kg (R, p.o.)

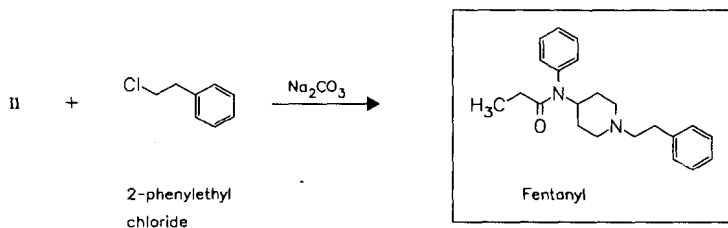
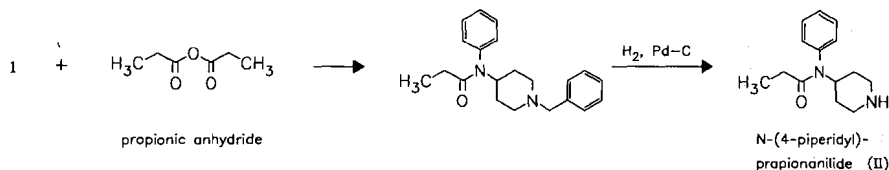
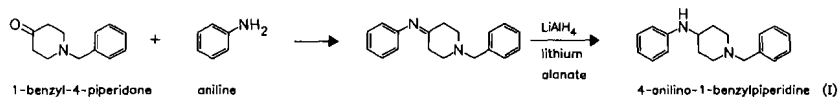
CN: *N*-phenyl-*N*-[1-(2-phenylethyl)-4-piperidinyl]propanamide

citrate (1:1)

RN: 990-73-8 MF: $C_{22}H_{28}N_2O \cdot C_6H_8O_7$ MW: 528.60 EINECS: 213-588-0

LD₅₀: 10100 µg/kg (M, i.v.); 368 mg/kg (M, p.o.);

990 µg/kg (R, i.v.); 18 mg/kg (R, p.o.)



Reference(s):

FR 2 430 M (Janssen; appl. 9.10.1962; USA-prior. 10.10.1961).

US 3 141 823 (Janssen; 21.7.1964; appl. 4.9.1962).

US 3 164 600 (Janssen; 5.1.1965; appl. 10.10.1961).

Formulation(s): amp. 0.157 mg/2 ml, 0.785/10 ml (as citrate); membrane plaster

Trade Name(s):

D:	Durogesic (Janssen-Cilag) Fentanyl (Schwabe-Curamed)	Thalamonal (Janssen-Cilag)-comb. with droperidol generic	F:	Durogésic (Janssen-Cilag) generic
			GB:	Durogesic (Janssen-Cilag) Sublimaze (Janssen-Cilag)

I: Fentanest (Carlo Erba)
Leptofen (Carlo Erba)-
comb.

J: Fentanest (Sankyo; as
citrate)

Thalamonal (Sankyo)-
comb. with droperidol
USA: Duragesic (Janssen)

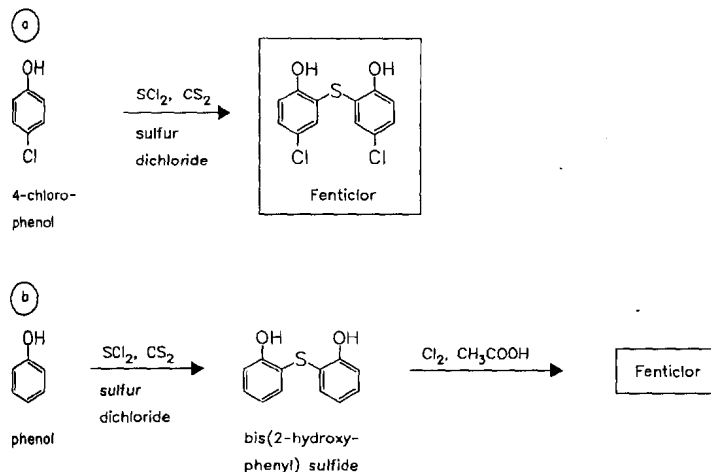
Fenticlor

ATC: D01A

Use: antifungal, anti-infective

RN: 97-24-5 MF: $C_{12}H_8Cl_2O_2S$ MW: 287.17 EINECS: 202-568-7

CN: 2,2'-thiobis[4-chlorophenol]



Reference(s):

- a Dunning, F. et al.: J. Am. Chem. Soc. (JACSAT) **53**, 3466 (1931).
b DRP 568 944 (I. G. Farben; appl. 1931).

Formulation(s): ointment 5 %; sol. 5 %

Trade Name(s):

D: Antimyk (Pfleger); wfm

Fenticonazole

ATC: D01AC12; G01AF12

Use: antifungal

RN: 72479-26-6 MF: $C_{24}H_{20}Cl_2N_2OS$ MW: 455.41

LD₅₀: 1191 mg/kg (M, i.p.);

440/309 mg/kg (R, i.p.); >3000 mg/kg (R, p.o.)

CN: 1-[2-(2,4-dichlorophenyl)-2-[[4-(phenylthio)phenyl]methoxy]ethyl]-1H-imidazole

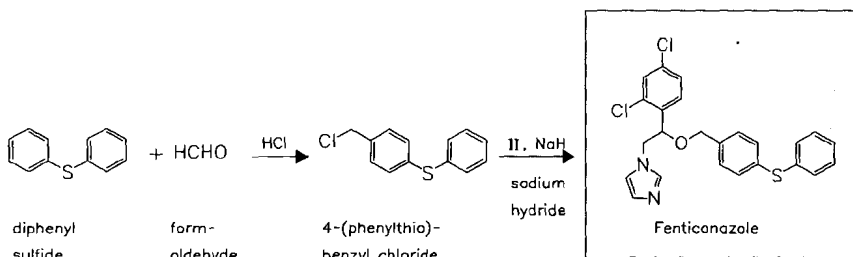
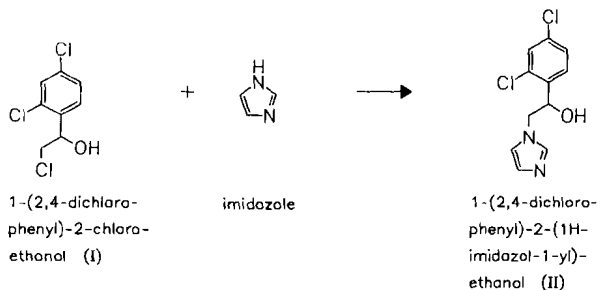
mononitrate

RN: 73151-29-8 MF: $C_{24}H_{20}Cl_2N_2OS \cdot HNO_3$ MW: 518.42 EINECS: 277-302-6

LD₅₀: >3 g/kg (M, p.o.);

>3 g/kg (R, p.o.);

>1 g/kg (dog, p.o.)

**Reference(s):**

DE 2 917 244 (Recordati; appl. 9.5.1979; I-prior. 18.5.1978).

US 4 221 803 (Recordati; 9.9.1980; appl. 9.5.1979; I-prior. 18.5.1978).

Formulation(s): cream 2 %, gel 2 %; vaginal ovules 200 mg**Trade Name(s):**F: Lomexin (Effik; as nitrate)
Terlomexin (Effik; as
nitrate)GB: Lomexin (Dominion;
Pharmacia & Upjohn; as
nitrate)

I: Falvin (Farmades)

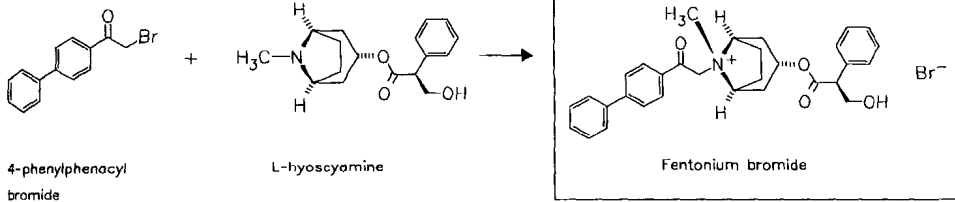
Fentiderm (Zyma)
Fentigyn (Novartis)
Lomexin (Recordati; 1980)**Fentonium bromide**

ATC: A03BB04

Use: anticholinergic

RN: 5868-06-4 MF: C₃₁H₃₄BrNO₄ MW: 564.52 EINECS: 227-520-2LD₅₀: 12100 µg/kg (M, i.v.); >400 mg/kg (M, p.o.);
11600 µg/kg (R, i.v.)

CN: [3(S)-endo,anti]-8-(2-[1,1'-biphenyl]-4-yl-2-oxoethyl)-3-(3-hydroxy-1-oxo-2-phenylpropoxy)-8-methyl-8-azoniabicyclo[3.2.1]octane bromide



Reference(s):

synthesis:

US 3 356 682 (Whitefin Holding S.A.; 5.12.1967; prior. 27.10.1964).

medical use:

US 3 436 458 (Whitefin Holding S.A.; 1.4.1969; prior. 27.10.1964).

Formulation(s): tabl. 20 mg

Trade Name(s):

D: Ulcesium (Inpharzam);
wfm

I: Duotrax (Zambon Farm.)-
comb.; wfm

Ulcesium (Zambon); wfm

Fenyramidol

(Phenyramidol)

ATC: M03B

Use: analgesic, muscle relaxant

RN: 553-69-5 MF: C₁₃H₁₄N₂O MW: 214.27 EINECS: 209-044-7

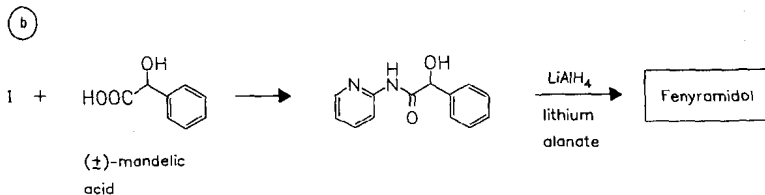
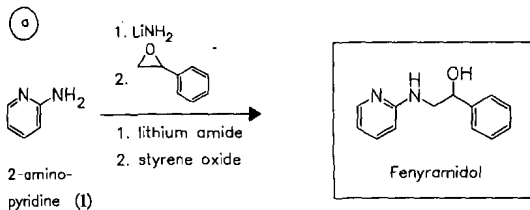
LD₅₀: 124 mg/kg (M, i.v.); 1850 mg/kg (M, p.o.);
756 mg/kg (R, p.o.)

CN: α-[(2-pyridinylamino)methyl]benzenemethanol

monohydrochloride

RN: 326-43-2 MF: C₁₃H₁₄N₂O · HCl MW: 250.73 EINECS: 206-308-3

LD₅₀: 124 mg/kg (M, i.v.); 2425 mg/kg (M, p.o.)



Reference(s):

DAS 1 420 056 (Neisler Labs.; appl. 14.8.1959; USA-prior. 4.11.1958).

US 3 040 050 (Lakeside Labs.; 19.6.1962; prior. 1.3.1960).

Gray, A.P. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 4347, 4351 (1959).

BE 580 121 (Irwin, Neisler; appl. 26.6.1959; USA-prior. 4.11.1958).

Formulation(s): drg. 400 mg (as hydrochloride)*Trade Name(s):*

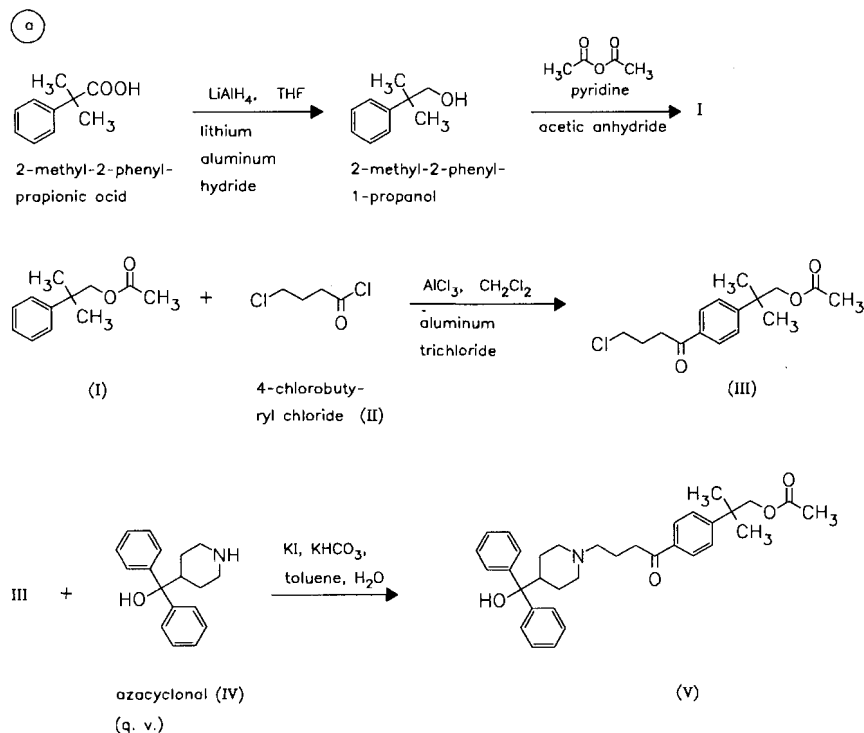
D:	Cabral (Kali-Chemie); wfm	Aramidol (ABC); wfm	Pheniramidol (Pulitzer); wfm
I:	Anabloc (Irbi); wfm	Firmalgil (Firma); wfm	wfm
	Analexin (Biotrading); wfm	Miodar (ISM); wfm	J: Analexin-AF (Dainippon)-comb.

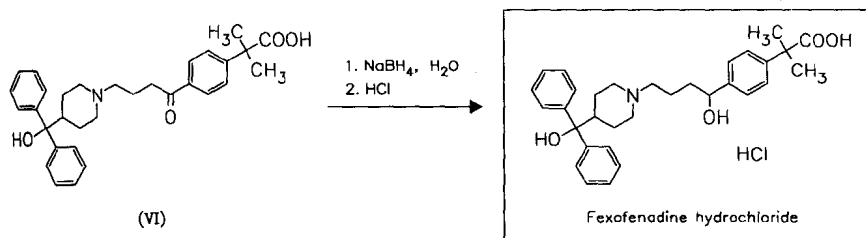
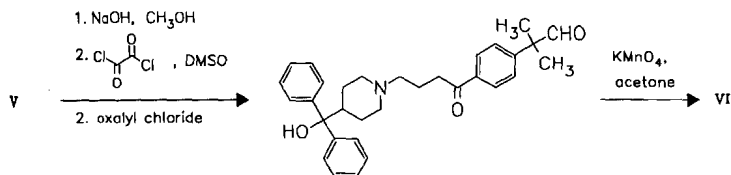
Fexofenadine hydrochloride

(MDL-16455A)

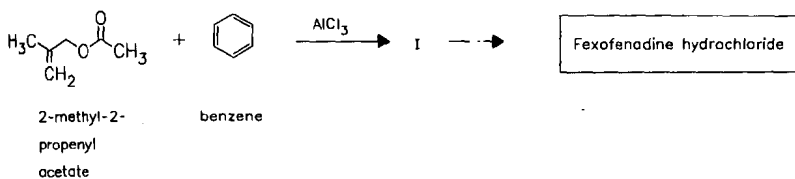
ATC: R06AX26

Use: antihistaminic, metabolite of terfenadine

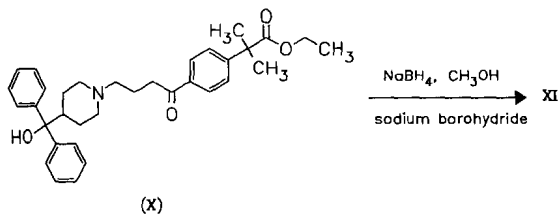
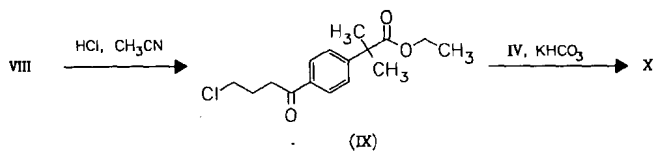
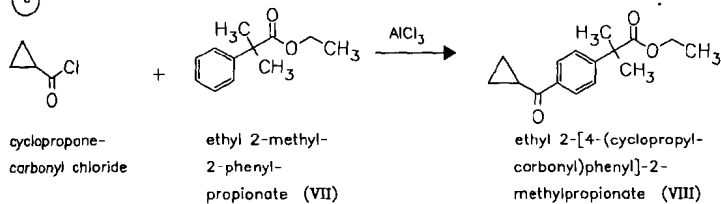
RN: 153439-40-8 MF: C₃₂H₃₉NO₄ · HCl MW: 538.13CN: 4-[1-hydroxy-4-[4-(hydroxydiphenylmethyl)-1-piperidinyl]butyl]- α,α -dimethylbenzeneacetic acid hydrochloride**base**RN: 83799-24-0 MF: C₃₂H₃₉NO₄ MW: 501.67

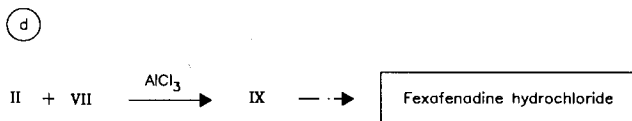
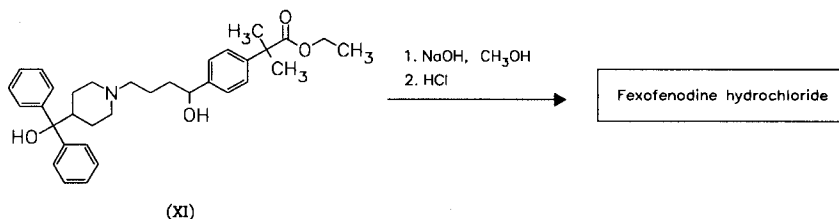


(b)



(c)



**Reference(s):**

- a,b** WO 9 321 156 (Merrell Dow Pharm.; appl. 10.3.1993; USA-prior. 25.1.1993, 10.4.1992).
c,d WO 9 500 480 (Merrell Dow Pharm.; appl. 26.5.1994; USA-prior. 25.6.1993, 27.10.1993).
 WO 9 500 482 (Albany Molecular Res.; appl. 21.6.1994; USA-prior. 24.6.1993).

preparation of optically active isomers used in antihistamine treatment:

WO 9 403 170 (Sepracor Inc.; appl. 3.8.1993; USA-prior. 3.8.1992).

process for resolution using mandelic acid:

WO 9 531 436 (Merrell Pharm. Inc.; appl. 10.4.1995; USA-prior. 16.5.1994).

use in hepatic impaired patients:

WO 9 323 047 (Merrell Dow Pharm.; appl. 6.4.1993; USA-prior. 31.7.1992, 11.5.1992).

WO 9 510 278 (Marion Merrell Dow; appl. 30.9.1994; USA-prior. 15.10.1993).

anhydrous and hydrated forms:

WO 9 531 437 (Marion Merrell Dow; appl. 28.4.1995; USA-prior. 11.4.1995, 18.5.1994).

improved bioavailability with high surface area particle form:

WO 9 626 726 (Hoechst Marion Roussel; appl. 26.1.1996; USA-prior. 12.12.1995, 28.2.1995).

oral formulations in solvent comp. propylene glycol:

US 5 574 045 (Hoechst Marion Roussel; 12.11.1996; appl. 6.6.1995; USA-prior. 6.6.1995).

Formulation(s): cps. 60 mg

Trade Name(s):

D: Telfast (Hoechst Marion
Roussel; Procter &
Gamble)

GB: Telfast (Hoechst)
USA: Allegra (Hoechst Marion
Roussel)

Fibrinolysin (human)

(Serum-Trypsin; Plasmin)

ATC: B01AD05

Use: thrombolytic

RN: 9004-09-5 MF: unspecified MW: unspecified EINECS: 232-640-3

CN: plasmin

An enzyme obtained from human plasma by conversion of profibrinolysin with streptokinase to fibrinolysin. Proteolytic enzyme of unknown structure; molar mass \approx 75000.

From oxalate added blood plasma by precipitation with CaCl₂ and purification by washing and precipitation and lyophilization.

Reference(s):

US 2 624 691 (Parke Davis; 1953; appl. 1946).
 US 3 136 703 (Ortho Pharmaceutical; 9.6.1964; prior. 1.10.1957, 22.4.1958).
 US 3 234 106 (Cutter Labs.; 8.2.1966; appl. 3.12.1962).

Formulation(s): ointment 10 mg/1 g (1 %)

Trade Name(s):

D:	Fibrinolysin (Human)	F:	Elase (Substantia)-comb.;	I:	Elase (Parke Davis)-comb.
	Lyovac (Sharp & Dohme);		wfm	USA:	Elase (Fujisawa)
	wfm		Thromboclase (Choay);		
			wfm		

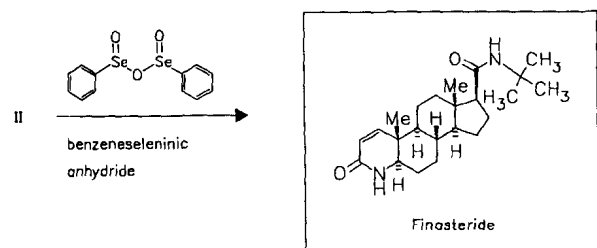
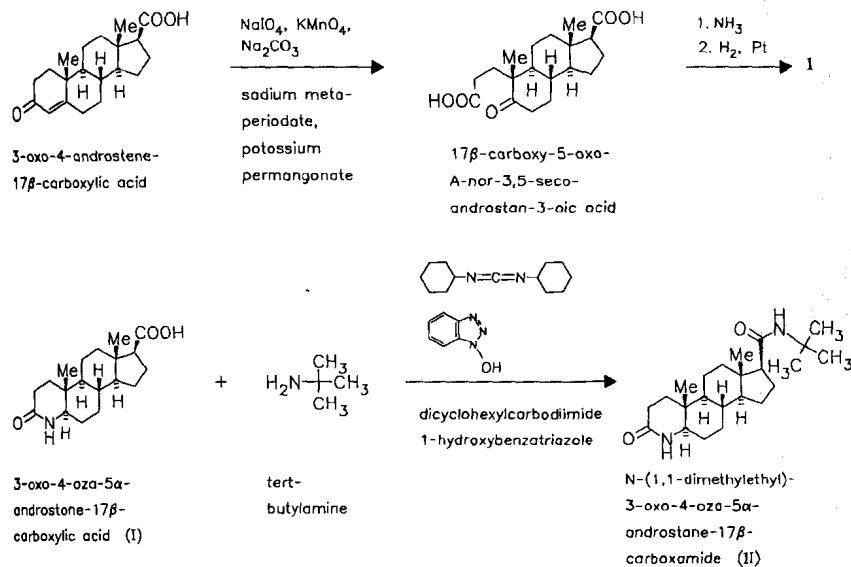
Finasteride

ATC: G04CA01
 Use: 5 α -reductase inhibitor, treatment of benign prostatic hypertrophy

RN: 98319-26-7 MF: C₂₃H₃₆N₂O₂ MW: 372.55

LD₅₀: 486 mg/kg (M, p.o.);
 418 mg/kg (R, p.o.);
 >1 g/kg (dog, p.o.)

CN: (5 α ,17 β)-N-(1,1-dimethylethyl)-3-oxo-4-azaandrost-1-ene-17-carboxamide



Reference(s):

US 155 096 (Merck & Co.; appl. 20.2.1985; USA-prior. 27.2.1984).
Rasmusson, G.H. et al.: J. Med. Chem. (JMCMAR) **29**, 2298 (1986).

medical use for treatment of androgenic alopecia:

EP 285 382 (Merck & Co.; appl. 30.3.1988; USA-prior. 3.4.1987).

medical use for treatment of prostate carcinoma:

EP 285 383 (Merck & Co.; appl. 30.3.1988; USA-prior. 3.4.1987).

Formulation(s): f. c. tabl. 5 mg

Trade Name(s):

D:	Proscar (MSD Chibropharm)	GB:	Proscar (Merck Sharp & Dohme)	Prostide (Sigma-Tau)
F:	Chibro-Proscar (Merck Sharp & Dohme-Chibret)	I:	Proscar (Merck & Co.; 1991)	USA: Proscar (Merck)

Fipexide

ATC: N06BX05

Use: antidepressant, psychotonic,
nootropic

RN: 34161-24-5 MF: C₂₀H₂₁ClN₂O₄ MW: 388.85 EINECS: 251-857-4

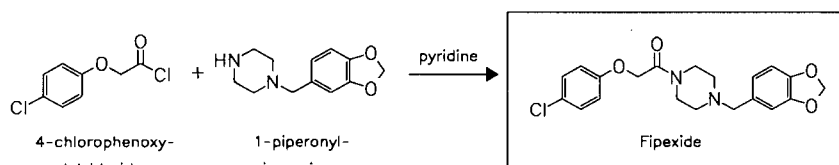
CN: 1-(1,3-benzodioxol-5-ylmethyl)-4-[(4-chlorophenoxy)acetyl]piperazine

monohydrochloride

RN: 34161-23-4 MF: C₂₀H₂₁ClN₂O₄ · HCl MW: 425.31 EINECS: 251-856-9

LD₅₀: 4150 mg/kg (M, p.o.);

4482 mg/kg (R, p.o.)

*Reference(s):*

FR-M 7 524 (Lab. F. Bouchard; appl. 12.3.1968).

Formulation(s): drg. 200 mg; tabl. 200 mg (as hydrochloride)

Trade Name(s):

F:	Vigilor (Bouchard); wfm	I:	Attentil (Lusofarmaco); wfm
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Flavoxate

ATC: G04BD02

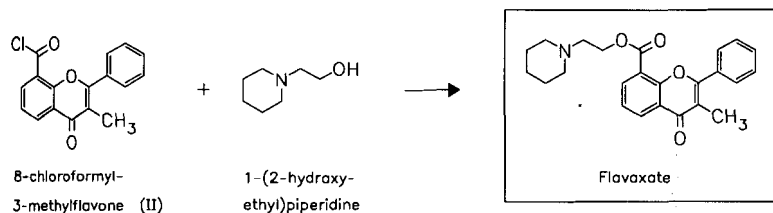
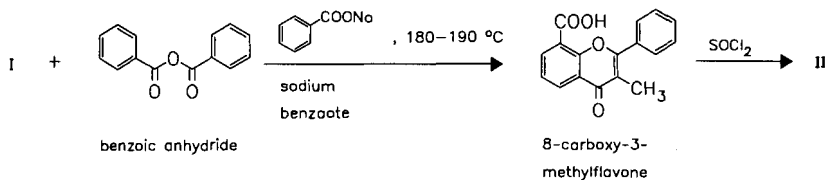
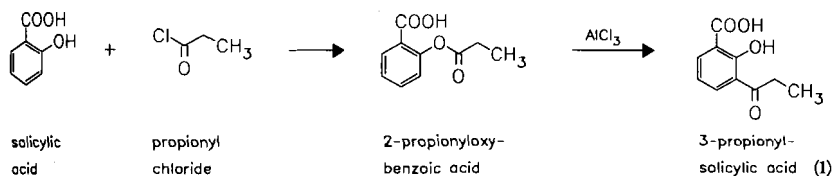
Use: antispasmodic

RN: 15301-69-6 MF: C₂₄H₂₅NO₄ MW: 391.47 EINECS: 239-337-5

CN: 3-methyl-4-oxo-2-phenyl-4H-1-benzopyran-8-carboxylic acid 2-(1-piperidiny)ethyl ester

hydrochlorideRN: 3717-88-2 MF: C₂₄H₂₅NO₄ · HCl MW: 427.93 EINECS: 223-066-4LD₅₀: 28 mg/kg (M, i.v.); 740 mg/kg (M, p.o.);

25 mg/kg (R, i.v.); 1040 mg/kg (R, p.o.)

**Reference(s):**

US 2 921 070 (Recordati; 12.1.1960; CH-prior. 5.11.1957).

alternative synthesis:

US 3 350 411 (Seceph; 31.10.1967; I-prior. 10.10.1963).

Formulation(s): f. c. tabl. 200 mg; tabl. 100 mg (as hydrochloride)**Trade Name(s):**

D:	Spasuret (Sanofi Winthrop)	I:	Cistalgan (Recordati)-comb.	J:	Bladderon (Nippon Shinyaku)
F:	Urispas (Negma)		Genurin (Recordati)	USA:	Urispas (SmithKline Beecham)
GB:	Urispas (Shire)				

Flecainide

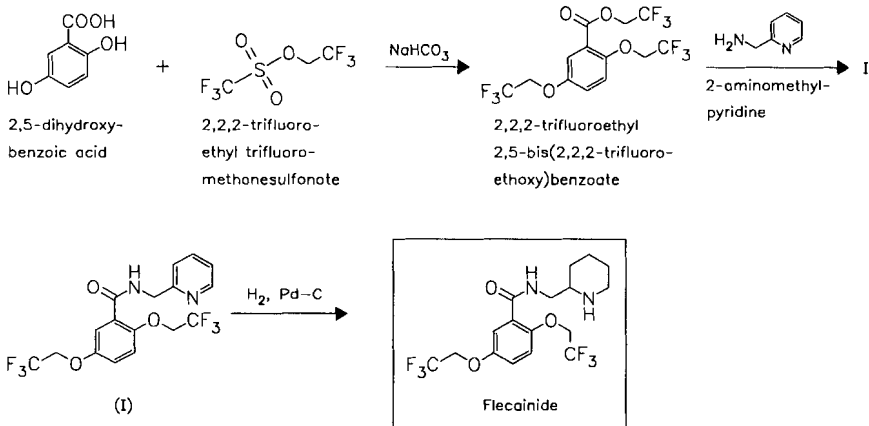
ATC: C01BC04

Use: antiarrhythmic

RN: 54143-55-4 MF: C₁₇H₂₀F₆N₂O₃ MW: 414.35

CN: N-(2-piperidylmethyl)-2,5-bis(2,2,2-trifluoroethoxy)benzamide

acetateRN: 54143-56-5 MF: C₁₇H₂₀F₆N₂O₃ · C₂H₄O₂ MW: 474.40

**Reference(s):**

DE 2 513 916 (Riker; prior. 27.3.1975).

US 3 900 481 (Riker; 19.8.1975; prior. 1.4.1974).

US 3 655 728 (Riker; 11.4.1972; prior. 22.7.1970).

US 4 005 209 (Riker; 25.1.1975; prior. 27.5.1975).

Bannit, E.H. et al.: J. Med. Chem. (JMCMAR) **18**, 1130 (1975); **20**, 821 (1977).**Formulation(s):** amp. 50 mg; tabl. 50 mg, 100 mg (as acetate)**Trade Name(s):**

D: Tambocor (3M Medica; 1982)

GB: Tambocor (3M Health Care; 1983)

J: Tambocor (Eisai)

USA: Tambocor (3M; 1985)

F: Flécaïne (3M Santé; 1984)

I: Almarytm (Synthelabo; 1986)

Fleroxacin

(AM 833; Ro 23-6240; Megalocin)

ATC: J01MA08

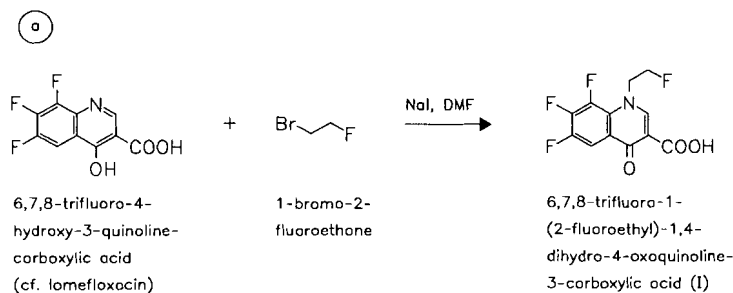
Use: antibacterial

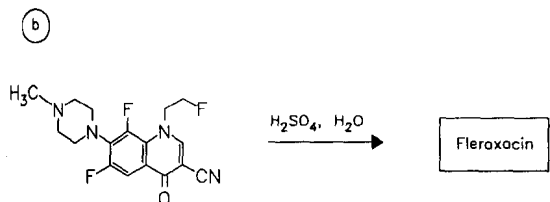
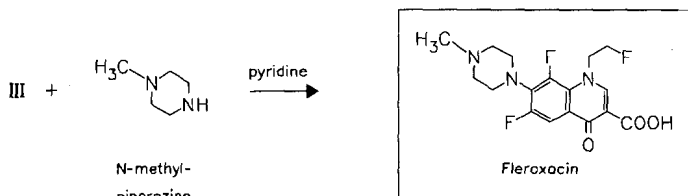
RN: 79660-72-3 MF: $\text{C}_{17}\text{H}_{18}\text{F}_3\text{N}_3\text{O}_3$ MW: 369.34LD₅₀: 20.4 mg/kg (R, i. v.); >4 g/kg (R, p. o.);

21.7 mg/kg (M, i. v.); >4 g/kg (M, p. o.);

>1 g/kg (dog, p. o.)

CN: 6,8-Difluoro-1-(2-fluoroethyl)-1,4-dihydro-7-(4-methyl-1-piperazinyl)-4-oxo-3-quinolinecarboxylic acid

monohydrochlorideRN: 79660-53-0 MF: $\text{C}_{17}\text{H}_{18}\text{F}_3\text{N}_3\text{O}_3 \cdot \text{HCl}$ MW: 405.80



Reference(s):

- a BE 887 574 (Kyorin Pharm.; appl. 19.2.1981; BE-prior. 19.8.1980).
ZA 8 502 065 (Kyorin Pharm.; appl. 20.3.1985; ZA-prior. 20.3.1985).
- b ES 2 010 862 (Inke S. A.; appl. 13.2.1989).

purification and recovery using porous absorbents:

JP 08 259 541 (Kyorin Seiyaku; appl. 23.3.1995).

synthesis of fluorine-labeled fleroxacin:

Livni, E. et al.: Nucl. Med. Biol. (NMBIEO) **20** (1), 883-897 (1993)

Formulation(s): amp. for inj. 400 mg; f. c. tabl. 200 mg, 400 mg; tabl. 200 mg, 400 mg; vial 400 mg/100 ml

Trade Name(s):

D: Quinodis (Roche/
Grünenthal)

Floctafenine

ATC: N02BG04

Use: analgesic

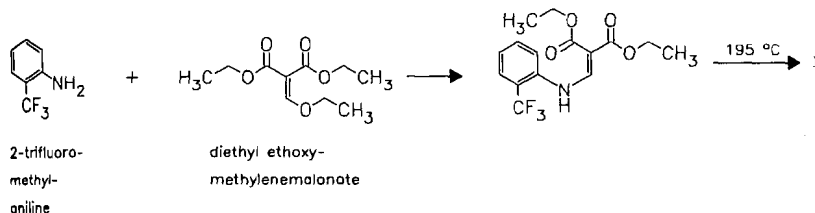
RN: 23779-99-9 MF: C₂₀H₁₇F₃N₂O₄ MW: 406.36 EINECS: 245-881-4

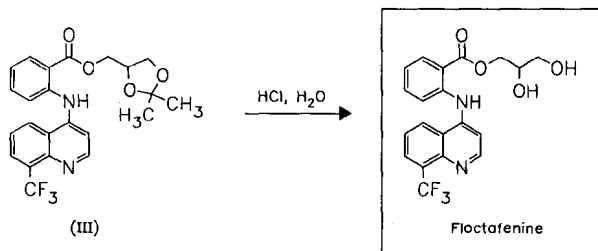
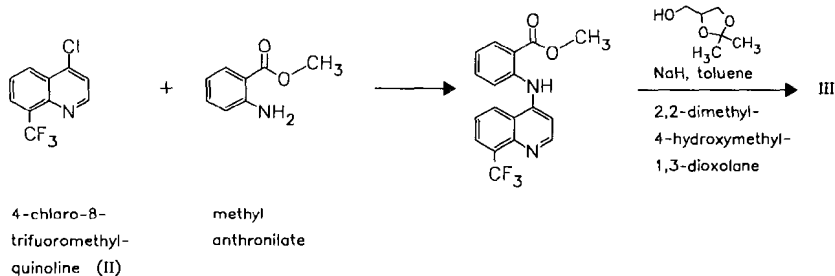
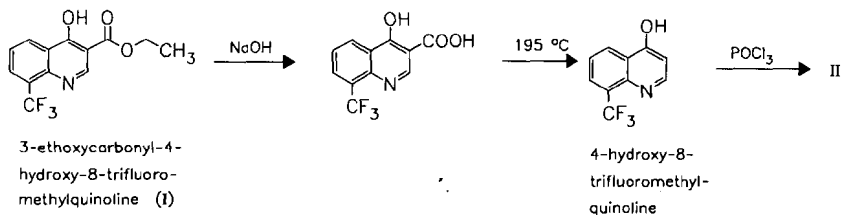
LD₅₀: 180 mg/kg (M, i.v.); 1960 mg/kg (M, p.o.);

160 mg/kg (R, i.v.); 535 mg/kg (R, p.o.);

>1 g/kg (dog, p.o.)

CN: 2-[[8-(trifluoromethyl)-4-quinoliny]amino]benzoic acid 2,3-dihydroxypropyl ester



**Reference(s):**

- DE 1 815 467 (Roussel-Uclaf; appl. 18.12.1968; F-prior. 29.12.1967, 29.3.1968, 23.8.1968).
 US 3 644 368 (Roussel-Uclaf; 22.2.1972; F-prior. 29.12.1967, 23.8.1968).
 US 3 818 090 (Roussel-Uclaf; 22.2.1972; prior. 7.7.1971).

Formulation(s): tabl. 200 mg

Trade Name(s):

D: Idarac (Roussel; 1978); wfm
 F: Idarac (Roussel Diamant; 1976)
 I: Idarac (Roussel; 1977)

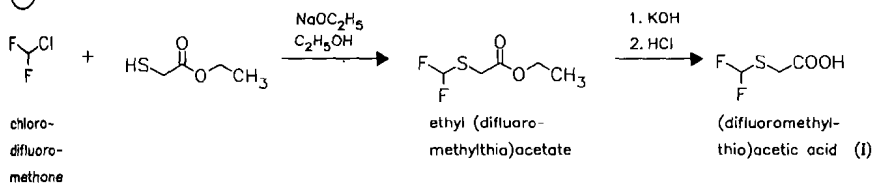
Flomoxef
 (6315-S)

ATC: J01C
 Use: antibacterial (β -lactam antibiotic)

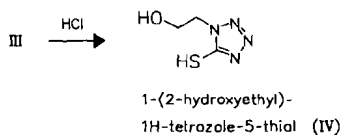
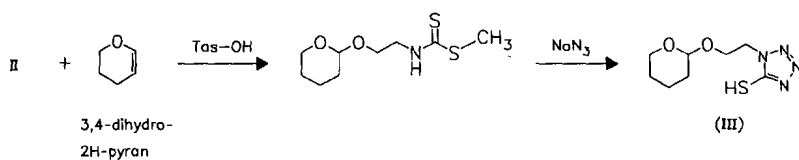
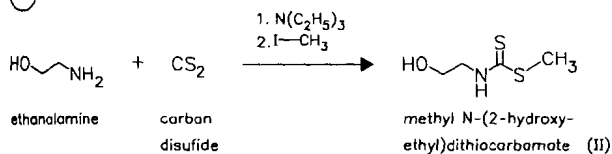
RN: 99665-00-6 MF: $\text{C}_{15}\text{H}_{18}\text{F}_2\text{N}_6\text{O}_7\text{S}_2$ MW: 496.47

CN: (6*R*-*cis*)-7-[[[(difluoromethyl)thio]acetyl]amino]-3-[[[1-(2-hydroxyethyl)-1*H*-tetrazol-5-yl]thio]methyl]-7-methoxy-8-oxo-5-oxa-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

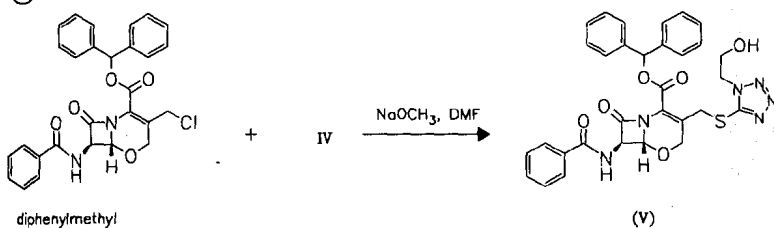
(a) side chain I:



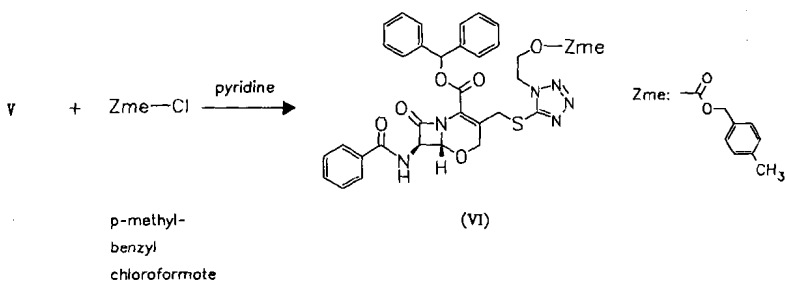
(b) side chain IV:

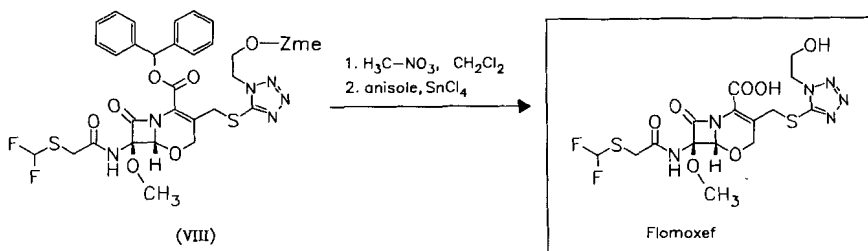
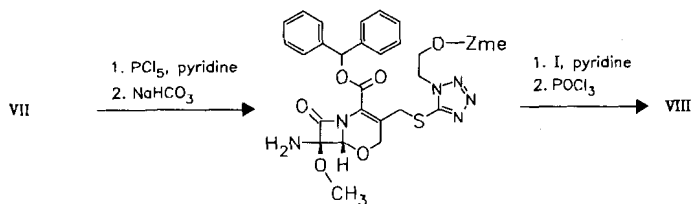
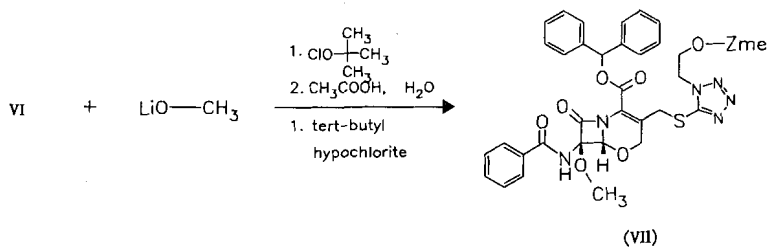


(c) final product:



(cf. latamoxef synthesis)



**Reference(s):**

Tsuji, T. et al.: J. Antibiot. (JANTAJ) 38, 466 (1984).
 US 4 532 233 (Shionogi; 30.7.1985; J-prior. 23.12.1982).
 DOS 3 345 989 (Shionogi; appl. 20.12.1983; J-prior. 23.12.1982).
 EP 128 536 (Shionogi; appl. 7.6.1984; J-prior. 14.6.1983).

purification:

DOS 3 503 303 (Shionogi; appl. 31.1.1985; J-prior. 2.2.1984).

Formulation(s): vial (dry substance for inj.) 500 mg, 1g

Trade Name(s):

J: Flumarin (Shionogi)

Flopropione

ATC: A03A

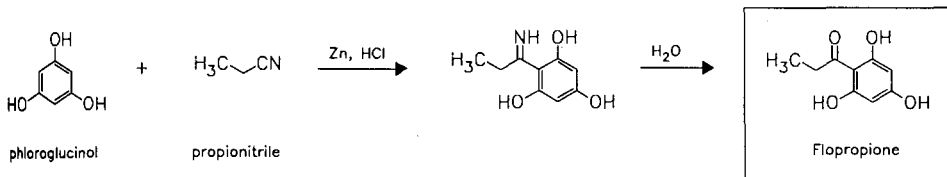
Use: antispasmodic

RN: 2295-58-1 MF: C₉H₁₀O₄ MW: 182.18 EINECS: 218-942-8

LD₅₀: 300 mg/kg (M, i.v.); 2780 mg/kg (M, p.o.);

246 mg/kg (R, i.v.); 2380 mg/kg (R, p.o.)

CN: 1-(2,4,6-trihydroxyphenyl)-1-propanone



Reference(s):

Canter et al.: J. Chem. Soc. (JCSOA9) **1931**, 1245.
 Shinoda, K.: Yakugaku Zasshi (YKKZAJ) **35**, 235 (1927).
 Howells et al.: J. Am. Chem. Soc. (JACSAT) **54**, 2451 (1932).

pharmacology:

Cahen, R.; Boucherie, A.: C. R. Seances Soc. Biol. Ses Fil. (CRSBAW) **157**, 112 (1963).

Formulation(s): cps. 40 mg; gran. 80 mg/g, 160 mg/g

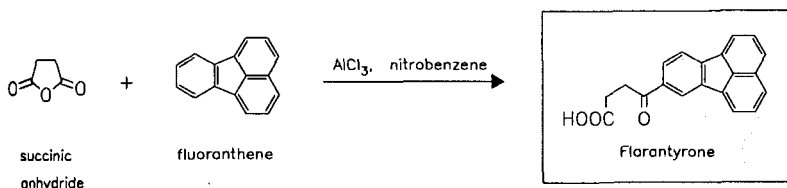
Trade Name(s):

J:	Chlonarin (Kanebo)	Cospanon (Eisai)	generic
	Colenfupan (Nichiiko)	Pasmus (Daiichi)	

Florantyrone

ATC: A03A
 Use: choleric

RN: 519-95-9 MF: C₂₀H₁₄O₃ MW: 302.33 EINECS: 208-279-2
 CN: γ -oxo-8-fluoranthenebutanoic acid



Reference(s):

US 2 560 425 (Miles Labs.; 1951; prior. 1948).

Formulation(s): 0.075 g, 1 g

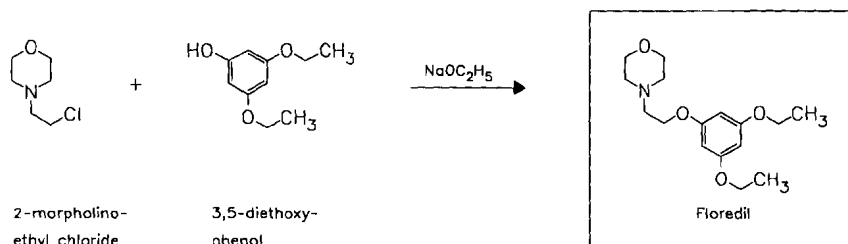
Trade Name(s):

I:	Bilyn (Janus); wfm	Idroepar (Beolet); wfm	USA: Zanchol (Searle); wfm
	Cistoplex (Borromeo); wfm	J: Zanchol (G.D.-Dainippon)	

Floredil

ATC: C01DB
 Use: coronary vasodilator

RN: 53731-36-5 MF: C₁₆H₂₅NO₄ MW: 295.38
 CN: 4-[2-(3,5-diethoxyphenoxy)ethyl]morpholine

*Reference(s):*

DOS 2 020 464 (Orsymonde; appl. 27.4.1970; GB-prior. 29.4.1969).

Formulation(s): cps. 200 mg*Trade Name(s):*

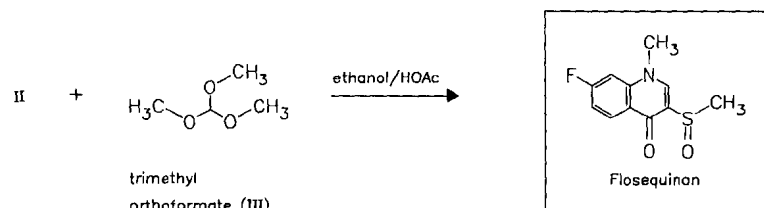
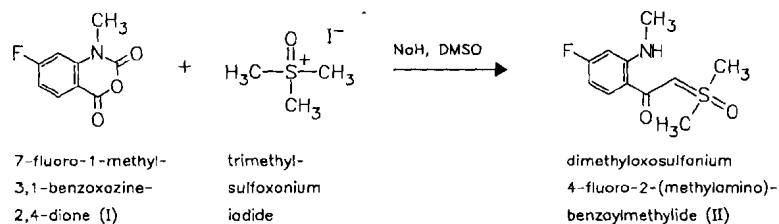
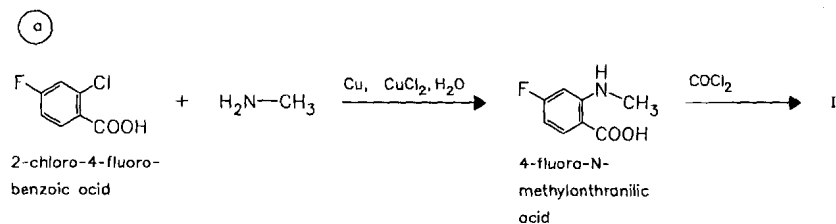
F: Carfonal (Lafon); wfm

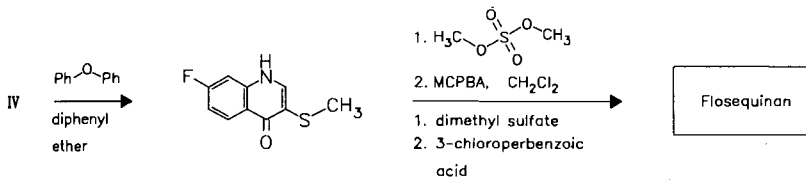
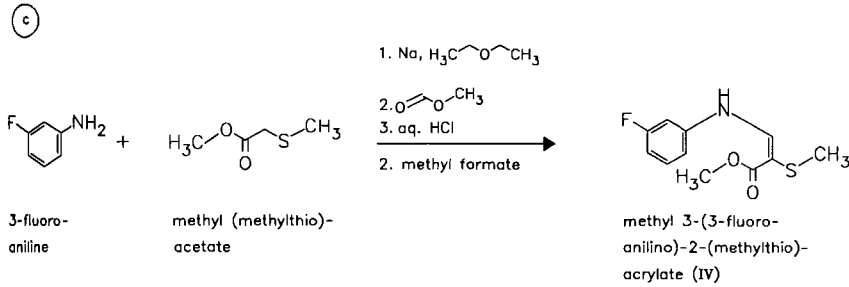
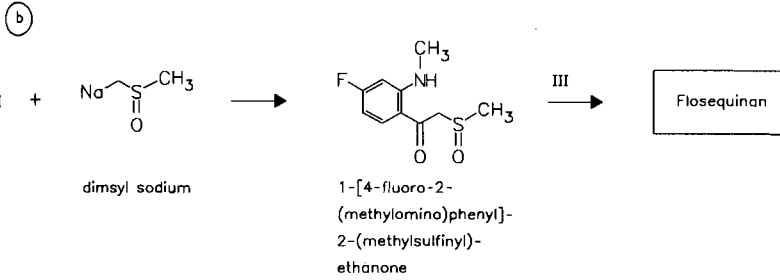
Flosequinan

(BTS 49037; BTS 49465)

ATC: C01DB01

Use: vasodilator, antihypertensive

RN: 76568-02-0 MF: $\text{C}_{11}\text{H}_{10}\text{FNO}_2\text{S}$ MW: 239.27CN: 7-Fluoro-1-methyl-3-(methylsulfinyl)-4(1*H*)-quinolinone

**Reference(s):**

- a DE 3 011 994 (Boots; appl. 27.3.1980; GB-prior. 27.3.1979).
 b,c Birch, A.M. et al.: J. Chem. Soc., Perkin Trans. 1 (JCPRB4) **1994**, 387.
 EP 317 149 (Boots; appl. 7.11.1988; GB-prior. 18.11.1987).

Formulation(s): tabl. 50 mg, 100 mg

Trade Name(s):

GB: Manoplax (Boots)

Fluanisone

ATC: N05AD09

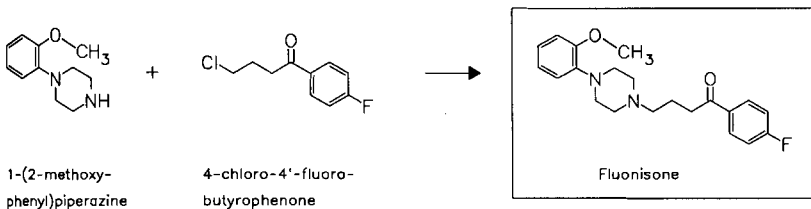
Use: neuroleptic

RN: 1480-19-9 MF: $\text{C}_{21}\text{H}_{25}\text{FN}_2\text{O}_2$ MW: 356.44 EINECS: 216-038-8

LD₅₀: 25 mg/kg (M, i.v.); 550 mg/kg (M, p.o.);

20 mg/kg (R, i.v.)

CN: 1-(4-fluorophenyl)-4-[4-(2-methoxyphenyl)-1-piperaziny]-1-butanone



Reference(s):

DAS 1 185 615 (Janssen; appl. 25.3.1960; USA-prior. 26.3.1959).

US 2 997 472 (Janssen; 22.8.1961; prior. 26.3.1959).

Formulation(s): sol. 6.25 mg/ml

Trade Name(s):

D: Sedalane (Delalande);
wfmF: Sédalane (Delalande);
wfm**Fluazacort**

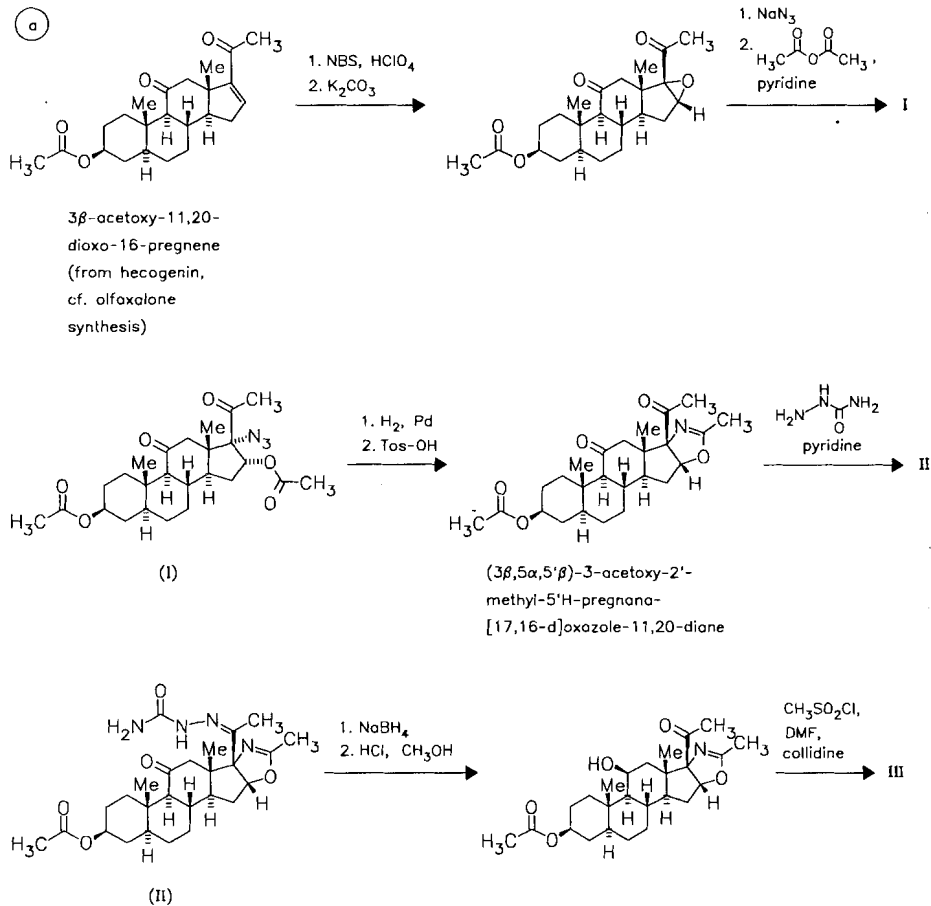
(Azacortid)

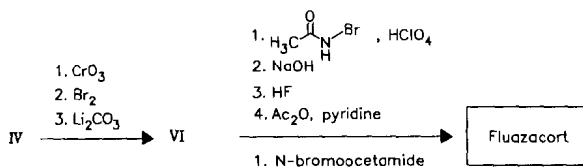
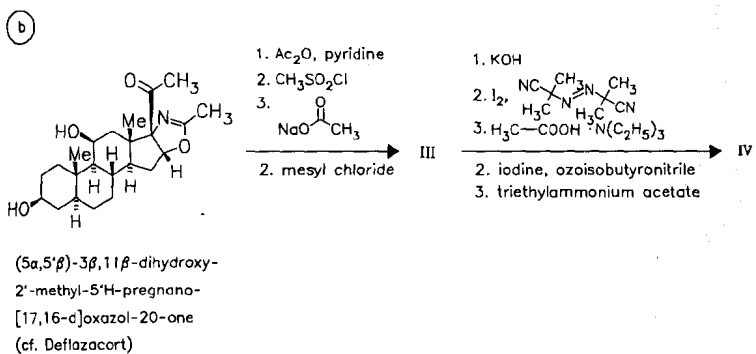
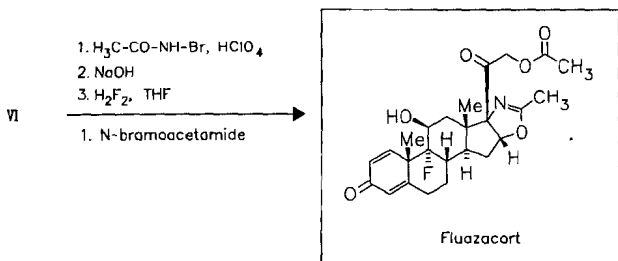
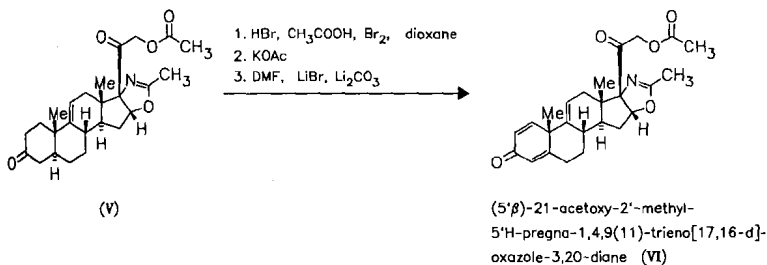
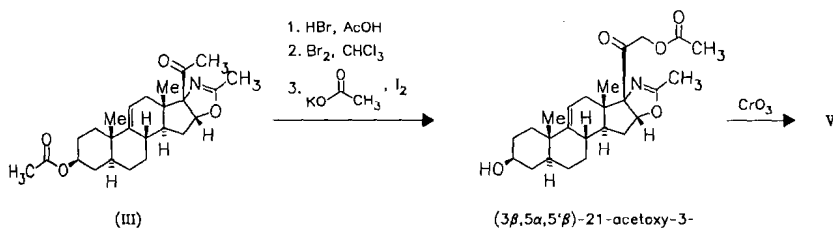
ATC: D07AB

Use: topical glucocorticoid, anti-inflammatory

RN: 19888-56-3 MF: C₂₅H₃₀FNO₆ MW: 459.51 EINECS: 243-400-2LD₅₀: 54 mg/kg (M, s.c.);

580 mg/kg (R, s.c.)

CN: (11 β ,16 β)-21-(acetyloxy)-9-fluoro-11-hydroxy-2'-methyl-5'H-pregna-1,4-dieno[17,16-d]oxazole-3,20-dione



Reference(s):

- a DOS 1 618 613 (Lepetit; appl. 7.1.1967; GB-prior. 11.1.1966, 11.7.1966, 29.9.1966).
 US 3 461 119 (Lepetit; 12.8.1969; appl. 1967; GB-prior. 1.11.1966).

synthesis of starting compound:

DE 1 568 971 (Gruppo Lepetit; appl. 23.12.1966; GB-prior. 11.1.1966, 11.7.1966, 29.9.1966).

US 3 624 077 (Gruppo Lepetit; 30.11.1971; GB-prior. 11.1.1966).

Nathansohn, G. et al.: J. Med. Chem. (JMCMAR) **10**, 799 (1967).Nathansohn, G. et al.: Gazz. Chim. Ital. (GCITA9) **95**, 1338 (1965).*review:*Nathanson, G. et al.: Steroids (STEDAM) **13**, 365 (1969).*alternative synthesis of VI:*

DOS 1 568 971 (Lepetit; appl. 23.12.1966; GB-prior. 11.1.1966, 11.7.1966, 29.9.1966).

DOS 1 568 972 (Lepetit; appl. 23.12.1966; GB-prior. 11.1.1966, 11.7.1966, 29.9.1966).

b Nathansohn, G. et al.: J. Med. Chem. (JMCMAR) **10**, 799 (1967).Nathansohn, G. et al.: Steroids (STEDAM) **13**, 383 (1969).*Formulation(s):* cream 0.025 %*Trade Name(s):*

I: Azacortid crema (Lepetit)

Flubendazole

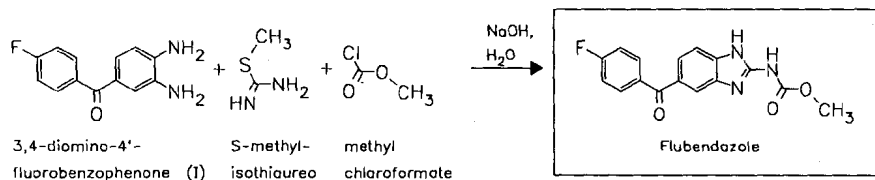
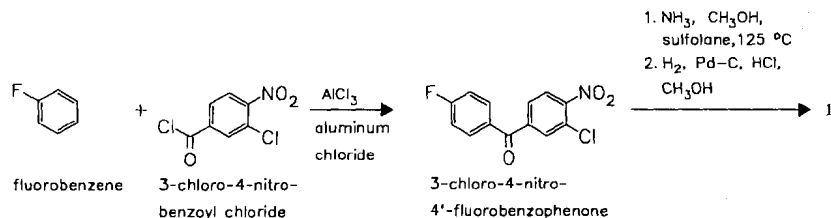
ATC: P02CA05

Use: anthelmintic

RN: 31430-15-6 MF: C₁₆H₁₂FN₃O₃ MW: 313.29 EINECS: 250-624-4LD₅₀: >2560 mg/kg (M, p.o.);

2560 mg/kg (R, p.o.)

CN: [5-(4-fluorobenzoyl)-1H-benzimidazol-2-yl]carbamic acid methyl ester

*Reference(s):*

DOS 2 029 637 (Janssen; appl. 16.6.1970; USA-prior. 20.6.1969).

US 3 657 267 (Janssen; 18.4.1972; appl. 20.6.1969).

Raymaekers, A.H.M. et al.: Arzneimittel.-Forsch. (ARZNAD) **28**, 586 (1978).*Formulation(s):* susp. 100 mg/ml; tabl. 100 mg*Trade Name(s):*

D: Flubenol (Janssen); wfm

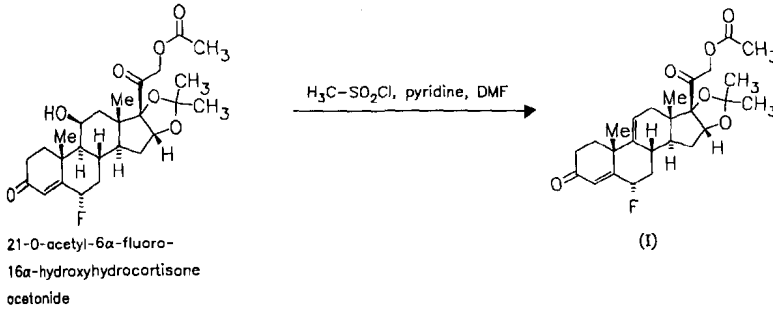
F: Fluvermal (Janssen-Cilag)

Fluclorolone acetoneide

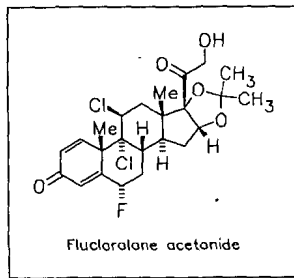
(Flucloronide)

ATC: H02AB

Use: topical glucocorticoid

RN: 3693-39-8 MF: C₂₄H₂₉Cl₂FO₅ MW: 487.40 EINECS: 223-010-9CN: (6 α ,11 β ,16 α)-9,11-dichloro-6-fluoro-21-hydroxy-16,17-[(1-methylethylidene)bis(oxy)]pregna-1,4-diene-3,20-dione

- I
1. Cl₂, CHCl₃
 2. SeO₂, (CH₃)₃COH, pyridine
 3. KOH
1. chlorine
2. selenium dioxide
3. potassium hydroxide

**Reference(s):**

US 3 201 391 (Syntex; 17.8.1965; MEX-prior. 18.2.1959, 20.10.1959).

starting material:Mills, J.S. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 1264 (1959).**Formulation(s):** cream 0.025 %, 0.25 %**Trade Name(s):**F: Topilar (Syntex-Daltan); GB: Topilar (Syntex); wfm
wfm**Flucloxacillin**

(Floxacillin)

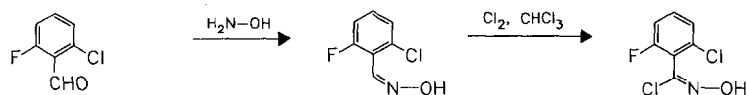
ATC: J01CA

Use: antibiotic

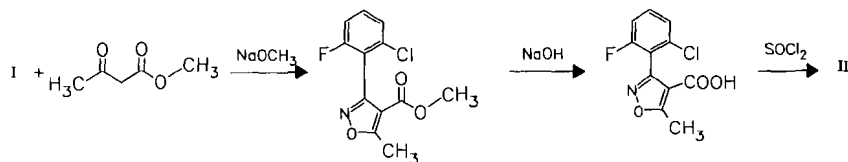
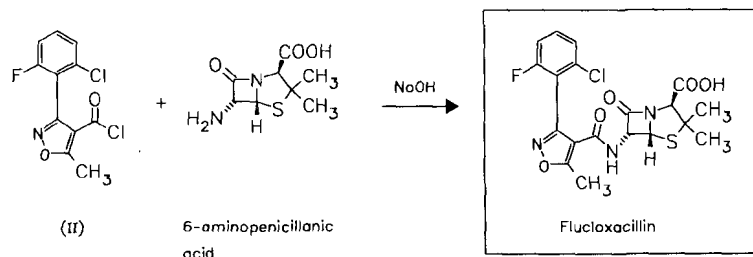
RN: 5250-39-5 MF: C₁₉H₁₇ClFN₃O₅S MW: 453.88 EINECS: 226-051-0CN: [2S-(2 α ,5 α ,6 β)]-6-[[[3-(2-chloro-6-fluorophenyl)-5-methyl-4-isoxazolyl]carbonyl]amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid**monosodium salt**RN: 1847-24-1 MF: C₁₉H₁₆ClFN₃NaO₅S MW: 475.86 EINECS: 217-428-0LD₅₀: 1360 mg/kg (M, i.v.); 7600 mg/kg (M, p.o.);

680 mg/kg (R, i.v.); 11 g/kg (R, p.o.);

670 mg/kg (dog, i.v.); >10 g/kg (dog, p.o.)

2-chloro-6-fluoro-
benzaldehyde

(I)

methyl
acetoacetate3-(2-chloro-6-
fluorophenyl)-
5-methylisoxazol-
4-carboxylic acid

(II)

6-aminopenicillanic
acid

Flucloxacillin

Reference(s):

GB 987 299 (Beecham; appl. 17.10.1962; addition to GB 905 778 from 14.3.1961).

US 3 239 507 (Beecham; 8.3.1966; GB-prior. 17.10.1962).

Formulation(s): cps. 272 mg, 544 mg; vial 272 mg, 544 mg, 1088 mg, 2176 mg (as sodium salt hydrate)*Trade Name(s):*D: Flanomox (Wolff)-comb.
Fluxapril (Lederle)-comb.
Staphylex (SmithKline
Beecham)GB: Floxapen (SmithKline
Beecham)
Magnapen (SmithKline
Beecham)-comb.
Stafoxil (Yamanouchi)I: Infectrin (Pierrele)-comb.
with ampicillin
J: Culpem (Fujisawa)
Floxapen (Beecham)**Fluconazole**

(UK-49858)

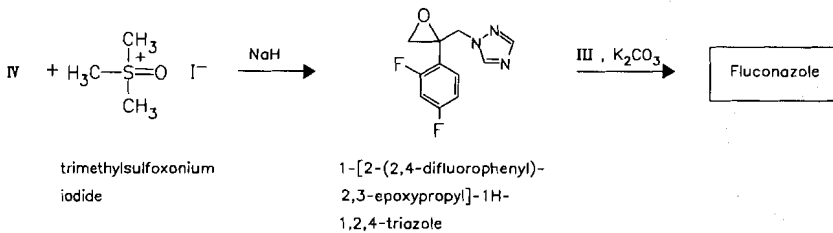
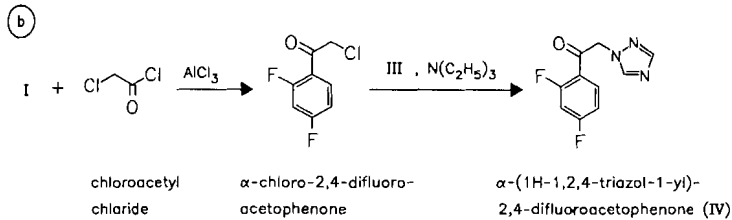
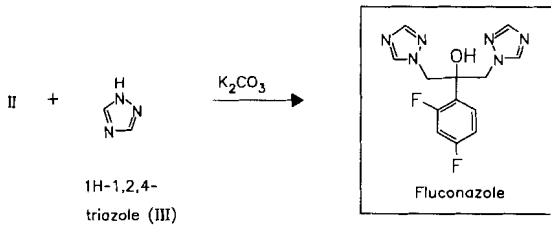
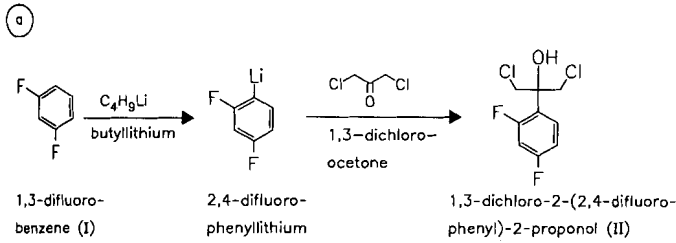
ATC: J02AC01; J02AX

Use: antifungal (treatment of vaginal,
oropharyngeal and atrophic oral
candidiasis)RN: 86386-73-4 MF: C₁₃H₁₂F₂N₆O MW: 306.28LD₅₀: >200 mg/kg (M, i.v.); 1408 mg/kg (M, p.o.);

>200 mg/kg (R, i.v.); 1271 mg/kg (R, p.o.);

>100 mg/kg (dog, i.v.); >300 mg/kg (dog, p.o.)

CN: α-(2,4-difluorophenyl)-α-(1H-1,2,4-triazol-1-ylmethyl)-1H-1,2,4-triazole-1-ethanol

**Reference(s):**

GB 2 099 818 (Pfizer; appl. 22.4.1982; prior. 6.6.1981, 4.3.1982).
EP 96 569 (Pfizer; appl. 6.6.1983; GB-prior. 9.6.1982, 30.7.1982).

tablet formulation:

EP 178 682 (Schering Corp.; appl. 23.4.1986; USA-prior. 19.10.1984).

alternative synthesis:

ES 549 684 (Lazlo Int.; appl. 6.12.1985).
ES 5 490 202 (Inke S. A.; appl. 19.11.1985).
US 5 710 280 (Dev. Center Biotech. Taiwan; 20.1.1998; appl. 9.7.1996).
WO 9 703 971 (Aptex; appl. 17.7.1996; NZ-prior. 17.7.1995).

Formulation(s): cps. 50 mg, 100 mg, 150 mg, 200 mg; susp. 50 mg/5 ml; syrup 50 mg/10ml; tabl. 50 mg, 100 mg, 150 mg, 200 mg; vial 100 mg, 200 mg, 400 mg

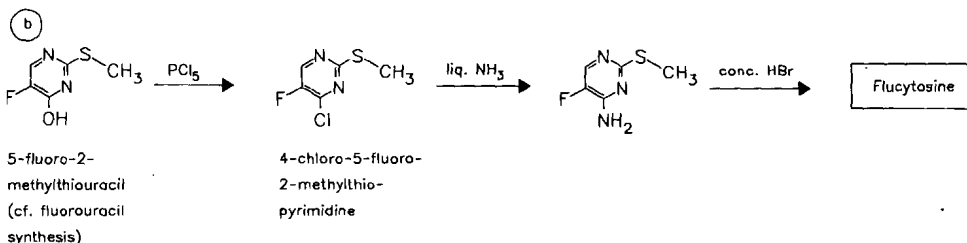
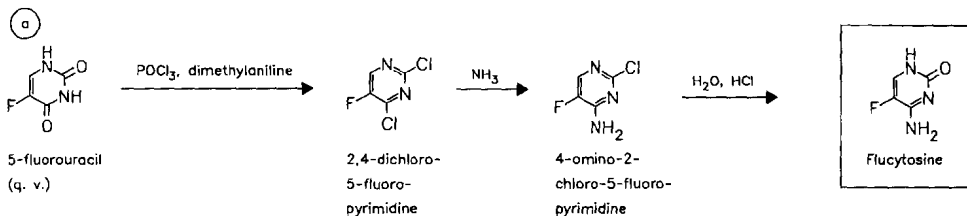
Trade Name(s):

D:	Diflucan (Pfizer)	I:	Biozolene (Bioindustria; 1989)	J:	Elazor (Sigma-Tau)
F:	Triflucan (Pfizer; 1989)			J:	Diflucan (Pfizer Taito)
GB:	Diflucan (Pfizer; 1988)		Diflucan (Roerig)	USA:	Diflucan (Pfizer; 1990)

Flucytosine

ATC: D01AE21; J02AX01

Use: fungicide

RN: 2022-85-7 MF: C₄H₄FN₃O MW: 129.09 EINECS: 217-968-7LD₅₀: 500 mg/kg (M, i.v.); >15 g/kg (M, p.o.);
>600 mg/kg (R, i.v.); >15 g/kg (R, p.o.)CN: 4-amino-5-fluoropyrimidin-2(1*H*)-one*Reference(s):*

- a Duschinsky, R. et al.: J. Am. Chem. Soc. (JACSAT) **79**, 4559 (1957).
Undheim, K.; Gacek, M.: Acta Chem. Scand. (ACHSE7) **23**, (1), 294 (1969).
US 3 040 026 (Roche; 19.6.1962; appl. 3.6.1959).
US 3 185 690 (Roche; 25.5.1965; prior. 3.6.1959, 14.9.1961).
- b US 2 945 038 (Roche; 12.7.1960; prior. 26.9.1956).
US 2 802 005 (Roche; 6.8.1957; prior. 26.9.1956).

medical use:

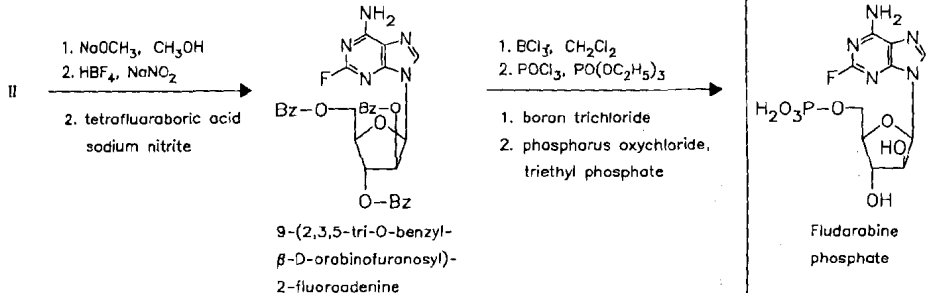
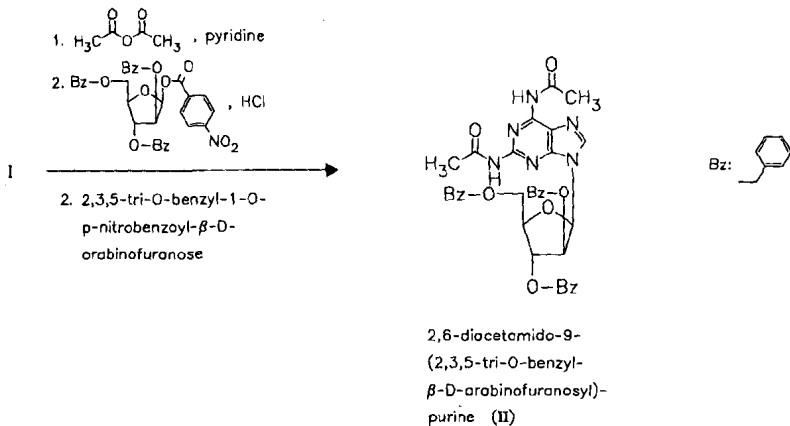
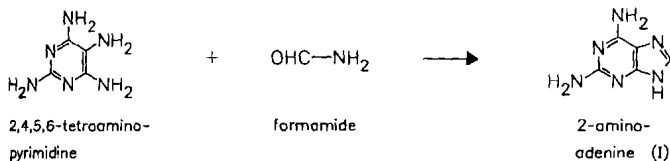
US 3 368 938 (Roche; 13.2.1968; prior. 2.3.1962).

Formulation(s): cps. 250 mg, 500 mg; tabl. 500 mg; vial 2.5 g/250 ml*Trade Name(s):*D: Ancotil Roche (ICN)
F: Ancotil (Roche)GB: Alcobon (Roche); wfm
I: Ancotil (Roche)J: Ancotil (Roche)
USA: Ancobon (Roche)**Fludarabine phosphate**

(2-fluoro-ara-AMP)

ATC: L01BB05

Use: antineoplastic, antimetabolite,
treatment of chronic lymphocytic
leucemiaRN: 75607-67-9 MF: C₁₀H₁₃FN₅O₇P MW: 365.21LD₅₀: 375 mg/kg (M, i.p.); 1236 mg/kg (M, i.v.)CN: 2-fluoro-9-(5-*O*-phosphono-β-D-arabinofuranosyl)-9*H*-purin-6-amine**fludarabine**RN: 21679-14-1 MF: C₁₀H₁₂FN₅O₄ MW: 285.24 EINECS: 244-525-5



Reference(s):

US 4 357 324 (Department of Health of USA; 2.11.1982; appl. 24.2.1981).

synthesis of 9- β -D-arabinofuranosyl-2-fluoroadenine:

US 4 210 745 (Department of Health of USA; 1.7.1980; appl. 20.11.1978; prior. 10.3.1978, 4.1.1978).

Montgomery, J.A. et al.: J. Heterocycl. Chem. (JHTCAD) **16**, 157 (1979).

Montgomery, J.A.; Hewson, K.: J. Med. Chem. (JMCMAR) **12**, 498 (1961).

synthesis of 2-aminoadenine:

Robins, R.K. et al.: J. Am. Chem. Soc. (JACSAT) **75**, 263 (1953).

Formulation(s): vial (lyo.) 5 mg, 50 mg

Trade Name(s):

D: Fludara (meda; Schering)

GB: Fludara (Schering)

F: Fludara (Schering)

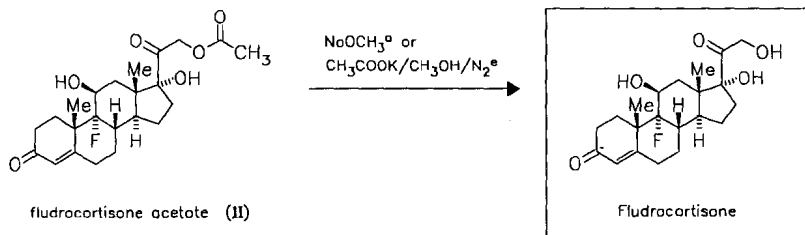
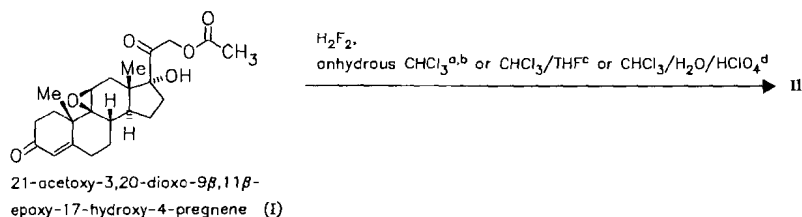
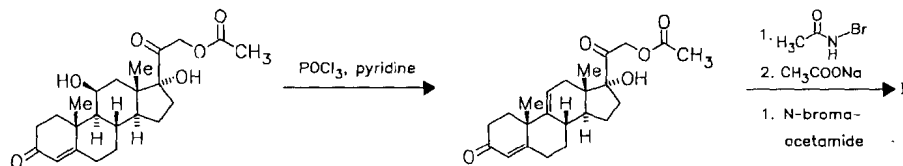
USA: Fludara (Berlex; 1991)

FludrocortisoneATC: H02AA02; S01CA06; S02CA07;
S03CA05

Use: glucocorticoid

RN: 127-31-1 MF: C₂₁H₂₉FO₅ MW: 380.46 EINECS: 204-833-2LD₅₀: 170 mg/kg (M, i.p.)

CN: (11β)-9-fluoro-11,17,21-trihydroxypregn-4-ene-3,20-dione

acetateRN: 514-36-3 MF: C₂₃H₃₁FO₆ MW: 422.49 EINECS: 208-180-4LD₅₀: >1 g/kg (R, p.o.)**Reference(s):**

- a Fried, J.; Sabo, E.F.: J. Am. Chem. Soc. (JACSAT) **76**, 1455 (1954).
- b GB 792 224 (Olin Mathieson; appl. 1954; USA-prior. 1954).
- c DE 1 035 133 (Merck & Co.; appl. 1956; USA-prior. 1955).
Hirschmann, R.F. et al.: J. Am. Chem. Soc. (JACSAT) **78**, 4956 (1956).
- d US 2 894 007 (Merck & Co.; 7.7.1959).
- e DE 1 028 572 (Schering AG; appl. 21.1.1957).

synthesis of hydrocortisone acetate:

- Fried, J.; Sabo, E.F.: J. Am. Chem. Soc. (JACSAT) **75**, 2273 (1953).
US 2 771 475 (Upjohn; 1956, appl. 1953).
GB 792 224 (Olin Mathieson; appl. 1954; USA-prior. 1954).

alternative syntheses:

- US 2 771 475 (Upjohn; 1956; appl. 1953).
US 2 799 688 (Upjohn; 1957; appl. 1954).
US 2 852 511 (Olin Mathieson; 1958; prior. 1953).
US 4 041 055 (Upjohn; 9.8.1977; appl. 17.11.1975).

Formulation(s): ear drops 8 mg/8 ml in comb. with polymyxin B; ointment 0.001 %; tabl. 0.1 mg (as acetate)

Trade Name(s):

D: Astonin H (Merck)	F: Panotile (Zambon)-comb.	USA: Florinef (Apothecon)
Fludrocortison (Bristol-Myers Squibb)	GB: Florinef (Bristol-Myers Squibb; as acetate)	
Panotile (Zambon)-comb.	J: Florinef (Bristol Squibb)	

Fludroxcortide

(Flurandrenolide)

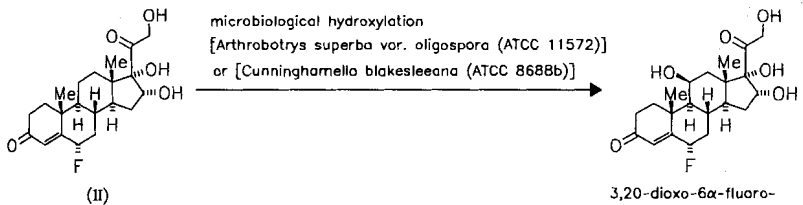
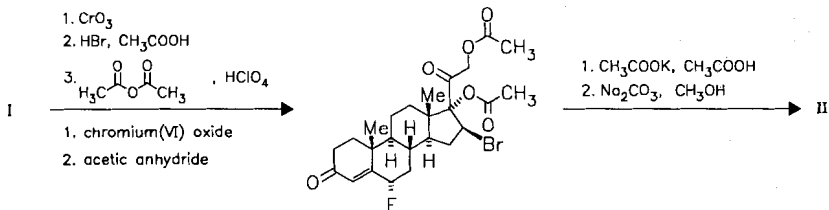
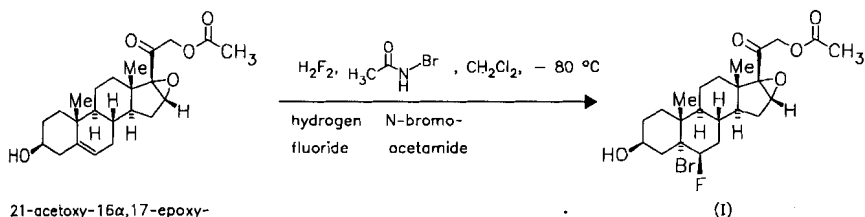
ATC: D07AC07

Use: glucocorticoid, anti-inflammatory

RN: 1524-88-5 MF: C₂₄H₃₃FO₆ MW: 436.52 EINECS: 216-196-8

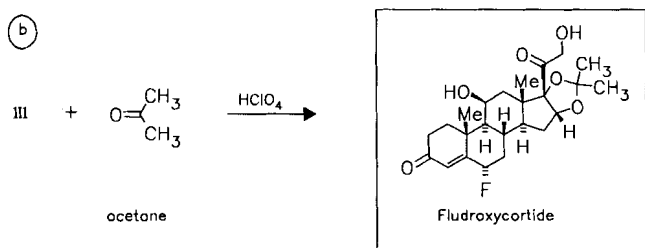
CN: (6 α ,11 β ,16 α)-6-fluoro-11,21-dihydroxy-16,17-[(1-methylethylidene)bis(oxy)]pregn-4-ene-3,20-dione

(a)



3,20-dioxo-6 α -fluoro-11 β ,16 α ,17,21-tetrahydroxy-4-pregnene (III)

(b)



Reference(s):

- a US 3 014 938 (Syntex; 26.12.1961; appl. 23.8.1960; MEX-prior. 7.9.1959).
 US 3 119 749 (Syntex; 28.1.1964; appl. 17.11.1961; MEX prior. 7.6.1961).
 US 3 124 571 (Syntex; 10.3.1964; MEX-prior. 26.1.1960).

starting material:

- Julian, P.L.: J. Am. Chem. Soc. (JACSAT) **72**, 5145 (1950).
 US 2 678 932 (Sterling Drug; 1954; prior. 1951).
 b US 3 126 375 (Syntex; 24.3.1964; appl. 11.6.1959; MEX-prior. 13.6.1958).
 DE 1 131 213 (Syntex; appl. 6.6.1959; MEX-prior. 13.6.1958).

alternative syntheses:

- Mills, J.S. et al.: J. Am. Chem. Soc. (JACSAT) **82**, 3399 (1960); **81**, 1264 (1959).
 US 3 203 869 (Syntex; 31.8.1965; MEX-prior. 11.10.1962).

Formulation(s): lotion 0.05 % (15 ml, 60 ml); tape 4 μ g/cm²

Trade Name(s):

D:	Sermaka (Lilly)	I:	Drenison (Lilly); wfm	J:	Drenison Q (Lilly-Dainippon)
GB:	Drenison (Lilly); wfm		Drenison Neomicina (Lilly)-comb.; wfm	USA:	Cordran (Oclassen)
	Haclan (Dista); wfm				

Flufenamic acid

(Acide flufenamique)

ATC: M01AG03

Use: anti-inflammatory, antirheumatic

RN: 530-78-9 MF: C₁₄H₁₀F₃NO₂ MW: 281.23 EINECS: 208-494-1

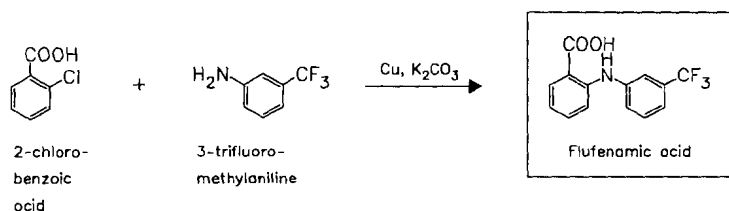
LD₅₀: 158 mg/kg (M, i.v.); 490 mg/kg (M, p.o.);
 98 mg/kg (R, i.v.); 249 mg/kg (R, p.o.)

CN: 2-[[3-(trifluoromethyl)phenyl]amino]benzoic acid

aluminum salt

RN: 16449-54-0 MF: C₄₂H₂₇AlF₉N₃O₆ MW: 867.66 EINECS: 240-498-9

LD₅₀: 1460 mg/kg (M, p.o.);
 550 mg/kg (R, p.o.)

*Reference(s):*

- FR 1 341 M (Parke Davis; appl. 11.8.1961).
 Moffett, R.B.; Aspergen, B.D.: J. Am. Chem. Soc. (JACSAT) **82**, 1605 (1960).

salts with amines:

DOS 2 758 787 (T. Eckert; appl. 29.12.1977).

Formulation(s): ointment 3 g/100 g (3 %); sol. 25 mg/g

Trade Name(s):

D:	Algesalona (Solvay)-comb.	Rheuma Lindofluid (Lindopharm)	Meralen (Merrell); wfm
	Dignodolin (Sankyo)	F:	Mobilisin (Luitpold)-comb.
	Mobilisin (Sankyo)-comb.	GB:	Achless (Tatsumi)
			Arlef (Parke Davis)-wfm

Felunamin (Hokuriku)
 Flufacid (Wakamoto)
 Lancelat (Maruko)

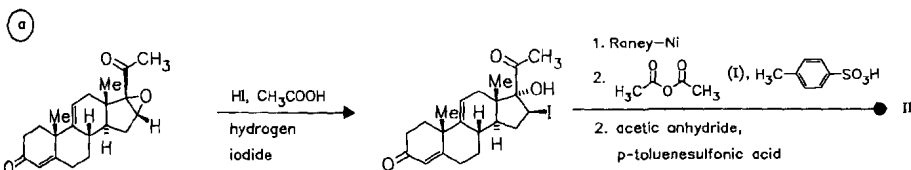
Nichisedan (Nissin)
 Paraflu (Dainippon)
 Reumajust A (Horita)

Ristogen (Kowa Yakuhin)
 Romazal (Tobishi)
 Saal-F (Towa)

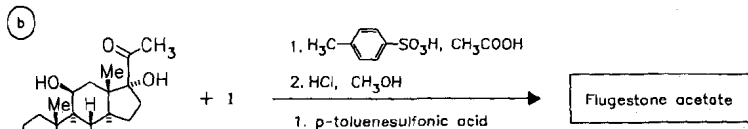
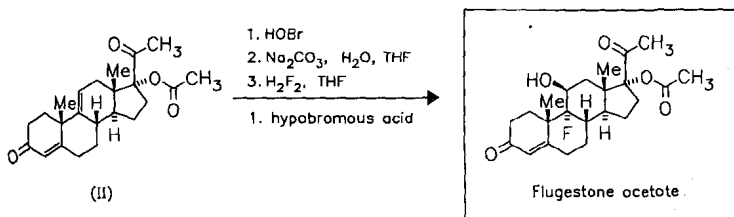
Flugestone acetate
 (Flurogestone acetate)

ATC: G03
 Use: progesterone

RN: 2529-45-5 MF: C₂₃H₃₁FO₅ MW: 406.49 EINECS: 219-776-9
 CN: (11β)-17-(acetyloxy)-9-fluoro-11-hydroxypregn-4-ene-3,20-dione



3,20-dioxo-16α,17-epoxy-4,9(11)-pregnadiene



11β,17-dihydroxy-3,20-dioxo-9α-fluoro-4-pregnene

Reference(s):

- a Bergstrom, C.G. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 4432 (1959).
- b US 2 892 851 (Searle; 30.6.1959; prior. 19.5.1958).
 US 2 963 498 (Searle; 6.12.1960; prior. 11.5.1959).

Trade Name(s):

USA: Cronolone (Searle); wfm

Flumazenil

(Ro-15-1788)

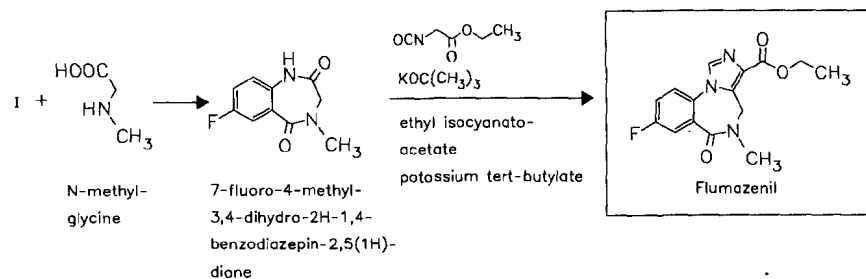
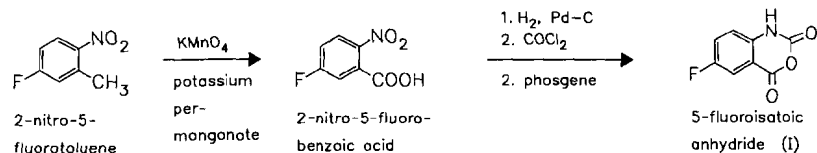
ATC: V03AB25

Use: benzodiazepine antagonist, treatment of benzodiazepine intoxication

RN: 78755-81-4 MF: C₁₅H₁₄FN₃O₃ MW: 303.29LD₅₀: 4000 mg/kg (M, i.p.); 143 mg/kg (M, i.v.); 1300 mg/kg (M, p.o.);

85 mg/kg (R, i.v.); 4200 mg/kg (R, p.o.)

CN: 8-fluoro-5,6-dihydro-5-methyl-6-oxo-4H-imidazo[1,5-a][1,4]benzodiazepine-3-carboxylic acid ethyl ester

**Reference(s):**

EP 27 214 (Hoffmann-La Roche; appl. 10.2.1980; CH-prior. 4.10.1979, 30.11.1979, 25.7.1980).

US 4 316 839 (Hoffmann-La Roche; 23.2.1982; appl. 3.10.1980; CH-prior. 4.10.1979, 30.11.1979, 25.7.1980).

US 4 346 030 (Hoffmann-La Roche; 24.8.1982; appl. 16.11.1981; CH-prior. 4.10.1979, 30.11.1979, 25.7.1980).

Hunkeler, W. et al.: Nature (London) (NATUAS) **290**, 514 (1981).**Formulation(s):** amp. 0.5 mg/5 ml, 1 mg/10 ml**Trade Name(s):**

D: Anexate (Roche; 1989)

GB: Anexate (Roche)

J: Anexate (Yamanouchi)

F: Anexate (Roche)

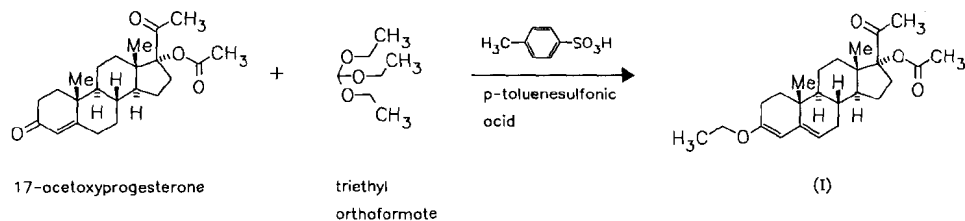
I: Anexate (Roche; 1989)

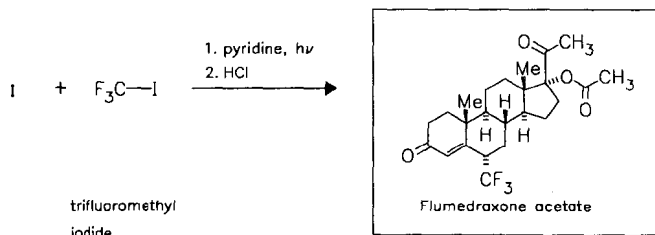
USA: Romazicon (Roche)

Flumedroxone acetate

ATC: N02CB01

Use: antimigraine agent, progestogen

RN: 987-18-8 MF: C₂₄H₃₁F₃O₄ MW: 440.50 EINECS: 213-577-0CN: (6 α)-17-(acetyloxy)-6-(trifluoromethyl)pregn-4-ene-3,20-dione



Reference(s):

GB 905 694 (Lovens Kemiske Fa., valid from 14.3.1961; prior. 18.3.1960, 8.6.1960).
 Godfredsen, W.O.; Vangedal, S.: Acta Chem. Scand. (ACHSE7) 15, 1786 (1961).

Formulation(s): drg. 1 mg in comb.

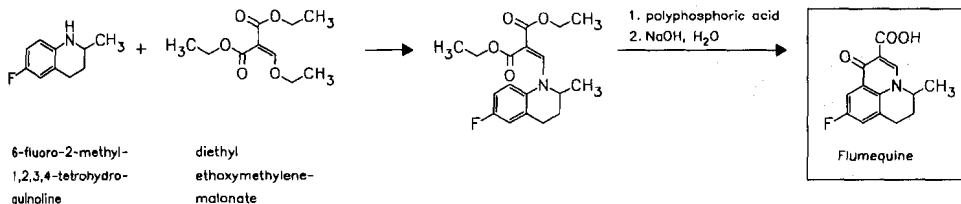
Trade Name(s):

D: Praemenstron (Nordmark)- comb.; wfm
 F: Precyclan (Leo)-comb.

Flumequine

ATC: G04AB06
 Use: chemotherapeutic, antibacterial

RN: 42835-25-6 MF: C₁₄H₁₂FNO₃ MW: 261.25 EINECS: 255-962-6
 CN: 9-fluoro-6,7-dihydro-5-methyl-1-oxo-1*H*,5*H*-benzo[*ij*]quinolizine-2-carboxylic acid



Reference(s):

DOS 2 264 163 (Riker; appl. 29.12.1972; USA-prior. 30.12.1971).
 US 3 896 131 (Riker; 22.7.1975; prior. 2.11.1972, 30.12.1971).

Formulation(s): tabl. 400 mg

Trade Name(s):

F: Apurone (3M Santé)
 I: Flumural (SPA)

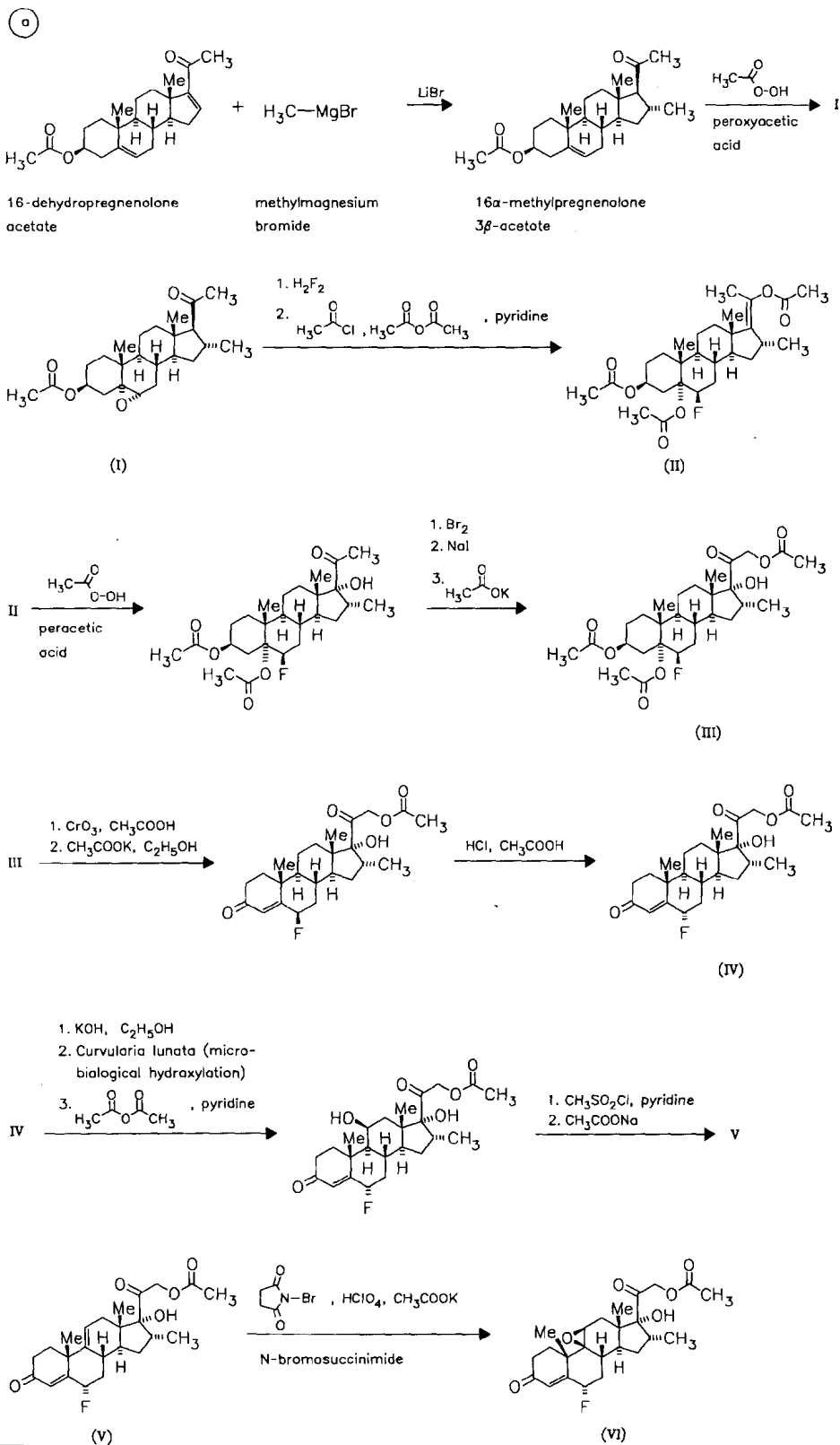
Flumetasone
 (Flumethasone)

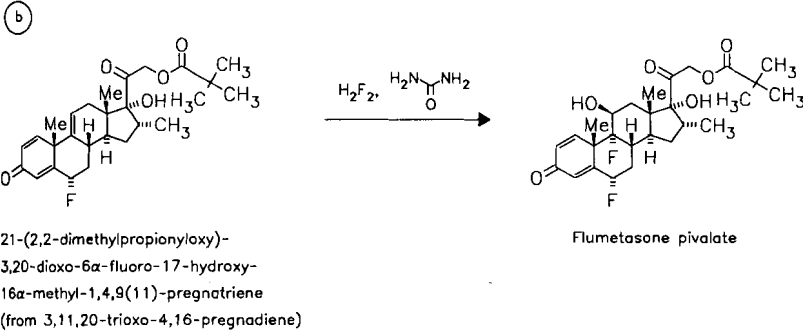
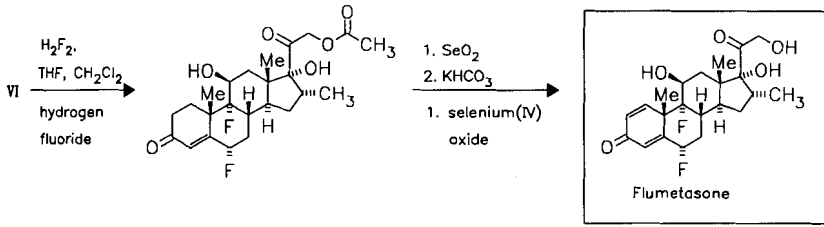
ATC: D07AB03; D07BB01; D07CB05;
 D07XB01; S02CA02
 Use: glucocorticoid, anti-inflammatory

RN: 2135-17-3 MF: C₂₂H₂₈F₂O₅ MW: 410.46 EINECS: 218-370-9
 CN: (6 α ,11 β ,16 α)-6,9-difluoro-11,17,21-trihydroxy-16-methylpregna-1,4-diene-3,20-dione

pivalate

RN: 2002-29-1 MF: C₂₇H₃₆F₂O₆ MW: 494.58 EINECS: 217-901-1
 LD₅₀: >5 g/kg (M, p.o.);
 >2 g/kg (R, p.o.)





Reference(s):

- a US 2 671 752 (Syntex; 1954; appl. 1951).
Djerassi, C. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 3156 (1959); **82**, 2318 (1961).
- b FR 1 374 591 (Ciba; appl. 8.10.1963; CH-prior. 12.10.1962).

synthesis of 21-(2,2-dimethylpropionyloxy)-3,20-dioxo-6α-fluoro-17-hydroxy-16α-methyl-1,4,9(11)-pregnatriene:

US 3 557 158 (Upjohn; 19.1.1971; prior. 18.3.1959).

alternative syntheses:

US 3 557 158 (Upjohn; 19.1.1971; appl. 22.1.1962; prior. 18.3.1959).

Schneider, P. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 3167 (1959).

GB 902 292 (Upjohn; appl. 27.7.1959; USA-prior. 14.8.1958).

US 4 041 055 (Upjohn; 9.8.1977; appl. 17.11.1975).

Formulation(s): sol. 0.02 g/100 g (0.02 %); cream 0.02 g/100 g (0.02 %); lotion 0.02 g/100 g (0.02 %); ointment 0.02 g/100 g (0.02 %)

Trade Name(s):

D:	Cerson (LAW) Locacorten (Novartis Pharma)	Psocortène (Ciba-Geigy)- comb.; wfm	Neolog (Zyma)-comb. several combination preparations
F:	Locacortène (Ciba-Geigy)- comb.; wfm Locasalène (Ciba-Geigy)- comb.; wfm	GB: Locorten Vioform (Novartis)-comb. I: Locorten (Zyma) Locorten (Zyma)-comb. Losalen (Zyma)	J: Locorten (Ciba-Geigy) Testohgen (Teisan) USA: Locorten (Ciba); wfm

Flunarizine

ATC: N07CA03

Use: cerebral and peripheral vasodilator,
antivertigo

RN: 52468-60-7 MF: $\text{C}_{26}\text{H}_{26}\text{F}_2\text{N}_2$ MW: 404.50 EINECS: 257-937-5

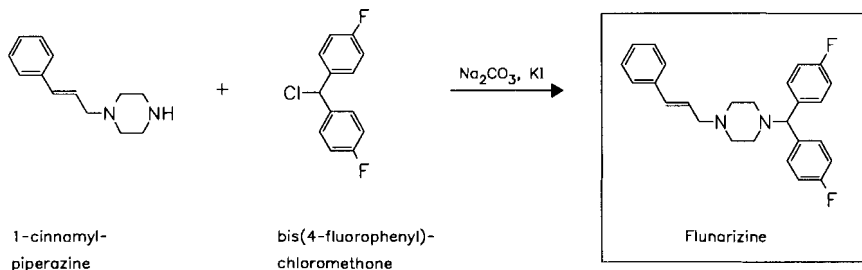
LD₅₀: 960 mg/kg (M, p.o.)

CN: (E)-1-[bis(4-fluorophenyl)methyl]-4-(3-phenyl-2-propenyl)piperazine

dihydrochlorideRN: 30484-77-6 MF: C₂₆H₂₆F₂N₂ · 2HCl MW: 477.43 EINECS: 250-216-6LD₅₀: 27 mg/kg (M, i.v.); 285 mg/kg (M, p.o.);

35 mg/kg (R, i.v.); 503 mg/kg (R, p.o.);

>2 g/kg (dog, p.o.)

**Reference(s):**

DAS 1 929 330 (Janssen; appl. 10.6.1969; USA-prior. 2.7.1968).

US 3 773 939 (Janssen; 20.11.1973; prior. 2.7.1968, 24.11.1971).

inhibiting effect to complementary activity:

DOS 2 254 893 (Janssen; appl. 9.11.1972; GB-prior. 9.11.1971; USA-prior. 17.10.1972).

Formulation(s): cps. 5.9 mg, 11.8 mg (as dihydrochloride)**Trade Name(s):**

D:	Flunarizin (ct-Arzneimittel)	I:	Flugeral (Italfarmaco; 1981)	Issium (Lifepharma)
	Flunarizin-ratiopharm (ratiopharm)		Flugeral mite (Italfarmaco)	Sibelium (Janssen)
	Sibelium (Janssen-Cilag; 1977)		Flunagen (Gentili)	Vasculene (Leben's)
F:	Sibélium (Janssen-Cilag; 1986)		Fluxarten (SmithKline Beecham)	J: Flunarl (Kyowa Hakko; 1984)
			Gradient (Polifarma)	USA: Sibelium (Janssen); wfm

Flunisolide

ATC: R01AD04; R03BA03

Use: glucocorticoid, antiasthmatic

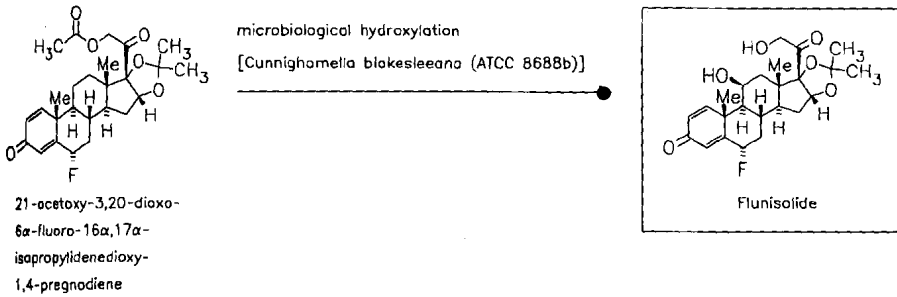
RN: 3385-03-3 MF: C₂₄H₃₁FO₆ MW: 434.50 EINECS: 222-193-2LD₅₀: >76 µg/kg (M, i.v.); >500 µg/kg (M, p.o.);

>51 mg/kg (R, i.v.); >500 µg/kg (R, p.o.)

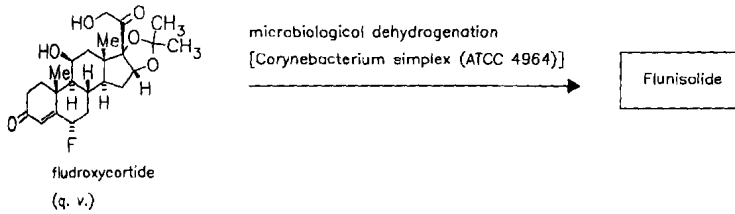
CN: (6α,11β,16α)-6-fluoro-11,21-dihydroxy-16,17-[(1-methylethylidene)bis(oxy)]pregna-1,4-diene-3,20-dione

hydrate (2:1)RN: 77326-96-6 MF: C₂₄H₃₁FO₆ · 1/2H₂O MW: 887.02

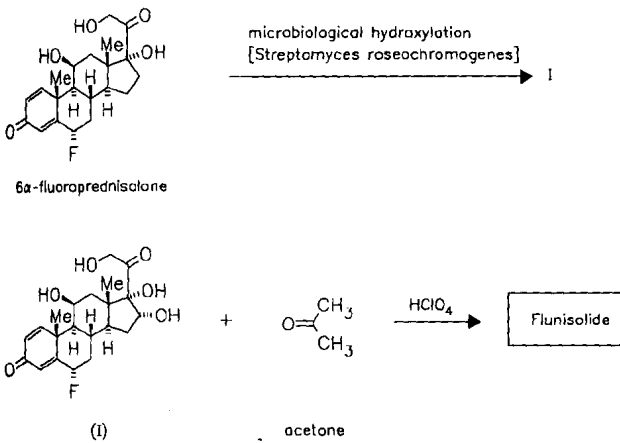
(a)



(b)



(c)



Reference(s):

- a US 3 124 571 (Syntex; 10.3.1964; MEX-prior. 26.1.1960).
- b US 3 126 375 (Syntex; 24.3.1964; MEX-prior. 13.6.1958).
- c GB 933 867 (American Cyanamid; appl. 5.12.1959; USA-prior. 8.12.1958).

Formulation(s): nasal spray 25 mg/metered dose inhaler with 0.25 mg/spray

Trade Name(s):

D: InhaCort (Boehringer Ing.) F: Bronilide (Cassenne) GB: Syntaris (Roche)
 Syntaris (Roche; Syntex) Nasalide (Cassenne)

I:	Gibiflu (Metapharma)	Syntaris (Recordati)	Nasalide (Dura)
	Lunibron-a (Valeas)	J: Synaclyn (Otsuka)	Nasarel (Dura)
	Lunis (Valeas)	USA: Aerobid (Forest)	

Flunitrazepam

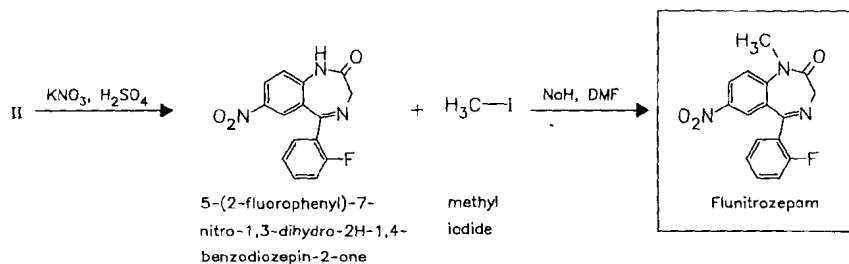
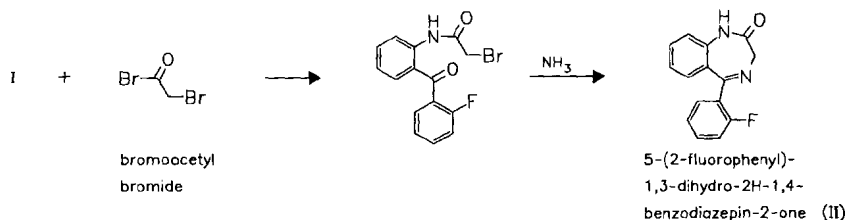
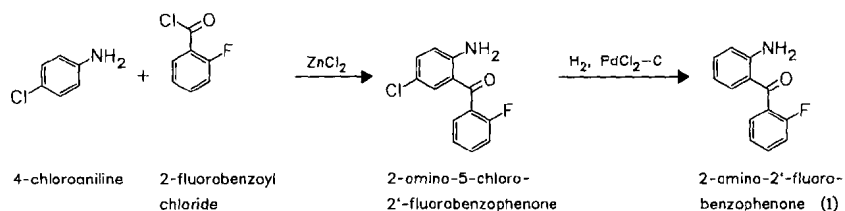
ATC: N05CD03

Use: anticonvulsant, hypnotic, muscle relaxant

RN: 1622-62-4 MF: C₁₆H₁₂FN₃O₃ MW: 313.29 EINECS: 216-597-8LD₅₀: 1200 mg/kg (M, p.o.);

415 mg/kg (R, p.o.)

CN: 5-(2-fluorophenyl)-1,3-dihydro-1-methyl-7-nitro-2H-1,4-benzodiazepin-2-one



Reference(s):

US 3 116 203 (Hoffmann-La Roche; 31.12.1963; appl. 14.3.1962).

US 3 123 529 (Hoffmann-La Roche; 3.3.1964; appl. 9.3.1962).

US 3 203 990 (Hoffmann-La Roche; 31.8.1965; prior. 27.6.1960, 20.4.1961, 21.3.1962).

Formulation(s): amp. 2 mg; f. c. tabl. 1 mg; tabl. 1 mg, 2 mg

Trade Name(s):

D:	Flunimerck (Merck)	GB:	Rohypnol (Roche)	J:	Rohypnol (Roche)
	Fluninoc (Neuro Hexal)	I:	Darkene (Bayropharm)		Silece (Eisai)
	Rohypnol (Roche)		Roipnol (Roche)		
F:	Rohypnol (Roche)		Valsera (Polifarma)		

Flunoxaprofen

ATC: G02CC04; M01AE15; M02AA
 Use: non-steroidal anti-inflammatory, cyclooxygenase and lipoxygenase inhibitor

RN: 66934-18-7 MF: C₁₆H₁₂FNO₃ MW: 285.27

LD₅₀: 1275 mg/kg (M, p.o.);

521 mg/kg (R, p.o.)

CN: (S)-2-(4-fluorophenyl)-α-methyl-5-benzoxazoleacetic acid

DL-lysine salt (1:1)

RN: 124816-13-3 MF: C₁₆H₁₂FNO₃ · C₆H₁₄N₂O₂ MW: 431.46

LD₅₀: 723.5 mg/kg (M, p.o.)

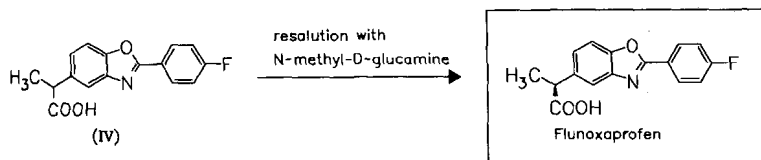
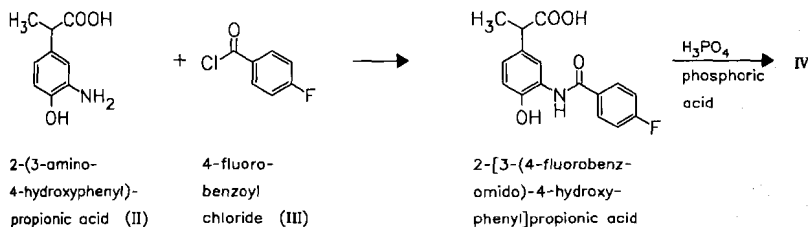
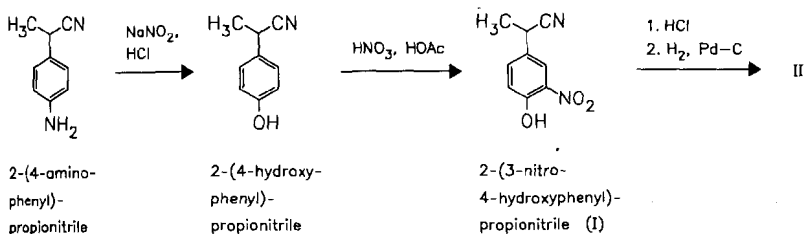
L-lysine salt (1:1)

RN: 124816-14-4 MF: C₁₆H₁₂FNO₃ · C₆H₁₄N₂O₂ MW: 431.46

D-lysine salt (1:1)

RN: 124816-15-5 MF: C₁₆H₁₂FNO₃ · C₆H₁₄N₂O₂ MW: 431.46

(a)



(b)

1. resolution with l-ephedrine

2. H₂, Pd-C

3. III, pyridine, 200 °C

4. HCl

Flunoxaprofen

c

1. resolution with l-ephedrine
2. CH_3COOH , 70 °C
3. H_2 , Pd-C, NaHCO_3 , H_2O
4. III
5. H_3PO_4 , 120 °C

I

Flunoxoprofen

Reference(s):

- a,c DE 2 931 255 (Ravizza; appl. 1.8.1979; I-prior. 4.8.1978).
 a Dunwell, D.W. et al.: J. Med. Chem. (JMCMAR) **18**, 53 (1957).
synthesis of 2-(4-aminophenyl)propionitrile:
 GB 1 198 212 (J. Borck et al.; appl. 1968).
lysine salt:
 EP 324 402 (Euroresearch; appl. 9.1.1989; I-prior. 3.11.1988).
 US 4 897 408 (Euroresearch; 30.1.1990; appl. 5.1.1989; I-prior. 3.11.1988).
 b DE 2 728 323 (Ravizza; appl. 23.6.1977; GB-prior. 23.6.1976).
 c DOS 3 325 672 (Ravizza; appl. 15.7.1983; I-prior. 19.7.1982).

Formulation(s): gel 5 %; tabl. 50 mg, 100 mg, 200 mg

Trade Name(s):

I: Priaxim (Ravizza)

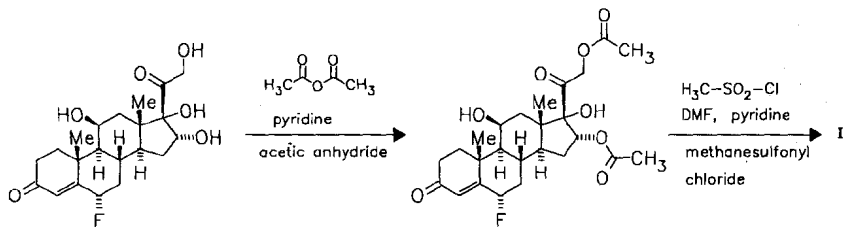
Fluocinolone acetonide

ATC: C05AA10; D07AC04

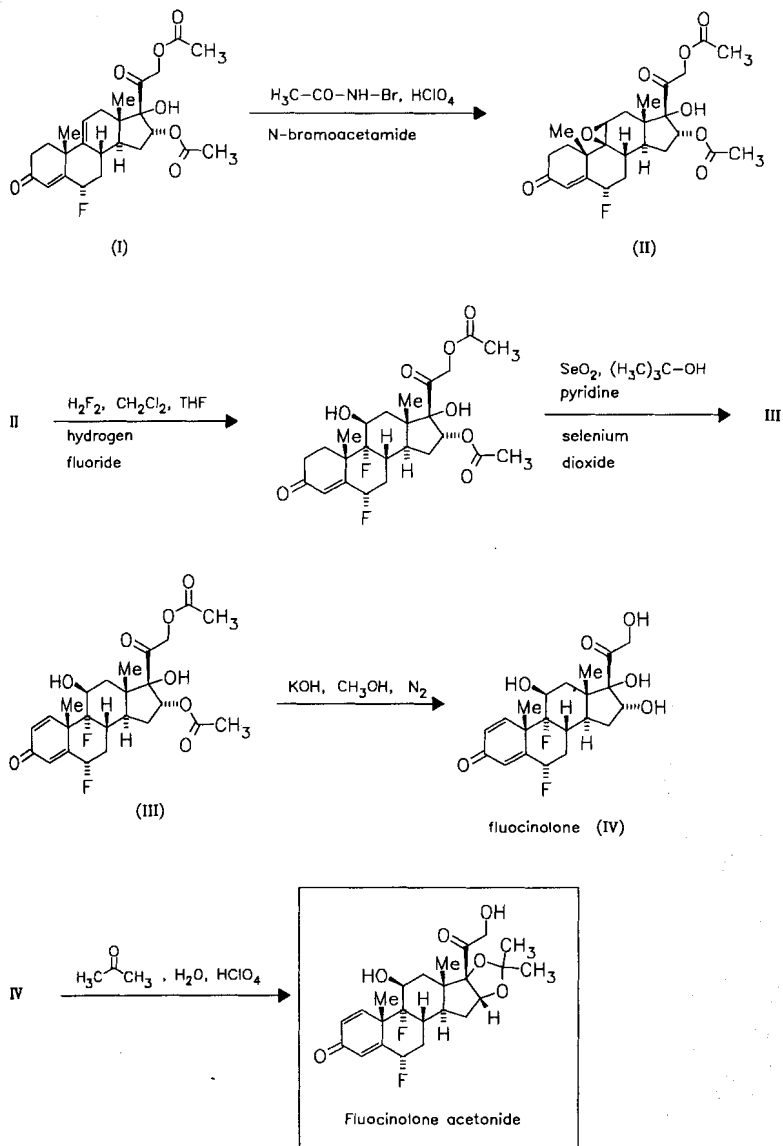
Use: glucocorticoid, anti-inflammatory

RN: 67-73-2 MF: $\text{C}_{24}\text{H}_{30}\text{F}_2\text{O}_6$ MW: 452.49 EINECS: 200-668-5LD₅₀: >4 g/kg (M, p.o.);

>4 g/kg (R, p.o.)

CN: (6 α ,11 β ,16 α)-6,9-difluoro-11,21-dihydroxy-16,17-[(1-methylethylidene)bis(oxy)]pregna-1,4-diene-3,20-dione

3,20-dioxo-6 α -fluoro-
 11 β ,16 α ,17,21-tetra-
 hydroxy-4-pregnene
 (cf. Fludroxcortide
 synthesis)

**Reference(s):**

US 3 014 938 (Syntex; 26.12.1961, appl. 23.8.1960; MEX-prior. 7.9.1959).
 US 3 124 571 (Syntex; 10.3.1964; appl. 19.5.1960; MEX-prior. 26.1.1960).
 Djerassi, C. et al.: J. Am. Chem. Soc. (JACSAT) **82**, 3399 (1960).

starting material:

Julian, P.L. et al.: J. Am. Chem. Soc. (JACSAT) **72**, 5145 (1950).

alternative syntheses:

GB 933 867 (American Cyanamid; appl. 5.12.1959; USA-prior. 8.12.1958).
 US 3 197 469 (Pharmaceutical Research Prod.; 27.7.1965; appl. 6.8.1958).

Formulation(s): cream 0.025 %; ointment 0.025 %; topical sol. 0.01 %

Trade Name(s):

D: Flucinar (medphano)
 Jellin (Grünenthal)

Jellisoft (Grünenthal)

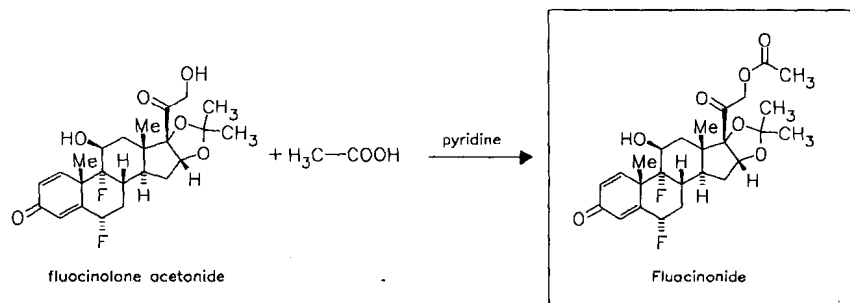
Procto-Jellin (Grünenthal)-
 comb.

F:	Antibio-Synalar (Cassenne)-comb. Synalar (Cassenne) Synalar Neomycin (Cassenne)-comb.	Doricum Semplice (Farmila) Esacinone (Lisapharma) Fluocit (CT) Fluomicetina (Zoja)-comb. with kanamycin	Omniderm (Face) Proctolin (Recordati)- comb. with Ictocaine Sterolone (Francia Farm.) Ultraderm (Ecobi)
GB:	Synalar (Zeneca)	Fluomix Same (Savoma)	J:
I:	Alfabios (Biotekfarma) Alfafluorone (Biotekfarma) Boniderma (Boniscontro & Gazzone) Coramide (Ottolenghi) Cortanest Plus (Piam)- comb. with lidocaine Dermobeta (Terapeutico M.R.) Dermolin (Lafare) Doricum (Farmila)-comb. with neomycin	Fluovitaf (Italfarmaco) Lauromicina Pomata (Lafare)-comb. with eritromycin Localyn (Recordati) Mecloderma (Schwarz)- comb. with meclocyline Meclutin (ABC-Torino)- comb. with meclocyline Nefluan (Molteni)-comb. Neoderma (Crosara)	Benamizol (Mohan Yakuhin) Biscosol (Ohta Seiyaku) Cortiphate (Tokyo Tanabe) Flucort (Syntex-Tanabe) Fluvean (Kowa) Fluzon (Taisho Seiyaku)
			USA:
			Derma-Smoother (Hill) Fluonid (Allergan) FS Shampoo (Hill) Synalar (Medicis) Synemol (Medicis)

Fluocinonide

ATC: C05AA11; D07AC08

Use: glucocorticoid, anti-inflammatory

RN: 356-12-7 MF: C₂₆H₃₂F₂O₇ MW: 494.53 EINECS: 206-597-6LD₅₀: >6 g/kg (M, p.o.);
14 mg/kg (R, p.o.)CN: (6 α ,11 β ,16 α)-21-(acetyloxy)-6,9-difluoro-11-hydroxy-16,17-[(1-methylethylidene)bis(oxy)]pregna-1,4-diene-3,20-dione

Reference(s):

GB 916 996 (Olin Mathieson; appl. 21.7.1959; USA-prior. 6.8.1958).

US 3 124 571 (Syntex; 10.3.1964; appl. 19.5.1960; MEX-prior. 26.1.1960).

Formulation(s): cream 0.5 mg/g; ointment 0.5 mg/g, sol. 0.5 mg/g

Trade Name(s):

D:	Topsym (Grünenthal) Topsym (Grünenthal)- comb. with neomycin	Topsyne néomycine (Cassenne)-comb.	J:	Bestasone (Kodama) Topsym (Syntex-Tanabe)
F:	Topsyne (Cassenne)	GB: Metosyn (Zeneca)	USA:	Dermacin (Pedinol) Lidex (Medicis) Lidex E Cream (Medicis)
		I: Flu 21 (Select Pharma) Topsym (Recordati)		

Fluocortin butyl
(Fluocortin butyl ester)

ATC: D07AB04
Use: glucocorticoid

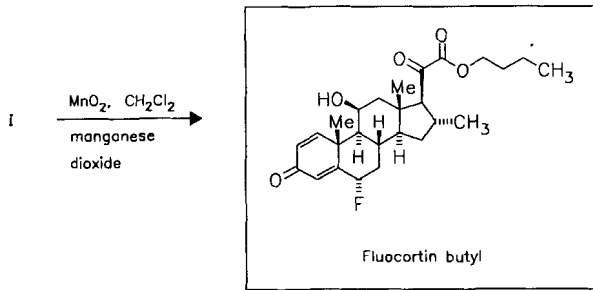
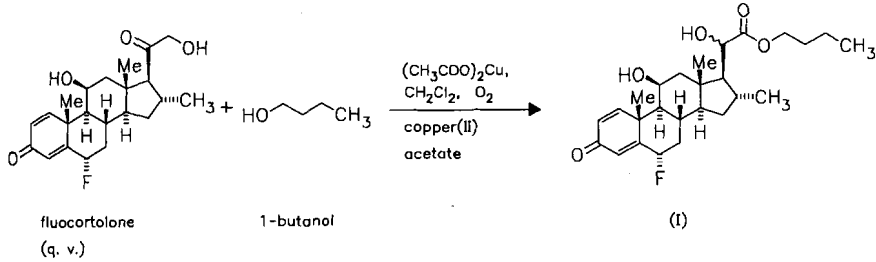
RN: 41767-29-7 MF: $C_{26}H_{35}FO_5$ MW: 446.56 EINECS: 255-543-8

LD₅₀: >5 g/kg (M, p.o.);
>4 g/kg (R, p.o.);
>1 g/kg (dog, p.o.)

CN: (6 α ,11 β ,16 α)-6-fluoro-11-hydroxy-16-methyl-3,20-dioxopregna-1,4-dien-21-oic acid butyl ester

fluocortin

RN: 33124-50-4 MF: $C_{22}H_{27}FO_5$ MW: 390.45 EINECS: 251-383-8



Reference(s):

- DOS 2 150 268 (Schering AG; appl. 4.10.1971).
 DOS 2 204 361 (Schering AG; appl. 27.1.1972).
 DOS 2 260 303 (Schering AG; appl. 6.12.1972).
 GB 1 387 911 (Schering AG; valid from 19.3.1975; D-prior. 4.10.1971, 27.1.1972).
 Laurent, H. et al.: *Arzneim.-Forsch. (ARZNAD)* **27** (II), 2187 (1977) (also other methods).
 DOS 2 441 284 (Schering AG; appl. 27.8.1974).
 BE 823 682 (Schering AG; appl. 20.12.1974; D-prior. 21.12.1973, 27.8.1974, 16.9.1974).

Formulation(s): cream 7.5 mg/g; ointment 7.5 mg/g; powder 100 mg/4 g

Trade Name(s):

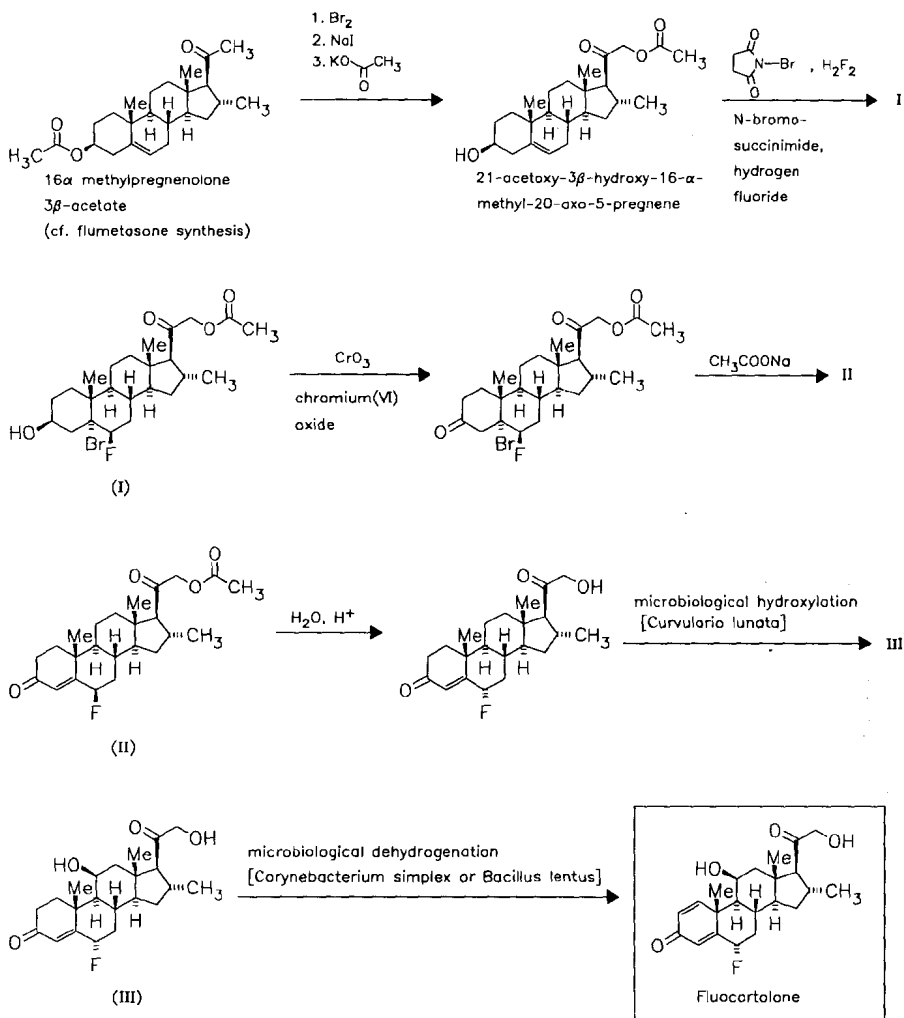
D: Bi Vaspit (Asche)-comb. Lenen (Alk-Scherax; Schering) I: Vaspit (Asche) Vaspit (Schering)

Fluocortolone

ATC: C05AA08; D07AC05; D07BC03;
H02AB03; S01CA04
Use: glucocorticoid

RN: 152-97-6 MF: $C_{22}H_{29}FO_4$ MW: 376.47 EINECS: 205-811-5

CN: (6 α ,11 β ,16 α)-6-fluoro-11,21-dihydroxy-16-methylpregna-1,4-diene-3,20-dione

**Reference(s):**

- DE 1 135 899 (Schering AG; appl. 20.5.1960).
 BE 614 196 (Schering AG; appl. 21.2.1962; D-prior. 22.2.1961).
 Domenico, A. et al.: *Arzneim.-Forsch. (ARZNAD)* **15**, 46 (1965).
 DE 1 169 444 (Schering AG; appl. 22.2.1961).

synthesis of starting compound:

Petrov, V.; Williamson, D.M.: *J. Chem. Soc. (JCSOA9)* **1959**, 3595.

alternative synthesis:

Kieslich, K. et al.: *Justus Liebigs Ann. Chem. (JLACBF)* **726**, 168 (1969).
 DOS 1 909 152 (Schering AG; appl. 19.2.1969).

review:

Akhrem, A.A. et al.: *Russ. Chem. Rev. (Engl. Transl.) (RCRVAB)* **34**, 926 (1965).

Formulation(s): cream 2.5 mg/g; lotion 2.5 mg/g; ointment 2.5 mg/g; tabl. 5 mg, 20 mg, 50 mg

Trade Name(s):

D: Ultralan (Schering) Ultralane (Schering) Ultralanum (Schering)-comb.; wfm
GB: Ultradil (Schering); wfm
 Ultralanum oint. (Schering)-comb.; wfm

Ultraproct (Schering)-
comb.; wfm

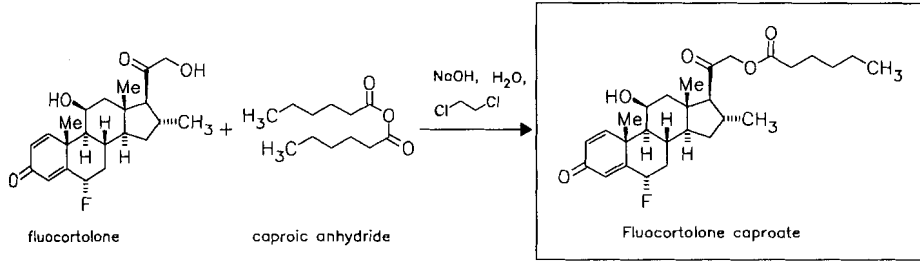
I: Ultralan (Schering)-comb.
Ultralan orale (Schering)

Ultraproct (Schering)-
comb.

Fluocortolone caproate

ATC: C05AA08; D07AC05; H02AB03
Use: glucocorticoid

RN: 303-40-2 MF: C₂₈H₃₉FO₅ MW: 474.61 EINECS: 206-140-0
CN: (6α,11β,16α)-6-fluoro-11-hydroxy-16-methyl-21-[(1-oxohexyl)oxy]pregna-1,4-diene-3,20-dione



Reference(s):
FR 1 561 884 (Schering AG; appl. 10.5.1968; D-prior. 13.5.1967).

Formulation(s): cream; lotion; ointment 2.5 mg/g in comb. with fluocortolone

Trade Name(s):

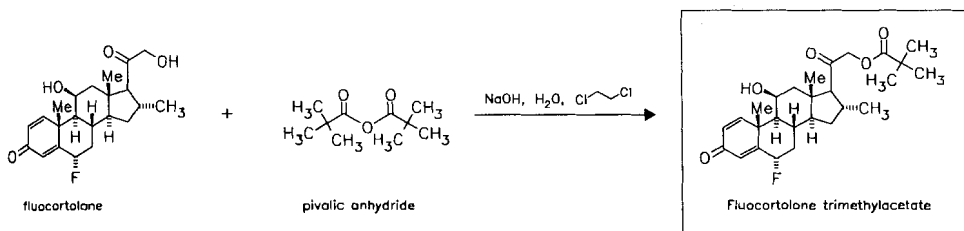
D:	Ultralan Creme (Schering)- comb. Ultralan Salbe (Schering)- comb. Ultraproct (Schering)- comb.	GB:	Ficoid (Fisons)-comb.; wfm Ultradil (Schering Chemicals)-comb.; wfm	I:	Ultralanum (Schering Chemicals)-comb.; wfm Ultraproct (Schering Chemicals)-comb.; wfm Ultralan (Schering)-comb. Ultraproct (Schering)- comb.
F:	Myco-Ultralan (Schering)- comb.				

Fluocortolone trimethylacetate

(Fluocortolone 21-pivalate)

ATC: C05AA08; D07AC05; H02AB03
Use: glucocorticoid

RN: 20380-10-3 MF: C₂₇H₃₇FO₅ MW: 460.59
CN: 6α-fluoro-17,21-dihydroxy-16α-methyl-pregna-1,4-diene-3,20-dione 21-pivalate



Reference(s):
FR 1 561 884 (Schering AG; appl. 10.5.1968; D-prior. 13.5.1967).

Formulation(s): cream 20 mg/g; cream 2.5 mg/g in comb. with fluocortolone; emulsion 2.5 mg/g in comb. with fluocortolone/-caproate; suppos. 40 mg in comb. with lidocain hydrochloride

Trade Name(s):

D:	Doloproct (Schering)- comb. with lidocaine hydrochloride Ultralan Creme (Schering)- comb.	F:	Ultraproct (Schering)- comb.	I:	Ultraproct (Schering Chemicals) Ultralan (Schering)-comb. Ultraproct (Schering)- comb.
		GB:	Ultralanum (Schering)- comb.		

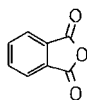
Fluorescein

ATC: S01JA01
Use: diagnostic

RN: 2321-07-5 MF: C₂₀H₁₂O₅ MW: 332.31 EINECS: 219-031-8
LD₅₀: 300 mg/kg (M, i.v.)
CN: 3',6'-dihydroxyspiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one

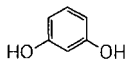
disodium salt

RN: 518-47-8 MF: C₂₀H₁₀Na₂O₅ MW: 376.28 EINECS: 208-253-0
LD₅₀: 1 g/kg (M, i.v.); 4738 mg/kg (M, p.o.);
1 g/kg (R, i.v.); 6721 mg/kg (R, p.o.);
1 g/kg (dog, i.v.)

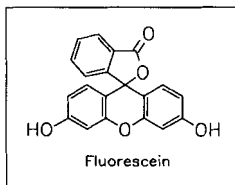


phthalic
anhydride

+



resorcinol



Fluorescein

Reference(s):

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 23, 414.

Formulation(s): amp. 113.2 mg/ml (as disodium salt); eye drops 1.7 mg/ml

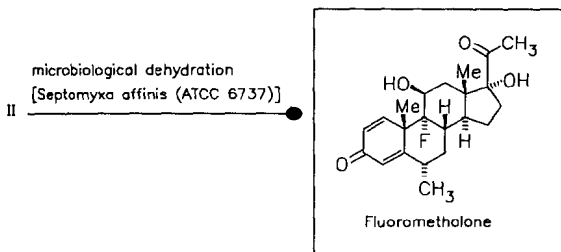
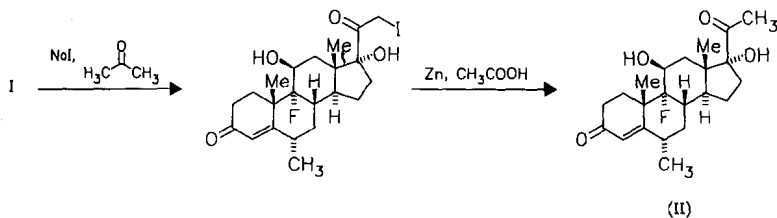
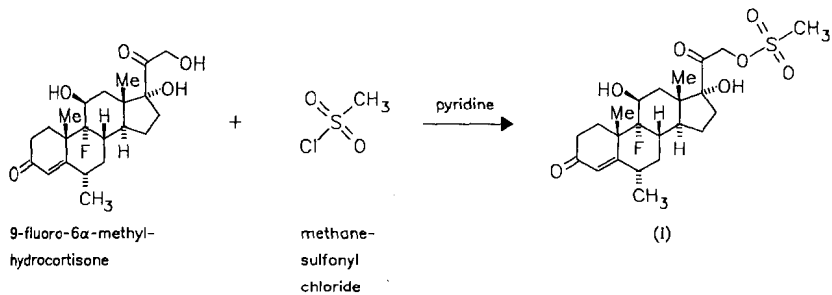
Trade Name(s):

D:	Fluorescein-Lösung 10 % intravenös Inj.-Lösung (Alcon)	Thilorbin (Alcon)	I:	Pancreolauryl Test (Geymonat; as laurate)
	Fluorescein 0,15 % Thilo Augentropfen (Thilo)	GB: Minims Fluorescein Sodium (Chauvin)	J:	Fluor (Tobishi-Santen)
	Pancreolauryl-Test (Temmler)	Minims lignocaine and fluorescein (Chauvin)- comb.		Fluores (Showa Yakuhin) Fluorescein sodium (Kobayashi) Fluorescite (Alcon)

Fluorometholone

ATC: C05AA06; D07AB06; D07XB04;
D10AA01; S01BA07; S01CB05
Use: glucocorticoid

RN: 426-13-1 MF: C₂₂H₂₉FO₄ MW: 376.47 EINECS: 207-041-5
LD₅₀: 443 mg/kg (R, i.p.)
CN: (6α,11β)-9-fluoro-11,17-dihydroxy-6-methylpregna-1,4-diene-3,20-dione



Reference(s):
 US 2 867 638 (Upjohn; 6.1.1959; appl. 17.5.1967; prior. 10.9.1956).
 DE 1 056 605 (Upjohn; appl. 6.5.1959; USA-prior. 10.9.1956).

starting material:
 Spero, G.B. et al.: J. Am. Chem. Soc. (JACSAT) **79**, 1515 (1957).

Formulation(s): eye drops 1 mg/ml

Trade Name(s):

D: Efflumidex (Pharm-Allergan)	F: Flucon collyre (Alcon)	Ursnon (Nihon Yakuhin Kogyo)
Efflumycin (Pharm-Allergan)-comb.	I: Efemoline (CIBA Vision)-comb.	USA: FML Liquifilm (Allergan); wfm
Ehrtolan (Albert-Roussel)-comb.	Fluaton (Allergan)	Neo-Oxylone (Upjohn)-comb.; wfm
Ejemolin (CIBA Vision)-comb.	J: Flumetol (Farmila)-comb.	Oxylone (Upjohn); wfm
Fluoropos (Ursapharm)	Flu-Base (Kowa)	
	Flumetholon (Santen)	
	Okilon (Sumitomo)	

Fluorouracil

(Fluracilum)

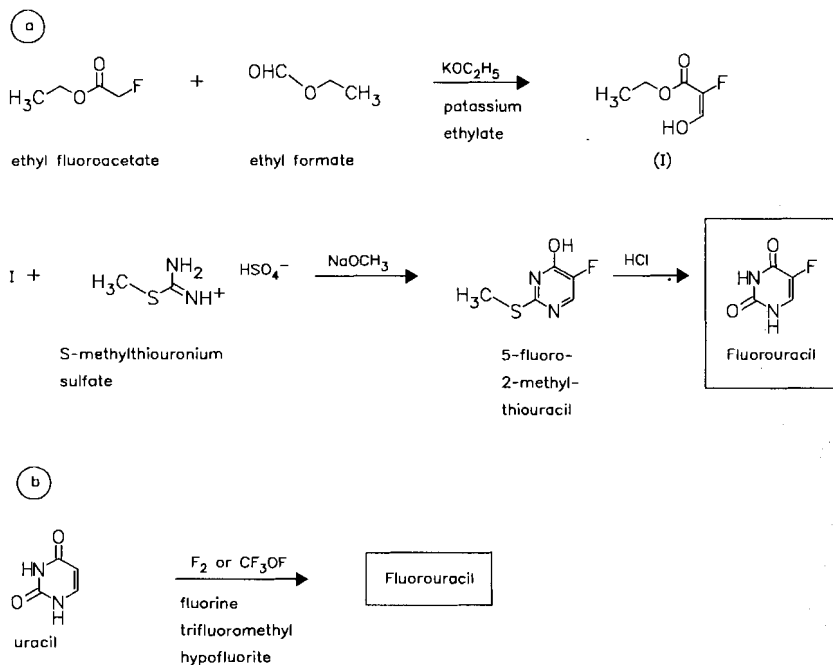
ATC: L01BC02

Use: antineoplastic

RN: 51-21-8 MF: C₄H₃FN₂O₂ MW: 130.08 EINECS: 200-085-6LD₅₀: 81 mg/kg (M, i.v.); 115 mg/kg (M, p.o.);

245 mg/kg (R, i.v.); 230 mg/kg (R, p.o.);

30 mg/kg (dog, p.o.)

CN: 5-fluoro-2,4-pyrimidinediol or 5-fluoro-2,4(1*H*,3*H*)-pyrimidinedione**Reference(s):**

- a** US 2 802 005 (C. Heidelberger, R. Duschinsky; 6.8.1957; prior. 26.9.1956).
Duschinsky, R et al.: J. Am. Chem. Soc. (JACSAT) **79**, 4559 (1957).
- b** US 3 682 917 (I. L. Knunians et al.; 8.8.1972; appl. 25.3.1970).
US 3 846 429 (S. A. Giller et al.; 5.11.1974; appl. 22.9.1971).
US 3 954 758 (PCR, Inc.; 4.5.1976; prior. 7.8.1967, 1.3.1968, 27.5.1970, 4.10.1971).
DOS 2 149 504 (Research Inst. f. Med. and Chem.; appl. 4.10.1971; USA-prior. 5.10.1970).
DOS 2 719 245 (Daikin Kogyo; appl. 29.4.1977; J-prior. 29.4.1976).
DOS 2 726 258 (Daikin Kogyo; appl. 10.6.1977; J-prior. 11.6.1976).

synthesis from orotic acid by fluorination and following decarboxylation:

DOS 2 826 496 (Asahi Glass; appl. 16.6.1978; J-prior. 17.6.1977).

Formulation(s): cream 5%; ointment 50 mg/ml, 1 g/20 g; plaster 96 µg/1.13 cm²; vial 50 mg/ml, 250 mg/5 ml, 500 mg/10 ml, 1000 mg/20 ml

Trade Name(s):

D:	Actino-Hermal Plaster (Hermal)	Verrumal (Hermal)-comb. numerous generics and combination preparations	GB:	Accusite (Matrix)
	Efudix Roche (ICN)	Efudix (Roche)	I:	Efudix (Roche)
	Fluroblastin (Pharmacia & Upjohn)	Fluoro-uracile (Roche) generic	J:	Fluoro-Uracile (Roche) generic
	Ribofluor (ribosepharm)	Fluoro-uracile (Roche) generic		5-FU (Kyowa)
				Arumel (SS Seiyaku)

Benton (Toyo Jozo)
Carzonal (Tobishi)
Efudix (Roche)
Flacule (Nippon Kayaku)

Lifril (Kissei)
Timadin (Torii)
Ulosagen (Kyowa Yakuin
Osaka)

USA: Ulup (Maruko)
Efudex (Roche)
Fluoroplex (Allergan)
generic

Fluoxetine

(Lilly 110140)

ATC: N06AB03

Use: antidepressant, serotonin-uptake inhibitor

RN: 54910-89-3 MF: $C_{17}H_{18}F_3NO$ MW: 309.33

LD₅₀: 464 mg/kg (M, p.o.);

825 mg/kg (R, p.o.)

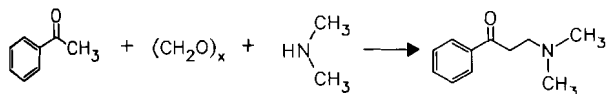
CN: (±)-*N*-methyl-γ-[4-(trifluoromethyl)phenoxy]benzenepropanamine

monohydrochloride

RN: 59333-67-4 MF: $C_{17}H_{18}F_3NO \cdot HCl$ MW: 345.79

LD₅₀: 100 mg/kg (M, i.p.)

(a)

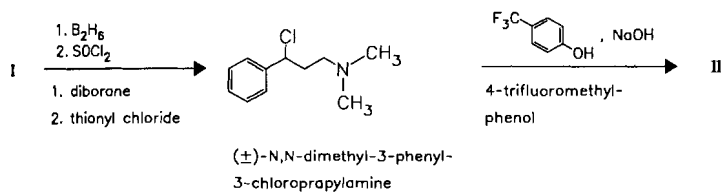


acetophenone

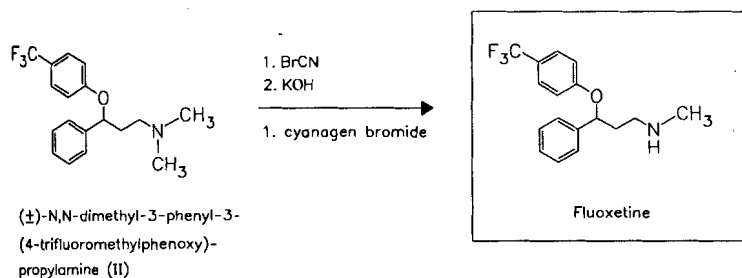
paraform-
aldehyde

dimethyl-
amine

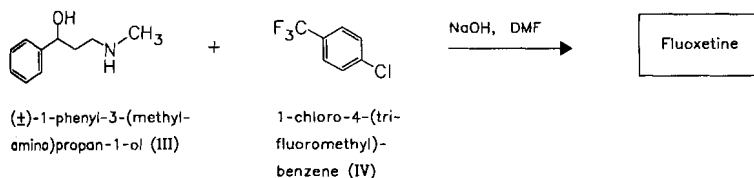
3-dimethylamino-
propiofenone (I)



(±)-*N,N*-dimethyl-3-phenyl-
3-chloropropylamine

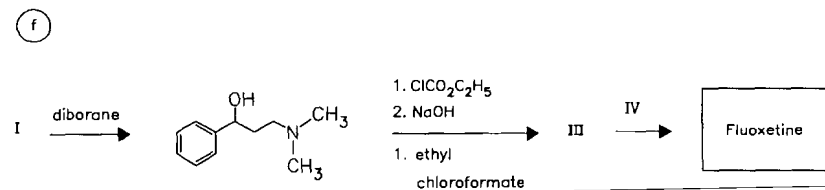
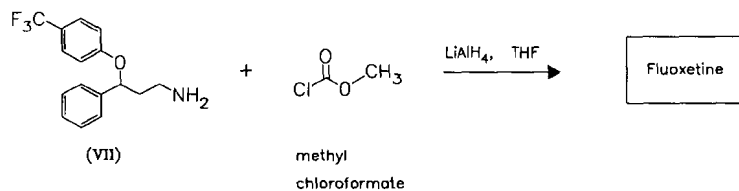
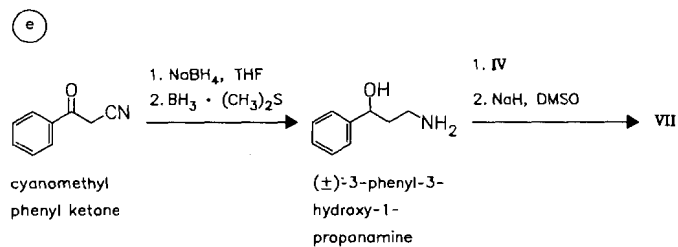
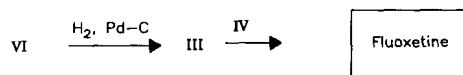
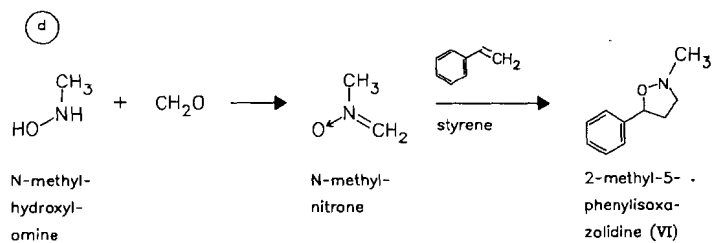
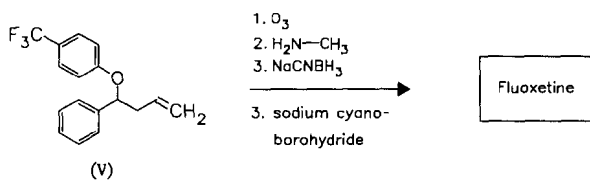
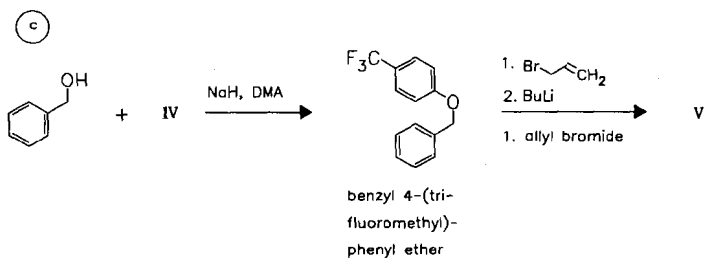


(b)



(±)-1-phenyl-3-(methyl-
amino)propan-1-ol (III)

1-chloro-4-(tri-
fluoromethyl)-
benzene (IV)



Reference(s):

- a DE 2 500 110 (Lilly; appl. 3.1.1975; USA-prior. 10.1.1974).
US 4 018 895 (Lilly; 19.4.1977; USA-prior. 10.1.1974).
US 4 194 009 (Lilly; 18.3.1980; USA-prior. 15.9.1976).
US 4 314 081 (Lilly; 2.2.1982; USA-prior. 10.1.1974).
US 4 584 404 (Lilly; 22.4.1986; USA-prior. 24.10.1983, 25.1.1978, 10.1.1974).
- b US 5 847 214 (Laporte Organics; USA-prior. 7.7.1997).
- c ES 2 103 680 (Lilly; appl. 3.8.1995).
- d US 2 760 243 (Albemarle Corp.; USA-prior. 25.7.1997).
- e ES 210 654 (Lilly; appl. 24.7.1995).
- f EP 529 842 (Teva Pharm.; appl. 6.8.1992; IL-prior. 27.8.1991)

alternative synthesis:

- EP 391 070 (Orion; appl. 1.3.1990; FI-prior. 3.3.1989).
- EP 380 924 (E. Magnone; appl. 8.1.1990; I-prior. 10.1.1989).
- WO 9 906 362 (Albemarle Corp.; appl. 4.8.1998; USA-prior. 4.8.1997).
- WO 9 856 753 (Albemarle Corp.; appl. 12.6.1998; USA-prior. 12.6.1997).
- ES 2 120 368 (Almirall Prodesfarma; 16.10.1998; appl. 14.6.1996).
- EP 529 842 (Teva Pharm.; appl. 6.8.1992; IL-prior. 27.8.1991).
- EP 617 006 (Pliva D.; appl. 4.2.1994; HR-prior. 5.2.1993).
- ES 2 101 655 (Lilly; prior. 28.7.1995).
- ES 2 101 654 (Lilly; prior. 24.7.1995).
- ES 2 101 650 (Lilly; prior. 29.6.1995).
- WO 9 811 054 (Egis Gyogyszergyar; appl. 10.9.1997; HU-prior. 10.9.1996).
- US 5 760 243 (Albemarle Corp.; 2.6.1998; appl. 25.7.1996).
- ES 2 103 680 (Lilly S. A.; 16.9.1997; appl. 3.8.1995).
- ES 2 103 681 (Lilly; 16.9.1997; appl. 19.9.1995).

synthesis of enantiomers:

- US 4 950 791 (H. C. Brown; 21.8.1990; prior. 12.6.1989, 30.3.1988).
- US 4 918 242 (Aldrich; 17.4.1990; prior. 12.6.1989, 30.3.1988).
- US 4 918 207 (Aldrich; 17.4.1990; prior. 12.6.1989, 30.3.1988).

fluoxetine chiral process from benzoylpropionic acid:

- US 5 936 124 (Sepacor Inc.; appl. 22.6.1998).

treatment of nicotine withdrawal symptoms:

- US 4 940 585 (W. E. Hapworth; 10.7.1990; appl. 17.2.1989).

treatment of appetite and mood disturbances:

- WO 8 903 692 (MIT; appl. 21.10.1988; USA-prior. 15.9.1988; 22.10.1987).

antidiabetic combination:

- EP 294 028 (Lilly; appl. 29.4.1988; USA-prior. 4.5.1987).

pharmaceutical formulation:

- EP 693 281 (Lilly; appl. 17.7.1995; E-prior. 20.7.1994).

memory improvement:

- US 4 647 591 (Lilly; 3.3.1987; prior. 7.10.1985, 21.6.1985).

solid oral composition:

- ES 2 103 682 (Lilly; appl. 29.9.1995).

analgesic compositions:

- EP 193 355 (Lilly; appl. 20.2.1986; USA-prior. 25.2.1985, 25.7.1986).
- EP 193 354 (Lilly; appl. 20.2.1986; USA-prior. 25.2.1985).

treatment of anxiety:

- EP 123 469 (Lilly; appl. 6.4.1984; USA-prior. 8.4.1983).

novel transdermal formulations:

- WO 9 802 169 (Alza Corp.; appl. 15.7.1997; USA-prior. 15.7.1996).

pharmaceutical formulations:

EP 693 281 (Lilly; appl. 17.7.1995; E-prior. 20.7.1994).

low dose tablet:

US 5 830 500 (Pentech Pharm.; 3.11.1998; appl. 22.7.1996; USA-prior. 22.7.1996).

Formulation(s): cps. 11.2 mg, 22.4 mg; sol. 22.4 mg/5 ml; tabl. 22.4 mg (as hydrochloride)*Trade Name(s):*

D: Fluctin (Lilly; 1990)

GB: Prozac (Lilly; 1989)

Prozac (Lilly; 1989)

F: Prozac (Lilly; 1989)

I: Fluoxeren (Menarini; 1990)

USA: Prozac (Dista)

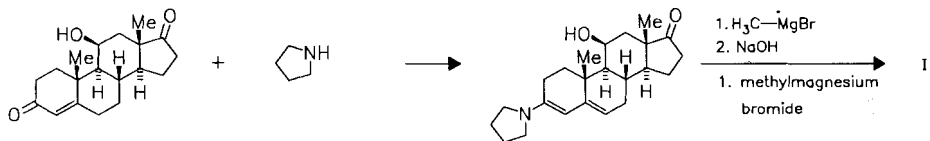
Fluoxymesterone

ATC: G03BA01

Use: androgen

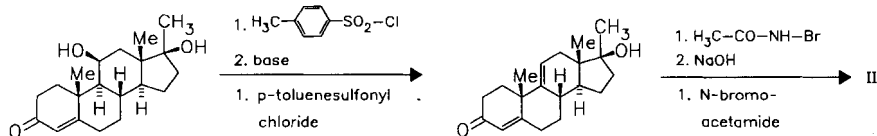
RN: 76-43-7 MF: C₂₀H₂₉FO₃ MW: 336.45 EINECS: 200-961-8LD₅₀: 2350 mg/kg (M, i.p.)

CN: (11β,17β)-9-fluoro-11,17-dihydroxy-17-methylandro-4-en-3-one

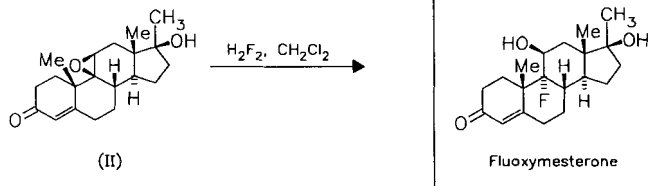


3,17-dioxo-11β-hydroxy-4-androstene (from 3,17-dioxo-4-androstene)

pyrrolidine



(I)



(II)

Fluoxymesterone

Reference(s):

US 2 793 218 (Upjohn; 1957; prior. 1955).

US 2 813 881 (Upjohn; 1957; prior. 1955).

US 2 837 517 (Upjohn; 1958; prior. 1956, 1955).

US 3 029 263 (Upjohn; 10.4.1962; prior. 24.12.1959, 22.12.1958, 6.6.1958).

DAS 1 037 447 (Ciba, appl. 1955; CH-prior. 1954).

Heyl, W.F.; Herr, M.E.: J. Am. Chem. Soc. (JACSAT) **75**, 1918 (1953).Bernstein, S. et al.: J. Org. Chem. (JOCEAH) **19**, 41 (1954).Fried, J.; Sabo, E.F.: J. Am. Chem. Soc. (JACSAT) **75**, 2273 (1953); **76**, 1455 (1954).Herr, M.E. et al.: J. Am. Chem. Soc. (JACSAT) **78**, 501 (1956).

alternative synthesis:

US 3 118 880 (Ciba; 21.1.1964; CH-prior. 26.5.1954).

Formulation(s): tabl. 1 mg, 2 mg, 2.5 mg, 5 mg, 10 mg

Trade Name(s):

D: Ultadren (Ciba); wfm	I: Halotestin (Upjohn)	Halotestin (Upjohn); wfm
F: Halotestin (Pharmacia & Upjohn)	J: Halotestin (Kodama)	Ora-Testryl (Squibb); wfm
GB: Ultadren (Ciba); wfm	USA: Halodrin (Upjohn)-comb.; wfm	

Flupentixol
(Flupenthixol)

ATC: N05AF01
Use: neuroleptic, antipsychotic

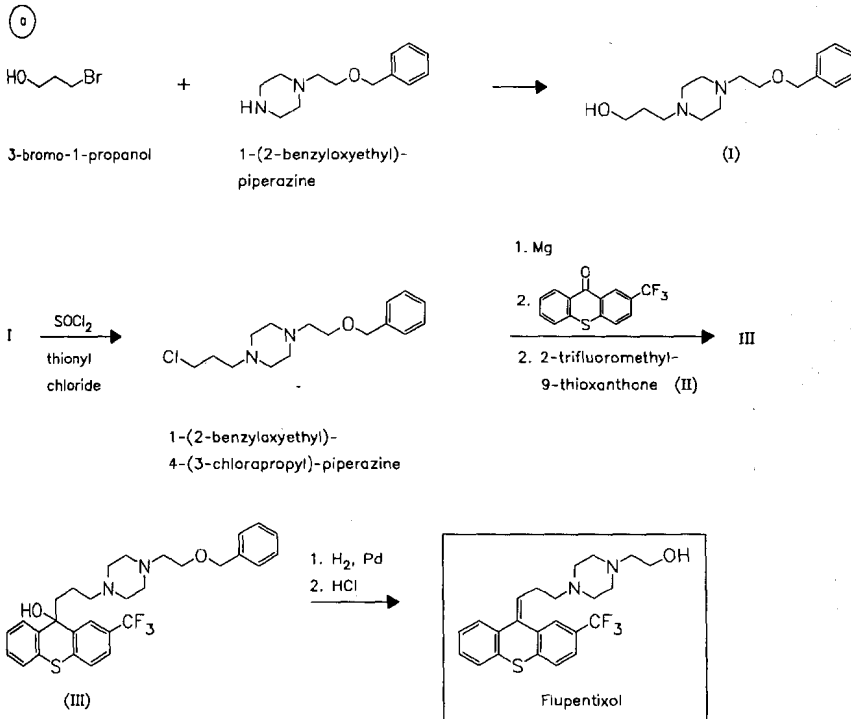
RN: 2709-56-0 MF: C₂₃H₂₅F₃N₂OS MW: 434.53 EINECS: 220-304-9
LD₅₀: 150 mg/kg (M, i.p.)
CN: 4-[3-[2-(trifluoromethyl)-9H-thioxanthen-9-ylidene]propyl]-1-piperazineethanol

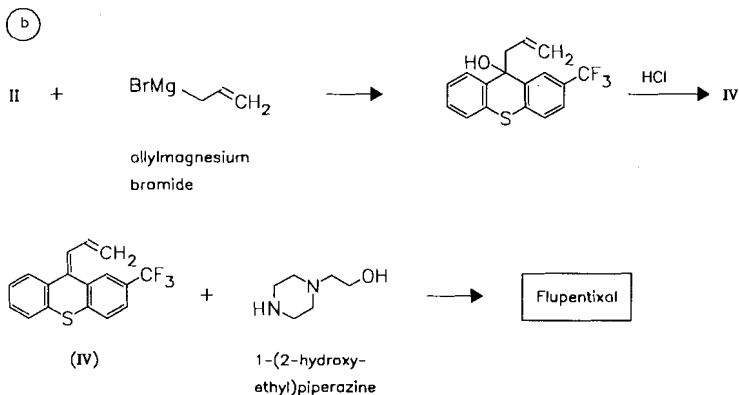
dihydrochloride

RN: 2413-38-9 MF: C₂₃H₂₅F₃N₂OS · 2HCl MW: 507.45 EINECS: 219-321-4
LD₅₀: 94 mg/kg (M, i.v.); 423 mg/kg (M, p.o.);
37 mg/kg (R, i.v.); 791 mg/kg (R, p.o.)

decanoate

RN: 30909-51-4 MF: C₂₃H₂₅F₃N₂OS · C₁₀H₁₈O MW: 588.78



*Reference(s):*

- a GB 925 538 (Smith Kline & French; appl. 3.3.1961; USA-prior. 7.3.1960, 5.5.1960).
US 3 282 930 (Smith Kline & French; 1.11.1966; prior. 7.3.1960, 5.5.1960).
- b US 3 116 291 (Kefalas; 31.12.1963; DK-prior. 4.12.1958).
Kaiser, C. et al.: J. Med. Chem. (JMCMAR) **15**, 665 (1972).

flupentixol decanoate:

- DAS 2 029 084 (Kefalas; appl. 12.6.1970; USA-prior. 20.6.1969).
US 3 681 346 (Kefalas; 1.8.1972; prior. 20.6.1969).

starting material:

- GB 925 539 (Smith Kline & French; appl. 3.3.1961; USA-prior. 7.3.1960, 5.5.1960).

- Formulation(s):* amp. 20 mg/ml, 100 mg/ml; drg. 0.5 mg, 1 mg, 5 mg; drops 50 mg/ml (as dihydrochloride);
vial 200 mg (20 mg/ml) (as decanoate)

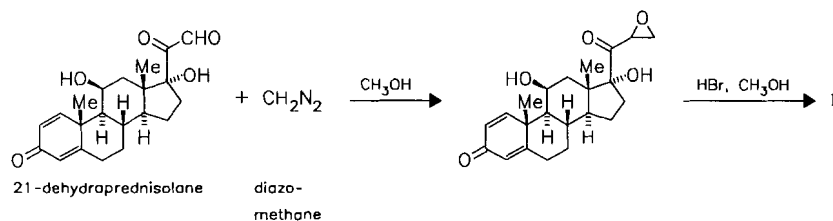
Trade Name(s):

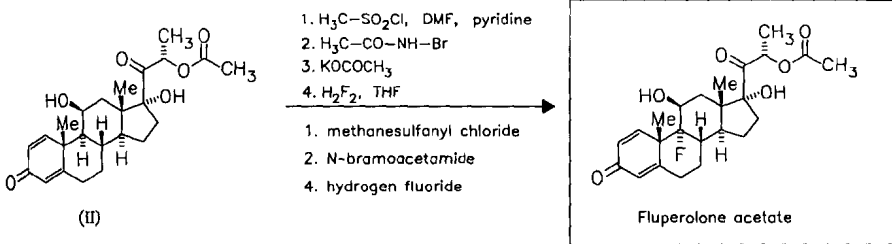
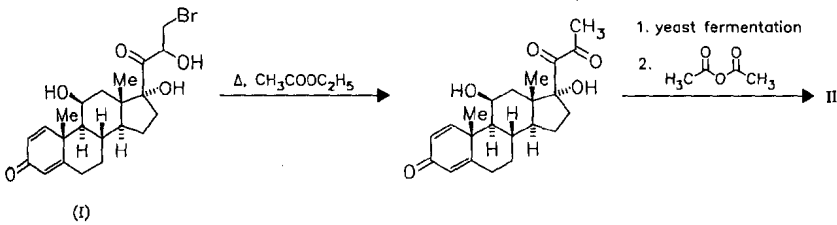
- | | | | | |
|-----|----------------------------------|--------------------------|---------------------------------|------------------------|
| D: | Fluanxol (Bayer Vital) | Fluanxol (Lundbeck); wfm | J: | Metamin (Takeda; 1973) |
| F: | Fluanxol (Lundbeck; 1976) | I: | Deanxit (Lusofarmaco)-
comb. | |
| GB: | Depixol (Lundbeck; 1972);
wfm | | Siplarol (Erba); wfm | |

Fluperolone acetate

ATC: H02AB

Use: glucocorticoid, anti-inflammatory

RN: 2119-75-7 MF: $\text{C}_{24}\text{H}_{31}\text{FO}_6$ MW: 434.50 EINECS: 218-327-4CN: [11 β ,17 α ,17(S)]-17-[2-(acetyloxy)-1-oxopropyl]-9-fluoro-11,17-dihydroxyandrost-1,4-dien-3-one

**Reference(s):**Agnello, E.J. et al.: *J. Org. Chem. (JOCEAH)* **28**, 1531 (1963).Agnello, E.J. et al.: *Experientia (EXPEAM)* **16**, 357 (1960).

(also alternative syntheses)

Trade Name(s):

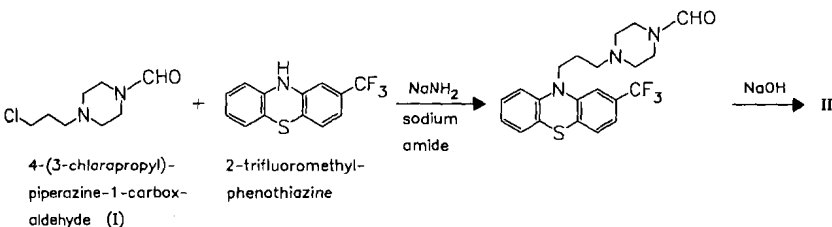
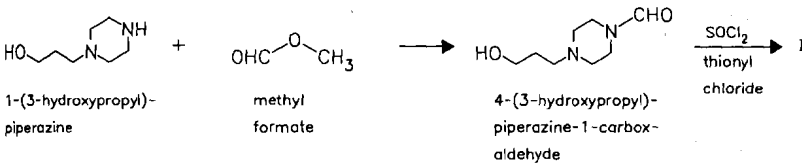
I: Alacortil (Pfizer); wfm

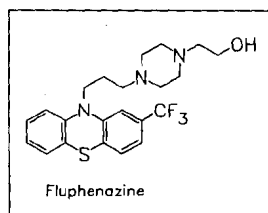
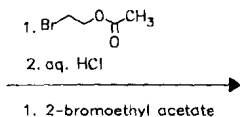
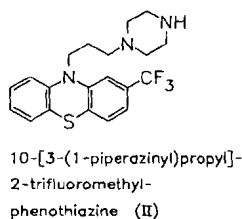
USA: Methral (Pfizer); wfm

Fluphenazine

ATC: N05AB02

Use: neuroleptic, antipsychotic

RN: 69-23-8 MF: $\text{C}_{22}\text{H}_{26}\text{F}_3\text{N}_3\text{OS}$ MW: 437.53 EINECS: 200-702-9LD₅₀: 51 mg/kg (M, i.v.); 220 mg/kg (M, p.o.)CN: 4-[3-[2-(trifluoromethyl)-10*H*-phenothiazin-10-yl]propyl]-1-piperazineethanol**dihydrochloride**RN: 146-56-5 MF: $\text{C}_{22}\text{H}_{26}\text{F}_3\text{N}_3\text{OS} \cdot 2\text{HCl}$ MW: 510.45 EINECS: 205-674-1LD₅₀: 56 mg/kg (M, i.v.); 220 mg/kg (M, p.o.)**decanoate**RN: 5002-47-1 MF: $\text{C}_{22}\text{H}_{26}\text{F}_3\text{N}_3\text{OS} \cdot \text{C}_{10}\text{H}_{18}\text{O}$ MW: 591.78

**Reference(s):**

US 3 058 979 (Smith Kline & French; 16.10.1962; prior. 13.5.1957).
DE 1 095 836 (Squibb; appl. 8.12.1956; USA-prior. 23.12.1955, 12.7.1956).

alkanecarboxylic acid esters:

DE 1 165 602 (Olin Mathieson; appl. 25.4.1962; USA-prior. 26.4.1961).
US 3 194 733 (Olin Mathieson; 13.7.1965; prior. 26.4.1961, 28.1.1963).
US 3 394 131 (Squibb; 23.7.1968; prior. 26.4.1961, 28.1.1963).
Kurland, A.A. et al.: *Curr. Ther. Res. (CTCEA9)* **6**, 137 (1964).

Formulation(s): amp. 2.5 mg/ml, 5 mg/ml, 12.5 mg/0.5 ml, 25 mg/ml, 25 mg/2 ml, 50 mg/0.5 ml, 100 mg/ml (as decanoate); drops 4 mg/ml; f. c. drg. 3 mg, 6 mg; f. c. tabl. 0.5 mg, 1 mg, 4 mg; sol. 2.5 mg/ml; tabl. 1 mg, 2.5 mg, 4 mg, 5 mg, 10 mg (as dihydrochloride)

Trade Name(s):

D:	Dapotum (Bristol-Myers Squibb; Sanofi Winthrop) Lyogen (Promonta Lundbeck) Omca (Bristol-Myers Squibb)	I:	Anatensol (Bristol-Myers Squibb) Dominans (Recordati)-comb. Moditen (Bristol-Myers Squibb)	J:	Anatensol (Showa) Fludecasine (Yoshitomi)	USA:	Sevinol (Schering-Shionogi) Permitil (Schering); wfm Permitil (Schering-Plough); wfm Prolixin (Squibb); wfm Prolixin (Bristol-Myers Squibb); wfm generics
F:	Modecate (Sanofi Winthrop) Moditen (Sanofi Winthrop) Motival (Sanofi Winthrop)-comb.						
GB:	Modecate (Sanofi Winthrop)						

Flupirtine

ATC: M03B; N02BG07
Use: analgesic

RN: 56995-20-1 MF: $\text{C}_{15}\text{H}_{17}\text{FN}_4\text{O}_2$ MW: 304.33 EINECS: 260-503-8

LD_{50} : 617 mg/kg (M, p.o.);
1660 mg/kg (R, p.o.)

CN: [2-amino-6-[[[4-fluorophenyl)methyl]amino]-3-pyridinyl]carbamic acid ethyl ester

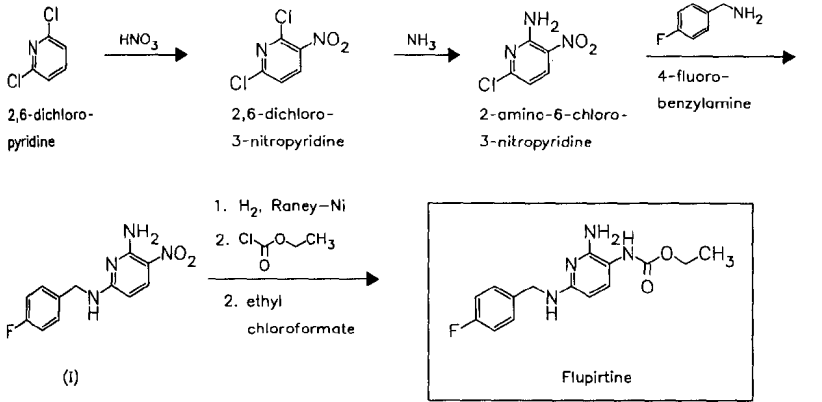
monohydrochloride

RN: 33400-45-2 MF: $\text{C}_{15}\text{H}_{17}\text{FN}_4\text{O}_2 \cdot \text{HCl}$ MW: 340.79 EINECS: 251-496-2

LD_{50} : 432 mg/kg (M, s.c.)

maleate (1:1)

RN: 75507-68-5 MF: $\text{C}_{15}\text{H}_{17}\text{FN}_4\text{O}_2 \cdot \text{C}_4\text{H}_4\text{O}_4$ MW: 420.40 EINECS: 278-225-0



Reference(s):

- DE 1 670 522 (Degussa; appl. 12.5.1966).
- DE 1 795 858 (Degussa; appl. 19.7.1968).
- US 3 481 943 (Degussa; 2.12.1969; D-prior. 12.5.1966).
- US 3 513 171 (Degussa; 19.5.1970; D-prior. 12.5.1966).
- Bebenburg, W. v. et al.: Chem.-Ztg. (CMKZAT) **103**, 387 (1979).
- Bebenburg, W. v. et al.: Chem.-Ztg. (CMKZAT) **105**, 217 (1981).
- US 5 959 115 (ASATA Medica; 28.9.1999; appl. 23.4.1998; D-prior. 23.4.1997).

Formulation(s): cps. 50 mg, 100 mg; suppos. 75 mg, 150 mg (as maleate)

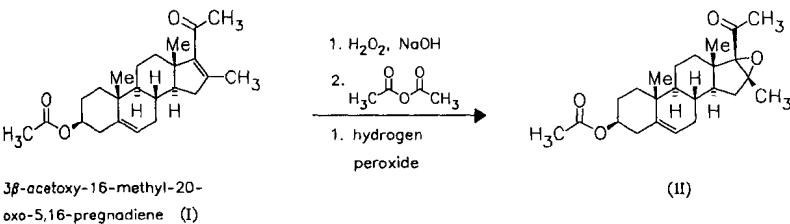
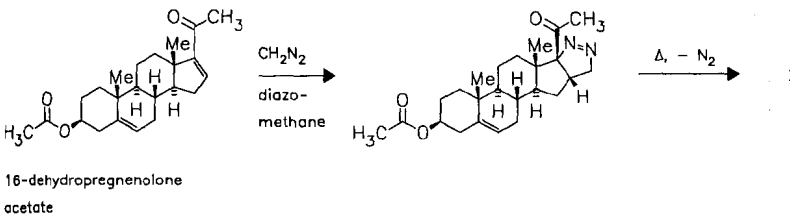
Trade Name(s):

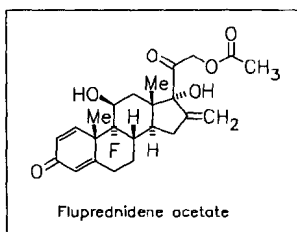
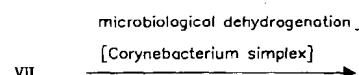
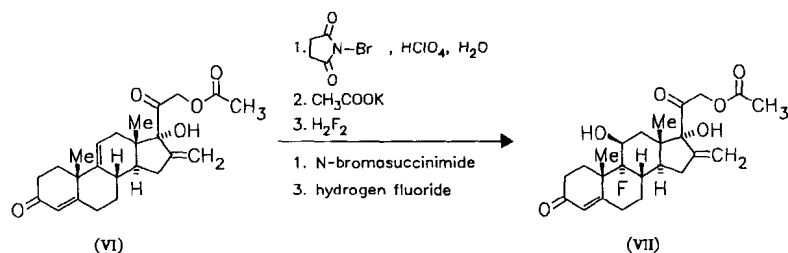
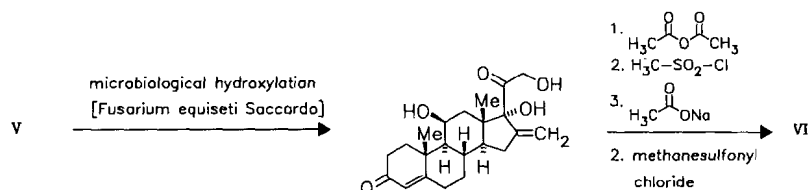
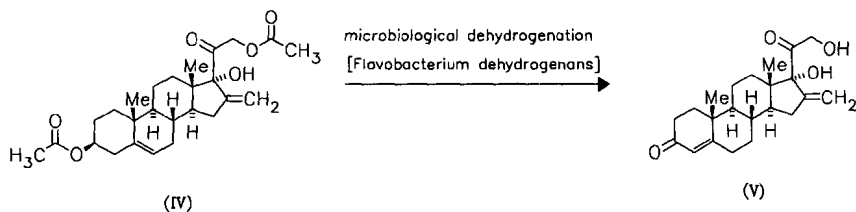
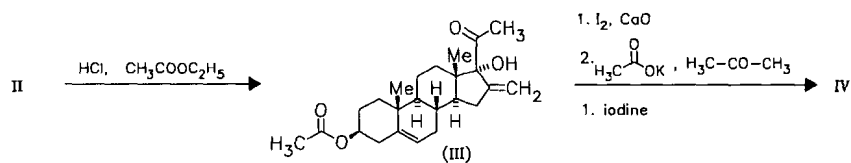
D: Katadolon (ASTA Medica AWD) Trancopal (Sanofi Winthrop) I: Katadolon (ASTA Medica)

Fluprednidene acetate

ATC: D07AB07; D07CB02; D07XB03
Use: topical glucocorticoid

RN: 1255-35-2 MF: $\text{C}_{24}\text{H}_{29}\text{FO}_6$ MW: 432.49 EINECS: 215-013-9
CN: (11 β)-21-(acetyloxy)-9-fluoro-11,17-dihydroxy-16-methylenepregna-1,4-diene-3,20-dione



*Reference(s):*

GB 1 230 671 (Merck Patent GmbH; appl. 10.7.1969).
 Irmischer, K. et al.: *Arzneim.-Forsch. (ARZNAD)* **18**, 7 (1968).
 (also other syntheses reviewed)

synthesis of 16-dehydropregnenolone acetate:

Wettstein, A.: *Helv. Chim. Acta (HCACAV)* **27**, 1803 (1944).

alternative syntheses:

GB 946 860 (Merck & Co.; appl. 17.3.1960; USA-prior. 24.3.1959).
 US 3 068 226 (Merck & Co.; 11.12.1962; appl. 22.12.1961; prior. 24.3.1959).
 US 3 163 760 (Merck & Co.; 9.7.1964; appl. 24.3.1959).
 US 3 309 272 (Merck & Co.; 14.3.1967; appl. 24.4.1961; prior. 24.3.1959).

Formulation(s): cream 1 mg/g; ointment 0.05 g/100 g, 1 mg/g; sol. 0.025 g/100 g, 0.15 g/100 g, 1 mg/ml

Trade Name(s):

D: Candio-Hermal (Hermal)-
comb.

Decoderm (Hermal)
Decoderm (Hermal)-comb.

Sali-Decoderm (Hermal)-
comb.

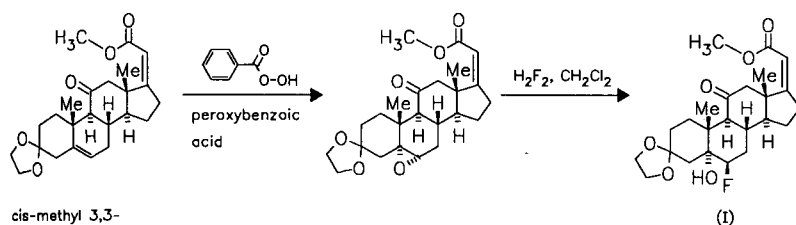
Fluprednisolone acetate

Use: glucocorticoid

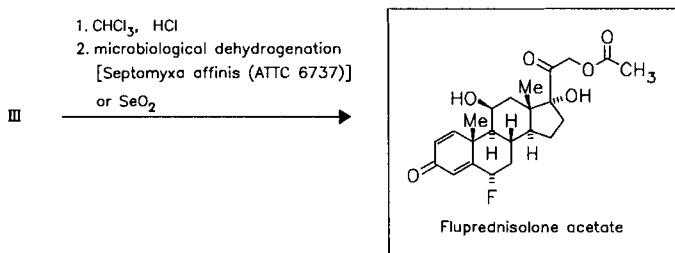
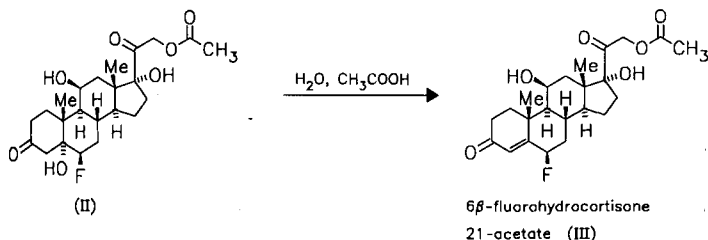
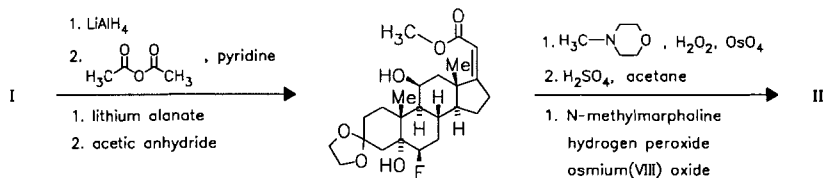
RN: 570-36-5 MF: C₂₃H₂₉FO₆ MW: 420.48 EINECS: 209-330-1
CN: (6 α ,11 β)-21-(acetyloxy)-6-fluoro-11,17-dihydroxypregna-1,4-diene-3,20-dione

fluprednisolone

RN: 53-34-9 MF: C₂₁H₂₇FO₅ MW: 378.44 EINECS: 200-170-8



cis-methyl 3,3-
ethylenedioxy-11-oxo-
5,17(20)-pregnadiene-
21-carboxylate



Reference(s):

US 2 841 600 (Upjohn; 1958; prior. 1957, 1955).
DE 1 079 042 (Syntex; appl. 1958; MEX-prior. 1957).

starting material:

US 2 707 184 (Upjohn; 1955, prior. 1953, 1952).

alternative synthesis:

US 4 041 055 (Upjohn; 9.8.1977; prior. 17.11.1975).

Formulation(s): tabl. 1.5 mg, 2 mg, 16 mg*Trade Name(s):*

D: Isopredon (Hoechst); wfm I: Etadrol (Carlo Erba); wfm
 F: Decoderme (Merck-Clévenot); wfm Etadrol (Farmitalia); wfm
 USA: Alphadrol (Upjohn); wfm

Flurazepam

ATC: N05CD01

Use: hypnotic, sedative

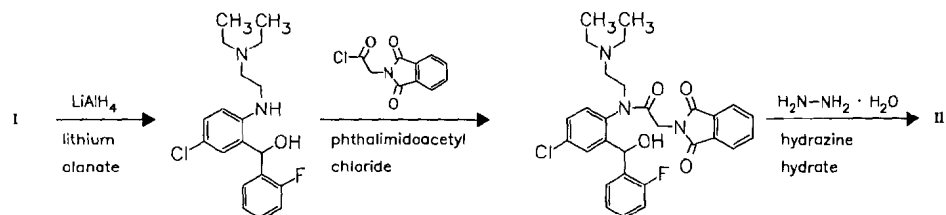
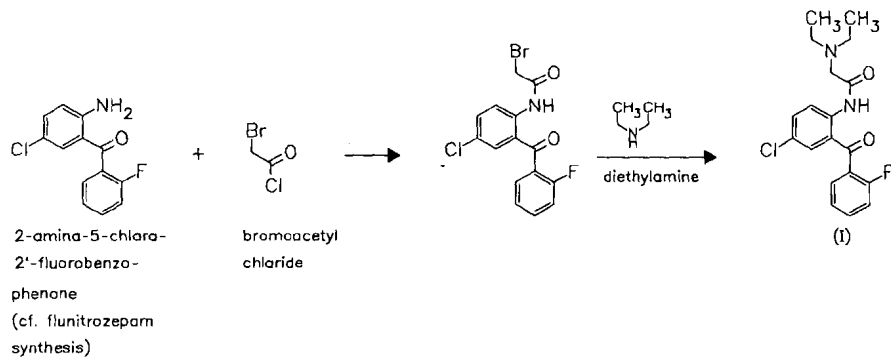
RN: 17617-23-1 MF: $C_{21}H_{23}ClFN_3O$ MW: 387.89 EINECS: 241-591-7LD₅₀: 59.1 mg/kg (M, i.v.); 500 mg/kg (M, p.o.);

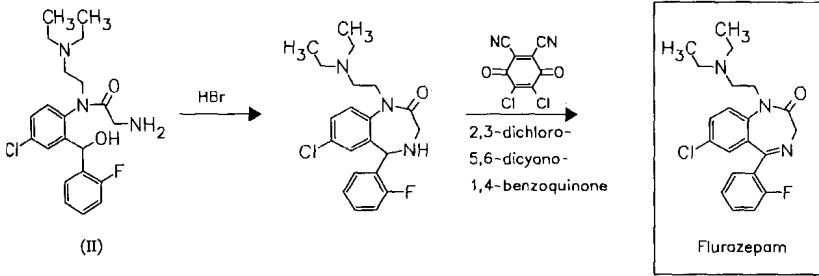
38.7 mg/kg (R, i.v.); 980 mg/kg (R, p.o.)

CN: 7-chloro-1-[2-(diethylamino)ethyl]-5-(2-fluorophenyl)-1,3-dihydro-2H-1,4-benzodiazepin-2-one

dihydrochlorideRN: 1172-18-5 MF: $C_{21}H_{23}ClFN_3O \cdot 2HCl$ MW: 460.81 EINECS: 214-630-0LD₅₀: 59.1 mg/kg (M, i.v.); 596 mg/kg (M, p.o.);

38.7 mg/kg (R, i.v.); 879 mg/kg (R, p.o.)

hydrochlorideRN: 36105-20-1 MF: $C_{21}H_{23}ClFN_3O \cdot HCl$ MW: 424.35



Reference(s):

US 3 567 710 (Hoffmann-La Roche; 2.3.1971; prior. 3.6.1968).

alternative synthesis by reaction of 2-diethylaminoethyl chloride with 7-chloro-5-(2-fluorophenyl)-2-oxo-2,3-dihydro-1H-1,4-benzodiazepine:

GB 1 040 548 (Roche; appl. 1.3.1963; USA-prior. 2.3.1962).

Formulation(s): cps. 10 mg, 15 mg; tabl. 27.42 mg (as base); cps. 15 mg, 30 mg; tabl. 30 mg (as monohydrochloride); cps. 15 mg, 30 mg; s. r. cps. 20 mg (as dihydrochloride)

Trade Name(s):

D:	Dalmadorm (Roche)	Felison (Bayropharm)	J:	Benozil (Kyowa)
	Flurazepam 15/30 Riker (3M Medica)	Flunox (Boehringer Mannh.)		Dalmate (Nippon Roche)
	Staurodorm Neu (Dolorgiet)	Midorm A.R. (Piam)	USA:	Dalmane (Roche)
GB:	Dalmane (Roche)	Remdue (Biomedica)		
I:	Dalmadorm (Roche)	Foscama		
		Valdorm (Valeas)		

Flurbiprofen

ATC: M01AE09; M02AA19; S01BC04
Use: anti-inflammatory, analgesic

RN: 5104-49-4 MF: C₁₅H₁₃FO₂ MW: 244.27 EINECS: 225-827-6

LD₅₀: >385 mg/kg (M, i.v.); 640 mg/kg (M, p.o.);

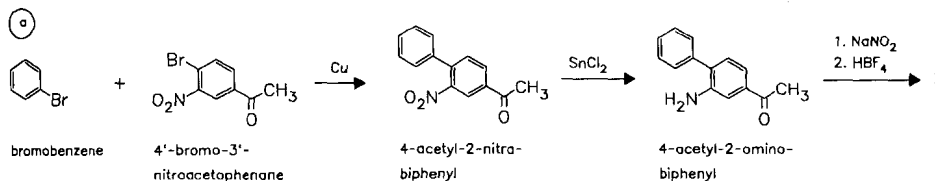
117 mg/kg (R, p.o.);

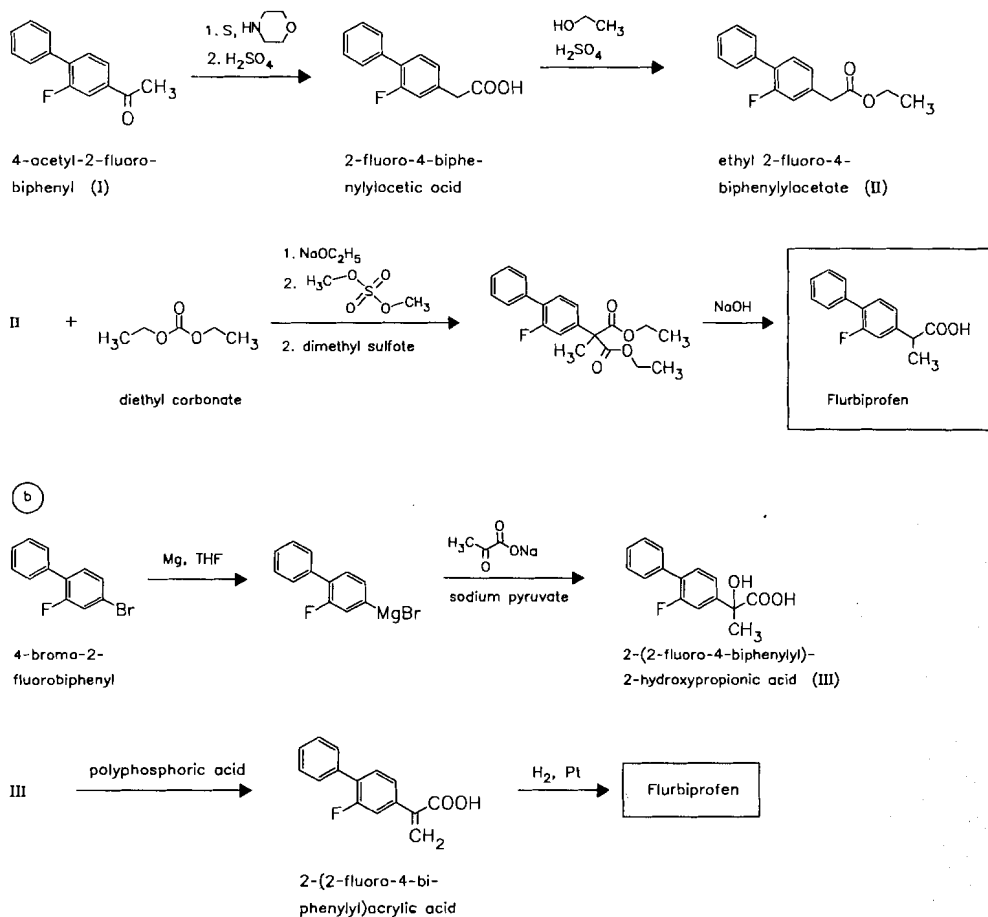
10 mg/kg (dog, p.o.)

CN: 2-fluoro- α -methyl[1,1'-biphenyl]-4-acetic acid

sodium salt

RN: 56767-76-1 MF: C₁₅H₁₂FNaO₂ MW: 266.25



**Reference(s):**

- a** DAS 1 518 528 (Boots; appl. 19.1.1965; GB-prior. 24.1.1964).
 US 3 755 427 (Boots; 28.8.1973; GB-prior. 24.1.1964).
 US 3 793 457 (Adams Sental; 19.2.1974; GB-prior. 24.1.1964).
b GB 1 514 812 (Boots; appl. 4.4.1975; valid from 31.3.1976).

similar method:

US 3 959 364 (Boots; 25.5.1976; GB-prior. 24.5.1973).

alternative syntheses:

DOS 2 646 792 (Mitsubishi Petrochemical; appl. 16.10.1976; J-prior. 23.10.1975, 31.7.1976).

racemate resolution:

DOS 2 809 794 (Boots; appl. 7.3.1978; GB-prior. 8.3.1977, 18.1.1978).

Formulation(s): amp. 50 mg; cps. 200 mg; drg. 50 mg, 100 mg; eye drops 0.3 mg/ml (as sodium salt dihydrate); plaster 40 mg; s. r. cps. 200 mg; suppos. 100 mg; tabl. 50 mg, 100 mg

Trade Name(s):

D:	Froben (Kanoldt; 1980)	Ocufen (Allergan)	J:	Froben (Kakenyaku)	
	Ocufur (Pharm-Allergan)	GB:	Froben (Knoll; 1977)	USA:	Ocufen (Allergan; 1987).
F:	Antadys (Théramex)		Ocufen (Allergan)		
	Cebutid (Knoll; 1979)	I:	Froben (Boots Italia)		

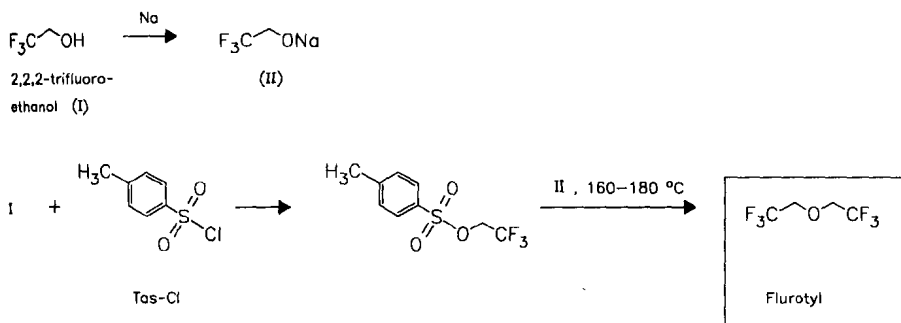
Flurotyl

(Flurothyl)

Use: CNS stimulant, convulsant

RN: 333-36-8 MF: C₄H₄F₆O MW: 182.06LD₅₀: 46 mg/kg (M, i.v.)

CN: 1,1'-oxybis[2,2,2-trifluoroethane]

*Reference(s):*

US 3 363 006 (Pennwalt; 9.1.1968; prior. 29.12.1955, 20.6.1960).

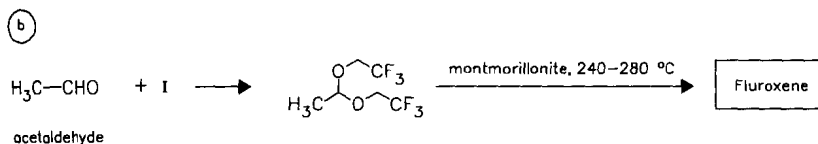
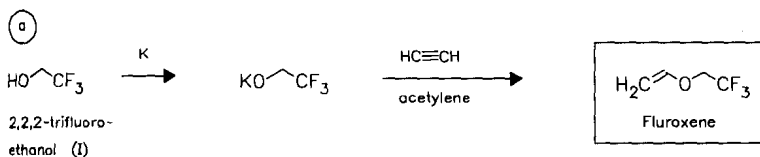
Formulation(s): 2 ml in special inhalation device*Trade Name(s):*USA: Indoklon (Ohio Med.);
wfm**Fluroxene**

ATC: N01AA

Use: inhalation anesthetic

RN: 406-90-6 MF: C₄H₅F₃O MW: 126.08 EINECS: 206-977-1LD₅₀: 5600 mg/kg (R, i.p.)

CN: (2,2,2-trifluoroethoxy)ethene

*Reference(s):*

a US 2 830 007 (Air Reduction Comp.; 1958; appl. 1953).

b US 2 870 218 (Air Reduction Comp.; 1959; appl. 1955).

Formulation(s): liquid for inhalation 125 ml

Trade Name(s):

USA: Fluoromar (Ohio Med.);
wfm

Fluspirilene

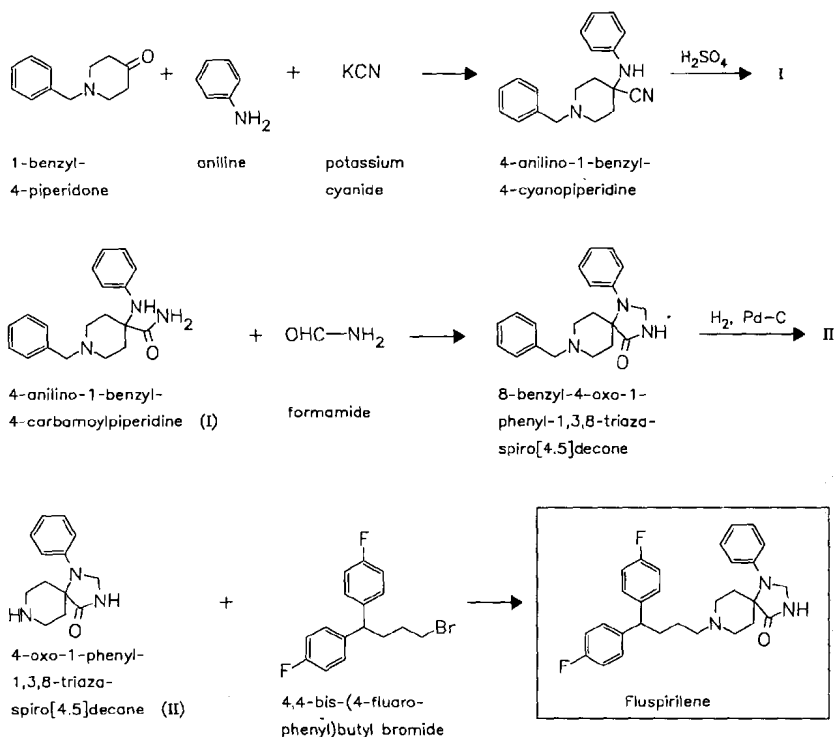
ATC: N05AG01

Use: neuroleptic

RN: 1841-19-6 MF: C₂₉H₃₁F₂N₃O MW: 475.58 EINECS: 217-418-6LD₅₀: 106 mg/kg (M, i.m.);

>146 mg/kg (R, i.m.)

CN: 8-[4,4-bis(4-fluorophenyl)butyl]-1-phenyl-1,3,8-triazaspiro[4.5]decan-4-one

*Reference(s):*

BE 633 914 (Janssen; appl. 20.6.1963; USA-prior. 22.6.1962).

US 3 238 216 (Janssen; 1.3.1966; prior. 22.6.1962, 20.6.1963).

DAS 1 470 125 (Janssen; appl. 21.6.1963; USA-prior. 22.6.1962).

Formulation(s): amp. 1.5 mg/0.75 ml, 2 mg/ml, 12 mg/6 ml; vial 12 mg (2 mg/ml)*Trade Name(s):*

D: Fluspi (Neuro Hexal)
Imap (Janssen)
Kivat (Hormosan)

GB: Redeptin (Smith Kline & French); wfm
USA: Imap (McNeil); wfm

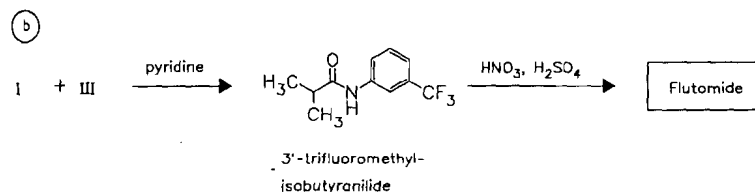
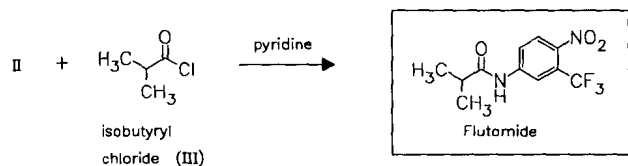
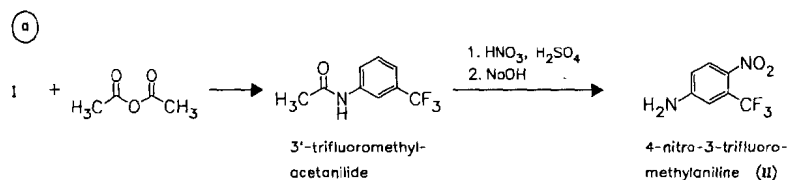
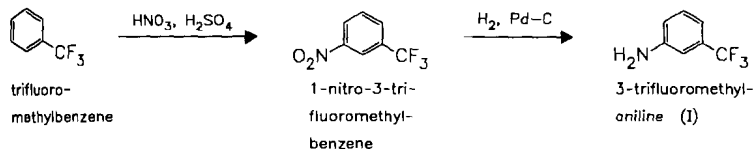
Flutamide

ATC: L02BB01

Use: antiandrogen, antineoplastic
(hormonal)RN: 13311-84-7 MF: C₁₁H₁₁F₃N₂O₃ MW: 276.21 EINECS: 236-341-9LD₅₀: 787 mg/kg (R, p.o.);

>2 g/kg (dog, p.o.)

CN: 2-methyl-N-[4-nitro-3-(trifluoromethyl)phenyl]propanamide



Reference(s):

J. Med. Chem. (JMCMAR) **10**, 93 (1967).

a DOS 2 130 450 (Scherico; appl. 19.6.1971).

US 4 144 270 (Scherico; 13.3.1979; appl. 26.6.1974).

b US 4 302 599 (Schering Co.; 24.11.1981; prior. 10.9.1979).

synthesis of 4-nitro-3-trifluoromethylaniline:

Jones, R.G.; J. Am. Chem. Soc. (JACSAT) **69**, 2346 (1947).

medical use:

US 3 995 060 (Scherico; 30.11.1976; appl. 11.9.1974).

US 4 139 638 (Schering Corp.; 13.2.1979; appl. 3.10.1977).

US 4 161 540 (Schering Corp.; 13.2.1979; appl. 3.10.1977).

US 4 329 364 (Schering Corp.; 11.5.1982; appl. 23.9.1976).

US 4 474 813 (Schering Corp. 2.10.1984; appl. 24.5.1982).

Formulation(s): cps. 125 mg; tabl. 250 mg

Trade Name(s):

D: Apimid (Apogepha)	Prostica (TAD)	Drogenil (Schering-Plough)
Cytamid (esparma)	Prostogenat (Azupharma)	
Flumid (Hexal)	Testac (medac)	I: Eulexin (Schering-Plough; 1986)
Fluta GRY (GRY-Pharma)	Testotard (Chephasaar)	J: Odyne (Nippon Kayaku)
Flutamex (Sanofi)	F: Eulexine (Schering-Plough; 1987)	USA: Eulexin (Schering)
Winthrop)		
Fugerel (Essex Pharma; 1984)	GB: Chimax (Chiron)	

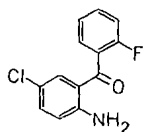
Flutazolam

ATC: N05BA
 Use: benzodiazepine anxiolytic, tranquilizer

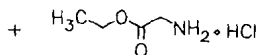
RN: 27060-91-9 MF: C₁₉H₁₈ClFN₂O₃ MW: 376.82

LD₅₀: 1910 mg/kg (M, p.o.);
 >6 g/kg (R, p.o.)

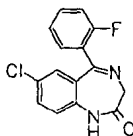
CN: 10-chloro-11b-(2-fluorophenyl)-2,3,7,11b-tetrahydro-7-(2-hydroxyethyl)oxazol[3,2-d][1,4]benzodiazepin-6(5H)-one



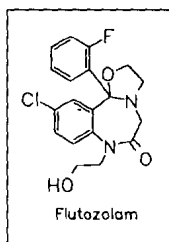
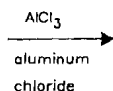
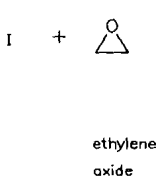
2-amino-5-chloro-2'-fluorobenzophenone
 (cf. flunitrazepam synthesis)



glycine ethyl ester hydrochloride



7-chloro-5-(2-fluorophenyl)-1,3-dihydro-2H-1,4-benzodiazepin-2-one (I)

*Reference(s):*

DOS 1 952 486 (Hoffmann-La Roche; appl. 17.10.1969; USA-prior. 18.10.1968).

synthesis of 7-chloro-5-(2-fluorophenyl)-1,3-dihydro-2H-1,4-benzodiazepin-2-one:
 US 3 109 843 (Hoffmann-La Roche; 5.11.1963; prior. 21.6.1962).

Formulation(s): tabl. 4 mg

Trade Name(s):

J: Coreminal (Mitsui)

Fluticasone propionate

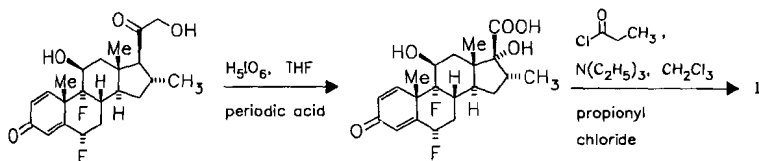
ATC: R01AD08; R03BA05; D07AC17

Use: locally active glucocorticosteroid

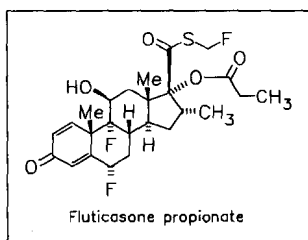
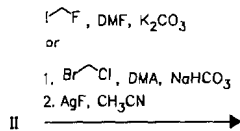
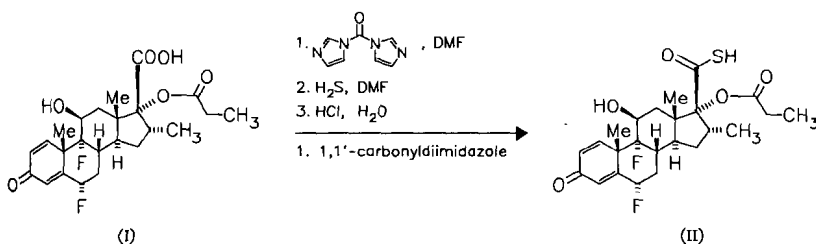
RN: 80474-14-2 MF: C₂₅H₃₁F₃O₅S MW: 500.58

LD₅₀: >2 g/kg (R, p. o.); >1 g/kg (R, s. c.)

CN: (6α,11β,16α,17α)-6,9-Difluoro-11-hydroxy-16-methyl-3-oxo-17-(1-oxopropoxy)androsta-1,4-diene-17-carbothioic acid *S*-(fluoromethyl) ester



(cf. difluocortolone valerate)



Reference(s):

BE 887 518 (Glaxo Group; appl. 13.2.1981; GB-prior. 15.2.1980).

IL 109 656 (Chemagis LTD.; IL-prior. 15.5.1994).

Phillips, G.H. et al.: J. Med. Chem. (JMCMAR) **37**, 3717 (1994).

Formulation(s): aerosol for inh. 44 µg, 110 µg, 220 µg; cream 0.05%; ointment 0.005%; nasal spray 0.05%

Trade Name(s):

D: Atemur (ASTA Medica
AWD; Glaxo Wellcome)
Flutide (Cascan; Glaxo
Wellcome)
Flutivate (Cascan; Glaxo
Wellcome)

Viani (Cascan; Glaxo
Wellcome) comb. with
Salmeterol
GB: Cutivate (Glaxo Wellcome)
Flixonase (Allen &
Hanburys)
Flixotide (Allen &
Hanburys)

I: Flixotide (Glaxo
Wellcome)
Fluspiral (Menarini)
USA: Cutivate (Glaxo Wellcome)
Flonase (Glaxo Wellcome)
Flovent (Glaxo Wellcome)

Flutoprazepam

ATC: N05BA

Use: long acting benzodiazepine anxiolytic

RN: 25967-29-7 MF: C₁₉H₁₆ClFN₂O MW: 342.80LD₅₀: 2110 mg/kg (M, i.p.); 2430 mg/kg (M, p.o.);

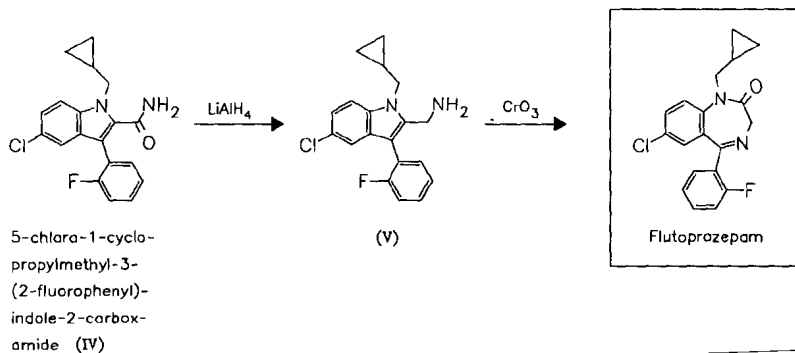
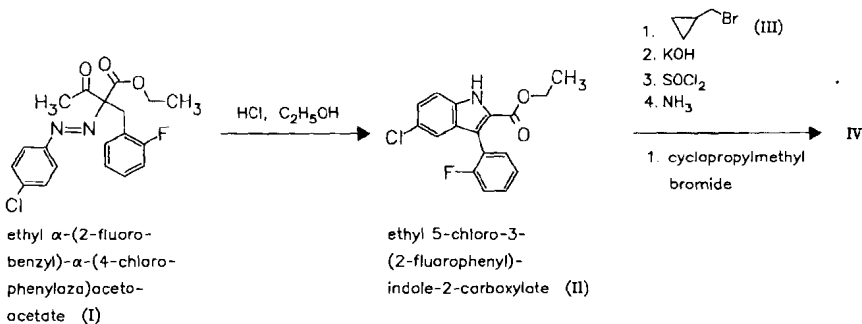
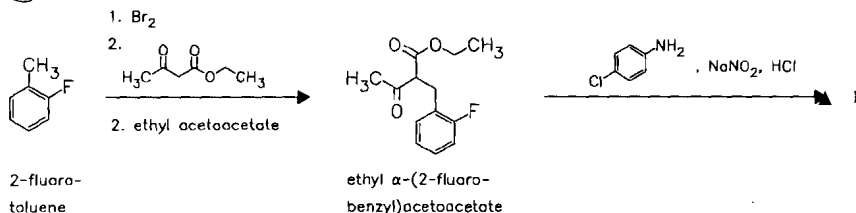
2230 mg/kg (R, i.p.); 10.06 g/kg (R, p.o.);

1000 mg/kg (rabbit, p.o.);

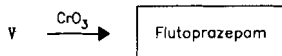
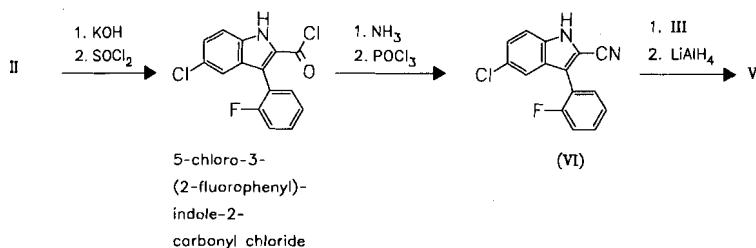
>10 g/kg (dog, p.o.)

CN: 7-chloro-1-(cyclopropylmethyl)-5-(2-fluorophenyl)-1,3-dihydro-2H-1,4-benzodiazepin-2-one

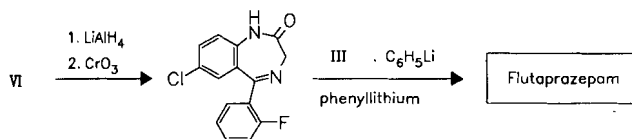
⊙



(b)



(c)

*Reference(s):*

DE 1 795 372 (Sumitomo; appl. 20.9.1968; J-prior. 22.9.1967).

DE 1 795 771 (Sumitomo; appl. 20.9.1968; J-prior. 2.11.1967).

US 3 925 364 (Sumitomo; 6.8.1974; appl. 16.9.1968; J-prior. 22.9.1967).

additional synthesis:

DOS 2 151 540 (Sumitomo; appl. 15.10.1971; J-prior. 17.10.1970).

DOS 2 113 122 (Sumitomo; appl. 18.3.1971; J-prior. 19.3.1970).

Formulation(s): tabl. 2 mg*Trade Name(s):*

J: Restas (Banyu; 1985)

Flutrimazole

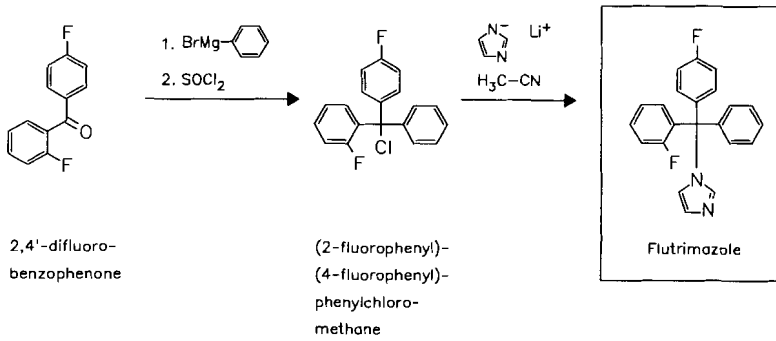
(UR-4056)

ATC: D01A

Use: topical antifungal

RN: 119006-77-8 MF: C₂₂H₁₆F₂N₂ MW: 346.38

CN: 1-[(2-fluorophenyl)(4-fluorophenyl)phenylmethyl]-1H-imidazole



Reference(s): EP 352 352 (J. Uriach & Cia.; appl. 31.1.1990; prior. 28.7.1988).

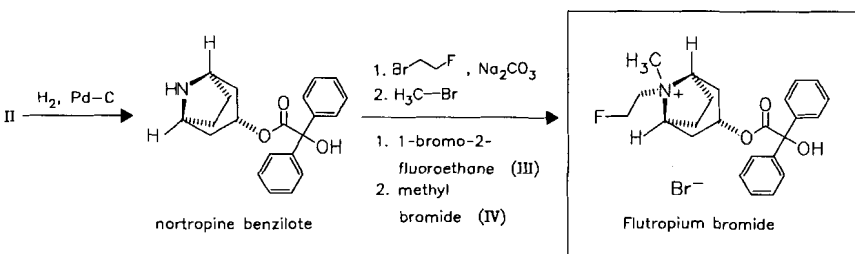
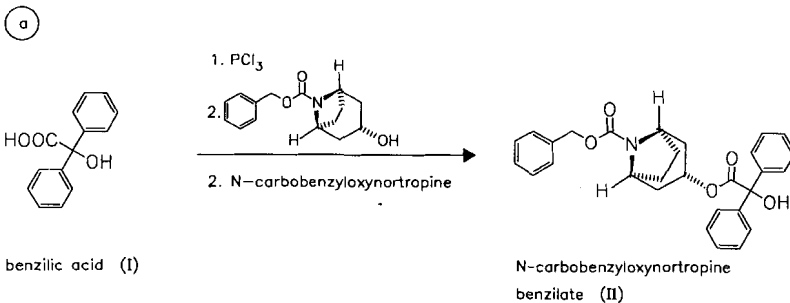
Formulation(s): cream 1 %

Trade Name(s): E: Micetal (Uriach)

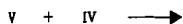
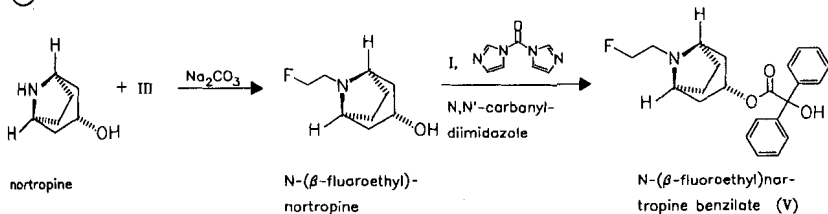
Flutropium bromide
(BA-598 BR)

ATC: R03BB
Use: anticholinergic, bronchodilator

RN: 63516-07-4 MF: C24H29BrFNO3 MW: 478.40
 LD₅₀: 53 mg/kg (M, i.p.); 11 mg/kg (M, i.v.); 760 mg/kg (M, p.o.); 228 mg/kg (M, s.c.); 77 mg/kg (R, i.p.); 12.5 mg/kg (R, i.v.); 740 mg/kg (R, p.o.); 615 mg/kg (R, s.c.)
 CN: (endo,syn)-8-(2-fluoroethyl)-3-[(hydroxydiphenylacetyl)oxy]-8-methyl-8-azoniabicyclo[3.2.1]octane bromide



b



Flutropium bromide

Reference(s):

DE 2 540 633 (Boehringer Ing.; appl. 12.9.1976).
 Banholzer, R. et al.: *Arzneim.-Forsch. (ARZNAD)* **36**, 1161 (1986).

synthesis of nortropine benzilate:

Bertholdt, H. et al.: *Arzneim.-Forsch. (ARZNAD)* **17**, 719 (1967)

Trade Name(s):

J: Flubron (S. S. Pharm.)

Fluvastatin sodium

(SRI-62320; XU-62-320; XU-620)

ATC: B04AB04

Use: hyperlipidemic, HMG-CoA-reductase inhibitor

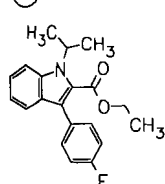
RN: 93957-55-2 MF: $C_{24}H_{25}FNNaO_4$ MW: 433.46

CN: [*R**,*S**-(*E*)]-(±)-7-[3-(4-fluorophenyl)-1-(1-methylethyl)-1*H*-indol-2-yl]-3,5-dihydroxy-6-heptenoic acid monosodium salt

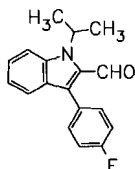
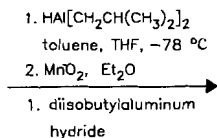
free acid

RN: 93957-54-1 MF: $C_{24}H_{26}FNO_4$ MW: 411.47

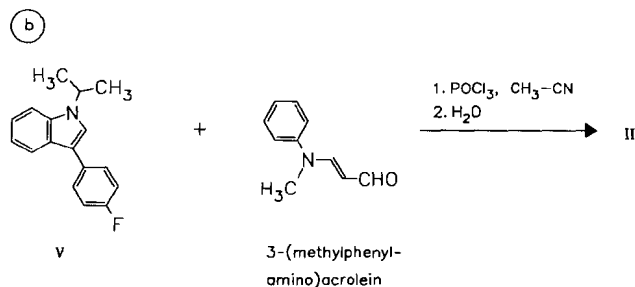
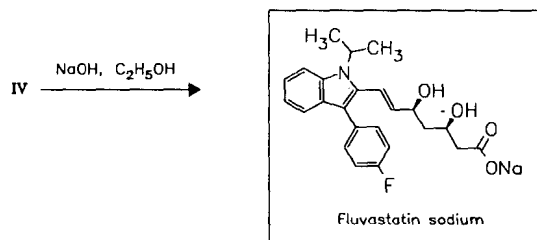
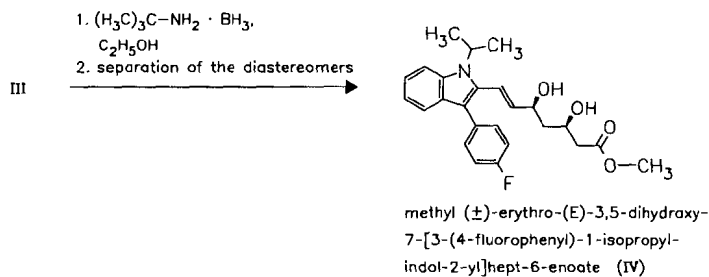
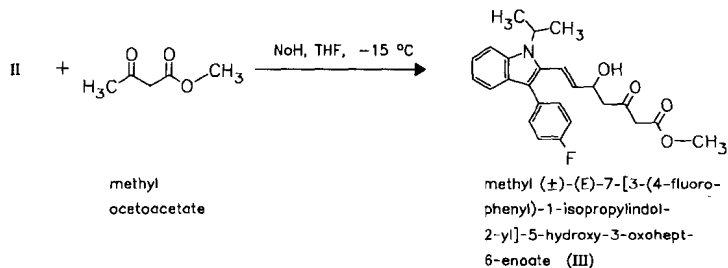
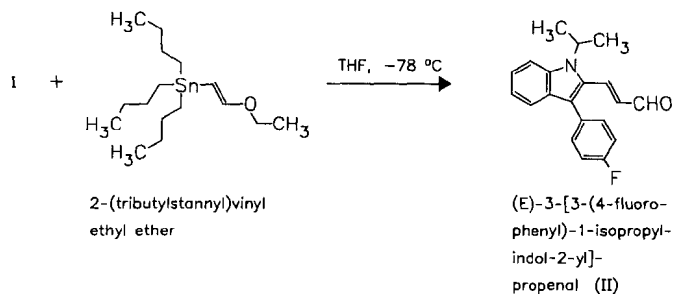
a

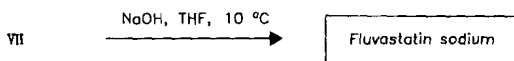
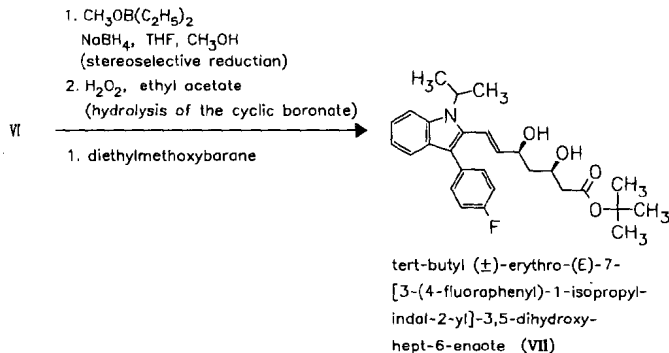
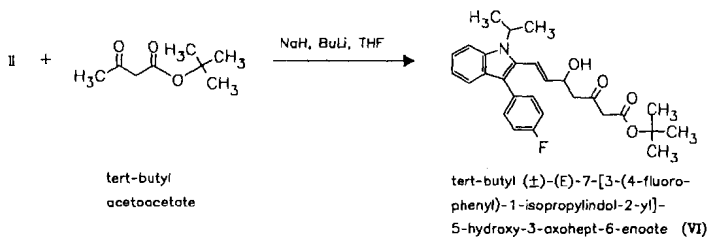


ethyl 3-(4-fluoro-phenyl)-1-isopropyl-indole-2-carboxylate

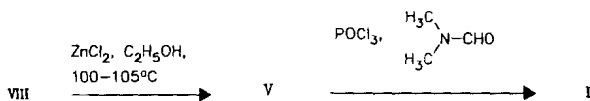
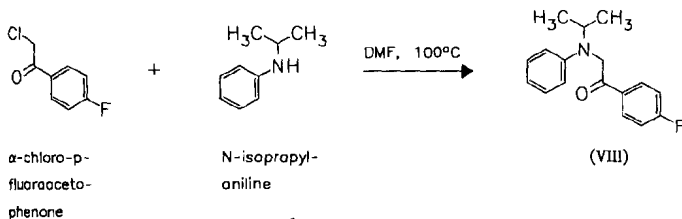


3-(4-fluorophenyl)-1-isopropylindole-2-carboxaldehyde (I)





(aa) synthesis of 3-(4-fluorophenyl)-1-isopropylindole-2-carboxaldehyde (I):



Reference(s):

- a WO 8 402 131 (Sandoz; appl. 18.11.1983; USA-prior. 22.11.1982, 4.11.1983, 4.3.1985).
 aa Walkup, R.E. et al.: Tetrahedron Lett. (TELEAY) **26** (18), 2155-2158 (1985).
 b EP 363 934 (Sandoz; appl. 11.10.1989; USA-prior. 13.10.1983, 22.5.1989).

composition with improved storage stability:

US 5 356 896 (Sandoz; 18.10.1994; appl. 22.12.1992; USA-prior. 12.12.1991).

oral pharmaceutical composition:

EP 547 000 (Sandoz; appl. 8.12.1992; USA-prior. 12.12.1991).

combination with squalene synthase inhibitors:

EP 482 498 (Squibb; appl. 16.10.1991; USA-prior. 19.10.1990).

EP 401 705 (Squibb; appl. 1.6.1990; USA-prior. 5.6.1989).

combination with ACE inhibitors:

EP 461 548 (Squibb; appl. 6.6.1991; USA-prior. 11.6.1990).

EP 457 514 (Squibb; appl. 10.5.1991; USA-prior. 15.5.1990).

combination with niacin or probucol:

EP 373 507 (Squibb; appl. 7.12.1982; USA-prior. 12.12.1988).

composition containing coenzyme Q10:

US 4 933 165 (Merck & Co.; 12.6.1990; appl. 18.1.1989; USA-prior. 18.1.1989).

US 4 929 437 (Merck & Co.; 29.5.1990; appl. 2.2.1989; USA-prior. 2.2.1989).

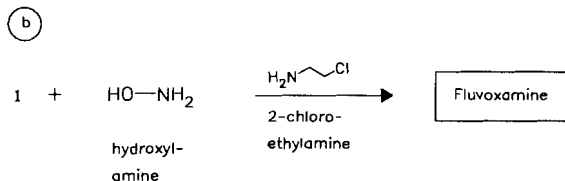
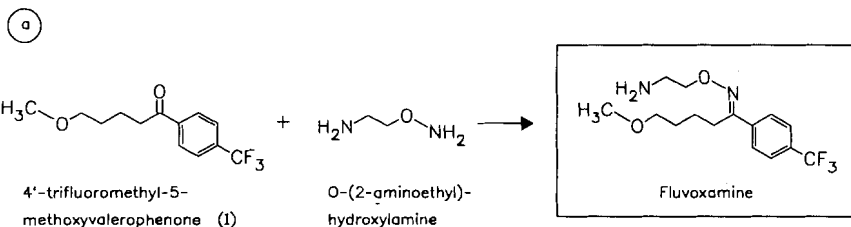
Formulation(s): cps. 21.06 mg, 42.12 mg*Trade Name(s):*

D:	Cranoc (Astra/Promed)	F:	Fractal (Sinbio)	GB:	Lescol (Novartis)
	Locol (Novartis Pharma)		Lescol (Novartis)	USA:	Lescol (Novartis)

Fluvoxamine

ATC: N06AB08

Use: antidepressant

RN: 54739-18-3 MF: C₁₅H₂₁F₃N₂O₂ MW: 318.34CN: (*E*)-5-methoxy-1-[4-(trifluoromethyl)phenyl]-1-pentanone *O*-(2-aminoethyl)oxime**hydrogen maleate**RN: 61718-82-9 MF: C₁₅H₂₁F₃N₂O₂ · C₄H₄O₄ MW: 434.41*Reference(s):*

DE 2 610 886 (Philips Gloeilampenfabrieken; appl. 7.10.1976; prior. 16.3.1976).

US 4 085 225 (Philips Corp.; 18.4.1978; appl. 13.3.1976; NL-prior. 20.3.1975).

NL 7 503 310 (Philips Gloeilampenfabrieken; appl. 20.3.1975).

Formulation(s): f. c. tabl. 50 mg, 100 mg; tabl. 25 mg, 50 mg, 100 mg (as hydrogen maleate)*Trade Name(s):*

D:	Fevarin (Solvay Arzneimittel; 1984)	GB:	Faverin (Solvay; 1987)	USA:	Luvox (Solvay)
F:	Floxyfral (Solvay Pharma; 1986)	I:	Dumirox (Upjohn)		
			Fevarin (UCM)		
			Maveral (Farmades)		

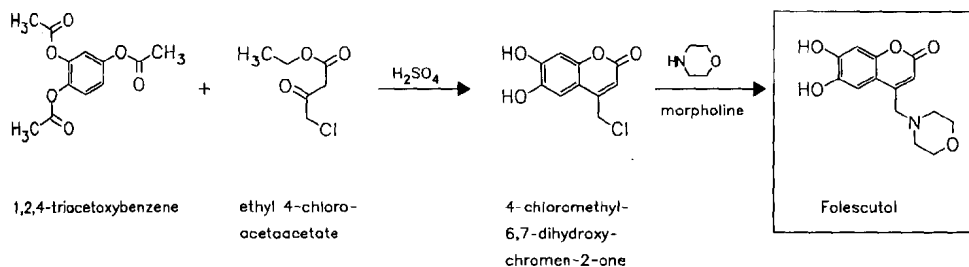
Folescutol

ATC: C05C

Use: capillary therapeutic, capillary protectant

RN: 15687-22-6 MF: C₁₄H₁₅NO₅ MW: 277.28 EINECS: 239-783-0

CN: 6,7-dihydroxy-4-(4-morpholinylmethyl)-2H-1-benzopyran-2-one

hydrochlorideRN: 36002-19-4 MF: C₁₄H₁₅NO₅ · HCl MW: 313.74 EINECS: 252-831-5**Reference(s):**

FR-M 2 035 (Lab. Dausse; appl. 29.6.1962).

Formulation(s): drg. 20 mg in comb.**Trade Name(s):**D: Detensitral (Karlspharma)-
comb.; wfm

F: Covalan (Dausse); wfm

Tensitral (Dausse)-comb.;
wfm**Folic acid**

(Pteroylglutamic acid)

ATC: B03BB01

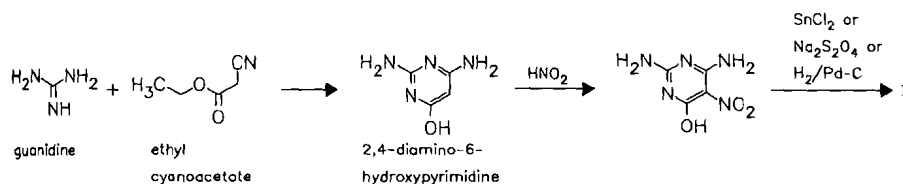
Use: antianemic, growth factor

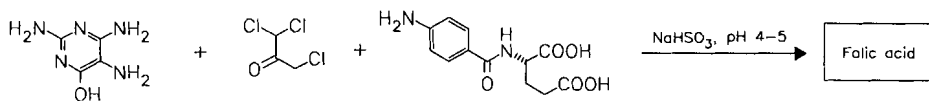
RN: 59-30-3 MF: C₁₉H₁₉N₇O₆ MW: 441.40 EINECS: 200-419-0LD₅₀: 282 mg/kg (M, i.v.); 10 g/kg (M, p.o.)

CN: N-[4-[(2-amino-1,4-dihydro-4-oxo-6-pteridiny)methyl]amino]benzoyl]-L-glutamic acid

monosodium saltRN: 6484-89-5 MF: C₁₉H₁₈N₇NaO₆ MW: 463.39 EINECS: 229-348-3LD₅₀: 631 mg/kg (M, i.v.);

526 mg/kg (R, i.v.)

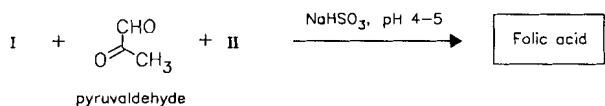
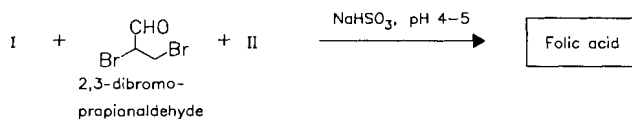
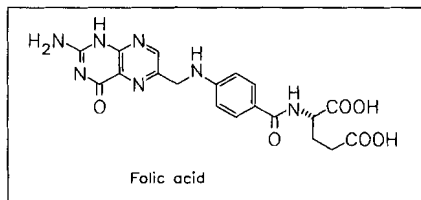




6-hydroxy-2,4,5-triaminopyrimidine (I)

1,1,3-trichloroacetone

N-(4-aminobenzoyl)-L-glutamic acid (II)

*Reference(s):*

- Wailer, C.W. et al.: J. Am. Chem. Soc. (JACSAT) **70**, 19 (1948).
 Hultquist, M.E. et al.: J. Am. Chem. Soc. (JACSAT) **70**, 23 (1948).
 Angier, R.B. et al.: J. Am. Chem. Soc. (JACSAT) **70**, 25 (1948).
 Boothe, J.H. et al.: J. Am. Chem. Soc. (JACSAT) **70**, 27 (1948).
 US 2 436 073 (American Cyanamid; 1948; appl. 1945).
 US 2 442 836 (American Cyanamid; 1948; appl. 1945).
 US 2 443 078 (American Cyanamid; 1948; appl. 1945).
 US 2 443 165 (American Cyanamid; 1948; appl. 1946).
 US 2 444 002 (American Cyanamid; 1948; appl. 1946).
 US 2 472 482 (American Cyanamid; 1949; appl. 1947).
 US 2 477 426 (American Cyanamid; 1949; appl. 1948).
 US 2 547 501 (American Cyanamid; 1951; appl. 1946).
 US 2 599 526 (American Cyanamid; 1952; appl. 1951).
 US 2 719 157 (Shionogi; 1955; appl. 1951).
 US 2 956 057 (Kongo Kagaku Kabushiki Kaisha; 1960; J-prior. 1955).

use of propargyl aldehyde:

- US 2 766 240 (Aries Labs.; 1956; appl. 1953).

condensation with α -bromoacroleine:

- US 2 476 360 (Parke Davis; 1949; appl. 1946).

alternative synthesis (via 2-amino-6-formyl-4-hydroxy-pteridine):

- US 2 786 056 (Merck & Co.; 1957; appl. 1954).
 US 2 816 109 (Merck & Co.; 1957; appl. 1954).
 US 2 821 527 (Merck & Co.; 1958; appl. 1954).
 US 2 821 528 (Merck & Co.; 1958; appl. 1954).
 US 3 067 200 (Merck & Co.; 4.12.1962; prior. 3.5.1954, 20.2.1957).
 Bieri, J.H.; Viscontini, M.: Helv. Chim. Acta (HCACAV) **56**, 2905 (1973).

synthesis via 2-amino-4-hydroxy-6-halogenomethylpteridine:

US 2 547 519 (American Cyanamid; 1951; appl. 1946).

US 2 547 520 (American Cyanamid; 1951; appl. 1946).

US 2 584 538 (American Cyanamid; 1952; appl. 1948).

improved method for synthesis of 2-amino-4-hydroxy-6-methylpteridine:

GB 1 503 476 (Lonza; appl. 6.1.1977; CH-prior. 13.1.1976).

US 4 094 874 (Lonza; 13.6.1978; CH-prior. 13.1.1976).

Formulation(s): amp. 5 mg/5 ml; tabl. 5 mg

Trade Name(s):

D:	Folarell (Sanorell)	Speciafoldine (Specia)	Ferrofolin (Farmades; as calcium salt)-comb.
	Fol-ASmedic (Dyckerhoff)	Vivamyne (Whitehall)-comb.	Ferrograd Folic (Abbott)-comb.
	Folsan (Solvay Arzneimittel)	GB: Ferfolic SV (Sinclair)-comb.	Ferrotre (Mediolanum)-comb.
	Folsäure Injektionslösung (Hevert)	Ferrograd Folic (Abbott)-comb.	Folina (Astra-Simes)
	Folverlan (Verla)	Folex-350 (Shire)-comb.	Folinemic (Firma; as calcium salt)-comb.
	Lafol (Brenner-Efeka; LAW)	Galfer F.A. (Galen)-comb.	Lederfolin (Cyanamid; as calcium salt)
	numerous combination preparations	Lexpec (Rosemont)	Oro B12 (Ripari-Gero)-comb.
F:	Alvityl (Solvay Pharma)-comb.	Meterfolic (Sinclair)-comb.	Tonofolin (Zyama; as calcium salt)
	Azedavit (Whitehall)-comb.	Pregaday (Evans)-comb.	J: Foliamin (Takeda)
	Azinc complexe (Arkopharma)-comb.	Slow-Fe folic (Novartis)-comb.	Folic (Shionogi)
	Carencyl (Riom)-comb.	I: Combetasi (ISI; as calcium salt)-comb.	USA: Bevitamcl (Westlake)
	Élévit Vitamine B9 (Nicholas)-comb.	Efargen (Teofarma)-comb.	Cefol (Abbott)
	Forvital (Whitehall)-comb.	Epargriseovit (Farmitalia)-comb.	Folic (Lederle)
	Lofenalac (Bristol-Myers Squibb)-comb.	Eparmefolin (Bracco; as calcium salt)-comb.	Materna (Lederle)
	Plenyl (Oberlin)-comb.		various generic preparations

Folic acid

(Citrovorum factor)

ATC: A04A; V03AB

Use: antianemic, growth factor, antidote (as calcium salt, at overdose of folic acid antagonists)

RN: 58-05-9 MF: $C_{20}H_{23}N_7O_7$ MW: 473.45 EINECS: 200-361-6

CN: *N*-[4-[[[(2-amino-5-formyl-1,4,5,6,7,8-hexahydro-4-oxo-6-pteridiny)]methyl]amino]benzoyl]-L-glutamic acid

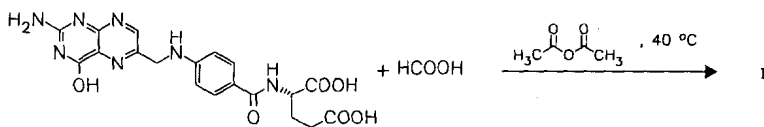
calcium salt (1:1) (leucovorin calcium)

RN: 1492-18-8 MF: $C_{20}H_{21}CaN_7O_7$ MW: 511.51 EINECS: 216-082-8

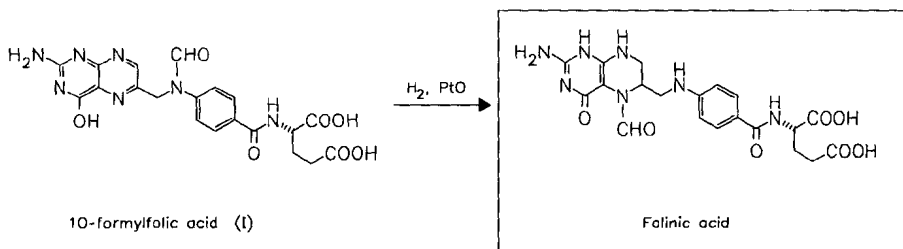
LD₅₀: 732 mg/kg (M, i.v.); >7 g/kg (M, p.o.); >8 g/kg (R, p.o.)

calcium salt (1:1) pentahydrate

RN: 6035-45-6 MF: $C_{20}H_{21}CaN_7O_7 \cdot 5H_2O$ MW: 601.58



folic acid (q. v.)



10-formylfolic acid (I)

Folinic acid

Reference(s):

US 2 741 608 (Research Corp.; 1956; prior. 1950).

DOS 2 836 599 (US Department of Commerce; appl. 22.8.1978; USA-prior. 22.8.1977).

Temple, C. et al.: J. Med. Chem. (JMCMAR) **22**, 731 (1979).

Formulation(s): amp. 3 mg, 5 mg, 6 mg, 10 mg, 15 mg, 30 mg, 50 mg; cps. 5 mg; tabl. 15 mg, 25 mg (as calcium salt); amp. 1.5 mg, 3 mg, 15 mg, 30 mg, 350 mg; cps. 15 mg; powder 50 mg, 100 mg, 200 mg, 300 mg; tabl. 15 mg; vial 100 mg, 200 mg, 300 mg (as calcium salt pentahydrate)

Trade Name(s):

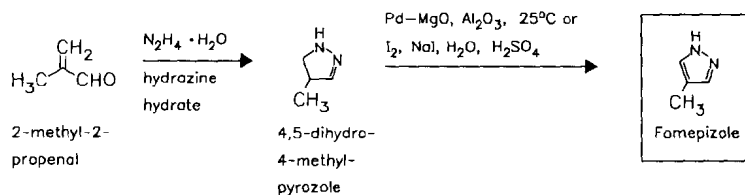
D:	Calciumfolinat (Rhône-Poulenc); wfm	Lederfoline (Wyeth-Lederle)	I:	Adinepar (Leben's)-comb.
	Leucovorin (Lederle); wfm	Osfolate (ASTA Medica)		Hepafactor (Sigma-Tau)-comb.
	Rescuvinol (medac); wfm	Perfolate (ASTA Medica)		Rekord B12 complex (Sigma-Tau)-comb.
F:	Elvorine (Wyeth-Lederle)	GB: Calcium Leucovorin (Lederle); wfm	J:	Leucovorin (Lederle)
	Folinate de calcium (Aguettant)	Refolinon (Pharmacia & Upjohn)	USA:	Calcium Leucovorin (Lederle); wfm
	Folinoral (Therabel Lucien Pharma)	Rescufofin (Nordic); wfm		

Fomepizole

Use: antidote for ethylene glycol, competitive inhibitor of alcohol dehydrogenase

RN: 7554-65-6 MF: C₄H₆N₂ MW: 82.11 EINECS: 231-445-0

CN: 4-Methyl-1H-pyrazole



Reference(s):

- Pechmann, H.; Burkard, E.: Ber. Dtsch. Chem. Ges. (BDCGAS) **33**, 3590 (1900).
 Hoyce, D.S. et al.: J. Org. Chem. (JOCEAH) **20**, 1681 (1955).
 Momose, T. et al.: Heterocycles (HTCYAM) **30**, 789 (1990).
 DE 4 328 228 (BASF; prior. 23.8.1993).
 US 5 569 769 (BASF; 29.10.1996; D-prior. 23.8.1993).
 DE 3 918 979 (BASF; prior. 10.6.1989).
 EP 366 328 (Nissan Chem. Ind.; appl. 17.10.1989; J-prior. 26.10.1988).

Formulation(s): vials, 1 g/ml; 1.5 ml

Trade Name(s):

USA: Antizol (Orphan Medical;
1998)

Fominoben

ATC: N06

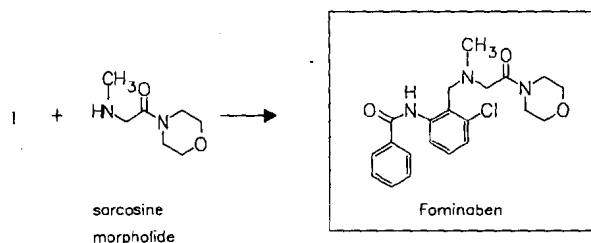
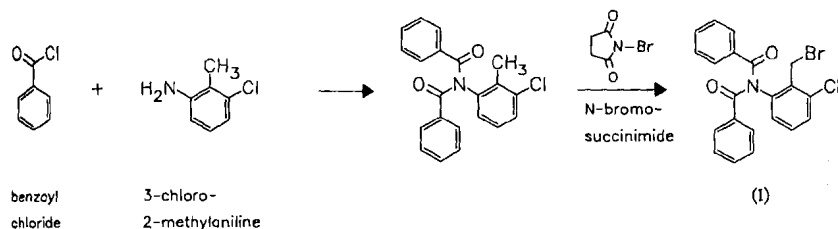
Use: antitussive, respiratory analeptic

RN: 18053-31-1 MF: C₂₁H₂₄ClN₃O₃ MW: 401.89 EINECS: 241-964-4

CN: N-[3-chloro-2-[[methyl[2-(4-morpholinyl)-2-oxoethyl]amino]methyl]phenyl]benzamide

monohydrochloride

RN: 24600-36-0 MF: C₂₁H₂₄ClN₃O₃ · HCl MW: 438.36 EINECS: 246-344-7

**Reference(s):**

- DE 1 795 259 (Thomae; appl. 13.7.1966).
 Krüger, G. et al.: Arzneim.-Forsch. (ARZNAD) **23**, 290 (1973).

Formulation(s): amp. 40 mg/5 ml; drg 160 mg (as hydrochloride)

Trade Name(s):

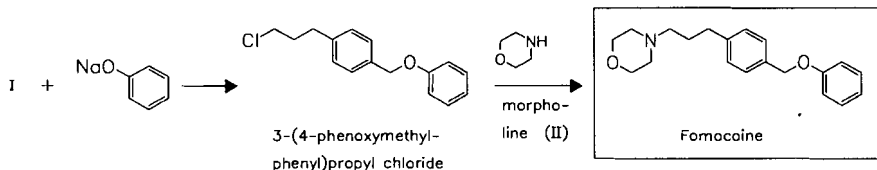
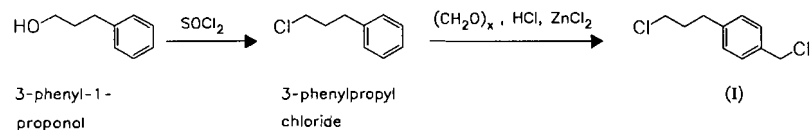
D: Broncho-Noleptan
(Thomae); wfm

I: Noleptan (Thomae); wfm
Terion (Lusofarmaco); wfm

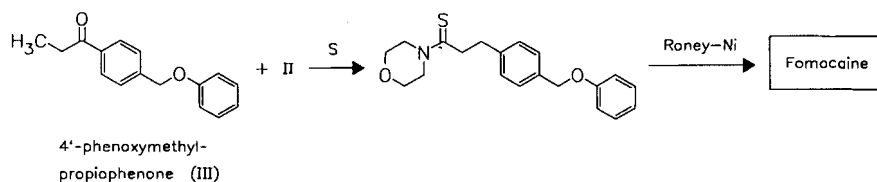
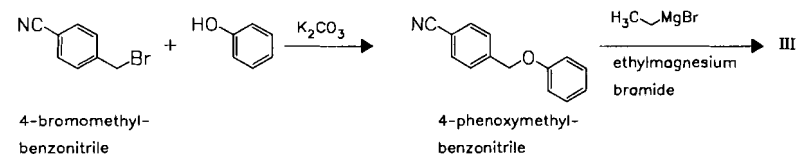
Tussirama (Serpero); wfm

FomocaineATC: R02AD
Use: local anestheticRN: 17692-39-6 MF: C₂₀H₂₅NO₂ MW: 311.43
CN: 4-[3-[4-(phenoxyethyl)phenyl]propyl]morpholine

ⓐ



ⓑ

**Reference(s):**

- a** Oelschläger, H.: *Arzneim.-Forsch. (ARZNAD)* **9**, 313 (1959).
GB 786 128 (Promonta; appl. 15.11.1955; D-prior. 15.11.1954).
b Oelschläger, H. et al.: *Arzneim.-Forsch. (ARZNAD)* **27**, 1625 (1977).

pharmacology:Nieschulz, O. et al.: *Arzneim.-Forsch. (ARZNAD)* **8**, 539 (1958).**Formulation(s):** cream 4 g/100 g (4 %); ointment 4 g/100 g (4 %)**Trade Name(s):**

D:	Brand- und Wund-Gel	Erbocain (Heilit); wfm
	Herit (Engelhard)-comb.;	Erboproct (Heilit)-comb.;
	wfm	wfm

Formebolone

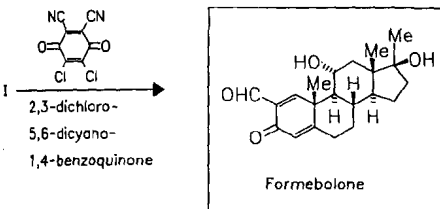
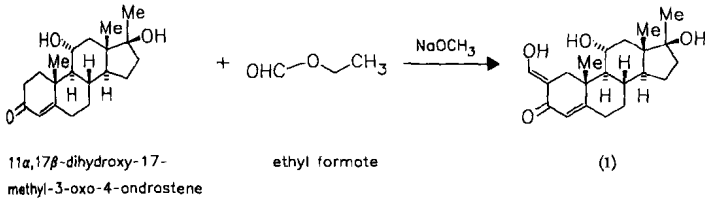
(Formyldienolone)

ATC: A14

Use: anabolic, anti-inflammatory

RN: 2454-11-7 MF: $C_{21}H_{28}O_4$ MW: 344.45 EINECS: 219-523-2LD₅₀: 187 mg/kg (M, i.p.); 293 mg/kg (M, s.c.);

104 mg/kg (R, i.p.); 270 mg/kg (R, s.c.)

CN: (11 α ,17 β)-11,17-dihydroxy-17-methyl-3-oxoandrosta-1,4-diene-2-carboxaldehyde*Reference(s):*

DE 1 618 616 (LPB Braglia; appl. 8.2.1967).

GB 1 168 931 (LPB Braglia; valid from 20.1.1967).

Formulation(s): amp. 2 ml/2 ml; tabl. 5 mg*Trade Name(s):*

I: Esiclone (LPB)

Formestane

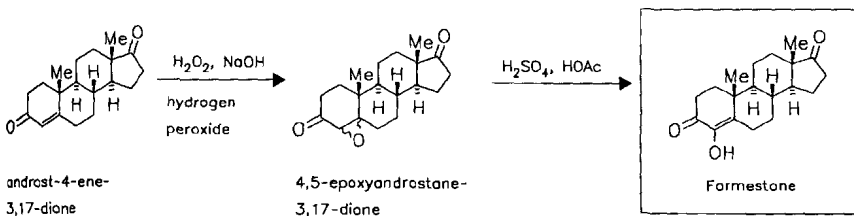
(4-HAD; 4-DHA)

ATC: L02B; G03BA

Use: aromatase inhibitor (for treatment of breast cancer)

RN: 566-48-3 MF: $C_{19}H_{26}O_3$ MW: 302.41

CN: 4-hydroxyandrost-4-ene-3,17-dione

*Reference(s):*

Marsh, D.A. et al.: J. Med. Chem. (JMCMAR) 28, 788 (1985).

*alternative synthesis:*Mann, J.; Pietrzak B.: J. Chem. Soc., Perkin Trans. 1 (JCPRB4) **1983**, 2681.Burnett, R.O.; Kirk, D.N.: J. Chem. Soc., Perkin Trans. 1 (JCPRB4) **1973**, 1830.Brodil, A.M. et al.: Endocrinology (ENDOAO) **100**, 1684 (1977).*micronised formestane:*

EP 346 953 (Ciba-Geigy; appl. 31.10.1985; CH-prior. 6.11.1984).

stable suspension for injection:

EP 181 287 (Ciba-Geigy; appl. 31.10.1985; CH-prior. 6.11.1984).

US 5 002 940 (Ciba-Geigy; 26.3.1991; appl. 31.10.1985; CH-prior. 6.11.1984).

medical use for treatment of breast cancer:

WO 9 010 462 (Endorecherche; appl. 9.3.1990; USA-prior. 10.3.1989).

medical use for treatment of prostate hyperplasia:

DOS 3 339 295 (Schering AG; appl. 15.11.1982).

WO 9 100 731 (Endorecherche; appl. 5.7.1990; USA-prior. 7.7.1989).

medical use for treatment of gynecomastia:

US 4 895 715 (Schering Corp.; 23.1.1990; appl. 14.4.1988).

method for inhibition of estrogen biosynthesis:

US 4 235 893 (A. M. Brodic et al.; 25.11.1980; appl. 8.5.1978).

Formulation(s): amp. 250 mg/2 ml*Trade Name(s):*D: Lentaron (Novartis
Pharma)F: Lentaron (Novartis
Pharma)

GB: Lentaron (Novartis)

Formocortal

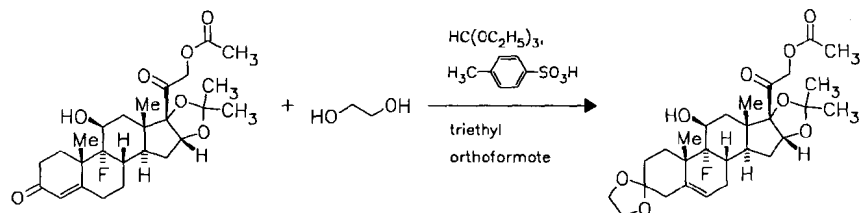
(Formocortol)

ATC: S01BA12

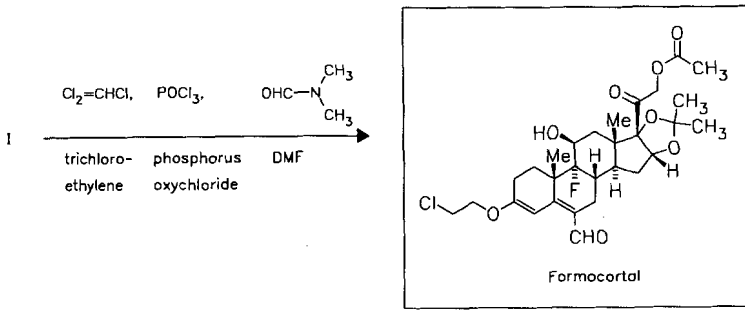
Use: glucocorticoid

RN: 2825-60-7 MF: C₂₉H₃₈ClFO₈ MW: 569.07 EINECS: 220-584-2LD₅₀: 537 mg/kg (M, i.p.); 490 mg/kg (M, s.c.)

CN: (11β,16α)-21-(acetyloxy)-3-(2-chloroethoxy)-9-fluoro-11-hydroxy-16,17-[(1-methylethylidene)bis(oxy)]-20-oxopregna-3,5-diene-6-carboxaldehyde

21-acetoxy-3,20-dioxo-
9α-fluoro-11β-hydroxy-
16α,17-isopropylidene-
dioxy-4-pregneneethylene
glycol

(I)

**Reference(s):**

US 3 314 945 (Societa Farmaceutici; 18.4.1967; I-prior. 15.7.1964).

Baldratti, G. et al.: *Experientia (EXPEAM)* **22**, 468 (1966).

starting material:

Holmund, C.E. et al.: *J. Am. Chem. Soc. (JACSAT)* **83**, 2586 (1961).

Bernstein, S. et al.: *J. Am. Chem. Soc. (JACSAT)* **81**, 1689 (1959).

Formulation(s): eye drops 0.05 %; ointment 0.05 %; susp. 0.05 %

Trade Name(s):

D:	Deidral S (Montedison)- comb.; wfm	Deflamene (Farmitalia); wfm	Formomicin (Farmigea)- comb. with gentamycin
GB:	Deflamene (Carlo Erba); wfm	I: Formofitil (Farmigea)	

Formoterol

ATC: R03AC13; R03CC

Use: selective β_2 -adrenoceptor agonist

RN: 73573-87-2 MF: $\text{C}_{19}\text{H}_{24}\text{N}_2\text{O}_4$ MW: 344.41

LD₅₀: 71 mg/kg (M, i.v.); 8310 mg/kg (Mf, p.o.); 6700 mg/kg (Mm, p.o.);

98-100 mg/kg (R, i.v.)

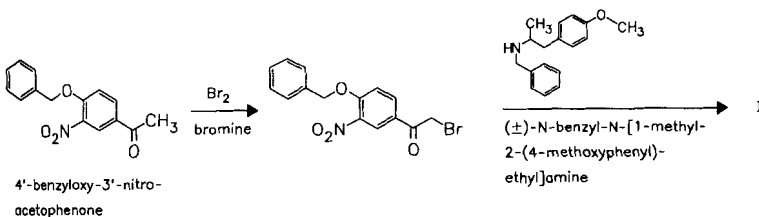
CN: (*R*,R**)-(±)-*N*-[2-hydroxy-5-[1-hydroxy-2-[[2-(4-methoxyphenyl)-1-methylethyl]amino]ethyl]phenyl]formamide

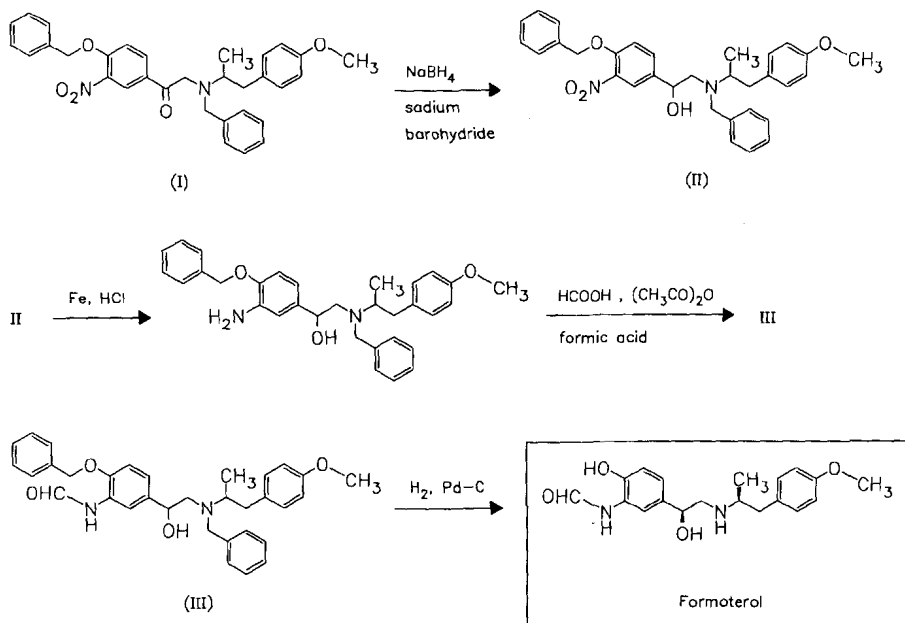
fumarate (2:1)

RN: 43229-80-7 MF: $\text{C}_{19}\text{H}_{24}\text{N}_2\text{O}_4 \cdot 1/2\text{C}_4\text{H}_4\text{O}_4$ MW: 804.89

fumarate dihydrate

RN: 183814-30-4 MF: $\text{C}_{19}\text{H}_{24}\text{N}_2\text{O}_4 \cdot 1/2\text{C}_4\text{H}_4\text{O}_4 \cdot 2\text{H}_2\text{O}$ MW: 840.92



*Reference(s):*

US 3 994 974 (Yamanouchi; 30.11.1976; prior. 22.1.1973).

DOS 2 305 092 (Yamanouchi; appl. 2.2.1973; J-prior. 5.2.1972).

Hett, R. et al.: *Org. Process Res. Dev. (OPRDFK)* **2** 96 (1998).

preparation of enantiomers from (+)- or (-)-1-methyl-2-phenylethylamine:

Kibura, R.; Nakahara, Y.: *Biol. Pharm. Bull. (BPBLEO)* **18** (12), 1694 (1995).

Glennon, R.A.; Smith, J.D.; Ismaiel, A.M.; Ashmawy, M.; Bataglia, G.; Fisher, J.B.: *J. Med. Chem. (JMCMAR)* **34** (3), 1094 (1991).

Kerwin et al.: *J. Am. Chem. Soc. (JACSAT)* **72**, 3983, 3986 (1950).

preparation of 4'-benzyloxy-3'-nitroacetophenone:

Meglio, P. de; Ravenna, F.; Gentili, P.; Manzardo, S., Riva, M.: *Pharmaco, Ed. Sci. (FRPSAX)* **38** (12), 998 (1983).

Oelschlaeger et al.: *Arch. Pharm: Ber. Dtsch. Pharm. Ges. (APBDJ)* **296**, 107 (1963).

preparation of N-benzyl-N-[1-methyl-2-(4-methoxyphenyl)ethyl]amine:

Woodruff; Lambooy; Bust: *J. Am. Chem. Soc. (JACSAT)* **62**, 922 (1940).

FR 844 228 (Temmler-Werke; 1938).

alternative syntheses:

JP 7 512 040 (Yamanouchi; appl. 31.5.1973).

JP 81 115 751 (Yamanouchi; appl. 11.6.1980).

Formulation(s): cps. for inhalation 12 µg (as fumarate dihydrate); powder inhaler 6 µg/puff, 12 µg/puff

Trade Name(s):

D: Oxis Turbohaler (Astra/
pharma-stern)

F: Foradil P (Novartis)
Foradil (Novartis)

J: Atock (Yamanouchi; 1986)

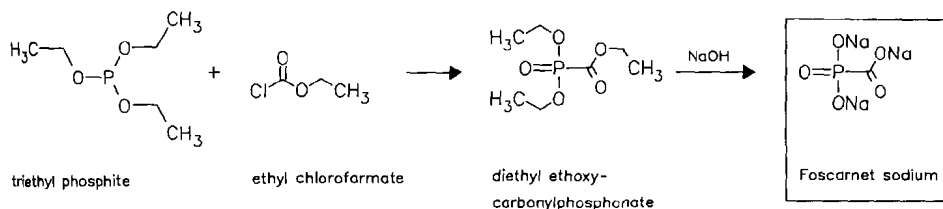
Foscarnet sodium

ATC: J05
 Use: antiviral (for treatment of CMV retinitis)

RN: 63585-09-1 MF: $\text{CNa}_3\text{O}_5\text{P}$ MW: 191.95
 LD₅₀: 384 mg/kg (M, i.p.)
 CN: dihydroxyphosphinecarboxylic acid oxide trisodium salt

hexahydrate

RN: 34156-56-4 MF: $\text{CNa}_3\text{O}_5\text{P} \cdot 6\text{H}_2\text{O}$ MW: 300.04

**Reference(s):**

ES 541 567 (Esp. Latinas Med. Universales; appl. 26.3.1985).
 ES 556 513 (Lab. Esp. Farm. Centrum; appl. 24.6.1986).
 CS 253 848 (V. Zikan, F. Roubinek; appl. 18.7.1986).
 Nylen, P.; Ber. Dtsch. Chem. Ges. (BDCGAS) **57b**, 1023 (1924).

synthesis and use for regulation of plant growth:

US 4 018 854 (Du Pont; 19.4.1977; prior. 25.6.1975, 30.5.1974, 23.7.1973).
 DOS 2 435 407 (Du Pont; appl. 23.7.1974; USA-prior. 23.7.1973, 17.9.1973, 30.5.1974).

medical use for treatment of virus infections:

US 4 339 445 (Astra; 13.7.1982; appl. 21.12.1978; S-prior. 1.7.1976).

Formulation(s): cream 2 g/100 g; vial 6 g (24 mg/ml) (hexahydrate)

Trade Name(s):

D:	Foscavir (Astra)	F:	Foscavir (Astra)	Virudin (Bracco)
	Triapten Antiviralcreme	GB:	Foscavir (Astra; 1990)	USA: Foscavir (Astra)
	(LAW/Wyeth)	I:	Foscavir (Astra-Simes)	

Fosfestrol

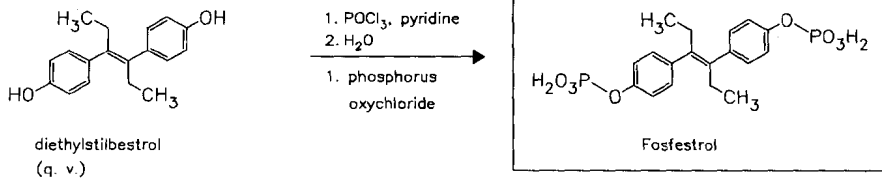
(Diethylstilbestrol diphosphate)

ATC: L02AA04
 Use: antineoplastic

RN: 522-40-7 MF: $\text{C}_{18}\text{H}_{22}\text{O}_8\text{P}_2$ MW: 428.31 EINECS: 208-328-8
 LD₅₀: 630 mg/kg (M, i.v.); 2 g/kg (M, p.o.);
 425 mg/kg (R, i.v.); 3 g/kg (R, p.o.)
 CN: (E)-4,4'-(1,2-diethyl-1,2-ethenediyl)bis[phenol] bis(dihydrogen phosphate)

tetrasodium salt

RN: 23519-26-8 MF: $\text{C}_{18}\text{H}_{22}\text{O}_8\text{P}_2 \cdot x\text{Na}$ MW: unspecified

**Reference(s):**

- US 2 234 311 (Ciba; 1941; CH-prior. 1938).
 US 2 802 854 (ASTA-Werke; 1957; D-prior. 1952).
 US 2 971 975 (Miles Labs.; 14.2.1961; appl. 30.8.1955).

Formulation(s): amp. 60 mg/5 ml; tabl. 120 mg (as tetrasodium salt)

Trade Name(s):

D:	Honvan (ASTA Medica AWD)	I:	Honvan (ASTA Medica)	Stilphostrol (Miles Pharm.); wfm
F:	ST-52 (ASTA Medica)	J:	Honvan (Kyorin)	Pharm.); wfm
GB:	Honvan (ASTA Medica)	USA:	Stilphostrol (Dome); wfm	generic

Fosfomycin

(Phosphonomycin)

ATC: J01XX01

Use: antibiotic

RN: 23155-02-4 MF: C₃H₇O₄P MW: 138.06 EINECS: 245-463-1

LD₅₀: 4 g/kg (M, i.p.)

CN: (2*R*-*cis*)-(3-methyloxiranyl)phosphonic acid

calcium salt (1:1)

RN: 26016-98-8 MF: C₃H₅CaO₄P MW: 176.12 EINECS: 247-408-7

LD₅₀: >3.5 g/kg (M, p.o.);

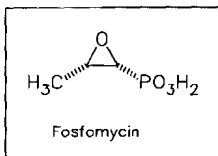
>7 g/kg (R, p.o.)

disodium salt

RN: 26016-99-9 MF: C₃H₅Na₂O₄P MW: 182.02

trometamol salt

RN: 78964-85-9 MF: C₃H₇O₄P · C₄H₁₁NO₃ MW: 259.20



From fermentation solutions of *Streptomyces fradiae* (ATCC 21096).

Reference(s):

- Hendlin et al.: Science (Washington, D.C.) (SCIEAS) **166**, 122 (1969).
 BE 718 507 (Merck & Co., appl. 29.10.1968; USA-prior. 25.7.1967, 30.10.1967, 9.5.1968, 2.10.1968, 25.10.1968).

synthesis and separation of isomers:

- BE 723 072 (Merck & Co., appl. 24.7.1968; USA-prior. 30.10.1967, 15.5.1968).
 BE 723 073 (Merck & Co., appl. 29.10.1968; USA-prior. 30.10.1967, 15.5.1968, 30.8.1968).
 Glamkowski, E.J. et al.: J. Org. Chem. (JOCEAH) **35**, 3510 (1970).

Formulation(s): cps. 1 g; vial (lyo.) 2640 mg, 3960 mg, 6600 mg (as sodium salt); gran. 5.631 g/8 g (as trometamol); tabl. 1 g (as calcium salt); tabl. 1 g (as calcium salt monohydrate)

Trade Name(s):

D:	Fosfocin pro infusione (Boehringer Mannh.) Monuril (Madaus)	Faremicin (Lafare) Foce (Medici)-comb. Fonofos (Pulitzer)	Ipamicina (IPA) Lancetina (Farma Uno) Lofoxin (Locatelli)
F:	Fosfocine (Sanofi Winthrop) Monuril (Zambon) Uridoz (Therabel Lucien Pharma)	Fosfobiotic (Bergamon) Fosfocin (Crinos) Fosfogram (Firma) Fosfolexin (Lifepharma)- comb.	Monuril (Zambon Italia) Neofocin (Medici) Priomicina (San Carlo) Ultramicina (Lisapharma) Vastocin (Coli)
I:	Afos (Salus Research) Biocin (Ibirn) Biofos (Leben's)	Fosforal (Farmasister) Foximin (Caber) Francital (Francia Farm.)	J: Fosmicin S (Meiji Seika) USA: Fosfocina (Merck Sharp & Dohme); wfm

Fosinopril

(Fosinopril; SQ-28555)

ATC: C09AA09

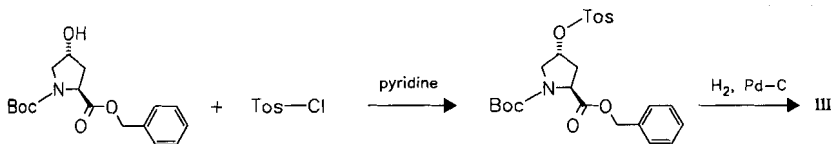
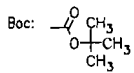
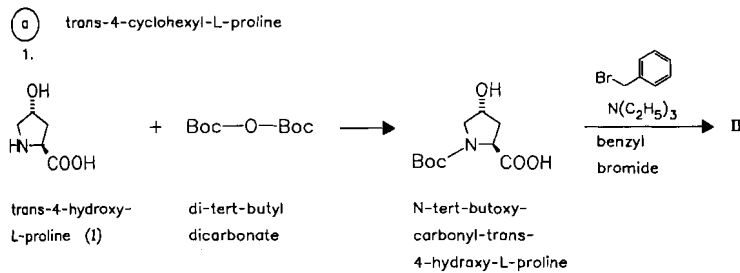
Use: antihypertensive (ACE inhibitor)

RN: 98048-97-6 MF: C₃₀H₄₆NO₇P MW: 563.67

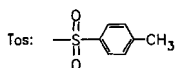
CN: [1[S*(R*)],2α,4β]-4-cyclohexyl-1-[[[2-methyl-1-(1-oxopropoxy)propoxy](4-phenylbutyl)phosphinyl]acetyl]-L-proline

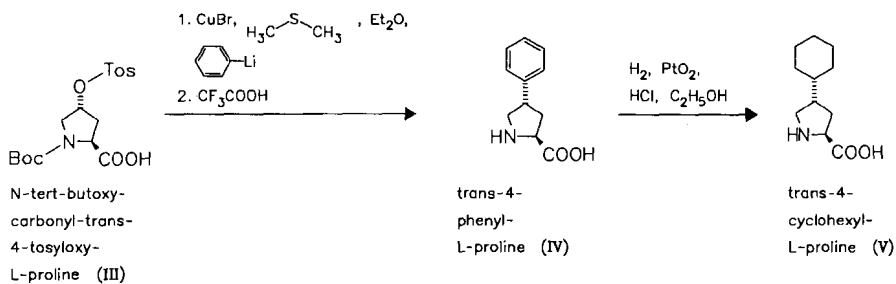
sodium salt

RN: 88889-14-9 MF: C₃₀H₄₅NNaO₇P MW: 585.65

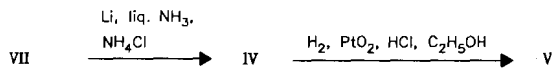
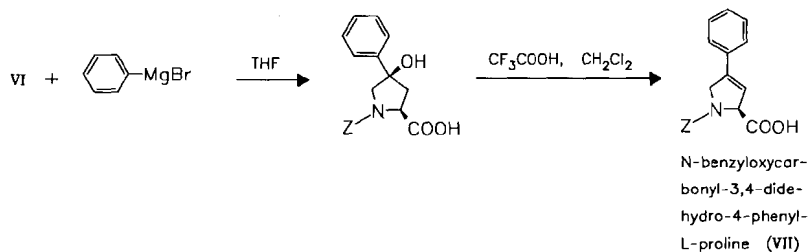
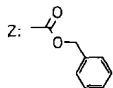
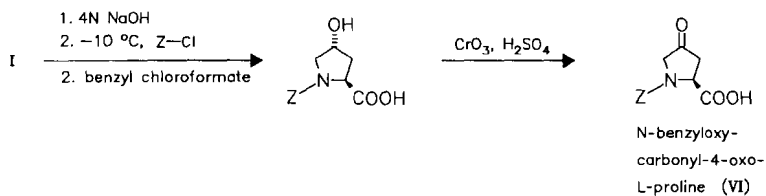


(II)



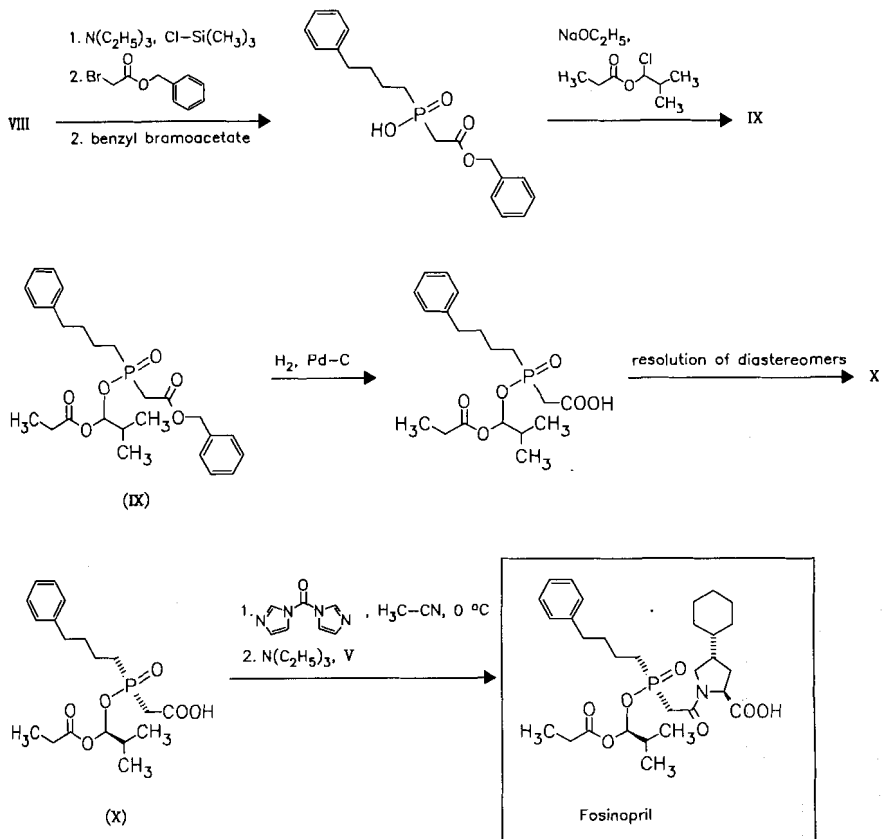


2. alternative route



(b)





Reference(s):

- a1)** DE 3 434 121 (Squibb; appl. 17.9.1984; USA-prior. 19.9.1983).
 Thottathil, J.K. et al.: Tetrahedron Lett. (TELEAY) **27**, 151 (1986).
similar process:
 US 4 912 231 (Squibb; 27.3.1990; prior. 15.6.1987, 17.6.1988).
- a2)** Krapcho, J. et al.: J. Med. Chem. (JMCMAR) **31**, 1148 (1988).
alternative route from L-pyroglutamic acid:
 Thottathil, J.K. et al.: J. Org. Chem. (JOCEAH) **51**, 3140 (1986).
 US 4 588 819 (Squibb; 13.5.1986; appl. 19.11.1984).
 EP 183 390 (Squibb; appl. 25.10.1985; USA-prior. 19.11.1984).
- b** US 4 337 201 (Squibb & Sons; appl. 16.6.1982; USA-prior. 4.2.1980).
 Krapcho, J. et al.: J. Med. Chem. (JMCMAR) **31**, 1148 (1988).

Formulation(s): tabl. 5 mg, 10 mg, 20 mg, 40 mg (as sodium salt)

Trade Name(s):

D:	Dynacil (Schwarz/Sanofi)	F:	Fozirétic (Lipha Santé)- comb.	I:	Eliten (Bristol-Myers Squibb)
	Fasinorm (Bristol-Myers Squibb)		Fozitec (Lipha Santé)		Fosipress (Menarini)
	Flucidine (Boehringer Ing.; Leo)	GB:	Staril (Bristol-Myers Squibb)		Tensogard (Bristol It. Sud)
	Fucithalamic (Alcon)			USA:	Monopril (Bristol-Myers Squibb)

Fosphenytoin sodium

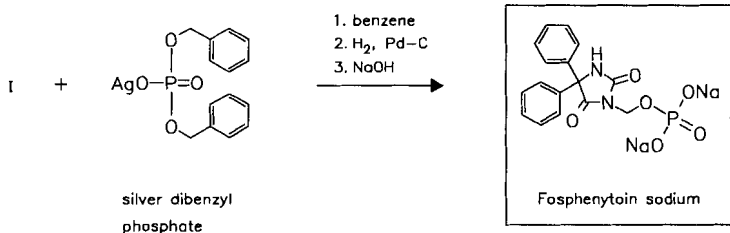
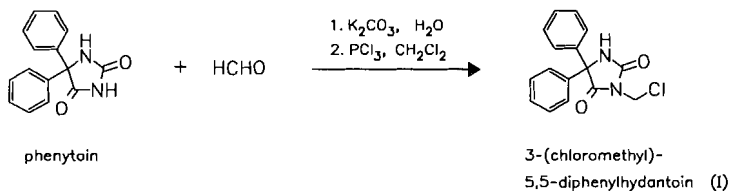
(ACC 9653; CI-982)

ATC: N03AB

Use: anticonvulsant, prodrug of phenytoin

RN: 92134-98-0 MF: C₁₆H₁₃N₂Na₂O₆P MW: 406.24

CN: 5,5-diphenyl-3-[(phosphonoxy)methyl]-2,4-imidazolidinedione disodium salt

**Reference(s):**Varia, S.A. et al.: J. Pharm. Sci. (JPMSAE) **73**(8), 1068 (1984).**stable injection formulation:**

US 4 925 866 (Du Pont; appl. 25.5.1989; USA-prior. 25.5.1989).

use for treatment of stroke:

EP 427 925 (Warner-Lambert; appl. 8.8.1990; USA-prior. 10.8.1989, 25.6.1990).

Formulation(s): amp. 50 mg/ml**Trade Name(s):**

USA: Cerebyx (Parke Davis)

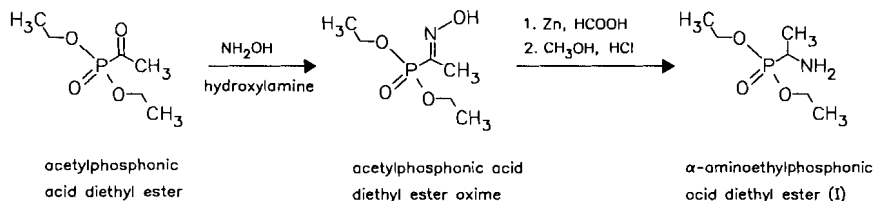
Fotemustine

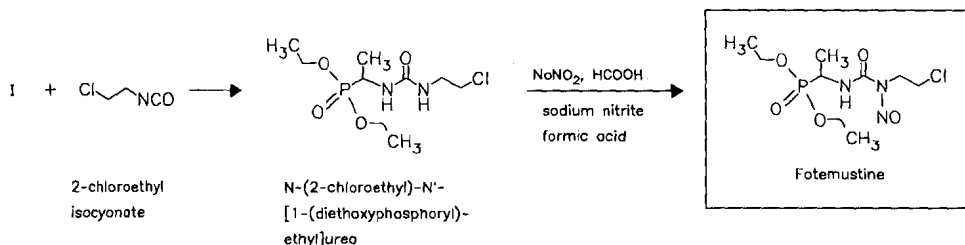
ATC: L01AD05

Use: antineoplastic, alkylating nitrosourea derivative

RN: 92118-27-9 MF: C₉H₁₉ClN₃O₅P MW: 315.69LD₅₀: 60 mg/kg (M, i.p.)

CN: [1-[[[(2-chloroethyl)nitrosoamino]carbonyl]amino]ethyl]phosphonic acid diethyl ester



**Reference(s):**

EP 117 959 (ADIR; appl. 16.11.1983; F-prior. 17.11.1982).
 US 4 567 169 (ADIR; 28.1.1986; F-prior. 17.11.1982).

synthesis of α -aminoethylphosphonic acid diethyl ester:

Berlin, K.D. et al.: *J. Org. Chem. (JOCEAH)* **33**, 3090 (1968).

Kowalik, J.; Mastalerz, P.: *Synthesis (SYNTBF)* **1981**, 57.

Oleksyszyn, J.; Tyka, R.: *Tetrahedron Lett. (TELEAY)* **22**, 2823 (1977).

Formulation(s): amp. 208 mg

Trade Name(s):

F: Muphoran (Servier; 1990)

Framycetin

(Neomycin B)

ATC: R01AX08

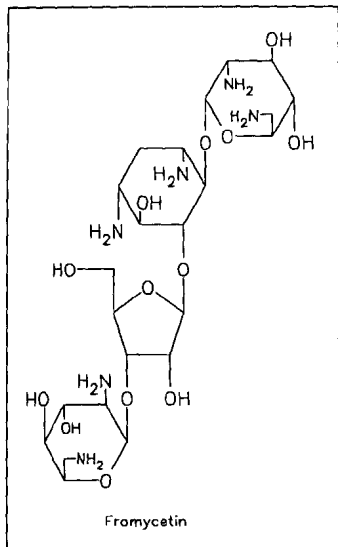
Use: antibiotic

RN: 119-04-0 MF: $\text{C}_{23}\text{H}_{46}\text{N}_6\text{O}_{13}$ MW: 614.65 EINECS: 204-292-2

CN: *O*-2,6-diamino-2,6-dideoxy- α -D-glucopyranosyl(1 \rightarrow 4)-*O*-[*O*-2,6-diamino-2,6-dideoxy- β -L-idopyranosyl-(1 \rightarrow 3)- β -D-ribofuranosyl-(1 \rightarrow 5)]-2-deoxy-D-streptamine

sulfate (1:3)

RN: 4146-30-9 MF: $\text{C}_{23}\text{H}_{46}\text{N}_6\text{O}_{13} \cdot 3\text{H}_2\text{SO}_4$ MW: 908.88 EINECS: 223-969-3



From fermentation solutions of *Streptomyces fradiae*.

Reference(s):

US 2 848 365 (Rutgers Res. Found.; 16.7.1957; prior. 29.6.1956).

purification:

US 2 848 365 (Upjohn; 1958; appl. 1950).

US 3 005 815 (Merck & Co.; 24.10.1961; prior. 1955, 1957).

US 3 022 228 (S. B. Penick; 20.2.1962; appl. 19.1.1960).

US 3 108 996 (Upjohn; 29.10.1963; appl. 30.7.1962).

Formulation(s): cream 0.5 %; drops 1.25 %; eye drops 0.5 %; ointment 20 mg/g; powder 20 mg/g; spray 500 mg/203.5 g; tabl. 250 mg (as sulfate)

Trade Name(s):

D:	Leukase (SmithKline Beecham)	I:	Cheliboldo (Terapeutico)-comb.	NeoDecadron (Merck; as sulfate)
	Sofra Tüll (Albert-Roussel, Hoechst)		Crisolax (Lifepharm)-comb.	Neomycin Sulfate (Roxane)
F:	Néomycine Diamant (Diamant)-comb. and more than 50 combination preparations	J:	Sofra-tulle (Roussel)	Neomycin Sulfate (Teva)
			Dexmy (Takeda)	Neosporin (Glaxo Wellcome; as sulfate)
			Fradio (Nippon Kayaku)	Neosporin (Warner-Lambert)
GB:	Sofradex (Florizel)-comb. Soframycin (Hoechst)-comb. Sofra-Tulle (Hoechst; as sulfate)	USA:	Coly-Mycin (Parke Davis)-comb. Cortisporin (Monarch; as sulfate) Lazersporin-C (Pedinol; as sulfate)	

Fumagillin

ATC: D06A
Use: antibiotic

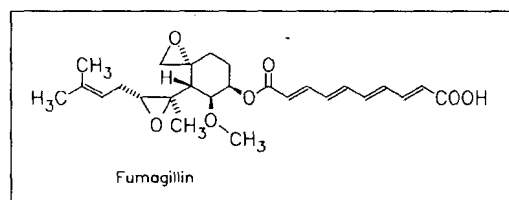
RN: 23110-15-8 MF: C₂₆H₃₄O₇ MW: 458.55 EINECS: 245-433-8

LD₅₀: 2 g/kg (M, p.o.)

CN: [3R-[3α,4α(2R*,3R*),5β,6β(all-E)]]-2,4,6,8-decatetraenedioic acid mono[5-methoxy-4-[2-methyl-3-(3-methyl-2-butenyl)oxiranyl]-1-oxaspiro[2.5]oct-6-yl] ester

dicyclohexylammonium salt (1:1)

RN: 41567-78-6 MF: C₂₆H₃₄O₇ · C₁₂H₂₃N MW: 639.87



From fermentation solutions of *Aspergillus fumigatus*.

Reference(s):

US 2 803 586 (Abbott; 1957; prior. 1953).

purification:

Tarbell, D.S. et al.: J. Am. Chem. Soc. (JACSAT) **77**, 5613 (1955).

structure and stereochemistry:

Chapman, D.D. et al.: J. Am. Chem. Soc. (JACSAT) **82**, 1009 (1960).
 Chapman, D.D. et al.: J. Am. Chem. Soc. (JACSAT) **83**, 3096 (1961).
 Tarbell, D.S. et al.: J. Am. Chem. Soc. (JACSAT) **77**, 5610 (1955).
 McCorkindale, N.J.; Sime, J.G.: Proc. Chem. Soc., London (PCSLAW) **1961**, 331.
 Turner; Tarbell, D.S.: Proc. Natl. Acad. Sci. USA (PNASA6) **48**, 733 (1962).

total synthesis:

Corey, E.J.; Snider, B.B.: J. Am. Chem. Soc. (JACSAT) **94**, 2549 (1972).

Trade Name(s):

USA: Fugillin (Upjohn); wfm Fumidil (Abbott); wfm

Furazabol

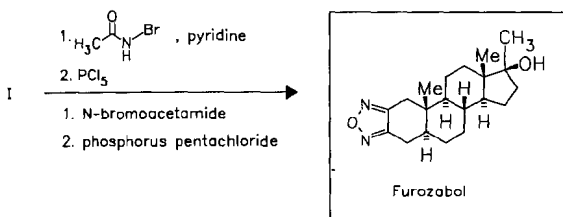
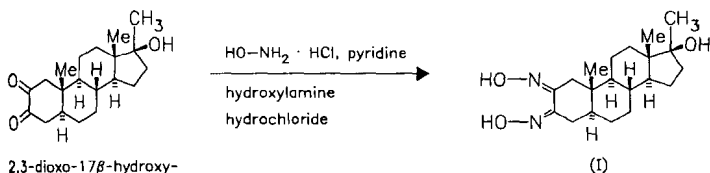
ATC: A14A
 Use: anabolic

RN: 1239-29-8 MF: C₂₀H₃₀N₂O₂ MW: 330.47 EINECS: 214-983-0

LD₅₀: 1731 mg/kg (M, p.o.);

>4 g/kg (R, p.o.)

CN: (5 α ,17 β)-17-methylandrostando[2,3-*c*][1,2,5]oxadiazol-17-ol

*Reference(s):*

US 3 415 818 (Sterling; 10.12.1968; appl. 8.7.1965).

further method:

US 3 245 988 (Daiichi; 12.4.1966; J-prior. 10.4.1963, 15.7.1963, 5.12.1963, 12.2.1964).

Formulation(s): tabl. 1 mg

Trade Name(s):

J: Miotolon (Daiichi Seiyaku)

Furazolidone

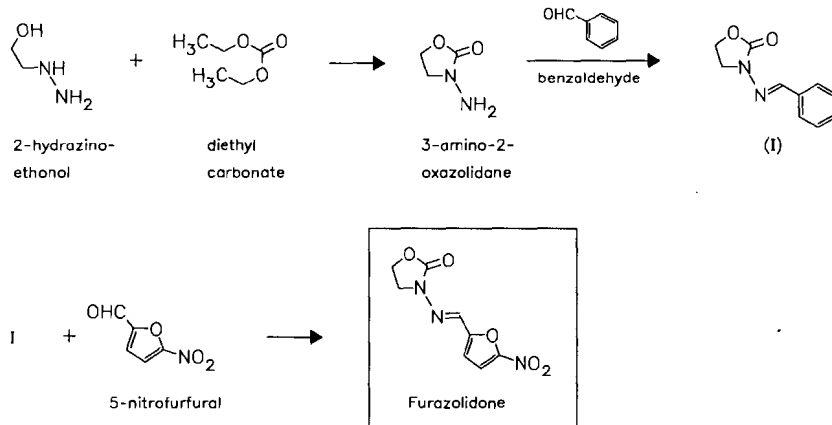
ATC: G01AX06

Use: topical anti-infective, topical antiprotozoal, chemotherapeutic (trichomonas)

RN: 67-45-8 MF: C₈H₇N₃O₅ MW: 225.16 EINECS: 200-653-3LD₅₀: 1782 mg/kg (M, p.o.);

2336 mg/kg (R, p.o.)

CN: 3-[[5-nitro-2-furanyl)methylene]amino]-2-oxazolidinone

*Reference(s):*

US 2 759 931 (Norwich Pharm. Co.; 1956; prior. 1953).

US 2 927 110 (Norwich Pharm. Co.; 1.3.1960; prior. 23.1.1958).

Formulation(s): liquid 50 mg/15 ml; tabl. 100 mg*Trade Name(s):*F: Furoxane (Oberval); wfm
Tricofuron (Oberval); wfm

GB: Furoxone (Eaton); wfm

I: Furadone (Vebi)

Furoxone (Formenti)
Ginecofuran (Crosara)-
comb.

Tricofur (Formenti)-comb.

J: Ginvel (Fujita)
Medaron (Yamanouchi)

Purazolin T (Hokuriku)

USA: Furoxone (Roberts)

Furosemide

(Frusemide)

ATC: C03CA01

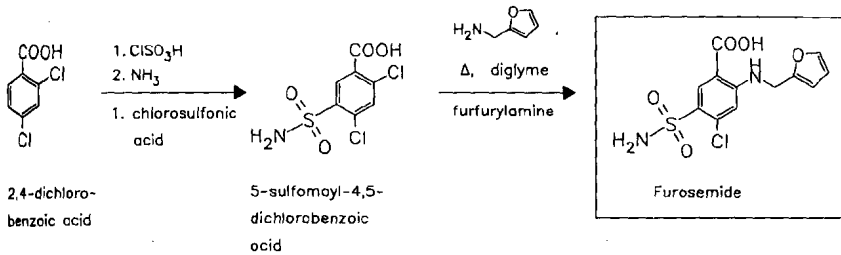
Use: diuretic

RN: 54-31-9 MF: C₁₂H₁₁ClN₂O₅S MW: 330.75 EINECS: 200-203-6LD₅₀: 308 mg/kg (M, i.v.); 2 g/kg (M, p.o.);

800 mg/kg (R, i.v.); 2600 mg/kg (R, p.o.);

>400 mg/kg (dog, i.v.); 2 g/kg (dog, p.o.)

CN: 5-(aminosulfonyl)-4-chloro-2-[(2-furanylmethyl)amino]benzoic acid

**Reference(s):**

US 3 058 882 (Hoechst; 16.10.1962; D-prior. 28.12.1959).
DE 1 122 541 (Hoechst; appl. 28.12.1959).

alternative syntheses:

DE 1 213 846 (Hoechst; appl. 13.4.1963).
DE 1 220 436 (Hoechst; appl. 21.10.1964).
DE 1 277 860 (Hoechst; appl. 4.5.1966).
DE 1 295 566 (Hoechst; appl. 23.3.1968).
DAS 1 806 581 (Hoechst; appl. 2.11.1968).

review:

Sturm, K. et al.: Chem. Ber. (CHBEAM) **99**, 328 (1966).

Formulation(s): amp. 80 mg, 500 mg; s. r. cps. 30 mg, 60 mg, 120 mg; sol. 20 mg, 40 mg, 50 mg, 250 mg (as sodium salt); tabl. 20 mg, 25 mg, 40 mg

Trade Name(s):

D:	Diurapid (Jenapharm)	generic and combination preparations	Arasemide (Arakawa)
	durafurid (durachemie)		Diusemide (Nakataki)
	Furanthril (medphano)	F:	Diuzol (Wakamoto)
	Furesis (Bristol-Myers Squibb)-comb.		Franyl (Seiko Eiyō)
	furo (ct-Arzneimittel)		Fulvamide (Kanto)
	Furo-Puren (Klinge-Nattermann Puren)	GB:	Furfan (Nippon Roussel-Chugai)
	Furorese (Hexal)		Kutrix (Kyowa)
	Furosemid (ratiopharm; Riker; Stadapharm)		Lasix (Hoechst)
	Fusid (GRY)	I:	Lowpston (Maruko)
	Hydro-Rapid-Tablinen (Sanorania)		Polysquall A (Tokyo Hosei)
	Lasix (Hoechst)		Profemin (Toa Eiyō-Yamanouchi)
	Ödemase (Azupharma)		Protargen (Ohta)
	Osyrol (Hoechst)-comb.		Radonna (Nippon Kayaku)
	Sigasalur (Siegfried)		Rasisemid (Kodama)
			Urex (Mochida)
		J:	USA: Lasix (Hoechst Marion Roussel)
			Accent (Toyama)

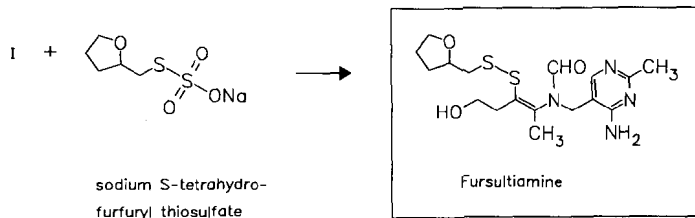
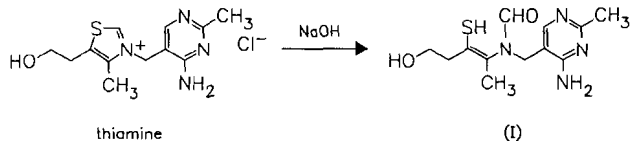
Fursultiamine

ATC: A11

Use: neurotropic analgesic

RN: 804-30-8 MF: $\text{C}_{17}\text{H}_{26}\text{N}_4\text{O}_3\text{S}_2$ MW: 398.55 EINECS: 212-357-1LD₅₀: 430 mg/kg (M, i.v.); 2200 mg/kg (M, p.o.); 2200 mg/kg (R, p.o.)

CN: N-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-N-[4-hydroxy-1-methyl-2-[(tetrahydro-2-furanyl)methyl]dithio]-1-butenyl]formamide

*Reference(s):*

US 3 016 380 (Takeda; 9.1.1962; J-prior. 16.8.1957).

Formulation(s): amp. 5 mg/ml; drg. 50 mg; tabl. 5 mg, 25 mg, 50 mg

Trade Name(s):

D: Dolo-judolor (Woelm)-
comb.; wfm

judolor-Dragees (ICN);
wfm

judolor Dragees (Woelm);
wfm
J: Alinamin F (Takeda)

Gabapentin

(GOE 2450; Go 3450; CI 945)

ATC: N03AX12

Use: anticonvulsant

RN: 60142-96-3 MF: C₉H₁₇NO₂ MW: 171.24 EINECS: 262-076-3

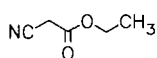
CN: 1-(Aminomethyl)cyclohexanecarboxylic acid

hydrochlorideRN: 60142-95-2 MF: C₉H₁₇NO₂ · HCl MW: 207.70 EINECS: 262-075-8

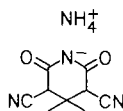
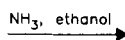
(a)

cyclo-
hexanone (I)

+

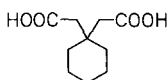
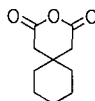
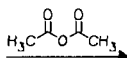


ethyl cyanoacetate

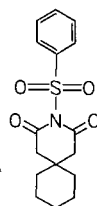
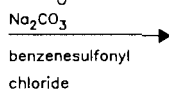
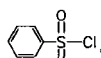
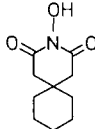
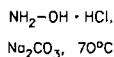


(II)

II

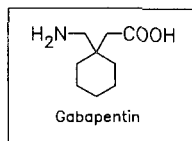
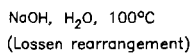
1,1-cyclohexane-
diacetic acid1,1-cyclohexane-
diacetic anhydride (III)

III

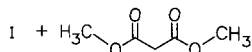


(IV)

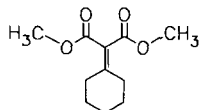
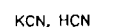
IV



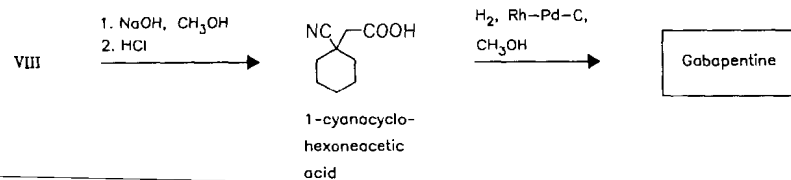
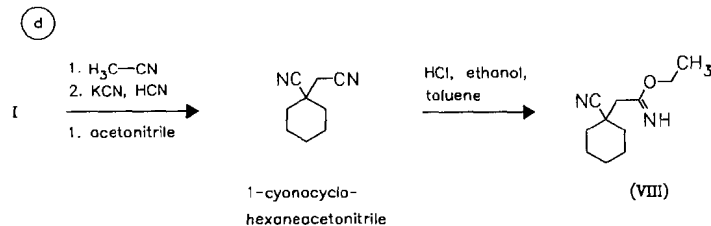
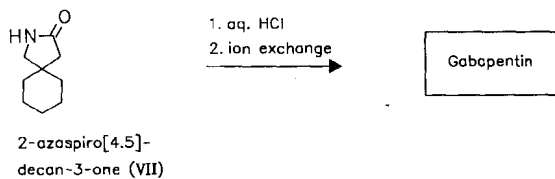
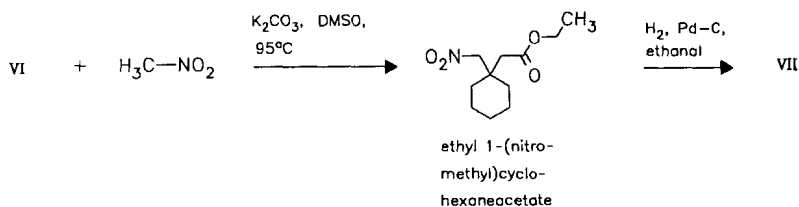
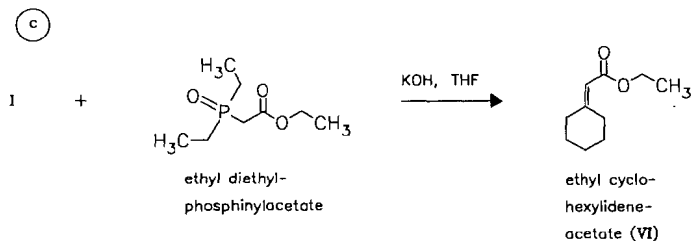
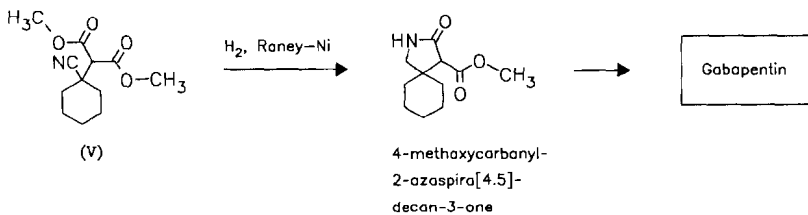
(b)

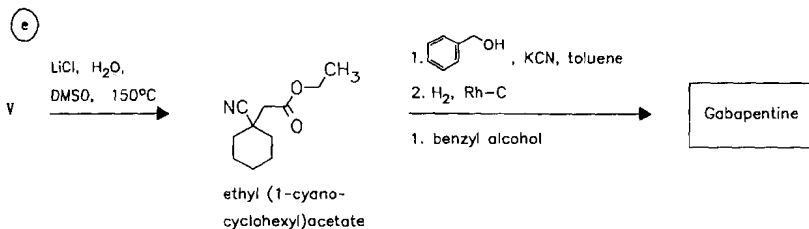


dimethyl malonate

dimethyl cyclo-
hexylidene malonate

v





Reference(s):

- a DE 2 611 690 (Goedecke; D-prior. 19.3.1976).
US 4 152 326 (Warner-Lambert; 1.5.1979; D-prior. 19.3.1976).
- b EP 358 092 (Lonza; appl. 29.8.1989; CH-prior. 1.9.1988).
- c EP 414 274 (Goedecke AG; appl. 24.8.1990; D-prior. 25.8.1989).
- d US 5 319 135 (Warner-Lambert; 7.6.1994; USA-prior. 25.8.1989).
EP 414 262 (Warner-Lambert; appl. 24.8.1990; USA-prior. 25.8.1989).
- e CA 2 030 107 (17.5.1991; appl. 15.11.1990; CH-prior. 16.11.1989).

preparation of alternate crystal forms:

WO 9 828 255 (Teva Pharm.; appl. 24.12.1997; IL-prior. 24.12.1996).

high-purity monohydrate:

EP 340 677 (Warner-Lambert; appl. 28.4.1989; USA-prior. 2.5.1988).

Formulation(s): cps. 100 mg, 300 mg, 400 mg

Trade Name(s):

D: Neurontin (Parke Davis) GB: Neurontin (Parke Davis) USA: Neurontin (Parke Davis)
F: Neurontin (Parke Davis) I: Neurontin (Parke Davis)

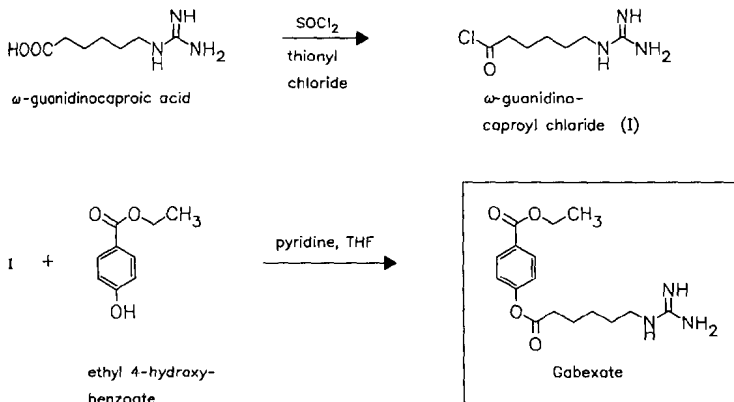
Gabexate

ATC: B02AB49
Use: protease inhibitor

RN: 39492-01-8 MF: C₁₆H₂₃N₃O₄ MW: 321.38
CN: 4-[[6-[(aminoiminomethyl)amino]-1-oxohexyl]oxy]benzoic acid ethyl ester

monomesylate

RN: 56974-61-9 MF: C₁₆H₂₃N₃O₄ · CH₄O₃S MW: 417.48
LD₅₀: 218 mg/kg (M, i.v.); 8 g/kg (M, p.o.);
4020 mg/kg (R, i.v.); 6480 mg/kg (R, p.o.)



Reference(s):

DOS 2 050 484 (Ono; appl. 14.10.1970; J-prior. 14.10.1969).

US 3 751 447 (Ono; 7.8.1973; J-prior. 14.10.1969).

Formulation(s): amp. 100 mg/5 ml (as mesylate)

Trade Name(s):

J: Foy (Ono; 1978)

Gallamine triethiodide

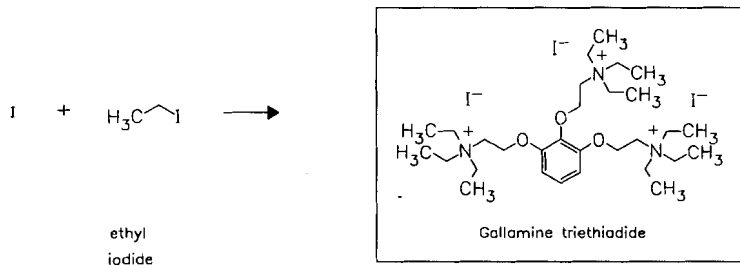
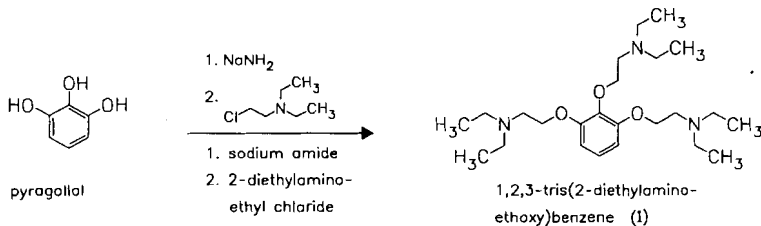
ATC: M03

Use: muscle relaxant, ganglionic blocker

RN: 65-29-2 MF: C₃₀H₆₀I₃N₃O₃ MW: 891.54 EINECS: 200-605-1LD₅₀: 1800 µg/kg (M, i.v.); 425 mg/kg (M, p.o.);

5100 µg/kg (R, i.v.); >1 g/kg (R, p.o.);

800 µg/kg (dog, i.v.)

CN: 2,2',2''-[1,2,3-benzenetriyltris(oxy)]tris[*N,N,N*-triethylethanaminium] triiodide

Reference(s):

US 2 544 076 (Rhône-Poulenc; 1951; F-prior. 1947).

DE 817 756 (Rhône-Poulenc; F-prior. 1947).

Formulation(s): amp. 20 mg/ml, 40 mg/2 ml, 40 mg/ml, 100 mg

Trade Name(s):

D: Flaxedil (Abbott); wfm

F: Flaxédil (Specia); wfm

GB: Flaxedil (Concord)

J: Gallamine Inj. "Teisan"

(Teikoku Kagaku-Nagase)

USA: Flaxedil (Lederle); wfm

Gallium nitrate

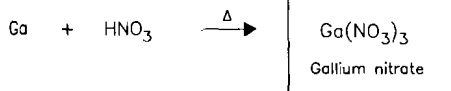
ATC: V03AG

Use: hypocalcemic agent against cancer-related hypercalcemia

RN: 13494-90-1 MF: GaN₃O₆ MW: 255.74 EINECS: 236-815-5LD₅₀: 55 mg/kg (M, i.v.); 4360 mg/kg (M, p.o.); 600 mg/kg (M, s.c.);

46 mg/kg (R, i.v.)

CN: gallium nitrate

**Reference(s):**Dupré, A.: C. R. Hebd. Seances Acad. Sci. (COREAF) **86**, 721 (1878)**medical use as hypocalcemic agent:**

EP 109 564 (Sloan Kettering Inst.; appl. 21.10.1983; USA-prior. 22.10.1982).

US 4 529 593 (Sloan Kettering Inst.; 16.7.1985; prior. 20.6.1984, 22.10.1982).

medical use as antitumor effect enhancer:

JP 1 104 016 (Taishitsu Kenkyukai; appl. 31.7.1987).

Formulation(s): vial 500 mg**Trade Name(s):**

USA: Ganite (SoloPak)

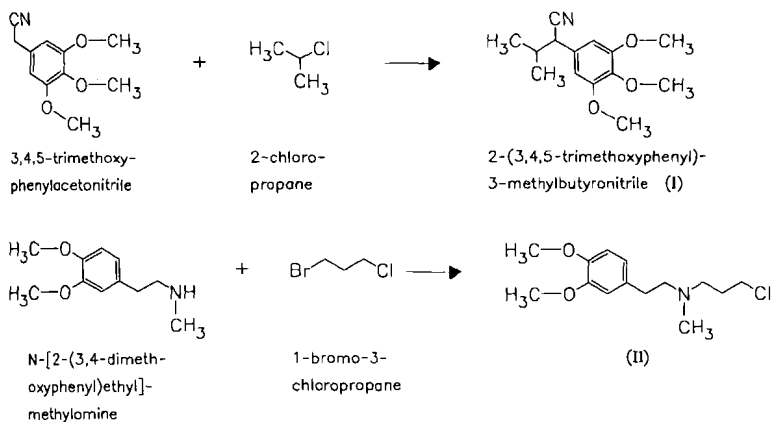
Gallopamil

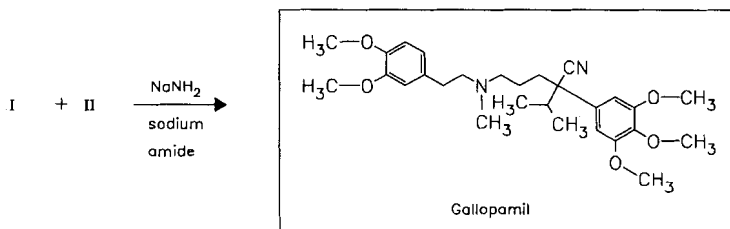
ATC: C01DA; C08DA02

Use: coronary vasodilator, verapamil analog

RN: 16662-47-8 MF: C₂₈H₄₀N₂O₅ MW: 484.64

CN: α-[3-[[2-(3,4-dimethoxyphenyl)ethyl]methylamino]propyl]-3,4,5-trimethoxy-α-(1-methylethyl)benzeneacetonitrile

hydrochlorideRN: 16662-46-7 MF: C₂₈H₄₀N₂O₅ · HCl MW: 521.10

**Reference(s):**

DE 1 154 810 (Knoll; appl. 28.4.1961).

DE 1 158 083 (Knoll; appl. 19.12.1962).

DE 2 059 985 (Knoll; prior. 5.12.1970).

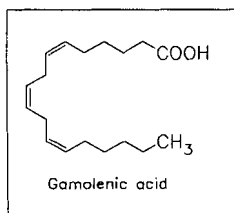
Formulation(s): f. c. tabl. 25 mg, 50 mg; s. r. tabl. 100 mg (as hydrochloride)**Trade Name(s):**D: Gallopamil (ct-
Arzneimittel)Procorum retard (Knoll;
1983)I: Algocor (Ravizza)
Procorum (Knoll)**Gamolenic acid**

ATC: D11AX02

Use: treatment of eczema

RN: 506-26-3 MF: C₁₈H₃₀O₂ MW: 278.44

CN: (Z,Z,Z)-6,9,12-octadecatrienoic acid

potassium saltRN: 106868-38-6 MF: C₁₈H₂₉KO₂ MW: 316.53**sodium salt**RN: 86761-55-9 MF: C₁₈H₂₉NaO₂ MW: 300.42**a** From fermentation of *Mortierella*.**b** From fermentation of mucor.**c** Extration and isolation from natural sources (seeds of black currant, evening primrose, borage).

Reference(s):

- a JP 59 130 191 (Agency of Ind. Sciences and Techn.; appl. 12.1.1983).
 JP 60 168 391 (Agency of Ind. Sciences and Techn.; appl. 9.2.1984).
 JP 63 112 536 (Agency of Ind. Sciences and Techn.; appl. 30.10.1986).
 WO 8 604 354 (Agency of Ind. Sciences and Techn.; appl. 13.12.1985; J-prior. 22.1.1985, 21.2.1985).
 EP 155 420 (Agency of Ind. Sciences and Techn.; appl. 25.9.1984; J-prior. 9.2.1984, 5.6.1984).
 EP 253 556 (Suntory; appl. 7.7.1987; J-prior. 8.7.1986).
 EP 276 982 (Suntory; appl. 26.1.1988; J-prior. 27.1.1987).
 US 4 857 329 (Agency of Ind. Sciences and Techn.; 15.8.1989; appl. 1.8.1986; J-prior. 19.8.1985).
 Suzuki, O.: Proc. World Conf. Biotechnol. Fats Oils Ind. (56NIAQ) **1987**, p.110-116, Ed. T. H. Applewhite.
- b JP 1 132 371 (Itochu Seito; appl. 18.11.1987).
 EP 269 351 (Lion Corp.; appl. 17.11.1987; J-prior. 26.11.1986).
 Fukuda, H.; Morikawa, H.: Appl. Microbiol. Biotechnol. (AMBIDG) **27**, 15 (1987); Bioreact. Biotransform., [Pap. Int. Conf.] (56GJAS), p. 386, Ed. G. W. Moody, P.B. Baker (Elsevier, London, 1987).
 Aggelis, G. et al.: Oleagineux (OLEAAF) **43**, 311 (1988).
 Hansson, L. et al.: Appl. Microbiol. Biotechnol. (AMBIDG) **31**, 223 (1989).

alternative fermentation processes:

- EP 153 134 (Efamol; appl. 12.2.1985; GB-prior. 21.2.1984).
 GB 2 163 424 (Nisshin Oil Mills; appl. 22.7.1985; J-prior. 31.7.1984).
 JP 1 199 588 (Nitto Chem.; appl. 2.6.1988; prior. 27.10.1987).
 JP 63 240 791 (Kanegafuchi; appl. 27.3.1987).
 JP 62 210 995 (Nisshin Flour Milling; 12.3.1986).
 JP 62 232 379 (Nisshin Oil Mills; appl. 2.4.1986).
 JP 49 013 988 (A. Watanabe et al.; appl. 10.1.1969).
 JP 47 022 280 (Ono; appl. 13.8.1969).
- c DOS 3 542 932 (HVG Barth, Raiser Co; appl. 4.12.1985).
 EP 271 747 (Nestle; appl. 25.11.1987; CH-prior. 17.12.1986).
 EP 178 442 (Nestle; appl. 4.9.1985; CH-prior. 10.10.1984).
 FR 1 603 383 (Ono; appl. 3.10.1968).
 US 4 703 060 (Nestec S.A.; 27.10.1987; appl. 14.10.1983; prior. 6.4.1983).
 JP 1 051 496 (Nippon Oils and Fats; appl. 21.8.1987).
 JP 63 216 845 (Agency of Ind. Sciences and Techn.; appl. 5.3.1987).
 Traitler, H. et al.: J. Am. Oil Chem. Soc. (JAOCA7) **65**, 755 (1988).
 Wille, H.; Traitler, H.: Fett Wiss. Technol. (FWTEEG) **90**, 476 (1988).

combination with calcium:

- EP 261 814 (Efamol; appl. 28.8.1987; GB-prior. 10.9.1986).

modeling of androgen action in men:

- EP 309 086 (Efamol; appl. 9.8.1988; GB-prior. 7.9.1987).

prevention of side effects of non-steroidal anti-inflammatories:

- EP 195 570 (Efamol; appl. 7.3.1986; GB-prior. 19.3.1985).

treatment of premenstrual syndrome:

- US 4 415 554 (Efamol; 15.11.1983; appl. 10.6.1981; GB-prior. 23.1.1978, 7.2.1978, 19.4.1978, 17.8.1978, 24.10.1978, 19.1.1979, 30.10.1979).
 ZA 8 604 779 (Efamol; appl. 27.6.1986; GB-prior. 4.7.1985).

treatment of complications of diabetes mellitus:

- EP 218 460 (Efamol; appl. 1.10.1986; GB-prior. 2.10.1985).

treatment of skin disorders:

- US 4 444 755 (Efamol; 24.4.1984; appl. 10.6.1981; prior. 19.1.1979, 30.10.1979).
 EP 173 478 (Efamol; appl. 5.8.1985; GB-prior. 15.8.1984).

treatment of prostatomegaly:

- JP 61 207 330 (Efamol; appl. 6.3.1986; GB-prior. 8.3.1985).

treatment of endometriosis:

- EP 222 483 (Efamol; appl. 1.10.1986; GB-prior. 2.10.1985).

treatment of amnesia:

EP 296 751 (Efamol; appl. 15.6.1988; GB-prior. 24.6.1987).

treatment of allergic rhinitis and asthma:

JP 61 087 621 (Nisshin Oil Mills; appl. 5.10.1984).

skin improving composition:

EP 334 507 (Efamol; appl. 7.3.1989; GB-prior. 22.3.1988).

pharmaceutical and dietary composition:

EP 3 407 (Verronmay; appl. 20.1.1979; GB-prior. 23.1.1978).

EP 4 770 (Verronmay; appl. 10.4.1979; GB-prior. 11.4.1978).

EP 19 423 (Efamol; appl. 8.5.1980; GB-prior. 18.5.1979).

US 4 273 763 (Efamol; 16.6.1981; GB-prior. 23.1.1978).

Formulation(s): cps. 40 mg, 80 mg, 466-536 mg, 932-1073 mg extract of evening primrose seeds*Trade Name(s):*

D: Epogam (Beiersdorf; 1990)

Epogam (Searle)

GB: Efamast (Searle)

I: Epogam (Whitehall)

Ganciclovir

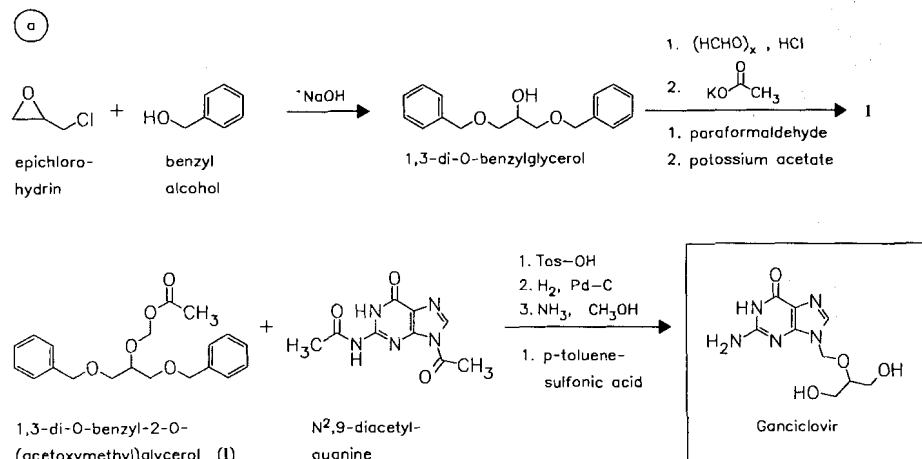
(BioIf-62; BW-759U; DHPG; 2'-NOG)

ATC: S01AD09

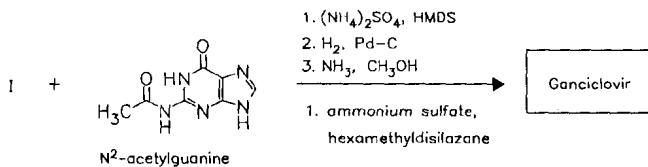
Use: antiviral nucleoside for treatment of cytomegalovirus infections in AIDS patients

RN: 82410-32-0 MF: $C_9H_{13}N_5O_4$ MW: 255.23LD₅₀: 1 g/kg (M, i.p.); 900 mg/kg (M, i.v.); >2 g/kg (M, p.o.);
>150 mg/kg (dog, i.v.); >1 g/kg (dog, p.o.)

CN: 2-amino-1,9-dihydro-9-[[2-hydroxy-1-(hydroxymethyl)ethoxy]methyl]-6H-purin-6-one

monosodium saltRN: 107910-75-8 MF: $C_9H_{12}N_5NaO_4$ MW: 277.22

b

*Reference(s):*

- EP 85 424 (Syntex; appl. 31.1.1983; USA-prior. 1.2.1982, 22.12.1982).
 EP 49 072 (Syntex; appl. 15.9.1981; USA-prior. 16.9.1980).
 US 4 423 050 (Syntex; 27.12.1983; prior. 24.5.1982, 21.5.1981).
 US 4 355 032 (Syntex; 14.6.1983; appl. 21.5.1981).
 Martin, J.C. et al.: J. Med. Chem. (JMCMAR) **26**, 759 (1983).
 Ogilvie, K.K. et al.: Can. J. Chem. (CJCHAG) **60**, 3005 (1982).
 Ashton, W.A.: Biochem. Biophys. Res. Commun. (BBRCA9) **108**, 1716 (1982).

anhydrous crystalline form:

- US 4 642 346 (Syntex; 10.2.1987; appl. 24.6.1985).

combination with interferon:

- EP 109 234 (BioLogicals; appl. 3.11.1983; USA-prior. 4.11.1982).

alternative synthesis:

- McGee, D.P. et al.: Synth. Commun. (SYNCAV) **18**, 1651 (1988).
 ES 548 093 (Inke S.A.; appl. 22.10.1985).
 ES 549 248 (M.J. Verde Casanova; appl. 25.11.1985).
 WO 8 302 723 (BioLogicals; appl. 12.2.1982).

synthesis from guanosine:

- Boryski, J.; Golankiewicz, B.: Synthesis (SYNTBF) **1999** (4), 625.

Review:

- Gao, H.; Mitra, A.K.: Synthesis (SYNTBF) **2000** (3), 329.

Formulation(s): cps. 250 mg, 500 mg; vial (lyo.) 500 mg (as sodium salt)

Trade Name(s):

D:	Cymeven (Roche)	GB:	Cymevene (Roche)	USA:	Cytovene (Roche)
F:	Cymévan (Roche)	I:	Cymavene (Recardati)		Cytovene (Roche)
	Virgan (Théa)	J:	Denosine (Syntex)		

Gefarnate

ATC: A02BX07

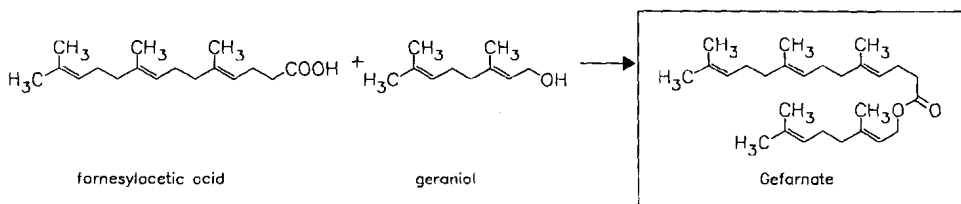
Use: peptic ulcer therapeutic,
antispasmodic

RN: 51-77-4 MF: $C_{27}H_{44}O_2$ MW: 400.65 EINECS: 200-121-0

LD₅₀: 2821 mg/kg (M, i.v.); >8 g/kg (M, p.o.);

2040 mg/kg (R, i.v.); >9 g/kg (R, p.o.)

CN: (E,E,E)-5,9,13-trimethyl-4,8,12-tetradecatrienoic acid 3,7-dimethyl-2,6-octadienyl ester

**Reference(s):**

BE 617 994 (Ist. de Angeli; appl. 23.5.1962; GB-prior. 24.5.1961).

Formulation(s): cps. 50 mg; tabl. 50 mg; vial 50 mg

Trade Name(s):

GB:	Gefarnil (Crookes); wfm	Ulcofarm (Ausonia); wfm	Gefanil (Sumitomo)
I:	Famesil (AGIPS); wfm	Ulcofarm (Iton); wfm	Gefulcer (Ohta)
	Farnisol (Firma); wfm	Ulcotrofina (Ripari-Gero); wfm	Ketonil (Mohan)
	Gefarnax/-forte (De Angeli)-comb.; wfm	Vagogernil (Benvegna); wfm	Matorozin (Kanto-Isei)
	Gefarnil (De Angeli); wfm	J: Alsanate (Dainippon)	PolyI (Teikoku)
	Gefarnil Compositum (De Angeli)-comb.; wfm	Dixnalate (San-a)	Salanil (Sato)
	Gefarol (Iti); wfm	Eszyme Dental (SS Seiyaku)	Terpanil (Kakenyaku)
	Nolesil (Geymonat); wfm	Gefalon (Sawai)	Zackal (SS Seiyaku)
	Ulco (Elea); wfm		Zenowal (Daigo-Takeda)

Gemcitabine

(dFdC; LY-188011)

ATC: L01BC05

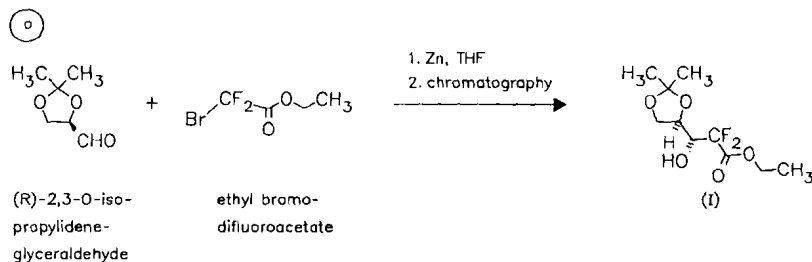
Use: antiviral, antineoplastic

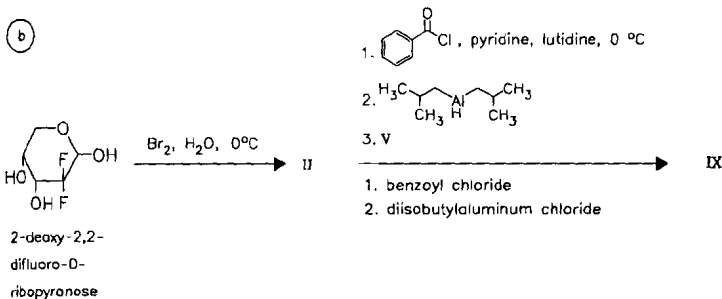
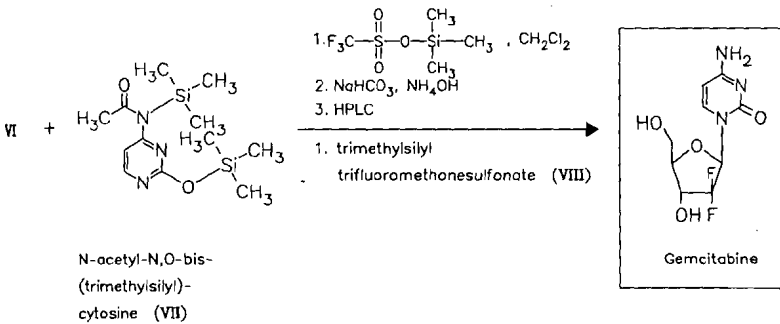
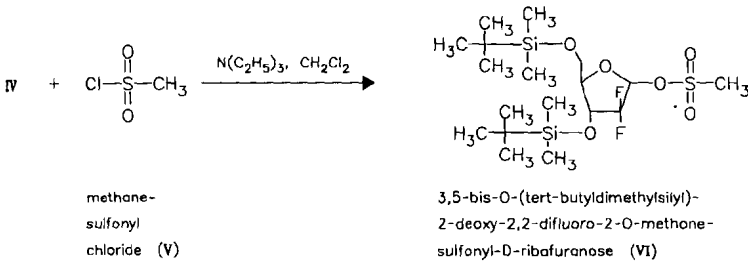
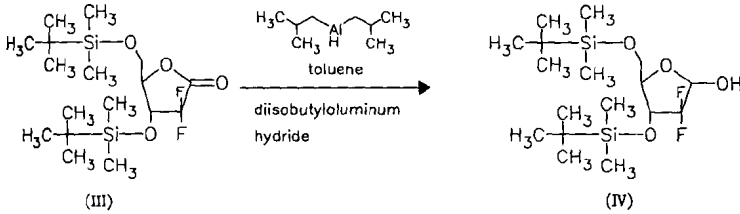
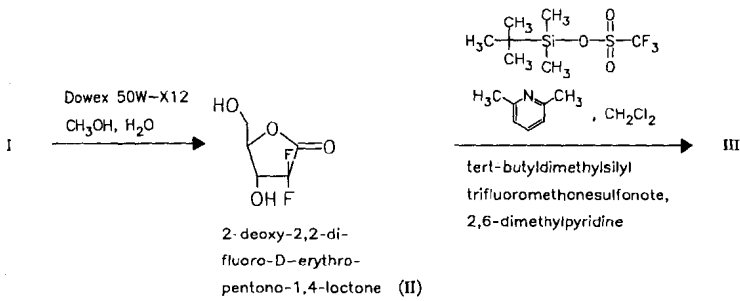
RN: 95058-81-4 MF: $\text{C}_9\text{H}_{11}\text{F}_2\text{N}_3\text{O}_4$ MW: 263.20

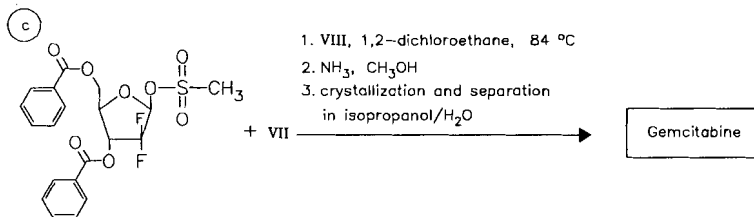
CN: 2'-deoxy-2',2'-difluorocytidine

monohydrochloride

RN: 122111-03-9 MF: $\text{C}_9\text{H}_{11}\text{F}_2\text{N}_3\text{O}_4 \cdot \text{HCl}$ MW: 299.66







3,5-di-O-benzoyl-2-deoxy-2,2-difluoro-1-O-methanesulfonyl-D-ribofuranose (IX)

Reference(s):

- a** Hertel, L.W. et al.: J. Org. Chem. (JOCEAH) **53** (11), 2406 (1988).
EP 122 707 (Eli Lilly & Co.; appl. 6.3.1984; USA-prior. 10.3.1983, 4.12.1984, 4.6.1987).
EP 184 365 (Eli Lilly & Co.; appl. 25.11.1985; USA-prior. 10.10.1985, 4.12.1984, 3.3.1988).
- b** US 4 954 623 (Eli Lilly & Co.; appl. 13.11.1989; USA-prior. 13.11.1989, 20.3.1989).
- c** EP 306 190 (Eli Lilly & Co.; appl. 22.8.1988; USA-prior. 28.8.1987).
EP 577 303 (Eli Lilly & Co.; appl. 21.6.1993; USA-prior. 7.4.1993, 22.6.1992, 30.5.1995).

Formulation(s): vial 200 mg, 1 g (as hydrochloride)

Trade Name(s):

D:	Gemzar (Lilly)	GB:	Gemzar (Lilly; as hydrochloride)	USA:	Gemzar (Lilly; as hydrochloride)
F:	Gemzar (Lilly; as hydrochloride)				

Gentamicin

(Gentamycin)

ATC: D06AX07; J01GB03; S01AA11; S03AA06

Use: antibiotic

RN: 1403-66-3 MF: unspecified MW: unspecified EINECS: 215-765-8

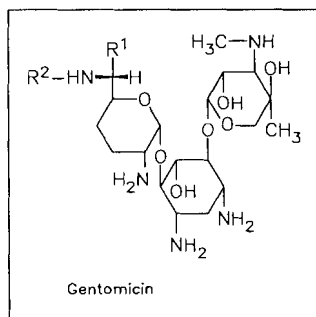
LD₅₀: 43.5 mg/kg (M, i.v.); 10 g/kg (M, p.o.);
70 mg/kg (R, i.v.); 6600 mg/kg (R, p.o.);
184 mg/kg (dog, i.v.)

CN: gentamicin

sulfate

RN: 1405-41-0 MF: H₂SO₄ · x unspecified MW: unspecified EINECS: 215-778-9

LD₅₀: 47 mg/kg (M, i.v.); >11.269 g/kg (M, p.o.);
96 mg/kg (R, i.v.); >5 g/kg (R, p.o.)



Gentamicin C ₁	R ¹ : -CH ₃ ; R ² : -CH ₃
Gentamicin C ₂	R ¹ : -CH ₃ ; R ² : -H
Gentamicin C _{1a}	R ¹ : -H; R ² : -H

Reference(s):

- US 3 091 572 (Schering Corp.; 28.5.1963; prior. 16.7.1962).
 US 3 136 704 (Schering Corp.; 9.6.1964; prior. 5.12.1962).
 Weinstein, M.J. et al.: Antimicrob. Agents Chemother. (AACHAX), 1 (1963).

Formulation(s): amp. 10 mg, 40 mg, 80 mg, 120 mg, 160 mg; eye drops 3 mg/ml; ointment 3 mg/g (as sulfate)

Trade Name(s):

D:	Dispagent (CIBA Vision)	Gentalline (Schering-Plough)	Diprogenta (Sca)-comb.
	duragentamicin 40/80/60 (durachemie)	Gentamicine Chauvin (Chauvin)	Farmomicin (Farmigea)-comb.
	Gencin (curasan)	Gentasone (Schering-Plough)-comb.	Genalfa (Intes)-comb.
	Genta (ct-Arzneimittel)	Palacos (Schering-Plough)	Genatrop (Intes)-comb.
	Gentamicin POS (Ursapharm)	GB: Cidomycin (Hoechst)	Gentalyn (Schering-Plough)
	Gentamytrex (Mann)	Garamycin (Schering-Plough)	Gentamen (Pierre)
	Gent-Ophtal (Winzer)	Genticin (Roche)	Gentibiopital (Farmila)
	Ophtagram (Chauvin ankerpharm)	Gentisone C (Roche)-comb.	Genticol (Siti)
	Refobacin (Merck)	Lugacin (Lagap)	Ribomicin (Farmigea)
	Sulmycin (Essex Pharma)	Minims gentamicin (Chauvin)	Septopal (Bracco)
	numerous combination preparations	I: Citrizan Antibiotico (IDI)-comb.	combination preparations
F:	Gentabilles (Schering-Plough)		J: Gentacin (Shionogi)
			USA: Garamycin (Schering)
			Gentafair (Pharmafair)
			G-mycticin (Pedinol)

Gentisic acid

(Acide gentisique)

ATC: M01; N02

Use: anti-inflammatory, analgesic

RN: 490-79-9 MF: C₇H₆O₄ MW: 154.12 EINECS: 207-718-5

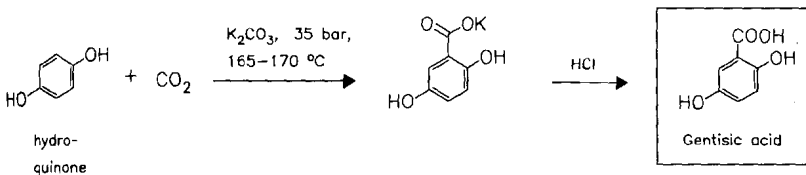
LD₅₀: 374 mg/kg (M, i.v.); 4500 mg/kg (M, p.o.)

CN: 2,5-dihydroxybenzoic acid

monosodium salt

RN: 4955-90-2 MF: C₇H₅NaO₄ MW: 176.10 EINECS: 225-598-2

LD₅₀: 3735 mg/kg (M, i.p.); 3900 mg/kg (M, s.c.)

**Reference(s):**

- US 2 547 241 (Monsanto; 1951; appl. 1950).
 US 2 588 336 (Monsanto; 1952; appl. 1950).
 US 2 608 579 (Monsanto; 1952; appl. 1949).
 US 2 816 137 (Eastman Kodak; 1957; appl. 1954).

Formulation(s): drg. 21.1 mg (as sodium salt)

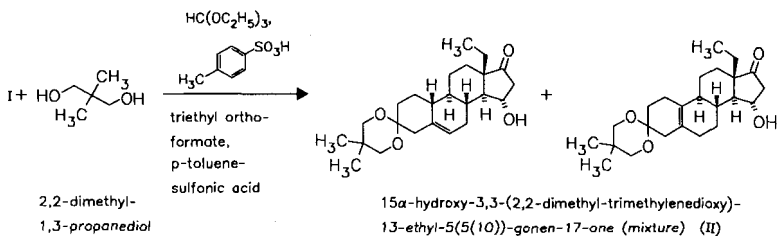
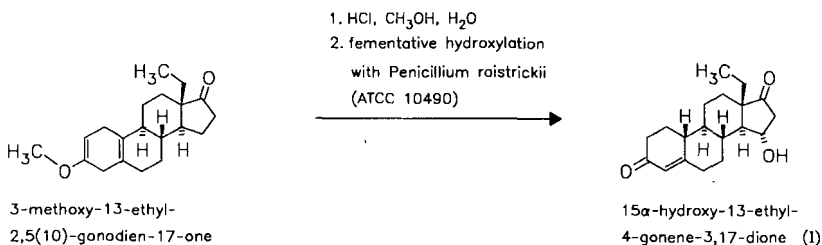
Trade Name(s):

D: Gentsinamid (Herbrand)-
comb.; wfmPrigenta (Reiss)-comb.;
wfmRheumadrag (Schuck)-
comb.; wfm**Gestodene**

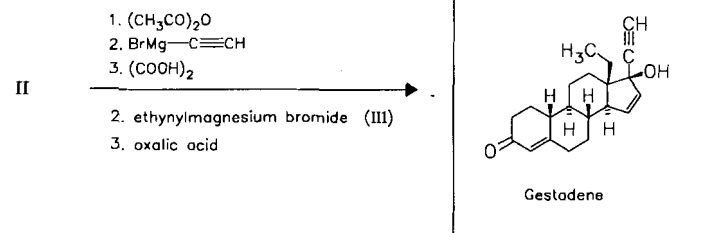
(SHB 331)

ATC: G03AB; G03AA

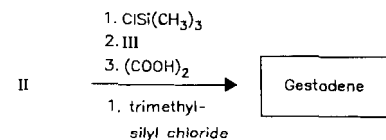
Use: progestogen, oral contraceptive

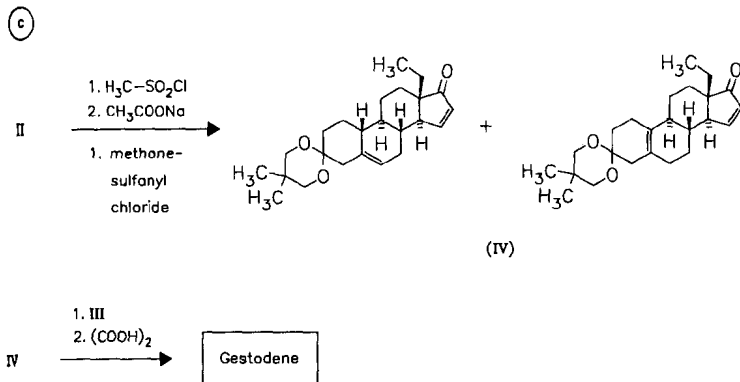
RN: 60282-87-3 MF: C₂₁H₂₆O₂ MW: 310.44 EINECS: 262-145-8CN: (17 α)-13-ethyl-17-hydroxy-18,19-dinorpregna-4,15-dien-20-yn-3-one

a



b



*Reference(s):*

BE 847 090 (Schering AG; appl. 8.10.1976; D-prior. 10.10.1975, 12.8.1976).
 DOS 2 546 062 (Schering AG; appl. 10.10.1975).
 DE 2 636 404 (Schering AG; appl. 12.8.1976).
 DE 2 636 405 (Schering AG; appl. 12.8.1976).
 DOS 2 636 407 (Schering AG, appl. 12.8.1979).
 Hofmeister, H. et al.: *Arzneim.-Forsch. (ARZNAD)* **36**, 781 (1986).

alternative synthesis from 3-alkoxy-18-methyl-3,5-estradien-17-one derivatives:

EP 201 452 (Schering AG; appl. 7.5.1986; D-prior. 10.5.1985).
 US 4 719 054 (Schering AG; 12.1.1988; appl. 9.5.1986; D-prior. 10.5.1985).

medical use for oral contraception in combination with ethynyl-estradiol:

EP 148 724 (Schering AG; appl. 18.12.1984; D-prior. 22.12.1983).
 US 4 621 079 (Schering AG; 4.11.1986; appl. 21.12.1984; D-prior. 22.12.1983).

medical use for treatment of β -TGF dependent tumors:

EP 399 631 (Schering AG; appl. 17.5.1990; D-prior. 17.5.1989).

transdermal delivery system:

EP 370 220 (Schering AG; appl. 11.10.1989; D-prior. 27.10.1988).

Formulation(s): drg. and tabl. 75 μg in combination with 30 μg ethynylestradiol

Trade Name(s):

D:	Femovan (Schering; 1987)- comb. with ethynylestradiol Minulet (Wyeth)-comb.	Moneva (Schering)-comb. with ethynylestradiol Phaeva (Schering)-comb.	I:	Triadene (Schering)-comb. with ethynylestradiol Ginoden (Schering; 1987)- comb. with ethynylestradiol Milvane (Schering)-comb. with ethynylestradiol
F:	Harmonet (Wyeth- Lederle)-comb. with ethynylestradiol Meliane (Schering)-comb. with ethynylestradiol Minulet (Wyeth-Lederle)- comb. with ethynylestradiol	GB:	Femodene (Schering; 1987)-comb. with ethynylestradiol Minulet (Wyeth; 1997)- comb. with ethynylestradiol	

Gestonorone caproate

(Gestronol hexanoate)

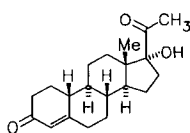
ATC: G04C

Use: progestogen (for treatment of prostate hypertrophy)

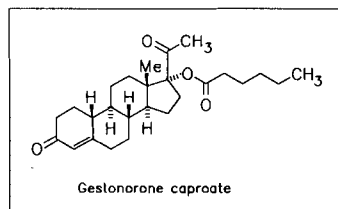
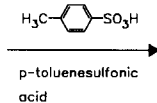
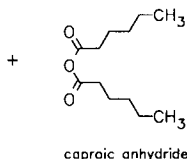
RN: 1253-28-7 MF: C₂₆H₃₈O₄ MW: 414.59 EINECS: 215-010-2LD₅₀: >10 g/kg (M, p.o.);

>10 g/kg (R, p.o.)

CN: 17-[(1-oxohexyl)oxy]-19-norpregn-4-ene-3,20-dione



17-hydroxy-19-norprogesterone

(from 3 β -hydroxy-20-oxo-5,16-pregadiene; cf. pregnenolone synthesis)*Reference(s):*

DE 1 074 582 (Schering AG; appl. 24.9.1958).

Popper, A. et al.: *Arzneim.-Forsch. (ARZNAD)* **19**, 352 (1969).

(also starting material).

Formulation(s): amp. 200 mg*Trade Name(s):*

D: Depostat (Schering); wfm

GB: Depostat (Schering); wfm

I: Depostat (Schering)

F: Depostat (SEPPS); wfm

generic

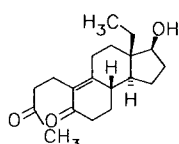
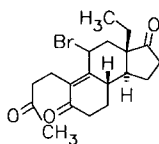
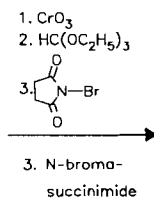
J: Depostat (Nihon Schering)

Gestrinone

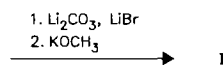
ATC: G03D; G03XA02

Use: orally active progestogen (for treatment of endometriosis),
antigonadotropinRN: 16320-04-0 MF: C₂₁H₂₄O₂ MW: 308.42CN: (17 α)-13-ethyl-17-hydroxy-18,19-dinorpregna-4,9,11-trien-20-yn-3-one

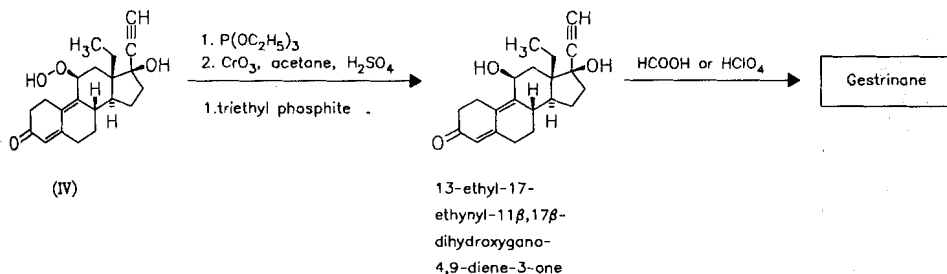
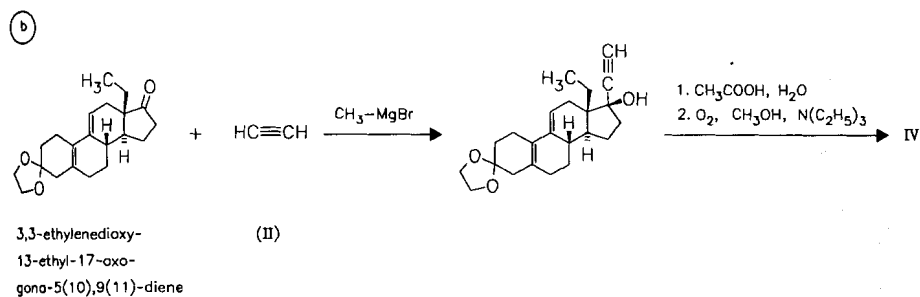
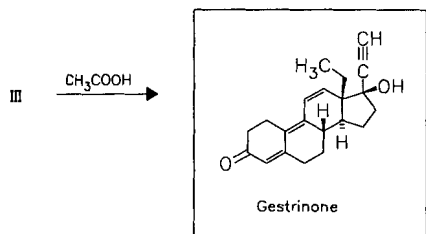
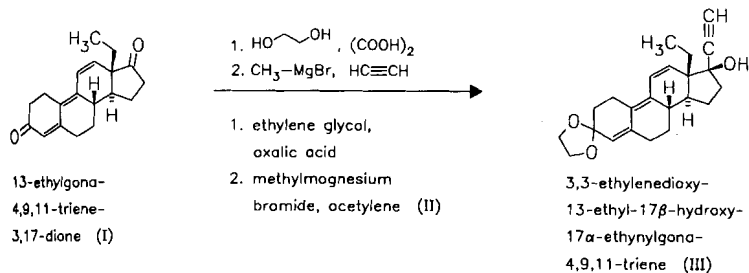
a

3,5-dioxo-13-ethyl-17 β -hydroxy-4,5-secogon-9-ene

3,5,17-trioxo-11-bromo-13-ethyl-4,5-secogon-9-ene



1



Reference(s):

- a DE 1 593 307 (Roussel-Uclaf; appl. 1966; F-prior. 1965).
 b DE 1 618 810 (Roussel-Uclaf; appl. 1967; F-prior. 1966).

alternative synthesis:

- DOS 2 212 589 (Roussel-Uclaf; appl. 15.3.1972; F-prior. 19.3.1971).
 GB 1 069 709 (Roussel-Uclaf; appl. 1966; F-prior. 1964).

synthesis of 13 β -ethyl-4,9,11-gonatriene-3,17-dione:

- FR 1 526 962 (Roussel-Uclaf; appl. 6.1.1967).

alternative synthesis:

- NL 6 517 141 (Roussel-Uclaf; appl. 1965; F-prior. 1964).

synthesis of 3,5-dioxo-13-ethyl-17 β -hydroxy-4,5-secogon-9-ene:

NL 6 414 702 (Roussel-Uclaf; appl. 1965; F-prior. 1963, 1964).

GB 1 096 761 (Roussel-Uclaf; appl. 1964; F-prior. 1963).

synthesis of 13-ethyl-17-ethynyl-11 β ,17 β -dihydroxygona-4,9-diene-3-one:

FR-M 5 435 (Roussel-Uclaf; appl. 1966).

Formulation(s): cps. 2.5 mg

Trade Name(s):

GB: Dimetrose (Florizel)

I: Dimetrose (Poli)

Gitaloxin

(16-Formylgitaloxin)

ATC: C01AA

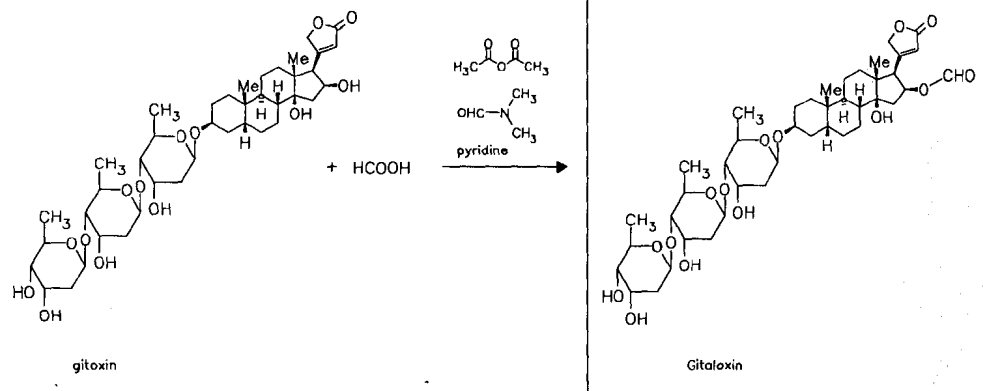
Use: cardiac glycoside

RN: 3261-53-8 MF: C₄₂H₆₄O₁₅ MW: 808.96 EINECS: 221-864-7

LD₅₀: 28.7 g/kg (M, p.o.);

29.960 mg/kg (R, p.o.)

CN: (3 β ,5 β ,16 β)-3-[(*O*-2,6-dideoxy- β -D-ribo-hexopyranosyl-(1 \rightarrow 4)-*O*-2,6-dideoxy- β -D-ribo-hexopyranosyl-(1 \rightarrow 4)-2,6-dideoxy- β -D-ribo-hexopyranosyl)oxy]-16-(formyloxy)-14-hydroxycard-20(22)-enolide



Reference(s):

DE 1 026 312 (Boehringer Mannh.; appl. 1955).

extraction from Digitalis purpurea:

DOS 1 042 838 (Boehringer Mannh.; appl. 1958).

mixed crystals with digitoxin:

DE 1 140 315 (Boehringer Mannh.; appl. 1961).

injection solution:

BE 618 160 (Christians; appl. 25.5.1962).

review:

Georges, A. et al.: Therapie (THERAP) **18**, 209 (1963).

Formulation(s): tabl. 0.1 mg

Trade Name(s):

F: Cristaloxine (Sedaph); wfm

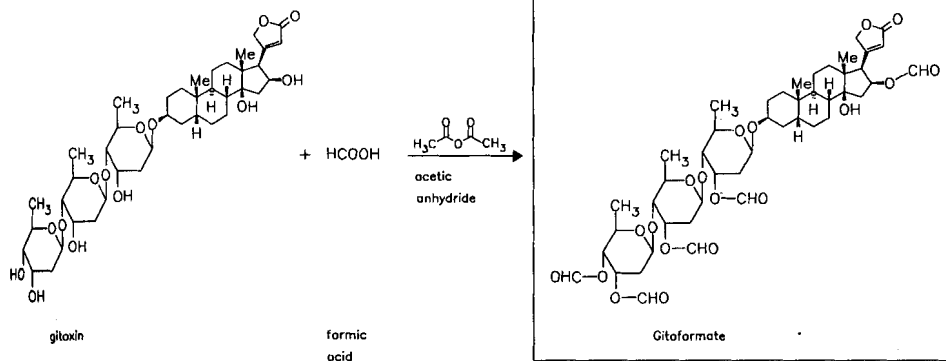
Gitoformate
(Pentaformylgitoxin)

ATC: C01AA09
Use: cardiac glycoside

RN: 10176-39-3 MF: C₄₆H₆₄O₁₉ MW: 921.00 EINECS: 233-450-3

LD₅₀: 23.9 mg/kg (M, p.o.);
39.01 mg/kg (R, p.o.)

CN: (3β,5β,16β)-3-[(*O*-2,6-dideoxy-3,4-di-*O*-formyl-β-*D*-ribo-hexopyranosyl-(1→4)-*O*-2,6-dideoxy-3-*O*-formyl-β-*D*-ribo-hexopyranosyl-(1→4)-2,6-dideoxy-3-*O*-formyl-β-*D*-ribo-hexopyranosyl)oxy]-16-(formyloxy)-14-hydroxycard-20(22)-enolide



Reference(s):

BE 625 447 (Manufacture de Produits Pharmaceutique; appl. 28.11.1962).

Formulation(s): tabl. 0.04 mg, 0.06 mg

Trade Name(s):

D: Dynocard (Madaus); wfm I: Formiloxine (Menarini); wfm

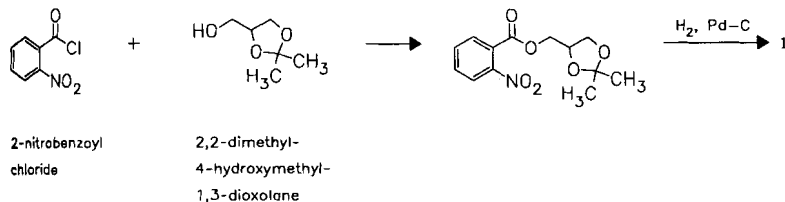
Glafenine

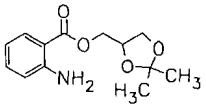
ATC: N02BG03
Use: analgesic, anti-inflammatory

RN: 3820-67-5 MF: C₁₉H₁₇ClN₂O₄ MW: 372.81 EINECS: 223-315-7

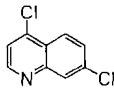
LD₅₀: 1486 mg/kg (M, p.o.);
2300 mg/kg (R, p.o.)

CN: 2-[(7-chloro-4-quinolinyl)amino]benzoic acid 2,3-dihydroxypropyl ester

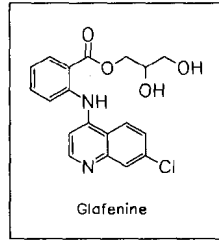




(I)



4,7-dichloro-quinoline



Glafenine

Reference(s):

US 3 232 944 (Roussel-Uclaf; 1.2.1966; F-prior. 20.8.1962).
FR-M 2 413 (Roussel-Uclaf; appl. 20.11.1962; prior. 20.8.1962).

anthranilic acid monoglyceride *from* isatoic anhydride:
E-appl. 678 (Pierre Fabre; appl. 18.7.1978; F-prior. 26.7.1977).

Formulation(s): suppos. 500 mg; tabl. 200 mg

Trade Name(s):

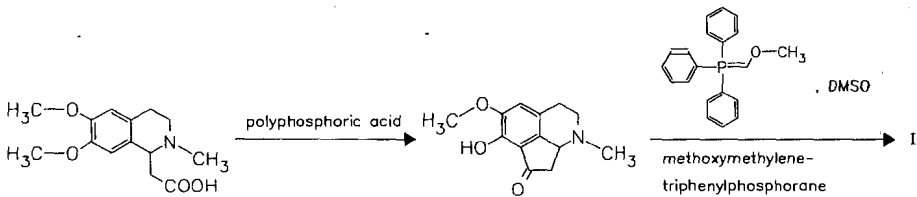
D:	Glifanan (Albert-Roussel); wfm	Glifanan (Roussel); wfm Privadol (Roland-Marie); wfm	I:	Glifan (Roussel- Maestretti); wfm
F:	Adalgur (Roussel)-comb.; wfm		J:	Glifanan (Nippon Roussel)

Glaziovine

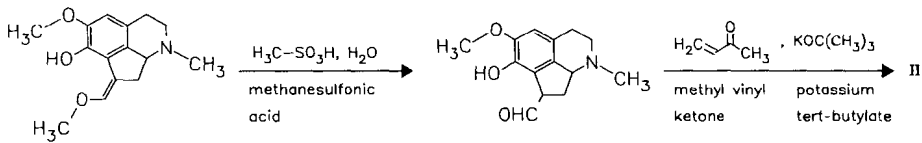
ATC: N05B
Use: tranquilizer

RN: 17127-48-9 MF: C₁₈H₁₉NO₃ MW: 297.35

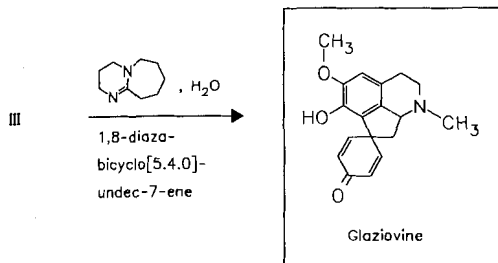
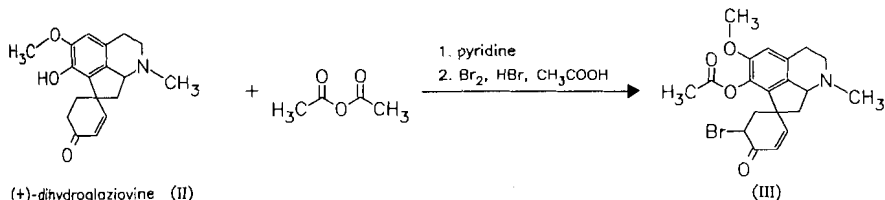
CN: (±)-2',3',8',8'a-tetrahydro-6'-hydroxy-5'-methoxy-1'-methylspiro[2,5-cyclohexadiene-1,7'(1H)-cyclopent[*ij*]isoquinolin]-4-one



6,7-dimethoxy-2-methyl-1,2,3,4-tetrahydroisoquinoline-1-acetic acid



(I)

**Reference(s):**

DOS 2 363 531 (Siphar; appl. 20.12.1973; CH-prior. 22.12.1972).
 GB 1 459 210 (Siphar; valid from 18.12.1973; CH-prior. 22.12.1972).

alternative syntheses:

US 3 886 166 (Siphar; 27.5.1975; CH-prior. 22.12.1972, 26.2.1973).
 DOS 2 363 529 (Siphar; appl. 20.12.1973; CH-prior. 22.12.1972, 26.2.1973).
 Kametani, T. et al.: Tetrahedron Lett. (TELEAY) **1973**, 4219.
 DOS 2 363 530 (Siphar; appl. 20.12.1973; CH-prior. 22.12.1972).

isolation from the leaves of *Ocotea glaziovii*:

Gilbert, B. et al.: J. Am. Chem. Soc. (JACSAT) **86**, 694 (1964).

Formulation(s): tabl. 200 mg

Trade Name(s):

I: Suavedol (Simes); wfm

Glibenclamide

(Glyburide)

ATC: A10BB01

Use: antidiabetic

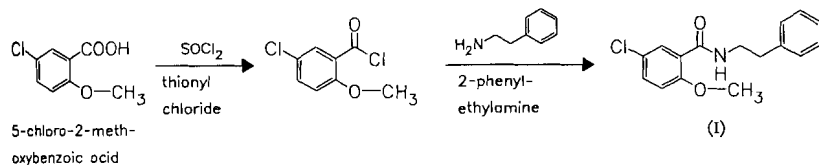
RN: 10238-21-8 MF: $\text{C}_{23}\text{H}_{28}\text{ClN}_3\text{O}_5\text{S}$ MW: 494.01 EINECS: 233-570-6

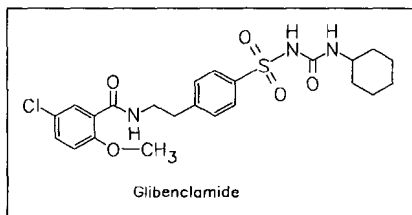
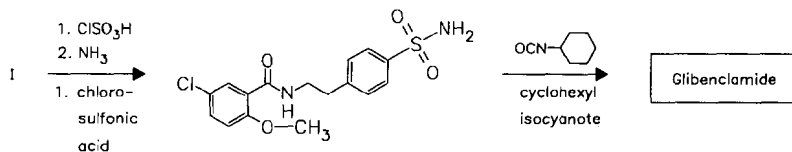
LD_{50} : 3250 mg/kg (M, p.o.);

>20 g/kg (R, p.o.);

>10 g/kg (dog, p.o.)

CN: 5-chloro-*N*-[2-[4-[[[(cyclohexylamino)carbonyl]amino]sulfonyl]phenyl]ethyl]-2-methoxybenzamide



**Reference(s):**

- Aumüller, W. et al.: *Arzneim.-Forsch. (ARZNAD)* **16**, 1640 (1966).
 DE 1 283 837 (Hoechst; appl. 13.7.1967; CDN-prior. 21.7.1966)
 DE 1 301 812 (Hoechst; appl. 27.7.1965).
 BE 684 652 (Hoechst; appl. 27.7.1966; D-prior. 27.7.1965).
 US 3 454 635 (Hoechst; 8.7.1969; appl. 13.7.1966; D-prior. 2.12.1965).

Formulation(s): tabl. 1.75 mg, 2.5 mg, 3.5 mg, 5 mg

Trade Name(s):

D:	Azugucon (Azuchemie)	Praecigucon (Pfleger)	Euglucon (Boehringer Mannh.)
	Bastiverit (Bastian-Werk)	Semi-Euglucon N (Roche/HMR)	Gliben (Gentili)
	duragucon (durachemie)	Semi-Gliben-Puren N (Isis Puren)	Glibomet (Guidotti)-comb.
	Euglucon N (Roche/HMR; 1969)		Gliboral (Guidotti)
	Glimidstada (Stada)	F:	Glucormide (Lipha)-comb.
	Glucnorm (Wolff)	Daonil (Hoechst)	combination preparations
	Glucoreduct (Sanofi)	Euglucan (Boehringer Mannh.)	J:
	Winthrop)	Hemi-Daonil (Hoechst)	Daonil (Hoechst)
	Glucoromed (Lichtenstein)	Miglucan (Boehringer Mannh.)	Euglucon (Yamanouchi)
	Gluc Tablinen (Sanorania)		USA:
	Glucovital (Wolff)	GB:	Diabeta (Hoechst Marion Roussel)
	Glycolande (Synthelabo)	Daonil (Hoechst)	Glynase (Pharmacia & Upjohn)
	Humedia (APS)	Euglucon (Hoechst)	Micronase (Pharmacia & Upjohn)
	Maninil (Berlin-Chemie)	Semi-Daonil (Hoechst)	
		I:	
		Daonil (Hoechst)	

Glibornuride

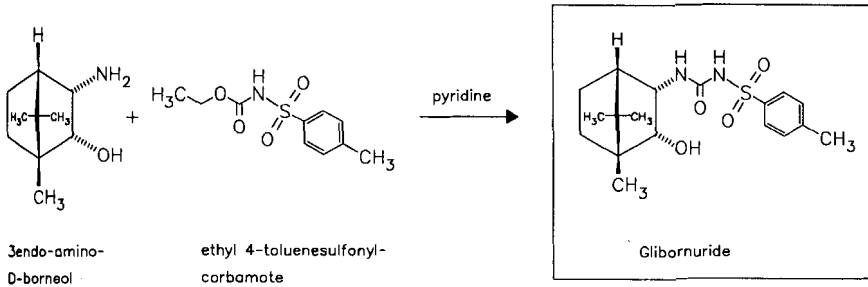
ATC: A10BB04

Use: antidiabetic

RN: 26944-48-9 MF: $\text{C}_{18}\text{H}_{26}\text{N}_2\text{O}_4\text{S}$ MW: 366.48 EINECS: 248-124-6

LD_{50} : >20 g/kg (M, p.o.);
18 g/kg (R, p.o.)

CN: [1S-(endo,endo)]-N-[[3-hydroxy-4,7,7-trimethylbicyclo[2.2.1]hept-2-yl]amino]carbonyl]-4-methylbenzenesulfonamide

**Reference(s):**

DE 1 695 201 (Hoffmann-La Roche; appl. 21.9.1967; CH-prior. 28.10.1966, 24.4.1967, 17.7.1967).
 US 3 654 357 (Roche; 4.4.1972; CH-prior. 26.4.1968).
 US 3 787 491 (Hoffmann-La Roche; 22.1.1974; prior. 29.9.1971).
 US 3 860 724 (Hoffmann-La Roche; 14.1.1975; prior. 29.9.1971).

Formulation(s): tabl. 25 mg

Trade Name(s):

D: Gluborid (Grünenthal) F: Glutril (Roche; 1972)
 Glutril (ICN; 1972) GB: Glutril (Roche; 1975); wfm

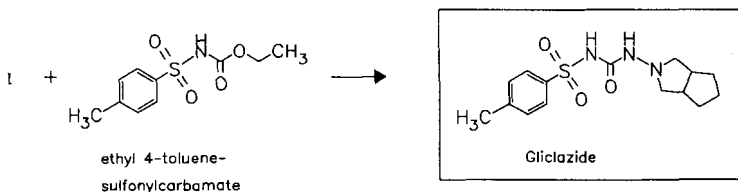
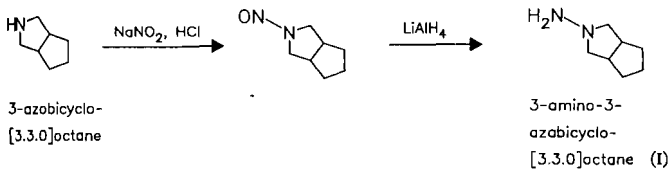
Gliclazide

ATC: A10BB09
 Use: antidiabetic

RN: 21187-98-4 MF: C₁₅H₂₁N₃O₃S MW: 323.42 EINECS: 244-260-5

LD₅₀: 295 mg/kg (M, i.v.); 3 g/kg (M, p.o.);
 382 mg/kg (R, i.v.); 3 g/kg (R, p.o.)

CN: N-[[hexahydrocyclopenta[c]pyrrol-2(1*H*)-yl]amino]carbonyl]-4-methylbenzenesulfonamide

**Reference(s):**

US 3 501 495 (Science Union; 17.3.1970; GB-prior. 10.2.1966).
 FR 1 510 714 (Science Union; appl. 9.2.1967; GB-prior. 10.2.1966).

Formulation(s): tabl. 40 mg, 80 mg

Trade Name(s):

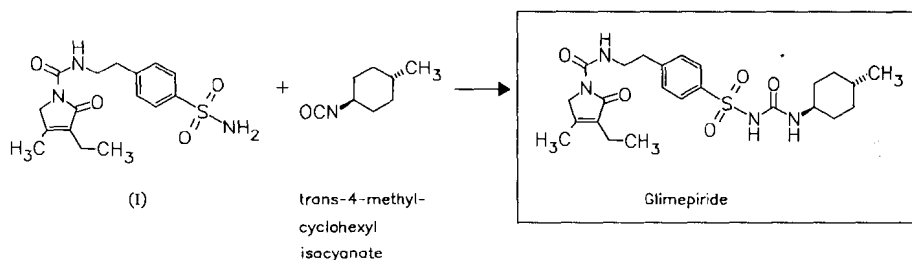
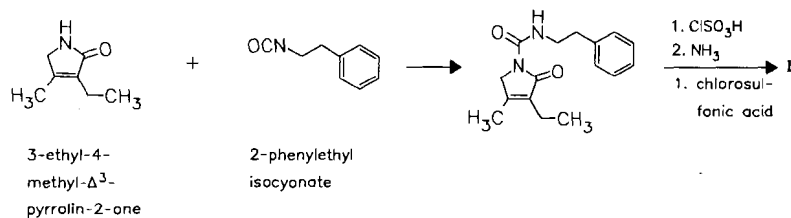
D: Diamicon (Servier) F: Diamicon (Servier) I: Diabrezide (Molteni)
 Deutschland GB: Diamicon (Servier) Diamicon (Servier)

J: Glimicron (Dainippon)

Glimepiride

(Hoe 490)

ATC: A10BB12

Use: insulin-sparing sulfonylurea,
antidiabeticRN: 93479-97-1 MF: C₂₄H₃₄N₄O₅S MW: 490.63CN: *trans*-3-ethyl-2,5-dihydro-4-methyl-*N*-[2-[4-[[[(4-methylcyclohexyl)amino]carbonyl]amino]sulfonyl]phenyl]ethyl]-2-oxo-1*H*-pyrrole-1-carboxamide*Reference(s):*

DE 2 951 135 (Hoechst AG; appl. 25.6.1981; D-prior. 19.12.1979).

*preparation of 3-ethyl-4-methyl- Δ^3 -pyrrolin-2-one*Siedel; Justus Liebigs Ann. Chem. (JLACBF) **554**, 144, 155 (1943).Plieninger; Decker; Justus Liebigs Ann. Chem. (JLACBF) **598**, 198, 205 (1956).Bishop, J.E.; Nagy, J.O.; O'Connell, J.F.; Rapoport, H.: J. Am. Chem. Soc. (JACSAT) **113** (21), 8024 (1991).Schoenleber, R.W.; Kim, Y.; Rapoport, H.: J. Am. Chem. Soc. (JACSAT) **106** (9), 2645 (1984).Tipton, A.; Lighner, D.A.: Monatsh. Chem. (MOCMB7) **130** (3), 425 (1999).*for treatment of arteriosclerosis:*

EP 604 853 (Hoechst Japan; appl. 6.7.1994; J-prior. 28.12.1992).

formulation:

EP 649 660 (Hoechst AG; appl. 26.4.1995; D-prior. 26.1.1993).

controlled release:

DE 4 336 159 (Hoechst AG; appl. 27.4.1994; D-prior. 22.1.1993).

for treatment of obesity:

WO 9 303 724 (Upjohn Co.; appl. 4.3.1993; USA-prior. 26.8.1991).

Formulation(s): tabl. 1 mg, 2 mg, 3 mg, 4 mg*Trade Name(s):*

D: Amarel (Hoechst)

USA: Amaryl (Hoechst Marion

F: Amarel (Hoechst Houdé)

Roussel)

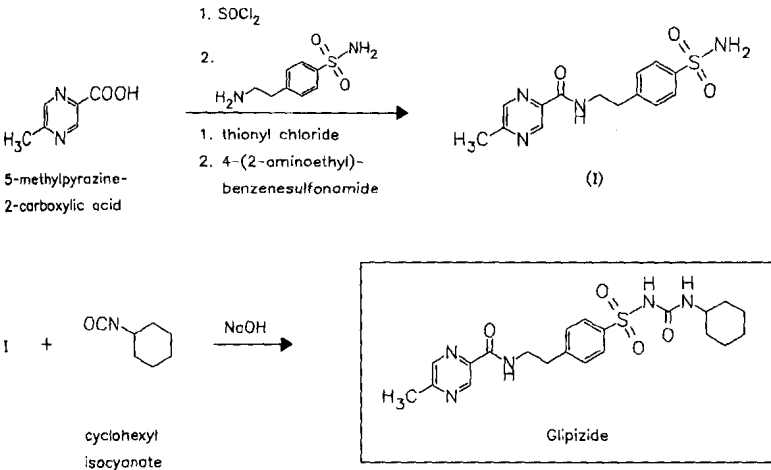
Glipizide

ATC: A10BB07
Use: antidiabetic

RN: 29094-61-9 MF: C₂₁H₂₇N₃O₄S MW: 445.54 EINECS: 249-427-6

LD₅₀: >3 g/kg (M, i.p.);
1200 mg/kg (R, i.p.)

CN: N-[2-[4-[[[(cyclohexylamino)carbonyl]amino]sulfonyl]phenyl]ethyl]-5-methylpyrazinecarboxamide

**Reference(s):**

DAS 2 012 138 (Carlo Erba; appl. 14.3.1970; I-prior. 26.3.1969, 18.6.1969).
US 3 669 966 (Carlo Erba; 13.6.1972; I-prior. 26.3.1969, 18.6.1969).
Ambrogli, V. et al.: *Arzneim.-Forsch. (ARZNAD)* **21**, 200 (1971).

preparation of 5-methylpyrazine-2-carboxylic acid from 2,5-dimethylpyrazine via oxidation:

Stoehr, J. *Prakt. Chem. (JPCEAO)* (2), **51**, 464 (1895).
Stoehr, J. *Prakt. Chem. (JPCEAO)* (2), **47**, 480 (1893).
Kiener, A.: *Angew. Chem. (ANCEAD)* **104** (6), 748 (1992).
Goldberg, Yu.; Shymanska, M.: *Org. Prep. Proced. Int. (OPPIAK)* **23** (2), 188 (1991).

electrochemical preparation of 5-methylpyrazine-2-carboxylic acid:

Borsotti, G.P.; Foà, M.; Gatti, N.: *Synthesis (SYNTBF)* **1990** (3), 207.
Feldman, D. et al.: *Chem. Heterocycl. Compd. (N. Y.) (CHCCAL)* **31** (1), 80 (1995).

Formulation(s): tabl. 2.5 mg, 5 mg, 10 mg

Trade Name(s):

D:	Glibenese (Pfizer; 1977)	Ozidia cp à lib modifiée (CC) (Pfizer)	I:	Minidiab (Carlo Erba; 1972)
F:	Glibénèse (Pfizer; 1974)	Minidiab (Pharmacia & Upjohn; 1974)	GB:	Glibenese (Pfizer; 1975)
			USA:	Glucotrol (Pfizer; 1984)
				Minodiab (Pharmacia & Upjohn; 1975)

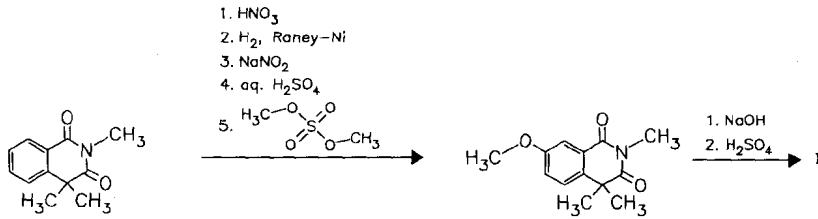
Gliquidone

ATC: A10BB08
Use: antidiabetic

RN: 33342-05-1 MF: C₂₇H₃₃N₃O₆S MW: 527.64 EINECS: 251-463-2

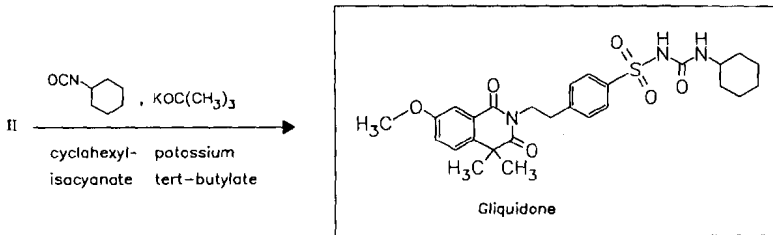
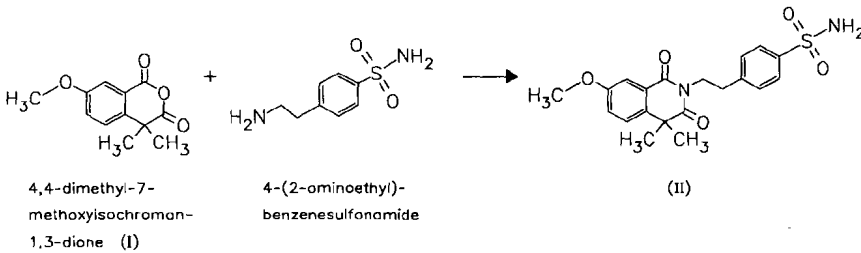
LD₅₀: 234 mg/kg (M, i.v.); >2g/kg (M, p.o.)

CN: N-[(cyclohexylamino)carbonyl]-4-[2-(3,4-dihydro-7-methoxy-4,4-dimethyl-1,3-dioxo-2(1H)-isoquinolinyl)ethyl]benzenesulfonamide



2,4,4-trimethyl-
1,2,3,4-tetrahydro-
isoquinoline-1,3-dione

7-methoxy-2,4,4-
trimethyl-1,2,3,4-
tetrahydroiso-
quinoline-1,3-dione



Reference(s):

DAS 2 000 339 (Thomae; appl. 5.1.1970).

DOS 2 011 126 (Thomae; appl. 10.3.1970).

US 3 708 486 (Boehringer Ing.; 2.1.1973; D-prior. 5.1.1970 and 17.4.1969).

Formulation(s): tabl. 30 mg

Trade Name(s):

D: Glurenorm (Yamanouchi)

GB: Glurenorm (Sanofi
Winthrop)

I: Glurenor (Guidotti)

Glisoxepide

ATC: A10BB11

Use: antidiabetic

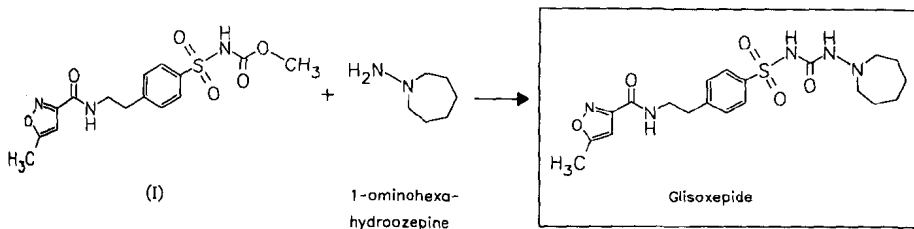
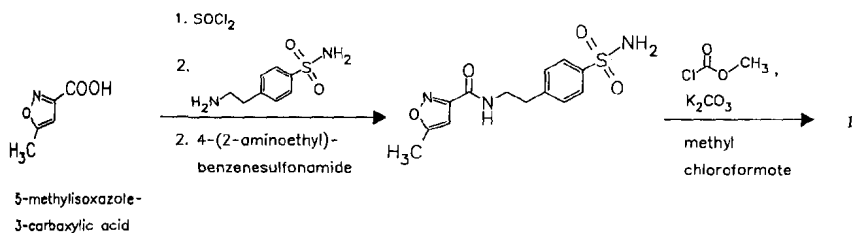
RN: 25046-79-1 MF: C₂₀H₂₇N₅O₅S MW: 449.53 EINECS: 246-579-5

LD₅₀: 283 mg/kg (M, i.v.); >10 g/kg (M, p.o.);

196 mg/kg (R, i.v.); >10 g/kg (R, p.o.);

>2 g/kg (dog, p.o.)

CN: N-[2-[4-[[[(hexahydro-1H-azepin-1-yl)amino]carbonyl]amino]sulfonyl]phenyl]ethyl]-5-methyl-3-
isoxazolecarboxamide



Reference(s):

- DE 1 670 952 (Bayer; appl. 25.11.1967).
- US 3 668 215 (Bayer; 6.6.1972; D-prior. 25.11.1967).
- Plümpe, H. et al.: *Arzneim.-Forsch. (ARZNAD)* **24**, 363 (1974).

Formulation(s): tabl. 4 mg

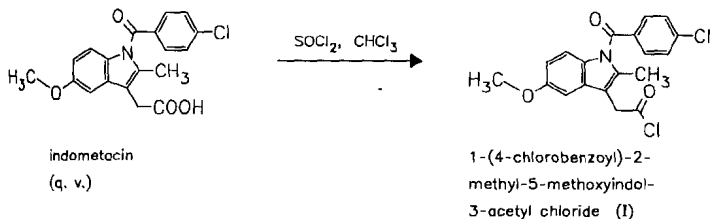
Trade Name(s):

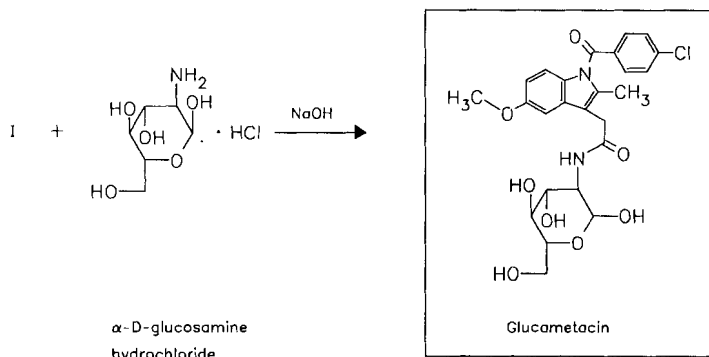
D: Pro-Diaban (Bayer Vital) I: Glucoben (Farmades); wfm

Glucametacin

ATC: A02A
 Use: anti-inflammatory

RN: 52443-21-7 MF: $\text{C}_{25}\text{H}_{27}\text{ClN}_2\text{O}_8$ MW: 518.95 EINECS: 257-923-9
 CN: 2-[[[1-(4-chlorobenzoyl)-5-methoxy-2-methyl-1H-indol-3-yl]acetyl]amino]-2-deoxy-D-glucose



*Reference(s):*

DOS 2 223 051 (SIR; appl. 12.5.1972; I-prior. 9.5.1972).

Formulation(s): cps. 70 mg, 140 mg*Trade Name(s):*

I: Teorema (Farmades); wfm

Teoremac (Sir); wfm

D-Glucosamine

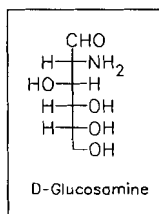
(Chitosamine)

· ATC: M01AX05

Use: antirheumatic, antiarthritic

RN: 3416-24-8 MF: $\text{C}_6\text{H}_{13}\text{NO}_5$ MW: 179.17 EINECS: 222-311-2

CN: 2-amino-2-deoxy-D-glucose

hydrochlorideRN: 66-84-2 MF: $\text{C}_6\text{H}_{13}\text{NO}_5 \cdot \text{HCl}$ MW: 215.63 EINECS: 200-638-1**sulfate (2:1)**RN: 14999-43-0 MF: $\text{C}_6\text{H}_{13}\text{NO}_5 \cdot 1/2\text{H}_2\text{O}_4\text{S}$ MW: 456.42 EINECS: 239-088-2**hydriodide**RN: 14999-44-1 MF: $\text{C}_6\text{H}_{13}\text{NO}_5 \cdot \text{HI}$ MW: 307.08 EINECS: 239-089-8

Unit of chitin, mucoproteins and mucopolysaccharids, obtained by hydrolysis with HCl.

Reference(s):

Ledderhose, G.: Z. Physiol. Chem. (ZPCHA5) 2, 213 (1878).

preparation of glucosamine salts:

GB 1 056 331 (Rotta Research; appl. 15.1.1964; I-prior. 18.1.1963).

stable complex from glucosamine sulfate and NaCl:

GB 2 101 585 (Rotta Research; appl. 26.4.1982; I-prior. 30.4.1981).

combination of glucosamine sulfate and hydriodide for therapy of rheumatoid arthritis and osteoarthritis:

US 3 683 076 (L. Rovati; 8.8.1972; I-prior. 26.10.1968).

Formulation(s): drg. 200 mg, 250 mg (as sulfate); vial 400 mg (as sulfate)

Trade Name(s):

D: Dona-200 S (Opfermann) I: Dona (Rottapharm; as sulfate)

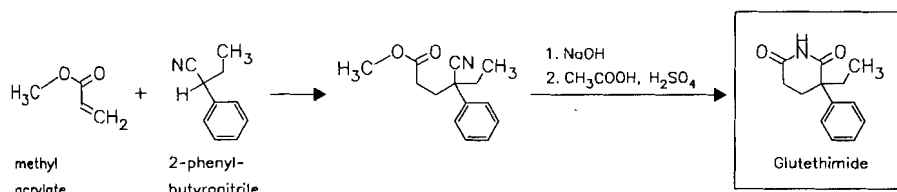
Glutethimide

ATC: N05CE01
Use: hypnotic, sedative

RN: 77-21-4 MF: C₁₃H₁₅NO₂ MW: 217.27 EINECS: 201-012-0

LD₅₀: 360 mg/kg (M, p.o.);
600 mg/kg (R, p.o.);
500 mg/kg (dog, p.o.)

CN: 3-ethyl-3-phenyl-2,6-piperidinedione



Reference(s):

US 2 673 205 (Ciba; 1954; CH-prior. 1951).
DE 950 193 (Ciba; appl. 1952; CH-prior. 1951).

Formulation(s): cps.; tabl. 250 mg, 500 mg

Trade Name(s):

D: Doriden (Ciba); wfm I: Doriden (Ciba); wfm USA: Doriden (USV); wfm generic
 F: Doridéne (Ciba); wfm J: Doriden (Ciba-Geigy-Takeda)
 GB: Doriden (Ciba); wfm

Glybuzole

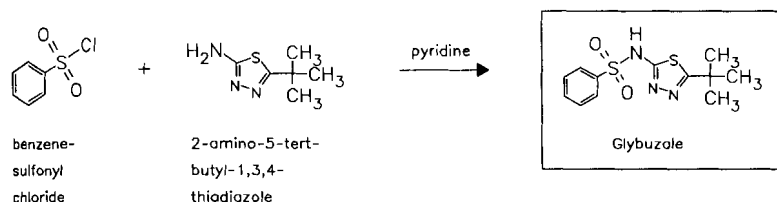
(Desaglybuzole)

ATC: V03AH
Use: antidiabetic

RN: 1492-02-0 MF: C₁₂H₁₅N₃O₂S₂ MW: 297.40 EINECS: 216-081-2

LD₅₀: 193 mg/kg (M, i.v.); 550 mg/kg (M, p.o.);
500 mg/kg (R, p.o.)

CN: N-[5-(1,1-dimethylethyl)-1,3,4-thiadiazol-2-yl]benzenesulfonamide



Reference(s):

GB 822 947 (Smith & Nephew; appl. 1957; valid from 1958).
FR-M 3 389 (Rhône-Poulenc; appl. 27.1.1964).

Formulation(s): 250 mg (oral)

Trade Name(s):

J: Gludiase (Kyowa Hakko)

Glyconiazide

(Gluconiazide)

ATC: J04A

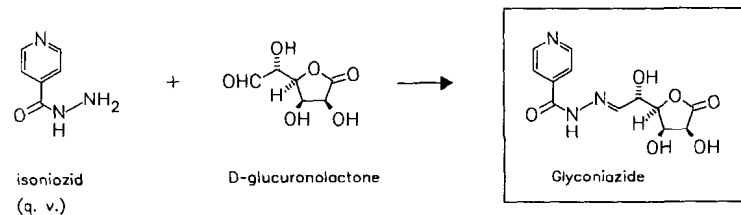
Use: tuberculostatic

RN: 3691-74-5 MF: C₁₂H₁₃N₃O₆ MW: 295.25 EINECS: 223-005-1

LD₅₀: 641 mg/kg (M, i.v.); 748 mg/kg (M, p.o.);

1763 mg/kg (R, i.v.); 6423 mg/kg (R, p.o.)

CN: glucuronic acid γ-lactone 1-[(4-pyridinylcarbonyl)hydrazone]



Reference(s):

US 2 940 899 (Univ. of California; 14.6.1960; prior. 28.9.1953).

Sah, P.P.T.: J. Am. Chem. Soc. (JACSAT) **75**, 2512 (1953).

Formulation(s): (oral) 0.015 g/kg

Trade Name(s):

D: Gluronazid (Hormon-Chemie); wfm

Isozidoron 444
(Saarstickstoff)-comb.;
wfm

I: Glucazide (Stoll); wfm
J: Hydronsan (Chugai)

Glycopyrronium bromide

(Glycopyrrolate)

ATC: A03AB02

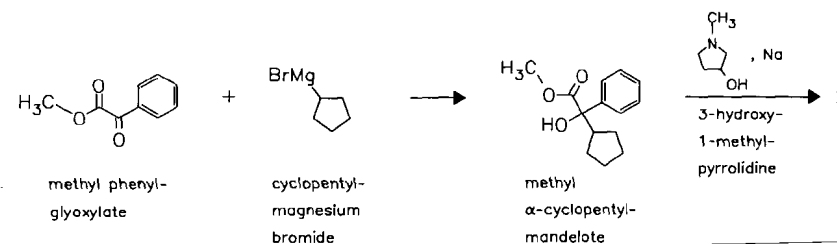
Use: anticholinergic, antispasmodic

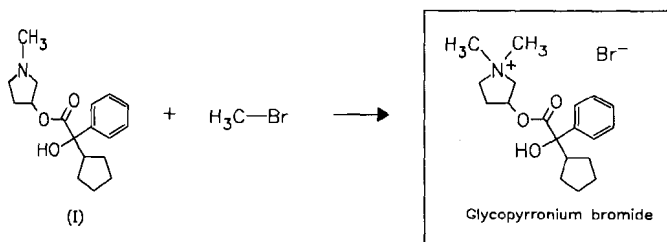
RN: 596-51-0 MF: C₁₉H₂₈BrNO₃ MW: 398.34 EINECS: 209-887-0

LD₅₀: 15 mg/kg (M, i.v.); 570 mg/kg (M, p.o.);

709 mg/kg (R, p.o.)

CN: 3-[(cyclopentylhydroxyphenylacetyl)oxy]-1,1-dimethylpyrrolidinium bromide



**Reference(s):**

US 2 956 062 (A. H. Robins; 11.10.1960; prior. 26.2.1959).

Formulation(s): amp. 0.2 mg/ml, 500 µg/ml

Trade Name(s):

D: Robinul (Brenner-Efeka) GB: Robinul (Anpharm) USA: Robinul (Robins)
 F: Asécryl (Martinet); wfm J: Robinul (Kaken)

Glymidine

(Glycodiazin)

ATC: A10BC01

Use: antidiabetic

RN: 339-44-6 MF: C₁₃H₁₅N₃O₄S MW: 309.35 EINECS: 206-426-5

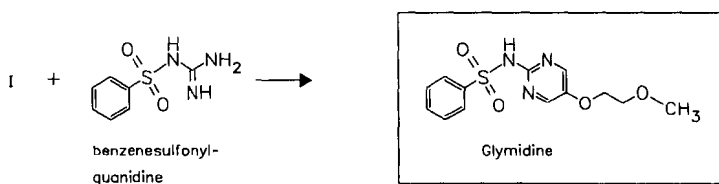
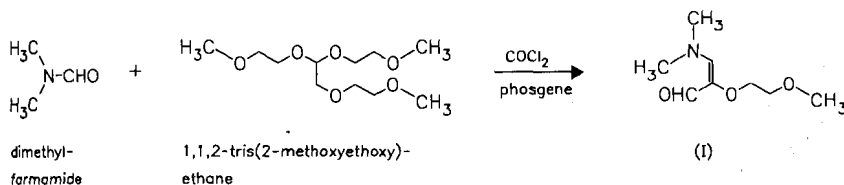
LD₅₀: 3100 mg/kg (R, p.o.)

CN: N-[5-(2-methoxyethoxy)-2-pyrimidinyl]benzenesulfonamide

sodium salt

RN: 3459-20-9 MF: C₁₃H₁₄N₃NaO₄S MW: 331.33 EINECS: 222-399-2

LD₅₀: 3100 mg/kg (R, p.o.)

**Reference(s):**

US 3 275 635 (Schering AG; 27.9.1966; D-prior. 18.10.1960, 22.2.1961, 23.2.1961).

DAS 1 445 142 (Schering AG; appl. 22.2.1961).

DAS 1 445 146 (Schering AG; appl. 9.9.1961; addition to DAS 1 445 142).

Gutsche, K. et al.: *Arzneim.-Forsch. (ARZNAD)* **14**, 373 (1964).

Formulation(s): tabl. 0.5 g, 1 g (as sodium salt)

Trade Name(s):

D: Redul (Bayer-Schering); wfm

Redul plus (Bayer-Schering)-comb. with buformin; wfm
Redul 28 (Schering); wfm

F: Glyconormal (Bayer-Pharma); wfm
Gondafon (SEPPS); wfm
GB: Gondafon (Schering Chemicals); wfm

I: Glycanol (Bayer); wfm
Gondafon (Schering); wfm
J: Lycanol (Bayer-Yoshitomi)

Granisetron (BRL-43694)

ATC: A04AA02
Use: anti-emetic, 5-HT₃-antagonist

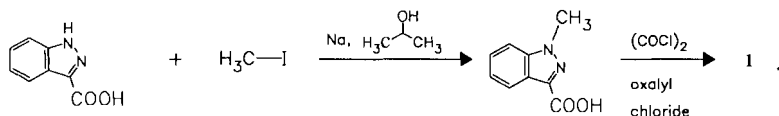
RN: 109889-09-0 MF: C₁₈H₂₄N₄O MW: 312.42

CN: *endo*-1-methyl-*N*-(9-methyl-9-azabicyclo[3.3.1]non-3-yl)-1*H*-indazole-3-carboxamide

monohydrochloride

RN: 107007-99-8 MF: C₁₈H₂₄N₄O · HCl MW: 348.88

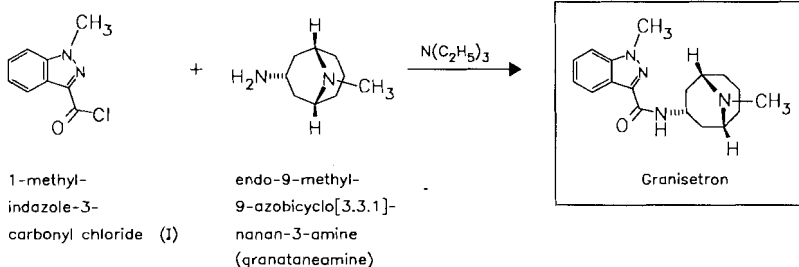
LD₅₀: 17 mg/kg (M, i.v.); 350 mg/kg (M, p.o.);
14 mg/kg (R, i.v.); 350 mg/kg (R, p.o.)



indazole-3-
carboxylic acid

methyl
iodide

1-methyl-
indazole-3-
carboxylic acid



1-methyl-
indazole-3-
carbonyl chloride (I)

endo-9-methyl-
9-azobicyclo[3.3.1]-
nonan-3-amine
(granataneamine)

Granisetron

Reference(s):

EP 200 444 (Beecham; appl. 21.4.1986; GB-prior. 27.4.1985, 21.10.1985).
Bermudez, J. et al.: *Bioorg. Med. Chem. Lett.* (BMCLE8) **4** (20), 2376 (1994).

alternative synthesis:

WO 9 730 049 (SmithKline Beecham; appl. 11.2.1992; GB-prior. 13.2.1996).

synthesis of 1-methylindazole-3-carboxylic acid:

EP 323 105 (Beecham; appl. 19.12.1988; GB-prior. 22.12.1987).
Bermudez, J. et al.: *J. Med. Chem.* (JMCMAR) **33**, 1924 (1990).

synthesis of granataneamine:

Jones, G.; Stanger, J.: *J. Chem. Soc. C (JSOAX)* **1969**, 901.

medical use for treatment of CNS and cognitive disorders:

EP 223 385 (Beecham; appl. 7.10.1986; GB-prior. 21.10.1985).
EP 279 990 (Glaxo; appl. 16.12.1987; GB-prior. 17.12.1986, 25.3.1987).

medical use for treatment of withdrawal syndrome:

EP 278 161 (Glaxo; appl. 20.11.1987; GB-prior. 21.11.1986, 25.3.1987).

EP 279 114 (Glaxo; appl. 20.11.1987; GB-prior. 21.11.1986, 25.3.1987).

medical use for treatment of visceral pain:

EP 279 512 (Beecham; appl. 18.1.1988; GB-prior. 19.1.1987).

US 4 845 092 (Beecham; 4.7.1989; appl. 19.1.1988; GB-prior. 19.1.1987).

medical use for treatment of cough and bronchoconstriction:

EP 340 270 (Beecham; appl. 14.11.1988; GB-prior. 14.11.1987).

medical use for treatment of myocardial instability:

WO 9 109 593 (Beecham; appl. 20.12.1990; GB-prior. 21.12.1989).

Formulation(s): amp. 1 mg, 3 mg; tabl. 1 mg (as hydrochloride)*Trade Name(s):*

D:	Kevatril (Bristol-Myers Squibb/SmithKline Beecham)	GB:	Kytril (SmithKline Beecham)	J:	Sedobex (Ecobi)-comb. Kytril (SmithKline Beecham)
F:	Kytril (SmithKline Beecham; 1991)	I:	Broncosedina (Farma)-comb. Kytril (SmithKline Beecham)	USA:	Kytril (SmithKline Beecham)

Grepafloxacin

(OPC-171116)

ATC: J01MA11

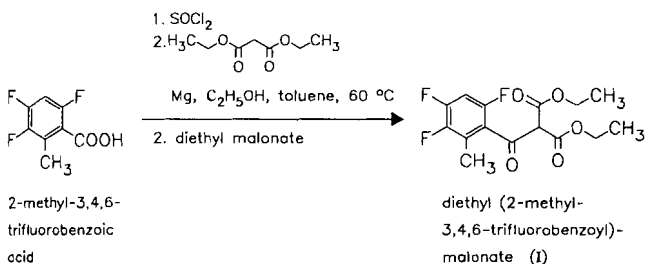
Use: antibacterial (gyrase inhibitor)

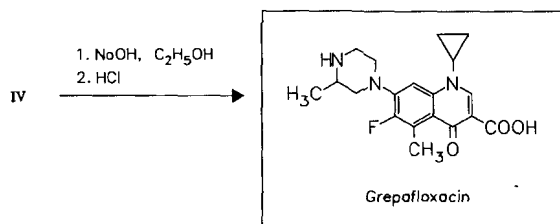
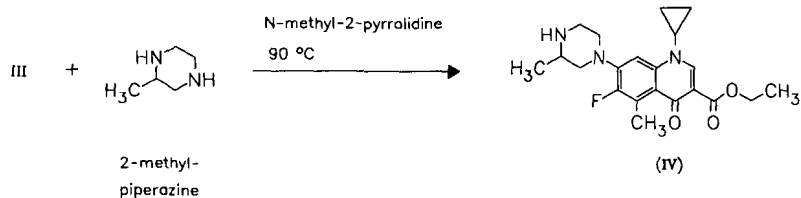
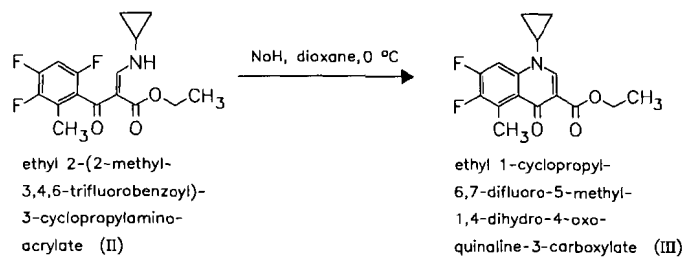
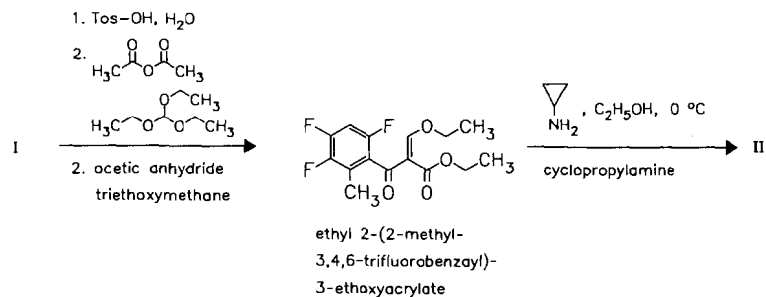
RN: 119914-60-2 MF: C₁₉H₂₂FNO₃ MW: 331.39

CN: 1-cyclopropyl-6-fluoro-1,4-dihydro-5-methyl-7-(3-methyl-1-piperazinyl)-4-oxo-3-quinolinecarboxylic acid

(±)-formRN: 146863-02-7 MF: C₁₉H₂₂FNO₃ MW: 331.39**(±)-monohydrochloride**RN: 161967-81-3 MF: C₁₉H₂₂FNO₃ · HCl MW: 367.85LD₅₀: 69.2 mg/kg (M, i.v.); 3900 mg/kg (M, p.o.);

152 mg/kg (R, i.v.); 3029 mg/kg (R, p.o.)



**Reference(s):**

EP 287 951 (Otsuka Pharm.; appl. 14.4.1988; J-prior. 16.4.1987).
 EP 364 943 (Otsuka Pharm.; appl. 17.10.1989; J-prior. 20.10.1988).

melt-extruded polymeric material:

JP 08 280 790 (Otsuka Pharm.; appl. 17.4.1995).

use as fungicide:

JP 07 149 647 (Daiichi Seiyaku; appl. 8.9.1994; USA-prior. 8.9.1993).

Formulation(s): f. c. tabl. 400 mg, 600 mg (as hydrochloride)

Trade Name(s):

D: Vaxar (Glaxo Wellcome/
 Cascan); wfm

J: Lungaskin (Otsuka; as
 hydrochloride); wfm

USA: Raxar (Glaxo Wellcome;
 1997); wfm

Griseofulvin

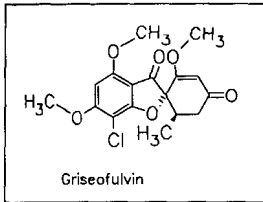
ATC: D01AA08; D01BA01

Use: antifungal antibiotic

RN: 126-07-8 MF: C₁₇H₁₇ClO₆ MW: 352.77 EINECS: 204-767-4LD₅₀: 280 mg/kg (M, i.v.); >50 g/kg (M, p.o.);

400 mg/kg (R, i.v.); >10 g/kg (R, p.o.)

CN: (1'S-trans)-7-chloro-2',4,6-trimethoxy-6'-methylspiro[benzofuran-2(3H),1'-[2]cyclohexene]-3,4'dione

From fermentation solutions of *Penicillium patulum*.*Reference(s):*

GB 784 618 (Glaxo; appl. 28.3.1955).

US 2 900 304 (ICI; 18.8.1959; GB-prior. 21.9.1956).

US 3 038 839 (Glaxo; 12.6.1962; GB-prior. 2.3.1959).

US 3 069 328 (Glaxo; 18.12.1962; GB-prior. 4.5.1960).

US 3 069 329 (Glaxo; 18.12.1962; GB-prior. 4.5.1960).

pharmaceutical formulation with polyethyleneglycol:

US 4 151 273 (Univ. of California; 24.4.1979; prior. 2.1.1970, 2.12.1970, 13.4.1972, 31.10.1974, 13.6.1978).

*total syntheses:*Brossi, A. et al.: *Helv. Chim. Acta (HCACAV)* **43**, 1444 (1960).Day, A.C. et al.: *Proc. Chem. Soc., London (PCSLAW)*, **1960**, 284.Kuo, C.H. et al.: *Chem. Ind. (London) (CHINAG)*, **1960**, 1627.Stork, G. et al.: *J. Am. Chem. Soc. (JACSAT)* **84**, 310 (1962).*Formulation(s):* cps. 125 mg, 250 mg; cream 5 g/100 g; tabl. 125 mg, 165 mg, 330 mg, 500 mg*Trade Name(s):*

D:	Fulcin S (Zeneca)	Griséfuline (Sanofi)	Grisetin (Nippon Kayaku)
	Gricin Creme (LAW)	Winthrop)	Grisovin (Fujisawa)
	Gricin Tabl. (ASTA Medica	GB: Fulcin (Zeneca)	Guservin (Chugai)
	AWD)	Grisovin (Glaxo Wellcome)	USA: Fulvicin P/G (Schering)
	griseco (ct-Arzneimittel)	I: Fulcin (SIT)	Grifulvin V (Ortho
	Likuden M (Hoechst)	Griseofulvina (Scfm)	Dermatological)
F:	Fulcine (Zeneca Pharma)	Grisovina Fp (Teofarma)	Grisactin (Wyeth-Ayerst)
		J: Grifulvin (Yamanouchi)	Gris-PEG (Allergan)

Guaiazulene

(Guajazulene)

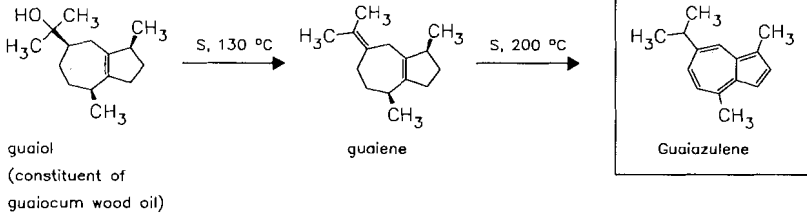
ATC: S01XA01

Use: anti-inflammatory

RN: 489-84-9 MF: C₁₅H₁₈ MW: 198.31 EINECS: 207-701-2LD₅₀: 1220 mg/kg (M, p.o.);

1550 mg/kg (R, p.o.)

CN: 1,4-dimethyl-7-(1-methylethyl)azulene



Reference(s):

CH 314 487 (Dr. B. Joos; appl. 1953).

Formulation(s): cream; drg. 20 mg; ointment (ethanolic camomile extract)

Trade Name(s):

D:	Azulon Kamillen Creme (ASTA Medica AWD)	Thrombocid (bene- Arzneimittel)-comb.	I:	Azulon (Armour Med.); wfm	
	Azupanthenol (Parke Davis)-comb.	F:	Cicatryl (Evans Medical)- comb.	J:	Azulon (Rorer); wfm
	Garmastan (Protina)	Pepsane (Rosa- Phytopharma)-comb.		Azulon-Homburg (Daito)	

Guaifenesin

(Guajacolglycerinäther; Guaiphenesin)

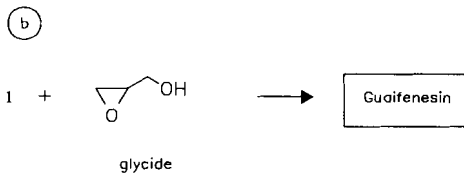
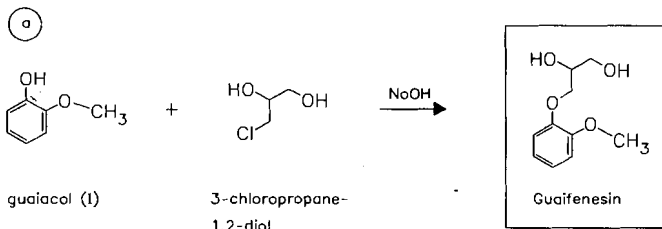
ATC: R05CA03

Use: muscle relaxant, expectorant

RN: 93-14-1 MF: C₁₀H₁₄O₄ MW: 198.22 EINECS: 202-222-5

LD₅₀: 400 mg/kg (M, i.v.); 690 mg/kg (M, p.o.);
 360 mg/kg (R, i.v.); 1510 mg/kg (R, p.o.);
 335 mg/kg (dog, i.v.)

CN: 3-(2-methoxyphenoxy)-1,2-propanediol



Reference(s):

GB 628 497 (British Drug Houses; appl. 1948).

Marle, E.R.: J. Chem. Soc. (JCSOA9) **101**, 305 (1912).

Yale, H.L. et al.: J. Am. Chem. Soc. (JACSAT) **72**, 3710 (1950).

Formulation(s): cps. 200 mg; elixir 200 mg/5 ml; sol. 100 mg; syrup 100 mg, 200 mg/15 ml; tabl. 200 mg, 600 mg

Trade Name(s):

<p>D: Anastil (Eberth)-comb. Bricantyl (Astra)-comb. with terbutaline sulfate Dolestan forte (Whitehall-Much)-comb. Faguslan (Spreewald Pharma) Gufen (Steigerwald) Nephulon (Redel) Pulmotin (Serum-Werk Bernburg) Wick Daymed (Wick Pharma)-comb. Wick Formel 44 (Wick Pharma) Wick Kinder Formel 44 (Wick Pharma)</p> <p>F: Bronchospray (Tissot)-comb. Catabex (Darcy)-comb. Dimetane expectorant (Whitehall)-comb. Hexapneumine/-composé (Doms)-comb. Nortussine (Norgine Pharma)-comb. Polaramine pectoral (Schering-Plough)-comb.</p>	<p>Pulmofluide (Phygiène)-comb. Rectoplexil (Théraplix)-comb. Sédophon pectoral (Mayoly-Spindler)-comb. Toplexil (Théraplix)-comb. numerous combination preparations</p> <p>GB: Bricanyl compound (Astra)-comb.; wfm Dimotane expect. (Robins)-comb.; wfm Entair (Duncan, Flockhart)-comb.; wfm Franol expect. (Winthrop)-comb.; wfm Lotussin (Searle)-comb.; wfm Nethaprin expect. (Merrell Dow)-comb.; wfm Noradran (Norma)-comb.; wfm Pholcomed expect. (Medo); wfm Robitussin (Robins); wfm Terpoin (Hough, Hoseason); wfm</p>	<p>I: Broncovanil (Scharper) Chymoser Balsamico (Serono)-comb. Donatiol (AGIPS)-comb. Fepramol (Schwarz)-comb. Idropulmina/-composta (ISI) Lanactin scir. (Lepetit)-comb. Polarmin Espet. scir. (Essex)-comb. Pumilene (Montefarmaco)-comb. Resyl (Ciba) Rettocistin (Edmond)-comb. Ribexen Espet. (Formenti)-comb. Robitussin (Proter) Torfan (Abbott)-comb. Tuscalman Berna (Berna)-comb. Ventolin Espet. (Glaxo)-comb.</p> <p>J: Fustosil (Kyoto)</p> <p>USA: numerous combination preparations</p>
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Guajacol

(Gaiacol; Guaiacolina; Guajol; Methylcatechol)

ATC: R05CA
Use: expectorant, antiseptic

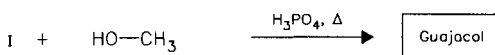
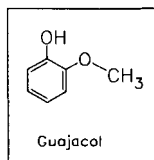
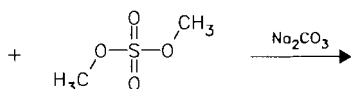
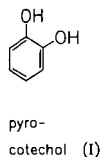
RN: 90-05-1 **MF:** C₇H₈O₂ **MW:** 124.14 **EINECS:** 201-964-7

LD₅₀: 170 mg/kg (M, i.v.); 621 mg/kg (M, p.o.);
520 mg/kg (R, p.o.)

CN: 2-methoxyphenol

phenylacetate

RN: 4112-89-4 **MF:** C₁₃H₁₄O₃ **MW:** 242.27



Reference(s):

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 18, 226.

Formulation(s): amp. 50 mg, 75 mg; drg. 100 mg; inhalation sol. 75 mg; syrup 50 mg; suppos. 500 mg (as phenylacetate)*Trade Name(s):*

D: Anastil (Eberth)	I: Eucaliptina (Zoja)-comb.	J: generics
Dalet Med Balsam	Fosfaguaiacol (Ogna)-comb.	Hustosil (Kyoto-Sumitomo)-comb.
(Mauermann)-comb.	Lacotocol (Ogna)-comb.	
Infekt-Komplex Ho-Fu-	Lipobalsamo (Parke	
Complex (Pharma	Davis)-comb.	
Liebermann)-comb.		

Guanabenz

ATC: C02

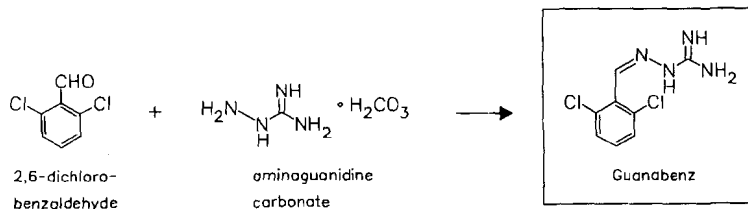
Use: antihypertensive

RN: 5051-62-7 MF: C₈H₈Cl₂N₄ MW: 231.09 EINECS: 225-750-8

CN: 2-[(2,6-dichlorophenyl)methylene]hydrazinecarboximidamide

monoacetateRN: 23256-50-0 MF: C₈H₈Cl₂N₄ · C₂H₄O₂ MW: 291.14 EINECS: 245-534-7LD₅₀: 260 mg/kg (M, p.o.);

238 mg/kg (R, p.o.)

*Reference(s):*

DOS 1 802 364 (Wyeth; appl. 10.10.1968; USA-prior. 12.10.1967).

Baum, T. et al.: *Experientia (EXPEAM)* 25, 1066 (1969).*Formulation(s):* tabl. 4 mg, 8 mg, 16 mg (as acetate)*Trade Name(s):*

D: Wytensin (Wyeth); wfm	Rexitene/-plus (LPB); wfm	USA: Wytensin (Wyeth-Ayerst; as acetate)
I: Rexitene (LPB); wfm	J: Wytens (Nippon Shoji)	

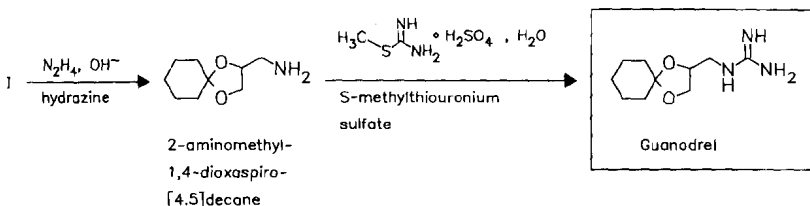
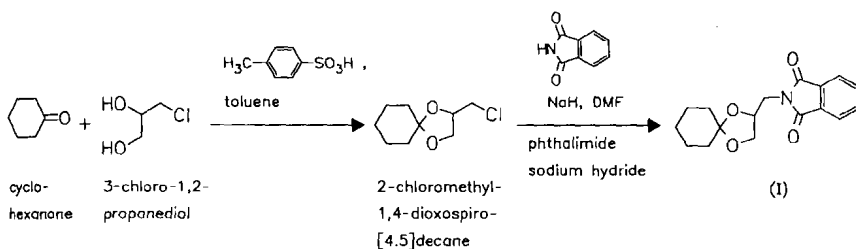
Guanadrel

ATC: C02

Use: antihypertensive

RN: 40580-59-4 MF: C₁₀H₁₉N₃O₂ MW: 213.28

CN: (1,4-dioxaspiro[4.5]dec-2-ylmethyl)guanidine



Reference(s):

FR 1 522 153 (Cutter Lab.; appl. 2.5.1967; USA-prior. 3.5.1966).

Formulation(s): tabl. 10 mg, 25 mg (as sulfate)

Trade Name(s):

USA: Hylorel (Medeva; as sulfate)

Guanehtidine sulfate

ATC: C02CC02; S01EX01
Use: antihypertensive

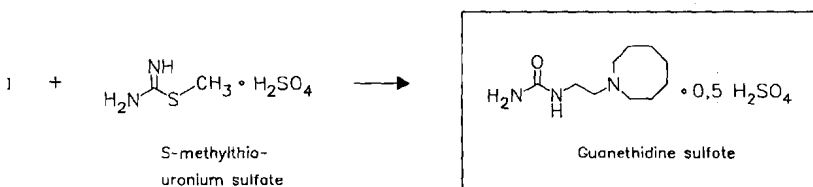
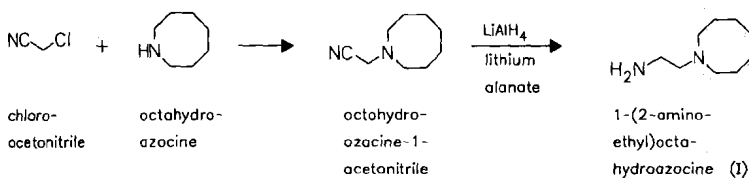
RN: 60-02-6 MF: C₁₀H₂₂N₄ · 1/2H₂O₄S MW: 494.71 EINECS: 200-452-0

LD₅₀: 18 mg/kg (M, i.v.); 1100 mg/kg (M, p.o.);
23 mg/kg (R, i.v.); 1 g/kg (R, p.o.)

CN: [2-(hexahydro-1(2H)-azocinyl)ethyl]guanidine sulfate (2:1)

guanehtidine

RN: 55-65-2 MF: C₁₀H₂₂N₄ MW: 198.31 EINECS: 200-241-3



Reference(s):

US 2 928 829 (Ciba; 15.3.1960; prior. 10.6.1958).

alternative syntheses:

US 3 006 913 (Ciba; 31.10.1961; appl. 10.6.1959).

US 3 055 882 (Ciba; 25.9.1962; appl. 10.6.1959).

Formulation(s): eye drops 5 %, 10 %tabl. 10 mg, 25 mg

Trade Name(s):

D:	Esimil (Novartis Pharma)- comb.	F:	Isméline (CIBA Vision Ophthalmics)	J:	Ismelin (Novartis-Takeda)
	Suprexon (CIBA Vision)- comb.	GB:	Ganda (Chauvin)-comb. Ismelin (Novartis)	USA:	Esimil (Novartis)-comb.; wfm
	Thilodigon (Alcon)-comb.	I:	Visutensil (Merck Sharp & Dohme)		Ismelin (Novartis); wfm

Guanfacine

ATC: C02CC

Use: antihypertensive, α -adrenoceptor
agonist

RN: 29110-47-2 MF: $C_9H_9Cl_2N_3O$ MW: 246.10 EINECS: 249-442-8

LD₅₀: 165 mg/kg (M, p.o.)

CN: *N*-(aminoiminomethyl)-2,6-dichlorobenzeneacetamide

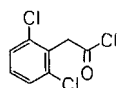
monohydrochloride

RN: 29110-48-3 MF: $C_9H_9Cl_2N_3O \cdot HCl$ MW: 282.56 EINECS: 249-443-3

LD₅₀: 25 mg/kg (M, i.v.); 16 mg/kg (M, p.o.);

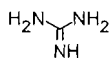
5800 μ g/kg (R, i.v.); 210 mg/kg (R, p.o.)

(a)



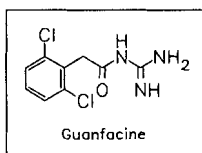
2,6-dichlorophenyl-
acetyl chloride

+



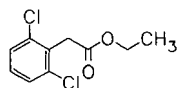
guanidine (I)

→



Guanfacine

(b)



ethyl 2,6-dichloro-
phenylacetate

+ 1

→

Guanfacine

Reference(s):

US 3 632 645 (Dr. A. Wander; 4.1.1972; appl. 23.9.1968; CH-prior. 26.9.1967).

DE 1 793 483 (Dr. A. Wander; appl. 24.9.1968; CH-prior. 26.9.1967).

Bream, J.B. et al.: *Arzneim.-Forsch. (ARZNAD)* **25**, 1477 (1975).

alternative syntheses:

CH 511 816 (Dr. A. Wander; appl. 26.2.1969).

CH 518 910 (Dr. A. Wander; appl. 14.11.1969).

Formulation(s): tabl. 1 mg, 2 mg (as hydrochloride)

Trade Name(s):

D: Estulic-Wander (Novartis Pharma; 1980) F: Estulic (Novartis; 1981) USA: Tenex (Robins; 1987)
J: Estulic (Sandoz-Sankyo)

Guanoclor

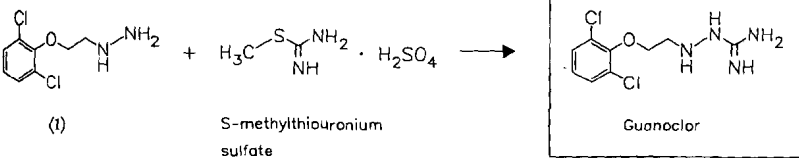
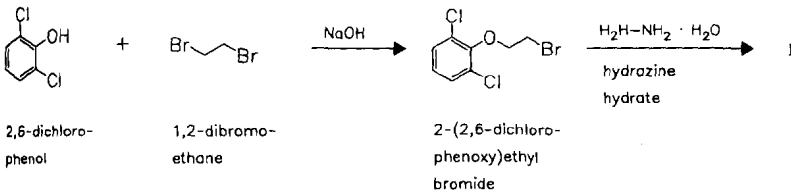
ATC: C02CC05
Use: antihypertensive

RN: 5001-32-1 MF: $C_9H_{12}Cl_2N_4O$ MW: 263.13 EINECS: 225-667-7

CN: 2-[2-(2,6-dichlorophenoxy)ethyl]hydrazinecarboximidamide

sulfate (2:1)

RN: 551-48-4 MF: $C_9H_{12}Cl_2N_4O \cdot 1/2H_2SO_4$ MW: 624.33 EINECS: 208-996-0



Reference(s):

BE 629 613 (Pfizer; appl. 14.3.1963; GB-prior. 15.3.1962, 20.7.1962).

US 3 271 448 (Pfizer; 6.9.1966; GB-prior. 15.3.1962, 20.7.1962).

Augstein, J. et al.: J. Med. Chem. (JMCMAR) 8, 395 (1965).

Formulation(s): tabl. 10 mg, 40 mg (as sulfate)

Trade Name(s):

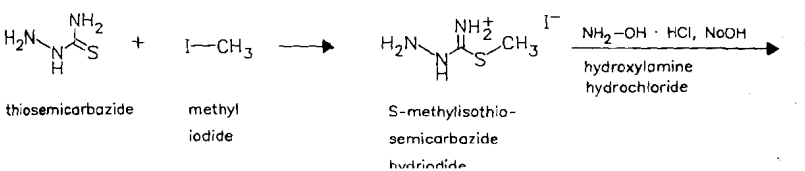
GB: Vatensol (Pfizer); wfm USA: Vatensol (Pfizer); wfm

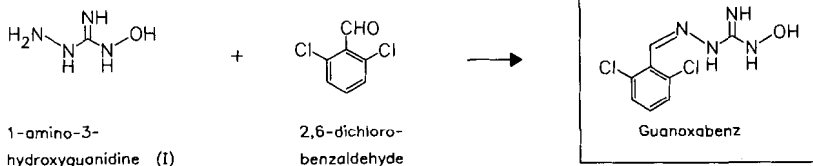
Guanoxabenz

ATC: C02CC07
Use: antihypertensive

RN: 24047-25-4 MF: $C_8H_8Cl_2N_4O$ MW: 247.09

CN: 2-[(2,6-dichlorophenyl)methylene]-N-hydroxyhydrazinecarboximidamide



*Reference(s):*

DOS 1 902 449 (Sandoz; appl. 18.1.1969; USA-prior. 22.1.1968, 10.7.1968, 16.9.1968).
 US 3 591 636 (Sandoz; 6.7.1971; prior. 22.1.1968, 10.7.1968, 16.9.1968).

Formulation(s): vial 5 mg; tabl. 25 mg

Trade Name(s):

F: Benzerial (Houdé); wfm

Guanoxan

ATC: C02CC03

Use: antihypertensive

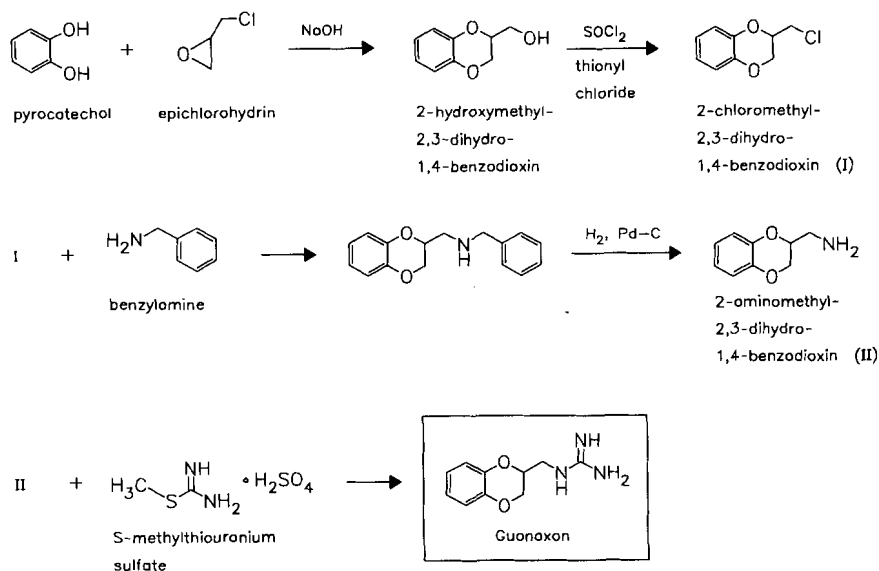
RN: 2165-19-7 MF: C₁₀H₁₃N₃O₂ MW: 207.23

CN: [(2,3-dihydro-1,4-benzodioxin-2-yl)methyl]guanidine

sulfate (2:1)

RN: 5714-04-5 MF: C₁₀H₁₃N₃O₂ · 1/2H₂SO₄ MW: 512.54

LD₅₀: 161 mg/kg (M, i.p.)

*Reference(s):*

US 3 247 221 (Pfizer; 19.4.1966; appl. 16.5.1963; GB-prior. 22.5.1962).
 Augstein, J. et al.: J. Med. Chem. (JMC MAR) 8, 446 (1965).

Formulation(s): tabl. 10 mg

Trade Name(s):

F: Envacar (Pfizer); wfm

Envarése (Pfizer)-comb;
wfmGB: Envacar (Pfizer); wfm
USA: Envacar (Pfizer); wfm**Gusperimus trihydrochloride**

(BMY-42215-1; BMS-181173; Deoxyspergualin hydrochloride; DSG; NKT-01; NSC-356894)

ATC: L01; L04

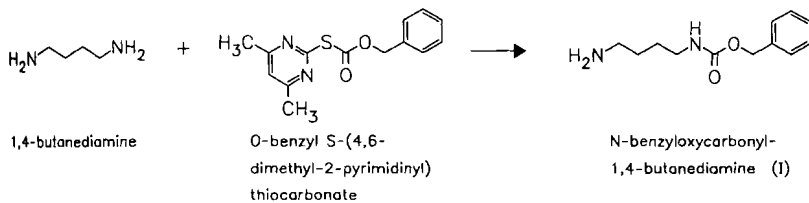
Use: antineoplastic, immunosuppressive, multiple sclerosis therapeutic, antiangiogenic, disease modifying drug, systemic lupus erythematosus therapeutic

RN: 85468-01-5 MF: $C_{17}H_{37}N_7O_3 \cdot 3HCl$ MW: 496.91LD₅₀: 35 mg/kg (M, i.v.)

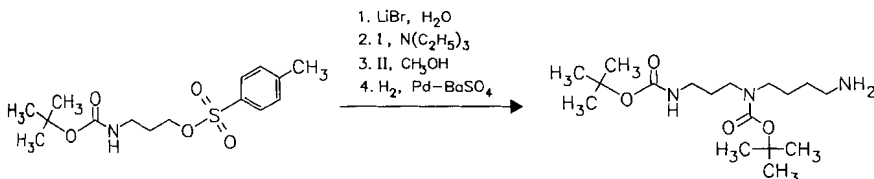
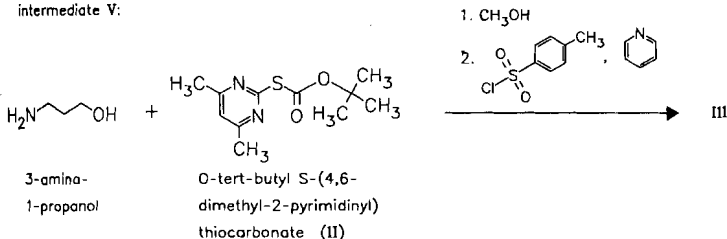
CN: 7-[(aminoiminomethyl)amino]-N-[2-[[4-[(3-aminopropyl)amino]butyl]amino]-1-hydroxy-2-oxoethyl]heptanamide

S(-)-formRN: 84937-45-1 MF: $C_{17}H_{37}N_7O_3 \cdot 3HCl$ MW: 496.91LD₅₀: 35 mg/kg (M, i.v.)**base (racemate)**RN: 104317-84-2 MF: $C_{17}H_{37}N_7O_3$ MW: 387.53**S(-)-base**RN: 89149-10-0 MF: $C_{17}H_{37}N_7O_3$ MW: 387.53**R(+)-base**RN: 114760-38-2 MF: $C_{17}H_{37}N_7O_3$ MW: 387.53**S(-)-hydrochloride**RN: 128488-79-9 MF: $C_{17}H_{37}N_7O_3 \cdot xHCl$ MW: unspecified

intermediate I:

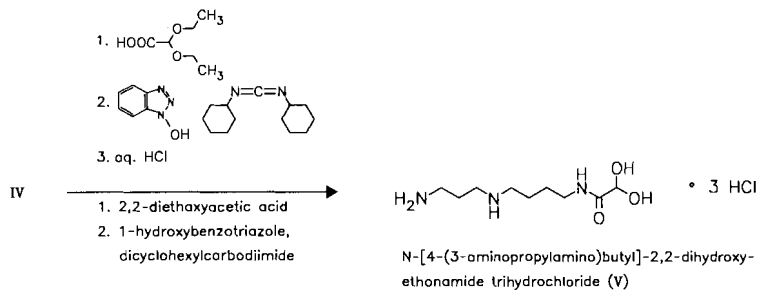


intermediate V:

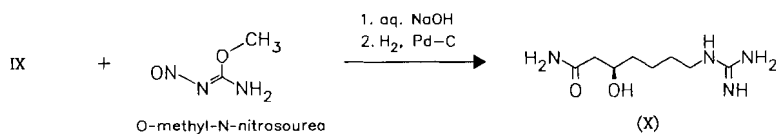
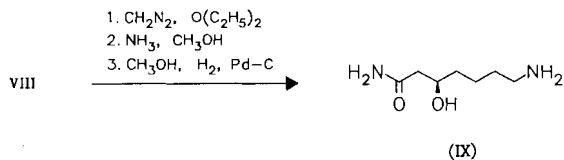
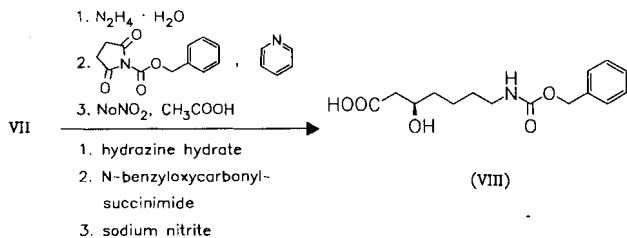
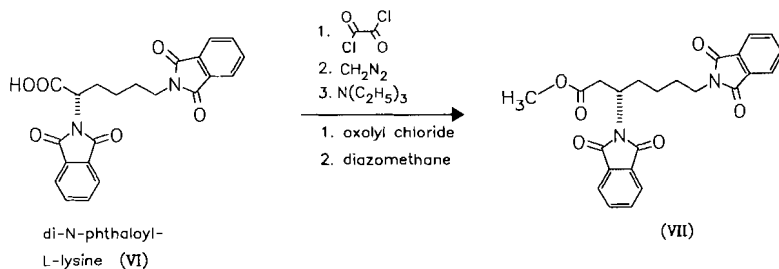
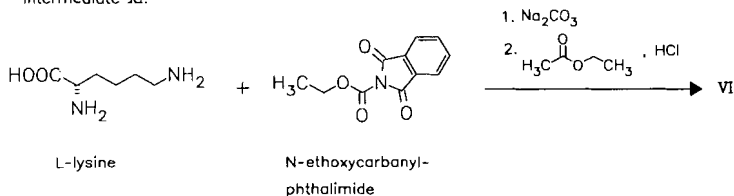


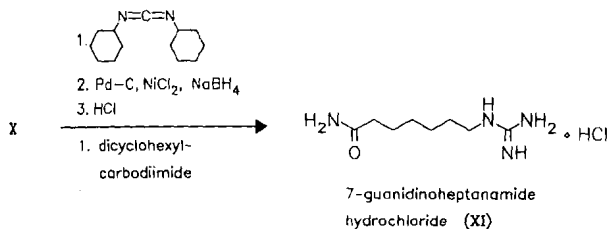
O-tosyl-3-(tert-butoxycarbonylamino)-1-propanol (III)

(IV)

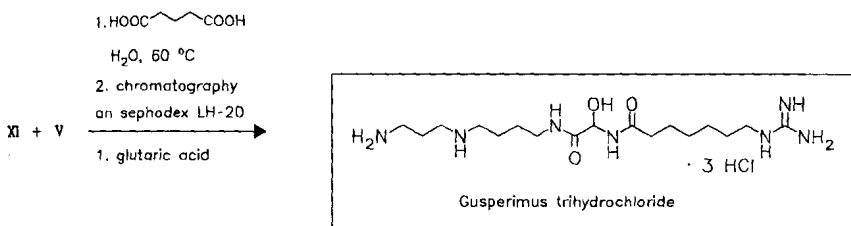


intermediate XI:





final product:



Reference(s):

- DE 3 626 306 (Microbiochemical Research Found.; appl. 11.2.1988; D-prior. 2.8.1986).
 BE 894 651 (Microbiochemical Research Found.; appl. 31.1.1983; J-prior. 8.10.1981).
 JP 08 020 533 (Nippon Kayaku; appl. 23.1.1996; J-prior. 7.7.1994).
 DE 3 506 330 (Takara Skuzo Co.; Nippon Kayaku Co.; appl. 29.8.1985; J-prior. 29.2.1984).

purification:

- JP 59 029 652 (Nippon Kayaku Co.; appl. 16.2.1984; J-prior. 10.8.1982).

pharmaceutical preparations:

- JP 02 009 816 (Nippon Kayaku Co.; Takara Skuzo Co.; appl. 12.1.1990; J-prior. 29.6.1988).
 EP 188 821 (Microbial Chemistry Research Found.; appl. 30.7.1986; J-prior. 14.1.1985).

use of gusperimus hydrochloride:

- CA 2 142 376 (Bristol-Myers Squibb Co.; appl. 26.8.1995; USA-prior. 25.2.1994).
 WO 9 405 323 (Jekus Hopkins Univ., School of Medicine; appl. 17.3.1994; WO-prior. 4.9.1982).
 DE 3 626 306 (Behringwerke A.G.; appl. 11.2.1988; D-prior. 2.8.1986).

synthesis of O-tert-butyl S-(4,6-dimethyl-2-pyrimidinyl)thiocarbonate and O-benzyl S-(4,6-dimethyl-2-pyrimidinyl)thiocarbonate:

- Nagasawa et al.: Bull. Chem. Soc. Jpn. (BCSJA8) **46**, 1269, 1271 (1973).
 DE 2 245 392 (Nitto Boseki; appl. 12.4.1973; J-prior. 17.9.1971, 27.9.1971, 30.9.1971, 10.1.1972).
 US 3 936 452 (Nitto Boseki; appl. 3.2.1976; J-prior. 8.9.1972).

Formulation(s): vial (inj.) 100 mg (as trihydrochloride)

Trade Name(s):

- I: Spanidin (Nippon Kayaku)

Halazone

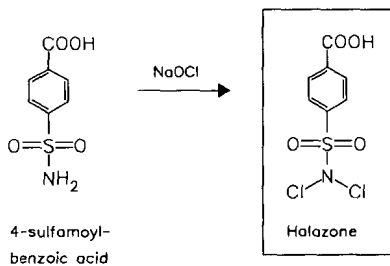
(Aseptamide)

ATC: D08A

Use: antiseptic, chemotherapeutic

RN: 80-13-7 MF: $C_7H_5Cl_2NO_4S$ MW: 270.09 EINECS: 201-253-1

CN: 4-[(dichloroamino)sulfonyl]benzoic acid

sodium saltRN: 5698-56-6 MF: $C_7H_4Cl_2NNaO_4S$ MW: 292.07 EINECS: 227-176-3*Reference(s):*

DE 318 899 (M. Claass; appl. 1918).

Formulation(s): tabl. 4 mg*Trade Name(s):*F: Gynamide (Merminod);
wfmThéragyne (Theragyne);
wfm**Halcinonide**

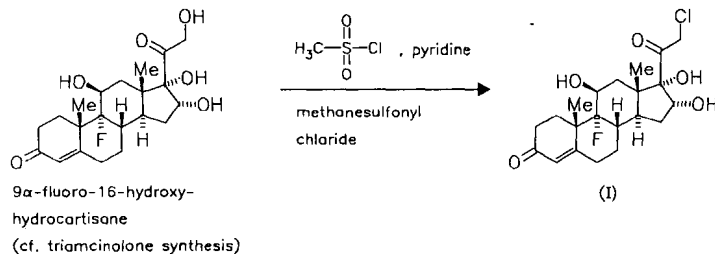
ATC: D07AD02

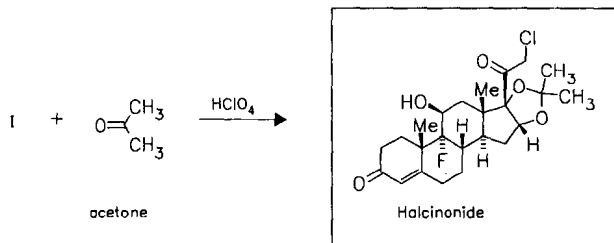
Use: glucocorticoid

RN: 3093-35-4 MF: $C_{24}H_{32}ClFO_5$ MW: 454.97 EINECS: 221-439-6LD₅₀: >10 g/kg (M, p.o.);

>5 g/kg (R, p.o.)

CN: (11β,16α)-21-chloro-9-fluoro-11-hydroxy-16,17-[(1-methylethylidene)bis(oxy)]pregn-4-ene-3,20-dione



**Reference(s):**Bernstein, S.; Lenhard, R.H.: J. Am. Chem. Soc. (JACSAT) **82**, 3680 (1960).Bernstein, S. et al.: J. Org. Chem. (JOCEAH) **27**, 690 (1962).**use:**

DE 2 355 710 (Squibb; appl. 7.11.1973; USA-prior. 24.11.1972).

Formulation(s): cream 0.1 %; ointment 0.1 %; sol. 0.1 %**Trade Name(s):**

D: Halog (Bristol-Myers Squibb)

F: Halog crème (Bristol-Myers Squibb)

Halog néomycine (Bristol-Myers Squibb)-comb.

GB: Halcicomp (F.A.I.R.)-comb.

Halciderm (Squibb)

Halcort (F.A.I.R.)

I: Ancofort (Squibb)-comb.

Halciderm (Squibb)

J: Adcortin (Sankyo)

Simaderm (Bristol-Myers Squibb)

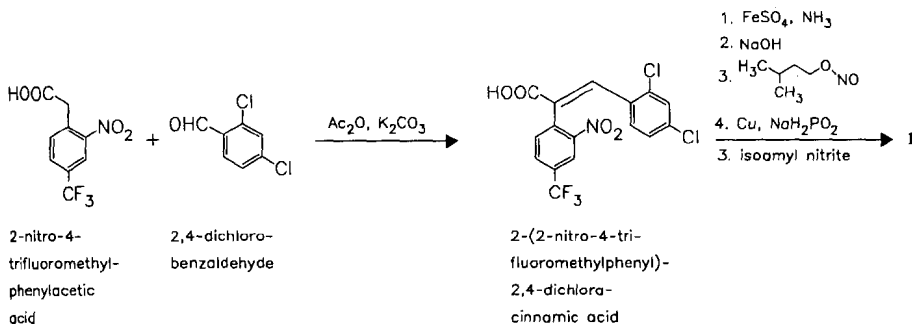
USA: Halog (Westwood-Squibb)

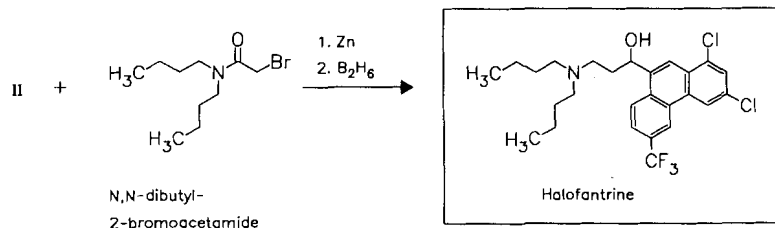
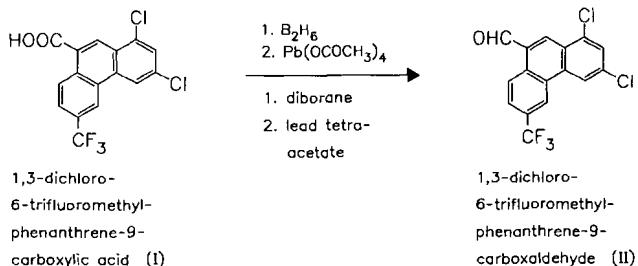
Halofantrine

(WR-171669)

ATC: P01BX01

Use: antimalarial

RN: 69756-53-2 MF: $\text{C}_{26}\text{H}_{30}\text{Cl}_2\text{F}_3\text{NO}$ MW: 500.43 EINECS: 274-104-1CN: 1,3-dichloro- α -[2-(dibutylamino)ethyl]-6-(trifluoromethyl)-9-phenanthrenemethanol**hydrochloride**RN: 36167-63-2 MF: $\text{C}_{26}\text{H}_{30}\text{Cl}_2\text{F}_3\text{NO} \cdot \text{HCl}$ MW: 536.89 EINECS: 252-895-4LD₅₀: 2050 mg/kg (R, i.p.); 3400 mg/kg (R, p.o.)**(-)-enantiomer**RN: 66051-76-1 MF: $\text{C}_{26}\text{H}_{30}\text{Cl}_2\text{F}_3\text{NO}$ MW: 500.43**(+)-enantiomer**RN: 66051-74-9 MF: $\text{C}_{26}\text{H}_{30}\text{Cl}_2\text{F}_3\text{NO}$ MW: 500.43

**Reference(s):**

Colwell, W.T. et al.: J. Med. Chem. (JMCMAR) **15**, 771 (1972).

preparation of 2-nitro-4-trifluoromethylphenylacetic acid:

Simet, L.: J. Org. Chem. (JOCEAH) **28**, 358a (1963).

preparation of I:

Nodiff, E.A. et al.: J. Med. Chem. (JMCMAR) **14**, 921 (1971); **15**, 775 (1972).

resolution of the racemate:

Carroll, F.I. et al.: J. Med. Chem. (JMCMAR) **21**, 326 (1978).

glycero-phosphate, tartrate and biquinate salts:

US 4 507 288 (Smith Kline & Beckman; 20.3.1985; prior. 16.9.1983, 2.11.1983)

EP 138 374 (Smith Kline & Beckman; appl. 11.9.1984; USA-prior. 2.11.1983, 16.9.1983).

Formulation(s): drinking amp. 2 %, 30 ml; susp. 100 mg/5 ml; tabl. 250 mg (as hydrochloride)

Trade Name(s):

D: Halfan (SmithKline Beecham; 1991)

F: Halfan (SmithKline Beecham; 1988 as hydrochloride)

GB: Halfan (SmithKline Beecham; 1991)

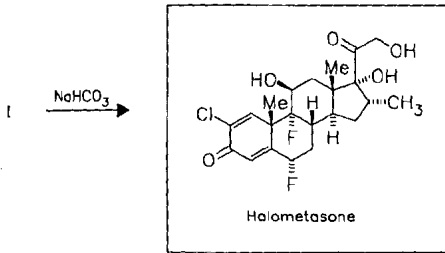
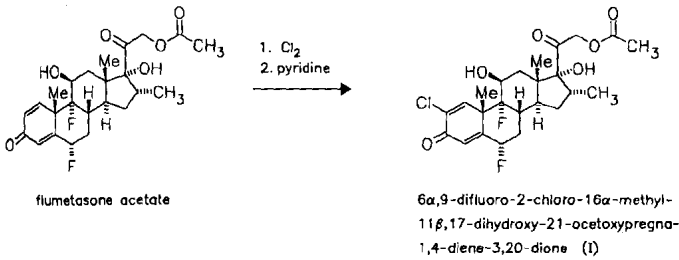
Halometasone

ATC: D07AB; D07AC12

Use: topical corticosteroid, anti-inflammatory

RN: 50629-82-8 MF: C₂₂H₂₇ClF₂O₅ MW: 444.90 EINECS: 256-664-9

CN: (6 α ,11 β ,16 α)-2-chloro-6,9-difluoro-11,17,21-trihydroxy-16-methylpregna-1,4-diene-3,20-dione

**Reference(s):**

DE 1 807 980 (Ciba-Geigy; appl. 9.11.1968; CH-prior. 17.11.1967).
 CH 551 399 (Ciba-Geigy; appl. 17.10.1968).
 US 3 652 554 (Ciba-Geigy; 28.3.1972; appl. 15.11.1968; CH-prior. 17.11.1967).

topical combination with triclosan:

GB 2 148 116 (Ciba-Geigy; appl. 27.10.1983).
 US 4 512 987 (Ciba-Geigy; 23.4.1985; appl. 13.10.1982; GB-prior. 15.7.1982).

Formulation(s): cream 0.5 mg/g (0.05 %); ointment 0.5 mg/g (0.05 %)

Trade Name(s):

D: Sicorten (Novartis; 1986) Sicorten Plus (Novartis; 1986)-comb. with triclosan

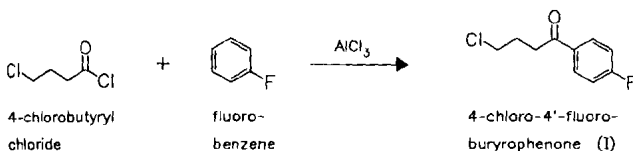
Haloperidol

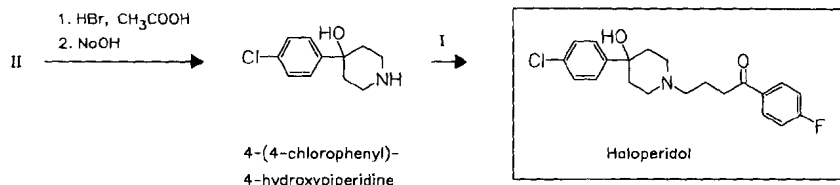
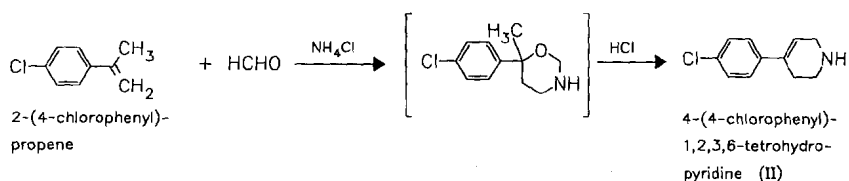
ATC: N05AD01
 Use: neuroleptic, antidyskinetic, antipsychotic

RN: 52-86-8 MF: C₂₁H₂₃ClFNO₂ MW: 375.87 EINECS: 200-155-6

LD₅₀: 13 mg/kg (M, i.v.); 71 mg/kg (M, p.o.);
 15 mg/kg (R, i.v.); 128 mg/kg (R, p.o.);
 18 mg/kg (dog, i.v.); 90 mg/kg (dog, p.o.)

CN: 4-[4-(4-chlorophenyl)-4-hydroxy-1-piperidinyl]-1-(4-fluorophenyl)-1-butanone



**Reference(s):**

Janssen, P.A.J. et al.: J. Med. Pharm. Chem. (JMPCAS) **1**, 281 (1959).

DE 1 289 845 (Janssen; appl. 18.4.1959; GB-prior. 22.4.1958).

US 3 438 991 (Janssen; 15.4.1969; GB-prior. 18.11.1959).

alternative syntheses:

GB 1 141 664 (Janssen; valid from 7.12.1966; prior. 8.12.1965, 23.9.1966).

US 4 086 234 (Searle; 25.4.1978; appl. 7.11.1975).

Formulation(s): amp. 5 mg/ml, 100 mg/ml, 50 mg/ml; drops 2 mg, 20 mg/ml, 2 mg/ml, 0.5 mg/ml; sol. 10 mg; oral liquid 2 mg/ml, 10 mg/ml; tabl. 1 mg, 2 mg, 5 mg, 10 mg, 20 mg

Trade Name(s):

D:	Buteridol (Promonta Lundbeck)	I:	Serenace (Baker Norton)	Halomonth (Dainippon; as decanoate)
	Haldol-Janssen (Janssen-Cilag)		Aloperid (Sifra)	Halosten (Shionogi)
	Sigaperidol (Kytta-Siegfried)		Aloperid (Formulario Naz.)	Keselan (Sumitomo)
	generic		Aloperid (Biologici Italia)	Linton (Yoshitomi)
F:	Haldol (Janssen-Cilag)		Bioperidolo (Firma)	Neoperidol (Kyowa Hakkō; as decanoate)
	Vésadol (Janssen-Cilag)-comb.		Haldol (Janssen)	Peluces (Isei)
			Haldol Decanoas (Janssen; as decanoate)	Serenace (Dainippon)
GB:	Dozic (Rosemont)	J:	Serenase (Lusofarmaco)	
	Haldol (Janssen-Cilag; as decanoate)		Brotopon (Taito Pfizer)	USA: Haldol (Ortho-McNeil Pharmaceutical)
			Einalon S (Maruko)	
			Halojust (Horita)	

Halopredone diacetate

ATC: H02AB

Use: glucocorticoid, topical anti-inflammatory

RN: 57781-14-3 MF: C₂₅H₂₉BrF₂O₇ MW: 559.40 EINECS: 260-951-4

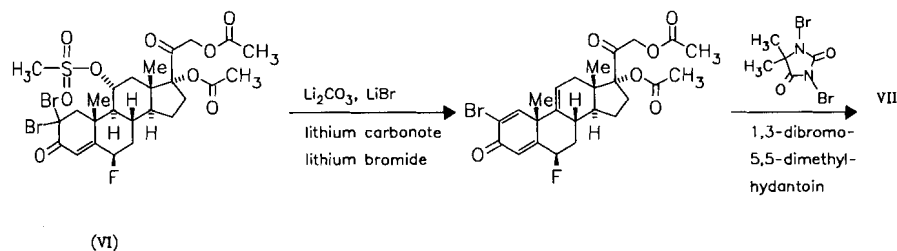
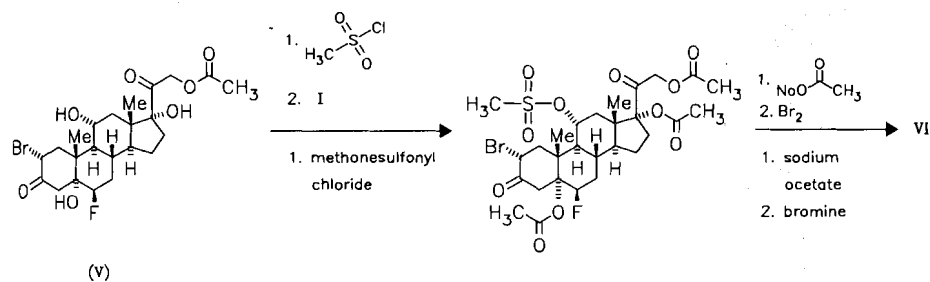
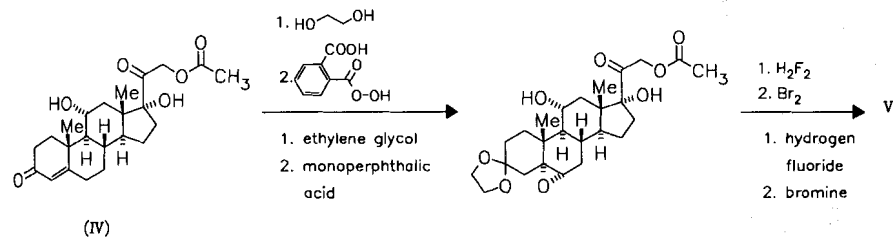
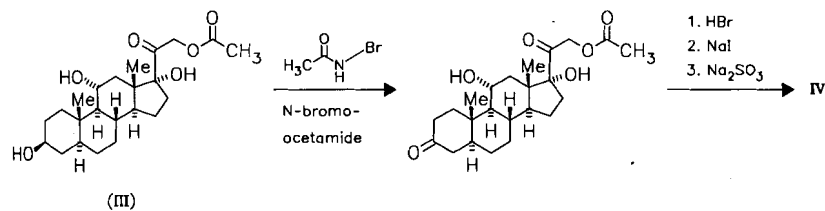
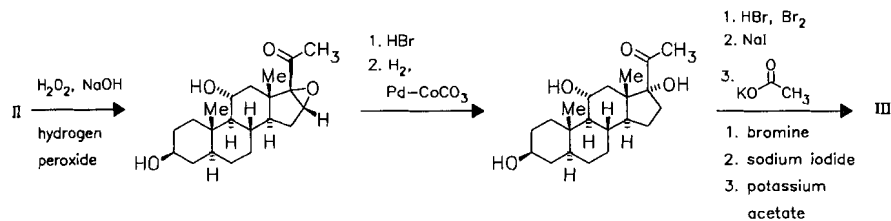
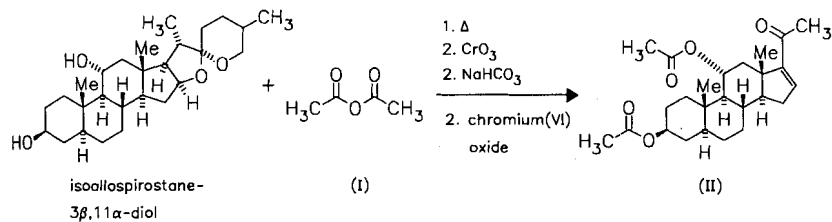
LD₅₀: >5 g/kg (M, p.o.);

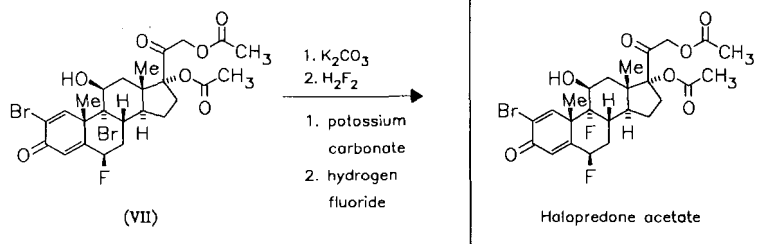
>5 g/kg (R, p.o.)

CN: (6β,11β)-17,21-bis(acetyloxy)-2-bromo-6,9-difluoro-11-hydroxypregna-1,4-diene-3,20-dione

halopredone

RN: 57781-15-4 MF: C₂₁H₂₅BrF₂O₅ MW: 475.33 EINECS: 260-953-5



*Reference(s):*Bianchetti, A.; Riva, M.: J. Med. Chem. (JMCMAR) **20**, 213 (1977).

BE 826 030 (Pierrel; appl. 26.2.1975; GB-prior. 27.2.1974, 5.7.1974, 25.7.1974, 19.11.1974).

*synthesis of 21-acetoxy-11 α ,17-dihydroxypregn-4-ene-3,20-dione:*Djerassi, C. et al.: J. Am. Chem. Soc. (JACSAT) **74**, 1712, 3634 (1952); **75**, 1277 (1953).*Formulation(s):* amp. 12.5 mg/ml, 25 mg/ml*Trade Name(s):*

J: Haloart (Dainippon Ink-Taiho)

Haloprogin

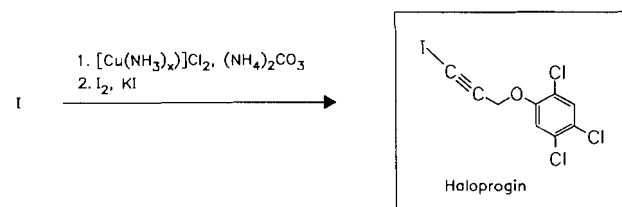
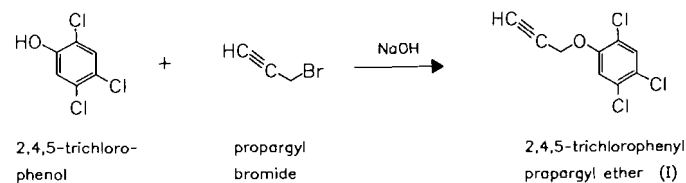
ATC: D01AE11

Use: antifungal, antiseptic

RN: 777-11-7 MF: $C_9H_4Cl_3IO$ MW: 361.39 EINECS: 212-286-6LD₅₀: >5.6 g/kg (R, p.o.);

>3 g/kg (dog, p.o.)

CN: 1,2,4-trichloro-5-[(3-iodo-2-propynyl)oxy]benzene

*Reference(s):*

US 3 322 813 (Meiji Seika; 30.5.1967).

Formulation(s): cream 1 %; ointment 1 %; sol. 1 %

Trade Name(s):

D: Mycanden (Asche); wfm F: Mycilan (Théraplrix); wfm USA: Halotex (Westwood); wfm
 Mycanden (Schering); wfm J: Polik (Meiji Seika)

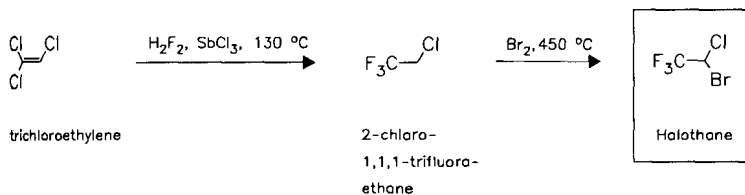
Halothane

ATC: N01AB01
 Use: inhalation anesthetic

RN: 151-67-7 MF: $C_2HBrClF_3$ MW: 197.38 EINECS: 205-796-5

LD₅₀: 5680 mg/kg (R, p.o.)

CN: 2-bromo-2-chloro-1,1,1-trifluoroethane

*Reference(s):*

GB 767 779 (ICI; appl. 20.10.1954; valid from 11.10.1955).

US 2 921 098 (ICI; 12.1.1960; GB-prior. 20.10.1954).

GB 805 764 (ICI; appl. 1956; valid from 1957).

alternative syntheses:

DE 1 039 503 (Bayer; appl. 1953).

DE 1 041 937 (Hoechst; appl. 1957).

US 2 959 624 (Hoechst; 8.11.1960; D-prior. 18.7.1957).

US 3 082 263 (ICI; 19.3.1963; GB-prior. 19.9.1959).

DAS 1 161 249 (Hoechst; appl. 23.9.1960).

DAS 1 285 989 (Hoechst; appl. 9.3.1963).

DOS 2 245 372 (Biocontrol; appl. 15.9.1972).

Formulation(s): inhalation sol. 125 ml, 250 ml

Trade Name(s):

D: Fluothane (Zeneca) F: Fluotane (Zeneca) J: Halothane (Hoechst)
 Halothan ASID (Rüsch) GB: Fluothane (ICI; 1957); wfm USA: Fluothane (Wyeth-Ayerst)
 Hospital I: Fluothane (Zeneca)

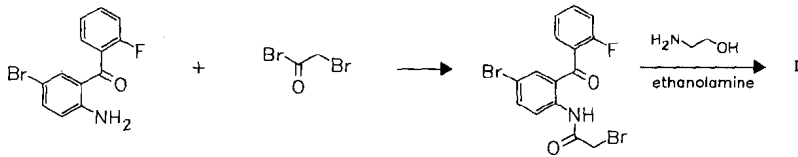
Haloxazolam

ATC: N05BA
 Use: tranquilizer, benzodiazepine
 anxiolytic, hypnotic, sedative

RN: 59128-97-1 MF: $C_{17}H_{14}BrFN_2O_2$ MW: 377.21

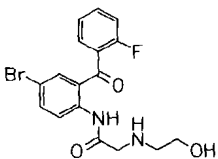
LD₅₀: 1850 mg/kg (M, p.o.)

CN: 10-bromo-11b-(2-fluorophenyl)-2,3,7,11b-tetrahydrooxazolo[3,2-d][1,4]benzodiazepin-6(5H)-one

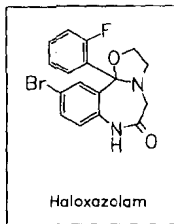
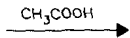


2-amino-5-bromo-2'-fluorobenzophenone

bromoacetyl bromide



(I)



Reference(s):

Miyadera, T. et al.: J. Med. Chem. (JMCMAR) **14**, 520 (1971).
JP 4 941 439 (Sankyo; appl. 21.12.1970).

Formulation(s): tabl. 5 mg, 10 mg

Trade Name(s):

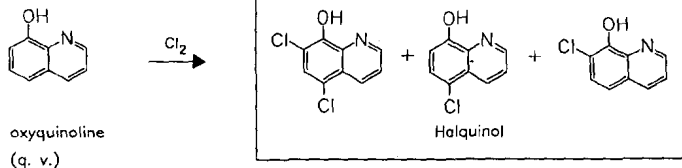
J: Somelin (Sankyo)

Halquinol
(Chlorquinol)

ATC: A07

Use: intestinal antiseptic, topical anti-infective

RN: 8067-69-4 MF: unspecified MW: unspecified
CN: halquinols



oxyquinoline
(q. v.)

Reference(s):

FR 1 372 414 (Olin Mathieson; appl. 2.8.1961; GB-prior. 24.6.1960, 28.2.1961).

Formulation(s): cream, ointment, sol.

Trade Name(s):

D: Combiase (Luitpold)-
comb.; wfm
Diarönt (Chephasaar)-
comb.; wfm

Dignoquine (Luitpold)-
comb.; wfm
Flamutil (Voigt)-comb.;
wfm

Hyalokombun (Merckle)-
comb.; wfm
Mexaform plus (Ciba)-
comb.; wfm

Uzara plus (Uzara)-comb.; GB: Quixalin (Squibb); wfm
wfm USA: Quinolol (Squibb); wfm

Heparin

ATC: B01AB01; C05BA03
Use: anticoagulant, antithrombotic

RN: 9005-49-6 MF: $[C_{24}H_{38}N_2O_{35}S_5]_x$ MW: unspecified EINECS: 232-681-7
LD₅₀: 500 mg/kg (M, i.v.);
1950 mg/kg (R, p.o.)
CN: mucopolysaccharide polysulfuric acid ester

sodium salt

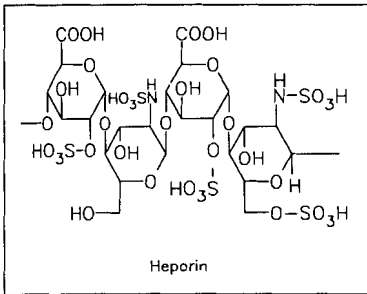
RN: 9041-08-1 MF: unspecified MW: unspecified
LD₅₀: 2800 mg/kg (M, i.v.); >5 g/kg (M, p.o.);
391821 iu/kg (R, i.v.); >779000 iu/kg (R, p.o.);
1 g/kg (dog, i.v.)

calcium salt

RN: 37270-89-6 MF: unspecified MW: unspecified
LD₅₀: >40 g/kg (M, i.v.);
>40 g/kg (R, i.v.)

magnesium salt

RN: 54479-70-8 MF: unspecified MW: unspecified



(molar mass 6000-20000, according to origin)

From animal tissue, especially bovine lung and liver (e. g. autolysis of comminuted tissue parts, heating with ammonium sulfate in alkaline solution, filtration and acidification yield heparin as complex with protein, removal of fat with alcohol and treatment with trypsin for the purpose of decomposition of proteins, precipitation with alcohol and various purification methods).

Reference(s):

review:

Hind, H.G.: *Manuf. Chem. (MACSAS)* **34**, 510 (1963).

purification:

US 2 884 358 (Southern California Gland Co; 28.4.1959; appl. 22.4.1957).

US 2 989 438 (Uclaf; 20.6.1961; appl. 29.12.1958).

DE 1 195 010 (Ormonoterapia Richter; appl. 12.5.1962).

US 3 016 331 (Ormonoterapia Richter; 9.1.1962; I-prior. 28.1.1960).

US 4 119 774 (AB Kabi; 10.10.1978; appl. 2.3.1977).

GB 1 539 332 (AB Kabi; appl. 4.3.1977; S-prior. 5.3.1976).

Formulation(s): amp. 12500 iu, 20000 iu, 50000 iu, 60000 iu; cream, eye drops and eye ointment 30000 iu, 60000 iu, 150000 iu (as sodium salt or calcium salt); syringe 5000 iu, 7500 iu.

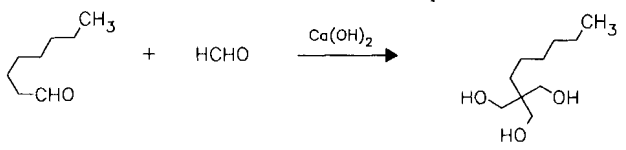
Trade Name(s):

<p>D: Calciparin (Sanofi Winthrop) Heparin-Injekt (Immuno) Heparin-Na (Braun Melsungen; medac; Nattermann; ratiopharm) Heparin Novo (Novo) Heparin POS (Ursapharm) Heparin Riker (Riker) Liquemin (Roche) Thrombareduct (Azuchemie) Thrombophob (Knoll) Traumalitan (3M Medica; as sodium salt) Vetren (Klinge) numerous generic and combination preparations</p> <p>F: Calciparin (Sanofi Winthrop; as calcium salt) Dioparine (Théa; as sodium salt) Néoparyl Framycétine (CIBA Vision) Ophthalmics)-comb. numerous generic and combination preparations</p>	<p>GB: Canusal (CP Pharm.) Clexane (Rhône-Poulenc Rorer) Fragmin (Pharmacia & Upjohn) Hepsal (CP Pharm.) Monoparin (CP Pharm.) generic and combination preparations</p> <p>I: Ateroclar (Mediolanum) Chemyparin (SIT) Clarisco (Schwarz) Disebrin (Allergan) Eparina (Tariff. Integrativo; Bristol-Myers Squibb; Manetti Roberts; Parke Davis) Eparinovis (Intes) Essaven Gel (Rhône-Poulenc Rorer)-comb. Flebs Crema (Pierre Fabre Phar.)-comb. Heparin Collirio (Farmigea) Idracemi Eparina (Farmigea)-comb. Lioton (Menarini)</p>	<p>Liquemin (Roche; as sodium salt) Luxazone Eparina (Allergan)-comb. Normoparin (Opocrin) Venotrauma (Also)-comb. Viteparin (Teofarma)-comb. numerous generic preparations</p> <p>J: Caprocin (Mitsui; as calcium salt) Depo-Heparin (Upjohn-Kodama; as sodium salt) Heparin (Eisai) Heparigen (Mukasa-Torii) Heparin Sodium (Tokyo Tanabe) Novo Heparin (Novo-Kodama) Panheprin (Nippon Abbott) numerous generic preparations</p> <p>USA: Heparin-Sodium (Wyeth-Ayerst) Hep-Lock (Elkins-Sinn)</p>
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Hepronicate

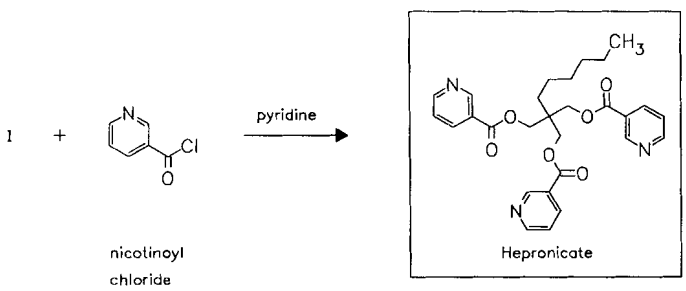
ATC: C04
 Use: vasodilator

RN: 7237-81-2 MF: C₂₈H₃₁N₃O₆ MW: 505.57
 LD₅₀: 5 g/kg (M, p.o.)
 CN: 3-pyridinecarboxylic acid 2-hexyl-2-[[[(3-pyridinylcarbonyl)oxy]methyl]-1,3-propanediyl ester



octanal

2-hexyl-2-hydroxy-methyl-1,3-propanediol (I)



nicotinoyl chloride

Reference(s):

US 3 384 642 (Yoshitomi; 21.5.1968; J-prior. 18.11.1964, 12.10.1965).

Formulation(s): tabl. 100 mg

Trade Name(s):

J: Megrin (Yoshitomi)

Heptabarb

(Heptabarbital; Heptabarbitone; Heptamalum)

ATC: N05CA11

Use: hypnotic, sedative

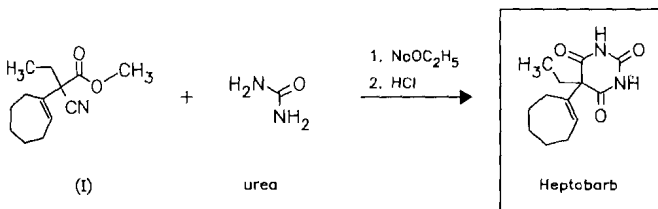
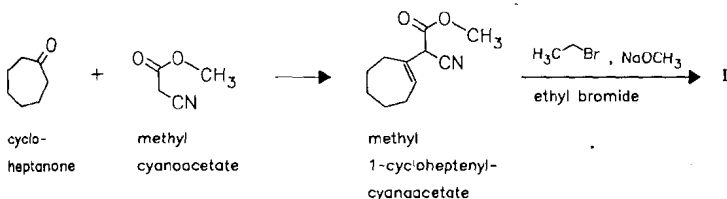
RN: 509-86-4 MF: C₁₃H₁₈N₂O₃ MW: 250.30 EINECS: 208-107-6

LD₅₀: 180 mg/kg (M, i.v.); >800 mg/kg (M, p.o.);

>5 g/kg (R, p.o.);

105 mg/kg (dog, i.v.)

CN: 5-(1-cyclohepten-1-yl)-5-ethyl-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione



Reference(s):

FR 870 714 (Geigy; appl. 1941; Palestine-prior. 1940).

DE 756 489 (Geigy; appl. 1941; Palestine-prior. 1940).

Formulation(s): tabl. 200 mg

Trade Name(s):

D: Medomin (Geigy); wfm

F: Medomine (Geigy); wfm

GB: Medomin (Geigy); wfm

Heptaminol

ATC: C01DX08

Use: cardiotoxic, sympathomimetic

RN: 372-66-7 MF: C₈H₁₉NO MW: 145.25 EINECS: 206-758-0

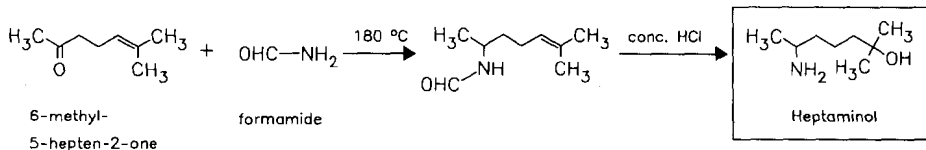
LD₅₀: 1250 mg/kg (M, i.p.)

CN: 6-amino-2-methyl-2-heptanol

hydrochloride

RN: 543-15-7 MF: C₈H₁₉NO · HCl MW: 181.71 EINECS: 208-837-5

LD₅₀: 900 mg/kg (M, i.p.)

**Reference(s):**

Dœuvre, J.; Pozat, J.: C. R. Hebd. Seances Acad. Sci. (COREAF) **224**, 286 (1947).

Formulation(s): amp. 250 mg, 500 mg; drg. 50 mg; drops 50 mg/ml; tabl. 150 mg (as hydrochloride)

Trade Name(s):

D:	Normotin (OTW)-comb.	Débrumyl (Pierre Fabre Santé)-comb.	I:	numerous combination preparations
F:	Perivar (Intersan)-comb.	Sureptil (Synthélabo)-comb.		Coreptil (Delalande Isnardi)

Hetacillin

ATC: J01CA18

Use: antibiotic

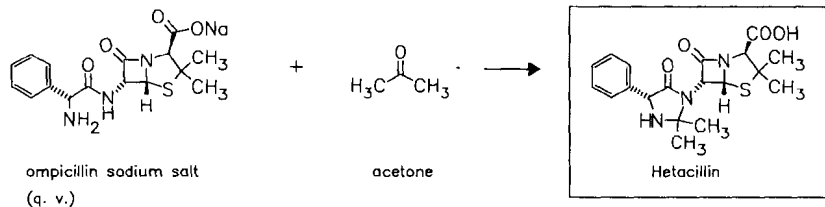
RN: 3511-16-8 MF: $C_{19}H_{23}N_3O_4S$ MW: 389.48 EINECS: 222-512-5

CN: [2S-[2 α ,5 α ,6 β (S*)]]-6-(2,2-dimethyl-5-oxo-4-phenyl-1-imidazolidinyl)-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

monopotassium salt

RN: 5321-32-4 MF: $C_{19}H_{22}KN_3O_4S$ MW: 427.57 EINECS: 226-182-3

LD₅₀: 650 mg/kg (M, i.v.); >15 g/kg (M, p.o.);
>1400 mg/kg (R, i.v.); >10 g/kg (R, p.o.);
2200 mg/kg (dog, i.v.); >4 g/kg (dog, p.o.)

**Reference(s):**

US 3 198 804 (Bristol-Myers; 3.8.1965; appl. 6.1.1965; prior. 25.1.1963).

Formulation(s): amp. 250 mg, 500 mg, 1 g; tabl. 50 mg (as potassium salt)

Trade Name(s):

D:	Penplenum (Bristol); wfm	Etadipen (Ghimas)-comb.	J:	Natacillin (Banyu)
F:	Versapen (Allard); wfm	with dicloxacillin; wfm	USA:	Versapen (Bristol); wfm
I:	Dicloeta (Lusopharma)-comb. with dicloxacillin; wfm	Versaclox (Bristol)-comb. with dicloxacillin; wfm		
		Versapen (Bristol); wfm		

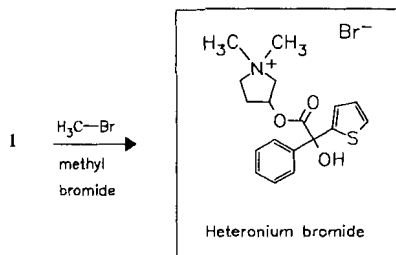
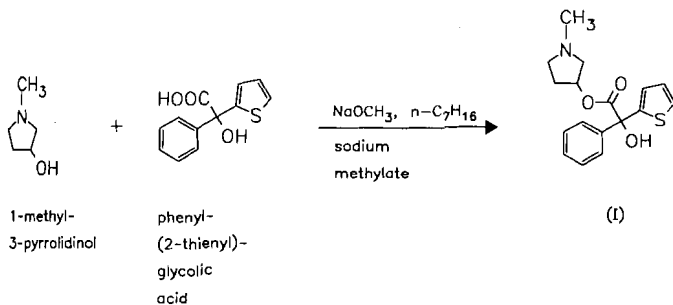
Heteronium bromide

ATC: A03

Use: anticholinergic

RN: 7247-57-6 MF: C₁₈H₂₂BrNO₃S MW: 412.35LD₅₀: 3576 mg/kg (R, p.o.)

CN: 3-[(hydroxyphenyl-2-thienylacetyl)oxy]-1,1-dimethylpyrrolidinium bromide

**Reference(s):**

US 3 138 614 (Eli Lilly; 23.1.1964; prior. 18.12.1961, 3.8.1960).

starting material:

US 2 830 997 (A. H. Robins; 1958; prior. 1956).

Formulation(s): tabl. 1 mg**Trade Name(s):**

I: Quentar (Ravizza)-comb. with oxazepam; wfm USA: Hetrum Bromide (Lilly); wfm

Hexachlorophene

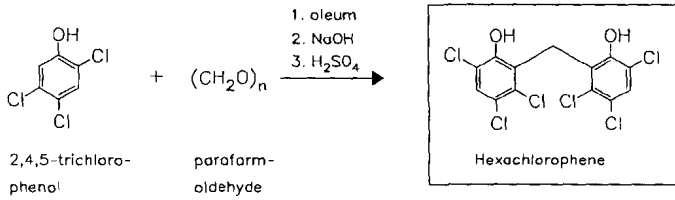
ATC: D08AE01

Use: topical antiinfective, disinfectant, parasiticide

RN: 70-30-4 MF: C₁₃H₆Cl₆O₂ MW: 406.91 EINECS: 200-733-8LD₅₀: 67 mg/kg (M, p.o.);

7500 µg/kg (R, i.v.); 56 mg/kg (R, p.o.)

CN: 2,2'-methylenebis[3,4,6-trichlorophenol]



Reference(s):

- US 2 250 480 (B. T. Bush; 1941; appl. 1939).
- US 2 435 593 (B. T. Bush; 1948; appl. 1945).
- US 2 812 365 (Givaudan Corp.; 1957; prior. 1951, 1954).

Formulation(s): cream 0.5 g/100 g; emulsion 0.5 g/100 g; lotion 0.5 g/100 g

Trade Name(s):

D:	Aknefug (Wolff) Aknefug (Wolff)-comb. with estradiol	GB:	Dermalex (Sanofi Winthrop)-comb. Ster-Zac D.C. (Seton)	PhisoHex disinfectant (Maggi- Winthrop)-comb.; wfm Vestene (Eurospital); wfm
F:	Acnestrol (Poirier)-comb.	I:	Etaproctene (Angelini)- comb.; wfm	USA: pHisoHex (Sanofi)

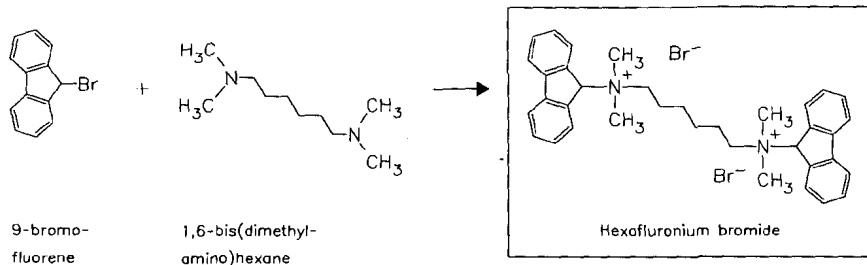
Hexafluoronium bromide

(Hexafluorenium bromide)

ATC: M03AC05

Use: muscle relaxant

RN: 317-52-2 MF: C₃₆H₄₂Br₂N₂ MW: 662.55 EINECS: 206-265-0
 LD₅₀: 1760 µg/kg (M, i.v.); 280 mg/kg (M, p.o.)
 CN: N,N'-di-9H-fluoren-9-yl-N,N,N',N'-tetramethyl-1,6-hexanediaminium dibromide



Reference(s):

- US 2 783 237 (Irwin, Neisler & Co.; 1957; prior. 1953).

Formulation(s): amp. 20 mg/ml.

Trade Name(s):

J:	Mylaxen (Nippon Shoji); wfm	USA:	Mylaxen (Mallinckrodt); wfm	Mylaxen (Wallace); wfm
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Hexamethonium chloride

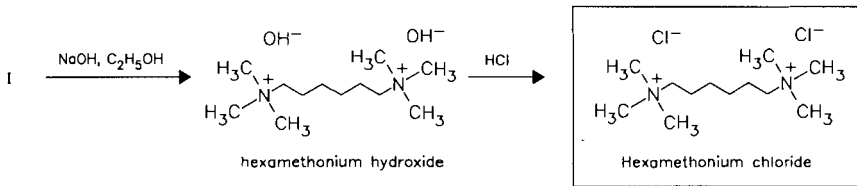
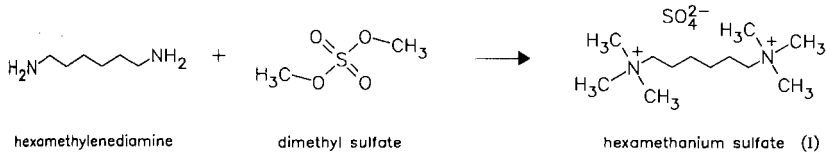
ATC: C02

Use: ganglionic blocker, antihypertensive

RN: 60-25-3 MF: C₁₂H₃₀Cl₂N₂ MW: 273.29 EINECS: 200-465-1LD₅₀: 26.7 mg/kg (M, i.v.);

35 mg/kg (dog, i.v.)

CN: N,N,N,N',N',N'-hexamethyl-1,6-hexanediaminium dichloride

**Reference(s):**

DE 900 097 (May & Baker; appl. 1951; GB-prior. 1950).

Formulation(s): oral: 0.5 g/d**Trade Name(s):**

D:	Raucombin forte (Voigt); wfm	Gastrometonio (Fabo; as iodide); wfm
I:	Gastrometonio (Fabo); wfm	J: Methobromin (Yamanouchi); wfm

Hexcarbacholine bromide

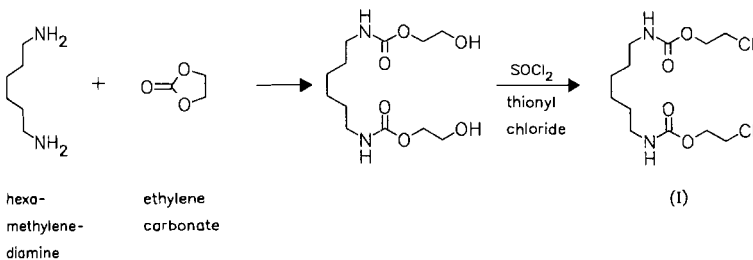
(Carbolonium bromide)

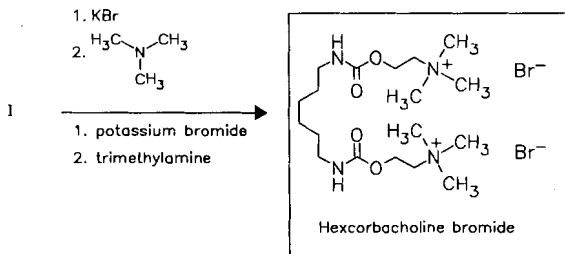
ATC: M03

Use: muscle relaxant

RN: 306-41-2 MF: C₁₈H₄₀Br₂N₄O₄ MW: 536.35

CN: N,N,N,N',N',N'-hexamethyl-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,16-diaminium dibromide



**Reference(s):**

DE 1 021 842 (Österr. Stickstoffwerke; appl. 1954; A-prior. 1953).

Formulation(s): amp. 2 mg/ml**Trade Name(s):**

D: Imbretil (Hormon-Chemie); wfm

Hexestrol

ATC: G03

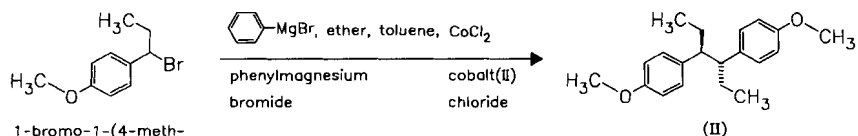
Use: estrogen, antineoplastic (hormonal)

RN: 84-16-2 MF: $\text{C}_{18}\text{H}_{22}\text{O}_2$ MW: 270.37 EINECS: 201-518-1LD₅₀: 1 g/kg (M, p.o.);

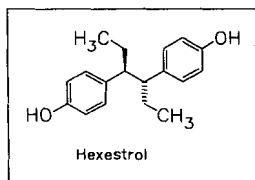
>2 g/kg (R, p.o.)

CN: (*R*,S**)-4,4'-(1,2-diethyl-1,2-ethanediyl)bisphenol

o



II

HI
hydrogen
iodide

b

1. metals (Na, Mg, Al, or Fe)

2. HI

I

1. (sodium, magnesium, aluminum, or iron)

2. hydrogen iodide

Hexestrol

Reference(s):

- a Kharasch, M.S.; Kleimann, M.: J. Am. Chem. Soc. (JACSAT) **65**, 491 (1943).
 b Dodds, E.C. et al.: Proc. R. Soc. London, Ser. B (PRLBA4) **218**, 253 (1940).
 Bernstein, S.; Wallis, E.S.: J. Am. Chem. Soc. (JACSAT) **62**, 2871 (1940).
 Buu-Hoi, N.G.; Hoan, N.G.: J. Org. Chem. (JOCEAH) **14**, 1023 (1949).
 US 2 357 985 (Research Corp; 1944; appl. 1940).
 GB 523 320 (Boots; appl. 1938).
 FR 855 879 (Lab. Franç. de Chimiothérapie; appl. 1939).

starting material:

Bernstein, S.; Wallis, E.S.: J. Am. Chem. Soc. (JACSAT) **62**, 2871 (1940).

alternative syntheses:

Docken, A.M.; Spielman, M.A.: J. Am. Chem. Soc. (JACSAT) **62**, 2163 (1940).
 US 2 392 852 (Lilly; 1946; prior. 1941).
 US 2 402 054 (Lilly; 1946; prior. 1941).
 US 2 421 401 (Hoffmann-La Roche; 1947; S-prior. 1943).

review:

Solmssen, U.V.: Chem. Rev. (Washington, D. C.) (CHREAY) **36**, 481 (1945).

Formulation(s): pessaries 10 mg

Trade Name(s):

D:	Malun (Temmler)-comb.; wfm	GB:	Synthrogene (Gerda); wfm Synthovo (Boots); wfm	Hexestrol and Phenorbital (Jenkins)-comb.; wfm
F:	Cycloestrol (Bruneau); wfm	J:	Robal (Chugai; as diacetate)	Hexestrol W/Butabarb (Bowman)-comb.; wfm
	Micro-cristaux Cycloestrol (Bruneau); wfm	USA:	Estra-Plex (Rowell); wfm	Vagi-Plex (Rowell)-comb.; wfm

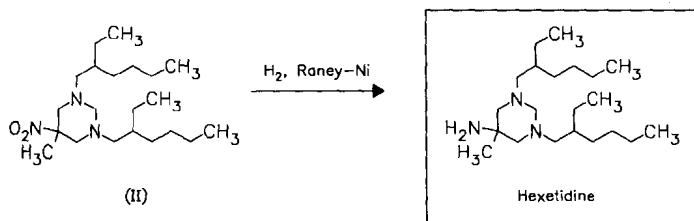
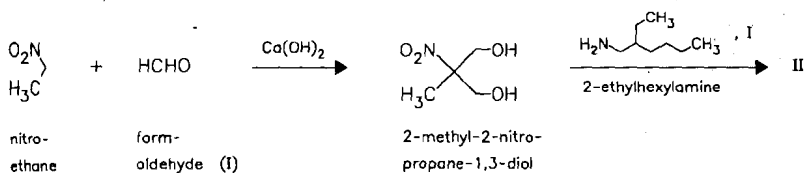
Hexetidine

ATC: A01AB12

Use: antiseptic antifungal

RN: 141-94-6 MF: C₂₁H₄₅N₃ MW: 339.61 EINECS: 205-513-5

CN: 1,3-bis(2-ethylhexyl)hexahydro-5-methyl-5-pyrimidinamine

*Reference(s):*

- US 2 415 047 (Commercial Solvents; 1947; appl. 1945).
 US 3 054 797 (Commercial Solvents; 18.9.1962; prior. 11.10.1961).
 Senkus, M.: J. Am. Chem. Soc. (JACSAT) **68**, 1611 (1946).

purification:

DE 2 011 078 (Gödecke; appl. 9.3.1970).
 DAS 2 355 917 (Meditest; appl. 8.11.1973).
 DOS 2 709 929 (Dolorgiet; appl. 8.3.1977).
 DOS 2 310 337 (Wülfing; appl. 1.3.1973).
 DAS 2 323 150 (Wülfing; appl. 8.5.1973).

salts with aromatic acids:

GB 1 538 603 (Doll; appl. 5.11.1976; D-prior. 6.11.1975, 3.6.1976, 16.6.1976).
 US 4 141 968 (Doll; 27.2.1979; D-prior. 16.6.1976).
 US 4 142 050 (Doll; 27.2.1979; D-prior. 6.11.1975, 3.6.1976).

nicotinate:

DOS 2 310 338 (Wülfing; appl. 1.3.1973).

Formulation(s): sol. 100 mg/100 ml, 200 mg/100 ml; spray 0.1 g/100 g; vaginal tabl. 10 mg

Trade Name(s):

D:	Anginasin Spray (Opfermann)-comb. De-menthasin (Scheurich)- comb. Doreperol (Rentschler) Givalex (Norgine)-comb. Hexetidin Gurgellösung (ratiopharm)	F:	Collu-Hextril (Warner- Lambert) Givalex (Norgine)-comb. Hextril (Warner-Lambert)	GB:	Nifluril (UPSA) Oraldene (Warner- Lambert)	I:	Oraseptic (Parke Davis)	USA:	Sterisil (Warner Chilcott); wfm
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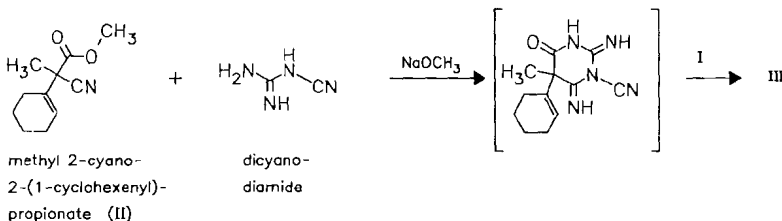
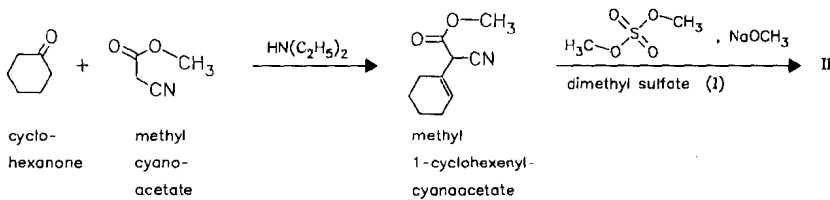
Hexobarbital

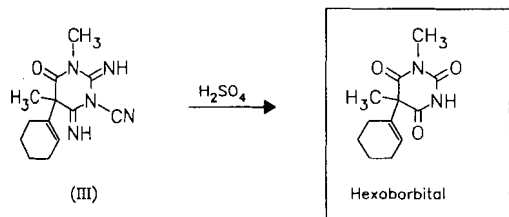
ATC: N01AF02; N05CA16
 Use: hypnotic, sedative

RN: 56-29-1 MF: C₁₂H₁₆N₂O₃ MW: 236.27 EINECS: 200-264-9
 LD₅₀: 133 mg/kg (M, i.v.); 468 mg/kg (M, p.o.)
 CN: 5-(1-cyclohexen-1-yl)-1,5-dimethyl-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione

sodium salt

RN: 50-09-9 MF: C₁₂H₁₅N₂NaO₃ MW: 258.25 EINECS: 200-009-1
 LD₅₀: 165 mg/kg (M, i.v.); 1325 mg/kg (M, p.o.);
 1 g/kg (R, p.o.)



**Reference(s):**

DRP 595 175 (I. G. Farben; 1931).

DRP 590 175 (I. G. Farben; 1932).

Formulation(s): amp. 0.5g/5 g (10 %) (as sodium salt)**Trade Name(s):**

D: Dormopan (Bayropharm)- comb.; wfm Evipan (Bayer); wfm Stodinox (Lorenz)-comb.; wfm	F: Dormopan (Bayer- Pharma)-comb.; wfm Noctivane (Vaillant- Defresne); wfm GB: Evidorm (Winthrop); wfm	J: Cyclopan (Teikoku Kagaku-Nagase) Oltopan (Dainippon) Ouropan Soda (Shionogi) USA: Sombulex (Riker); wfm
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Hexobendine

ATC: C01DX06

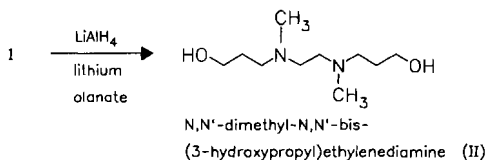
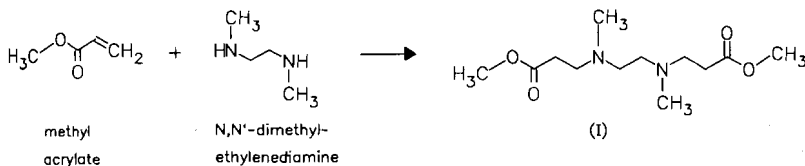
Use: coronary vasodilator

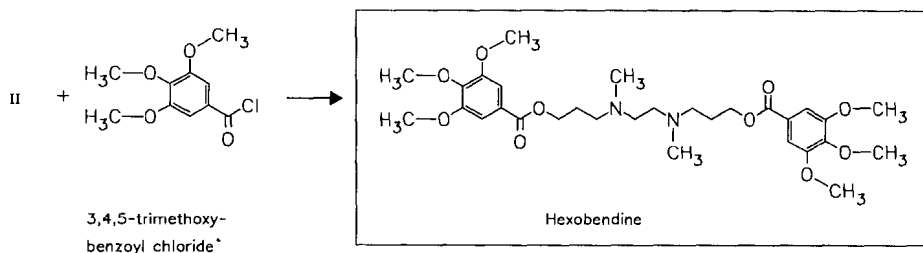
RN: 54-03-5 MF: $\text{C}_{30}\text{H}_{44}\text{N}_2\text{O}_{10}$ MW: 592.69 EINECS: 200-189-1LD₅₀: 34 mg/kg (R, i.v.)

CN: 3,4,5-trimethoxybenzoic acid 1,2-ethanediybis[(methylimino)-3,1-propanediy] ester

dihydrochlorideRN: 50-62-4 MF: $\text{C}_{30}\text{H}_{44}\text{N}_2\text{O}_{10} \cdot 2\text{HCl}$ MW: 665.61 EINECS: 200-054-7LD₅₀: 35.2 mg/kg (M, i.v.); 682 mg/kg (M, p.o.);

52 mg/kg (R, i.v.); 2550 mg/kg (R, p.o.)



**Reference(s):**

DE 1 217 397 (Lentia; appl. 26.3.1962).

N,N-bis-(3-hydroxypropyl)-1,2-ethylenediamine from 1,2-dichloroethane and 3-aminopropanol:
DAS 2 042 320 (Lentia; appl. 26.8.1970).

Formulation(s): amp. 10 mg; tabl. 30 mg, 60 mg**Trade Name(s):**

D: Card-Instenon (Byk Gulden)-comb.; wfm

Instenon (Byk Gulden)-comb.; wfm

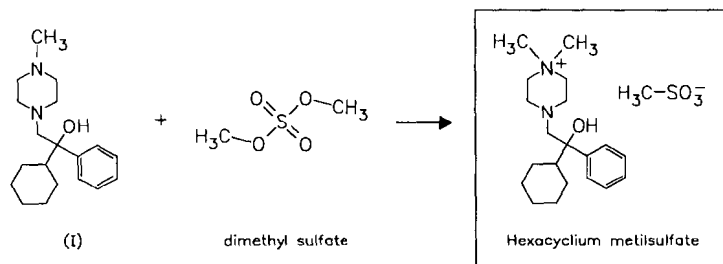
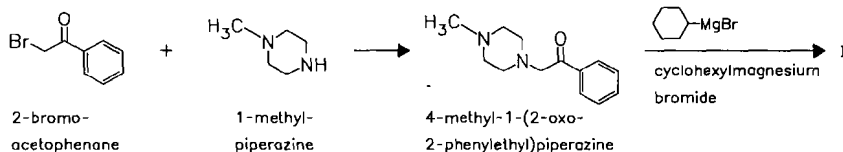
F: Reoxyl (Byk Gulden); wfm
Hityl (Biosedra)-comb.; wfmUstimon (Merck-Clévenot); wfm
I: Flussicor (Farmalabor); wfm**Hexocyclium metilsulfate**

ATC: A03AB10

Use: antispasmodic, anticholinergic

RN: 115-63-9 MF: $C_{20}H_{33}N_2O \cdot CH_3O_4S$ MW: 428.59 EINECS: 204-097-2LD₅₀: 8900 µg/kg (M, i.v.)

CN: 4-(2-cyclohexyl-2-hydroxy-2-phenylethyl)-1,1-dimethylpiperazinium methyl sulfate (salt)

**Reference(s):**

US 2 907 765 (Abbott; 6.10.1959; prior. 10.9.1956).

Formulation(s): drops; f. c. tabl. 25 mg

Trade Name(s):

D: Traline retard (Abbott); wfm F: Traline (Abbott); wfm USA: Tral (Abbott); wfm
 I: Tral (Abbott); wfm

Hexoprenaline

ATC: R03AC06; R03CC05

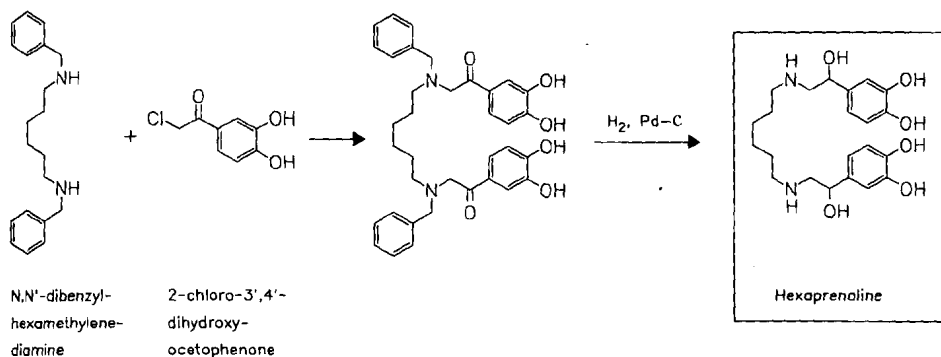
Use: bronchodilator

RN: 3215-70-1 MF: $C_{22}H_{32}N_2O_6$ MW: 420.51

CN: 4,4'-[1,6-hexanediy]bis[imino(1-hydroxy-2,1-ethanediy)]bis[1,2-benzenediol]

dihydrochlorideRN: 4323-43-7 MF: $C_{22}H_{32}N_2O_6 \cdot 2HCl$ MW: 493.43 EINECS: 224-354-2LD₅₀: 88 mg/kg (M, i.v.); 2036 mg/kg (M, p.o.);

58 mg/kg (R, i.v.); 10 g/kg (R, p.o.)

sulfateRN: 30117-45-4 MF: $C_{22}H_{32}N_2O_6 \cdot xH_2SO_4$ MW: unspecified EINECS: 250-057-2*Reference(s):*

DE 1 215 729 (Lentia; appl. 14.6.1963).

US 3 329 709 (Österr. Stickstoffwerke; 4.7.1967; A-prior. 11.6.1963).

Formulation(s): aerosol 5.7 mg (as sulfate); amp. 0.005 mg, 0.025 mg; tabl. 0.5 mg (as sulfate)*Trade Name(s):*

D: Etoscol (Byk Gulden); wfm I: Tocolysan (Byk Gulden; as sulfate) J: Leanal (Yoshitomi; as sulfate)

Hexylcaine

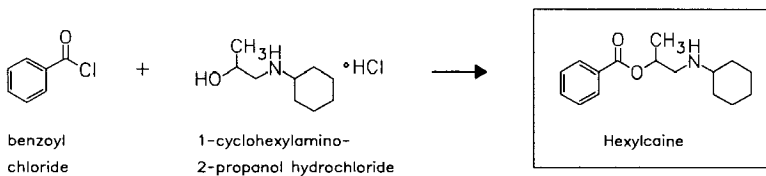
ATC: N01B

Use: local anesthetic

RN: 532-77-4 MF: $C_{16}H_{23}NO_2$ MW: 261.37

CN: 1-(cyclohexylamino)-2-propanol benzoate (ester)

hydrochlorideRN: 532-76-3 MF: $C_{16}H_{23}NO_2 \cdot HCl$ MW: 297.83 EINECS: 208-544-2LD₅₀: 23 mg/kg (M, i.v.); 1080 mg/kg (M, p.o.)

*Reference(s):*

US 2 486 374 (Sharp & Dohme; 1949; prior. 1944).

Cope, A. et al.: J. Am. Chem. Soc. (JACSAT) **66**, 1453 (1944).*Formulation(s):* amp. 1 %, 2 %; sol. (as hydrochloride)*Trade Name(s):*

USA: Cyclaine (Merck Sharp & Dohme); wfm

Hexylresorcinol

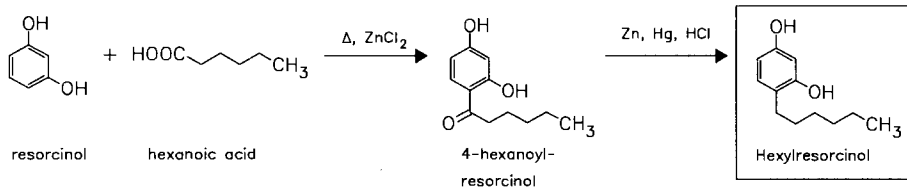
ATC: R02AA12

Use: anthelmintic, antiseptic

RN: 136-77-6 MF: C₁₂H₁₈O₂ MW: 194.27 EINECS: 205-257-4LD₅₀: 1040 mg/kg (M, p.o.);

550 mg/kg (R, p.o.)

CN: 4-hexyl-1,3-benzenediol

*Reference(s):*

DRP 488 419 (Sharp & Dohme; appl. 1923; USA-prior. 1923).

DRP 489 117 (Sharp & Dohme; appl. 1925; USA-prior. 1925).

Dohme, A.R.L. et al.: J. Am. Chem. Soc. (JACSAT) **48**, 1688 (1926).Twiss, D.: J. Am. Chem. Soc. (JACSAT) **48**, 2206 (1926).*Formulation(s):* cream 20 mg; drg. 2.4 mg; ointment 4.3 mg*Trade Name(s):*D: Hexamon (Beiersdorf-Lilly)-comb.; wfm
Jodo-Muc (Merz & Co.); wfmMycatox (Brenner-Efeka)-comb.; wfm
GB: Kamillosan (Norgine)-comb.; wfm

I: Oxana (Biologici Italia); wfm

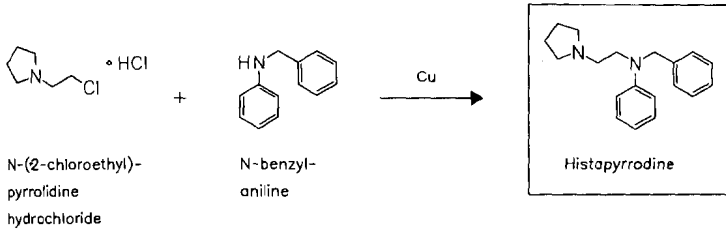
Histapyrrodine

ATC: R06AC02

Use: antihistaminic, antiallergic

RN: 493-80-1 MF: C₁₉H₂₄N₂ MW: 280.42 EINECS: 207-781-9

CN: N-phenyl-N-(phenylmethyl)-1-pyrrolidineethanamine

monohydrochlorideRN: 6113-17-3 MF: $C_{19}H_{24}N_2 \cdot HCl$ MW: 316.88 EINECS: 228-079-9**Reference(s):**

US 2 623 880 (H. Hopff et al.; 1952; D-prior. 1948).
 GB 659 730 (BASF; appl. 1949; D-prior. 1948).

Formulation(s): tabl. 25 mg (as hydrochloride)

Trade Name(s):

D:	Calcistin (Boehringer Mannh.)-comb. with calcium lactate; wfm	F:	Crème domistan vit. F (Servier); wfm.	I:	Domistan (Servier); wfm Calcistin (Boehringer Biochemia)-comb.; wfm
			Calcistin (Hestia)-comb. with calcium lactate; wfm		

L-Histidine

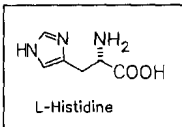
ATC: M01

Use: essential proteinogen amino acid (for infusion solutions), dietary supplement

RN: 71-00-1 MF: $C_6H_9N_3O_2$ MW: 155.16 EINECS: 200-745-3LD₅₀: >2 g/kg (M, i.v.); >15 g/kg (M, p.o.);

>2 g/kg (R, i.v.); >15 g/kg (R, p.o.)

CN: L-histidine

monohydrochloride monohydrateRN: 5934-29-2 MF: $C_6H_9N_3O_2 \cdot HCl \cdot H_2O$ MW: 209.63LD₅₀: >1.677 g/kg (M, i.p.)

Isolation from hydrolysates of blood meal by ion-exchange chromatography.

Reference(s):

Ullmann's Encyclopedia of Industrial Chemistry, 5th Ed., Vol. A2, 70.
 Vickery, M.B.: J. Biol. Chem. (JBCHA3) 143, 77 (1942).

Formulation(s): sol. 0.25 g/100 ml (as hydrochloride)

Trade Name(s):

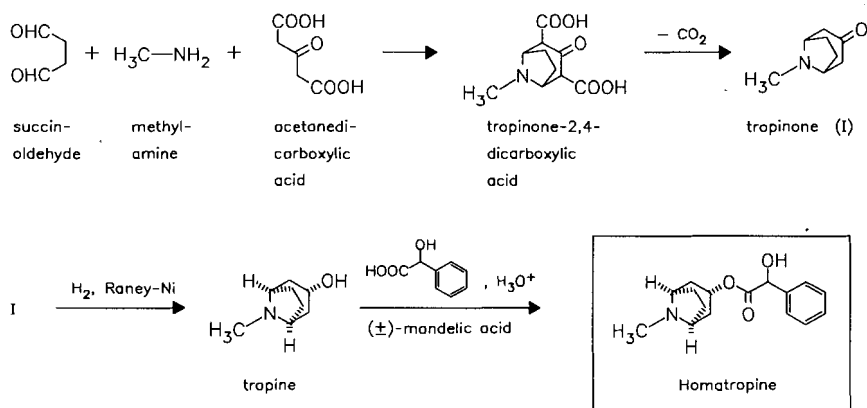
D: Histinorm (A.S.); wfm

USA: NephroAmine (R & D)

Homatropine

(Omatropina)

ATC: S01FA05

Use: anticholinergic, antispasmodic,
mydriaticRN: 87-00-3 MF: C₁₆H₂₁NO₃ MW: 275.35 EINECS: 201-716-8CN: α -hydroxybenzeneacetic acid *endo*-(\pm)-8-methyl-8-azabicyclo[3.2.1]oct-3-yl ester**hydrobromide**RN: 51-56-9 MF: C₁₆H₂₁NO₃ · HBr MW: 356.26 EINECS: 200-105-3LD₅₀: 107 mg/kg (M, i.v.)*Reference(s):*

DRP 95 853 (E. Tauber; appl. 1896).

Ladenburg, A.: Justus Liebigs Ann. Chem. (JLACBF) **217**, 75 (1883).Chemnitzius, F.: J. Prakt. Chem. (JPCEAO) **117**, 142 (1927).*tropinone synthesis:*Robinson, R.: J. Chem. Soc. (JCSOA9) **111**, 762 (1917); **111**, 876 (1917).Schöpf, C.: Angew. Chem. (ANCEAD) **50**, 779 (1937).*racemate resolution:*Werner, G.; Miltenberger, K.: Justus Liebigs Ann. Chem. (JLACBF) **631**, 163 (1960).*Formulation(s):* eye drops 1 %; eye ointment 1 % (as hydrobromide)*Trade Name(s):*D: Homatropin POS 1 %
Augentropfen (Ursapharm)I: Matr Br (Formulario
Naz.; Tariff. Nazionale)J: Homatropine
hydrobromide (Torii)GB: Minims Homatropine
Hydrobromide (Chauvin)Omatropina Lux coll.
(Allergan)

Homatropine methylbromide

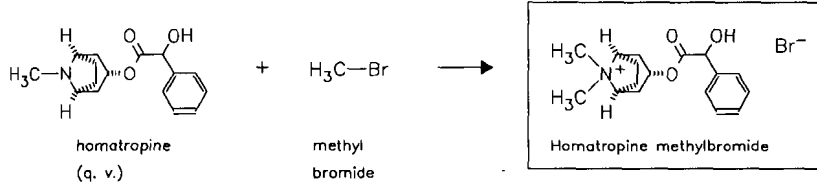
(Methylhomatropine bromide)

ATC: A07AA54

Use: anticholinergic, antispasmodic

RN: 80-49-9 MF: C₁₇H₂₄BrNO₃ MW: 370.29 EINECS: 201-284-0LD₅₀: 1400 mg/kg (M, p.o.);

12 mg/kg (R, i.v.); 1200 mg/kg (R, p.o.)

CN: *endo*-3-[(hydroxyphenylacetyl)oxy]-8,8-dimethyl-8-azoniabicyclo[3.2.1]octane bromide**Reference(s):**Cahen, R.L.; Tvede, K.: J. Pharmacol. Exp. Ther. (JPETAB) **105**, 166 (1952).**Formulation(s):** eye drops 1 %, 2 %, 5 %; syrup 1.5 mg/5 ml, 5 mg/5 ml; tabl. 1.5 mg, 5 mg**Trade Name(s):**

F:	Enterine (Robapharm)-comb.; wfm	Ulfon (Lafon)-comb.; wfm	I:	Novatropina (ASTA Medica)
	Supadol (Lederle)-comb.; wfm		USA:	Hycodan (Endo)
	Surparine (Licardy)-comb.; wfm	GB:	APP (Consolidated); wfm	
			Vagantyl (Robapharm)-comb.; wfm	

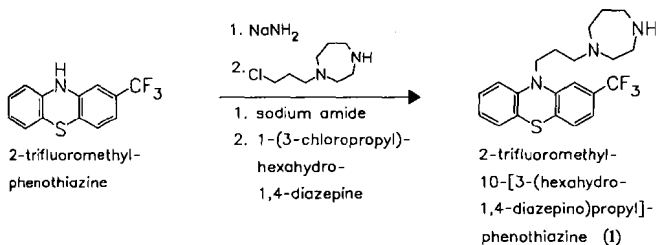
Homofenazine

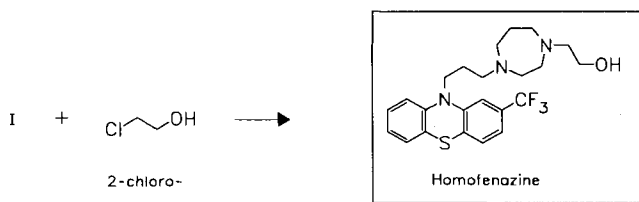
ATC: N05AK

Use: neuroleptic, psychosedative

RN: 3833-99-6 MF: C₂₃H₂₈F₃N₃OS MW: 451.56CN: hexahydro-4-[3-[2-(trifluoromethyl)-10*H*-phenothiazin-10-yl]propyl]-1*H*-1,4-diazepine-1-ethanol**dihydrochloride**RN: 1256-01-5 MF: C₂₃H₂₈F₃N₃OS · 2HCl MW: 524.48 EINECS: 215-017-0LD₅₀: 73.5 mg/kg (M, i.v.); 790 mg/kg (M, p.o.);

102 mg/kg (R, i.v.); 880 mg/kg (R, p.o.)



**Reference(s):**

DE 1 160 442 (Degussa; appl. 18.2.1960).
 US 3 040 043 (Degussa; 19.6.1962; D-prior. 18.3.1959).

Formulation(s): tabl. 3 mg (as hydrochloride)

Trade Name(s):

D: Pasaden (Homburg); wfm Seda-Ildamen (Homburg)- I: Pasaden (Farmades); wfm
 comb.; wfm

Hydralazine

ATC: C02DB02
 Use: antihypertensive

RN: 86-54-4 MF: $C_8H_8N_4$ MW: 160.18 EINECS: 201-680-3

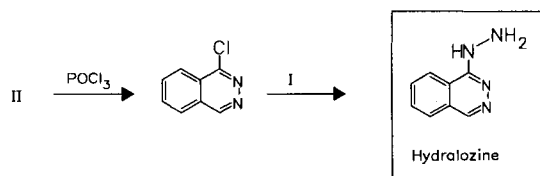
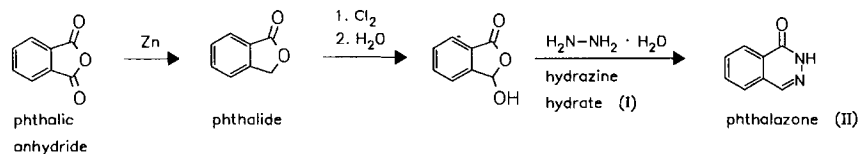
LD₅₀: 52 mg/kg (M, i.v.); 122 mg/kg (M, p.o.);
 34 mg/kg (R, i.v.); 90 mg/kg (R, p.o.);
 50 mg/kg (dog, i.v.); 100 mg/kg (dog, p.o.)

CN: 1(2H)-phthalazinone hydrazone

monohydrochloride

RN: 304-20-1 MF: $C_8H_8N_4 \cdot HCl$ MW: 196.64 EINECS: 206-151-0

LD₅₀: 84 mg/kg (M, i.v.); 188 mg/kg (M, p.o.);
 34 mg/kg (R, i.v.)

**Reference(s):**

US 2 484 029 (Ciba; 1949; CH-prior. 1945).
 DE 848 818 (Ciba; CH-prior. 1945).

Formulation(s): amp. 20 mg; drg. 10 mg, 25 mg, 50 mg; tabl. 25 mg, 50 mg (as hydrochloride)

Trade Name(s):

D: Docidrazin (Rhein-Pharma; Zeneca)-comb.	GB: Apresoline (Novartis; as hydrochloride)	Homoton (Hori)
Impresso-Puren (Isis Puren)-comb.	I: Apresolin Retard (Novartis; as hydrochloride)	Hypatol (Yamanouchi)
pertenso (Fournier Pharma)-comb.	J: Anaspasmin (Vitacain)	Hypos (Nippon Shinyaku)
Treloc (Astra/Promed)-comb.	Aprelazine (Kaigai)	Pressfall (Nissin)
Trepress (Novartis Pharma)-comb.	Apresoline (Novartis)	Propectin (Maruishi)
Tri-Normin (Zeneca)-comb.	Aprezine (Kanto)	Solesorin (Hishiyama)
	Basedock D (Sawai)	USA: Hydralazine Hydrochloride (SoloPak)
	Deselazine (Kobayashi Kako)	Hydra-Zide (Par)
	Diucholin (Toyama)	

Hydrochlorothiazide

ATC: C03AA03

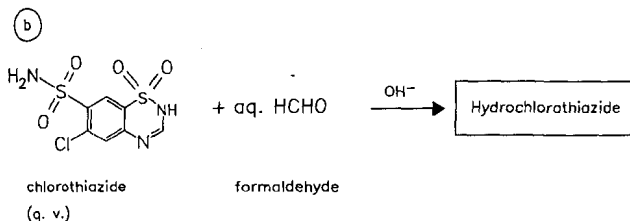
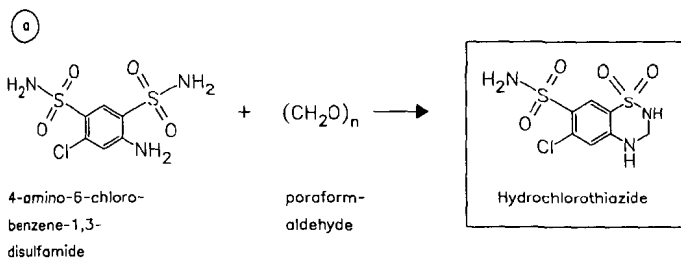
Use: diuretic

RN: 58-93-5 MF: C₇H₈ClN₃O₄S₂ MW: 297.74 EINECS: 200-403-3LD₅₀: 590 mg/kg (M, i.v.); 1175 mg/kg (M, p.o.);

990 mg/kg (R, i.v.); 2750 mg/kg (R, p.o.);

250 mg/kg (dog, i.v.)

CN: 6-chloro-3,4-dihydro-2H-1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide



Reference(s):

a US 3 163 645 (Ciba; 29.12.1964; appl. 25.9.1964; prior. 9.4.1958).

Stevens, G. de et al.: *Experientia (EXPEAM)* **14**, 463 (1958).

b US 3 164 588 (Merck & Co.; 5.1.1965; GB-prior. 19.6.1959).

alternative syntheses:

US 3 025 292 (Merck & Co.; 13.3.1962; prior. 26.11.1958).

purification:

US 3 043 840 (Merck & Co. 10.7.1962; appl. 14.10.1959).

Formulation(s): tabl. 12.5 mg, 25 mg, 50 mg, 100 mg

Trade Name(s):

D:	Disalunil (Berlin-Chemie) diu melusin (Schwarz)- comb.	I:	Accuretic (Parke Davis)- comb.		Selozide (Astra)-comb. Spiridazide (SIT)-comb. Vasoretic (Merck Sharp & Dohme)-comb.
	Esidrix (Novartis Pharma) HCT-ISIS (Isis Puren) numerous generics and combination preparations		Acediur (Guidotti)-comb. Aceplus (Bristol-Myers Squibb)-comb.	J:	Zestoretic (Zeneca)-comb. combination preparations Chlothia (Iwaki) Dichlotride (Merck-Banyu) Esidrex (Novartis-Takeda) Maschitt (Showa Shinyaku) Mikorten (Zensei) Newtolide (Towa) Pantemon (Tatsumi)
F:	Acuilix (Parke Davis)- comb. Briazide (Pierre Fabre)- comb. Esidrex (Novartis) Moducen (Merck Sharp & Dohme-Chibret)-comb. Moduretic (Du Pont Pharma)-comb. Prestole (SmithKline Beecham)-comb. Zestoretic (Zeneca)-comb. numerous generics and combination preparations		Acequide (Recordati)- comb. Acesistem (Sigma-Tau)- comb. Aldactazide (SPA)-comb. Condiuren (Neopharmed)- comb. Esidrex (Novartis) Indroclor (Formulario Naz.) Medozide (Malesci)-comb. Moduretic (Merck Sharp & Dohme)-comb. Prinzide (Du Pont)-comb. Quinazide (Malesci)-comb. Raunova Plus (SmithKline Beecham)-comb.	USA:	Hydrochlorothiazide (Lederle) HydroDIURIL (Merck Sharp & Dohme) Hydropres (Merck Sharp & Dohme)-comb. Oretic (Abbott) Timolide (Merck Sharp & Dohme)-comb. generic and combination preparations
GB:	Hydrosaluric (Merck Sharp & Dohme)				

Hydrocodone

ATC: R05DA03

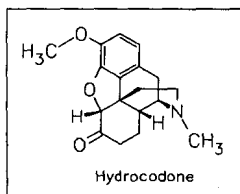
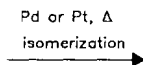
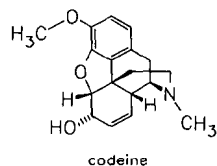
Use: antitussive, narcotic analgesic

RN: 125-29-1 MF: $C_{18}H_{21}NO_3$ MW: 299.37 EINECS: 204-733-9LD₅₀: 8.57 mg/kg (M, s.c.);CN: (5 α)-4,5-epoxy-3-methoxy-17-methylmorphinan-6-one

bitartrate hydrate

RN: 34195-34-1 MF: $C_{18}H_{21}NO_3 \cdot C_4H_6O_6 \cdot 5/2H_2O$ MW: 988.99LD₅₀: 375 mg/kg (R, p.o.)

hydrochloride

RN: 25968-91-6 MF: $C_{18}H_{21}NO_3 \cdot HCl$ MW: 335.83 EINECS: 247-382-7

Reference(s):

Ehrhart, Ruschig I, 119-120.

DRP 607 931 (Knoll; 1935).

DRP 617 238 (Knoll; 1935).

DRP 623 821 (Knoll; 1935).

Formulation(s): amp. 15 mg/ml (as hydrochloride); syrup 5 mg/5 ml, 100 mg/5 ml; tabl. 5 mg, 10 mg (as bitartrate hydrate)

Trade Name(s):

D: Dicodid (Knoll)

USA: Hycotuss (Endo)-comb.

numerous combination

I: Dicodid (Knoll); wfm

Tussend (Monarch)-comb.

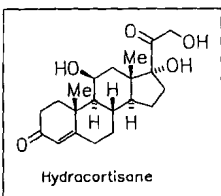
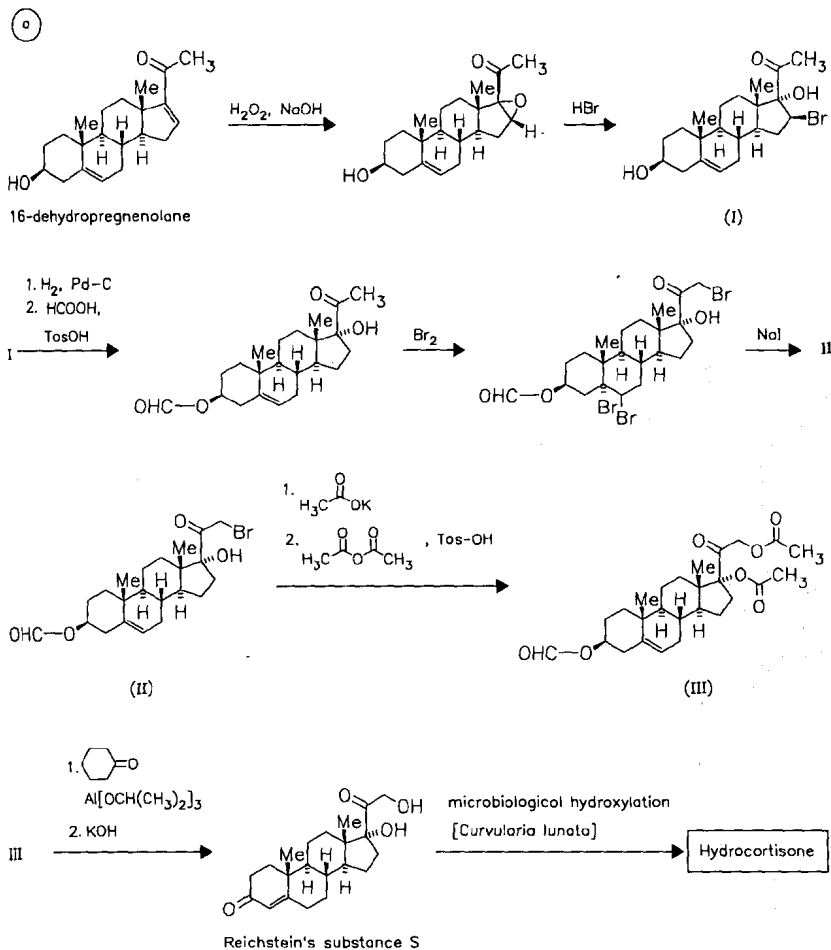
preparations

HydrocortisoneATC: A01AC03; A07EA02; D07AA02;
C05AA01; D07XA01; H02AB09;
S01BA02; S01CB03; S02BA01

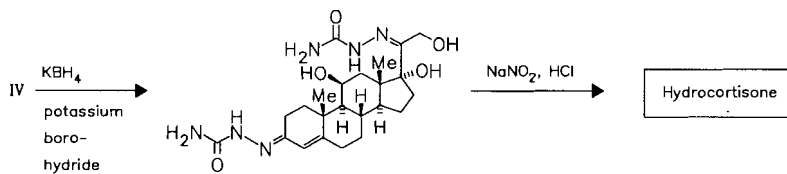
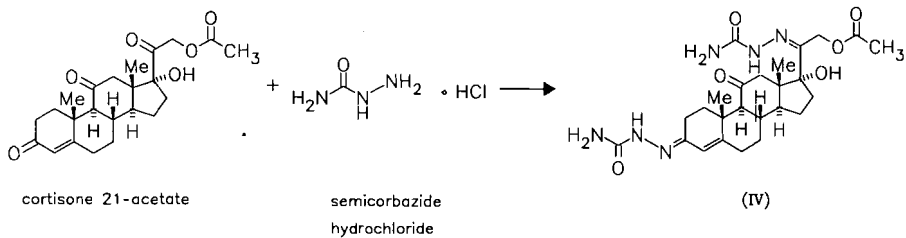
Use: glucocorticoid, anti-inflammatory

RN: 50-23-7 MF: $C_{21}H_{30}O_5$ MW: 362.47 EINECS: 200-020-1LD₅₀: >500 mg/kg (M, s.c.);

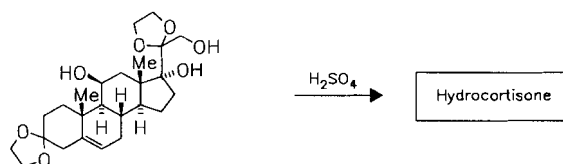
150 mg/kg (R, i.p.); 449 mg/kg (R, s.c.)

CN: (11 β)-11,17,21-trihydroxypregn-4-ene-3,20-dione

(b)

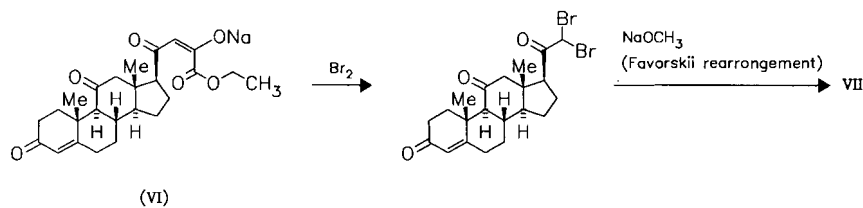
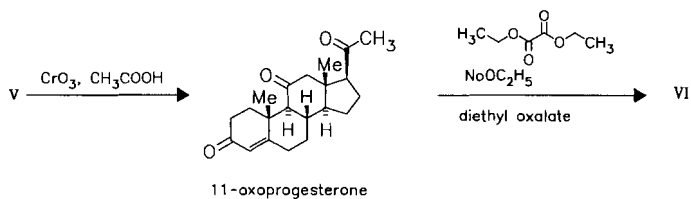
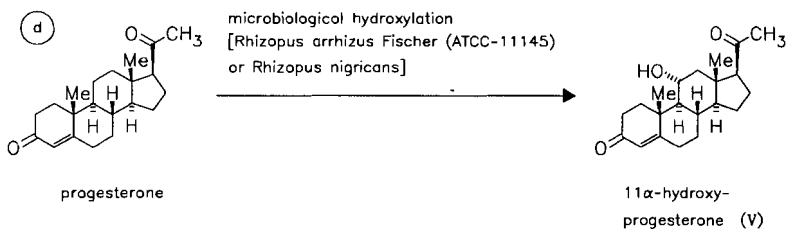


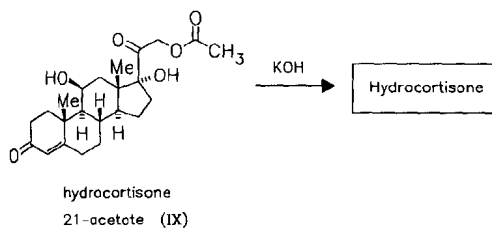
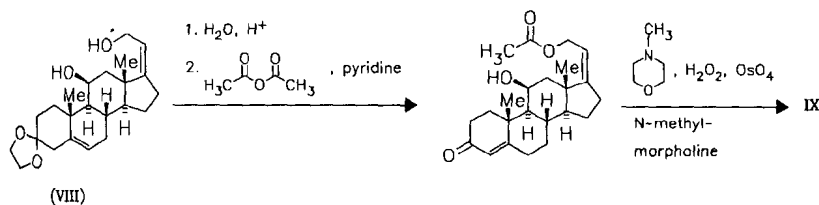
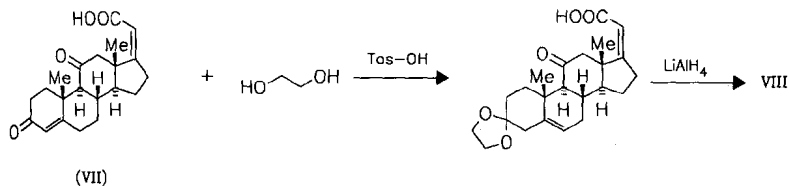
(c)



3,3:20,20-bis(ethylenedioxy)-
11 β ,17,21-trihydroxy-5-pregnene
(from cortisone)

(d)



*Reference(s):*

- a** US 2 649 401 (Upjohn; 1953; appl. 1950).
 US 2 658 023 (Pfizer; 1953; appl. 1952).
 US 2 794 816 (Upjohn; 1957 appl. 1954).
synthesis of cortexolon:
 Julian, P.L.: J. Am. Chem. Soc. (JACSAT) **72**, 5145 (1950).
 Sondheimer, F. et al.: J. Am. Chem. Soc. (JACSAT) **78**, 816 (1956).
 The Merck Index, 2891 (Rahway 1976).
- b** Oliveto, E. et al.: J. Am. Chem. Soc. (JACSAT) **78**, 1736 (1956).
- c** US 2 666 069 (American Cyanamid; 1954; appl. 1951).
synthesis of starting material:
 US 2 622 081 (American Cyanamid; 1952; appl. 1951).
 US 2 700 666 (American Cyanamid; 1955; appl. 1953).
- d** Hogg, J.A. et al.: J. Am. Chem. Soc. (JACSAT) **77**, 4436 (1955).
 US 2 769 823 (Upjohn; 1956; appl. 1954).

alternative syntheses:

- US 2 541 104 (Merck & Co.; 1951; appl. 1947).
 GB 800 797 (Pfizer; appl. 1956; USA-prior. 1955).
 US 4 041 055 (Upjohn; 9.8.1977; appl. 17.11.1975).
 DOS 2 803 660 (Schering AG; appl. 25.1.1978).
 DOS 2 803 661 (Schering AG; appl. 25.1.1978).

review:

- Fieser, L.F.; Fieser, M.: Steroide, 710, 737 (Weinheim 1961).
 Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. **13**, 52.

pharmaceutical formulation:

- DOS 2 606 516 (Dermal; appl. 18.2.1976; GB-prior. 19.2.1975).

Formulation(s): cream 0.5 %; lotion 0.5 %; ointment 1 %, 2.5 %; tabl. 10 mg

Trade Name(s):

D:	Dermallerg-ratiopharm (ratiopharm)	GB:	Cobadex (Cox)-comb.	Nasomixin (Pierrel)-comb.
	Derm Posterisan (Kade)		Corlan (Evans)	Sintotrat (Edmond)
	Ficortril (Pfizer; as acetate)		Efcortelan (Glaxo Wellcome)	Vasosterone (Angelini)-comb.
	Hydrocort (Pharmagalen)		Eurax Hydrocortisone (Novartis Consumer)-comb.	several combination preparations
	Hydrocortison Hoechst (Hoechst)		Hydrocortistab (Knoll)	J: Cortril (Taito Pfizer)
	Hydroderm (Karrer)		Hydrocortisyl (Hoechst)	Solu-cortef (Sumitomo Chem.)
	Hydrogalen (Pharmagalen)		Hydrocortone (Merck Sharp & Dohme)	USA: Cortenema (Solvay)
	Munitren H (Robugen)		several combination preparations	Hydrocortone (Merck Sharp & Dohme)
	Sanatison (Parke Davis)			Hytone (Dermik)
	generics and several combination preparations	I:	Algicortis (Vaillant)	Protocort (Monarch)
F:	Daktacort (Janssen-Cilag)-comb.		Daktacort crema (Janssen)-comb.	several combination preparations
	Hydracort (Galderma)		Dermocortal (Puropharma)	
	numerous generics and combination preparations		Molidex (Clintec)-comb.	

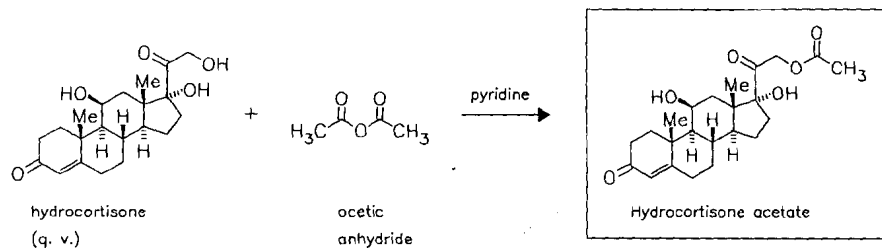
Hydrocortisone acetate

ATC: A07EA02; D07AA02

Use: glucocorticoid

RN: 50-03-3 MF: C₂₃H₃₂O₆ MW: 404.50 EINECS: 200-004-4LD₅₀: 2300 mg/kg (M, i.p.); 45.05 mg/kg (M, s.c.)

CN: (11β)-21-(acetyloxy)-11,17-dihydroxypregn-4-ene-3,20-dione

*Reference(s):*

US 2 183 589 (Roche-Organon; 1939; CH-prior. 1936).

alternative syntheses:

US 2 541 104 (Merck & Co.; 1951; appl. 1947).

US 2 769 823 (Upjohn; 1956; appl. 1954).

Formulation(s): cream 3.3 mg; ointment (0.5 %, 1 %, 2 %); suppos. 3.3 mg*Trade Name(s):*

D:	Colifoam (Trommsdorff)		numerous combination preparations and generics	Proctocort (Boehringer Ing.)
	Cortisol Thilo (Thilo)			numerous combination preparations and generics
	Ebenol (Strathmann)	F:	Colofoam (Norgine Pharma)	Actinac (Hoechst)-comb.
	Ficortril Augensalbe (Pfizer)		Hydrocortisone Roussel	Anugesic HC (Parke Davis)-comb.
	Hydrocortison-POS (Ursapharm)		Susp. Inj. (Roussel)	Anusol HC (Parke Davis)-comb.
	Litraderm (Desitin)		Onctose hydrocortisone (Monot)-comb.	

	Colifoam (Stafford-Miller)	Cortison-Chemicetina (Carlo Erba)-comb.	Xyloproct (Byk Gulden)-comb.
	Fucidin H (Leo)-comb.	Emorril (Poli)-comb.	Dortizon Oint. (Kobayashi Kako)
	Neo-cortef (Dominion)-comb.	Idrocet (Lusofarmaco)-comb.	Hydrocortisone (Banyu)
	Proctofoam (Stafford-Miller)-comb.	Idrocortisone Roussel (Roussel)	Hydrocortone (Merck-Banyu)
	Xyloproct (Astra)-comb.	Idroneomicil (Poli)-comb.	KC Oint. (Hokuriku)
	numerous combination preparations	Lenirit (Bonomelli Farm.)	Manosil (Sumitomo Kagaku)
I:	Antiacne Samil (Samil)-comb.	Mictasone (Zoja)-comb.	Otozon Base (Nakano)
	Antiemorroidale	Proctosedyl (Roussel)-comb.	Scheroson F (Nihon Schering)
	Milanfarma (Milanfarma)-comb.	Reumacort (Teofarma)-comb.	USA: Anusol-HC (Parke Davis)
	Argisone (Teofarma)-comb.	Urecortyn (Roussel)	Cortifoam (Schwarz)
	Cortidro (Salus Research)	Vasosterone antib.	Pramosone (Ferndale)
	Cortinal (Teofarma)-comb.	(Angelini)-comb.	numerous combination preparations and generic

Hydrocortisone 17-butyrate

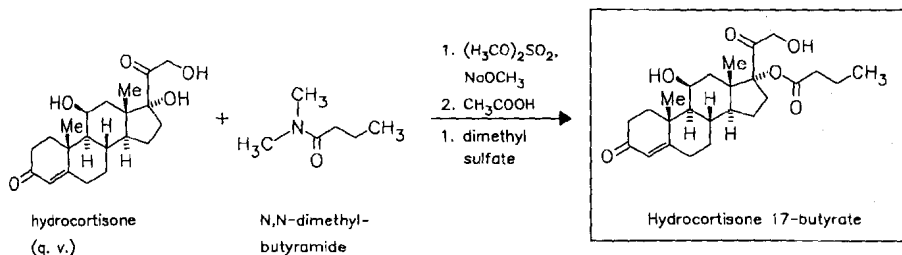
ATC: D07AB02

Use: glucocorticoid

RN: 13609-67-1 MF: C₂₅H₃₆O₆ MW: 432.56 EINECS: 237-093-4LD₅₀: >3 g/kg (M, p.o.);

>3 g/kg (R, p.o.)

CN: (11β)-11,21-dihydroxy-17-(1-oxobutoxy)pregn-4-ene-3,20-dione



Reference(s):

DAS 2 644 556 (Beiersdorf AG; appl. 2.10.1976).

alternative syntheses:

DAS 2 441 284 (Schering AG; appl. 16.9.1974).

JP 52 010 489 (Taisho; appl. 15.7.1975).

JP 52 136 157 (Taisho; appl. 14.4.1976).

JP 53 015 360 (Taisho; appl. 26.7.1976).

DOS 2 055 221 (Lab. Chimico Farma Untico; appl. 10.11.1970).

DOS 2 204 366 (Dermal; appl. 27.1.1962).

Formulation(s): cream 1 mg/g; emulsion 1 mg/g; lotion 1 mg/g; ointment 1 mg/g

Trade Name(s):

D:	Alfason (Yamanouchi)	GB:	Locoid (Yamanouchi)	Molidex (Clintec)-comb.
	Laticort (medphano)	I:	Daktacort crema (Janssen)-comb.	Nasomixin (Pierrel)-comb.
F:	Locoid (Yamanouchi Pharma)		Locoidon (Brocades)	J: Locoid (Torii)
				USA: Locoid (Ferndale)

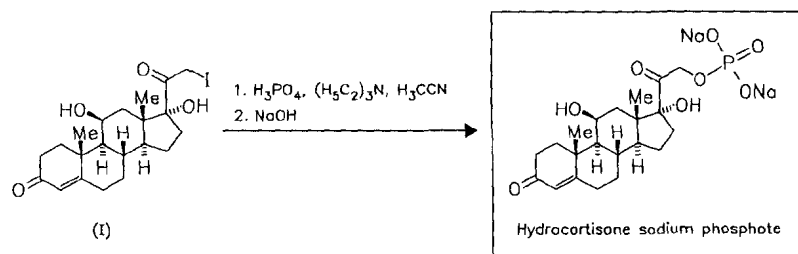
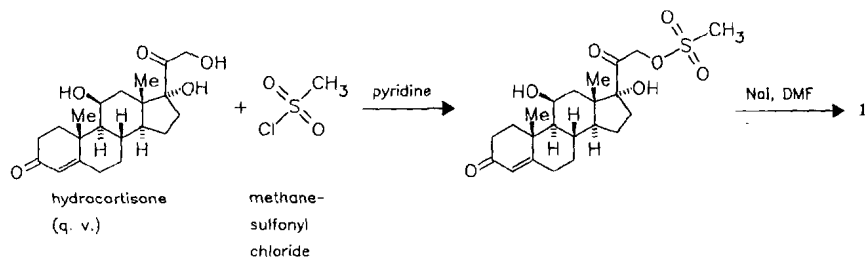
Hydrocortisone sodium phosphate

ATC: S01XA99

Use: glucocorticoid

RN: 6000-74-4 MF: $C_{21}H_{29}Na_2O_8P$ MW: 486.41 EINECS: 227-843-9LD₅₀: 746 mg/kg (M, i.v.); 3950 mg/kg (M, p.o.);

632 mg/kg (R, i.v.); 6100 mg/kg (R, p.o.)

CN: (11 β)-11,17-dihydroxy-21-(phosphonoxy)pregn-4-ene-3,20-dione disodium salt**free acid**RN: 3863-59-0 MF: $C_{21}H_{31}O_8P$ MW: 442.45 EINECS: 223-382-2**Reference(s):**

US 2 936 313 (Glaxo; 10.5.1960; appl. 18.11.1958; GB-prior. 19.11.1957).

US 2 932 657 (Merck & Co.; 12.4.1960; appl. 30.6.1957).

alternative syntheses:

US 2 870 177 (Merck & Co.; 20.1.1959; appl. 4.8.1954).

US 3 068 223 (Merck & Co.; 11.12.1962; appl. 18.11.1958; prior. 4.8.1954).

DE 1 134 075 (Merck AG; appl. 26.11.1959).

Formulation(s): amp. 100 mg; drops 0.335 %**Trade Name(s):**

D: Pantocrinale (Simons)-comb.

GB: Efcortisol (Glaxo Wellcome)

I: Idracemi coll. (Farmigea) Idracemi eparina

(Farmigea)-comb.

J: Gleiton (Sankyo Zoki)

USA: Hydrocortone Phosphate Inj. (Merck Sharp & Dohme)

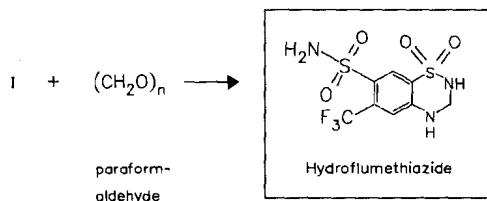
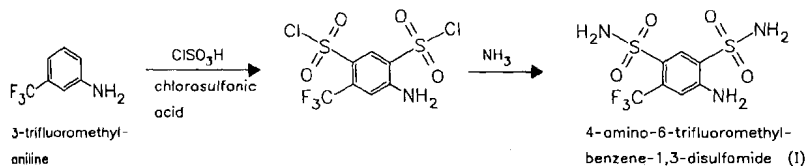
Hydroflumethiazide

ATC: C03AA02

Use: diuretic, antihypertensive

RN: 135-09-1 MF: $C_8H_8F_3N_3O_4S_2$ MW: 331.30 EINECS: 205-173-8LD₅₀: 750 mg/kg (M, i.v.); >10 g/kg (M, p.o.)

CN: 3,4-dihydro-6-(trifluoromethyl)-2H-1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide

**Reference(s):**

US 3 254 076 (Lovens Kemiske Fabrik; 31.5.1966; GB-prior. 13.8.1958).
 Holdrege, C.T. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 4807 (1959).

Formulation(s): tabl. 25 mg, 50 mg

Trade Name(s):

F:	Eusod (Leo)-comb.; wfm	I:	Hydenox (Knoll)	Robezon (Mitsu)
	Leodrine (Leo); wfm		Diuritens (Biotrading)-	Rontyl (Leo-Sankyo)
	Plurine (Leo)-comb. with		comb.; wfm	USA: Diucardin (Wyeth-Ayerst)
	KCl; wfm	J:	Rivosil (Benvegna); wfm	
GB:	Aldactide 50 (Searle)-		Di-Ademil (Squibb-Showa)	
	comb.		Enjit (Meiji)	

Hydromorphone

ATC: N02AA03

Use: analgesic

RN: 466-99-9 MF: C₁₇H₁₉NO₃ MW: 285.34 EINECS: 207-383-5

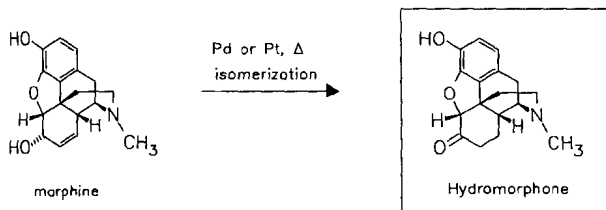
LD₅₀: 104 mg/kg (M, i.v.)

CN: (5α)-4,5-epoxy-3-hydroxy-17-methylmorphinan-6-one

monohydrochloride

RN: 71-68-1 MF: C₁₇H₁₉NO₃ · HCl MW: 321.80 EINECS: 200-762-6

LD₅₀: 55 mg/kg (M, i.v.)

**Reference(s):**

Ehrhart, Ruschig I, 120.
 DRP 365 683 (Knoll; 1922).
 DRP 607 931 (Knoll; 1935).
 DRP 617 238 (Knoll; 1935).
 DRP 623 821 (Knoll; 1935).

Formulation(s): amp. 1 mg/ml, 2 mg/ml, 10 mg/ml, 50 mg/5 ml; tabl. 2 mg, 4 mg, 8 mg; vial 500 mg/5 ml (as hydrochloride)

Trade Name(s):

D:	Dilaudid (Knoll; as hydrochloride)	GB:	Palladone (Napp; as hydrochloride)	generics
	Dilaudid-Atropin (Knoll; as hydrochloride)-comb.	USA:	Dilaudid (Knoll; as hydrochloride)	

Hydroxocobalamin

(Aquocobalamin; Hydroxycobalamin; Vitamin B_{12a})

ATC: V03AB33

Use: antipernicious vitamin (depot form: acetate)

RN: 13422-51-0 MF: C₆₂H₈₉CoN₁₃O₁₅P MW: 1346.38 EINECS: 236-533-2

LD₅₀: >50 mg/kg (M, i.v.)

CN: cobinamide dihydroxide dihydrogen phosphate (ester) mono(inner salt) 3'-ester with 5,6-dimethyl-1- α -D-ribofuranosyl-1H-benzimidazole

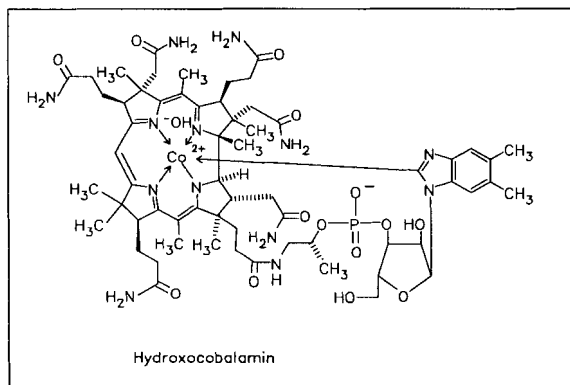
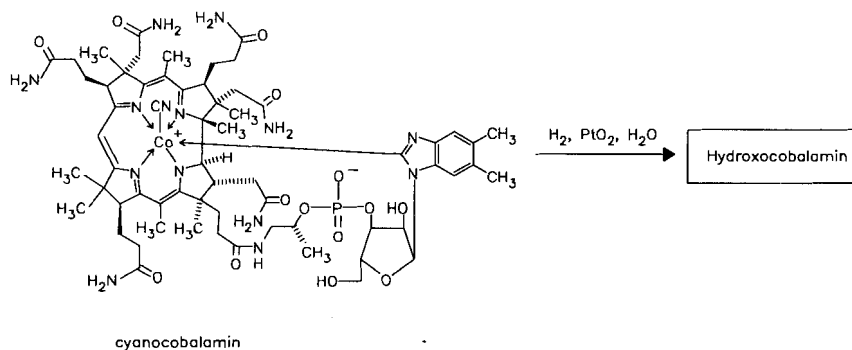
hydrate

RN: 13422-52-1 MF: C₆₂H₈₉CoN₁₃O₁₅P · H₂O MW: 1364.39 EINECS: 236-534-8

acetate

RN: 22465-48-1 MF: C₆₄H₉₁CoN₁₃O₁₆P MW: 1388.41 EINECS: 245-019-7

LD₅₀: 2 g/kg (M, i.v.)



Reference(s):

US 2 738 301 (Merck & Co.; 1956; appl. 1950).

US 2 738 302 (Merck & Co.; 1956; appl. 1950).

stabilized solutions:

FR 1 336 671 (Merck & Co.; appl. 28.2.1962; USA-prior. 13.3.1961).

Formulation(s): amp. 0.5 mg/1 ml; cps. 460 mg; vial 5 mg, 10 mg (as hydrochloride)*Trade Name(s):*

D:	Aquo-Cytobion (Merck) Lophakomp-B12 Depot (Lomapharm) Novidroxin (Fatol; as acetate) numerous combination preparations	GB:	Cobalin-H (Link) Neo-Cytamen (Evans) numerous combination preparations		Hydocabamin (Hishiyama) Hydocomin (Sanwa) Hydroxomin (Tokyo Hosei) Laseramin (Choseido)
F:	Arginotri-B (Bouchara)- comb. Dodécavit (L'Arguenon; as acetate) Hydroxo 5000 (Lipha Santé Division Aron-Médica) Inadrox (Logeais; as acetate)-comb. Néoparyl B12 (CIBA Vision Ophthalmics; as acetate)-comb. Terneurine H 5000 (Bristol- Myers Squibb; Labs. Allard)-comb. Vibalgan (Doms-Adrian; as acetate)-comb. generic and numerous combination preparations	I:	Idroxoc (Formulario Naz.) Idroxoc (Biologici Italia) Neocytamen (Teofarma) numerous combination preparations		Masblon H (Fuso) Nichicoba (Nichiiko) OH-B ₁₂ (Morishita) Rasedon (Sawai) Red-B (Kowa) Redisol H (Merck-Banyu) Runova (Squibb-Sankyo) Solco H (Tobishi) Tsuerumin S (Mohan) Twelvmin (Mohan) Vigolatin (Kowa)
		J:	Anemisol (Tobishi) Aquo B'av (Nippon Zoki) Bistin (Yamanouchi) B-Red S (Kyorin) B-Valet B ₁₂ (Tokyo Tanabe) Cobalamin H (Otsuka) Colsamine (Kanto) Dasvit H (Tanabe) Docelan (Nippon Roussel- Chugai) Dolevern (Seiko) Fresmin-S (Takeda; as acetate) Funacomin-F (Funai) Hicobala (Mitaka) Hicobalan (Maruko)	USA:	Bevitamel (Westlake)- comb. Chromagen (Savage)- comb. Mega-B (Arco)-comb. numerous combination preparations

Hydroxycarbamide

(Hydroxyurea)

ATC: L01XX05

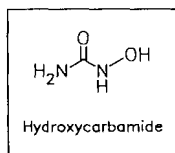
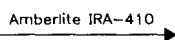
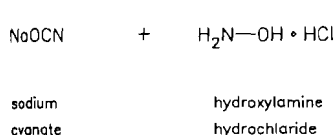
Use: antineoplastic

RN: 127-07-1 MF: CH₄N₂O₂ MW: 76.06 EINECS: 204-821-7LD₅₀: 2350 mg/kg (M, i.v.); 7330 mg/kg (M, p.o.);

4730 mg/kg (R, i.v.); 5760 mg/kg (R, p.o.);

>1 g/kg (dog, i.v.); >2 g/kg (dog, p.o.)

CN: hydroxyurea

*Reference(s):*

US 2 705 727 (Du Pont; 1955; prior. 1952).

Formulation(s): cps. 500 mg

Trade Name(s):

D:	Litalir (Bristol-Myers Squibb) Syrea (medac)	GB:	Hydrea (Bristol-Myers Squibb)	USA:	Hydrea (Bristol-Myers Squibb)
F:	Hydréa (Bristol-Myers Squibb)	I:	Onco-Carbide (Astra-Simes)		
		J:	Hydrea (Bristol)		

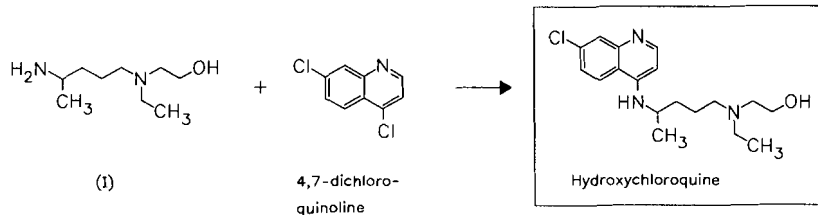
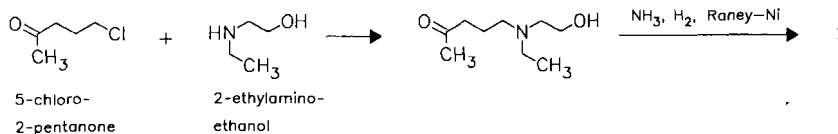
Hydroxychloroquine

ATC: P01BA02

Use: antirheumatic, antimalarial

RN: 118-42-3 MF: C₁₈H₂₆ClN₃O MW: 335.88 EINECS: 204-249-8LD₅₀: 1240 mg/kg (M, p.o.)

CN: 2-[4-[(7-chloro-4-quinolinyl)amino]pentyl]ethylamino]ethanol

sulfate (1:1)RN: 747-36-4 MF: C₁₈H₂₆ClN₃O · H₂SO₄ MW: 433.96 EINECS: 212-019-3**phosphate (1:2)**RN: 6168-85-0 MF: C₁₈H₂₆ClN₃O · 2H₃PO₄ MW: 531.87*Reference(s):*

US 2 546 658 (Sterling Drug; 1951; prior. 1949).

Formulation(s): drg. 200 mg (as hydrochloride)*Trade Name(s):*

D:	Quensyl (Sanofi Winthrop)	I:	Plaquenil (Maggioli-Winthrop)	Rhyumapirine S:Q (Nichiiko)
F:	Plaquénil (Sanofi Winthrop)	J:	Eroquin (Shionogi)	Toremonil (Iwaki)
GB:	Plaquenil (Sanofi Winthrop)		Plaquenil (Yamanouchi)	USA: Plaquenil (Sanofi Winthrop; as sulfate)

Hydroxyethyl salicylate

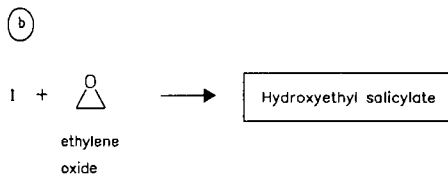
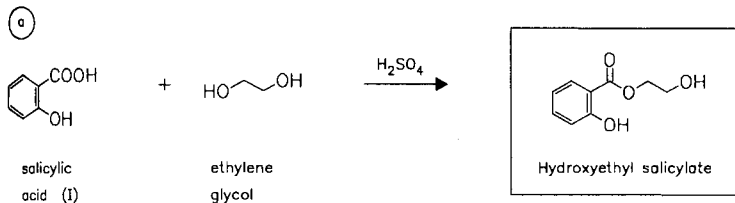
ATC: M02AC

Use: anti-inflammatory, analgesic

(Glycol salicylate)

RN: 87-28-5 MF: C₉H₁₀O₄ MW: 182.18 EINECS: 201-737-2

CN: 2-hydroxybenzoic acid 2-hydroxyethyl ester

**Reference(s):**

Kaufmann, H.P.: Arzneimittel-Synthese, Springer Verlag 1953, p. 79.
DD 218 616 (VEB Chem.-Pharmaz. Werk Oranienburg; appl. 18.4.1983).

Formulation(s): cream 10.55 g/100 g, 12.5 g/100 g; gel 10.55 g/100 g, 12.5 g/100 g; ointment 10.55 g/100 g, 12.5 g/100 g

Trade Name(s):

D:	Dolo-Arthronex (Brenner-Efeka)	ca. 100 combination preparations	I:	combination preparations only:
	Kytta-Gel (Merck Produkte)	GB: Cremalgin (Berk)-comb.; wfm		Balsamo Sifcamina (Midy)
	Lumbinon (Lichtenstein)	Dubam (Norma)-comb.; wfm		Disalgil (Also)
	Phlogont Salbe (Azupharma)	Salonair (Salonpas)-comb.; wfm		Lasoreum Crema (Bayer)
	Traumasenex (Brenner-Efeka; LAW)			Mobilisin (Luitpold)
				Salonpas (Farmila)
				Sloan balsamo (Parke Davis)

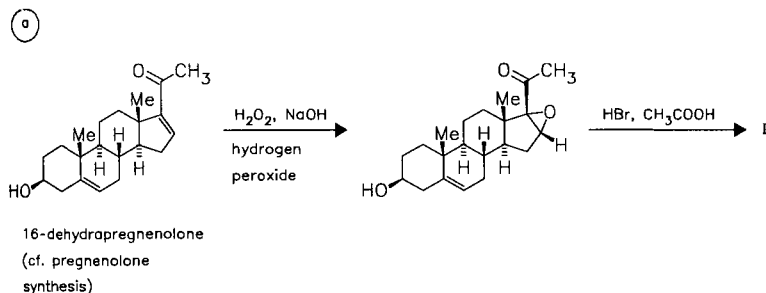
Hydroxyprogesterone

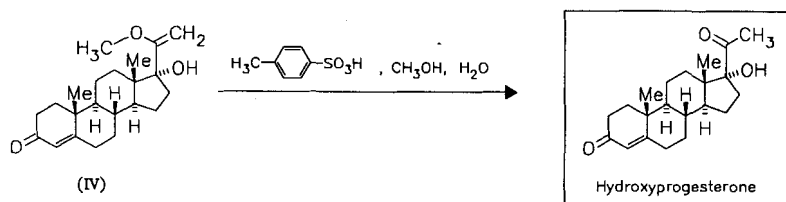
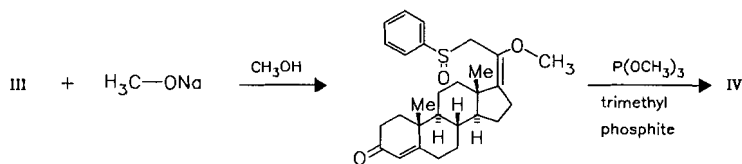
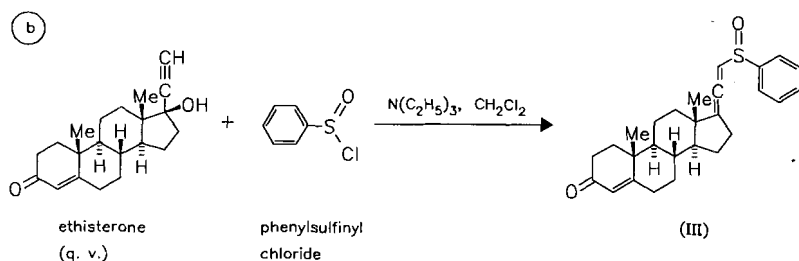
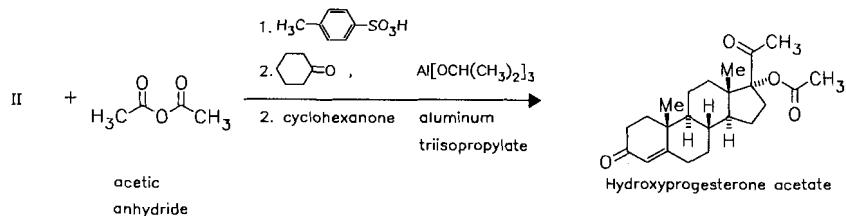
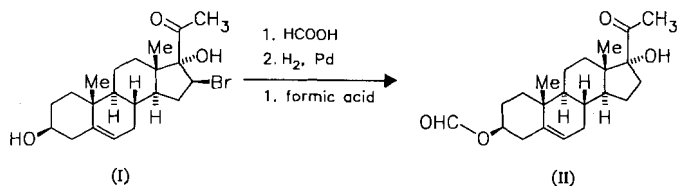
ATC: G03DA03
Use: progestogen

RN: 68-96-2 MF: $C_{21}H_{30}O_3$ MW: 330.47 EINECS: 200-699-4
CN: 17-hydroxypregn-4-ene-3,20-dione

acetate

RN: 302-23-8 MF: $C_{23}H_{32}O_4$ MW: 372.51 EINECS: 206-119-6



**Reference(s):**

- a** Ringold, H.J. et al.: J. Am. Chem. Soc. (JACSAT) **78**, 816 (1956).
US 2 802 839 (Syntex; 1957; appl. 1953; MEX-prior. 1953).
b US 4 041 055 (Upjohn; 9.8.1977; appl. 17.11.1975).

alternative syntheses:

- US 2 648 662 (Glidden; 1953; appl. 1949).
US 2 777 843 (Merck & Co.; 1957; appl. 1954).
US 2 786 857 (Merck & Co.; 1957; appl. 1954; prior. 1952).
US 2 813 060 (Upjohn; 1957; appl. 1955).
US 3 000 883 (Upjohn; 1961; appl. 1957).
Cutler, F.A. et al.: J. Org. Chem. (JOCEAH) **24**, 1629 (1959).

Formulation(s): amp. 250 mg/ml

Trade Name(s):

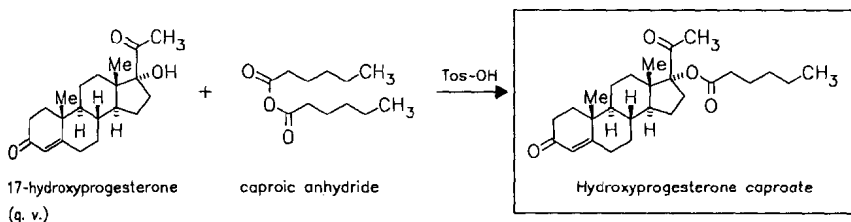
F:	Tocogestan (Théramex; as 17 α -heptanoate)-comb.	GB:	Proluton Depot (Schering; as hexanoate)
	Trophobolène (Théramex; as heptanoate)-comb.	USA:	Prodox (Upjohn; as acetate); wfm

Hydroxyprogesterone caproate

ATC: G03D
Use: depot progestogen

RN: 630-56-8 MF: C₂₇H₄₀O₄ MW: 428.61 EINECS: 211-138-8

CN: 17-[(1-oxohexyl)oxy]pregn-4-ene-3,20-dione

*Reference(s):*

US 2 753 360 (Schering AG; 1956; D-prior. 1953).

alternative synthesis:

Babcock, J.C. et al.: J. Am. Chem. Soc. (JACSAT) **80**, 2904 (1958).

Formulation(s): amp. 250 mg/ml, 500 mg/ml

Trade Name(s):

D:	Gravibinon (Schering)-comb.	GB:	Primolut Depot (Schering Chemicals); wfm	Oophormin Luteum Depot (Teikoku Zoki)
	Progesteron-Depot (Jenapharm)	I:	Gravibinan (Schering)-comb.	Proluton-Depot (Nichidoku)
	Proluton Depot (Schering)		Lentogest (Amsa)	USA: Delalutin (Squibb); wfm
F:	Progestérone-Retard-Pharlon (Schering)		Proluton Depot (Schering)	Dcluteval (Squibb)-comb.; wfm
		J:	Caprogen Depot (Kanto) Depot-Progen (Hokuriku)	Prodox (Legere); wfm

Hydroxystilbamidine isethionate

ATC: P01C
Use: antiprotozoal (Leishmania)

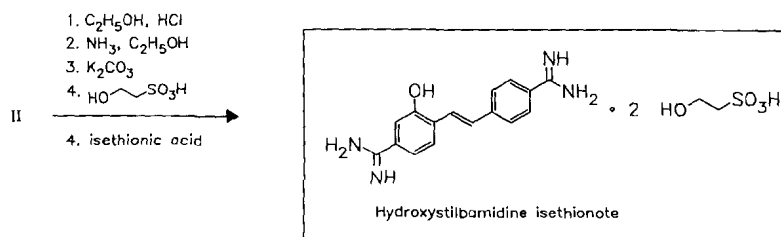
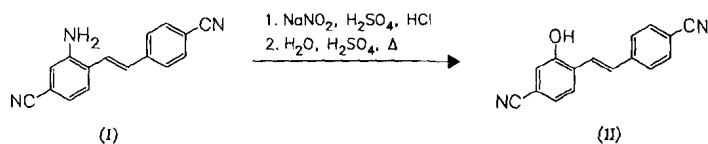
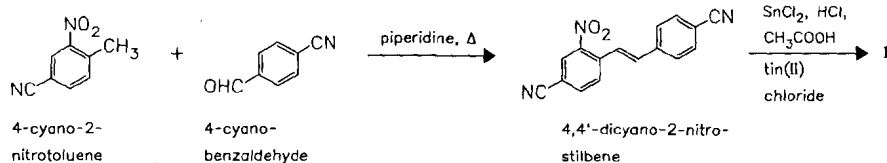
RN: 533-22-2 MF: C₁₆H₁₆N₄O · 2C₂H₆O₄S MW: 532.60 EINECS: 208-557-3

CN: 4-[2-[4-(aminoiminomethyl)phenyl]ethenyl]-3-hydroxybenzenecarboximidamide compd. with 2-hydroxyethanesulfonic acid (1:2)

hydroxystilbamidine

RN: 495-99-8 MF: C₁₆H₁₆N₄O MW: 280.33 EINECS: 207-811-0

LD₅₀: 27 mg/kg (M, i.v.)

**Reference(s):**

US 2 510 047 (May & Baker; 1950; GB-prior. 1941).

Formulation(s): vial 53.6 mg**Trade Name(s):**

GB: Hydroxystilbamide (May & Baker); wfm USA: Hydroxystilbamide isethionate (Merrell-National); wfm generic

Hydroxyzine

ATC: N05BB01
Use: tranquilizer

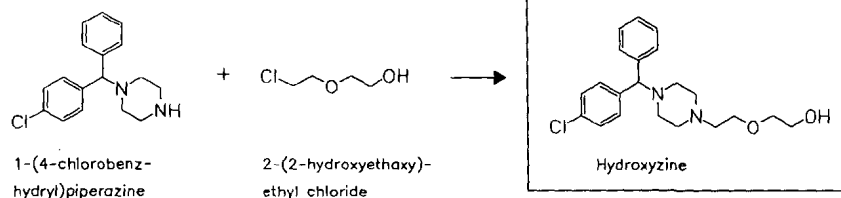
RN: 68-88-2 MF: $\text{C}_{21}\text{H}_{27}\text{ClN}_2\text{O}_2$ MW: 374.91 EINECS: 200-693-1

LD₅₀: 137 mg/kg (M, i.v.); 400 mg/kg (M, p.o.);
45 mg/kg (R, i.v.); 840 mg/kg (R, p.o.)

CN: 2-[2-[4-[(4-chlorophenyl)phenylmethyl]-1-piperazinyl]ethoxy]ethanol

dihydrochlorideRN: 2192-20-3 MF: $\text{C}_{21}\text{H}_{27}\text{ClN}_2\text{O}_2 \cdot 2\text{HCl}$ MW: 447.83 EINECS: 218-586-3

LD₅₀: 48.9 mg/kg (M, i.v.);
45 mg/kg (R, i.v.); 950 mg/kg (R, p.o.)

pamoateRN: 10246-75-0 MF: $\text{C}_{23}\text{H}_{16}\text{O}_6 \cdot \text{C}_{21}\text{H}_{27}\text{ClN}_2\text{O}_2$ MW: 763.29 EINECS: 233-582-1

Reference(s):

US 2 899 436 (UCB; 11.8.1959; B-prior. 30.10.1953).
 DE 1 049 383 (UCB; appl. 1954; B-prior. 1953).
 DE 1 061 786 (UCB; appl. 1954; B-prior. 1953).
 DE 1 068 262 (UCB; appl. 1954; B-prior. 1953).
 DE 1 072 624 (UCB; appl. 1954; B-prior. 1953).
 DE 1 075 116 (UCB; appl. 1954; B-prior. 1953).

Formulation(s): f. c. tabl. 10 mg, 25 mg; inj. sol. 100 mg/2 ml; syrup 10 mg/5 ml; tabl. 10 mg, 25 mg, 100 mg (as dihydrochloride)

Trade Name(s):

<p>D: AH3 (Rodleben)-comb. Atarax (Rodleben; UCB; Vedim; as hydrochloride) Beta-Intensain (Cassella)-comb. Diligan (Rodleben; Vedim; as hydrochloride)-comb. Elroquil (Rodleben; as hydrochloride)</p>	<p>F: Atarax (UCB; as dihydrochloride) GB: Atarax (Pfizer) Ucerax (UCB) I: Atarax (UCB) J: Atarax (Lederle-Pfizer Taito; as hydrochloride) Atarax P (Pfizer Taito; as pamoate)</p>	<p>USA: Atarax (Pfizer; as hydrochloride) Marax (Pfizer; as hydrochloride) Vistaril (Pfizer; as hydrochloride) Vistaril (Pfizer; as pamoate) generic</p>
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Hymecromone

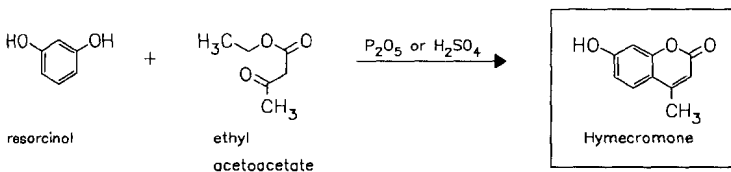
ATC: A05AX02

Use: choleric

RN: 90-33-5 MF: C₁₀H₈O₃ MW: 176.17 EINECS: 201-986-7

LD₅₀: 2850 mg/kg (M, p.o.);
 15 mg/kg (R, i.p.); 3850 mg/kg (R, p.o.)

CN: 7-hydroxy-4-methyl-2H-1-benzopyran-2-one

**Reference(s):**

Pechmann, H. v.; Duisberg, C.: Ber. Dtsch. Chem. Ges. (BDCGAS) **16**, 2119 (1883).
 FR-M 1 430 (Lipha; appl. 13.7.1961).
 Woods, L.L.; Sapp, J.: J. Org. Chem. (JOCEAH) **27**, 3703 (1962).

Formulation(s): amp. 200 mg; cps. 200 mg, 400 mg; tabl. 400 mg (as sodium salt)

Trade Name(s):

<p>D: Cholspasmin (Lipha) Cholspasmoletten (Dolorgiet) Gallo Merz Spasmo (Merz & Co.)</p>	<p>F: Cantabiline (Lipha Santé Division Aron-Médica) I: Cantabilin (Formenti) J: Croamon (Torii) Crodimon (Roussel)</p>	<p>Cumarote CD (Towa) Himecol (Kissei) Himecromon (Sawai) Paroamin (Zensei) generic</p>
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Ibandronate sodium monohydrate

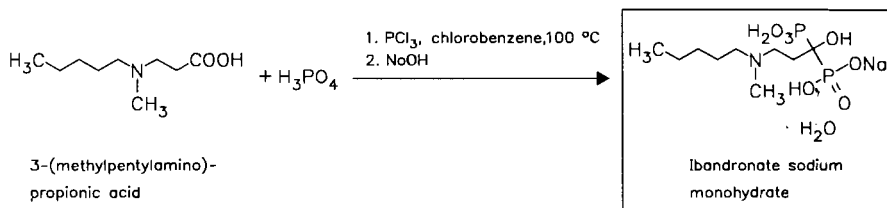
(BM-21.0955; Ibandronic acid monosodium salt)

ATC: M05BA06

Use: bone resorption inhibitor

RN: 138926-19-9 MF: C₉H₂₂NNaO₇P₂ · H₂O MW: 359.23

CN: [1-hydroxy-3-(methylpentylamino)propylidene]bisphosphonic acid monosodium salt monohydrate

anhydrousRN: 138844-81-2 MF: C₉H₂₂NNaO₇P₂ MW: 341.21**free acid**RN: 114084-78-5 MF: C₉H₂₃NO₇P₂ MW: 319.23*Reference(s):*

EP 252 504 (Boehringer Mannh.; appl. 9.7.1987; D-prior. 11.7.1986).

topical preparation:

EP 407 344 (Ciba-Geigy; appl. 28.6.1990; CH-prior. 7.7.1989).

oral formulation:

EP 566 535 (Ciba-Geigy; appl. 6.4.1993; CH-prior. 15.4.1992).

stable injection solution:

DE 4 228 552 (Boehringer Mannh.; appl. 27.8.1992; D-prior. 27.8.1992).

drymix formulation:

WO 9 412 200 (Merck & Co.; appl. 17.11.1993; USA-prior. 2.12.1992).

treatment of osteoporosis:

US 5 366 965 (Boehringer Mannh.; appl. 19.1.1993; USA-prior. 29.1.1993).

combination with growth hormone secretagogues:

WO 9 511 029 (Merck & Co.; appl. 18.10.1994; USA-prior. 19.10.1993).

Formulation(s): amp. 1 mg/ml, 2 mg/ml*Trade Name(s):*

D: Bondronat (Boehringer Mannh.)

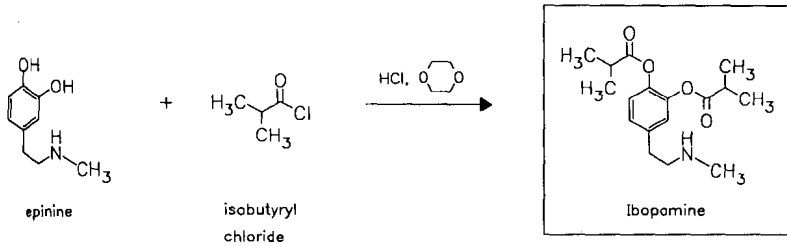
Ibopamine

ATC: C01CA16

Use: cardiotonic

RN: 66195-31-1 MF: C₁₇H₂₅NO₄ MW: 307.39 EINECS: 266-229-5

CN: 2-methylpropanoic acid 4-[2-(methylamino)ethyl]-1,2-phenylene ester

**Reference(s):**

US 4 218 470 (Hal. Med. Sint. Sim; 19.8.1980; appl. 28.7.1977; I-prior. 5.8.1976).
 US 4 302 471 (Hal. Med. Sint. Sim; 19.8.1980; appl. 28.7.1977; I-prior. 5.8.1976).
 DOS 2 734 678 (Simes; appl. 1.8.1977; J-prior. 5.8.1976).
 Casagrande, C. et al.: *Arzneim.-Forsch. (ARZNAD)* **36** (I), 291 (1986).

Formulation(s): tabl. 50 mg, 100 mg, 200 mg (as hydrochloride)

Trade Name(s):

I: Inopamil (Astra-Simes; Scandine (Zambon; 1984)

Ibudilast

(KC-404)

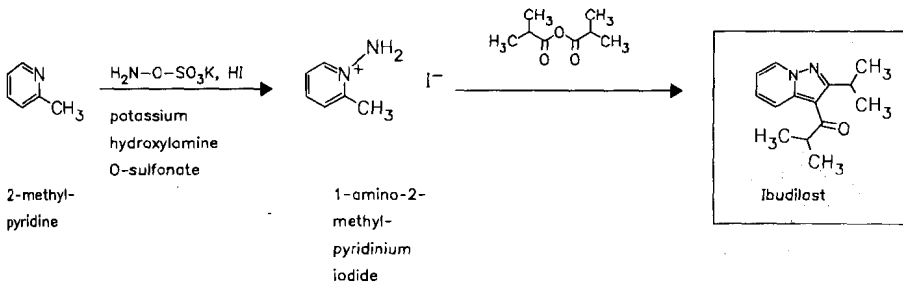
ATC: R03DX04

Use: antiallergic, leukotriene antagonist

RN: 50847-11-5 MF: C₁₄H₁₈N₂O MW: 230.31LD₅₀: 146 mg/kg (M, i.v.); 1860 mg/kg (M, p.o.);

42.5 mg/kg (R, i.v.); 1340 mg/kg (R, p.o.)

CN: 2-methyl-1-[2-(1-methylethyl)pyrazolo[1,5-a]pyridin-3-yl]-1-propanone

**Reference(s):**

DE 2 315 801 (Kyorin; appl. 29.3.1973; J-prior. 30.3.1972).
 US 3 850 941 (Kyorin; 26.11.1974; J-prior. 30.3.1972).

synthesis of 1-amino-2-methylpyridinium iodide:

Gösl, R.; Meuwesen, A.: *Chem. Ber. (CHBEAM)* **92**, 2521 (1959).

medical use for treatment of rheumatism:

EP 215 438 (Kyorin; appl. 10.9.1986; J-prior. 14.9.1985).

medical use for treatment of bronchial asthma, allergic rhinitis, urticaria:

JP 9 167 516 (Kyorin; appl. 21.9.1984; prior. 14.3.1983).

inhalant:

EP 320 002 (Kyorin; appl. 9.12.1988; J-prior. 10.12.1987).

transdermal formulation:

EP 319 902 (Kyorin; appl. 6.12.1988; J-prior. 10.12.1987).

controlled-release formulation:

EP 156 243 (Kyorin; appl. 12.3.1985; J-prior. 14.3.1984).

*synthesis of potassium hydroxylamine O-sulfonate:*Gösl, R.; Meuwsen, A.: Chem. Ber. (CHBEAM) **92**, 2521 (1959).*Formulation(s):* cps. 10 mg*Trade Name(s):*

J: Ketas (Kyorin; 1989)

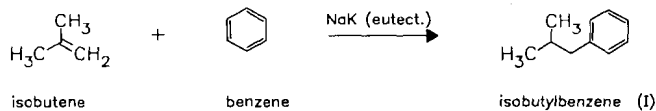
Ibuprofen

ATC: G02CC01; M01AE01; M02AA13

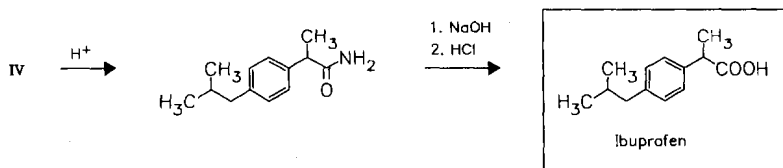
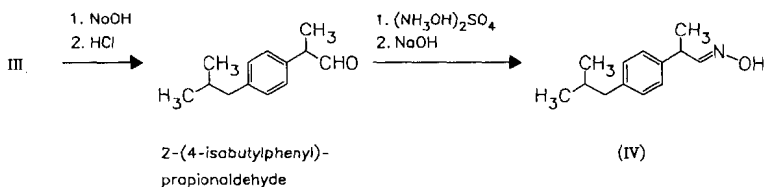
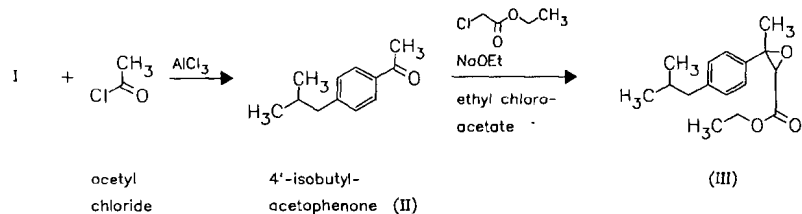
Use: anti-inflammatory, antirheumatic

RN: 15687-27-1 MF: C₁₃H₁₈O₂ MW: 206.29 EINECS: 239-784-6LD₅₀: 740 mg/kg (M, p.o.);

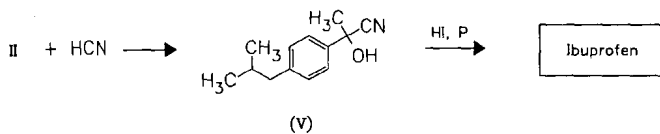
636 mg/kg (R, p.o.)

CN: α -methyl-4-(2-methylpropyl)benzeneacetic acid

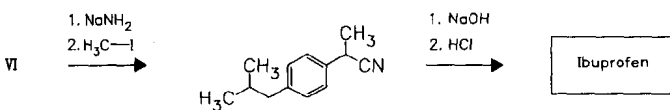
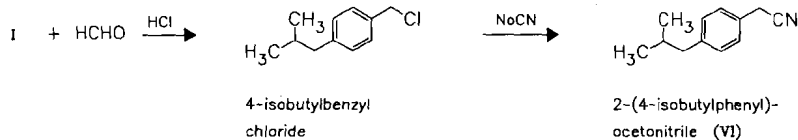
○ Boots process (industrial process)



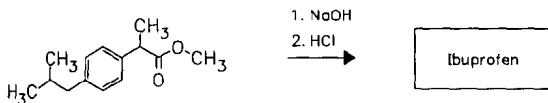
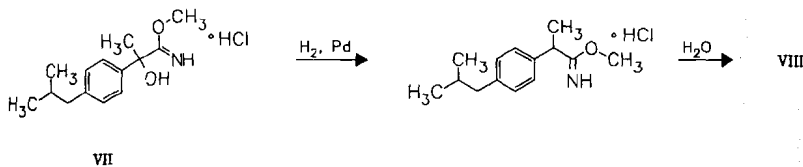
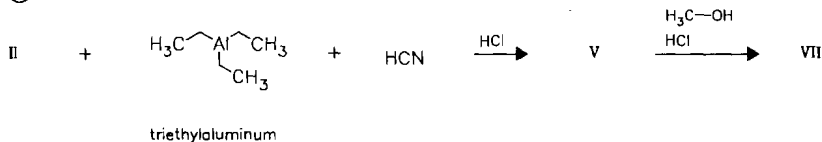
(b)



(c)

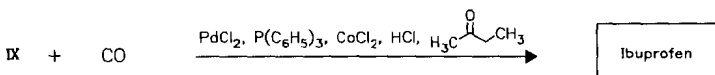
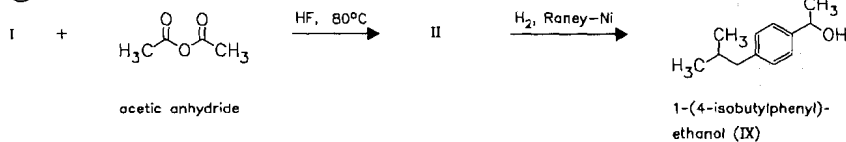


(d) Ethyl process



ibuprofen methyl ester (VIII)

(e) BHC (Boots-Hoechst-Celonese) process (industrial)



Reference(s):

- DE 1 443 429 (Boots; appl. 26.1.1962; GB-prior. 2.2.1961).
a,b GB 971 700 (Boots; appl. 2.2.1961).
 US 3 228 831 (Boots; 11.1.1966; GB-prior. 2.2.1961).
 US 3 385 886 (Boots; 28.5.1968; GB-prior. 2.2.1961).
c GB 1 514 812 (Boots; appl. 4.4.1975; valid from 31.3.1976).

similar method:

US 3 959 364 (Boots; 25.5.1976; GB-prior. 24.5.1973).

from 4'-isobutylacetophenone:

GB 1 160 725 (Boots; appl. 25.11.1966; valid from 20.11.1967).
 US 4 021 478 (Upjohn; 3.5.1977; prior. 13.7.1972).

from 4'-isobutylpropiophenone by oxidation with thallium(III) nitrate:

GB 1 535 690 (Upjohn; appl. 20.5.1977; USA-prior. 16.6.1976).
 Walker, J.A.; Pillai, M.D.: *Tetrahedron Lett.* (TELEAY) **42**, 3707 (1977).

from vinyl isobutyl ketone and diethyl 2-acetyl-3-methylsuccinate:

GB 1 265 800 (Boots; appl. 5.11.1968 and 15.11.1968; valid from 16.10.1969).
 DOS 2 719 304 (Upjohn; appl. 29.4.1977; USA-prior. 24.5.1976, 15.3.1977).
 DOS 2 806 424 (Upjohn; appl. 15.2.1978; USA-prior. 17.3.1977).
 US 4 096 177 (L. Baiocchi; 20.6.1978; I-prior. 11.4.1974).

from 1-(4-isobutylphenyl)ethyl chloride via the Grignard compound:

DOS 2 605 650 (Ind. Chim. Prodotti Francis; appl. 12.2.1976; I-prior. 22.5.1975).

alternative syntheses:

DOS 2 404 159 (Nisshin Flour Milling; appl. 29.1.1974; J-prior. 29.1.1973).
 DOS 2 646 792 (Mitsubishi Petrochemical; appl. 16.10.1976; J-prior. 23.10.1975, 31.7.1976).
 DAS 2 709 504 (Sagami; appl. 4.3.1977; J-prior. 4.3.1976, 27.12.1976).
 DOS 2 724 702 (Valles Chimica; appl. 1.6.1977; E-prior. 2.6.1976).
 US 4 016 196 (Nisshin Flour Milling; 5.4.1977; J-prior. 27.7.1974, 29.7.1974).
 US 4 131 747 (Ono Pharmaceutical; 26.12.1978; J-prior. 19.11.1975).
 BE 859 846 (Sagami; appl. 27.12.1976; J-prior. 18.10.1976).
 DOS 2 824 856 (Upjohn; appl. 6.6.1978; USA-prior. 16.6.1977).

(S)-ibuprofen:

Cleij, M. et al.: *J. Org. Chem.* (JOCEAH) **64**, 5029-5035 (1999)

Formulation(s): amp. 400 mg; drg. 200 mg, 400 mg; eff. gran. 200 mg; f. c. tabl. 200 mg, 400 mg, 600 mg; s. r. tabl. 800 mg; suppos. 600 mg; syrup 100 mg/5 ml

Trade Name(s):

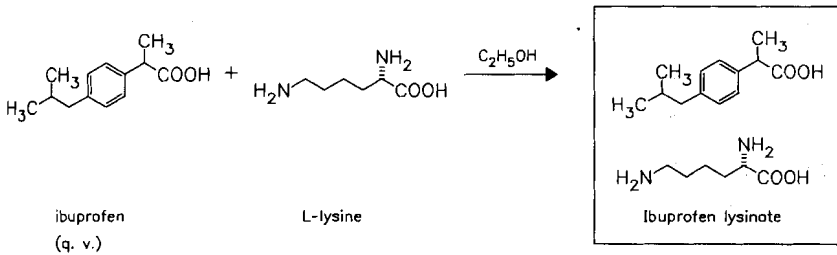
D:	Aktren (Bayer Vital)	Ibuhexal (Hexal)	Antalfène (Bouchara Santé Active)
	Anco (Kanoldt)	Ibumerck (Merck)	Brufen (Lab. Knoll; 1972)
	Brufen (Kanoldt; 1971)	Generika)	Dolgit (Lab. Merck-Clévenot)
	Dignoflex (Sankyo)	Imbun (Merckle)	Ergix (Murat)
	Dolgit (Dolorgiet)	Jenaprofen (Jenapharm)	Gélufène (Lab. CPF)
	DOLO PUREN (Isis Puren)	Novogent (Temmler)	Nurofen (Lab. Boots Healthcare)
	Dolormin (Woelm)	Opturem (Kade)	Oralfène (Pierre Fabre Médicament)
	Duralbuprofen (durachemie)	Parsal (Brenner-Efeka)	Rhinadvil (Whitehall)-comb.
	Esprenit (Hennig)	Tempil (Temmler)	
	Exneural (BASF Generics)	Togal (Togal)	
	Ibu (AbZ-Pharma)	Urem (Kade)	
	Ibu Beta (betapharm)	F: Advil (Whitehall)	
	Ibufug (Wolff)	Algifène (Lab. Nicolas, Division de LRN SA)	

GB: Brufen Retard (Knoll; 1969) Fenbid spansule (Goldshield) Motrin (Pharmacia & Upjohn) numerous generics	J: Andran (Takata) Anflagen (Ohta) Bluton (Morishita) Brufanic (Teiyo; 1976) Brufen (Kakenyaku) Buburone (Towa) Butylenin (Sanwa) Daiprophen (Daito) Donjust-B (Horita) Epinal (Mitsubishi Yuka) Epobron (Ono) Eputes (Kobayashi Kako) IB-100 (Hishiyama) Ibuprocin (Nisshin) Lamidon (Kowa)	Landelun (Tsuruhara) Liptan (Kowa) Manypren (Zensei) Mynosedin (Toho Yakuhin) Napacetin (Toyama) Nobfelon (Toho) Nobfen (Toho) Nobgen (Kanebo) Roidenin (Showa) Sednafen (Taisho) generic USA: Motrin (McNeil) Vicoprofen (Knoll) generics
I: Algofen (Blue Cross) Antagil (Janssen) Brufen (Boots Italia; 1972) Brufort (Lampugnani) Dolocyl (Novartis) Moment (Angelini) Nurofen (Boots Italia) generics		

Ibuprofen lysinate

ATC: M01AE; M02AA
Use: anti-inflammatory, analgesic

RN: 57469-77-9 MF: $C_{13}H_{18}O_2 \cdot C_6H_{14}N_2O_2$ MW: 352.48 EINECS: 260-751-7
LD₅₀: 299 mg/kg (M, p.o.);
841 mg/kg (R, p.o.)
CN: L-lysine mono[α -methyl-4-(2-methylpropyl)benzeneacetate]

*Reference(s):*

DOS 2 419 317 (Neopharmed; appl. 22.4.1974; I-prior. 22.3.1974).
GB 1 497 044 (SpA Soc. Prodotti Antibiotici; appl. 6.3.1975; prior. 7.3.1974).

Formulation(s): eff. tabl. 342 mg; f. c. tabl. 250 mg, 500 mg; gel 10 %; s. r. tabl. 800 mg; suppos. 500 mg; vial (lyo.) 400 mg

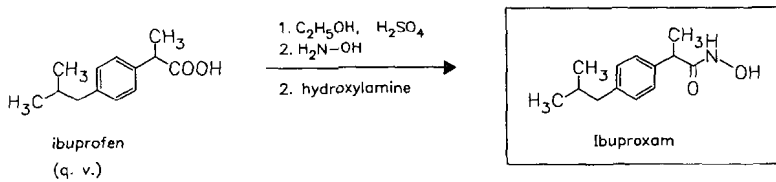
Trade Name(s):

D: Imbun (Merckle); wfm I: Aciril (Delalande Isnardi) Arfen (Lisapharma)

Ibuproxam

ATC: M01AE13; M02AA
Use: anti-inflammatory

RN: 53648-05-8 MF: $C_{13}H_{19}NO_2$ MW: 221.30 EINECS: 258-683-8
LD₅₀: >2 g/kg (M, p.o.);
>3 g/kg (R, p.o.)
CN: N-hydroxy- α -methyl-4-(2-methylpropyl)benzeneacetamide

**Reference(s):**

DOS 2 400 531 (Manetti Roberts; appl. 7.1.1974; I-prior. 8.1.1973, 5.7.1973).

Formulation(s): ointment 5 %; suppos. 600 mg; tabl. 300 mg**Trade Name(s):**

I: Deflogon (Damor); wfm

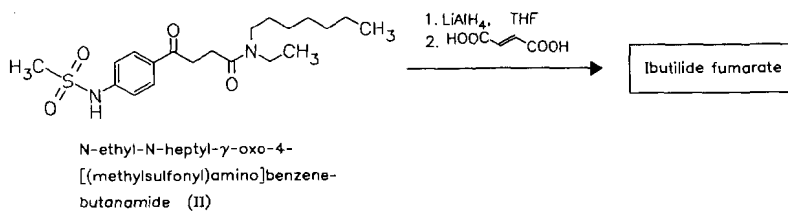
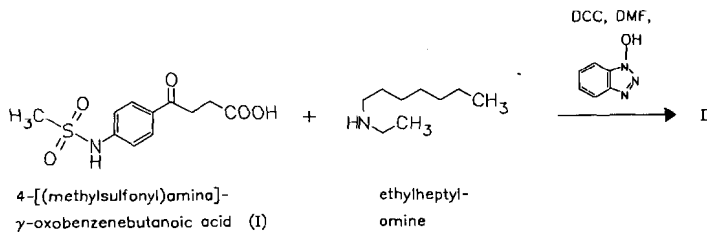
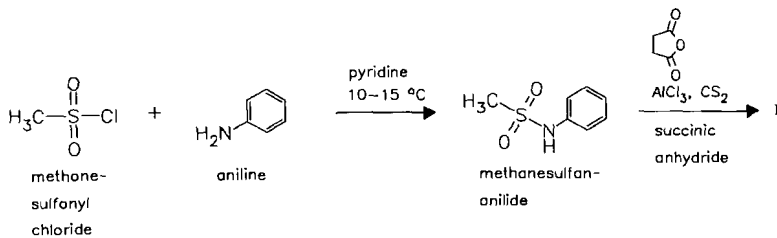
Ibudros (Manetti Roberts)

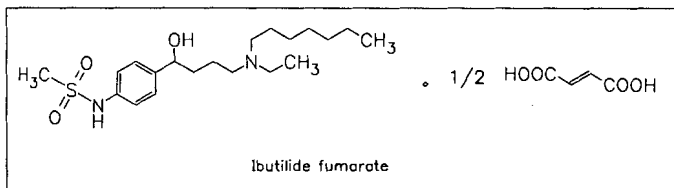
Ibutilide fumarate

(U-70226E)

ATC: C01BD05

Use: antiarrhythmic

RN: 122647-32-9 MF: $C_{20}H_{36}N_2O_3S \cdot 1/2C_4H_4O_4$ MW: 885.24LD₅₀: 94.2 mg/kg (R, i. v.)CN: *N*-[4-[4-(ethylheptylamino)-1-hydroxybutyl]phenyl]methanesulfonamide (*E*)-2-butenedioate (2:1) (salt)**base**RN: 122647-31-8 MF: $C_{20}H_{36}N_2O_3S$ MW: 384.59

**Reference(s):**

EP 164 865 (Upjohn; appl. 1.5.1985; USA-prior. 4.5.1984).

Hester, J.B. et al.: J. Med. Chem. (JMCMAR) **34** (1), 308 (1991).

controlled-release formulation:

WO 9 421 237 (Univ. Michigan; appl. 15.3.1994; USA-prior. 15.3.1993).

Formulation(s): vial 1 mg/ml

Trade Name(s):

USA: Corvert (Pharmacia & Upjohn)

Idarubicin

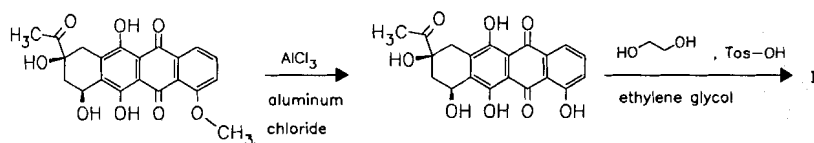
ATC: L01DB06

Use: antineoplastic, anthracycline

RN: 58957-92-9 **MF:** C₂₆H₂₇NO₉ **MW:** 497.50

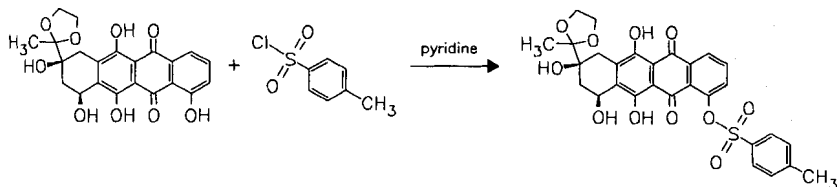
LD₅₀: 3 mg/kg (M, i.p.); 4 mg/kg (M, i.v.); 16 mg/kg (M, p.o.)

CN: (7*S*-*cis*)-9-acetyl-7-[(3-amino-2,3,6-trideoxy- α -L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,9,11-trihydroxy-5,12-naphthacenedione



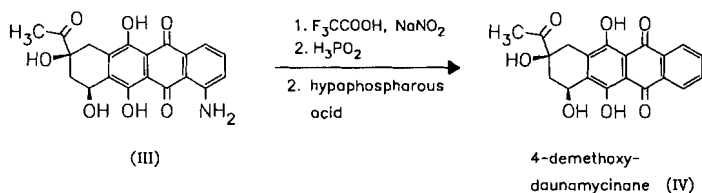
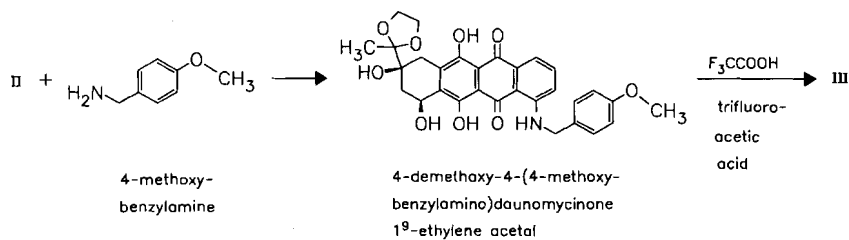
daunomycinone

4-O-demethyl-
daunomycinone



4-O-demethyl-daunomycinone 1⁹-ethylene acetal (I)

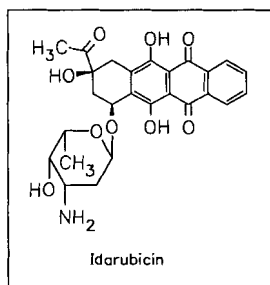
4-O-demethyl-4-O-(p-toluenesulfonyl)daunomycinone 1⁹-ethylene acetal (II)



a

IV

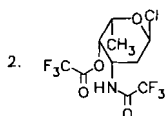
fermentation
with *S. peucetius* corneus,
S. caeruleus, *S. caerulearubidas*



b

IV

1. HgO , HgBr_2 , molecular sieve 0.5 nm



3. NaOH

2,3,6-trideoxy-3-trifluoroacetamido-4-O-trifluoroacetyl- α -L-lyxo-hexopyranosyl chloride

Idarubicin

Reference(s):

- a US 4 471 052 (Adria; 9.11.1984; appl. 18.1.1982).
b DOS 2 525 633 (Soc. Farmaceutici; appl. 6.9.1975; GB-prior. 16.12.1974).
US 4 046 878 (Soc. Farmaceutici; 9.6.1977; appl. 22.5.1975; GB-prior. 6.12.1974).

alternative synthesis:

Arcamone, F. et al.: *Experientia (EXPEAM)* **34**, 1255 (1978).

synthesis of 4-demethoxydaunomycinone:

EP 328 399 (Farmitalia; appl. 2.10.1989; GB-prior. 2.12.1988).

lyophilisate:

GB 2 165 751 (Farmitalia; appl. 22.10.1984).

Formulation(s): cps. 5 mg, 10 mg, 25 mg; vial 5 mg, 10 mg (as hydrochloride)

Trade Name(s):

D:	Zavedos (Pharmacia & Upjohn)	GB:	Zavedos (Pharmacia & Upjohn)	J:	Idamycin (Pharmacia & Upjohn; as hydrochloride)
F:	Zavedos (Pharmacia SA; as hydrochloride)	I:	Zavedos (Pharmacia & Upjohn)	USA:	Idamycin (Pharmacia & Upjohn; as hydrochloride)

Idebnone

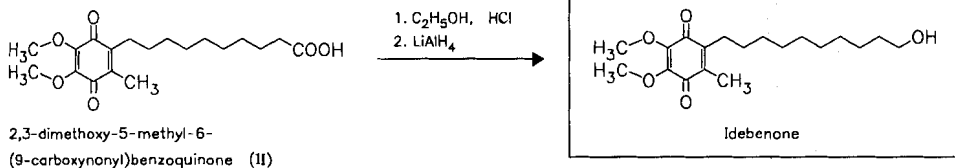
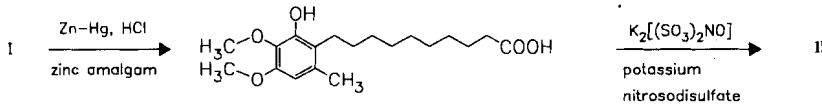
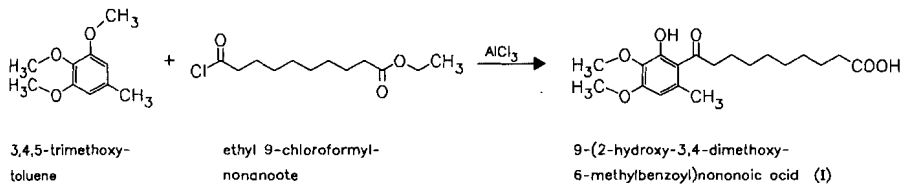
(CV-2619)

ATC: C01EB; N06BX13; N07X
 Use: senile dementia therapeutic, coenzyme Q10 derivative, nootropic

RN: 58186-27-9 MF: C₁₉H₃₀O₅ MW: 338.44LD₅₀: >10 g/kg (M, p.o.);

10 g/kg (R, p.o.)

CN: 2-(10-hydroxydecyl)-5,6-dimethoxy-3-methyl-2,5-cyclohexadiene-1,4-dione

**Reference(s):**

- DOS 2 519 730 (Takeda; appl. 2.5.1975; J-prior. 2.5.1974).
 JP 51 128 932 (Takeda; appl. 10.11.1976).
 JP 59 039 855 (Takeda; appl. 27.8.1982).
 US 4 139 545 (Takeda; 13.2.1979; J-prior. 2.5.1974).
 US 4 271 083 (Takeda; 2.6.1981; J-prior. 2.5.1974).
 US 4 525 361 (Takeda; 13.2.1979; appl. 3.4.1975; J-prior. 2.5.1974).

medical use for the therapy of ischemic disease:

- EP 31 727 (Takeda; appl. 29.12.1980; J-prior. 30.12.1979).
 DOS 3 049 039 (Takeda; appl. 24.12.1980; J-prior. 30.12.1979).

medical use for treatment of allergic disease:

- EP 38 674 (Takeda; appl. 15.4.1981; J-prior. 21.4.1980).

medical use for treatment of fibrosis:

- DOS 3 311 922 (Takeda; appl. 31.3.1983; J-prior. 6.4.1982).
 Okamoto, K. et al.: Chem. Pharm. Bull. (CPBTAL) **33**, 3745; 3756 (1985).
 Goto, G. et al.: Chem. Pharm. Bull. (CPBTAL) **33**, 4422 (1985).

alternative synthesis:

EP 21 841 (Takeda; appl. 27.6.1980; J-prior. 28.6.1979).

EP 58 057 (Takeda; appl. 4.2.1982; J-prior. 9.2.1981).

Formulation(s): drg. 30 mg, 45 mg; tabl. 30 mg*Trade Name(s):*

I: Daruma (Cyanamid)

Mnesis (Takeda)

J: Avan (Takeda; 1987)

Idoxuridine

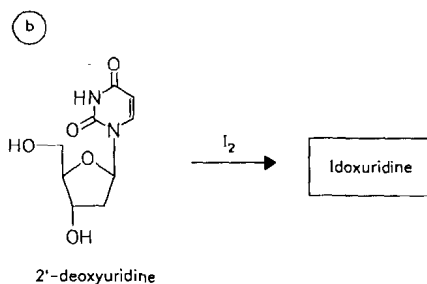
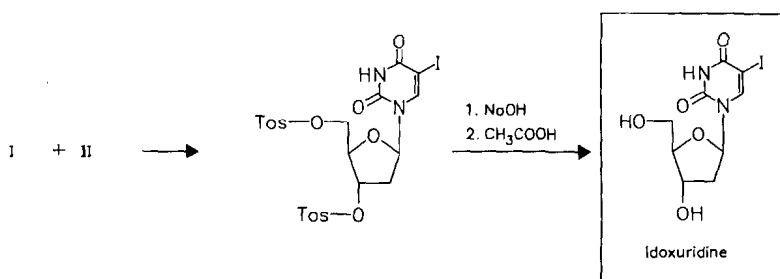
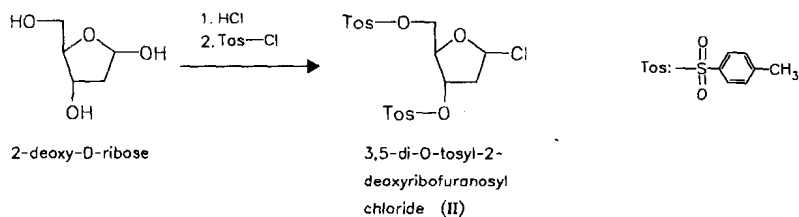
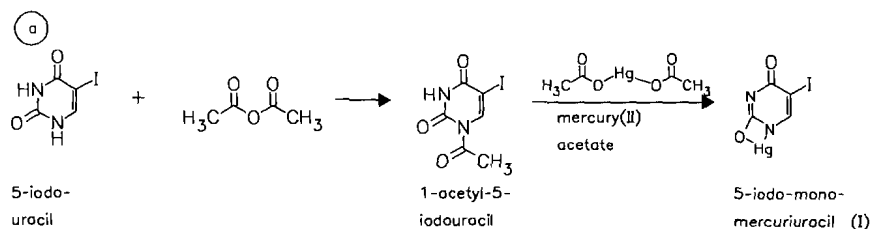
ATC: D06BB01; J05AB02; S01AD01

Use: chemotherapeutic (Herpes simplex)

RN: 54-42-2 MF: C₉H₁₁IN₂O₅ MW: 354.10 EINECS: 200-207-8LD₅₀: 1 g/kg (M, i.p.);

4 g/kg (R, i.p.)

CN: 2'-deoxy-5-iodouridine



Reference(s):

Chang, P.K.; Welch, A.D.: J. Med. Chem. (JMCMAR) 6, 428 (1963).

FR 1 336 866 (Roussel-Uclaf; appl. 27.7.1962).

GB 1 024 156 (Roussel-Uclaf; appl. 24.7.1963; F-prior. 27.7.1962).

Formulation(s): eye drops 0.1 %; ointment 0.2 %, 0.5 %; sol. 5 %, 10 %, 40 %*Trade Name(s):*D: Idugalen (Pharmagalen)
Ophthal (Winzer)
Virunguent (Hermal)
Zostrum (Galderma)I: Iduridin (Ferring)
Iducher (Farmigea)
Iducol (SIFI)-comb.
Iduridin (Geymonat)
Idustatin (Delalande
Isnardi)-comb.J: I.D.U. (Sumitomo)
USA: Dendrid (Alcon); wfm
Herplex (Allergan); wfm
Stoxil (Smith Kline &
French); wfm

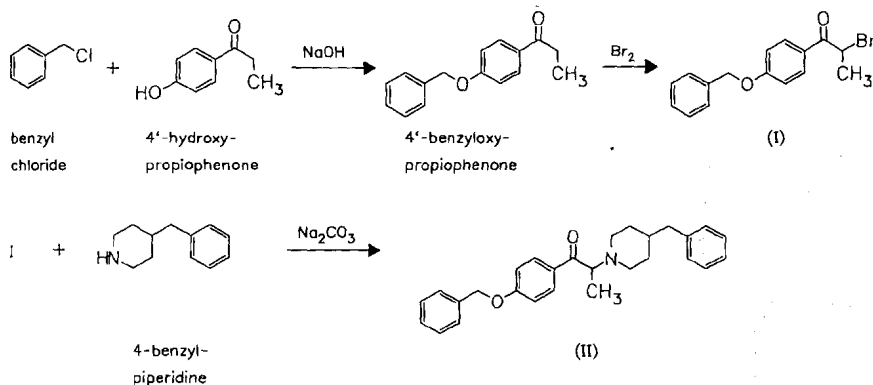
F: Iduviran (Chauvin)

GB: Herpid (Yamanouchi)

Ifenprodil

ATC: C04AX28

Use: cerebral and peripheral vasodilator

RN: 23210-56-2 MF: C₂₁H₂₇NO₂ MW: 325.45 EINECS: 245-491-4LD₅₀: 320 mg/kg (M, p.o.)CN: α -(4-hydroxyphenyl)- β -methyl-4-(phenylmethyl)-1-piperidineethanol**tartrate (2:1)**RN: 23210-58-4 MF: C₂₁H₂₇NO₂ · 1/2C₄H₆O₆ MW: 800.99 EINECS: 245-493-5*Reference(s):*

DAS 1 695 772 (Lab. Robert et Carrière; appl. 7.9.1967; F-prior. 27.9.1966).

FR 5 733 M (Lab. Robert et Carrière; appl. 27.9.1966).

US 3 509 164 (Lab. Robert et Carrière; 28.4.1970; F-prior. 27.9.1966).

Formulation(s): amp. 5 mg/2 ml; tabl. 20 mg (as tartrate)

Trade Name(s):

F: Vadilex (Synthelabo; 1972) J: Cerocral (Funai; 1979)

Ifosfamide

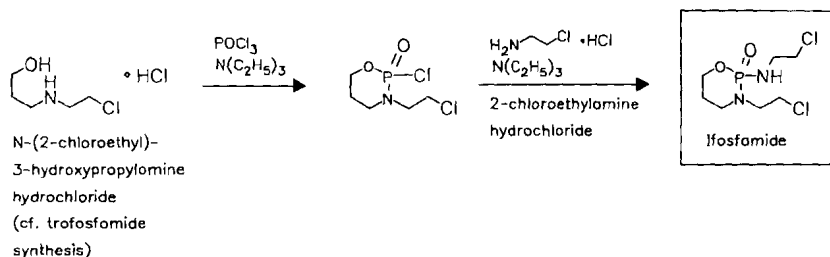
ATC: L01AA06

Use: antineoplastic

RN: 3778-73-2 MF: $C_7H_{15}Cl_2N_2O_2P$ MW: 261.09 EINECS: 223-237-3LD₅₀: 338 mg/kg (M, i.v.); 1005 mg/kg (M, p.o.);

190 mg/kg (R, i.v.); 143 mg/kg (R, p.o.)

CN: N,3-bis(2-chloroethyl)tetrahydro-2H-1,3,2-oxazaphosphorin-2-amine 2-oxide



Reference(s):

DAS 1 645 921 (ASTA-Werke; appl. 11.7.1966).

Formulation(s): vial 200 mg, 500 mg, 1 g, 2 g (dry powder)

Trade Name(s):

D: Holoxan (ASTA Medica
AWD)GB: Mitoxana (ASTA Medica)
I: Holoxan (ASTA Medica)USA: Ifex (Bristol-Myers
Squibb)

F: Holoxan (ASTA Medica)

J: Ifomide (Shionogi)

Iloprost

(Ciloprost; E-1030; SH-401; ZK-36374)

ATC: B01AC11

Use: vasodilator, platelet aggregation
inhibitorRN: 78919-13-8 MF: $C_{22}H_{32}O_4$ MW: 360.49

CN: 5-[Hexahydro-5-hydroxy-4-(3-hydroxy-4-methyl-1-octen-6-ynyl)-2(1H)-pentalenyldiene]pentanoic acid

(4R)

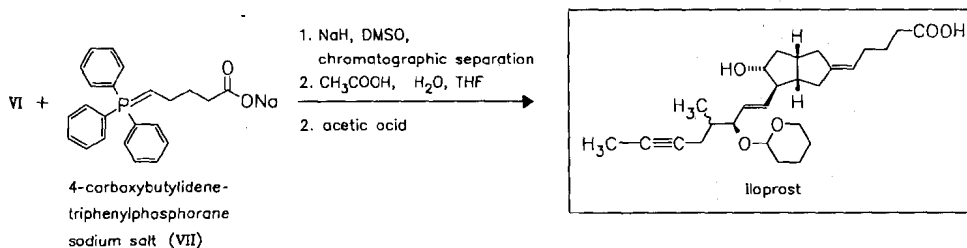
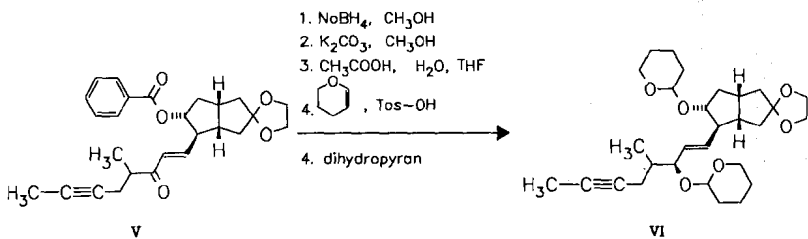
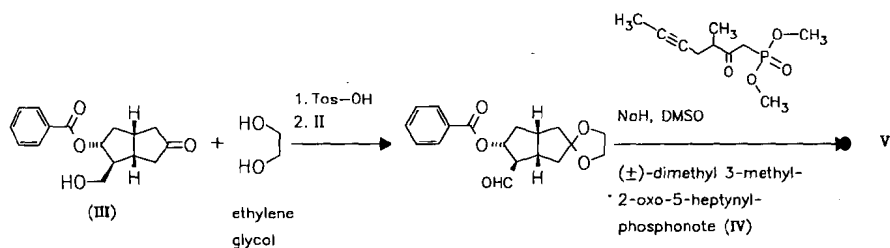
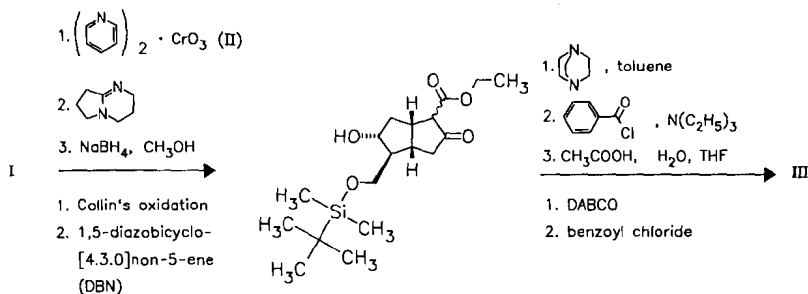
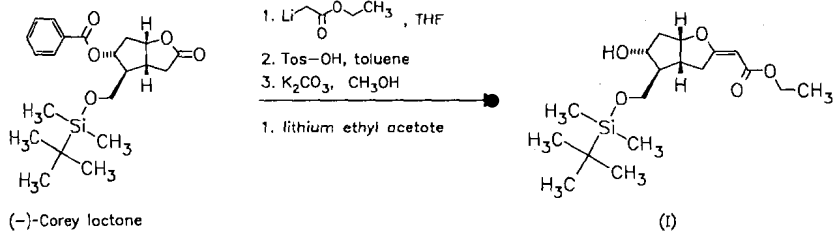
RN: 74843-30-4 MF: $C_{22}H_{32}O_4$ MW: 360.49

(4S)

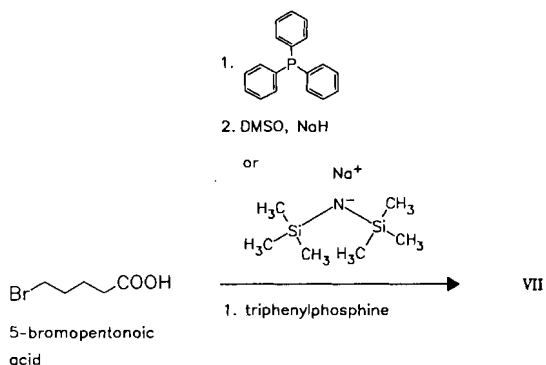
RN: 74843-14-4 MF: $C_{22}H_{32}O_4$ MW: 360.49

trometamol salt

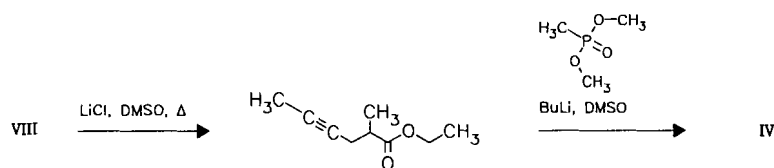
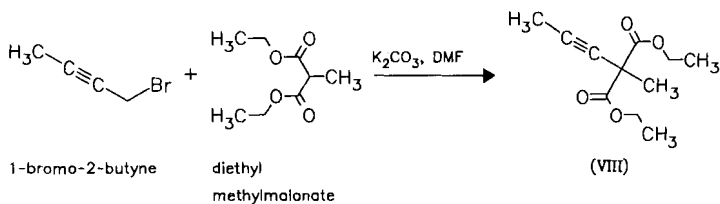
RN: 73873-87-7 MF: $C_{26}H_{43}NO_7$ MW: 481.63



preparation of 4-carboxybutylidetriphenylphosphorane sodium salt



preparation of (±)-dimethyl 3-methyl-2-oxo-5-heptynylphosphonate

*Reference(s):*

DE 2 845 770 (Schering AG; D-prior. 19.10.1978)

DE 3 839 155 (Schering AG; D-prior. 17.11.1988)

Skuballa, W.; Vorbrueggen, H.: *Angew. Chem. (ANCEAD)* **93** (12), 1080 (1981)*preparation of 4-carboxybutylidetriphenylphosphorane sodium salt:*Martinelli, M.J.: *J. Org. Chem. (JOCEAH)* **55** (17), 5065 (1990).Johnson, F.P. et al.: *J. Am. Chem. Soc. (JACSAT)* **104** (8), 2190 (1982).Niwa, H. et al.: *Tetrahedron (TETRAB)* **50** (25), 7385 (1994).*preparation of (±)-dimethyl 3-methyl-2-oxo-5-heptynylphosphonate:*

DE 2 729 960 (Schering AG; prior. 30.6.1977).

footnote [6] in: Skuballa, W.; Vorbrueggen, H.: *Angew. Chem. (ANCEAD)* **93** (12), 1080 (1981).*(E)- or (Z)-selective Wittig reactions in the synthesis of carbacyclins:*Westermann, J.; Harre, M.; Hickisch, K.: *Tetrahedron Lett. (TELEAY)* **33** (52), 8055 (1992).*alternative synthesis of cis-bicyclo[3.3.0]octylidene derivative:*

EP 153 822 (Sagami Chemical Research Center; J-prior. 10.2.1984).

Sodeoka, M.; Ogawa, Y.; Kirio, Y.; Shibasaki, M.: *Chem. Pharm. Bull. (CPBTAL)* **39** (2), 309 (1991)*Formulation(s):* amp. 50 µg/0.5 ml, 100 µg/1 ml (as trometamol salt)

Trade Name(s):

D: Ilomedin (Schering; 1992) I: Endoprost (Schering)
 F: Ilomedine (Schering) Ilomedin (Schering)

Imidapril

(TA-6366)

ATC: C09A
 Use: antihypertensive (ACE inhibitor)

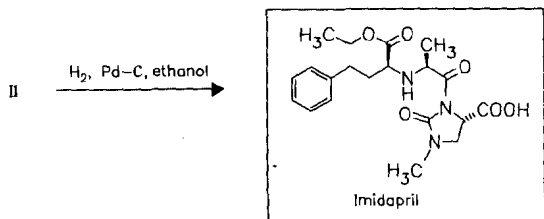
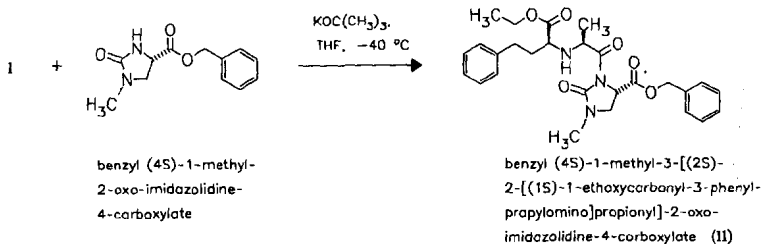
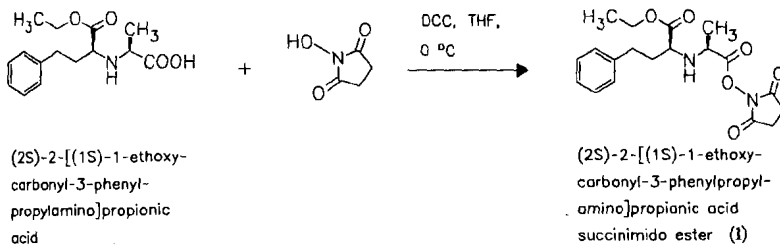
RN: 89371-37-9 MF: C₂₀H₂₇N₃O₆ MW: 405.45

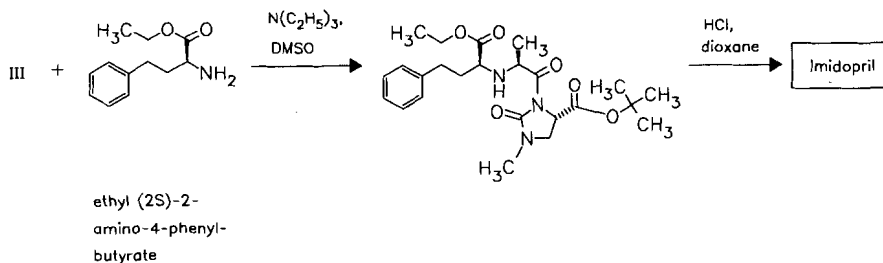
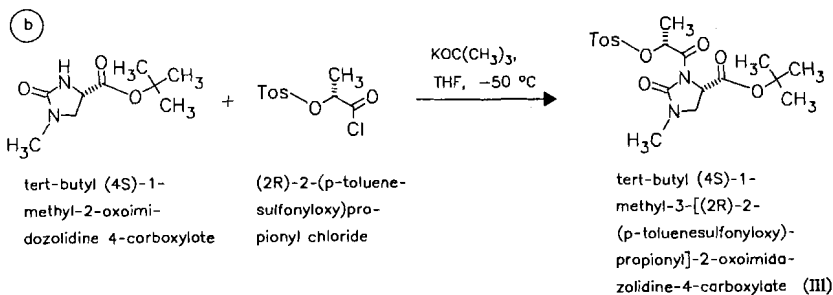
CN: [4S-[3R*(R*),4R*]]-3-[2-[[1-(ethoxycarbonyl)-3-phenylpropyl]amino]-1-oxopropyl]-1-methyl-2-oxo-4-imidazolidinecarboxylic acid

monohydrochloride

RN: 89396-94-1 MF: C₂₀H₂₇N₃O₆ · HCl MW: 441.91

ⓐ



*Reference(s):*

- a EP 95 163 (Tanabe Seiyaku; appl. 20.5.1983; J-prior. 24.5.1982).
 b EP 373 881 (Tanabe Seiyaku; appl. 12.12.1989; J-prior. 16.12.1988).

formulation with increased stability:

JP 06 100 447 (Tanabe Seiyaku; appl. 24.9.1992; J-prior. 24.9.1992).

composition for treatment of kidney diseases:

JP 272 849 (Tanabe Seiyaku; appl. 10.12.1987; J-prior. 12.12.1986).

composition for treatment of heart failure:

EP 274 230 (Tanabe Seiyaku; appl. 8.12.1987; J-prior. 9.12.1986).

Formulation(s): tabl. 2.5 mg, 5 mg, 10 mg (as hydrochloride)

Trade Name(s):

J: Novaroc (Nihon Schering) Tanatril (Tanabe Seiyaku)

Imipenem

(Imipemide)

ATC: J01DH51

Use: β -lactam antibiotic

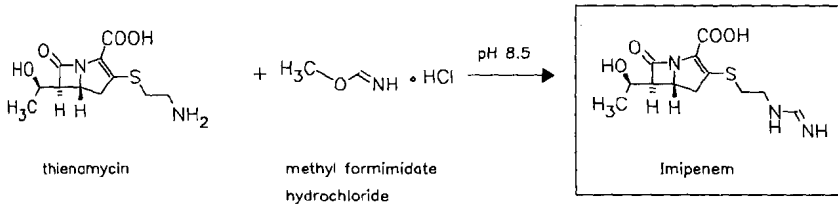
RN: 64221-86-9 MF: $\text{C}_{12}\text{H}_{17}\text{N}_3\text{O}_4\text{S}$ MW: 299.35 EINECS: 264-734-5

LD_{50} : 1660 mg/kg (M, i.v.); >5 g/kg (M, p.o.);
 1972 mg/kg (R, i.v.); >5 g/kg (R, p.o.)

CN: [5R-[5 α ,6 α (R*)]]-6-(1-hydroxyethyl)-3-[[2-[(iminomethyl)amino]ethyl]thio]-7-oxo-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid

monohydrate

RN: 74431-23-5 MF: $\text{C}_{12}\text{H}_{17}\text{N}_3\text{O}_4\text{S} \cdot \text{H}_2\text{O}$ MW: 317.37



Reference(s):

Leanza, W.J. et al.: J. Med. Chem. (JMCMAR) **22**, 1435 (1979).
 US 4 194 047 (Merck & Co.; 18.3.1980; prior. 21.11.1975).
 DOS 2 652 679 (Merck & Co.; appl. 19.11.1976; USA-prior. 21.11.1975).

production of thienamycin (by fermentation of *S. cattleya*):

US 3 950 357 (Merck & Co.; 13.4.1976; appl. 25.11.1974).
 DOS 2 552 638 (Merck & Co.; appl. 24.11.1975; USA-prior. 25.11.1974).

combination with cilastatin:

EP 48 301 (Merck & Co.; appl. 24.9.1980).

Formulation(s): amp. 250 mg, 500 mg; vial 200 mg, 500 mg

Trade Name(s):

D:	Zienam (MSD; 1985)- comb. with cilastatin	I:	Imipem (Neopharmed)- comb.	all combination preparations with cilastatin
F:	Tiénam (Merck Sharp & Dohme-Chibret)-comb.		Tenacid (Sigma-Tau)- comb.	J: Tienam (Banyu; 1987)- comb. with cilastatin sodium
GB:	Primaxin IV (Merck Sharp & Dohme)		Tienam (MSD)-comb.	USA: Primaxin (Merck; 1985)

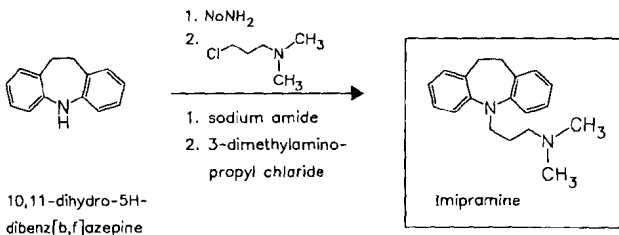
Imipramine

ATC: N06AA02
 Use: antidepressant

RN: 50-49-7 MF: C₁₉H₂₄N₂ MW: 280.42 EINECS: 200-042-1
 LD₅₀: 21 mg/kg (M, i.v.); 188 mg/kg (M, p.o.);
 9300 µg/kg (R, i.v.); 250 mg/kg (R, p.o.)
 CN: 10,11-dihydro-*N,N*-dimethyl-5*H*-dibenz[*b,f*]azepine-5-propanamine

monohydrochloride

RN: 113-52-0 MF: C₁₉H₂₄N₂ · HCl MW: 316.88 EINECS: 204-030-7
 LD₅₀: 27 mg/kg (M, i.v.); 275 mg/kg (M, p.o.);
 18 mg/kg (R, i.v.); 305 mg/kg (R, p.o.)



Reference(s):

US 2 554 736 (Geigy; 1951; CH-prior. 1949).
 DE 829 167 (Geigy; appl. 1950; CH-prior. 1949).

Formulation(s): amp. 25 mg/2 ml; cps. 75 mg, 100 mg, 125 mg, 150 mg; drg. 10 mg, 25 mg, 50 mg (as hydrochloride)

Trade Name(s):

D: Imipramin (neuraxpharm; as hydrochloride)	GB: Tofranil (Novartis; as hydrochloride)	Imidol (Yoshitomi)
Pryleugan (ASTA Medica AWD; as hydrochloride)	I: Imipra C (Formulario Naz.)	Imilanyle (Takata)
Tofranil (Novartis Pharma; as hydrochloride)	Tofranil (Novartis)	Meripramin (Kanebo Nakataki)
F: Tofranil (Novartis; as hydrochloride)	J: Depress (Toho)	Tofranil (Novartis)
	Efuranol (Taito Pfizer)	USA: Tofranil (Novartis; as pamoate)
	Feinalmin (Sanko)	generic

Imiquimod

ATC: D06BB10

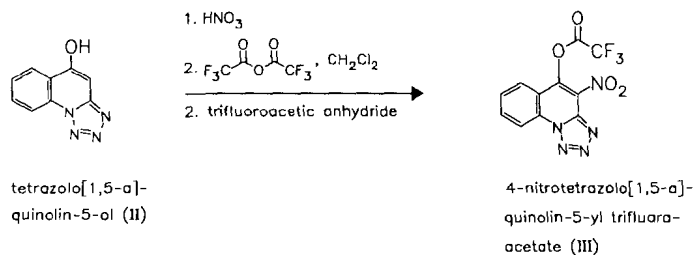
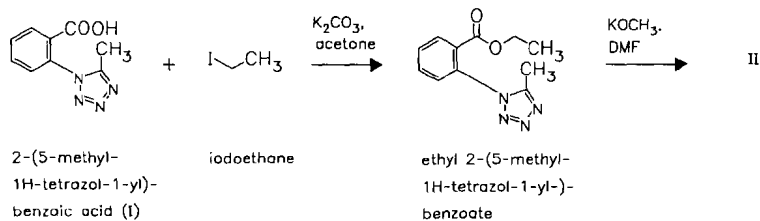
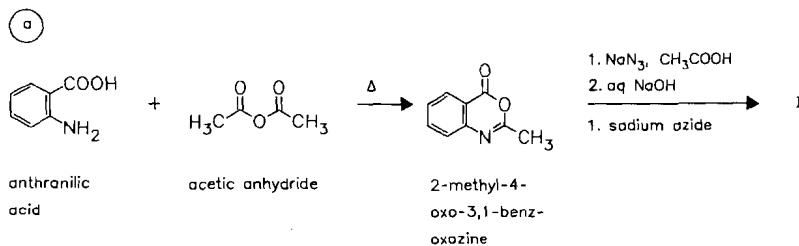
Use: immunomodulator, interferon alfa inducer, antiviral

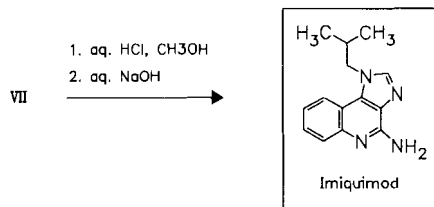
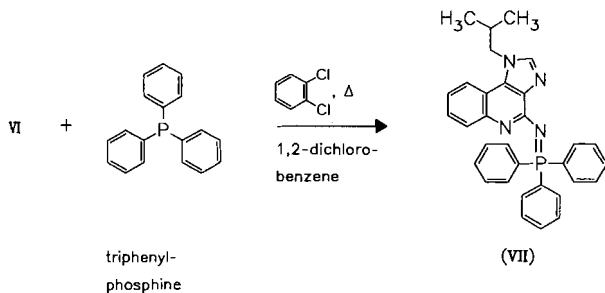
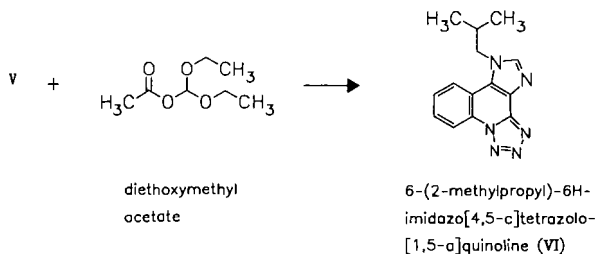
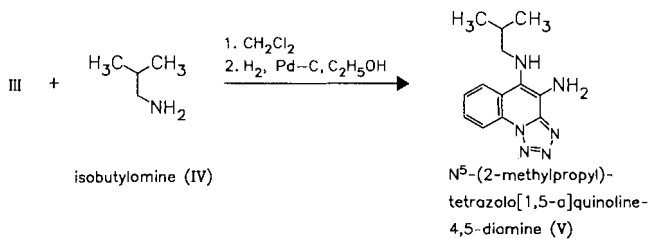
RN: 99011-02-6 **MF:** C₁₄H₁₆N₄ **MW:** 240.31

CN: 1-(2-Methylpropyl)-1*H*-imidazo[4,5-*c*]quinolin-4-amine

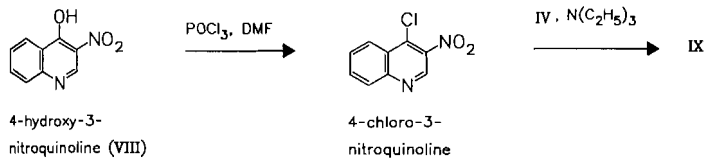
hydrochloride

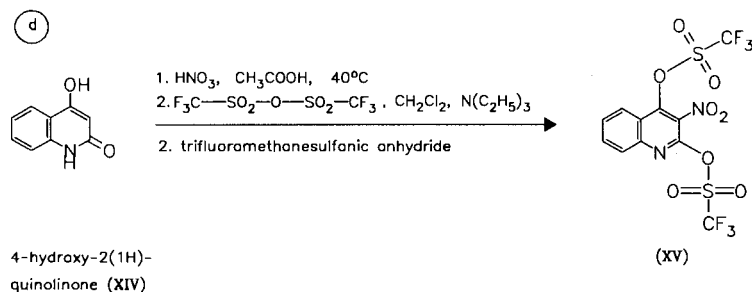
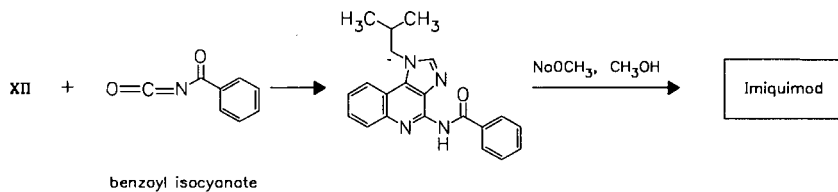
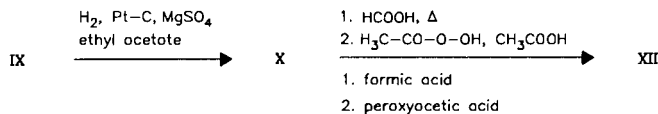
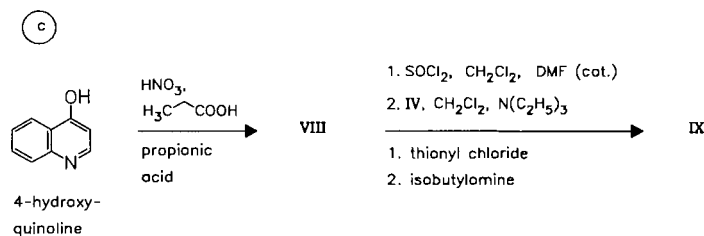
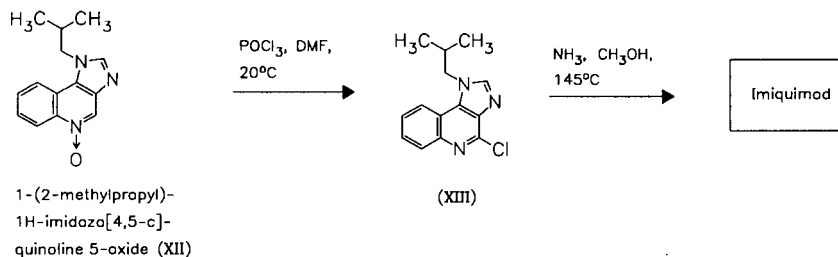
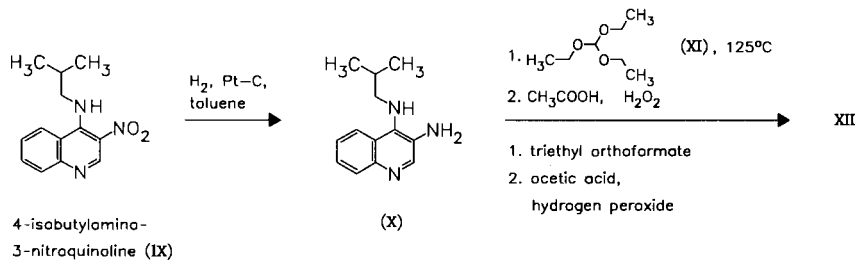
RN: 99011-78-6 **MF:** C₁₄H₁₆N₄ · HCl **MW:** 276.77

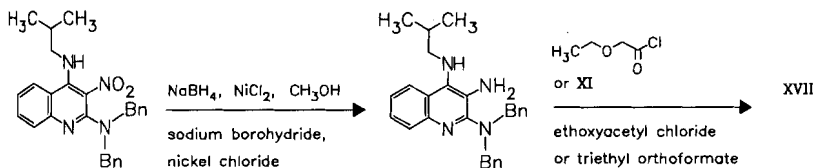
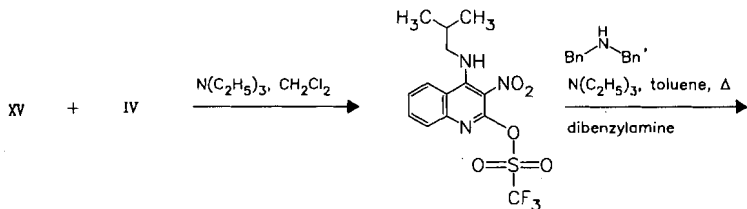




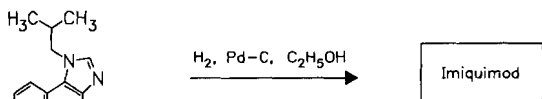
(b)



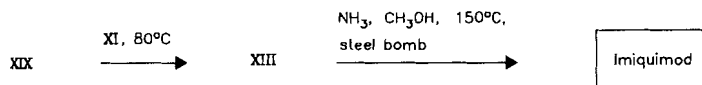
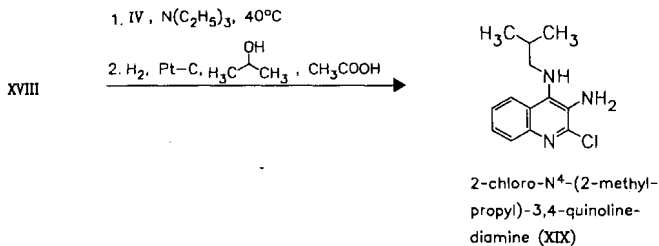
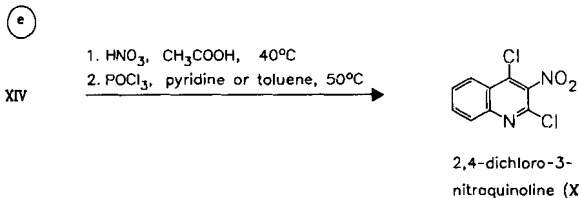


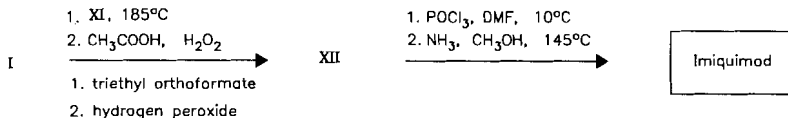


(XVI)



(XVII)



*Reference(s):*

- a WO 9 748 704 (Minnesota Mining and Manufacturing Company; appl. 22.10.1996; USA-prior. 21.6.1996).
 b EP 145 340 (Riker Lab.; appl. 16.11.1984; USA-prior. 18.11.1983).
 c WO 9 215 581 (Minnesota Mining and Manufacturing Company; appl. 13.2.1992; USA-prior. 1.3.1991).
 d WO 9 417 043 (Minnesota Mining and Manufacturing Company; appl. 25.1.1994; USA-prior. 29.1.1993).
 e US 4 988 815 (Riker Lab.; 29.1.1991; USA-prior. 26.10.1989).
 f US 4 689 338 (Riker Lab.; 25.8.1987; USA-prior. 18.11.1983).

Formulation(s): cream 5%

Trade Name(s):

D: Aldara (3M Medica Lab.; 1998) GB: Aldara (3M Health Care) USA: Aldara (3M Pharm.; 1997)
 I: Zarta (3M Medica)

Imolamine

ATC: C01DX09

Use: coronary vasodilator, antianginal

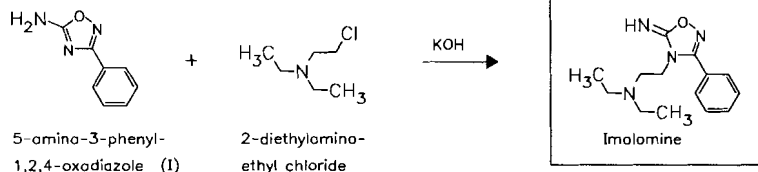
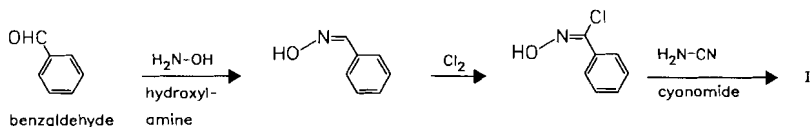
RN: 318-23-0 MF: C₁₄H₂₀N₄O MW: 260.34 EINECS: 206-267-1

CN: *N,N*-diethyl-5-imino-3-phenyl-1,2,4-oxadiazol-4(5*H*)-ethanamine

monohydrochloride

RN: 15823-89-9 MF: C₁₄H₂₀N₄O · HCl MW: 296.80 EINECS: 239-920-4

LD₅₀: 25 mg/kg (M, i.v.); 475 mg/kg (M, p.o.);
 650 mg/kg (R, p.o.)

*Reference(s):*

FR 2 023 M (J. Marcel, D. Aron-Samuel, J.-J. Sterne; appl. 10.10.1962; GB-prior. 12.6.1962, 11.7.1961).

Formulation(s): inj. sol. 50 mg/5 ml; tabl. 30 mg

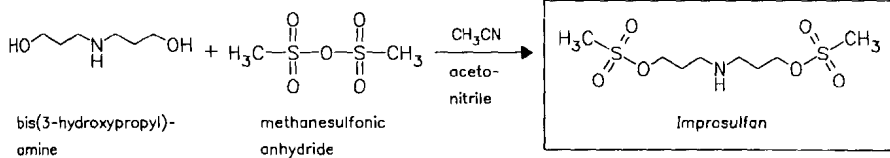
Trade Name(s):

D: Irrigor (Karlspharma); wfm I: Irrigor (Lipha); wfm Irrigor Aron (Spemsa); wfm
 F: Irrigor (Aron); wfm

Improsulfan

ATC: L01
Use: antineoplastic

RN: 13425-98-4 MF: C₈H₁₉NO₆S₂ MW: 289.37
CN: 3,3'-iminobis[1-propanol] dimethanesulfonate (ester)



Reference(s):

Sakurai, J.; El-Merzabani, M.M.: Chem. Pharm. Bull. (CPBTAL) **12**, 954 (1964).

sulfonic acid salts:

DOS 2 059 377 (Yoshitomi; appl. 2.12.1970; J-prior. 2.12.1969, 12.8.1970).
GB 1 272 497 (Yoshitomi; appl. 25.12.1970; J-prior. 2.12.1969, 12.8.1970).

Formulation(s): tabl. 10 mg

Trade Name(s):

J: Protecton (Yoshitomi; as tosylate)

Incadronic acid

Use: bone resorption inhibitor, antiarthritic agent

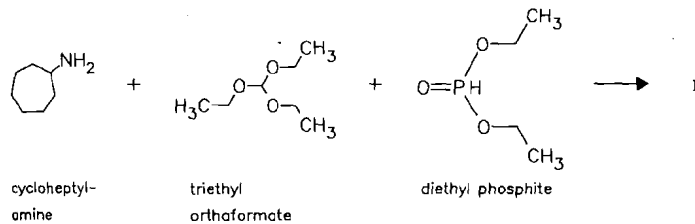
RN: 124351-85-5 MF: C₈H₁₉NO₆P₂ MW: 287.19
CN: [(Cycloheptylamino)methylene]bis[phosphonic acid]

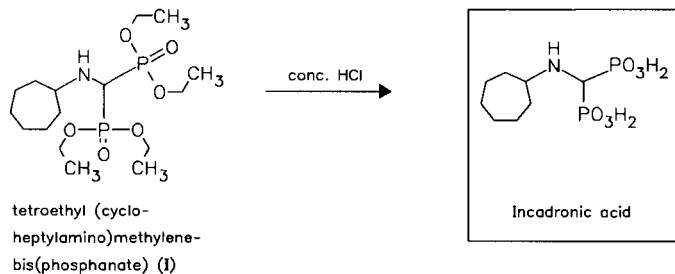
disodium salt monohydrate

RN: 183808-97-1 MF: C₈H₁₇NNa₂O₆P₂ · H₂O MW: 349.17

disodium salt

RN: 138330-18-4 MF: C₈H₁₇NNa₂O₆P₂ MW: 331.15



**Reference(s):**

EP 325 482 (Yamanouchi Pharm. Co.; appl. 20.1.1989; J-prior. 20.1.1988)

Takeuchi, M.; Sakamoto, S.; Yoshida, M.; Abe, T.; Isomura, Y.: Chem. Pharm. Bull. (CPBTAL) **41** (4), 688 (1993)**oral pharmaceutical compositions:**

EP 550 385 (Ciba-Geigy A. G.; appl. 11.12.1992; CH-prior. 19.12.1991)

pharmaceutical compositions:

EP 693 285 (Eli Lilly & Co.; appl. 20.7.1995; USA-prior. 22.7.1994)

Formulation(s): amp. 10 mg**Trade Name(s):**

J: Bisphonal (Yamanouchi; 1997)

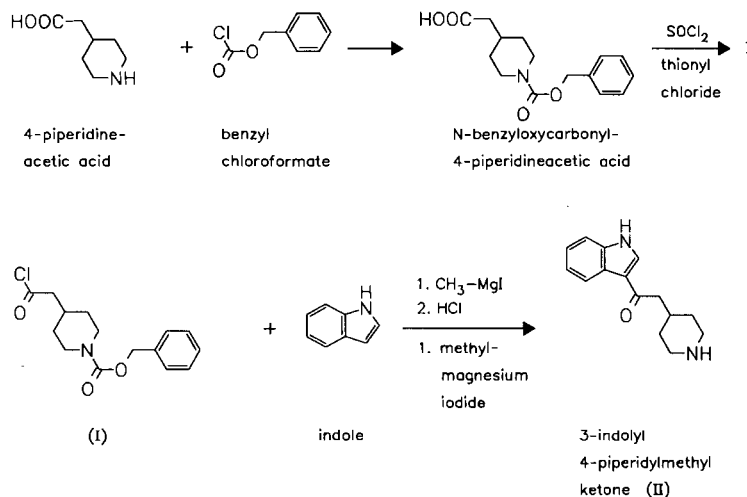
Indalpine

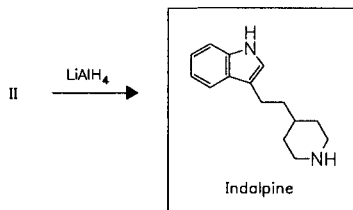
ATC: N06B

Use: antidepressant, selective serotonin-uptake inhibitor

RN: 63758-79-2 MF: C₁₅H₂₀N₂ MW: 228.34 EINECS: 264-445-4

CN: 3-[2-(4-piperidinyl)ethyl]-1H-indole

monohydrochlorideRN: 63845-42-1 MF: C₁₅H₂₀N₂ · HCl MW: 264.80LD₅₀: 60 mg/kg (M, i.v.); 600 mg/kg (M, p.o.)

**Reference(s):**

DOS 2 618 152 (Marpha; appl. 26.4.1976; F-prior. 12.12.1975).

US 4 064 255 (Marpha; 20.12.1977; F-prior. 12.12.1975).

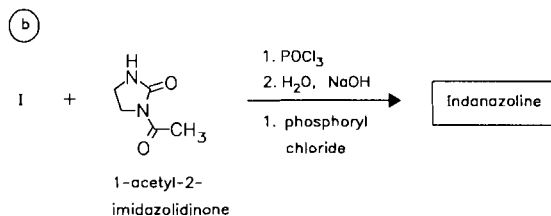
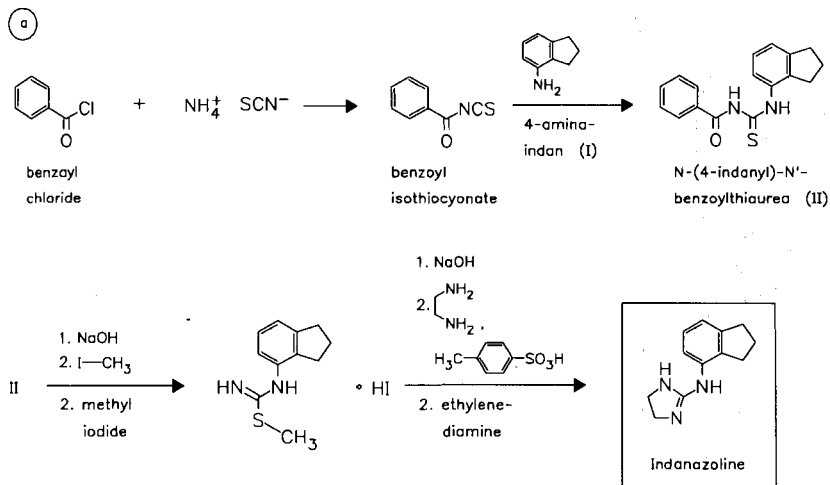
Formulation(s): tabl. 50 mg**Trade Name(s):**

F: Upstène (Fournier); wfm

Indanazoline

ATC: R01AA

Use: vasoconstrictor, nasal decongestant

RN: 40507-78-6 MF: C₁₂H₁₅N₃ MW: 201.27LD₅₀: 17.6 mg/kg (Mf, i.v.); 16.3 mg/kg (Mm, i.v.); 233 mg/kg (Mf, p.o.); 179 mg/kg (Mm, p.o.)CN: *N*-(2,3-dihydro-1*H*-inden-4-yl)-4,5-dihydro-1*H*-imidazol-2-amine**hydrochloride**RN: 56601-85-5 MF: C₁₂H₁₅N₃ · xHCl MW: unspecified

*Reference(s):*May, H.J.: *Arzneim.-Forsch. (ARZNAD)* **30**, 1733 (1980).**a** DOS 2 136 325 (Nordmark; appl. 21.7.1971).

US 3 882 229 (Nordmark; 6.5.1975; D-prior. 21.7.1971).

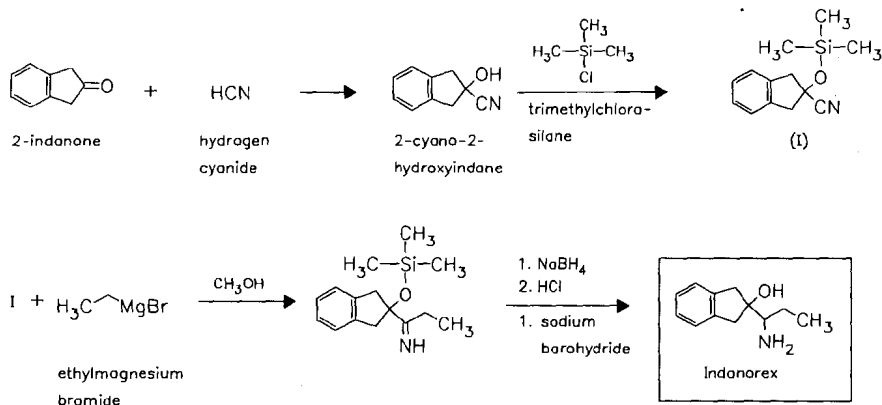
b DOS 2 652 004 (BASF; appl. 15.11.1976).*Formulation(s):* nasal drops 1.18 mg/ml; spray 1.18 mg/ml (as hydrochloride)*Trade Name(s):*

D: Farial (RIAM)

Indanorex

ATC: A08AB

Use: appetite depressant

RN: 16112-96-2 MF: C₁₂H₁₇NO MW: 191.27CN: 2-(1-aminopropyl)-2,3-dihydro-1*H*-inden-2-ol**hydrochloride**RN: 16112-95-1 MF: C₁₂H₁₇NO · HCl MW: 227.74*Reference(s):*

DOS 2 422 879 (Lab. Logeais; appl. 11.5.1974; F-prior. 16.7.1973).

alternative synthesis:

FR 2 322 851 (Lab. Logeais; appl. 5.9.1975).

use as appetite depressant:

DOS 2 336 560 (Lab. Logeais; appl. 18.7.1973; F-prior. 20.7.1972).

Trade Name(s):

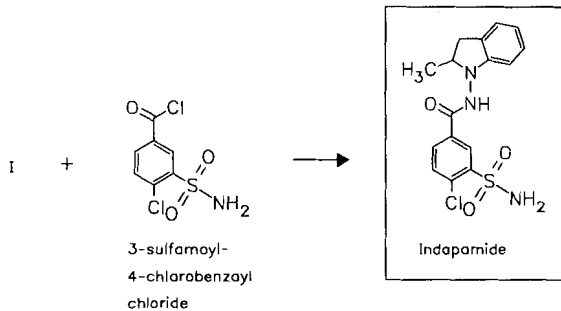
F: Diator (Logeais); wfm

Indapamide

ATC: C03BA11

Use: diuretic, antihypertensive

RN: 26807-65-8 MF: C₁₆H₁₆ClN₃O₃S MW: 365.84 EINECS: 248-012-7CN: 3-(aminosulfonyl)-4-chloro-*N*-(2,3-dihydro-2-methyl-1*H*-indol-1-yl)benzamide

**Reference(s):**

DE 1 909 180 (Science Union; appl. 2.7.1970; prior. 24.2.1969).

US 3 565 911 (Science Union; 23.2.1971; GB-prior. 6.3.1968).

FR-appl. 2 003 311 (Science Union; appl. 5.3.1969; GB-prior. 6.3.1968).

preparation of 2-methylindoline from 2-methyl indole:

DE 623 693 (I. G. Farbenind.; 1934).

Rogovile, V.M.; Chumale, V.T.; Dzvinika, R.T.; Shein, S.M.: J. Appl. Chem. USSR (Engl. Transl.) **54** (6), 1137 (1981).**Formulation(s):** drg. 2.5 mg, f. c. tabl. 2.5 mg**Trade Name(s):**

D:	indapamid von ct (ct-Arzneimittel)	GB:	Natramid (Trinity)	Millibar (Lisapharma)	
	Natrilix (Servier Deutschland; 1976)		Natrilix SR (Servier; 1978)	Veroxil (Baldacci)	
	Sicco (ASTA Medica AWD)	I:	Damide (Benedetti)	J:	Natrix (Inahata-Kyoto; 1985)
			Indaflex (Lampugnani)	USA:	Lozol (Rhône-Poulenc Rorer; 1983)
F:	Fludex (LBF Biopharma; Euthérapie; 1977)		Indamol (Rhône-Poulenc Rorer)		
			Indolin (Herdel)		
			Ipamix (Gentili)		

Indecainide

(LY-135837; Ricainide)

ATC: C01B

Use: cardiac depressant (class I antiarrhythmic), therapy of life-threatening ventricular arrhythmias

RN: 74517-78-5 MF: C₂₀H₂₄N₂O MW: 308.43LD₅₀: 96 mg/kg (M, p.o.);

10 mg/kg (R, i.v.); 82 mg/kg (R, p.o.);

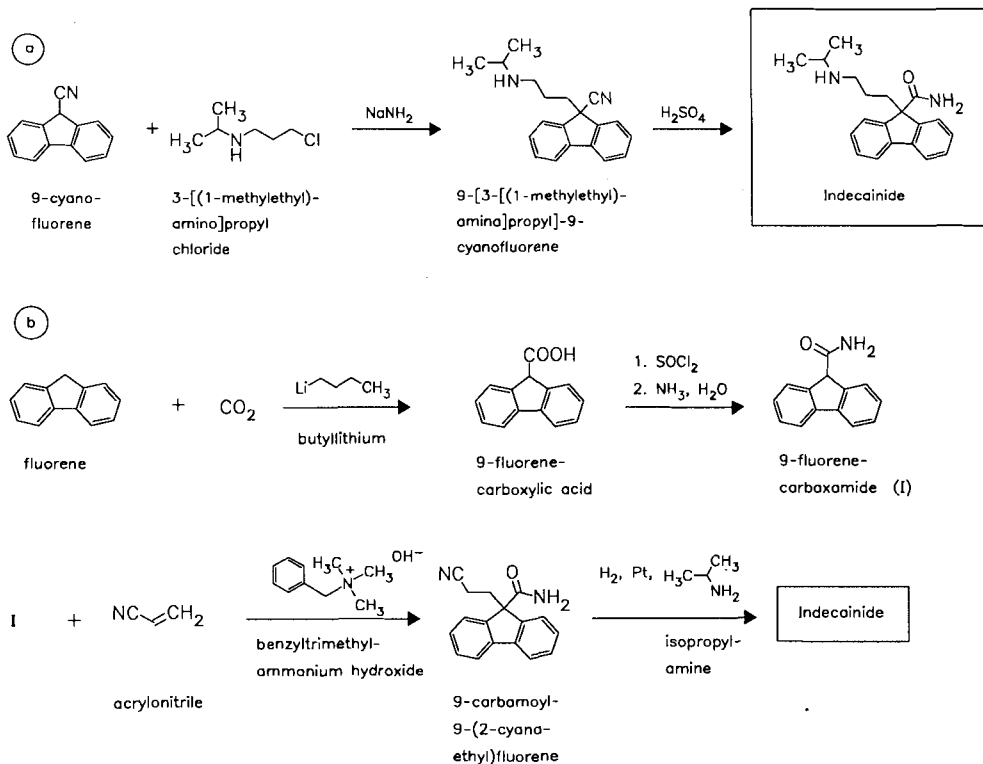
10 mg/kg (dog, i.v.); 25 mg/kg (dog, p.o.)

CN: 9-[3-[(1-methylethyl)amino]propyl]-9H-fluorene-9-carboxamide

monohydrochlorideRN: 73681-12-6 MF: C₂₀H₂₄N₂O · HCl MW: 344.89LD₅₀: 96 mg/kg (M, p.o.);

10 mg/kg (R, i.v.); 82 mg/kg (R, p.o.);

>5 mg/kg (dog, i.v.); 25 mg/kg (dog, p.o.)

**Reference(s):**

EP 18 076 (Lilly; appl. 11.3.1980; USA-prior. 12.3.1978).
 US 4 277 495 (Lilly; 7.7.1981; appl. 17.4.1980; prior. 12.3.1979).
 US 4 282 170 (Lilly; 4.8.1981; appl. 17.4.1980).
 EP 38 676 (Lilly; appl. 15.4.1981; USA-prior. 17.4.1980).

alternative synthesis:

US 4 197 313 (Lilly; 8.4.1980; appl. 12.3.1979).
 US 4 552 982 (Lilly; 12.11.1985; appl. 1.8.1983).
 EP 140 646 (Lilly; appl. 17.10.1984; USA-prior. 19.10.1983).

synthesis of intermediates:

US 4 486 592 (Lilly; 4.12.1984; appl. 19.10.1983).

pharmaceutical formulation:

US 4 382 093 (Lilly; 3.5.1983; appl. 29.9.1982).

Formulation(s): s. r. tabl. 50 mg, 75 mg, 100 mg (as hydrochloride)

Trade Name(s):

USA: Decabid (Lilly; 1989); wfm

Indeloxacine

(CI-974; YM-08054)

ATC: N07X

Use: cognition activator, antidepressant, nootropic

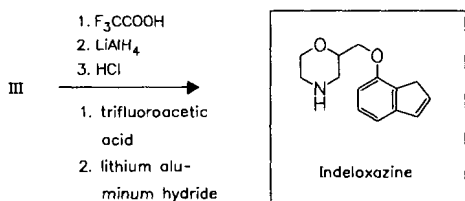
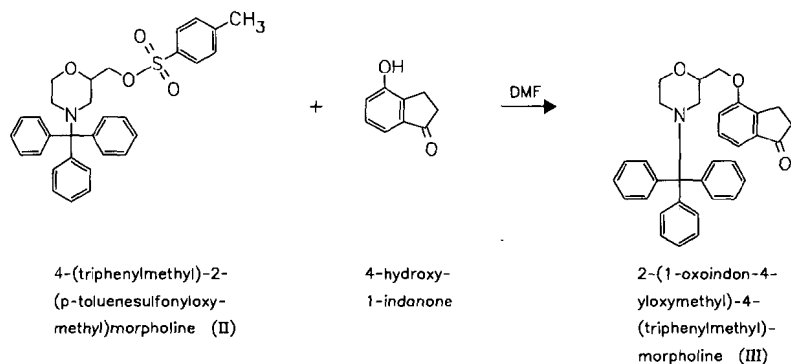
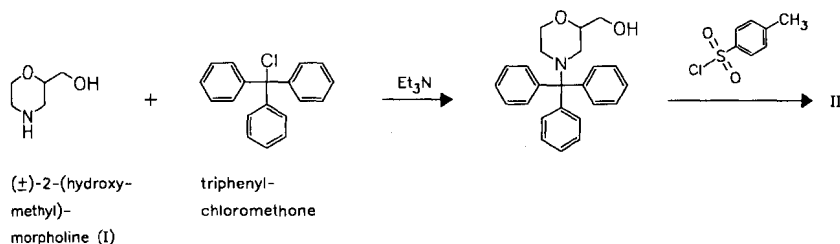
RN: 60929-23-9 MF: $\text{C}_{14}\text{H}_{17}\text{NO}_2$ MW: 231.30

CN: (\pm) -2-[(1*H*-inden-7-yloxy)methyl]morpholine

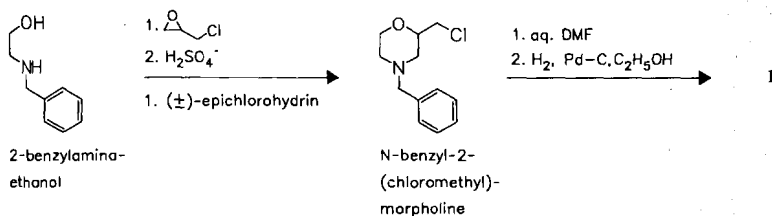
hydrochlorideRN: 65043-22-3 MF: C₁₄H₁₇NO₂ · HCl MW: 267.76LD₅₀: 47 mg/kg (M, i.v.); 444 mg/kg (M, p.o.);

77.3 mg/kg (R, i.v.); 502 mg/kg (R, p.o.);

>60 mg/kg (dog, p.o.)



preparation of (±)-2-(hydroxymethyl)morpholine (I)

**Reference(s):**

US 4 109 088 (Yamanouchi; 22.8.1978; appl. 25.2.1977; prior. 5.1.1976; J-prior. 29.1.1975).

DOS 2 601 703 (Yamanouchi; appl. 19.1.1976; J-prior. 29.1.1975).

JP 52 111 580 (Yamanouchi; appl. 15.3.1976).

CA 1 103 247 (Yamanouchi; J-prior. 27.10.1976).

Kojima, T. et al.: Chem. Pharm. Bull. (CPBTAL) **33**, 3766 (1985).

synthesis of ¹⁴C-labeled compound:

Arima, H.; Tamazawa, K.: J. Labelled Compd. Radiopharm. (JLCRD4) **22**, 1217 (1985).

alternative synthesis:

DE 2 707 678 (Yamanouchi; appl. 13.10.1977; J.-prior. 31.3.1976).

medical use for the treatment of mental disorders:

JP 61 145 119 (Yamanouchi; appl. 19.12.1984).

JP 56 123 915 (Yamanouchi; appl. 5.3.1980).

preparation of (±)-2-(hydroxymethyl)morpholine:

Kato, S. et al.: J. Med. Chem. (JMCMAR) **33** (5), 1406 (1990).

Berg, S. et al.: J. Med. Chem. (JMCMAR) **41** (11), 1934 (1998).

Jinbo, Y. et al.: J. Med. Chem. (JMCMAR) **37** (17), 2791 (1994).

Yanagisawa, H.; Kanazaki, T.: Heterocycles (HTCYAM) **35** (1), 105 (1993).

Loftus, F.: Synth. Commun. (SYNCAV) **10** (1), 59 (1980).

Formulation(s): tabl. 20 mg (as hydrochloride)

Trade Name(s):

J: Elen (Yamanouchi; 1988)

Noin (Essex Nippon; 1988)

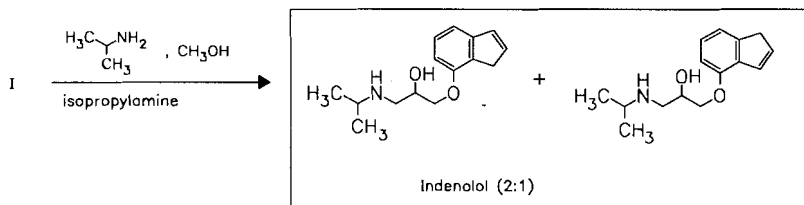
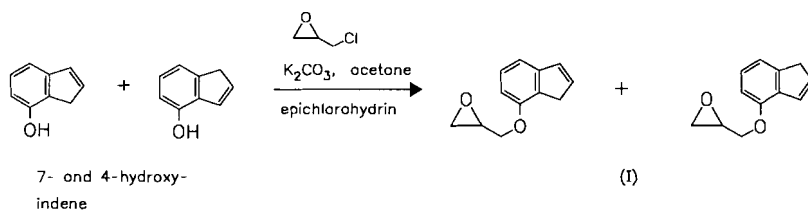
Indenolol

ATC: C07AA49

Use: beta blocking agent

RN: 60607-68-3 MF: C₁₅H₂₁NO₂ MW: 247.34 EINECS: 262-323-5

CN: 1-[1*H*-inden-4(or 7)-yloxy]-3-[(1-methylethyl)amino]-2-propanol

*Reference(s):*

DOS 1 955 229 (Yamanouchi; appl. 3.11.1969; J.-prior. 12.11.1968, 11.9.1969).

Murase, K. et al.: Chem. Pharm. Bull. (CPBTAL) **24**, 552 (1976).

Formulation(s): tabl. 60 mg

Trade Name(s):

I: Myodil (Glaxo)

Securpres (Poli)

J: Pulsan (Yamanouchi)

Indinavir sulfate

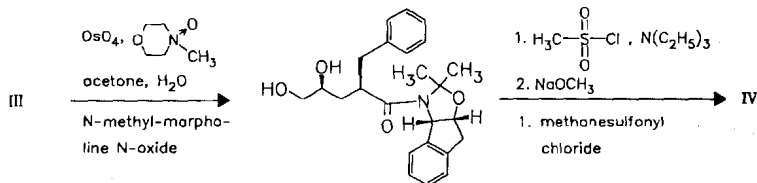
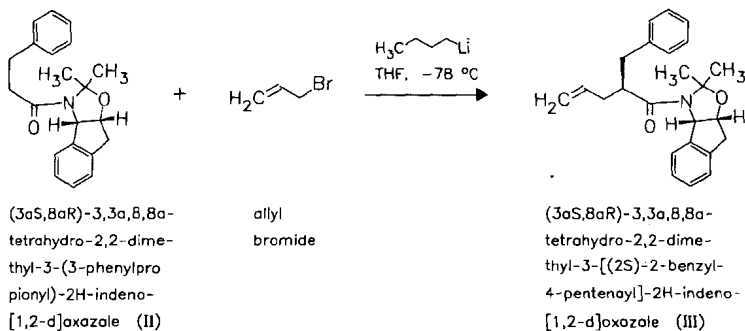
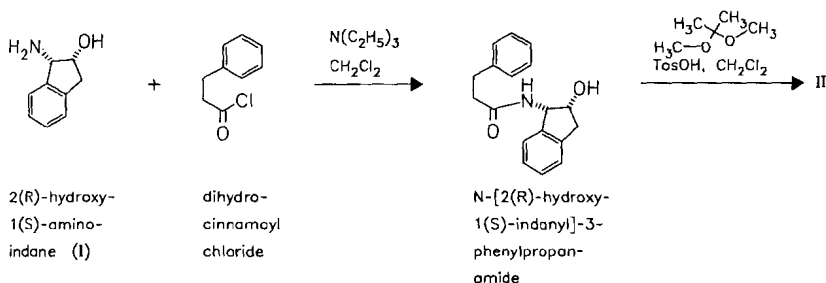
(L-735524; MK-639)

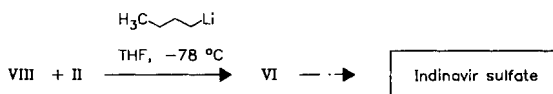
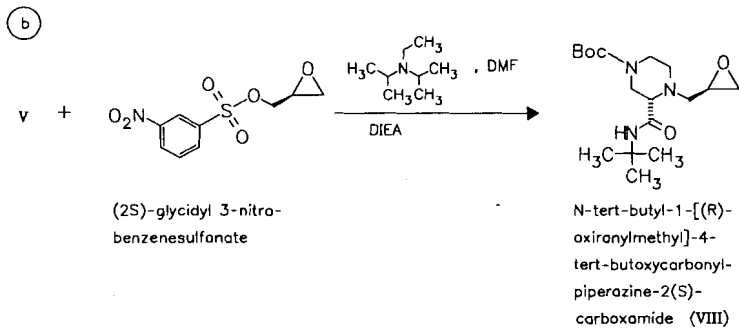
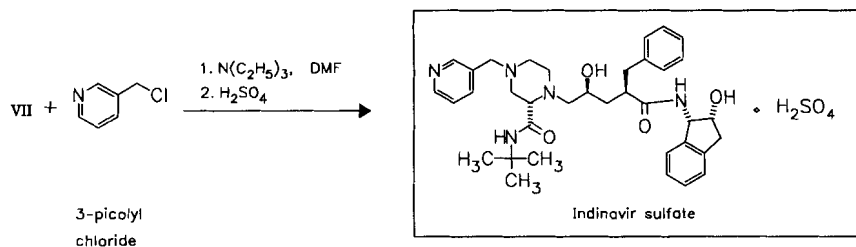
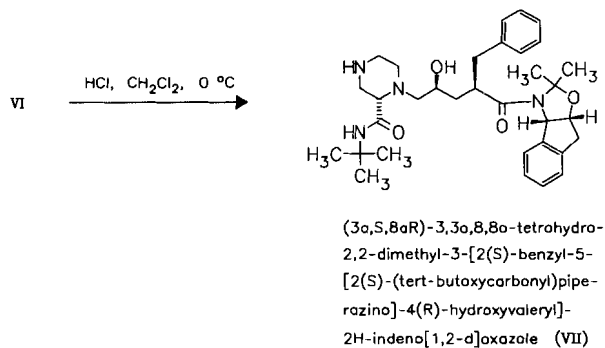
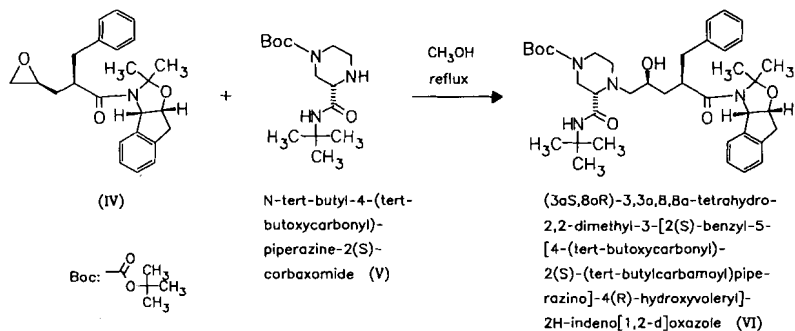
ATC: J05AE02

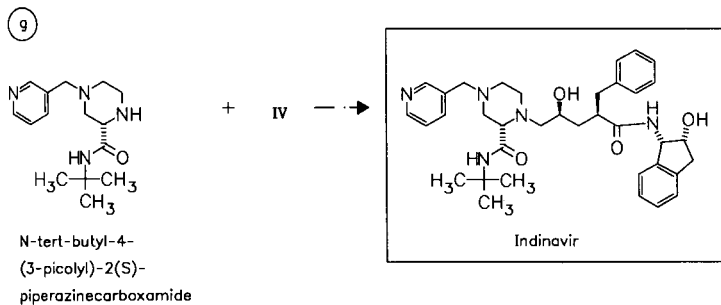
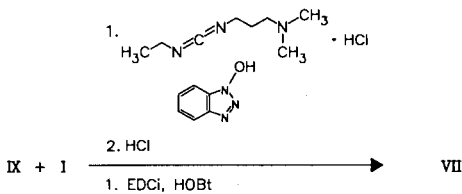
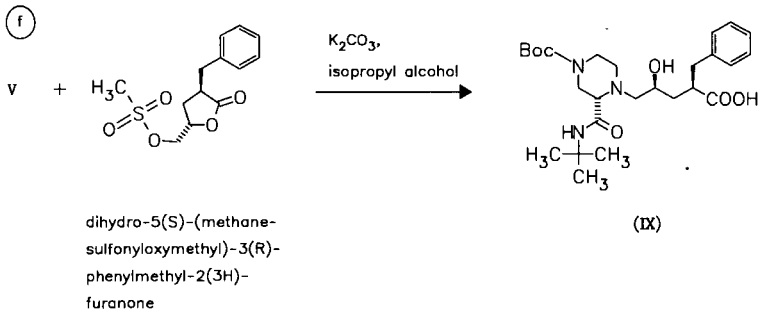
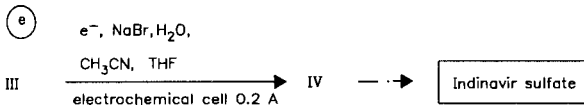
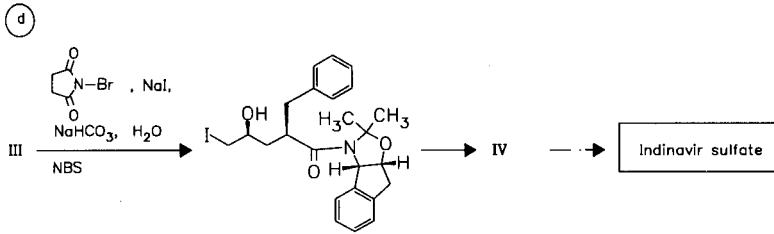
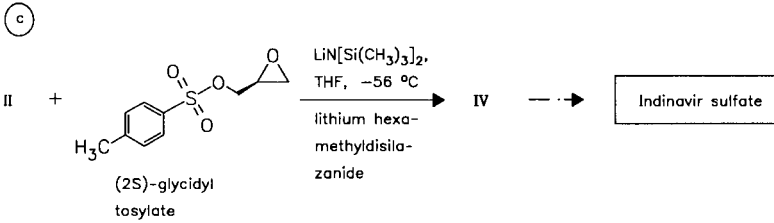
Use: antiviral, HIV-1-protease inhibitor

RN: 157810-81-6 MF: $C_{36}H_{47}N_5O_4 \cdot H_2SO_4$ MW: 711.88CN: [1(1*S*,2*R*),5(*S*)]-2,3,5-trideoxy-*N*-(2,3-dihydro-2-hydroxy-1*H*-inden-1-yl)-5-[2-[[1,1-dimethylethylamino]carbonyl]-4-(3-pyridinylmethyl)-1-piperazinyl]-2-(phenylmethyl)-*D*-*erythro*-pentonamide sulfate (1:1) (salt)**base**RN: 150378-17-9 MF: $C_{36}H_{47}N_5O_4$ MW: 613.80

a

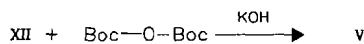
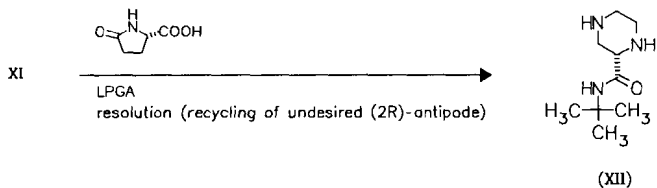
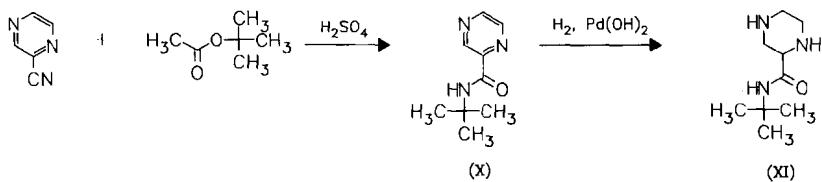




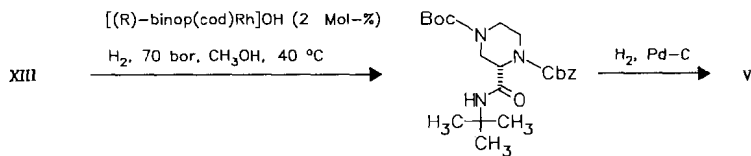
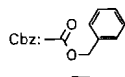
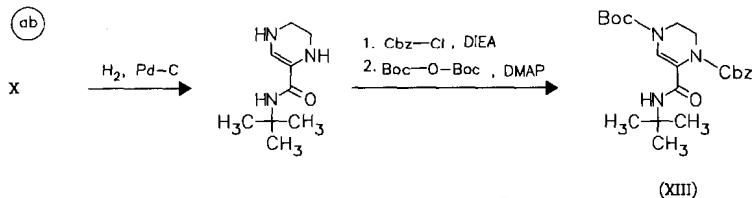


preparation of intermediate V:

(aa)

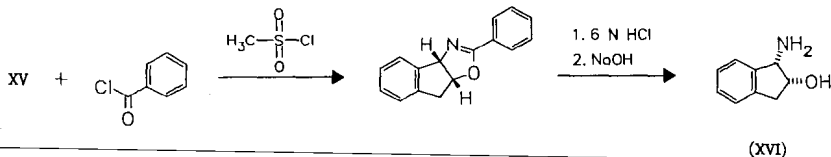
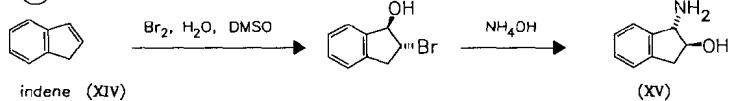


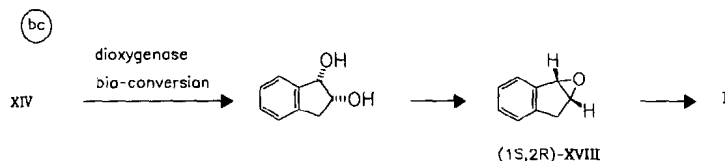
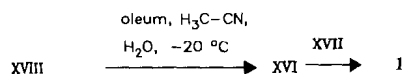
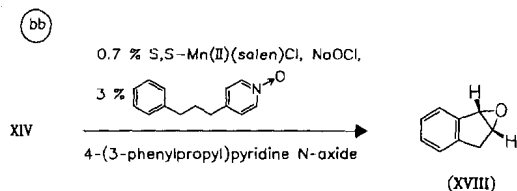
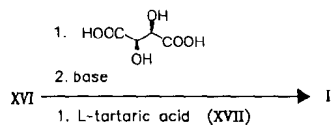
(ab)



synthesis of starting material I:

(ba)





Reference(s):

- a WO 9 309 096 (Merck & Co.; appl. 3.11.1992; USA-prior. 8.11.1991, 15.5.1992).
 b WO 9 502 583 (Merck & Co.; appl. 11.7.1994; USA-prior. 16.7.1993).
 c Askin, D. et al.: Tetrahedron Lett. (TELEAY) **35** (4), 673 (1994).
 WO 9 502 584 (Merck & Co.; appl. 11.7.1994; USA-prior. 16.7.1993, 26.1.1994).
 d Maligres, P.E. et al.: Tetrahedron Lett. (TELEAY) **36**, 2195 (1995).
 e WO 9 716 450 (Merck & Co.; appl. 25.10.1996; USA-prior. 30.10.1995, 22.2.1996).
 f US 5 413 999 (Merck & Co.; appl. 7.5.1993; USA-prior. 8.11.1991).
 g WO 9 628 439 (Merck & Co.; appl. 11.3.1996; USA-prior. 15.3.1995).
 aa WO 9 636 629 (Merck & Co.; appl. 14.5.1996; USA-prior. 18.5.1995).
 WO 9 521 162 (Merck & Co.; appl. 30.1.1995; USA-prior. 4.2.1994).
 ab GB 2 302 690 (Merck & Co.; appl. 20.6.1996; GB-prior. 13.2.1996; USA-prior. 28.6.1995).
 ba WO 9 636 724 (Merck & Co.; appl. 15.5.1996; USA-prior. 19.5.1995).
 US 5 449 830 (Merck & Co., Procter/Gamble Co.; appl. 11.3.1994; USA-prior. 11.3.1994).
 bb WO 9 700 966 (Merck & Co.; appl. 14.6.1996; USA-prior. 13.2.1996, 20.6.1995).
 WO 9 612 818 (Merck & Co.; appl. 17.10.1995; USA-prior. 21.10.1994).

reductive amination with pyridinecarboxaldehyde:

US 5 508 404 (Merck & Co.; appl. 15.3.1995; USA-prior. 15.3.1995).

prodrugs of indinavir:

WO 9 514 016 (Merck & Co.; appl. 14.11.1994; USA-prior. 18.11.1993).

combination with AZT:

WO 9 623 509 (Merck & Co.; appl. 29.1.1996; USA-prior. 1.2.1995).

WO 9 604 913 (Merck & Co.; appl. 7.8.1995; USA-prior. 20.7.1995, 11.8.1994, 14.11.1994).

combination with e. g. neorapine:

WO 9 600 068 (Merck & Co.; appl. 23.6.1995; USA-prior. 27.6.1994).

combination with quinoxalines:

EP 728 481 (Bayer AG; appl. 14.2.1996; D-prior. 27.2.1995).

Formulation(s): cps. 200 mg, 400 mg (as sulfate)

Trade Name(s):

D: Crixivan (Merck Sharp & Dohme) GB: Crixivan (Merck Sharp & Dohme) USA: Crixivan (Merck & Co.)

Indobufen

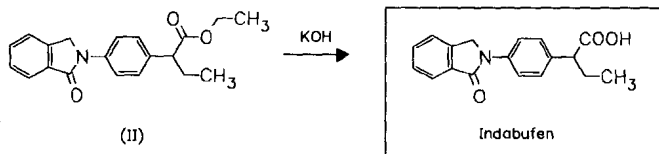
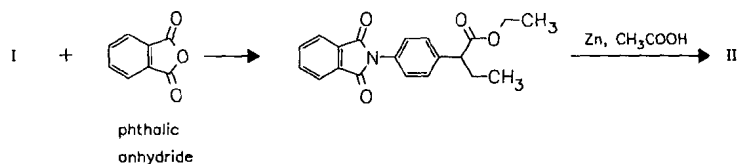
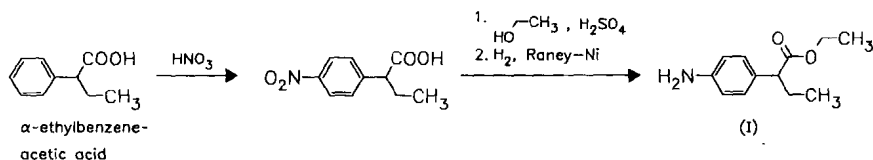
ATC: B01AC10

Use: anti-inflammatory, antithrombocytic

RN: 63610-08-2 MF: C₁₈H₁₇NO₃ MW: 295.34 EINECS: 264-364-4LD₅₀: 370 mg/kg (M, i.v.); 697 mg/kg (M, p.o.);

333 mg/kg (R, i.v.); 373 mg/kg (R, p.o.)

CN: (±)-4-(1,3-dihydro-1-oxo-2H-isoindol-2-yl)-α-ethylbenzeneacetic acid

sodium saltRN: 94135-04-3 MF: C₁₈H₁₆NNaO₃ MW: 317.32**Reference(s):**

US 4 118 504 (Carlo Erba; 3.10.1978; I-prior. 10.11.1970).

DOS 2 154 525 (Carlo Erba; appl. 3.11.1971; I-prior. 5.11.1970).

GB 1 344 663 (Carlo Erba; appl. 27.10.1971; I-prior. 5.11.1970).

Nannini, G. et al.: *Arzneim.-Forsch. (ARZNAD)* **23**, 1090 (1973).

(alternative syntheses described)

synthesis of ethyl p-amino-α-ethylphenylacetate:Wilds, A.L.; Biggerstaff, W.R.: *J. Am. Chem. Soc. (JACSAT)* **67**, 789 (1945).**Formulation(s):** amp. 200 mg (as sodium salt); tabl. 100 mg, 200 mg**Trade Name(s):**

I: Ibustrin (Pharmacia & Upjohn; 1984)

Indometacin

(Indomethacin)

ATC: C01EB03; M01AB01; M02AA23;
S01BC01

Use: anti-inflammatory, antipyretic,
analgesic

RN: 53-86-1 MF: $C_{19}H_{16}ClNO_4$ MW: 357.79 EINECS: 200-186-5

LD₅₀: 30 mg/kg (M, i.v.); 11.841 mg/kg (M, p.o.);

21 mg/kg (R, i.v.); 2.42 mg/kg (R, p.o.);

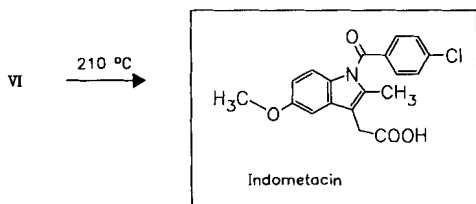
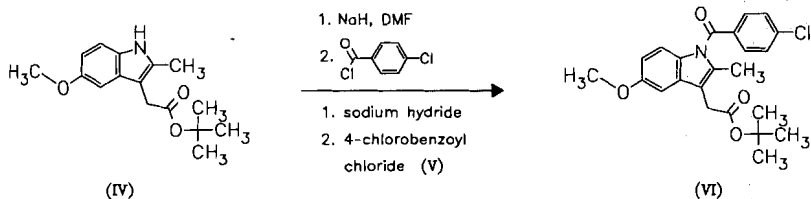
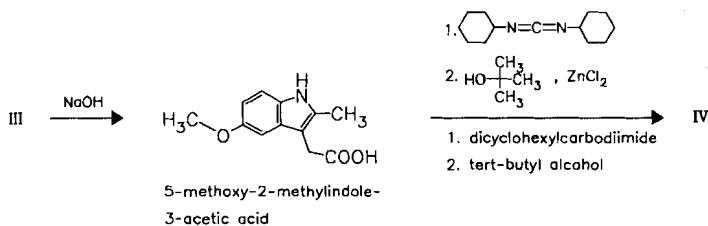
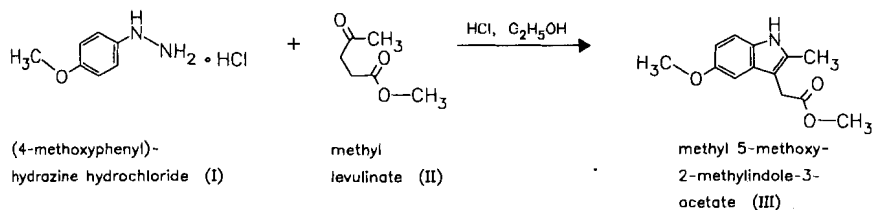
100 mg/kg (dog, i.v.); 160 mg/kg (dog, p.o.)

CN: 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-1*H*-indole-3-acetic acid

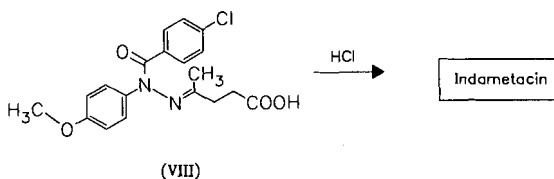
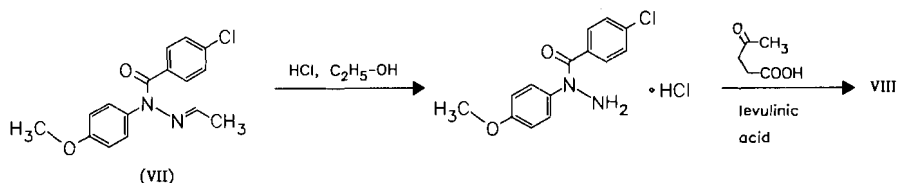
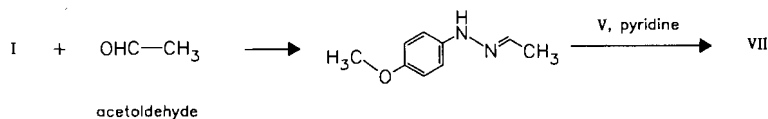
sodium salt hydrate

RN: 74252-25-8 MF: $C_{19}H_{15}ClNaO_4 \cdot 3H_2O$ MW: 419.81

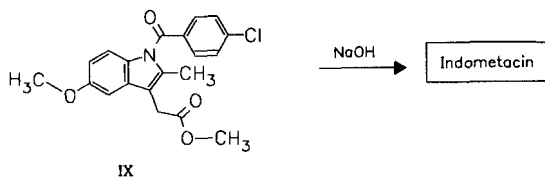
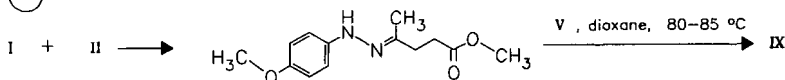
Merck + Co.



(b) Sumitomo



(c) Sumitomo



Reference(s):

- a DE 1 232 150 (Merck & Co.; appl. 16.3.1962; USA-prior. 22.3.1961, 5.1.1962).
 DAS 1 620 014 (Merck & Co.; appl. 29.6.1966; USA-prior. 30.6.1965).
 DE 1 620 030 (Merck & Co.; appl. 16.3.1962; USA-prior. 22.3.1961, 5.1.1962).
 DE 1 620 031 (Merck & Co.; appl. 16.3.1962; USA-prior. 22.3.1961, 5.1.1962).
 DE 1 643 463 (Merck & Co.; appl. 12.10.1967; USA-prior. 13.10.1966, 14.8.1967).
 US 3 161 654 (Merck & Co.; 15.12.1964; appl. 11.6.1963; prior. 22.3.1961).
- b Yamamoto, H.: Chem. Pharm. Bull. (CPBTAL) **16**, 17 (1968).
 Yamamoto, H. et al.: Chem. Pharm. Bull. (CPBTAL) **16**, 647 (1968).
- c DAS 1 795 674 (Sumitomo; appl. 8.4.1968; J-prior. 11.4.1967, 6.5.1967, 8.5.1967, 23.5.1967, 27.5.1967, 29.5.1967, 8.11.1967, 12.12.1967, 14.12.1967).

suspension for parenteral use:

US 4 093 733 (Merck & Co.; 6.6.1978; appl. 9.9.1976).

Formulation(s): cps. 25 mg, 50 mg; eye drops 1 %; gel 10 mg; sol. 8 mg/ml (1 %); s. r. cps. 75 mg; suppos. 50 mg, 100 mg; susp. 25 mg (as sodium salt hydrate)

Trade Name(s):

D:	Amuno (Merck Sharp & Dohme; 1965)-comb. Chibro-Amuno (Chibret)	Confortid (Dumex; as sodium salt) Elmetacin (Sankyo)	Indo (ct-Arzneimittel) Indometacin (Aliud Pharma)
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	Indometacin (Heyl)-comb.	Indocid (Morson)	Indomethine (Kowa)
	Indomisal (Brenner-Efeka)	Indomod (Pharmacia & Upjohn)	Inmecin (Nippon Chemiphar)
	Indo-Top (ratiopharm)	Cidalgon (Ecobi)	Inmetocin (Tobishi)
	Inflam (Lichtenstein)-comb.	Difmetre (UCM)-comb.	Inteban (Sumitomo; 1967)
	Jenatacin (Jenapharm)	Imet (Firma)	Intedarl (Choseido)
	various generics and combination preparations	Indocid (Merck Sharp & Dohme)	Lausit (Showa)
F:	Ainscrip LP (Gerda SA)	Indoxen (Sigma-Tau)	Methazine (Sankyo)
	Chrono-Indocid 75 (Merck Sharp & Dohme)	Liometacen (Chiesi; as megluminate)	Mezolin (Meiji)
	Indocid (Merck Sharp & Dohme; 1966)	Metacen (Chiesi)	Salinac (Nippon Kayaku)
	Indocollyre (Chauvin)	combination preparations	Taikosashin S (Taiho)
GB:	Artracin SR (Searle)	J: Indacin (Merck-Banyu; 1966)	Zalbico (Toyo Pharmar)
	Flexin Continus (Napp)	Inderapollon (Kaigai)	USA: Indocin (Merck Sharp & Dohme; 1965)

Indometacin farnesil

(Indometacin farnesyl)

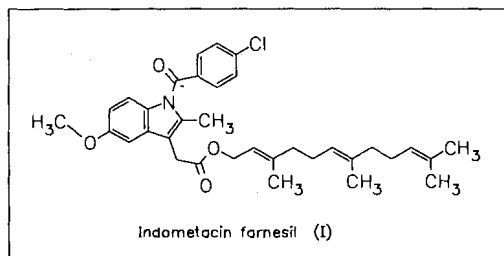
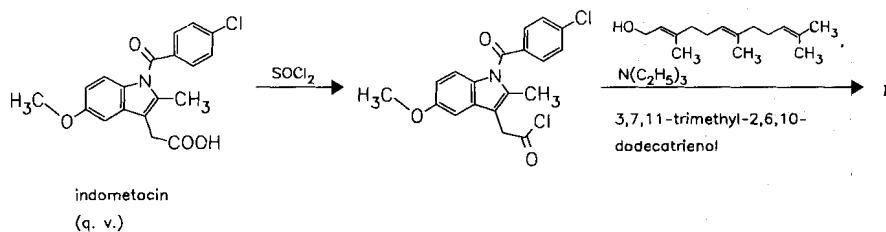
ATC: M01AB

Use: non-steroidal anti-inflammatory, indometacin prodrug

RN: 85801-02-1 MF: C₃₄H₄₀ClNO₄ MW: 562.15

LD₅₀: >4 g/kg (M, i.m.); 1305 mg/kg (M, i.p.); 6800 mg/kg (M, p.o.); 8g/kg (M, s.c.); 2000 mg/kg (R, i.m.); 3800 mg/kg (R, i.p.); 1680 mg/kg (R, p.o.); 2400 mg/kg (R, s.c.); >3 g/kg (dog, p.o.)

CN: 1-(4-chlorobenzoyl)-5-methoxy-2-methyl-1*H*-indole-3-acetic acid 3,7,11-trimethyl-2,6,10-dodecatrienyl ester



Reference(s):

- DE 3 226 687 (Eisai; appl. 16.7.1982; J-prior. 23.7.1981).
 US 4 455 316 (Eisai; 19.6.1984; appl. 8.7.1982; J-prior. 23.7.1981).
 US 4 576 963 (Eisai; 18.3.1986; appl. 14.5.1984; prior. 8.7.1982; J-prior. 23.7.1981).

soft gelatine capsules:

- EP 407 815 (Eisai; appl. 27.6.1990; J-prior. 10.7.1989).

stabilisation with tocopherol:

EP 387 655 (Eisai; appl. 5.3.1990; J-prior. 17.3.1989).

Formulation(s): cps. 100 mg

Trade Name(s):

J: Infree (Eisai; 1991)

Indoprofen

ATC: M01AE10

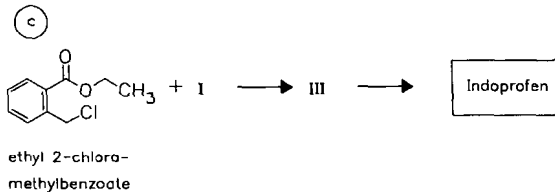
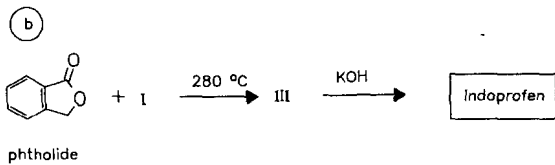
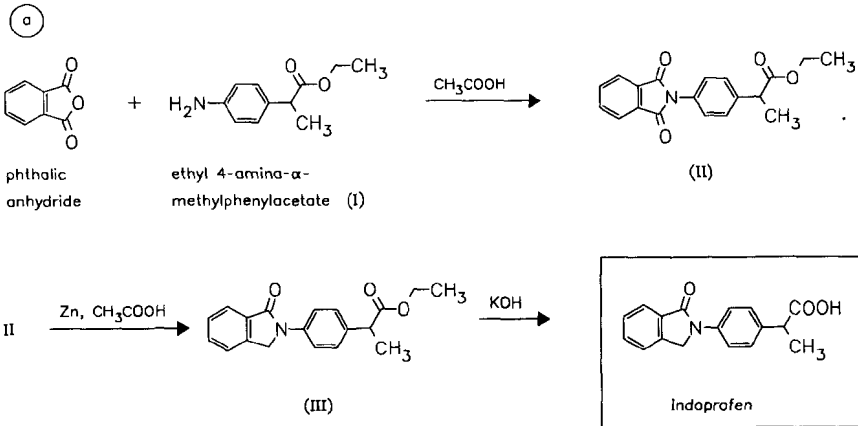
Use: anti-inflammatory, analgesic

RN: 31842-01-0 MF: C₁₇H₁₅NO₃ MW: 281.31 EINECS: 250-833-0

LD₅₀: 700 mg/kg (M, p.o.);

84 mg/kg (R, p.o.)

CN: 4-(1,3-dihydro-1-oxo-2H-isoindol-2-yl)-α-methylbenzeneacetic acid



Reference(s):

DOS 2 154 525 (Carlo Erba; appl. 3.11.1971; I-prior. 5.11.1970, 10.11.1970).

US 3 767 805 (Ciba-Geigy; 23.10.1973; USA-prior. 27.3.1968, 3.9.1968, 13.1.1969, 18.3.1969, 18.7.1969, 8.9.1969, 3.2.1970).

DOS 2 034 240 (Ciba-Geigy; appl. 10.7.1970; USA-prior. 18.7.1969, 8.9.1969, 12.9.1969, 3.2.1970, 25.5.1970).

Nannini, G. et al.: *Arzneim.-Forsch. (ARZNAD)* **23**, 1090 (1973).

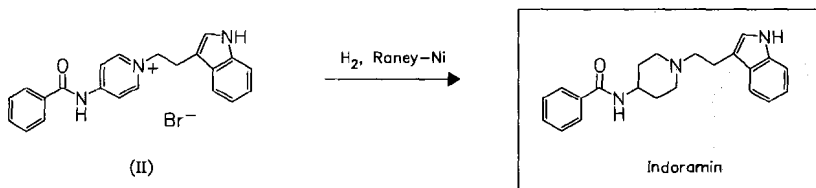
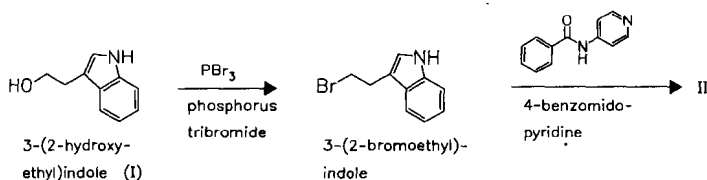
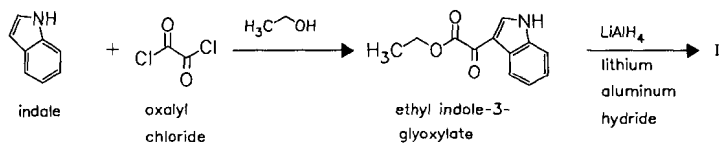
Formulation(s): tabl. 200 mg

Trade Name(s):

J: Flosint (Carlo Erba)

Indoramim

ATC: C02CA02

Use: antihypertensive, α -adrenoceptor antagonistRN: 26844-12-2 MF: $C_{22}H_{25}N_3O$ MW: 347.46 EINECS: 248-041-5LD₅₀: 1800 mg/kg (R, p.o.)CN: N-[1-[2-(1*H*-indol-3-yl)ethyl]-4-piperidinyl]benzamide**monohydrochloride**RN: 38821-52-2 MF: $C_{22}H_{25}N_3O \cdot HCl$ MW: 383.92 EINECS: 254-136-2

Reference(s):

Neumeyer, J.L. et al.: J. Med. Chem. (JMCMAR) **12**, 450 (1969).

DOS 1 770 460 (Wyeth; appl. 20.5.1968; GB-prior. 24.5.1967, 1.3.1968).

Formulation(s): tabl. 20 mg, 25 mg, 50 mg (as hydrochloride)

Trade Name(s):

D: Wydora (Brenner-Efeka)

GB: Baratol (Monmouth)

I: Indorena (Lusofarmaco);

F: Vidora (Wyeth)

Doralese (Bencard)

wfm

Inositol

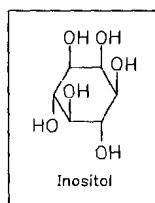
ATC: A05

Use: liver therapeutic

(Cyclohexitol; *meso*-Inositol; *myo*-Inositol)RN: 87-89-8 MF: $C_6H_{12}O_6$ MW: 180.16 EINECS: 201-781-2LD₅₀: 10 g/kg (M, p.o.);

>750 mg/kg (R, i.v.)

CN: *myo*-inositol



Preparation by hydrolysis of phytin isolated from maize steep water [Ca- and Mg-salts of phytic acid (inositol hexa(dihydrogen phosphate))] with diluted sulfuric acid or with water under pressure.

Reference(s):

Bartow, E.B.; Walker, W.W.: *Ind. Eng. Chem. (IECHAD)* **30**, 300 (1938).

US 2 112 553 (E. B. Bartow, W. W. Walker; 1938; appl. 1935).

US 2 414 365 (American Cyanamid; 1947; appl. 1942).

synthesis from hexahydroxybenzene:

Wieland, H.; Wishart, R.S.: *Ber. Dtsch. Chem. Ges. (BDCGAS)* **47**, 2082 (1914).

Anderson, R.C.; Wallis, E.S.: *J. Am. Chem. Soc. (JACSAT)* **70**, 2931 (1948).

Formulation(s): drg. 5 mg, 50 mg

Trade Name(s):

D:	Geriatric Pharmaton (Pharmaton)-comb. Inosit-Zyma (Zyma); wfm various generics and 50 more combination preparations	Enteroton (Panthox & Burck)-comb. Equipar (Lampugnani)- comb.; wfm Inobetin (Boniscontro & Gazzone)-comb.; wfm Inosital (Biomedica Foscama); wfm	Lisacol Metionina (Lisapharma)-comb.; wfm Neoepa (Vis)-comb.; wfm Vitabil Composto (IBP)- comb.; wfm USA: Amino-Cerv (Milex)-comb. Mega-B (Arco)-comb. Megadose (Arco)-comb.
I:	Colamin (UCM-Difme)		

Inositol nicotinate

ATC: C04AC03

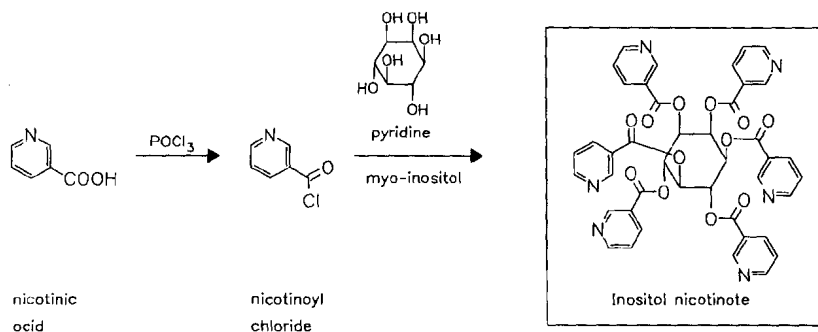
Use: vasodilator

RN: 6556-11-2 MF: $C_{42}H_{30}N_6O_{12}$ MW: 810.73 EINECS: 229-485-9

LD₅₀: 345 mg/kg (M, i.v.); >30 g/kg (M, p.o.);

268 mg/kg (R, i.v.); >20 g/kg (R, p.o.)

CN: *myo*-inositol hexa-3-pyridinecarboxylate



Reference(s):

Badgett; Woodward: *J. Am. Chem. Soc. (JACSAT)* **69**, 2907 (1947).

GB 1 053 689 (Bofors; appl. 19.11.1965; S-prior. 21.11.1964).

Formulation(s): chewing tabl. 600 mg; tabl. 200 mg, 500 mg, 600 mg, 750 mg, 800 mg

Trade Name(s):

D:	Hämovannad (Bastian-Werk)	J:	Clevamin (Kowa)	Nasky (Nikken)
	Hexanicit (Astra/Promed)		Cyncate (Toyo Pharmar)	Neonitin (Chugai)
	Nicolip (Hennig)		Ebelin (Samva)	Nicosamin (Toyama)
	numerous combination preparations		Hexalmin (Maruishi)	Nicosinate (Toyo S.-Ono)
F:	Dilexpal (Winthrop); wfm		Hexainosineat (Hishiyama)	Nicosinit (Hokuriku)
	Tensid (Bayer-Pharma)-comb.; wfm		Hexanate (Nippon)	Nicotol (Maruko)
GB:	Hexopal (Sanofi Winthrop)		Chemiphar)	Nicoxatin (Fuso)
I:	Angiokapsul (Schering)-comb.; wfm		Hexanicit (Yoshitomi)	Romanit (Kowa)
	Esantene (Ibis); wfm		Hexate (Mohan)	Salex (Iwaki)
	Vascunicol (Boehringer Ing.); wfm		Hexatin (Kobayashi)	Sannecit (Sanko)
	Vasonicit (Ibis); wfm		Hexit (Toho)	Secotinen (Seiko)
			Inochinate (Nichiiko)	Shikicit (Shiki)
			Inosinit (Kanto)	Xatolone (Showa)
			Kotanicit (Kotani)	Yonomol (Sawai)
			Mesonex (Tokyo Tanabe)	
			Mesosit (Toyo Jozo)	

Iobenzamic acid

(Acide iobenzamique)

ATC: V08AC05

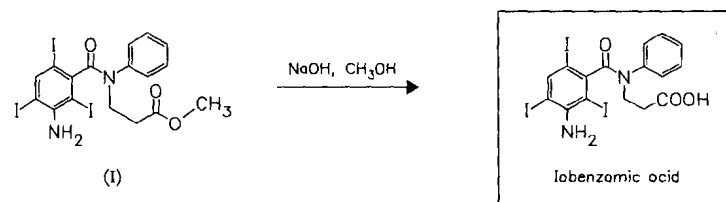
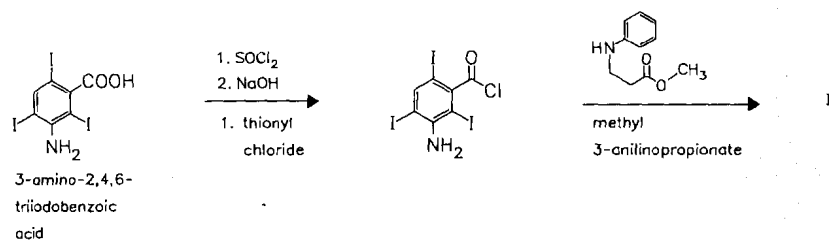
Use: X-ray contrast medium

RN: 3115-05-7 MF: C₁₆H₁₃I₃N₂O₃ MW: 662.00 EINECS: 221-484-1

LD₅₀: 530 mg/kg (M, i.v.); 2870 mg/kg (M, p.o.);

500 mg/kg (R, i.v.); 2800 mg/kg (R, p.o.)

CN: N-(3-amino-2,4,6-triiodobenzoyl)-N-phenyl-β-alanine



Reference(s):

GB 870 321 (Österr. Stickstoffwerke; appl. 17.7.1959; A-prior. 23.7.1958, 2.8.1958).

DE 1 085 648 (Lentia; appl. 6.8.1958).

US 3 051 745 (Österr. Stickstoffwerke; 28.8.1962; A-prior. 23.7.1958).

Formulation(s): tabl. 750 mg

Trade Name(s):

D: Bilibyk (Byk Gulden); wfm F: Osbil (Biodica); wfm I: Bilibyk (Byk Gulden); wfm
 Osbil (Byk Gulden); wfm GB: Osbil (May & Baker); wfm

Iocarmic acid

ATC: V08AA08

Use: X-ray contrast medium

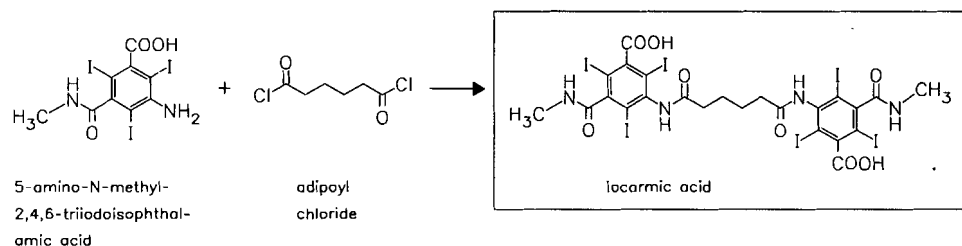
RN: 10397-75-8 MF: C₂₄H₂₀I₆N₄O₈ MW: 1253.87 EINECS: 233-861-8LD₅₀: 9.057 g/kg (M, i.v.); >16 g/kg (M, p.o.);

13.3 g/kg (R, i.v.); >16 g/kg (R, p.o.)

CN: 3,3'-(1,6-dioxo-1,6-hexanediyldiimino)bis[2,4,6-triiodo-5-[(methylamino)carbonyl]benzoic acid]

meglumine salt (1:2)RN: 54605-45-7 MF: C₂₄H₂₀I₆N₄O₈ · 2C₇H₁₇NO₅ MW: 1644.30 EINECS: 259-252-7LD₅₀: 10.9 mg/kg (M, i.v.); >16 g/kg (M, p.o.);

13.3 mg/kg (R, i.v.); >16 g/kg (R, p.o.)



Reference(s):

US 3 290 366 (Mallinckrodt; 6.12.1966; appl. 6.3.1963).

GB 1 033 695 (Mallinckrodt; appl. 25.2.1964; USA-prior. 6.3.1963).

Formulation(s): amp. 3.02 g; inj. 60 % (as meglumine salt)

Trade Name(s):

D: Dimer-X (Byk Gulden); wfm GB: Dimer X (May & Baker); wfm
 F: Dimer-X (Guerbet); wfm I: Osbil (Byk Gulden); wfm

Iocetamic acid

(Acide iocétamique)

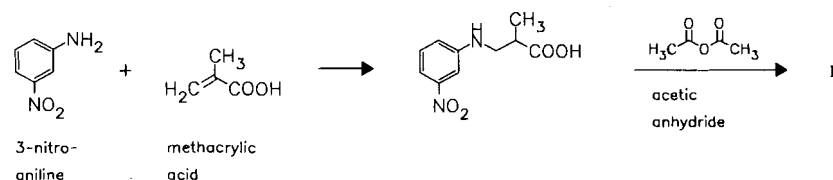
ATC: V08AC07

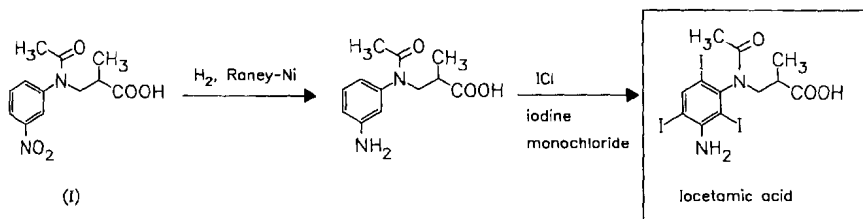
Use: X-ray contrast medium

RN: 16034-77-8 MF: C₁₂H₁₃I₃N₂O₃ MW: 613.96 EINECS: 240-173-1LD₅₀: 410 mg/kg (M, i.v.);

700 mg/kg (R, i.v.); 7100 mg/kg (R, p.o.)

CN: 3-[acetyl(3-amino-2,4,6-triiodophenyl)amino]-2-methylpropanoic acid



**Reference(s):**

FR 5 997 M (Dagra; appl. 23.11.1966; prior. 25.11.1965, 26.5.1966).

Formulation(s): tabl. 500 mg, 750 mg**Trade Name(s):**D: Cholebrine
(Mundipharma); wfmF: Cholébrine (Schering);
wfmUSA: Cholebrine (Mallinckrodt);
wfm

I: Colebrin (Schering); wfm

Iodamide

(Jodamid)

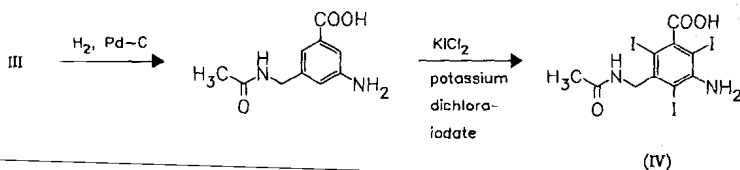
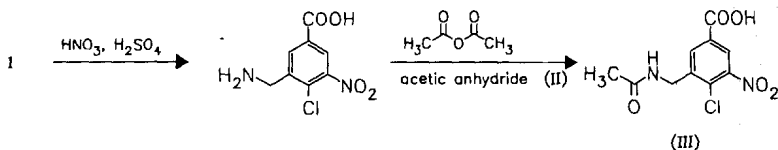
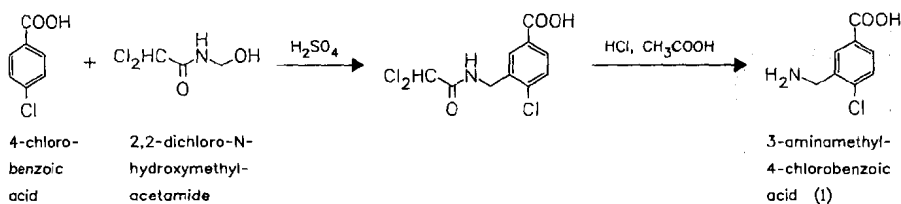
ATC: V08AA03

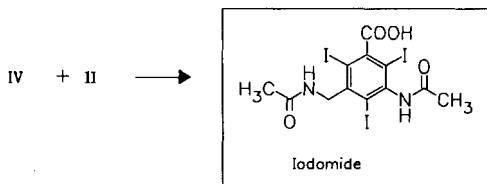
Use: X-ray contrast medium

RN: 440-58-4 MF: $C_{12}H_{11}I_3N_2O_4$ MW: 627.94 EINECS: 207-125-1LD₅₀: >7 g/kg (M, p.o.);

>7 g/kg (R, p.o.)

CN: 3-(acetamino)-5-[(acetamino)methyl]-2,4,6-triodobenzoic acid

meeglumine saltRN: 18656-21-8 MF: $C_{12}H_{11}I_3N_2O_4 \cdot C_7H_{17}NO_5$ MW: 823.16 EINECS: 242-480-6

**Reference(s):**

US 3 360 436 (Eprova; appl. 12.11.1963; CH-prior. 23.11.1962, 9.8.1963).

GB 1 002 344 (Eprova; appl. 3.10.1963; CH-prior. 23.11.1962, 9.8.1963).

DE 1 273 747 (Eprova; appl. 24.9.1963; CH-prior. 23.11.1962).

Formulation(s): amp. 300 mg, 380 mg, 420 mg (as meglumine salt)**Trade Name(s):**

D: Uromiro (Heyden); wfm

Opacist E.R. (Bracco)

J: Conraxin (Takeda)

I: Isteropac E.R. (Bracco)

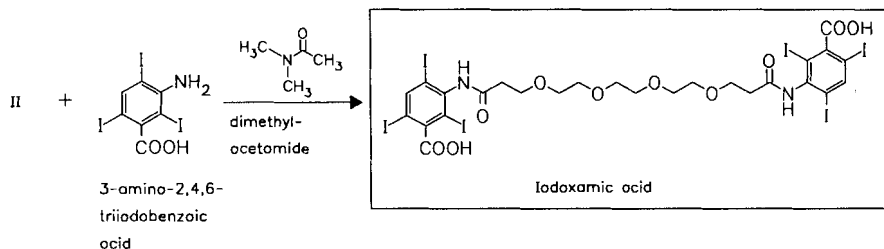
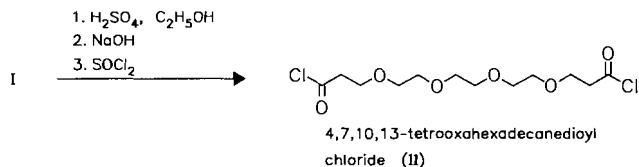
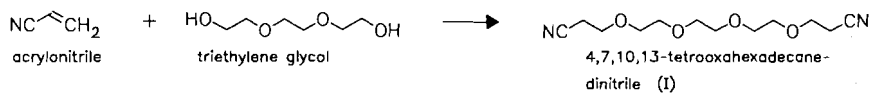
Uromiro (Bracco)

Iodoxamic acid

ATC: V08AC01

Use: X-ray contrast medium
(cholangiography)RN: 31127-82-9 MF: C₂₆H₂₆I₆N₂O₁₀ MW: 1287.92 EINECS: 250-478-1LD₅₀: 13.65 g/kg (M, i.v.)

CN: 3,3'-[(1,16-dioxo-4,7,10,13-tetraoxahexadecane-1,16-diyl)diimino]bis[2,4,6-triiodobenzoic acid]

meglumine salt (1:2)RN: 51764-33-1 MF: C₂₆H₂₆I₆N₂O₁₀ · 2C₇H₁₇NO₅ MW: 1678.35 EINECS: 257-398-6**Reference(s):**

DE 1 937 211 (Bracco; appl. 22.7.1969).

Formulation(s): amp. 3.66 g, 5.49 g, 8.06 g, 9.91 g, 12.09 g (as meglumine salt)

Trade Name(s):

D: Endomirabil (Byk Gulden); I: Endobil (Bracco)
wfm J: Cholegrafin (Takeda)

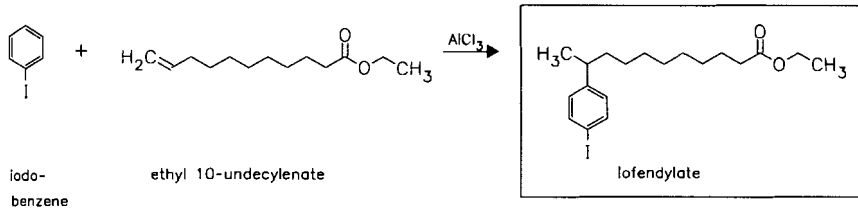
Iofendylate

(Iophendylate)

ATC: V08AD04

Use: X-ray contrast medium
(myelography)RN: 99-79-6 MF: $C_{19}H_{29}IO_2$ MW: 416.34 EINECS: 202-787-8LD₅₀: 2100 mg/kg (R, p.o.)

CN: 4-iodo-1-methylbenzenedecanoic acid ethyl ester

**Reference(s):**

US 2 348 231 (Eastman Kodak; 1944; appl. 1940).

Formulation(s): inj. sol.**Trade Name(s):**

GB: Ethiodan (Allen & Hanburys); wfm USA: Pantopaque (Lafayette); wfm

Ioglycamic acid

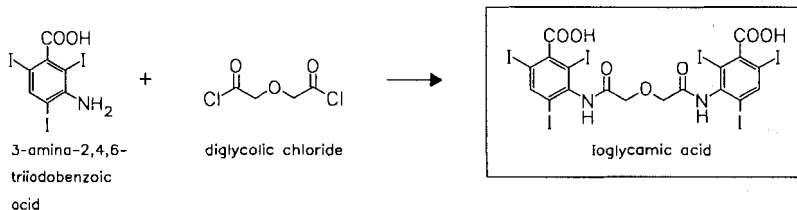
(Acide ioglycamique)

ATC: V08AC03

Use: X-ray contrast medium

RN: 2618-25-9 MF: $C_{18}H_{10}I_6N_2O_7$ MW: 1127.71 EINECS: 220-048-8

CN: 3,3'-[oxybis[(1-oxo-2,1-ethanediyl)imino]]bis[2,4,6-triodobenzoic acid]

meglumine salt (1:2)RN: 14317-18-1 MF: $C_{18}H_{10}I_6N_2O_7 \cdot 2C_7H_{17}NO_5$ MW: 1518.14

Reference(s):

US 2 776 241 (Schering AG; 1957; D-prior. 1952).

US 2 853 424 (Schering AG; 1958; D-prior. 1952).

DE 936 928 (Schering AG; appl. 1952).

DE 962 698 (Schering AG; appl. 1952).

DE 962 699 (Schering AG; appl. 1953).

DE 1 006 428 (Schering AG; appl. 1955).

Formulation(s): amp. 0.17 g/ml (as meglumine salt)*Trade Name(s):*

D:	Biligram (Schering); wfm	GB:	Biligram (Schering Chemicals); wfm	Bilivison (Schering); wfm
	Bilivistan (Schering); wfm			Bilivistan (Schering); wfm
F:	Biligram (Schering); wfm	I:	Biligram (Schering); wfm	

Iohexol

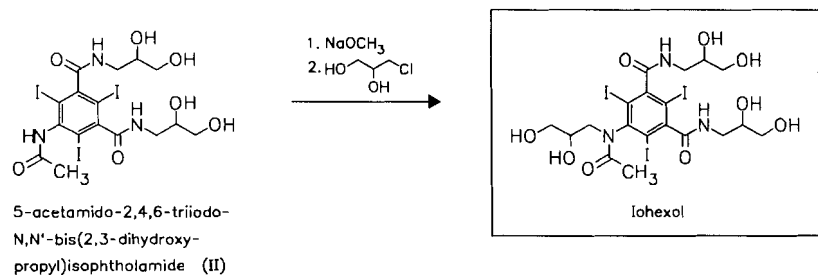
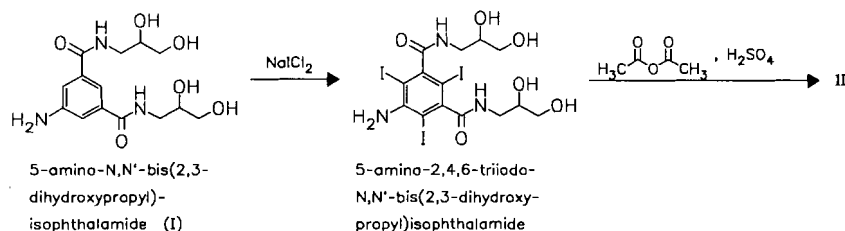
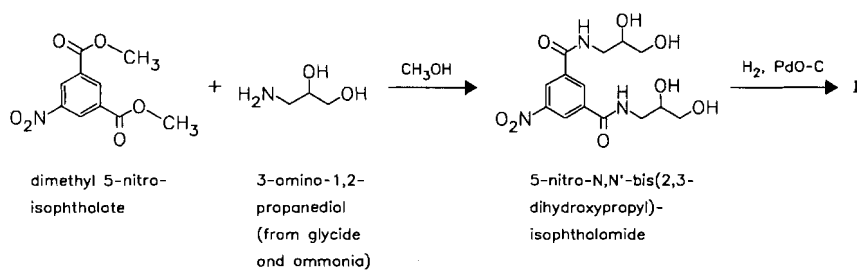
ATC: V08AB02

Use: X-ray contrast medium

RN: 66108-95-0 MF: C₁₉H₂₆I₃N₃O₉ MW: 821.14 EINECS: 266-164-2

LD₅₀: 50 g/kg (M, i.v.); >20 g/kg (M, p.o.);
25.235 g/kg (R, i.v.); >20 g/kg (R, p.o.);
>20 g/kg (dog, i.v.)

CN: 5-[acetyl(2,3-dihydroxypropyl)amino]-N,N'-bis(2,3-dihydroxypropyl)-2,4,6-triiodo-1,3-benzenedicarboxamide



Reference(s):

DE 2 726 196 (Nyegaard; appl. 10.6.1977; GB-prior. 11.6.1976).

US 4 250 113 (Nyegaard; 10.2.1981; GB-prior. 11.6.1976).

Formulation(s): amp. 240 mg, 300 mg, 350 mg**Trade Name(s):**D: Accupaque (Nycomed)
Omnipaque (Schering;
1983)F: Omnipaque (Nycomed;
1986)
I: Omnipaque (Schering;
1985)J: Lumopaque (Winthrop)
Omnipaque (Daiichi)
USA: Omnipaque (Winthrop-
Breon); wfm**Iopamidol**

ATC: V08AB04

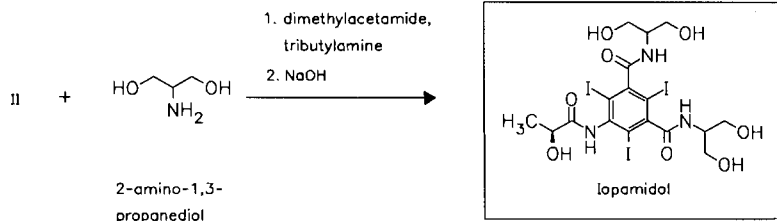
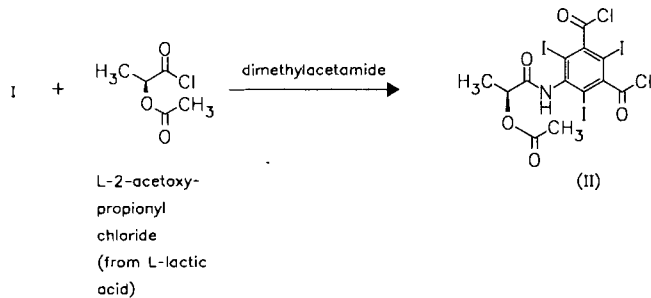
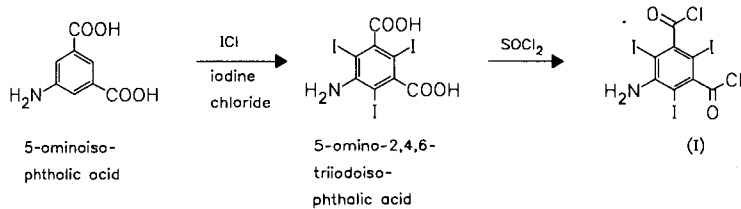
Use: X-ray contrast medium

RN: 60166-93-0 MF: C₁₇H₂₂I₃N₃O₈ MW: 777.09 EINECS: 262-093-6LD₅₀: 33 g/kg (M, i.v.); >49 g/kg (M, p.o.);

22.044 g/kg (R, i.v.);

35 g/kg (dog, i.v.)

CN: (S)-N,N'-bis[2-hydroxy-1-(hydroxymethyl)ethyl]-5-[(2-hydroxy-1-oxopropyl)amino]-2,4,6-triiodo-1,3-benzenedicarboxamide

**Reference(s):**

DE 2 547 789 (Savac; appl. 24.10.1975; CH-prior. 13.12.1974).

US 4 001 323 (Savac; 4.1.1977; CH-prior. 13.12.1974).

Formulation(s): amp. 200 mg, 300 mg, 370 mg

Trade Name(s):

D: Solutrast (Byk Gulden); GB: Niopam (Merck; 1982); J: Iopamiron (Nippon Schering)
 F: Iopamiron (Schering; 1982) I: Giastromiro (Bracco) USA: Isovue (Squibb); wfm
 Iopamiro (Bracco)

Iopanoic acid

(Acidum iopanoicum)

ATC: V08AC06

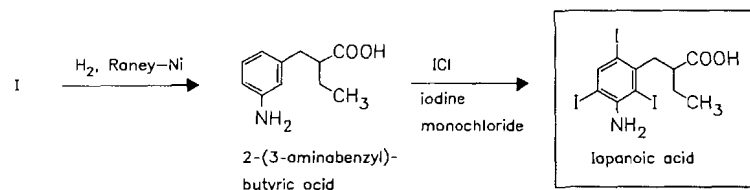
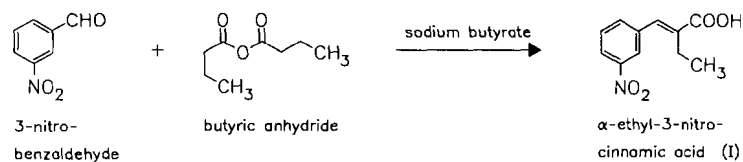
Use: X-ray contrast medium

RN: 96-83-3 MF: C₁₁H₁₂I₃NO₂ MW: 570.93 EINECS: 202-539-9LD₅₀: 320 mg/kg (M, i.v.); 6600 mg/kg (M, p.o.);

280 mg/kg (R, i.v.); 1540 mg/kg (R, p.o.)

CN: 3-amino- α -ethyl-2,4,6-triiodobenzenepropanoic acid**monosodium salt**RN: 2497-78-1 MF: C₁₁H₁₁I₃NNaO₂ MW: 592.92 EINECS: 219-683-3LD₅₀: 296 mg/kg (M, i.v.); 1602 mg/kg (M, p.o.);

332 mg/kg (R, i.v.); 2986 mg/kg (R, p.o.)



Reference(s):

US 2 705 726 (Sterling Drug; 1955; prior. 1949).

Formulation(s): cps. 500 mg (as sodium salt); powder 375 mg/g (as calcium salt)

Trade Name(s):

D: Telepaque (Winthrop); wfm I: Cistobil (Bracco) Molpaque (Tokyo Tanabe)
 F: Télépaque (Winthrop); wfm Telepaque (Winthrop); wfm Telepaque (Kodama)
 wfm J: Ace-Line (Maruishi) USA: Telepaque (Winthrop); wfm
 GB: Telepaque (Winthrop); wfm Leabar (Toyo S.-Ono)

Iophenoic acid

(Acidum iophenoicum; Iophenoic acid)

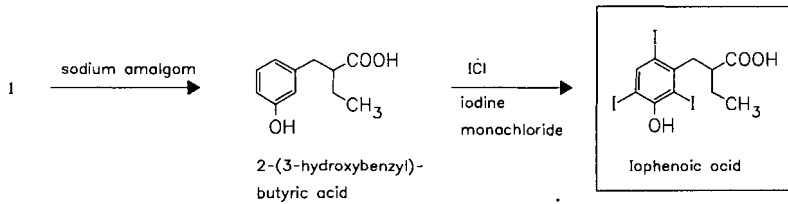
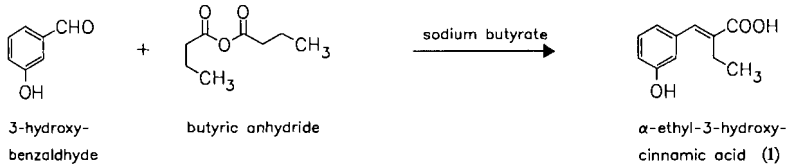
ATC: V08AD

Use: X-ray contrast medium

RN: 96-84-4 MF: C₁₁H₁₁I₃O₃ MW: 571.92LD₅₀: 374 mg/kg (M, i.v.); 1850 mg/kg (M, p.o.);

2 g/kg (R, p.o.);

203 mg/kg (dog, i.v.)

CN: α -ethyl-3-hydroxy-2,4,6-triiodobenzenepropanoic acid*Reference(s):*

US 2 931 830 (Sterling Drug; 5.4.1960; appl. 20.3.1952).

GB 726 987 (Sterling Drug; appl. 1953; USA-prior. 1952).

Trade Name(s):

USA: Teridax (Schering); wfm

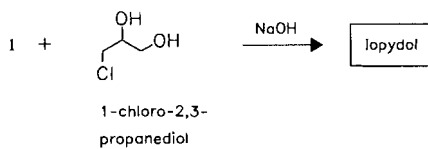
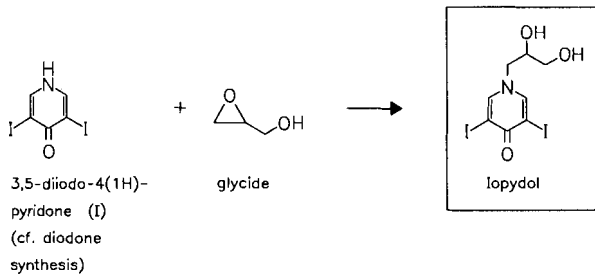
Iopydol

ATC: V08AD02

Use: X-ray contrast medium

RN: 5579-92-0 MF: C₈H₉I₂NO₃ MW: 420.97 EINECS: 226-968-6

CN: 1-(2,3-dihydroxypropyl)-3,5-diiodo-4(1H)-pyridinone



Reference(s):

DRP 579 224 (I. G. Farben; appl. 1930).

Formulation(s): vial 20 mg 3,5-diiodo-4(1*H*)-pyridone/ml in comb. with iopydol*Trade Name(s):*

D:	Hydrast (Byk Gulden); wfm	I:	Hytrast (Byk Gulden)- comb. with iopydone; wfm	J:	Hydrast (Guerbet- Kodama)-comb. with iopydone
F:	Hydrast (Guerbet)-comb. with iopydone; wfm				

Iotalamic acid

(Iothalamic acid; Acide iotalamique)

ATC: V08AA04

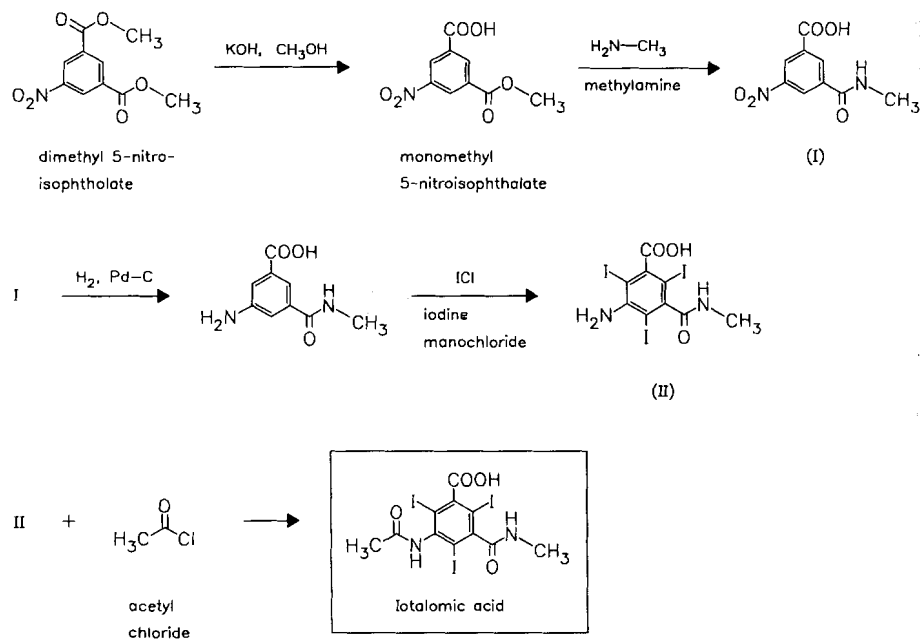
Use: X-ray contrast medium

RN: 2276-90-6 MF: C₁₁H₉I₃N₂O₄ MW: 613.92 EINECS: 218-897-4

CN: 3-(acetylamino)-2,4,6-triiodo-5-[(methylamino)carbonyl]benzoic acid

monosodium saltRN: 1225-20-3 MF: C₁₁H₈I₃N₂NaO₄ MW: 635.90 EINECS: 214-955-8LD₅₀: 19.2 g/kg (M, i.v.)**meglumine salt**RN: 13087-53-1 MF: C₁₁H₉I₃N₂O₄ · C₇H₁₇NO₅ MW: 809.13 EINECS: 235-998-9LD₅₀: 8.1 g/kg (M, i.v.);

10.5 g/kg (R, i.v.)

*Reference(s):*

Hoey, G.B. et al.: J. Med. Chem. (JMCMAR) 6, 24 (1963).

US 3 145 197 (Mallinckrodt; 18.8.1964; appl. 26.6.1961; prior. 25.8.1960).

GB 994 215 (Mallinckrodt; appl. 18.8.1961; USA-prior. 25.8.1960).

Formulation(s): sol. 17 %, 24 %, 36 %, 43 %, 60 %, 66.8 %, 80 % (as meglumine salt)

Trade Name(s):

D: Conray (Byk Gulden); wfm	I: Angio-Conray 80 (Bracco)	Conray (Mallinckrodt); wfm
F: Contrix 28 (Guerbet); wfm	Conray (Bracco)	wfm
GB: Conray (May & Baker); wfm	J: Angio-Conray (Daiichi)	Cysto-Conray (Mallinckrodt); wfm
Gastro-Conray (May & Baker); wfm	USA: Angio-Conray (Mallinckrodt); wfm	Vascoray (Mallinckrodt); wfm

Iotrolan

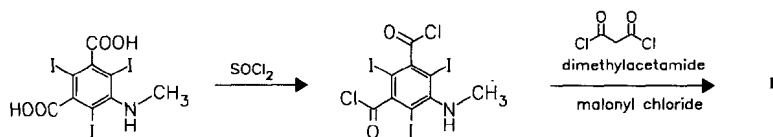
(DL-3117; Iotrol)

ATC: V08AB06

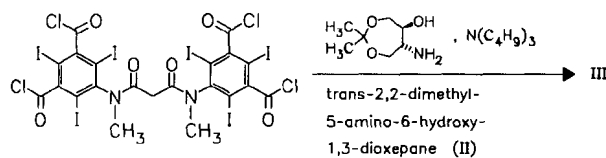
Use: X-ray contrast medium (water soluble, non-ionic, for myelography and contrast enhancement in CT)

RN: 79770-24-4 MF: $C_{37}H_{48}I_6N_6O_{18}$ MW: 1626.24LD₅₀: > 26 g/kg (M, i.v.);

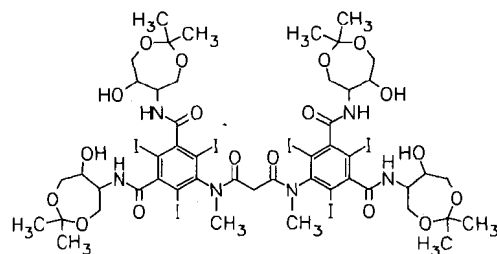
12.7 g/kg (R, i.v.)

CN: 5,5'-[1,3-dioxo-1,3-propanediyl]bis(methylimino)]bis[*N,N'*-bis[2,3-dihydroxy-1-(hydroxymethyl)propyl]-2,4,6-triiodo-1,3-benzenedicarbamide]

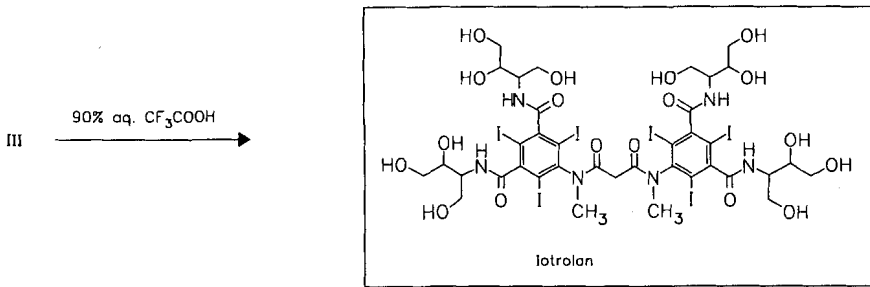
2,4,6-triiodo-5-methylimino-isophthalic acid



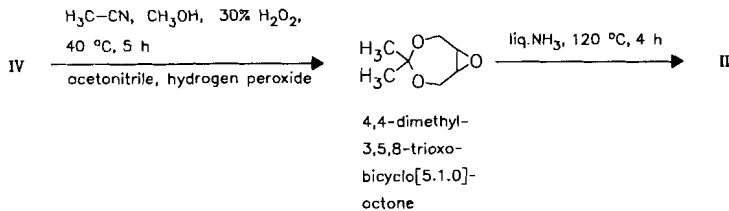
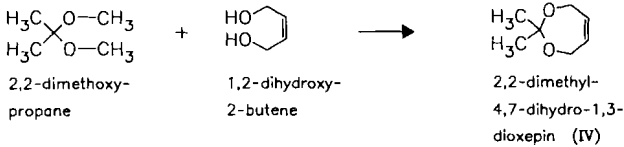
(I)



(III)



preparation of II:



The epoxidation step can also be performed with *m*-chloroperoxybenzoic acid in CH_2Cl_2 .

Reference(s):

US 4 341 756 (The Regents of the Univ. of Calif.; 27.7.1982; prior. 31.1.1980, 17.4.1980).
 EP 33 426 (The Regents of the Univ. of Calif.; appl. 30.12.1980; USA-prior. 31.1.1980, 17.4.1980).

preparation of trans-2,2-dimethyl-5-amino-6-hydroxy-1,3-dioxepane:

US 4 439 613 (The Regents of the Univ. of Calif.; 27.5.1984; prior. 31.1.1980, 17.4.1980, 5.4.1982).

review:

Dawson, P.; Howell, M.: Br. J. Radiol. (BJRAAP) **59**, 987 (1986).

Formulation(s): vial 10 ml and 20 ml (513 mg/ml), 10 ml (641 mg/ml)

Trade Name(s):

D: Isovist (Schering; 1988) J: Isovist (Nihon Schering;
 I: Isovist (Schering) 1987)

Iotroxic acid

ATC: V08AC02

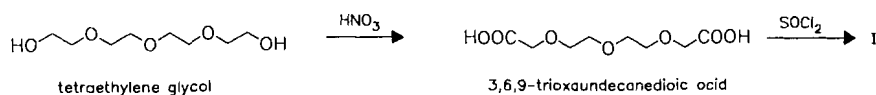
Use: X-ray contrast medium

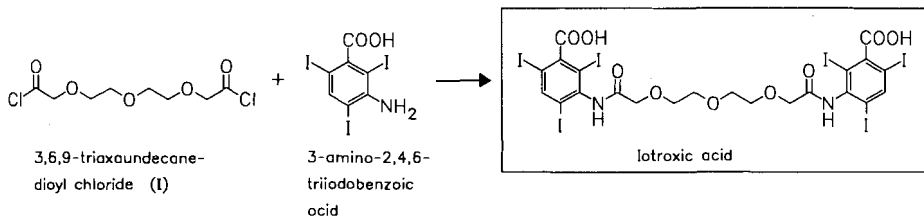
RN: 51022-74-3 MF: $\text{C}_{22}\text{H}_{18}\text{I}_6\text{N}_2\text{O}_9$ MW: 1215.82 EINECS: 256-917-3

LD₅₀: 2820 mg/kg (M, i.v.); >9 g/kg (M, p.o.);

4190 mg/kg (R, i.v.); >9 g/kg (R, p.o.)

CN: 3,3'-[oxybis[2,1-ethanediyl]oxy(1-oxo-2,1-ethanediyl)imino]]bis[2,4,6-triiodobenzoic acid]



**Reference(s):**

DAS 2 405 652 (Schering AG; appl. 4.2.1974).

Formulation(s): vial 10.5 g/100 ml, 11.4 g/50 ml**Trade Name(s):**

D:	Biliscopin (Schering)	F:	Biliscopine (Schering); wfm	I:	Chologram (Schering)
				J:	Biliscopin (Schering)

Ioxaglic acid

(Acide ioxaglique)

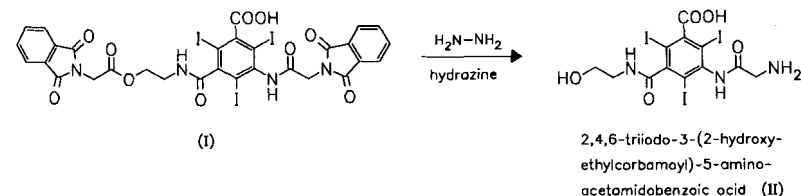
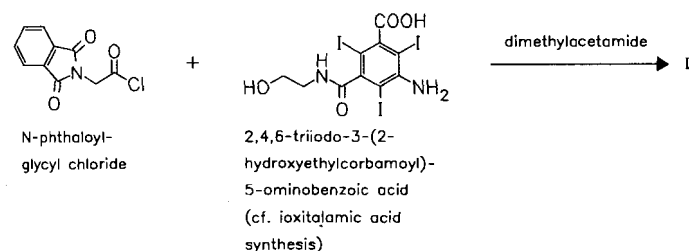
ATC: V08AB03

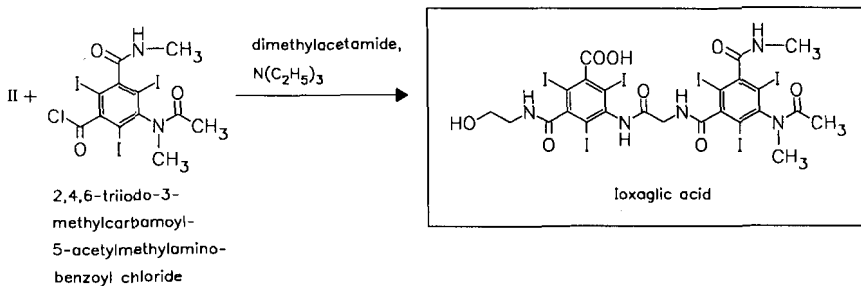
Use: X-ray contrast medium

RN: 59017-64-0 MF: C₂₄H₂₁I₆N₅O₈ MW: 1268.88 EINECS: 261-560-1

LD₅₀: >13.3 g/kg (M, i.v.);
13.3 g/kg (R, i.v.); 13.3 g/kg (R, p.o.);
>10.7 g/kg (dog, i.v.)

CN: 3-[[[3-(acetylmethylamino)-2,4,6-triiodo-5-[(methylamino)benzoyl]amino]acetyl]amino]-5-[[2-hydroxyethyl]amino]carbonyl]-2,4,6-triiodobenzoic acid

monosodium saltRN: 67992-58-9 MF: C₂₄H₂₀I₆N₅NaO₈ MW: 1290.87 EINECS: 268-060-2**meglumine salt**RN: 59018-13-2 MF: C₂₄H₂₁I₆N₅O₈ · C₇H₁₇NO₅ MW: 1464.10 EINECS: 261-561-7

**Reference(s):**

US 4 014 986 (Guerbet; 29.3.1977; appl. 20.5.1975; GB-prior. 31.7.1974).

DE 2 523 567 (Guerbet; appl. 28.5.1975; GB-prior. 31.5.1974, 31.7.1974).

US 4 055 188 (Guerbet; 25.1.1977; GB-prior. 31.5.1974).

Formulation(s): amp. 393 mg/ml (as sodium salt)**Trade Name(s):**

D: Hexabrix (Guerbet; 1979) I: Hexabrix (Byk Gulden)

F: Hexabrix (Guerbet; 1980) J: Hexabrix (Eiken)

Ioxitalamic acid

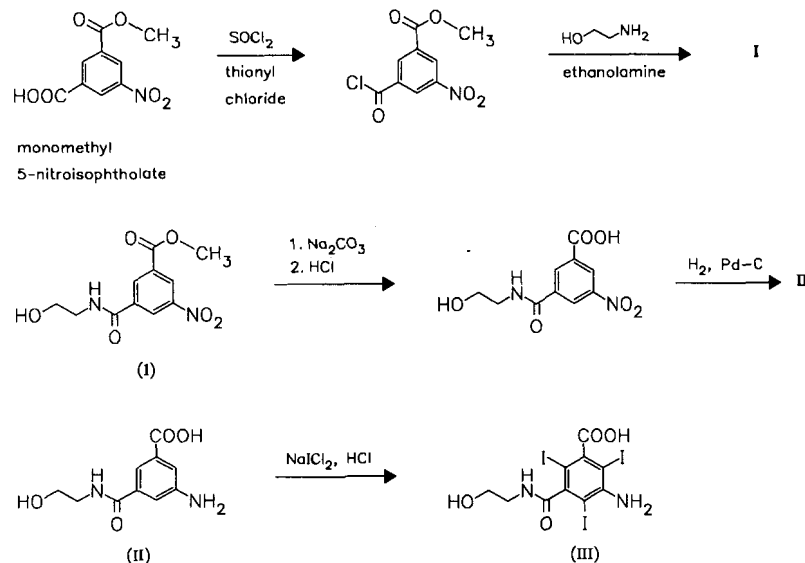
(Acide ioxitalamique)

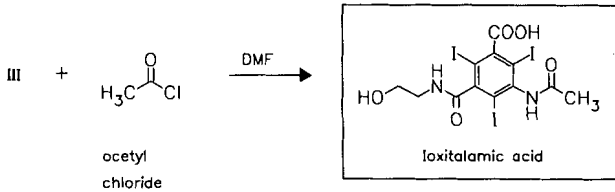
ATC: V08AA05

Use: X-ray contrast medium

RN: 28179-44-4 MF: $C_{12}H_{11}I_3N_2O_5$ MW: 643.94 EINECS: 248-887-5

CN: 3-(acetylamino)-5-[(2-hydroxyethyl)amino]carbonyl]-2,4,6-triiodobenzoic acid



*Reference(s):*

DOS 1 928 838 (Nyegaard; appl. 6.6.1969; GB-prior. 10.6.1968).

Formulation(s): amp. 397.2 mg, 660.3 mg/ml (as meglumine salt)

Trade Name(s):

D: Telebrix (Byk Gulden) Télébrix (Guerbet)-comb.
F: Télébrix (Guerbet) I: Telebrix (Byk Gulden)

Ipratropium bromide

ATC: R01AX03; R03BB01

Use: bronchodilator

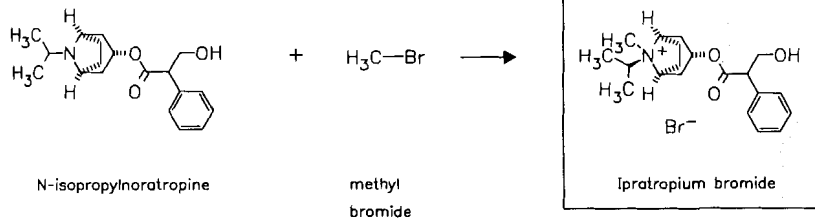
RN: 22254-24-6 MF: $C_{20}H_{30}BrNO_3$ MW: 412.37 EINECS: 244-873-8

LD₅₀: 12.29 mg/kg (M, i.v.); 1001 mg/kg (M, p.o.);

15.7 mg/kg (R, i.v.); 1663 mg/kg (R, p.o.);

1300 mg/kg (dog, p.o.)

CN: (*endo,syn*)-(±)-3-(3-hydroxy-1-oxo-2-phenylpropoxy)-8-methyl-8-(1-methylethyl)-8-azoniabicyclo[3.2.1]octane bromide

*Reference(s):*

DE 1 670 177 (Boehringer Ing.; prior. 28.12.1966).

US 3 505 337 (Boehringer Ing.; 7.4.1970; D-prior. 22.12.1967).

inhalation spray, also in combination with mucolytica and/or sympathomimetic effective bronchodilators:

US 3 681 500 (Boehringer Ing.; 1.8.1972; D-prior. 12.12.1969).

Formulation(s): aerosol inhalation 20 µg/metered inhalation, 40 µg/metered inhalation; inhalation sol. 250 µg/ml; inhalation cps. 20 µg, 40 µg; doses aerosol 0.25 mg, 0.4 mg; doses aerosol susp. 0.02 mg; sol. 0.02 mg, 0.25 mg/2 ml, 0.5 mg/2 ml

Trade Name(s):

D:	Atrovent (Boehringer Ing.; 1975)	Bronchodual (Boehringer Ing.)-comb.		numerous combination preparations
	Berodual (Boehringer Ing.; 1980)-comb.	Combivent (Boehringer Ing.)-comb.	I:	Atem (Chiesi)
	Itrop (Boehringer Ing.)		GB:	Breva (Valeas)-comb.
F:	Atrovent (Boehringer Ing.)	Duovent (Boehringer Ing.)-comb.		Duovent (Boehringer Ing.)-comb.
				Iprafen (Chiesi)-comb.

J: Atrovent (Tejim Phar.)

USA: Atrovent (Boehringer Ing.;
1987)Combivent (Boehringer
Ing.)**Ipriflavone**

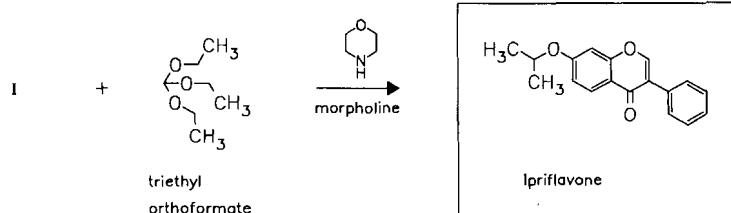
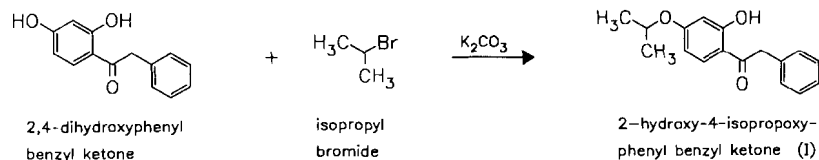
(FL-113; TC-80)

ATC: M05BX01

Use: calcium regulator (for treatment of
osteoporosis)RN: 35212-22-7 MF: C₁₈H₁₆O₃ MW: 280.32LD₅₀: >2.5 g/kg (M, i.p.); 3185 mg/kg (M, p.o.); >5 g/kg (M, s.c.);

>2.5 g/kg (R, i.p.); 2.5 g/kg (R, p.o.); >5 g/kg (R, s.c.)

CN: 7-(1-methylethoxy)-3-phenyl-4H-1-benzopyran-4-one

*Reference(s):*

US 4 166 862 (Chinoin; 4.9.1979; appl. 25.5.1971; prior. 16.5.1974; H-prior. 27.5.1970).

DE 2 125 245 (Chinoin; appl. 21.5.1971; H-prior. 27.5.1970).

Szuk, G. et al.: Magy. Kem. Lapja (MGKLAL) **43**, 401, (1988) (CA **110**, 179494 d).*synthesis of I:*

GB 1 374 925 (Chinoin; appl. 30.11.1972; H-prior. 2.12.1971).

pharmaceutical formulations:

JP 53 133 635 (Chinoin; appl. 20.4.1978; H-prior. 20.4.1978).

EP 129 893 (Takeda; appl. 23.6.1984; J-prior. 28.6.1983).

US 4 772 627 (Takeda; 20.9.1988; appl. 15.1.1987; J-prior. 8.6.1984, 23.6.1984, 28.6.1983).

cyclodextrin clathrates:

EP 214 647 (Chinoin; appl. 9.9.1986; J-prior. 10.9.1985).

medical use for treatment of heart and lung diseases:

JP 53 133 635 (Chinoin; appl. 20.4.1978; H-prior. 20.4.1977).

medical use for treatment of climacteric disorders:

EP 129 667 (Takeda; appl. 25.4.1984; J-prior. 26.4.1983).

dental compositions:

EP 349 535 (Reanal Finomvegyszergyar; appl. 29.1.1988; H-prior. 3.2.1987).

Formulation(s): tabl. 200 mg*Trade Name(s):*

I: Iprosten (Takeda; 1991)

Osteofix (Chiesi; 1991)

J: Osten (Takeda; 1989)

Iproniazid

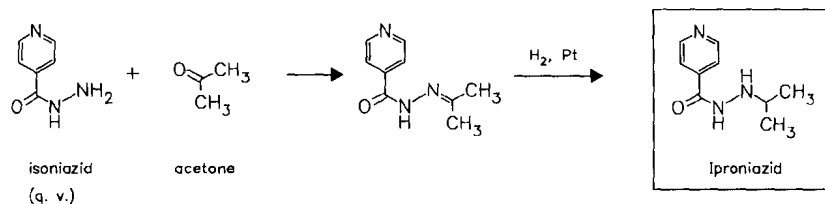
ATC: N06AF045

Use: tuberculostatic, psychoenergetic,
antidepressantRN: 54-92-2 MF: C₉H₁₃N₃O MW: 179.22 EINECS: 200-218-8LD₅₀: 719 mg/kg (M, i.v.); 681 mg/kg (M, p.o.);

365 mg/kg (R, p.o.);

95 mg/kg (dog, p.o.)

CN: 4-pyridinecarboxylic acid 2-(1-methylethyl)hydrazide

phosphateRN: 305-33-9 MF: C₉H₁₃N₃O · H₃PO₄ MW: 277.22**Reference(s):**

US 2 685 585 (Hoffmann-La Roche; 1954; prior. 1951).

Formulation(s): tabl. 50 mg (as phosphate)**Trade Name(s):**

F: Marsilid (Laphal)

I: Ellepibina (LPB)-comb.;

GB: Marsilid (Roche); wfm

wfm

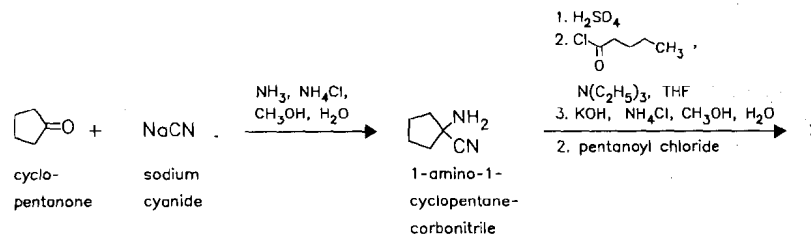
Irbesartan

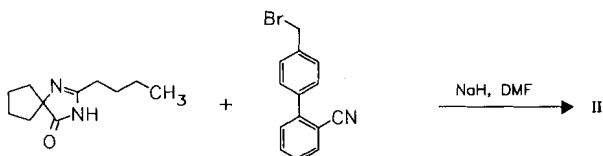
(BMS-186295; SR-47436)

ATC: C09CA04

Use: antihypertensive, angiotensin II
antagonistRN: 138402-11-6 MF: C₂₅H₂₈N₆O MW: 428.54

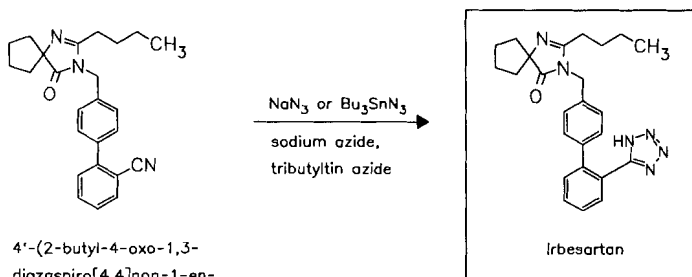
CN: 2-butyl-3-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-1,3-diazaspiro[4.4]non-1-en-4-one





2-butyl-1,3-diazospiro[4.4]non-1-en-4-one (I)

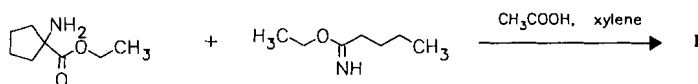
4'-(bromomethyl)-biphenyl-2-carbonitrile
(cf. losartan synthesis)



4'-(2-butyl-4-oxo-1,3-diazaspiro[4.4]non-1-en-3-ylmethyl)biphenyl-2-carbonitrile (II)

Irbesartan

alternative synthesis of intermediate I:



ethyl 1-amino-1-cyclopentane-carboxylate

ethyl pentan-3-imidate

Reference(s):

US 5 270 317 (Elf Sanofi; 14.12.1993; F-prior. 20.3.1990, 1.9.1990, 10.9.1991).
Bernhart, C.A. et al.: J. Med. Chem. (JMCMAR) **36**, 3371-3380 (1993).
EP 454 511 (Sanofi; appl. 20.3.1991; F-prior. 20.3.1990, 8.8.1990).

Formulation(s): tabl. 75 mg, 150 mg, 300 mg

Trade Name(s):

D:	Aprovel (Sanofi Winthrop; 1997)	KARVEZIDETM (BMS)-comb.	USA:	Avapro (BMS)-comb.
	COAPROVEL (Sanofi Synthelabo; BMS)-comb.	F:	Aprovel (Bristol-Myers Squibb)	Avalide (Sanofi Synthelabo)
	Karvea (Bristol-Myers Squibb)	GB:	Aprovel (Bristol-Myers Squibb/Sanofi)	

Irinotecan

(CPT-11; DQ-2805; NSC-616348)

ATC: L01XX19

Use: antineoplastic, topoisomerase inhibitor

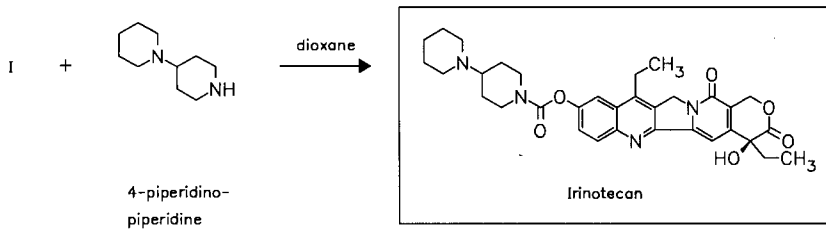
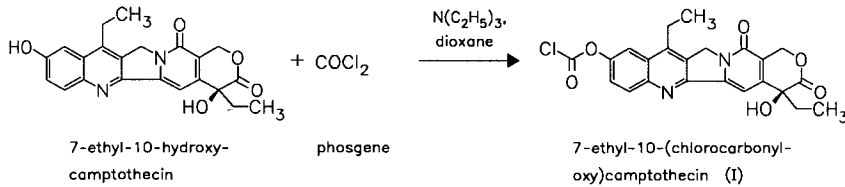
RN: 97682-44-5 MF: C₃₃H₃₈N₄O₆ MW: 586.69

CN: (S)-[1,4'-biperidine]-1'-carboxylic acid 4,11-diethyl-3,4,12,14-tetrahydro-4-hydroxy-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-9-yl ester

monohydrochlorideRN: 100286-90-6 MF: $C_{33}H_{38}N_4O_6 \cdot HCl$ MW: 623.15**monohydrochloride trihydrate**RN: 136572-09-3 MF: $C_{33}H_{38}N_4O_6 \cdot HCl \cdot 3H_2O$ MW: 677.20LD₅₀: 132 mg/kg (M, i.v.); 1045 mg/kg (M, p.o.);

83.6 mg/kg (R, i.v.); 867 mg/kg (R, p.o.);

40 mg/kg (dog, i.v.)

racemateRN: 130144-33-1 MF: $C_{33}H_{38}N_4O_6$ MW: 586.69**Reference(s):**

EP 137 145 (Yakult Honsha; appl. 14.7.1983; J-prior. 14.7.1983).

Henegar, K.E. et al.: J. Org. Chem. (JOCEAH) **62**, 6588 (1997).**slow release formulation:**

JP 07 277 981 (Daiichi Pharm.; appl. 12.4.1994; J-prior. 12.4.1994).

synergistic combinations:

JP 04 208 224 (Daiichi Pharm.; appl. 30.11.1990; J-prior. 30.11.1990).

WO 9 309 782 (SmithKline Beecham; appl. 13.11.1992; USA-prior. 15.11.1991).

WO 9 410 995 (Rhône-Poulenc Rorer; appl. 10.11.1992; F-prior. 10.11.1992).

Formulation(s): vial 40 mg/2 ml, 100 mg/ 5 ml (as hydrochloride)**Trade Name(s):**

F:	Campto (Rhône-Poulenc Rorer; as hydrochloride)	J:	Campto (Yakult Housha; as hydrochloride)	USA:	Camptosar (Pharmacia & Upjohn)
GB:	Campto (Rhône-Poulenc Rorer; as hydrochloride)		Topotecin (Daiichi Seiyaku; as hydrochloride)		

Isepamicin

(Sch-21420)

ATC: J01GB11; J01KD

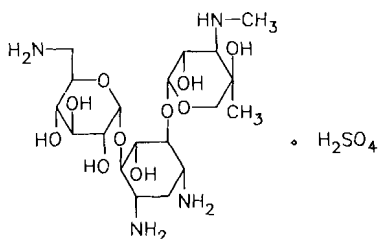
Use: aminoglycoside antibiotic (against urinary and respiratory tract infections)

RN: 58152-03-7 MF: $C_{22}H_{43}N_5O_{12}$ MW: 569.61 EINECS: 261-143-4LD₅₀: 5000 mg/kg (M, i.p.); 330 mg/kg (M, i.v.)CN: (S)-O-6-amino-6-deoxy- α -D-glucopyranosyl-(1 \rightarrow 4)-O-[3-deoxy-4-C-methyl-3-(methylamino)- β -L-arabinopyranosyl-(1 \rightarrow 6)]-N¹-(3-amino-2-hydroxy-1-oxopropyl)-2-deoxy-D-streptamine

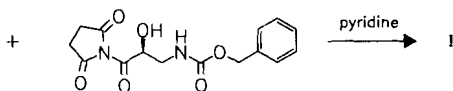
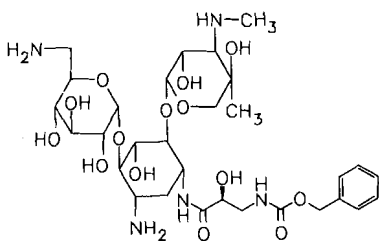
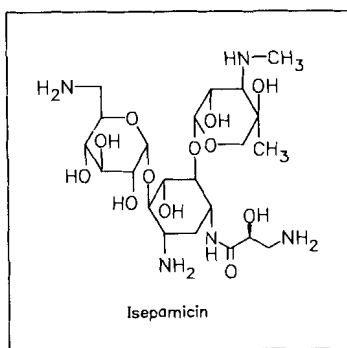
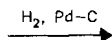
sulfateRN: 67814-76-0 MF: C₂₂H₄₃N₅O₁₂ · H₂SO₄ MW: 667.69LD₅₀: 2088 mg/kg (R, i.m.); 1591 mg/kg (R, i.p.); 476 mg/kg (R, i.v.); 3392 mg/kg (R, s.c.)**disulfate**RN: 68000-78-2 MF: C₂₂H₄₃N₅O₁₂ · 2H₂SO₄ MW: 765.77LD₅₀: 234 mg/kg (M, i.v.); >5 g/kg (M, p.o.);

476 mg/kg (R, i.v.); >5 g/kg (R, p.o.);

720 mg/kg (dog, i.v.)



gentamicin B sulfate

N-[(S)-3-benzyloxy-
carbonylamino-2-
hydroxypropionyl]-
succinimideN¹-[(S)-3-benzyloxy-
carbonylamino-2-
hydroxypropionyl]betamicin (I)

Isepamicin

Reference(s):

DOS 2 502 296 (Schering; appl. 21.1.1975; USA-prior. 19.3.1974).

US 4 029 882 (Schering Corp.; 14.6.1977; appl. 19.3.1974).

alternative synthesis:

EP 405 820 (Schering Corp.; appl. 19.6.1990; USA-prior. 21.6.1989).

US 4 136 254 (Schering; 23.1.1979; appl. 18.5.1978; prior. 17.6.1976).

US 4 230 847 (Schering Corp.; 28.1.1980; appl. 26.12.1979; prior. 18.5.1978, 17.6.1976).

US 4 337 335 (Schering Corp.; 29.6.1982; appl. 26.12.1979; prior. 18.5.1978, 17.6.1976).

EP 430 234 (Kanegafuchi; appl. 29.11.1990; J-prior. 29.11.1989).

stable ampoule formulation:

JP 1 268 698 (Toyo Jozo; appl. 20.4.1988).

Formulation(s): amp. 250 mg, 500 mg**Trade Name(s):**F: Isévalline (Schering-
Plough)J: Exacin (Toyo Jozo; 1988)
Isepacin (Essex; 1988)

Isoaminile

ATC: R05DB04
Use: antitussive

RN: 77-51-0 MF: C₁₆H₂₄N₂ MW: 244.38 EINECS: 201-033-5

LD₅₀: 55 mg/kg (M, i.v.);
48.4 mg/kg (dog, i.v.)

CN: α-[2-(dimethylamino)propyl]-α-(1-methylethyl)benzeneacetonitrile

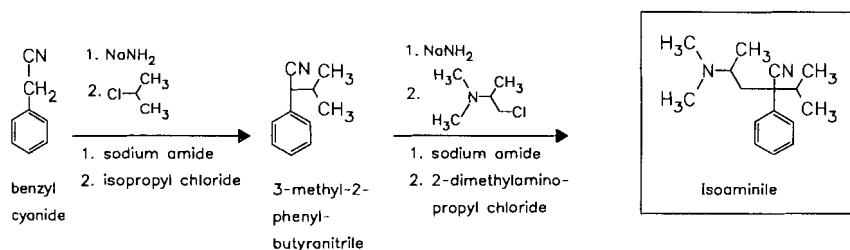
citrate (1:1)

RN: 28416-66-2 MF: C₁₆H₂₄N₂ · C₆H₈O₇ MW: 436.51 EINECS: 249-011-4

cyclamate (1:1)

RN: 10075-36-2 MF: C₁₆H₂₄N₂ · C₆H₁₃NO₃S MW: 423.62 EINECS: 233-207-1

LD₅₀: 57 mg/kg (M, i.v.); 298 mg/kg (M, p.o.);
270 mg/kg (R, p.o.);
84 mg/kg (dog, i.v.)

**Reference(s):**

GB 765 510 (Kali-Chemie; appl. 1955; D-prior. 1954).
DE 960 462 (Kali-Chemie; appl. 1954).
DE 964 499 (Kali-Chemie; appl. 1954).
US 2 934 557 (Kali-Chemie; 1960; D-prior. 1957).
Krause, D.: *Arzneim.-Forsch. (ARZNAD)* **8**, 553 (1958).

cyclohexylsulfamic acid salt:

US 3 074 996 (Abbott; 22.1.1963; appl. 18.4.1960).

Formulation(s): drg., tabl. 40 mg (as citrate); drops 50 mg; sol. 50 mg/15 ml (as cyclamate)

Trade Name(s):

D:	Peracon (Kali-Chemie); wfm	GB:	Dimyrl (Fisons); wfm	Sedotosse (Panthox & Burck); wfm	
F:	Mucalan (Delagrange); wfm	I:	Peracon Kali-Chemie (Sir); wfm	J:	Peracan (Toyo)

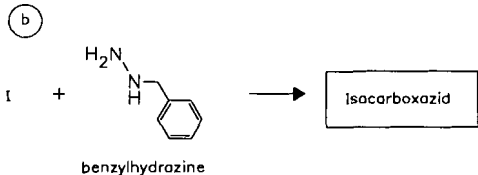
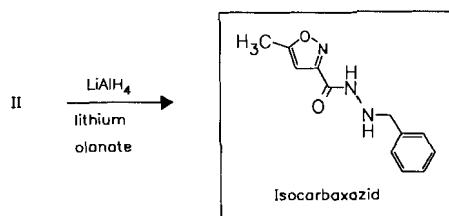
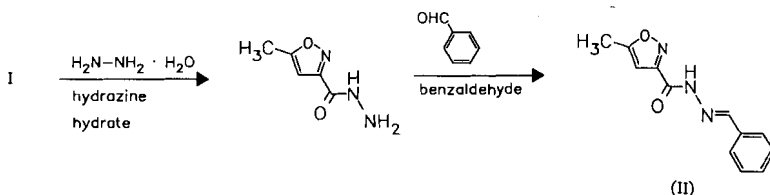
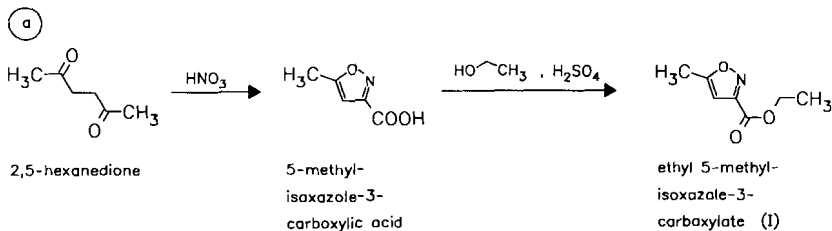
Isocarboxazid

ATC: N06AF01
Use: MAO-inhibitor, antidepressant

RN: 59-63-2 MF: C₁₂H₁₃N₃O₂ MW: 231.26 EINECS: 200-438-4

LD₅₀: 193 mg/kg (M, p.o.);
280 mg/kg (R, p.o.);
>40 mg/kg (dog, p.o.)

CN: 5-methyl-3-isoxazolecarboxylic acid 2-(phenylmethyl)hydrazide

**Reference(s):**

US 2 908 688 (Hoffmann-La Roche; 13.10.1959; prior. 15.4.1958).

Formulation(s): tabl. 10 mg

Trade Name(s):

F:	Marplan (Roche); wfm	I:	Marplan (Roche); wfm	USA:	Marplan (Roche); wfm
GB:	Marplan (Roche); wfm	J:	Enerzer (Takeda)		

Isoconazole

ATC: D01AC05; G01AF07
Use: antifungal, antibacterial

RN: 27523-40-6 MF: C₁₈H₁₄Cl₄N₂O MW: 416.14 EINECS: 248-508-3

LD₅₀: 189 mg/kg (M, i.p.)

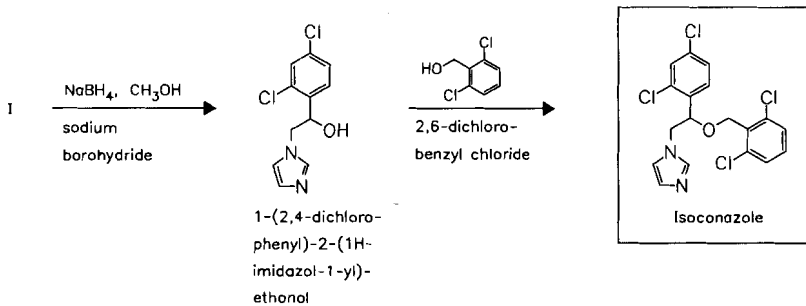
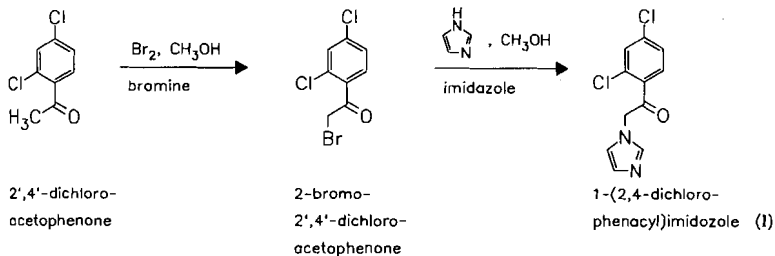
CN: 1-[2-(2,4-dichlorophenyl)-2-[(2,6-dichlorophenyl)methoxy]ethyl]-1H-imidazole

mononitrate

RN: 24168-96-5 MF: C₁₈H₁₄Cl₄N₂O · HNO₃ MW: 479.15 EINECS: 246-051-4

LD₅₀: 2 g/kg (M, p.o.);

5600 mg/kg (R, p.o.)



Reference(s):

DOS 1 940 388 (Janssen; appl. 8.8.1969; USA-prior. 19.8.1968).
 US 3 717 655 (Janssen; 20.2.1973; prior. 19.8.1968, 23.7.1969).
 US 3 839 574 (Janssen; 1.10.1974; prior. 19.8.1968, 23.7.1969, 19.7.1972).
 Godefroi, E.F. et al.: J. Med. Chem. (JMCMAR) **12**, 784 (1969).

Formulation(s): cream 10 mg/g (1 %); pessaries 100 mg, 300 mg, 600 mg (as nitrate); spray 10 mg/ml

Trade Name(s):

D:	Bi-Vaspit (Asche)-comb. Travocort (Schering)-comb. Travogen (Schering; 1979)	F:	Fazol (Bellon; Rhône-Poulenc Rorer; 1979)	J:	Travocort (Schering)-comb. Travogen (Schering) Adestan (Schering)
		GB:	Travogyn (Schering)		
		I:	Isogyn (Crosara)		

Isoetarine

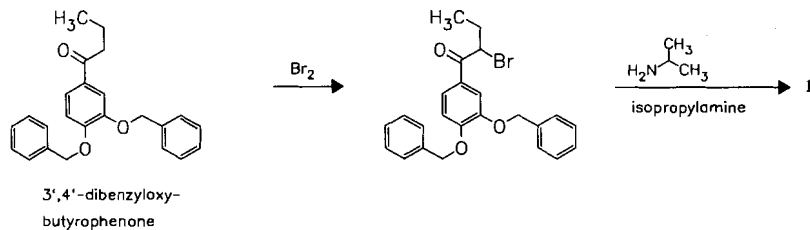
(Etyprenalinum; Isoetharine)

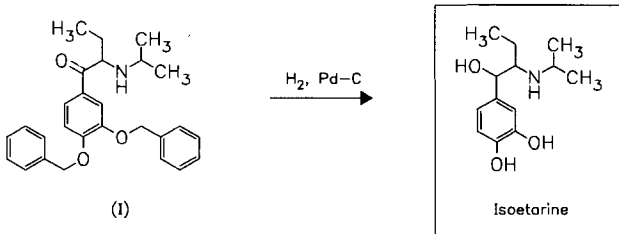
ATC: R03AC07; R03CC06
 Use: bronchodilator, sympathomimetic

RN: 530-08-5 MF: C₁₃H₂₁NO₃ MW: 239.32 EINECS: 208-472-1
 CN: 4-[1-hydroxy-2-[(1-methylethyl)amino]butyl]-1,2-benzenediol

hydrochloride

RN: 50-96-4 MF: C₁₃H₂₁NO₃ · HCl MW: 275.78
 LD₅₀: 57 mg/kg (M, i.v.)

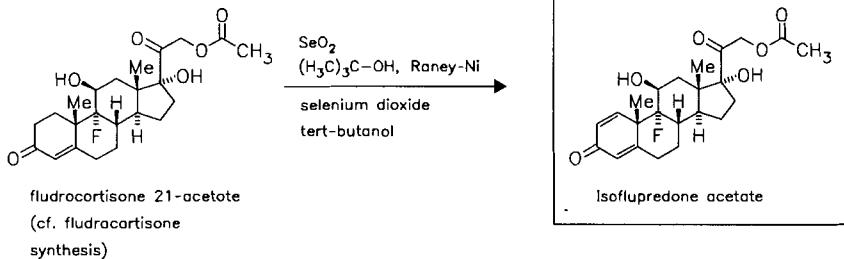


**Reference(s):**

DRP 638 650 (I. G. Farben; 1934).

Formulation(s): amp. 1 mg, 2.4 mg, 5 mg, 5.1 mg; sol. for inhalation 0.125 %, 0.61 %, 1 % (as hydrochloride)**Trade Name(s):**

D: Asthmalitan (Kettelhack-Riker); wfm

GB: Bronchilator (Sterling Res.); wfm
Numotac (Riker); wfmUSA: Bronkometer (Sanofi)-comb.
Bronkosol (Sanofi)-comb.**Isoflupredone acetate**ATC: H02AB
Use: glucocorticoidRN: 338-98-7 MF: $C_{23}H_{29}FO_6$ MW: 420.48 EINECS: 206-423-9CN: (11 β)-21-(acetyloxy)-9-fluoro-11,17-dihydroxypregna-1,4-diene-3,20-dione**isoflupredone**RN: 338-95-4 MF: $C_{21}H_{27}FO_5$ MW: 378.44 EINECS: 206-422-3**Reference(s):**

DE 1 096 900 (American Cyanamid; appl. 1959; USA-prior. 1958).

microbiological dehydrogenation with Corynebacterium simplex (A.T.C.C. 6946):

US 2 837 464 (Schering Corp.; 1958; prior. 1955).

alternative synthesis:

DE 1 159 947 (Merck & Co.; appl. 1956; USA-prior. 1955).

GB 826 364 (Merck & Co.; valid from 1956; USA-prior. 1955).

Formulation(s): amp. 10 ml**Trade Name(s):**I: Altaflor (Intes)-comb.; wfm
Biorinil (Farmila)-comb.; wfm

Cortifluoral (Schering); wfm

Dermaflogil (Nuovo Cons. Sanit. Naz.)-comb.; wfm

Fluoroinil (Farmila)-comb.;
wfm

Menaderm simp.
(Menarini); wfm

USA: Predef 2x (Upjohn); wfm

Isoflurane

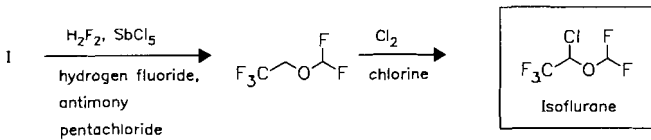
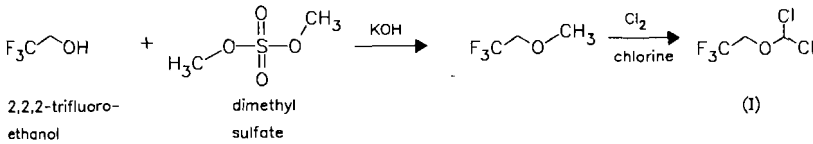
ATC: N01AB06

Use: inhalation anesthetic

RN: 26675-46-7 MF: C₃H₂ClF₅O MW: 184.49 EINECS: 247-897-7

LD₅₀: 5080 µL/kg (M, p.o.);
4770 µL/kg (R, p.o.)

CN: 2-chloro-2-(difluoromethoxy)-1,1,1-trifluoroethane



Reference(s):

DOS I 814 962 (Air Reduction Comp.; appl. 16.12.1968; USA-prior. 15.12.1967, 22.5.1968).
US 3 535 388 (Air Reduction Comp.; 20.10.1970; prior. 15.12.1967, 21.3.1969).
US 3 535 425 (Air Reduction Comp.; 20.10.1970; prior. 15.12.1967, 18.12.1969).

alternative synthesis:

DOS 2 344 442 (Hoechst; appl. 4.9.1973).
US 3 637 477 (Air Reduction Comp.; 25.1.1972; prior. 20.2.1970, 22.5.1968).

Formulation(s): sol. for inhalation 100 ml

Trade Name(s):

D: Forene (Abbott; 1984)

J: Forane (Dainabot)

USA: Forane (Ohmeda; 1981)

Isofluorophate

(Difluorophate)

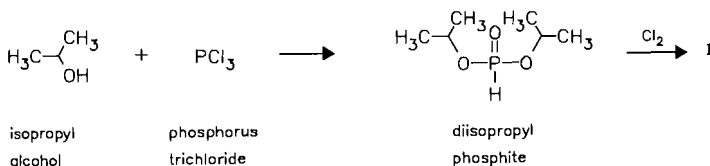
ATC: S03

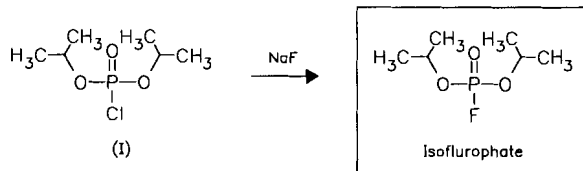
Use: parasymphathomimetic, miotic

RN: 55-91-4 MF: C₆H₁₄FO₃P MW: 184.15 EINECS: 200-247-6

LD₅₀: 3200 µg/kg (M, i.v.); 2 mg/kg (M, p.o.);
5 mg/kg (R, p.o.);
3430 µg/kg (dog, i.v.)

CN: phosphorofluoric acid bis(1-methylethyl) ester



**Reference(s):**

US 2 409 039 (Monsanto; 1946; appl. 1944).

Formulation(s): eye drops 0.01 %; eye ointment 0.025 %

Trade Name(s):

F: Diflupyl (Labaz); wfm USA: Floropryl (Merck Sharp &
J: D. F. P. Inj. (Sumitomo) Dohme); wfm

Isometheptene

ATC: A03AX10

Use: sympathetic antispasmodic for gut
and urinary tract

RN: 503-01-5 MF: C₉H₁₉N MW: 141.26 EINECS: 207-959-6

LD₅₀: 34 mg/kg (M, i.v.); 134 mg/kg (M, p.o.)

CN: N,6-dimethyl-5-hepten-2-amine

hydrochloride

RN: 6168-86-1 MF: C₉H₁₉N · HCl MW: 177.72 EINECS: 228-211-5

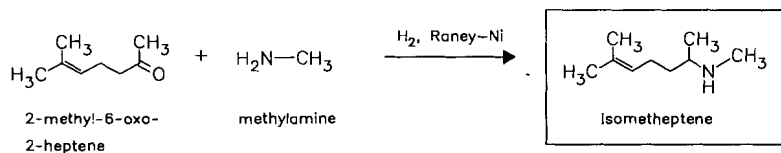
LD₅₀: 18 mg/kg (M, i.v.);

26 mg/kg (dog, i.v.)

tartrate (1:1)

RN: 5984-50-9 MF: C₉H₁₉N · C₄H₆O₆ MW: 291.34 EINECS: 227-795-9

LD₅₀: 130 mg/kg (R, i.p.)

**Reference(s):**

US 1 972 450 (Knoll; 1934; D-prior. 1931).

US 2 230 753 (E. Bilhuber; 1941; D-prior. 1937).

US 2 230 754 (E. Bilhuber; 1941; D-prior. 1937).

Formulation(s): amp. 100 mg (as hydrochloride); drops 100 mg, 50 mg; tabl. (as tartrate)

Trade Name(s):

D: Neopyrin (Nordmark)-comb.; wfm GB: Midrid (Shire)-comb. USA: Duradrin (Duramed; as
Neosal (Nordmark)-comb.; wfm I: Octinum (Knoll); wfm mucate)-comb.
wfm J: Cesal (Dainippon)-comb. Midrin (Carnrick; as
mucate)

Isoniazid

ATC: J04AC01

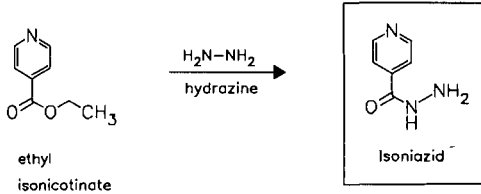
Use: tuberculostatic

RN: 54-85-3 MF: C₆H₇N₃O MW: 137.14 EINECS: 200-214-6LD₅₀: 149 mg/kg (M, i.v.); 133 mg/kg (M, p.o.);

365 mg/kg (R, i.v.); 1250 mg/kg (R, p.o.);

50 mg/kg (dog, p.o.)

CN: 4-pyridinecarboxylic acid hydrazide

**Reference(s):**Meyer, H.; Mally, J.: Monatsh. Chem. (MOCMB7) **33**, 393 (1912).

US 2 596 069 (Roche; 1952; appl. 1952).

US 2 830 994 (Distillers; 15.4.1958; GB-prior. 29.6.1955).

DE 1 116 667 (BASF; appl. 3.7.1956).

combination with prothionamide and dapsone:

DAS 2 340 515 (Saarstickstoff-Fatol; appl. 10.8.1973).

Formulation(s): amp. 100 mg/5 ml, 250 mg/5 ml; tabl. 50 mg, 100 mg, 200 mg, 300 mg**Trade Name(s):**

D:	Isoprodian (Fatol)-comb. Isozid (Fatol) Myambutol (Lederle)-comb. Tebesium (Hefa Pharma)	I:	Rimactazid (Novartis)-comb. Rimifon (Roche); wfm Emozide B6 (Piam)-comb. Etanicozid (Piam)-comb. Etibi (Zoja)-comb. Miazide (Cyanamid)-comb. Niczide (IFI) Niczina (Pharmacia & Upjohn) Nicozid (Piam) Rifanicozid (Piam)-comb. Rifinah (Lepetit)-comb. combination preparations	USA:	Diazid (Nippon Shinyaku) Hycozid (Takeda) Hydra (Otsuka) Iscotin (Daiichi) Niazid (Sankyo) Niplen (Tanabe) Sumifon (Sumitomo) Tuberon (Shionogi) Nydrasid (Apothecon) Rifamate (Hoechst Marion Roussel) Rifater (Hoechst Marion Roussel) generic
F:	Dexambutol-INH (L'Arguenon)-comb. Rifater (Marion Merrell)-comb. Rifinah (Marion Merrell)-comb. Rimifon (Roche)	J:	Anteben (Dainippon)		
GB:	Rifater (Hoechst)-comb. Rifinah (Hoechst)-comb.				

Isoprenaline

(Isoproterenol)

ATC: C01CA02; R03AB02; R03CB01

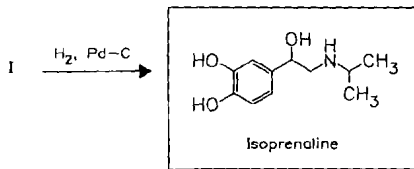
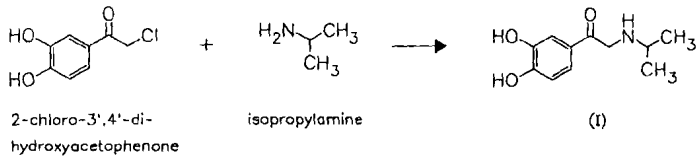
Use: bronchodilator, dermatic

RN: 7683-59-2 MF: C₁₁H₁₇NO₃ MW: 211.26 EINECS: 231-687-7LD₅₀: 83 mg/kg (M, i.v.); 450 mg/kg (M, p.o.);

57 mg/kg (R, i.v.); 355 mg/kg (R, p.o.);

50 mg/kg (dog, i.v.); 600 mg/kg (dog, p.o.)

CN: 4-[1-hydroxy-2-[(1-methylethyl)amino]ethyl]-1,2-benzenediol

bitartrate (1:1)RN: 59-60-9 MF: C₁₁H₁₇NO₃ · C₄H₆O₆ MW: 361.35 EINECS: 200-437-9**hydrochloride**RN: 51-30-9 MF: C₁₁H₁₇NO₃ · HCl MW: 247.72 EINECS: 200-089-8LD₅₀: 77 mg/kg (M, i.v.); 1260 mg/kg (M, p.o.);
26.9 mg/kg (R, i.v.); 2221 mg/kg (R, p.o.);
50 mg/kg (dog, i.v.); 600 mg/kg (dog, p.o.)**sulfate (2:1)**RN: 299-95-6 MF: C₁₁H₁₇NO₃ · 1/2H₂SO₄ MW: 520.60 EINECS: 206-085-2LD₅₀: 188 mg/kg (M, i.v.); >3 g/kg (M, p.o.);
96 mg/kg (R, i.v.); 2230 mg/kg (R, p.o.);
50 mg/kg (dog, i.v.); 600 mg/kg (dog, p.o.)**Reference(s):**

US 2 308 232 (Boehringer Ing.; 1943; D-prior. 1939).

DRP 723 278 (Boehringer Ing.; appl. 1939).

racemate resolution with (+)-tartaric acid:

US 2 715 141 (Delmar Chemicals; 1955; appl. 1952).

Formulation(s): aerosol 0.1 mg/push; amp. 0.2 mg, 2 mg (as hydrochloride); sol. for inhalation 0.25 %, 0.5 % (as sulfate); tabl. 10 mg, 15 mg, 20 mg**Trade Name(s):**

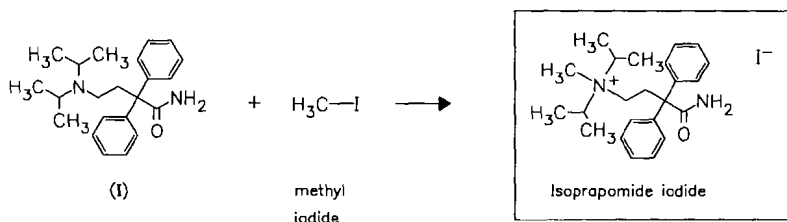
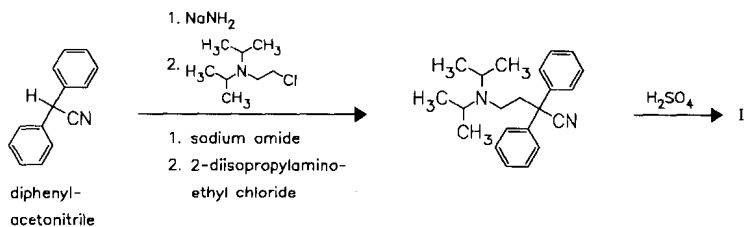
D:	Ingelan (Boehringer Ing.)	J:	Asthpul Sol. (Nippon Shoji)	Sedansol "Iso" (Nippon Zoki)
F:	Isuprel (Abbott) generic		Isomenyl (Kaken)	Sooner (Kaken)
GB:	Saventrine (Pharmax)		Medihaler-Iso (Dainippon)	USA: Isuprel (Sanofi; as hydrochloride)
I:	Aleudrin (Fher); wfm generics		Protomal (Nikken)	Medihaler-Iso (3M; as sulfate)
			Proternol (Nikken)	

Isopropamide iodide

ATC: A03AB09

Use: anticholinergic, antispasmodic

RN: 71-81-8 MF: C₂₃H₃₃IN₂O MW: 480.43 EINECS: 200-766-8LD₅₀: 12.779 g/kg (M, i.v.); 1600 mg/kg (M, p.o.)CN: γ -(aminocarbonyl)-N-methyl-N,N-bis(1-methylethyl)- γ -phenylbenzenepropanaminium iodide



Reference(s):

GB 772 921 (Janssen; appl. 1955; NL-prior. 1954).
 DE 1 003 744 (Janssen; appl. 1955; NL-prior. 1954).
 Janssen, P. et al.: Arch. Int. Pharmacodyn. Ther. (AIPTAK) CIII, **82** (1955).
 US 2 823 233 (Bristol; 1958; appl. 1954).

Formulation(s): inj. sol. 3 mg/2 ml; tabl. 5 mg

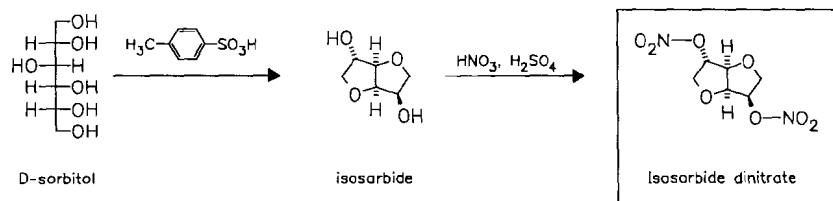
Trade Name(s):

D:	Ornatos (Röhm Pharma)-comb.; wfm Priamide-Eupharma (Janssen); wfm Stelabid (Röhm Pharma)-comb.; wfm	GB:	Stelabid (S.K.F.)-comb.; wfm Tyrimide (Smith Kline & French); wfm	USA:	Combid (Smith Kline & French); wfm Darbid (Smith Kline & French); wfm Ornade (Smith Kline & French); wfm
F:	Enuretine vit. E isoprapamide (Le Marchand)-comb.; wfm Priamide (Delalande); wfm	I:	Fluvalreas (Valeas)-comb. Iodosan (SmithKline Beecham)-comb. Valtrax (Valeas) combination preparations		Prochlor-Iso (Schein); wfm Pro-Iso (Zenith); wfm
		J:	Marygin M (Sumitomo)		

Isosorbide dinitrate

ATC: D03AX08
 Use: coronary vasodilator

RN: 87-33-2 MF: $\text{C}_6\text{H}_8\text{N}_2\text{O}_8$ MW: 236.14 EINECS: 201-740-9
 LD₅₀: >40 mg/kg (M, i.v.); 1050 mg/kg (M, p.o.); >40 mg/kg (R, i.v.); 747 mg/kg (R, p.o.)
 CN: 1,4:3,6-dianhydro-D-glucitol dinitrate



Reference(s):

Goldberg, L.: Acta Physiol. Scand. (APSCAX) **15**, 173 (1948).
 Krantz, J.C. et al.: J. Pharmacol. Exp. Ther. (JPETAB) **67**, 187 (1939).

aqueous solutions for parenteral application:

DAS 2 623 800 (Sanol Schwarz-Monheim; appl. 28.5.1976).

Formulation(s): r. r. cps. 20 mg, 40 mg, 60 mg, 80 mg, 100 mg; tabl. 2.5 mg, 5 mg, 10 mg, 20 mg, 30 mg, 40 mg

Trade Name(s):

D:	Corovliss (Boehringer Mannh.)	F:	Isocard (Bouchara)	Nitrosorbide (Lusofarmaco)
	Dignonitrat (Sankyo)		Langoran (Marion Merrell)	Stenodilate (Schwarz)-comb.
	Duranitrat (durachemie)	GB:	Risordan (Specia)	
	isoket (Schwarz)		Cedocard retard (Pharmacia & Upjohn)	J:
	Iso Mack (Mack, Illert.)		(Pharmacia & Upjohn)	Cardis (Iwaki)
	Isostenase (Azuchemie)		Isocard (Eastern)	Carvanil (Banyu)
	Maycor (Gödecke; Parke Davis)		Isoket retard (Schwarz)	Diretan (Ono)
	Nitrosorbon (Pohl)		Isordil (Monmouth)	Nitroret (Hishiyama)
	TD spray Iso Mack (Mack)		Sorbichew (Zeneca)	USA: Dilatrate-SR (Schwarz)
	generic and numerous combination preparations	I:	Sorbid SA (Zeneca)	Isordil (Wyeth-Ayerst)
			Sorbitrate (Zeneca)	Sorbitrate (Zeneca)
			Carvasin (Wyeth)	generic
			Diniket (Schwarz)	

Isosorbide mononitrate

(Isosorbide 5-nitrate)

ATC: C01DA14

Use: coronary vasodilator

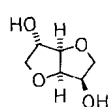
RN: 16051-77-7 MF: C₆H₉NO₆ MW: 191.14 EINECS: 240-197-2

LD₅₀: 1820 mg/kg (M, i.v.); 1771 mg/kg (M, p.o.);

1750 mg/kg (R, i.v.); 2010 mg/kg (R, p.o.)

CN: 1,4:3,6-dianhydro-D-glucitol 5-nitrate

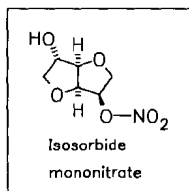
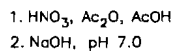
(a)



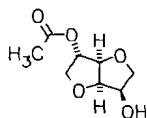
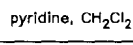
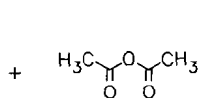
isosorbide (I)

(cf. isosorbide

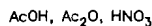
dinitrate synthesis)



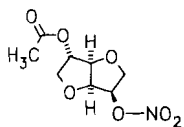
(b)



isosorbide 2-acetate (along with 5-acetate)



II



isosorbide 2-acetate
5-nitrate (II)

1. NaOH, pH 10–12
2. H₂SO₄, NaCl, pH 6.8–7.0

Isosorbide mononitrate

Reference(s):

- a US 3 886 186 (American Home; 27.5.1975; prior. 29.4.1971, 30.8.1973).
EP 143 507 (Toshin Chemical; appl. 13.7.1984; J-prior. 25.11.1983).
DOS 2 221 080 (American Home Products; appl. 28.4.1972; USA-prior. 29.4.1971).
- b DOS 2 751 934 (American Home Products; appl. 21.11.1977; USA-prior. 24.2.1977).
US 4 065 488 (American Home Products; 27.12.1977; appl. 24.2.1977).
EP 45 076 (Boehringer Mannh.; appl. 25.7.1981; D-prior. 30.7.1980).
DOS 3 028 873 (Boehringer Mannh.; appl. 30.7.1980).
US 4 431 829 (Boehringer Mannh.; 14.2.1984; D-prior. 30.7.1980).

similar methods (via 2-acyloxy derivative):

- DE 2 903 927 (Sanol-Schwarz; appl. 2.2.1979).
EP 64 194 (Cassella; appl. 16.4.1982; D-prior. 5.5.1981).
EP 57 847 (H. Mack Nachf.; appl. 26.1.1982; D-prior. 29.1.1981).
DOS 3 102 947 (H. Mack Nachf.; appl. 29.1.1981).
EP 67 964 (H. Mack Nachf.; appl. 18.5.1982; D-prior. 22.6.1981).
DOS 3 124 410 (H. Mack Nachf.; appl. 22.6.1981).
US 4 417 065 (H. Mack Nachf.; 22.11.1983; D-prior. 22.6.1981).

preparation from isosorbide dinitrate:

- EP 59 664 (SNPE; appl. 25.2.1982; F-prior. 27.2.1981).

formulations:

- DOS 3 325 652 (Dr. Rentschler; appl. 15.7.1983).

Formulation(s): s. r. cps. 40 mg, 60 mg; tabl. 20 mg, 40 mg

Trade Name(s):

D:	Coleb (Astra/Promed)	Imdur (Astra)	Monocinque
	Corangin (Novartis Pharma)	Isib XL (Ashbourne)	(Lusofarmaco)
	elantan (Synthelabo)	Ismo retard (Boehringer Mannh.)	Monoket (Chiesi)
	IS 5 mono-ratiopharm (ratiopharm)	MCR 50 (Pharmacia & Upjohn)	Nitralfa (Malesci)
	Ismo (Boehringer Mannh.)	Monit (Lorex)	Orasorbil (Rottapharm)
	Monit-Puren (Isis Puren)	Mono-Cedocard (Pharmacia & Upjohn)	<i>dinitrate:</i>
	Monoclair (Hennig)	Monomax (Trinity)	Nitrosorbide
	Mono Mack (Mack, Illert.)		(Lusofarmaco)
	Monostenase (Azupharma)	I:	Stenodilate (Schwarz)-comb.
	Olicard (Solvay Arzneimittel)	Duronitrin (Astra)	J:
	numerous generics	Elan (Schwarz)	Itocol (Toa Eiyo-Yamanouchi)
F:	Monicor L.P. (Pierre Fabre)	Ismo (Boehringer Mannh.)	USA:
GB:	Elantan (Schwarz)	Ismo Diffutab (Boehringer Mannh.)	Imdur (Key Pharm.)
			Ismo (Wyeth-Ayerst)
			Monoket (Schwarz)

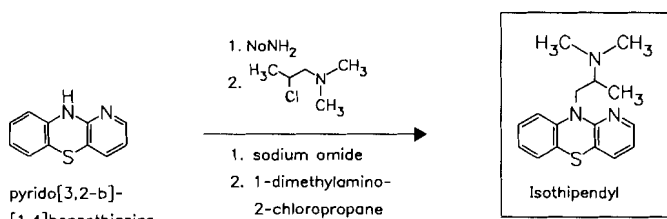
Isothipendyl

ATC: D04AA22; R06AD09
Use: antiallergic, antihistaminic

RN: 482-15-5 MF: $C_{16}H_{19}N_3S$ MW: 285.42 EINECS: 207-578-5
LD₅₀: 222 mg/kg (M, p.o.)
CN: *N,N*, α -trimethyl-10*H*-pyrido[3,2-*b*][1,4]benzothiazine-10-ethanamine

monohydrochloride

RN: 1225-60-1 MF: $C_{16}H_{19}N_3S \cdot HCl$ MW: 321.88 EINECS: 214-957-9
LD₅₀: 28 mg/kg (M, i.v.); 222 mg/kg (M, p.o.);
1220 mg/kg (R, p.o.)

**Reference(s):**

DE 1 001 684 (Degussa; appl. 1954).
US 2 974 139 (Degussa; 7.3.1961; D-prior. 2.10.1954).

Formulation(s): drg. 12 mg; gel 0.75 % (as hydrochloride)

Trade Name(s):

D:	Andantol-forte/-Gelee (Homburg); wfm	GB:	Nilergex (ICI); wfm	J:	Aczen NS (Kanebo) Andantol (Sumitomo)
F:	Sédermyl (RPR Cooper)	I:	Calmogel (Rhône-Poulenc Rorer)		

Isotretinoin

ATC: D10AD04; D10BA01
Use: keratolytic, acne therapeutic

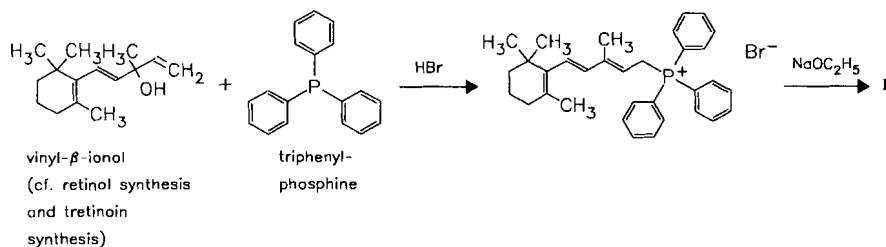
RN: 4759-48-2 MF: $C_{20}H_{28}O_2$ MW: 300.44 EINECS: 225-296-0
LD₅₀: 3389 mg/kg (M, p.o.);
>4 g/kg (R, p.o.)
CN: 13-*cis*-retinoic acid

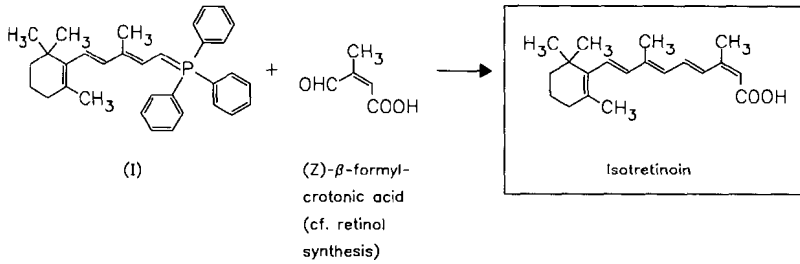
sodium salt

RN: 13497-05-7 MF: $C_{20}H_{27}NaO_2$ MW: 322.42

potassium salt

RN: 22232-80-0 MF: $C_{20}H_{27}KO_2$ MW: 338.53



**Reference(s):**

Garbers, C.F. et al.: J. Chem. Soc. C (JSOOAX) **1968**, 1982.

(Z)- β -formylcrotonic acid:

Conradie, W.J. et al.: J. Chem. Soc. C (JSOOAX) **1964**, 594.

combination with taurine:

US 4 545 977 (Searle; 8.10.1985; appl. 11.1.1985).

medical use:

DE 2 061 507 (Hoffmann-La Roche; appl. 8.7.1971; prior. 14.12.1970).

US 3 746 730 (Hoffmann-La Roche; 17.7.1973; appl. 17.12.1970; GB-prior. 13.12.1969).

Formulation(s): cps. 2.5 mg, 5 mg, 10 mg, 20 mg; gel 0.05 %

Trade Name(s):

D:	ISOTREX (Stiefel)	Roaccutane (Roche; 1986)	Roaccutane (Roche)
	Roaccutan (Roche; 1985)	GB: Isotrex (Stiefel)	I: Roaccutane (Roche)
F:	Isotrex (Stiefel)	Isotrexin (Stiefel)	USA: Accutane (Roche; 1982)

Isoxicam

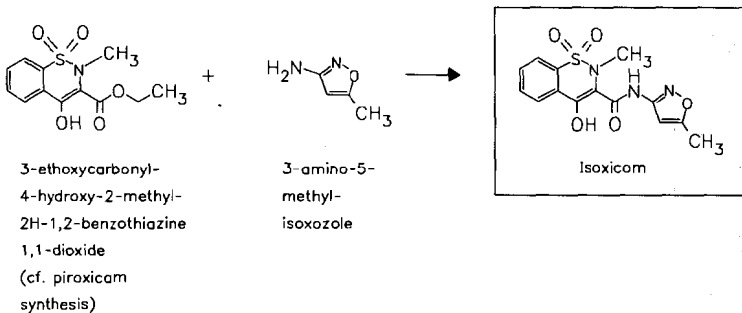
ATC: M01

Use: anti-inflammatory

RN: 34552-84-6 MF: $C_{14}H_{13}N_3O_5S$ MW: 335.34 EINECS: 252-084-5

LD₅₀: >5 g/kg (R, p.o.)

CN: 4-hydroxy-2-methyl-N-(5-methyl-3-isoxazolyl)-2H-1,2-benzothiazine-3-carboxamide 1,1-dioxide

**Reference(s):**

DOS 2 208 351 (Warner-Lambert; appl. 22.2.1972; USA-prior. 1.3.1971).

Lombardino, J.G.; Wiseman, E.H.: J. Med. Chem. (JMCMAR) **14**, 973 (1971).

Zinnes, H. et al.: J. Med. Chem. (JMCMAR) **25**, 12 (1982).

Formulation(s): cps. 100 mg

Trade Name(s):

D: Pacyl (Adenylchemie);
wfmF: Vectren (Substantia); wfm
J: Floxicam (Menarini); wfmMaxicam (Parke Davis);
wfm

Isoxsuprine

ATC: C04AA01

Use: vasodilator

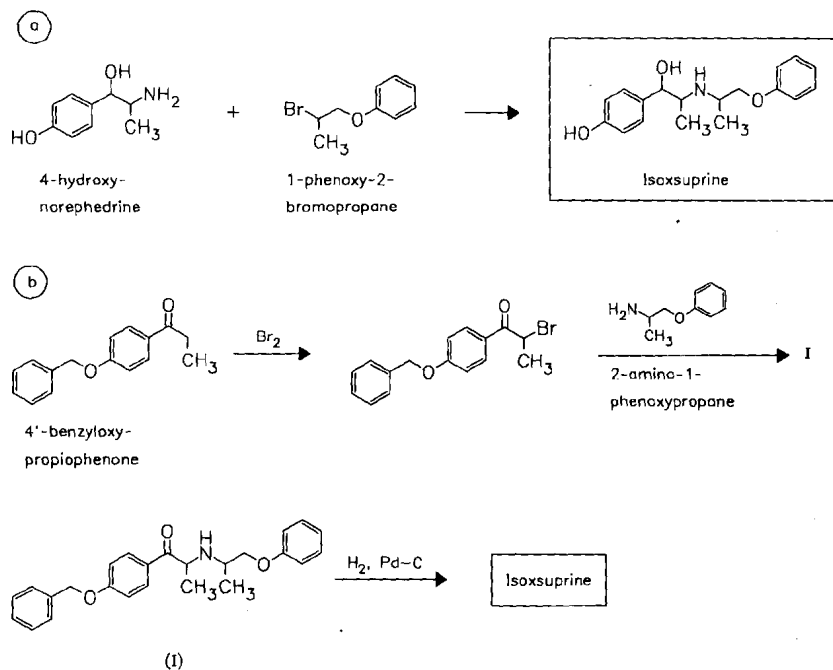
RN: 395-28-8 MF: C₁₈H₂₃NO₃ MW: 301.39 EINECS: 206-898-2LD₅₀: 48 mg/kg (M, i.v.); 200 mg/kg (M, p.o.)CN: 4-hydroxy- α -[1-[(1-methyl-2-phenoxyethyl)amino]ethyl]benzenemethanol

hydrochloride

RN: 579-56-6 MF: C₁₈H₂₃NO₃·HCl MW: 337.85 EINECS: 209-443-6LD₅₀: 61 mg/kg (M, i.v.); 1.1 g/kg (M, p.o.);

1.75 g/kg (R, p.o.);

57 mg/kg (dog, i.v.); >1.2 g/kg (dog, p.o.)



Reference(s):

US 3 056 836 (Philips; 2.10.1962; NL-prior. 28.5.1955).

GB 832 286 (Philips; appl. 11.10.1957; NL-prior. 15.10.1956).

GB 832 287 (Philips; appl. 11.10.1957; NL-prior. 15.10.1956).

Formulation(s): amp. 10 mg; cps. 40 mg; r. r. cps. 40 mg; tabl. 10 mg, 20 mg (as hydrochloride)

Trade Name(s):

D: Duvadilan (Thomae/
Duphar); wfm
Vasoplex (Lappe); wfm
F: Duvadilan (Solvay Pharma)
GB: Defencin (Bristol); wfmI: Duvadilan (UCM)
Fenam (UCM)
Vasosuprina (Lusofarmaco)
J: Duvadilan (Daiichi)Isokulin (Toho Iyaku
Kenkyusho)
Synzedrin (Teisan)
Vahodilan (Morita)
Vasoladin (Kanto)

USA: Isolait (Elder); wfm

Vasodilan (Mead Johnson);
wfm

generic

Isradipine

(Isrodipine; PN 200-110)

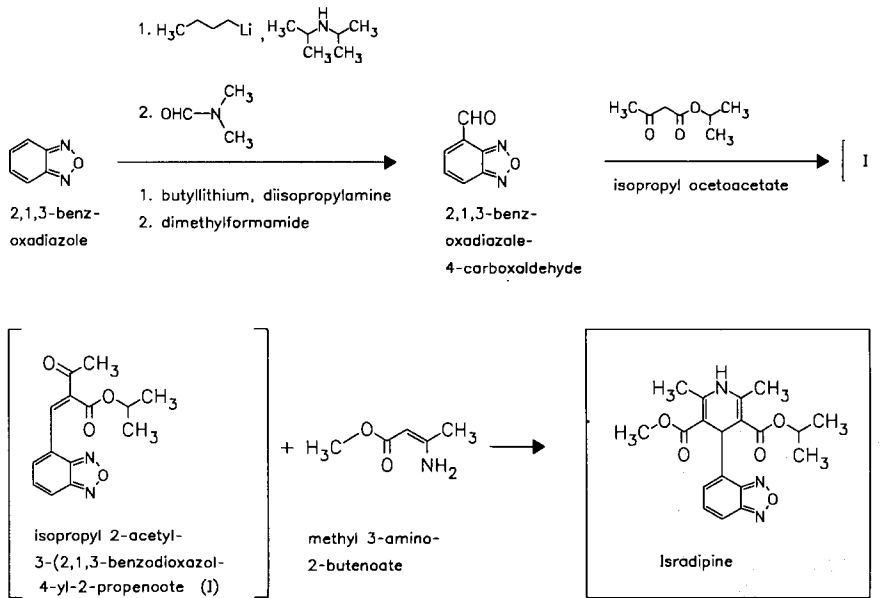
ATC: C02DE; C08CA03

Use: long acting calcium antagonist,
antihypertensive, antianginalRN: 75695-93-1 MF: C₁₉H₂₁N₃O₅ MW: 371.39LD₅₀: 1.2 mg/kg (M, i.v.); 216 mg/kg (M, p.o.);

1.8 mg/kg (R, i.v.); >3000 mg/kg (R, p.o.);

1.2 mg/kg (rabbit, i.v.); 58 mg/kg (rabbit, p.o.)

CN: 4-(4-benzofurazanyl)-1,4-dihydro-2,6-dimethyl-3,5-pyridinedicarboxylic acid methyl 1-methylethyl ester

**Reference(s):**

DE 2 949 491 (Sandoz; appl. 8.12.1979; CH-prior. 18.12.1978).

GB 2 122 192 (Sandoz; appl. 13.6.1983; CH-prior. 15.6.1982).

US 4 466 972 (Sandoz; 21.8.1984; appl. 19.3.1982; CH-prior. 18.12.1978).

synthesis of 2,1,3-benzoxadiazole-4-carboxaldehyde:

CH 661 270 (Sandoz 15.11.1982; GB-prior. 18.11.1981).

synthesis of enantiomers:

DE 3 320 616 (Sandoz; appl. 8.6.1983; CH-prior. 15.6.1982).

sustained release formulation:

US 4 950 486 (Alza; 21.8.1990; prior. 7.11.1988, 2.10.1987).

US 4 946 687 (Alza; 7.8.1990; prior. 7.11.1988, 2.10.1987).

US 4 816 263 (Alza; 28.3.1989; prior. 7.11.1988, 2.10.1987).

hydrosol formulation:

GB 2 200 048 (Sandoz; appl. 17.12.1987; D-prior. 19.12.1986, 15.12.1987).

DE 3 742 473 (Sandoz; appl. 19.12.1986).

combination with calcitonin:

EP 202 282 (Sandoz; appl. 8.11.1985; GB-prior. 12.11.1984).

*nanoparticles:*Leroueil-Le Verger, M. et al.: Eur. J. Pharm. Biopharm. (EJPBEL) **46**, 137-143 (1998)*Formulation(s):* cps. 2.5 mg, 5 mg; s. r. tabl. 5 mg, 10 mg; tabl. 2.5 mg*Trade Name(s):*

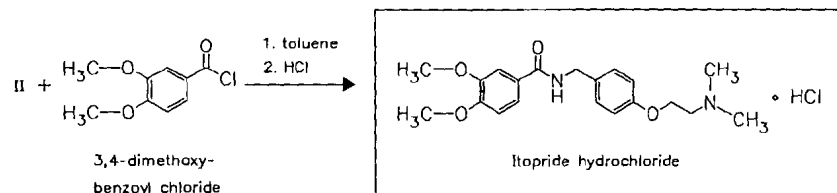
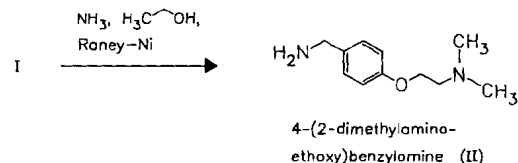
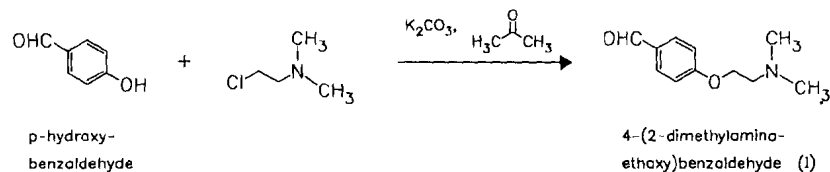
D:	Lomir (Novartis Pharma)	GB:	Prescal (Novartis)	Lomir (Sandoz)
	Vascal (Schwarz; 1991)	I:	Clivoten (Lifepharm)	USA: Dyna Circ (Novartis)
F:	Icaz LP (Novartis)		Esradin (Sigma-Tau)	

Itopride hydrochloride

(151235 (as hydrochloride); 149097 (as free base))

ATC: D08

Use: peristaltic stimulant, gastric prokinetic agent

RN: 122892-31-3 MF: $C_{20}H_{26}N_2O_4 \cdot HCl$ MW: 394.90LD₅₀: 190.6 mg/kg (M, i. v.)CN: *N*-[[4-[2-(dimethylamino)ethoxy]phenyl]methyl]-3,4-dimethoxybenzamide monohydrochloride**base**RN: 122898-67-3 MF: $C_{20}H_{26}N_2O_4$ MW: 358.44*Reference(s):**preparation and formulation:*

EP 306 827 (Hokuriku Pharmaceutical Co.; appl. 15.3.1989; J-prior. 1.9.1988, 5.9.1987, 22.9.1987, 29.9.1987, 5.10.1987).

synthesis of intermediate II:

US 2 879 293 (Hoffmann-La Roche; 1957).

Formulation(s): tabl. 50 mg (hydrochloride)

Trade Name(s):

J: Ganaton (Hokuriku)

Itraconazole

(R-51211)

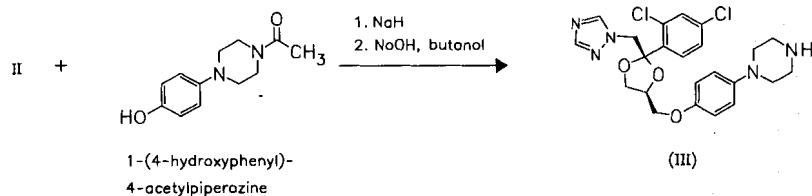
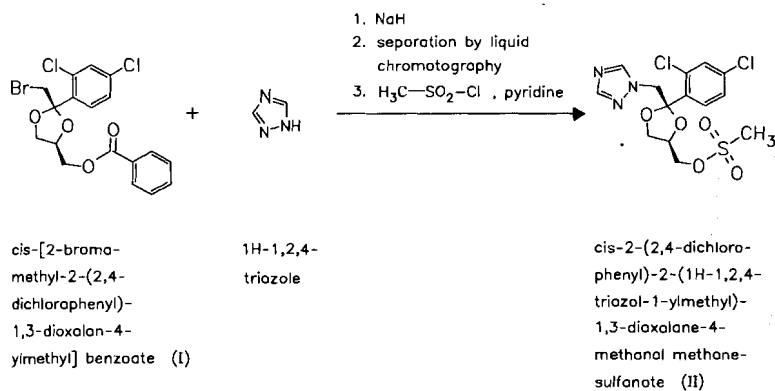
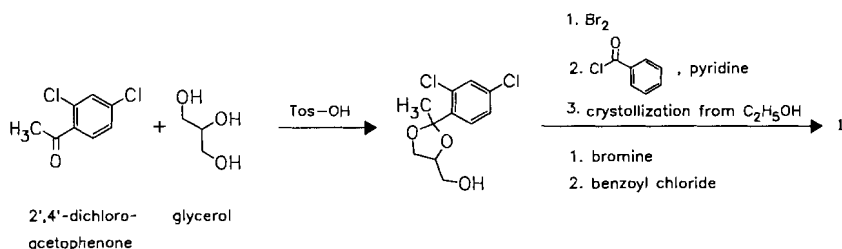
ATC: J02AC02

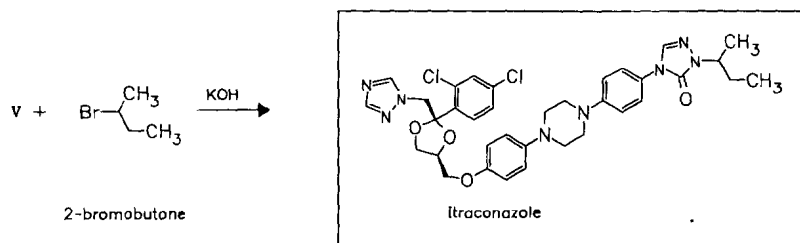
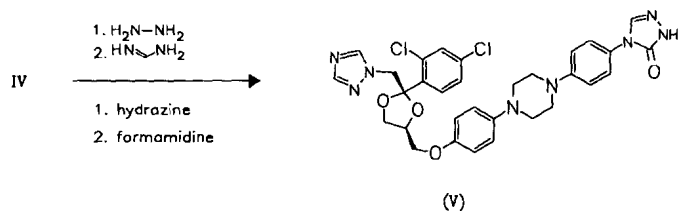
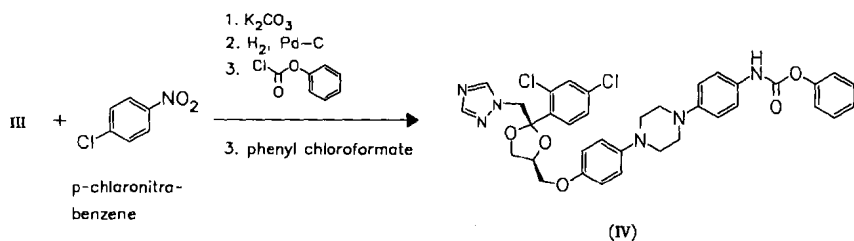
Use: antifungal (treatment of vaginal candidiasis pityriasis versicolor, dermatophytes and systemic mycoses)

RN: 84625-61-6 MF: C₃₅H₃₈Cl₂N₈O₄ MW: 705.65LD₅₀: 46.4 mg/kg (M, i.v.); >320 mg/kg (M, p.o.);

40 mg/kg (R, i.v.); >320 mg/kg (R, p.o.);

>200 mg/kg (dog, p.o.)

CN: 4-[4-[4-[2-(2,4-dichlorophenyl)-2-(1*H*-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-1-piperazinyl]phenyl]-2,4-dihydro-2-(1-methylpropyl)-3*H*-1,2,4-triazol-3-one

**Reference(s):**

EP 118 138 (Janssen; appl. 24.1.1984; USA-prior. 28.2.1983).

alternative synthesis:

EP 6 711 (Janssen; appl. 13.6.1979; USA-prior. 23.6.1978, 14.3.1979).

US 4 267 179 (Janssen; 12.5.1981; appl. 14.3.1979; prior. 23.6.1978).

Meeres, J.; Backx, L.J.J.; Cutsem, J. van: *J. Med. Chem. (JMCMAR)* **27**, 894 (1984).

synthesis of cis-2-(2,4-dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolane-4-methanol methanesulfonate:

Meeres, J. et al.: *J. Med. Chem. (JMCMAR)* **22**, 1003 (1979).

Meeres, J.; Hendrickx, R.; Cutsem, J. van: *J. Med. Chem. (JMCMAR)* **26**, 611 (1983).

topical liposomal formulation:

WO 9 315 719 (Janssen; appl. 4.2.1993; EP-prior. 12.2.1992).

pharmaceutical composition:

WO 9 416 700 (Sopracor; appl. 27.1.1994; USA-prior. 27.1.1993).

Formulation(s): cps. 100 mg, sol. 1 %

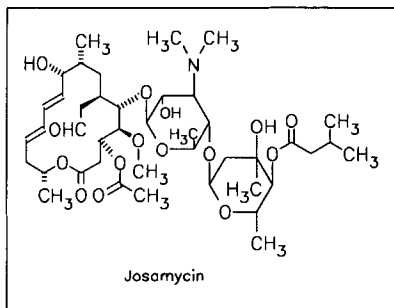
Trade Name(s):

D:	Sempera (Glaxo Wellcome; Janssen-Cilag)	F:	Sporanox (Janssen-Cilag)	J:	Triasporin (Lifepharma)
	Siros (Janssen-Cilag)	GB:	Sporanox (Janssen-Cilag)		Itrazole (Janssen-Kyowa)
		I:	Sporanox (Janssen)	USA:	Sporanox (Janssen; 1999)

Josamycin

ATC: J01FA07

Use: antibiotic

RN: 16846-24-5 MF: C₄₂H₆₉NO₁₅ MW: 828.01 EINECS: 240-871-6CN: leucomycin V 3-acetate 4^B-(3-methylbutanoate)**propionate**RN: 51016-68-3 MF: C₄₅H₇₃NO₁₆ MW: 884.07

From fermentation solutions of *Streptomyces narbonensis* var. *josamyceticus* (ATTC 17835).

Reference(s):

DOS 1 492 035 (Microbial Chem. Res.; appl. 3.6.1965; J-prior. 9.6.1964).

US 3 636 197 (Yamanouchi; 18.1.1972; J-prior. 9.6.1964).

alternative syntheses:

from 10-acetyl- and 10,2'-diacetyljosamycin:

JP-appl. 76/41 497 (Yamanouchi; appl. 2.10.1974).

from 3-deacetyljosamycin:

JP-appl. 77/41 294 (Microb. Res. Found.; appl. 26.9.1975).

water soluble H₂SO₃-D-glucosamine addition compound:

JP-appl. 77/71 489 (Yamanouchi; appl. 31.10.1975).

solvent free crystals:

JP-appl. 77/51 013 (Yamanouchi; appl. 16.10.1975).

JP-appl. 76/142 519 (Yamanouchi; appl. 31.5.1975).

pharmaceutical formulation:

US 3 960 757 (Toyo Jozo; 1.6.1976; prior. 29.6.1973).

Formulation(s): gran. 1 g; susp. 150 mg, 300 mg; tabl. 500 mg (as propionate)

Trade Name(s):

D: Wilprafen (Yamanouchi;
1984)

I: Iosalide (Schering)
Josaxin (UCB)

J: Josamycin (Yamanouchi;
1970)

F: Josacine (Bellon; 1980)

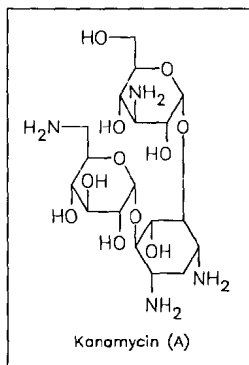
Kanamycin (A)

ATC: A07AA08; J01GB04

Use: antibiotic

RN: 59-01-8 MF: C₁₈H₃₆N₄O₁₁ MW: 484.50 EINECS: 200-411-7LD₅₀: 115 mg/kg (M, i.v.); 20.7 mg/kg (M, p.o.);

437 mg/kg (R, i.v.); >10 g/kg (R, p.o.)

CN: O-3-amino-3-deoxy- α -D-glucopyranosyl-(1 \rightarrow 6)-O-[6-amino-6-deoxy- α -D-glucopyranosyl-(1 \rightarrow 4)]-2-deoxy-D-streptamine**sulfate (1:1)**RN: 25389-94-0 MF: C₁₈H₃₆N₄O₁₁ · H₂SO₄ MW: 582.58 EINECS: 246-933-9From fermentation solutions of *Streptomyces kanamyceticus*.**Reference(s):**

US 2 931 798 (H. Umezawa, K. Maeda, M. Meda; 5.4.1960; J-prior. 5.9.1956).

US 2 936 307 (Bristol-Myers; 1960; appl. 1957).

US 2 967 177 (Bristol-Myers; 1961; appl. 1958).

US 3 032 547 (Merck & Co.; 1962; appl. 1958).

Formulation(s): amp. 1 g (as sulfate); cream 5 mg/g; eye drops 5 mg/ml**Trade Name(s):**

D:	Kanamycin-POS (Ursapharm)	I:	Dermaflogil (Nuovo Cons. Sanit. Naz.)-comb.	J:	generic
	Kanamytrex (Alcon)		Fluomicetina (Zoja)-comb.		Kanacillin (Banyu; Meiji)- comb.
	Kana-Ophthal (Winzer; as sulfate)		Kanaderm (Firma)-comb.		Kanacyclin (Banyu; Meiji)- comb.
F:	Kamycine (Bristol-Myers Squibb)		Kanamicina Firma (Firma)		Kanafuracin (Fujita)-comb.
	Stérimycine (CIBA Vision Ophthalmics)-comb.		Kanatrombina (Baldacci)- comb.		Kanamycin (Banyu; Meiji; Tanabe; Yamanouchi)
GB:	Kannasyn (Sanofi Winthrop)		Kanazone (SIT)-comb.		generic
			Keimicina (Boehringer Mannh.)	USA:	Kantrex (Bristol); wfm
			Roseomix (Farmigea)- comb.		generic

Kawain

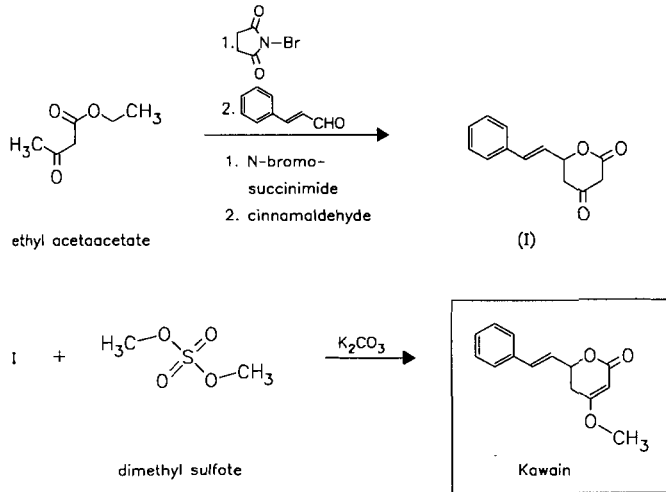
(Kavain; Cavain)

ATC: C04

Use: anticonvulsant, psychotonic

RN: 500-64-1 MF: C₁₄H₁₄O₃ MW: 230.26 EINECS: 207-907-2LD₅₀: 69 mg/kg (M, i.v.); 1130 mg/kg (M, p.o.)

CN: [R-(E)]-5,6-dihydro-4-methoxy-6-(2-phenylethenyl)-2H-pyran-2-one

*Reference(s):*

FR 1 526 596 (Spezialchemie; appl. 9.6.1967; D-prior. 29.7.1966).

*alternative syntheses:*Fowler, E.M.; Henbest, H.B.: J. Chem. Soc. (JCSOA9) **1950**, 3642 (racemate).Kostermans, D.G.F.R.: Recl. Trav. Chim. Pays-Bas (RTCFA3) **70**, 79 (1951) (racemate).*isolation of (+)-kawain:*Borsche, W.; Peitzsch, W.: Ber. Dtsch. Chem. Ges. (BDCGAS) **63**, 2414 (1930).*absolute configuration:*Snatzke, G.; Hansel, R.: Tetrahedron Lett. (TELEAY) **1968**, 1797.*preparation of an endoanesthetic effective solution:*

GB 1 214 936 (Spezialchemie; valid from 5.6.1968; D-prior. 5.6.1967).

*review:*Kretzschmer, R.; Teschendorf, H.J.: Chem.-Ztg. (CMKZAT) **98**, 24 (1974).*Formulation(s):* cps. 30 mg, 50 mg, 200 mg*Trade Name(s):*D: Ardeydystin
(Ardeypharm)-comb.; wfmDuront (Woelm)-comb.;
wfmKavaform (Dr. Schwab)-
comb.
Neuronika (Klinge)

Kebuzone

(Cetophenylbutazone; Ketophenylbutazon)

ATC: M01AA06

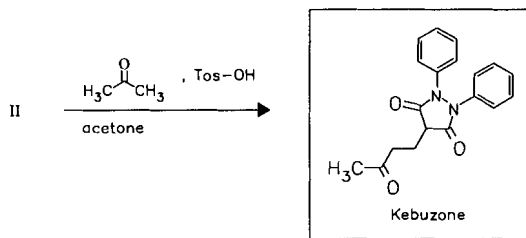
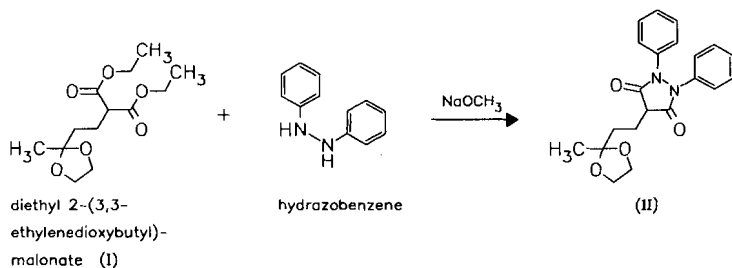
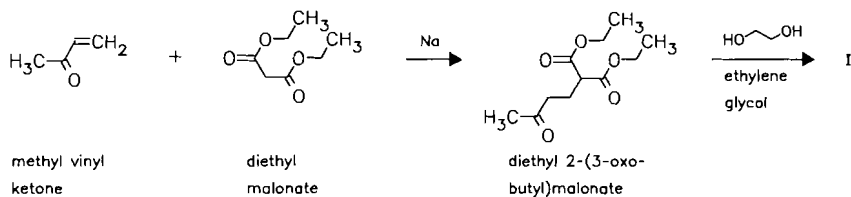
Use: anti-inflammatory, antirheumatic

RN: 853-34-9 MF: C₁₉H₁₈N₂O₃ MW: 322.36 EINECS: 212-715-7LD₅₀: 580 mg/kg (M, i.v.); 750 mg/kg (M, p.o.);

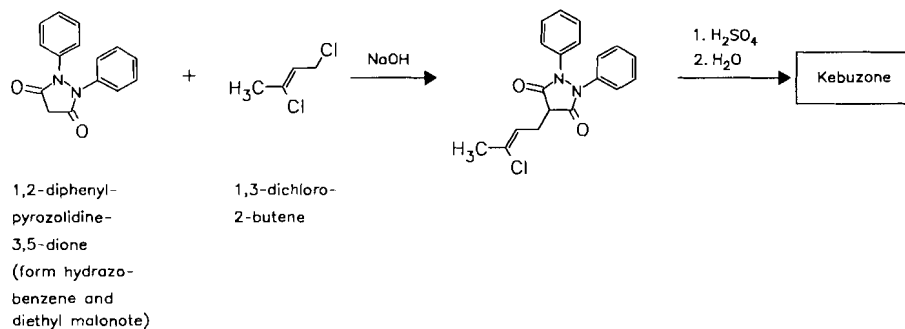
315 mg/kg (R, i.v.); 720 mg/kg (R, p.o.)

CN: 4-(3-oxobutyl)-1,2-diphenyl-3,5-pyrazolidinedione

a



b

*Reference(s):*a Denss, R. et al.: Helv. Chim. Acta (HCACAV) **40**, 402 (1957).

*starting material:*Kühn, M.: J. Prakt. Chem. (JPCPAO) **156** (II), 103 (1940).

b AT 198 263 (Synfarma; appl. 1955).

Formulation(s): amp. 1 g/5 ml; cps. 250 mg*Trade Name(s):*

D:	Kebuzon (Steiner)	Kentan-S (Sawai)	Ketobutane (Yamagata)
F:	Ketazone (Beytout); wfm	Ketazon (Kyowa)	Ketobutazone (Sato; Toho)
I:	Chetopir (Sarm); wfm	Ketazone (Kyowa Hakko)	Ketophezon (Kissei)
J:	Hichillos (Kotani)	Ketobutan (Santen)	Vintop (Maruko)

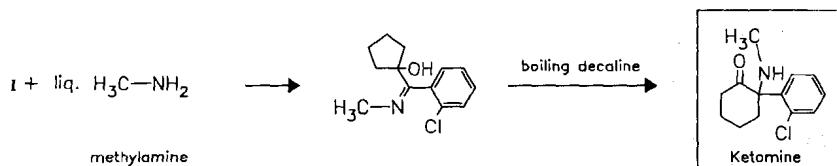
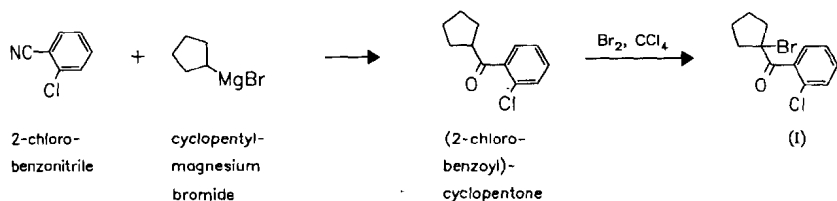
Ketamine

ATC: N01AX03

Use: analgesic, anesthetic

RN: 6740-88-1 MF: C₁₃H₁₆ClNO MW: 237.73 EINECS: 229-804-1LD₅₀: 77 mg/kg (M, i.v.)

CN: (±)-2-(2-chlorophenyl)-2-(methylamino)cyclohexanone

monohydrochlorideRN: 1867-66-9 MF: C₁₃H₁₆ClNO · HCl MW: 274.19 EINECS: 217-484-6*Reference(s):*

US 3 254 124 (Parke Davis; 31.5.1966; prior. 31.7.1961, 29.6.1962).

BE 634 208 (Parke Davis; appl. 27.6.1963; USA-prior. 29.6.1962).

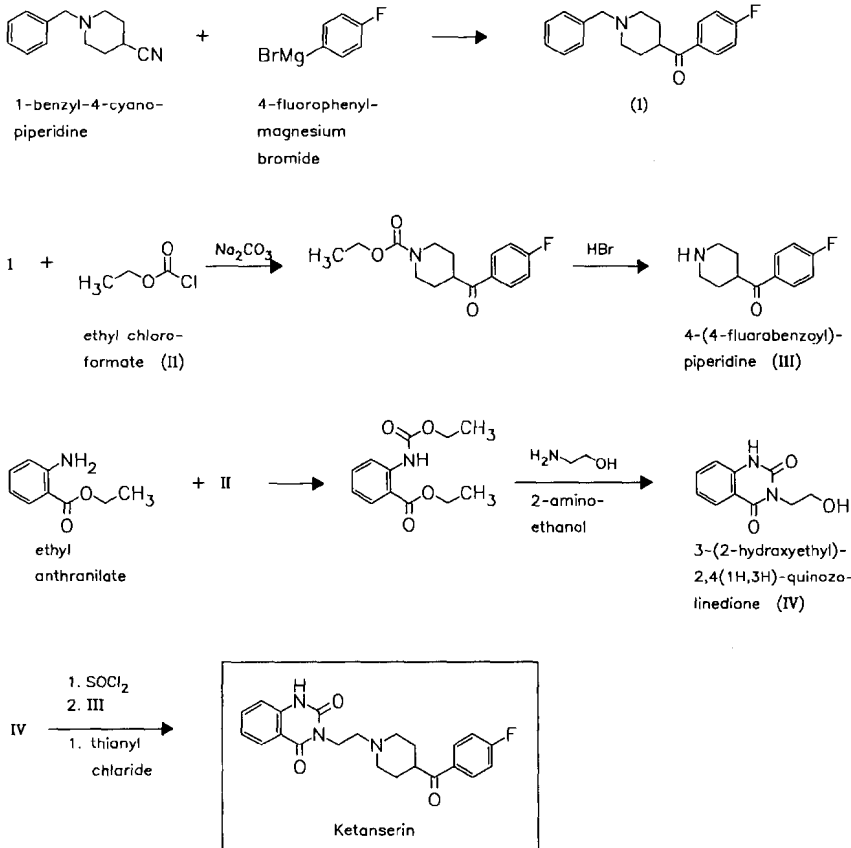
Formulation(s): amp. 50 mg/5 ml, 100 mg/2 ml, 500 mg/10 ml; inj. 5 mg/ml, 10 mg/ml, 25 mg/ml, 50 mg/ml (as hydrochloride)*Trade Name(s):*

D:	Ketanest (Parke Davis; as hydrochloride)	Kétamine Panpharma (Panpharma; as hydrochloride)	Ketalar (Parke Davis); wfm
	Velonarcon (ASTA Medica AWD; as hydrochloride)	GB: Ketalar (Parke Davis)	Ketalar (Parke Davis; as hydrochloride); wfm
F:	Kétalar (Parke Davis; as hydrochloride)	I: Ketalar (Parke Davis)	Ketaset (Bristol-Myers Squibb; as hydrochloride); wfm
		J: Ketalar (Sankyo)	
		USA: Ketaject (Bristol); wfm	

Ketanserin

ATC: C02KD01

Use: antihypertensive

RN: 74050-98-9 MF: C₂₂H₂₂FN₃O₃ MW: 395.43 EINECS: 277-680-2CN: 3-[2-[4-(4-fluorobenzoyl)-1-piperidinyl]ethyl]-2,4(1*H*,3*H*)-quinazolinone**Reference(s):**

EP 13 612 (Janssen; appl. 7.1.1980; USA-prior. 8.1.1979, 12.10.1979).

US 4 335 127 (Janssen; 15.6.1982; prior. 8.1.1979, 12.10.1979).

alternative synthesis:

EP-appl. 98 499 (Ravizza; appl. 27.6.1983; I-prior. 6.7.1982).

Formulation(s): amp. 10 mg/2 ml, 50 mg/10 ml; tabl. 20 mg, 40 mg**Trade Name(s):**

I: Perketan (Inverni della Beffa)

Serepress (Formenti)
Sufrexal (Janssen; 1987)

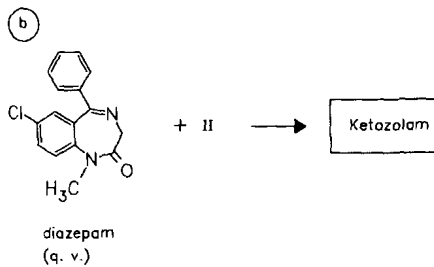
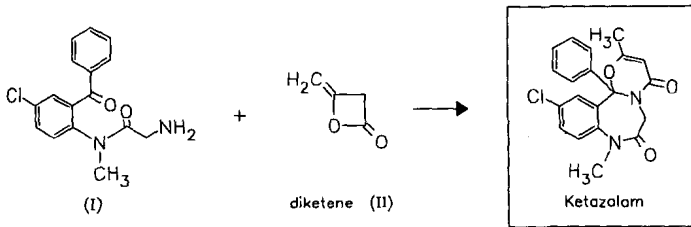
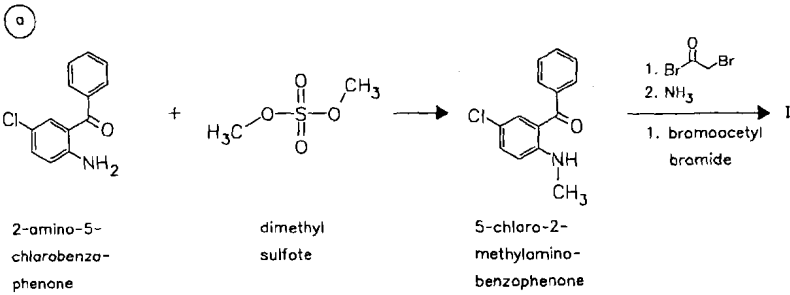
Ketazolam

ATC: N05BA10
Use: tranquilizer

RN: 27223-35-4 MF: C₂₀H₁₇ClN₂O₃ MW: 368.82 EINECS: 248-346-3

LD₅₀: 2 g/kg (M, p.o.);
5 g/kg (R, p.o.)

CN: 11-chloro-8,12b-dihydro-2,8-dimethyl-12b-phenyl-4H-[1,3]oxazino[3,2-d][1,4]benzodiazepine-4,7(6H)-dione

**Reference(s):**

- a** US 3 575 965 (Upjohn; 20.4.1971; prior. 20.10.1969).
b Szmuskovicz, J. et al.: *Tetrahedron Lett.* (TELEAY) **1971**, 3665.
 DOS 1 947 226 (Upjohn; appl. 18.9.1969; USA-prior. 19.9.1968, 27.3.1969).

Formulation(s): cps. 15 mg, 30 mg, 45 mg

Trade Name(s):

D: Contamex (Beecham-Wülfing); wfm
 GB: Anxon (Beecham); wfm
 I: Anseren (Novartis)

Ketobemidone

(Cetobemidone)

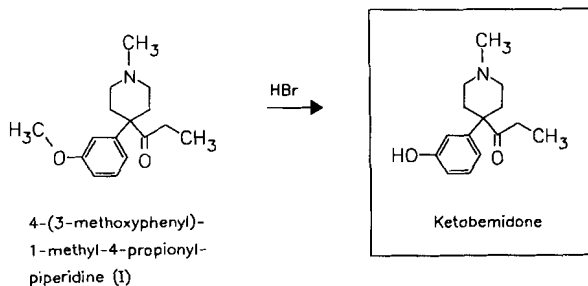
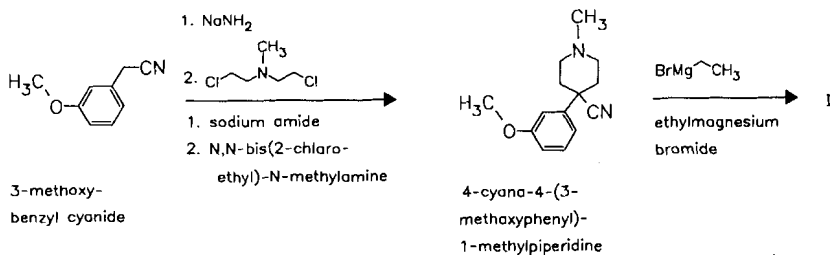
ATC: N02AB01

Use: analgesic

RN: 469-79-4 MF: C₁₅H₂₁NO₂ MW: 247.34 EINECS: 207-421-0LD₅₀: 14 mg/kg (M, i.v.);

10 mg/kg (R, i.v.)

CN: 1-[4-(3-hydroxyphenyl)-1-methyl-4-piperidinyl]-1-propanone

hydrochlorideRN: 5965-49-1 MF: C₁₅H₂₁NO₂ · HCl MW: 283.80**Reference(s):**

DRP 752 755 (I. G. Farben; appl. 1942).

alternative synthesis:Kägi, H.; Miescher, K.; Helv. Chim. Acta (HCACAV) **32**, 2489 (1949).**Formulation(s):** amp. 2 mg/2 ml, 10 mg/10 ml, 50 mg/50 ml; tabl. 5 mg (as hydrochloride)**Trade Name(s):**

D: Cliradon (Ciba); wfm

Ketoconazole

ATC: D01AC08; G01AF11; J02AB02

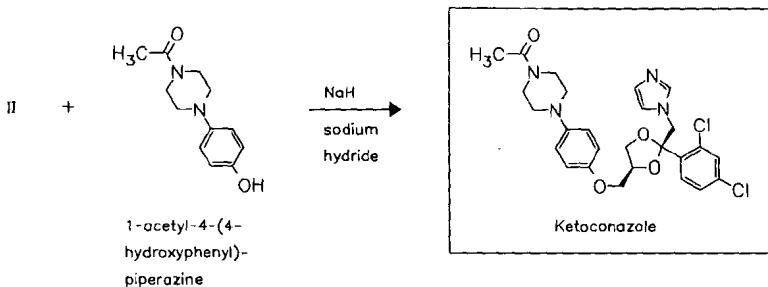
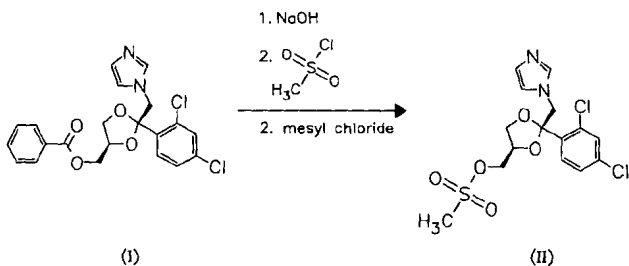
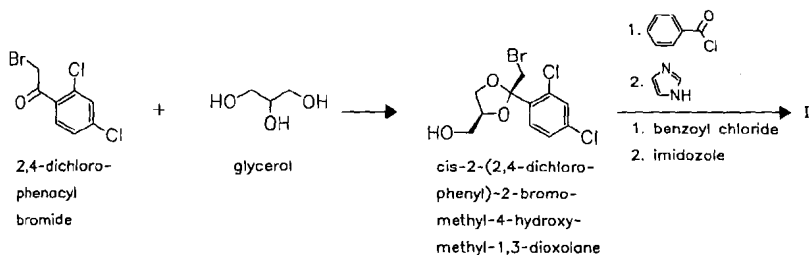
Use: antimycotic

RN: 65277-42-1 MF: C₂₆H₂₈Cl₂N₄O₄ MW: 531.44 EINECS: 265-667-4LD₅₀: 32 mg/kg (M, i.v.); 618 mg/kg (M, p.o.);

86 mg/kg (R, i.v.); 166 mg/kg (R, p.o.);

23.3 mg/kg (dog, i.v.); 178 mg/kg (dog, p.o.)

CN: *cis*-1-acetyl-4-[4-[[2-(2,4-dichlorophenyl)-2-(1*H*-imidazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]piperazine

**Reference(s):**

DOS 2 804 096 (Janssen; appl. 31.1.1978; USA-prior. 31.1.1977, 21.11.1977).
US 4 335 125 (Janssen; 15.6.1982; prior. 31.1.1977).

Formulation(s): cream 20 mg/g (2%); shampoo 2%; sol. 20 mg/ml; susp. 100mg; tabl. 200 mg

Trade Name(s):

D:	Nizoral (Janssen-Cilag; 1981)	Nizoral (Janssen-Cilag; 1983)	I:	Nizoral (Janssen; 1983)	
	Terzolin (Janssen-Cilag)	GB:	Nizoral (Janssen-Cilag; 1981)	J:	Nizoral (Kyowa Hakko)
F:	Kétoderm (Janssen-Cilag)			USA:	Nizoral (Janssen; 1981)

Ketoprofen

ATC: M01AE03; M02AA10
Use: analgesic, anti-inflammatory

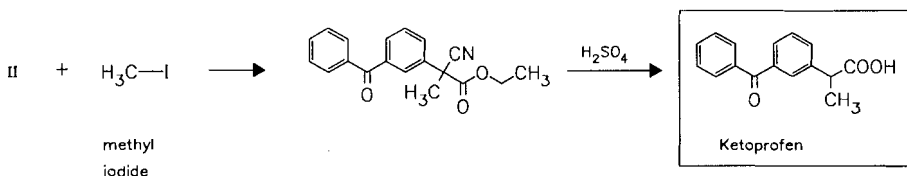
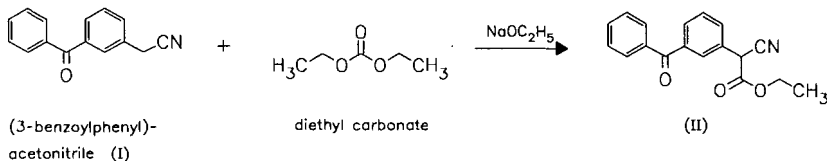
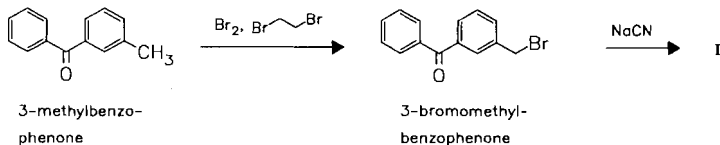
RN: 22071-15-4 MF: $\text{C}_{16}\text{H}_{14}\text{O}_3$ MW: 254.29 EINECS: 244-759-8

LD_{50} : 500 mg/kg (M, i.v.); 360 mg/kg (M, p.o.);
350 mg/kg (R, i.v.); 62.4 mg/kg (R, p.o.)

CN: 3-benzoyl- α -methylbenzeneacetic acid

lysine salt

RN: 57469-78-0 MF: $\text{C}_{22}\text{H}_{28}\text{N}_2\text{O}_5$ MW: 400.48

**Reference(s):**

US 3 641 127 (Rhône-Poulenc; 8.2.1972; F-prior. 27.1.1967).

DE 1 668 648 (Rhône-Poulenc; appl. 26.1.1968; F-prior. 27.1.1967).

alternative syntheses:

DOS 2 646 792 (Mitsubishi Petrochemical; appl. 16.10.1976; J-prior. 23.10.1975, 31.7.1976).

US 4 097 522 (Aziende Chim. Riun. Angelini Francesco; 27.6.1978; I-prior. 5.6.1975).

DOS 2 744 832 (LEK; appl. 5.10.1977; YU-prior. 18.10.1976).

DOS 2 744 833 (LEK; appl. 5.10.1977; YU-prior. 18.10.1976).

DOS 2 744 834 (LEK; appl. 5.10.1977; YU-prior. 18.10.1976).

Formulation(s): cps. 50 mg, 100 mg; gel 2.5 %; s. r. cps. 200 mg, 320 mg (as lysine salt); suppos. 30.6 mg, 100 mg; vial 100 mg

Trade Name(s):

D:	Alrheumon (Bayer Vital; 1975)	I:	Powergel (Searle)	Profenil (Drug Research)
	Orudis (Rhône-Poulenc Rorer)		Artrosilene (Dompé; as lysine salt)	Reuprofen (Terapeutico M.R.)
F:	Bi-Profénid (Specia)		Fastum (Menarini)	Salient (Biomedica)
	Kétum (Ménarini)		Flexen (Lifepharm)	Foscama)
	Profénid (Specia)		Isok (San Carlo)	Sinketol (Locatelli)
	Toprec (ThérapiX)		Ketartrium (Esseti)	J: Capisten (Kissei)
GB:	Ketocid (Trinity)		Ketodol (Drug Research)	Orudis (Hokuriku)
	Orudis (Rhône-Poulenc Rorer)		Ketofen (Delsaz & Filippini; as lysine salt)	USA: Orudis (Wyeth-Ayerst; 1977)
	Oruvail (Rhône-Poulenc Rorer)		Meprofen (AGIPS)	Oruvail (Wyeth-Ayerst)
			Orudis (Rhône-Poulenc Rorer)	

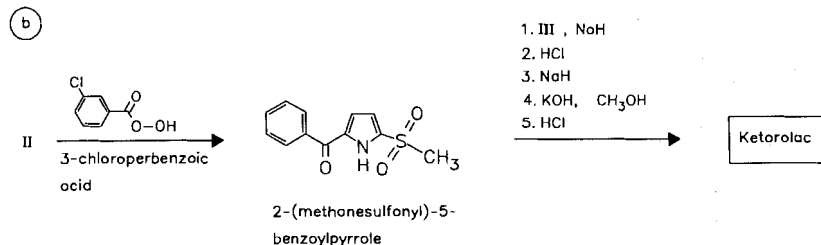
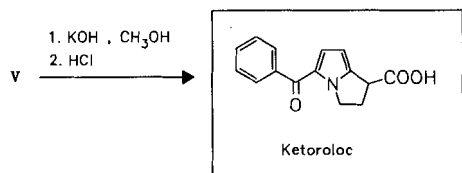
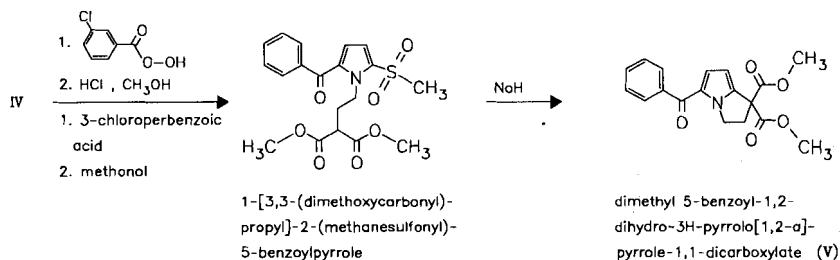
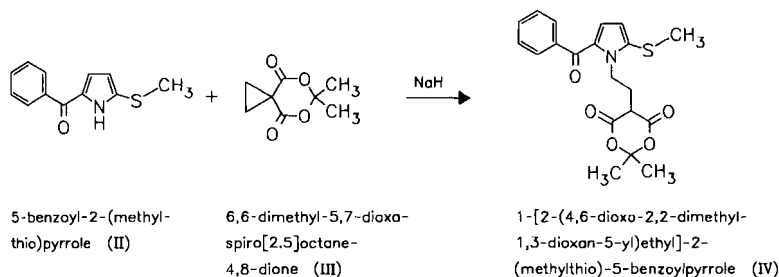
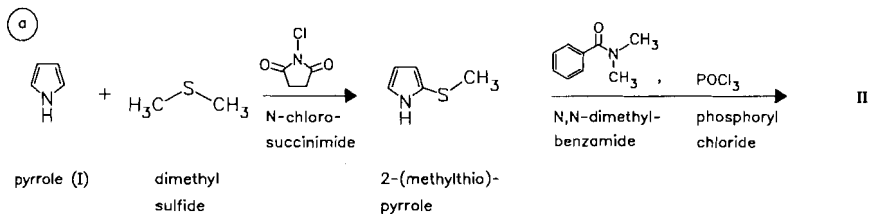
Ketorolac

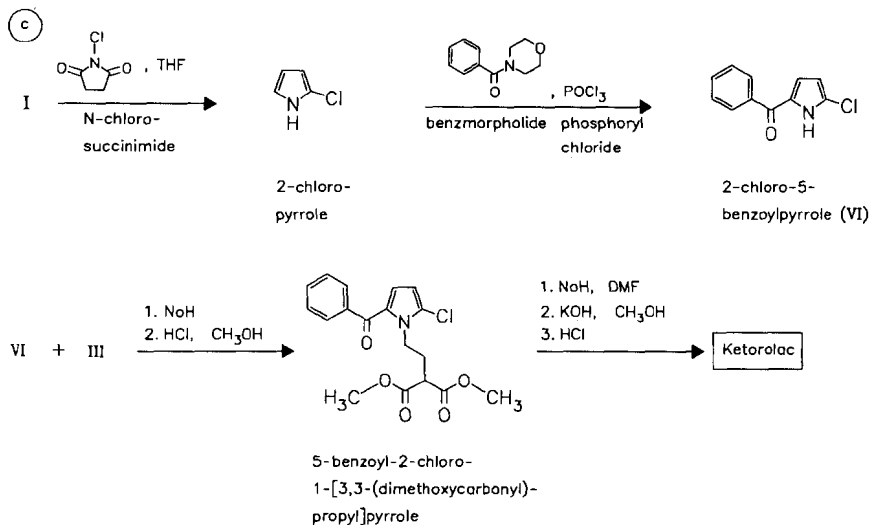
ATC: M01AB15; N02BE; S01BC05

Use: non-steroidal anti-inflammatory, analgesic

RN: 74103-06-3 MF: $\text{C}_{15}\text{H}_{13}\text{NO}_3$ MW: 255.27LD₅₀: 200 mg/kg (M, p.o.)

CN: (±)-5-benzoyl-2,3-dihydro-1H-pyrrolizine-1-carboxylic acid

tromethamine saltRN: 74103-07-4 MF: $C_{15}H_{13}NO_3 \cdot C_4H_{11}NO_3$ MW: 376.41**monosodium salt**RN: 110618-38-7 MF: $C_{15}H_{12}NNaO_3$ MW: 277.26

*Reference(s):*

- a,b US 4 347 186 (Syntex; 31.8.1982; appl. 20.10.1980).
 US 4 458 081 (Syntex; 3.7.1984; appl. 11.6.1982; prior. 20.10.1980).
 c US 4 873 340 (Syntex; 10.10.1989; appl. 29.5.1986).

alternative synthesis:

- DE 2 760 330 (Syntex; appl. 13.7.1977; USA-prior. 14.7.1976, 23.2.1977).
 DE 2 731 678 (Syntex; appl. 13.7.1977; USA-prior. 14.7.1976, 23.2.1977).
 US 4 087 539 (Syntex; 5.2.1978; appl. 23.2.1977; prior. 14.7.1976).
 US 4 089 969 (Syntex; 16.5.1978; appl. 23.2.1977; prior. 14.7.1976; 23.2.1977).
 US 4 097 579 (Syntex; 27.6.1978; appl. 31.3.1977).
 Muchowski, J.M. et al.: J. Med. Chem. (JMCMAR) **28**, 1037 (1985).

synthesis of enantiomers:

- EP 264 429 (Wisconsin Ala. Res. Found.; appl. 2.4.1987; USA-prior. 6.11.1986, 16.4.1986).
 Gazman, A. et al.: J. Med. Chem. (JMCMAR) **29**, 589 (1986).

Formulation(s): amp. 10 mg, 15 mg, 30 mg; eye drops 0.5 %; suppos. 30 mg; tabl. 10 mg (as tromethamine salt)

Trade Name(s):

D:	Acular (Pharm-Allergan)	Toradol (Recordati; 1990)	Toradol IM (Syntex; Roche; 1990)
GB:	Acular (Allergan)	Toradol IM (Recordati; 1990)	
I:	Lixidol (Farmitalia)	USA: Acular (Allergan)	

Ketotifen

ATC: R06AX17; S01GX08
 Use: antiasthmatic, antihistaminic

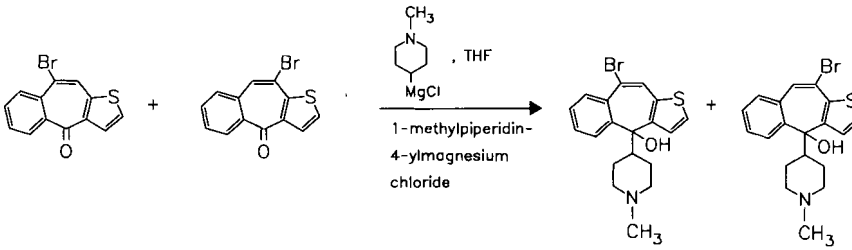
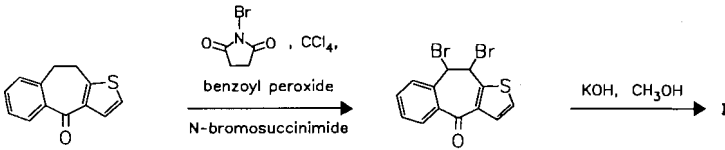
RN: 34580-13-7 MF: C₁₉H₁₉NOS MW: 309.43 EINECS: 252-099-7

LD₅₀: 179 mg/kg (M, p.o.)

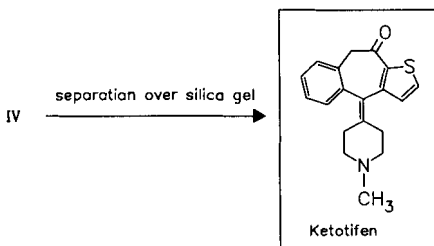
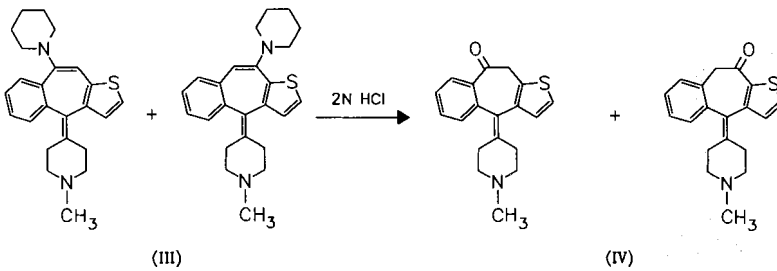
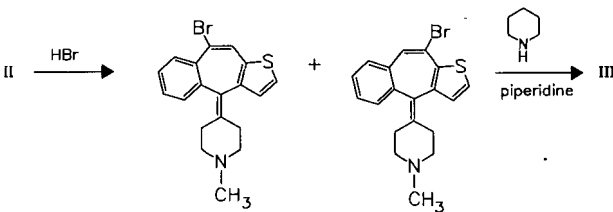
CN: 4,9-dihydro-4-(1-methyl-4-piperidinylidene)-10H-benzo[4,5]cyclohepta[1,2-b]thiophen-10-one

fumarate

RN: 34580-14-8 MF: C₂₃H₂₃NO₅S MW: 425.51



9- and 10-bromo-4-oxo-4H-benzo[4.5]cyclohepta[1.2-b]thiophene (I)



Reference(s):

DAS 2 111 071 (Sandoz; appl. 9.3.1971; CH-prior. 11.3.1970, 31.7.1970).
 US 3 682 930 (Sandoz; 8.8.1972; CH-prior. 11.3.1970, 31.7.1970).
 DOS 2 144 490 (Sandoz; appl. 6.9.1971; CH-prior. 24.9.1970, 4.2.1971).
 US 3 749 786 (Sandoz; 8.8.1972; CH-prior. 11.3.1970).

alternative syntheses:

DOS 2 302 970 (Sandoz; appl. 22.1.1973; CH-prior. 24.1.1972).
 US 3 960 894 (Sandoz; 1.6.1976; CH-prior. 21.1.1972).
 US 4 128 549 (Sandoz; 5.12.1978; prior. 19.1.1973, 26.7.1974, 27.2.1976, 3.2.1977).

medical use as antiasthmatic:

US 4 073 915 (Sandoz; 14.2.1978; CH-prior. 20.5.1975).

Formulation(s): cps. 1 mg; syrup 0.02 %; tabl. 1 mg, 2 mg (as fumarate)

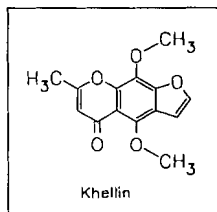
Trade Name(s):

D:	Airvitess (Farmasan)	generics	Zaditen (Sandoz)
	Astifat (Fatol)	F:	Zaditen (Novartis; 1980)
	Zaditen (Novartis Pharma; 1979)	GB:	Zaditen (Novartis; 1979)
	Zatofug (Wolff)	I:	Allerkif (Edmond)
			Totifen (Master Pharma)
		J:	Zaditen (Sandoz-Sankyo; 1983)

Khellin

ATC: M03
 Use: vasodilator

RN: 82-02-0 MF: C₁₄H₁₂O₅ MW: 260.25 EINECS: 201-392-8
 LD₅₀: 30.6 mg/kg (M, i.v.); 50.8 mg/kg (M, p.o.);
 34.4 mg/kg (R, i.v.); 68.8 mg/kg (R, p.o.)
 CN: 4,9-dimethoxy-7-methyl-5*H*-furo[3,2-*g*][1]benzopyran-5-one



Isolation from ethanolic extracts of fruits of Umbellifera *Ammi visnaga*.

Reference(s):

Späth, E.; Gruber, W.: Ber. Dtsch. Chem. Ges. (BDCGAS) **71**, 106 (1938).
 Abu-Shady, H.; Soine, T.O.: J. Am. Pharm. Assoc. (JPHAA3) **41**, 481 (1952).

total syntheses:

Baxter, R.H. et al.: J. Chem. Soc. (JCSOA9) **1949**, 30.
 Clarke, J.R.; Robertson, A.: J. Am. Chem. Soc. (JACSAT) **71**, 362 (1949).
 Clarke, J.R.; Robertson, A.: J. Chem. Soc. (JCSOA9) **1949**, 302.
 Geissman, T.A.; Halsall, T.G.: J. Am. Chem. Soc. (JACSAT) **73**, 1280 (1951).

Formulation(s): cps. 10 mg, 12 mg; drg. 1.25 mg, 10 mg; drops 50 mg/100 ml; ointment 0.1 g/100 g, 0.01 g/100 g; sol. 0.025 g/100 ml; suppos. 2.5 mg, 5 mg; tabl. 25 mg

Trade Name(s):

D:	Athmakhell (Steigerwald); wfm	Farctil (Gewo); wfm	F:	Khelline Promethazine
	Bilicordan (Repha); wfm	Hyperidyst II (Vogel & Weber); wfm		Berthier (Labaz); wfm
	Broncaid (Rhône-Poulenc Pharma); wfm	Iosimitan (Wider); wfm	I:	Kellina (UCB); wfm
	Cardiopax (Wider); wfm	Keldrin (Thiemann); wfm		Nefrolitin (Geymonat)- comb.; wfm
	Coronar-Homocent (Fides); wfm	Puraeton E (Dolorgiet); wfm		Vasokellina papaverina (Angelini)-comb.; wfm
	Coropar (Redel); wfm	Solamin (Ardeypharm); wfm		

Labetalol

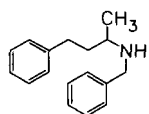
ATC: C07AG01

Use: antihypertensive (α - and β -receptor blocker)RN: 36894-69-6 MF: $C_{19}H_{24}N_2O_3$ MW: 328.41 EINECS: 253-258-3LD₅₀: 97.5 mg/kg (M, i.v.); 660 mg/kg (M, p.o.);
>50 mg/kg (R, i.v.); >2 g/kg (R, p.o.)

CN: 2-hydroxy-5-[1-hydroxy-2-[(1-methyl-3-phenylpropyl)amino]ethyl]benzamide

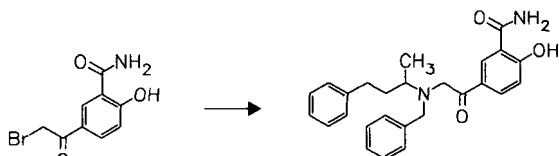
hydrochlorideRN: 32780-64-6 MF: $C_{19}H_{24}N_2O_3 \cdot HCl$ MW: 364.87 EINECS: 251-211-1LD₅₀: 47 mg/kg (M, i.v.); 1.45 g/kg (M, p.o.);
53 mg/kg (R, i.v.); 2.114 g/kg (R, p.o.);
>1.5 g/kg (dog, p.o.)

(a)

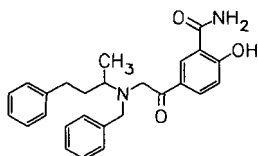


N-benzyl-1-methyl-3-phenylpropylamine

+

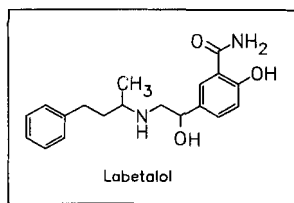
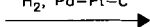


5-bromoacetyl-salicylamide (I)



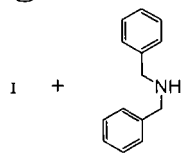
(II)

II

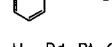
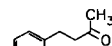
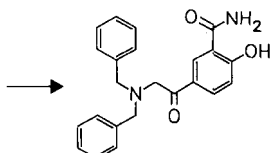
 $H_2, Pd-Pt-C$ 

Labetalol

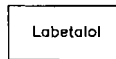
(b)



I

 $H_2, Pd-Pt-C$

benzylacetone



Labetalol

Reference(s):

US 4 012 444 (Allen & Hanburys; 15.3.1977; prior. 29.6.1970).

US 4 066 755 (Allen & Hanburys; 3.1.1978; GB-prior. 30.11.1973).

DOS 2 032 642 (Allen & Hanburys; appl. 1.7.1970; GB-prior. 8.7.1969).

DAS 1 643 224 (Allen & Hanburys; appl. 22.9.1967; GB-prior. 23.9.1966, 21.4.1967).

US 3 705 233 (Allen & Hanburys; 5.12.1972; GB-prior. 23.9.1966).

Formulation(s): amp. 5 mg/ml, 50 mg, 100 mg; tabl. 50 mg, 100 mg, 200 mg, 300 mg, 400 mg (as hydrochloride)

Trade Name(s):

D:	Trandate (Glaxo; 1978); wfm	Diurolab (Leben's)-comb. Ipolab (Leben's)	J:	Trandate (Shim Nihon Jitsugyo-Graxo)
F:	Trandate (Novartis; 1980)	Lolum (Lifepharma)	USA:	Normodyne (Schering- Plough; 1984)
GB:	Trandate (Evans; 1977)	Pressalolo (Locatelli)		Trandate (Glaxo Wellcome; 1984)
I:	Abetol (CT) Alfabetal (Mitim) Amipres (Salus Research) Biotens (Kemyos)-comb.	Trandate (Glaxo Wellcome) Trandiur (Glaxo Wellcome)-comb.		

Lacidipine

(Lacipil; GR-43659X; GX-1048; SN-305)

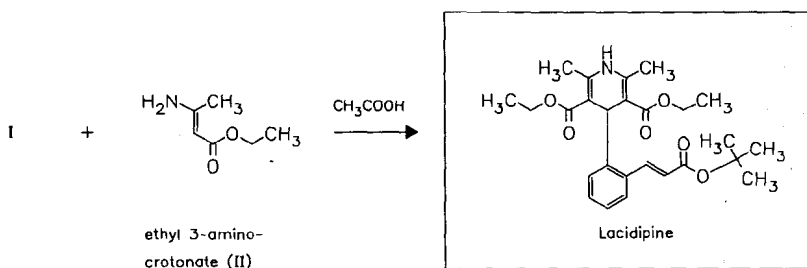
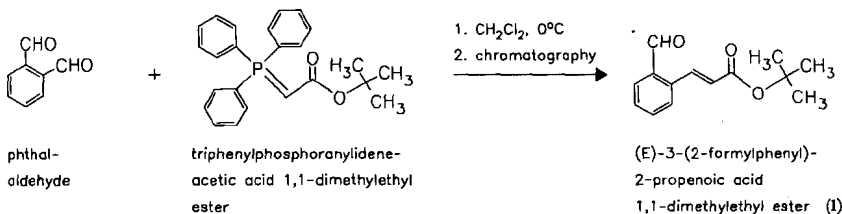
ATC: C02DE; C08CA09

Use: once-daily calcium antagonist,
antihypertensiveRN: 103890-78-4 MF: C₂₆H₃₃NO₆ MW: 455.55LD₅₀: 3150 mg/kg (M, p.o.);

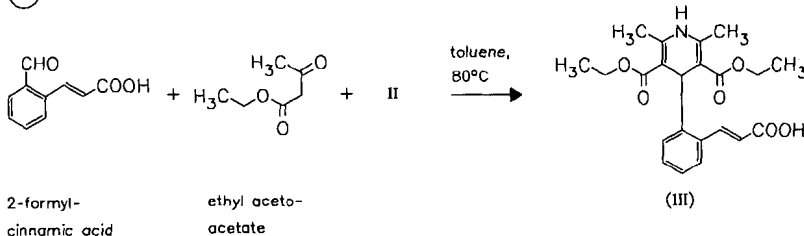
880 mg/kg (R, p.o.)

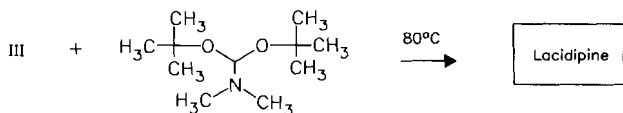
CN: (E)-4-[2-[3-(1,1-dimethylethoxy)-3-oxo-1-propenyl]phenyl]-1,4-dihydro-2,6-dimethyl-3,5-pyridinedicarboxylic acid diethyl ester

a

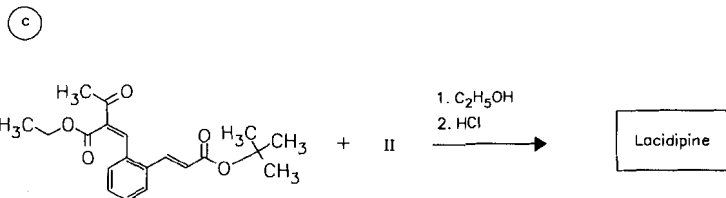


b





N,N-dimethylformamide
di-tert-butyl acetal



Reference(s):

- a DE 3 529 997 (Glaxo; appl. 22.8.1985; I-prior. 22.8.1984; 5.7.1985).
US 4 801 599 (Glaxo; 31.1.1989; appl. 20.8.1985; I-prior. 22.8.1984, 5.7.1985).
US 5 011 848 (Glaxo; 30.4.1990; appl. 23.1.1989; prior. 20.8.1985; I-prior. 22.8.1984, 5.7.1985).
b EP 370 974 (Glaxo; appl. 21.11.1989; I-prior. 21.11.1989).
c EP 534 520 (Merck + Co.; appl. 5.9.1992; USA-prior. 13.9.1991, 28.7.1992).

lacidipine for treating arteriosclerosis:

EP 499 920 (Glaxo; appl. 8.2.1992; I-prior. 13.2.1991).

long-acting formulation for dihydropyridines:

EP 301 133 (Syntex; appl. 21.12.1987; USA-prior. 26.7.1987).

prolonged-release oral pharmaceuticals:

EP 557 244 (Siegfried Pharma; appl. 3.2.1993; CH-prior. 17.2.1993).

process for preparation of solid dispersions:

WO 9 508 987 (KRKA Tovarna; appl. 26.9.1994; SI-prior. 28.9.1993).

Formulation(s): tabl. 2 mg, 4 mg

Trade Name(s):

D:	Motens (Boehringer Ing.)	I:	Apanil (Fidia)	Viapres (Zambon; 1991)
F:	Caldine (Boehringer Ing.)		Lacipil (Glaxo Wellcome)	
GB:	Motens (Boehringer Ing.)		Lacirex (Guidotti; 1991)	

Lactulose

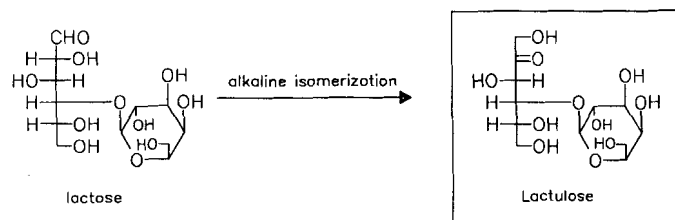
(Laktulose)

ATC: A06AD11

Use: laxative

RN: 4618-18-2 MF: C₁₂H₂₂O₁₁ MW: 342.30 EINECS: 225-027-7

CN: 4-O-β-D-galactopyranosyl-D-fructose



Reference(s):

Montgomery, E.M.; Hudson, C.S.: J. Am. Chem. Soc. (JACSAT) **52**, 2101 (1930).

use of alkali aluminate:

US 3 546 206 (Kraftco; 8.12.1970; prior. 20.9.1967).

US 3 850 905 (Kraftco; 26.11.1974; prior. 30.12.1972).

use of borax and NaOH:

JP 7 700 091 (Morinaga Milk Ind.; appl. 13.4.1971).

use of MgO, MgCO₃:

ES 397 810 (Jalup Jaures; appl. 26.11.1971).

use of alkali tetraborate:

US 3 505 309 (Research Corp.; 7.4.1970; prior. 25.9.1967).

use of alkali metal hydroxide or ammonia:

DOS 2 038 230 (Hayashibora; appl. 31.7.1970; J-prior. 31.7.1969, 2.8.1969).

lactulose syrup:

DOS 2 224 680 (Morinaga Milk Ind.; appl. 19.5.1972; J-prior. 22.5.1971).

lactulose powder:

DAS 1 189 839 (N.V. Tervalon; appl. 20.4.1961; N-prior. 22.4.1960).

DOS 2 153 106 (Morinaga Milk Ind.; appl. 25.10.1971; J-prior. 31.5.1971).

BE 843 777 (Morinaga Milk Ind.; appl. 5.7.1976; J-prior. 4.7.1975, 8.7.1975).

DOS 2 038 230 (Hayashibara; appl. 31.7.1970; J-prior. 31.7.1969, 2.8.1969).

crystalline lactulose:

US 5 003 061 (SIRAC; 26.3.1991; 1-prior. 1.12.1987).

AT 327 224 (Laevosan; appl. 12.10.1973; valid from 15.4.1975).

Osten, B.J.: Recl. Trav. Chim. Pays-Bas (RTCPA3) **86**, 673 (1967).

CS 161 498 (M. Tadra et al.; appl. 24.5.1973).

Formulation(s): gran. 3 g, 5 g, 6 g, 10 g; syrup 3.33 g, 50 %, 66.7 %

Trade Name(s):

D:	Bifiteral (Solvay Arzneimittel) Eugalac (Töpfer) Lactofalk (Falk) Lactuflor (MIP Pharma) Laevilac S (Fresenius- Praxis) generic	Fitaxal (Phygiène) Melaxose (Boehringer Ing.)-comb. Transulose (Schwarz- comb.)	Epalfen (Zambon) Lactoger (Ripari-Gero) Lacvolac (Boehringer Mannh.) Lassifar (Lafare) Normase (Molteni) Osmolac (Savio IBN)
F:	Duphalac (Solvay Pharma)	GB: Duphalac (Solvay) Lactugal (Galen) I: Diacolon (Piam) Duphalac (UCM)	USA: Duphalac (Solvay) Ixxose (ECR)

Lactylphenetidin

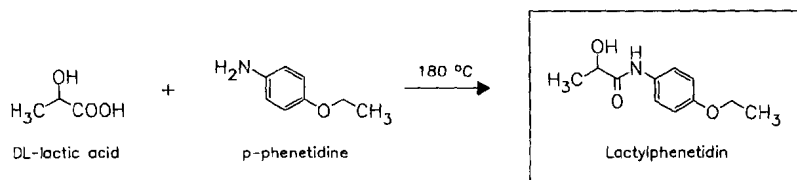
(Lactophenin)

ATC: N02B

Use: analgesic, antipyretic, antirheumatic

RN: 539-08-2 MF: C₁₁H₁₅NO₃ MW: 209.25 EINECS: 208-708-3

CN: N-(4-ethoxyphenyl)-2-hydroxypropanamide



Reference(s):

DRP 70 250 (Chem. Fabr. formerly Goldenberg Geromont; 1892).

Formulation(s): tabl. 200 mg

Trade Name(s):

D: Octadon (Thiemann)-
comb.; wfmQuadronal (ASTA)-comb.;
wfm

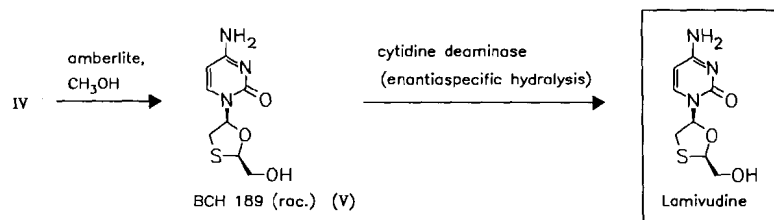
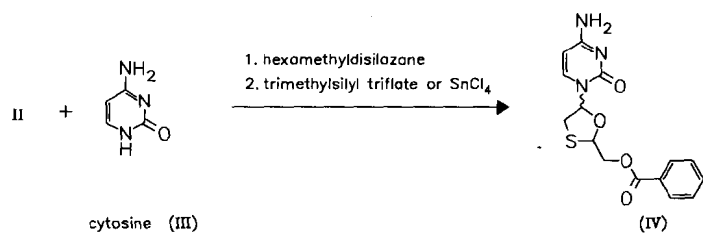
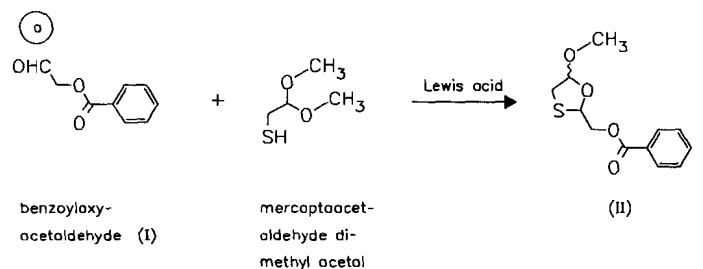
Lamivudine

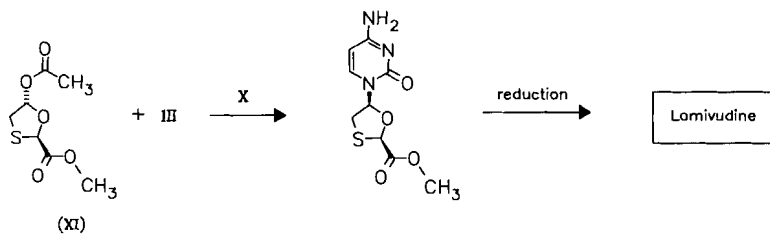
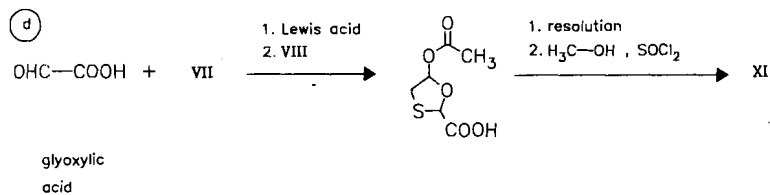
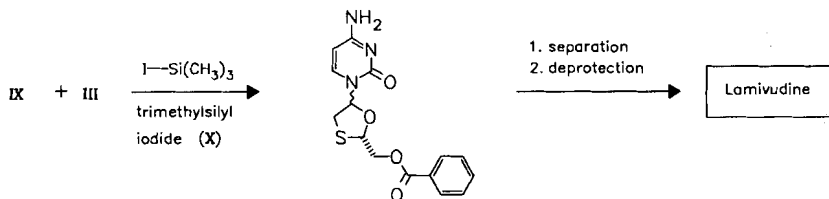
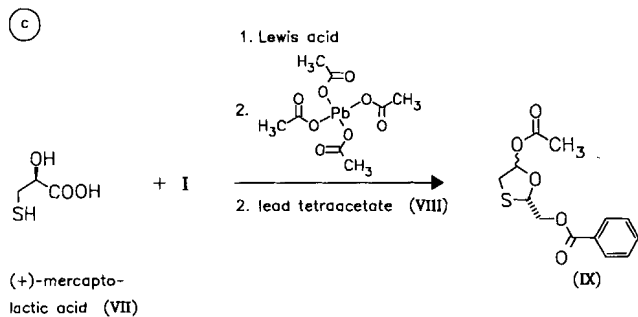
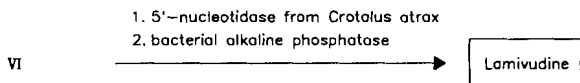
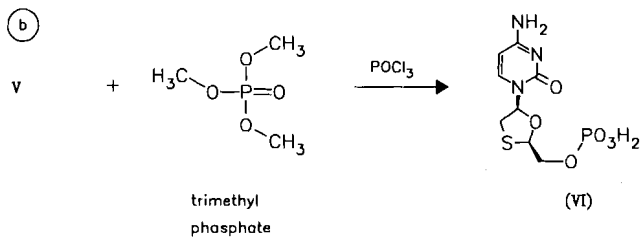
(3 TC; BCH-790; GR-109714X; (-)sdcc)

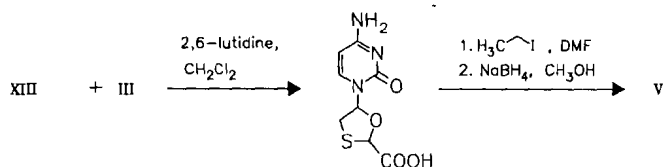
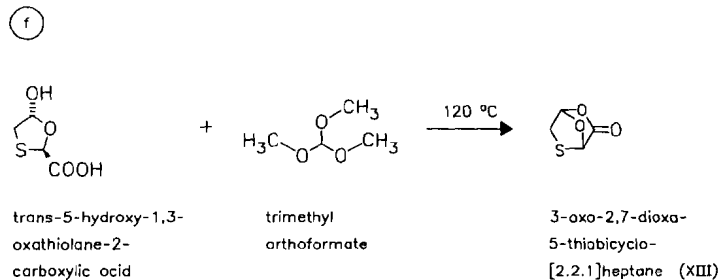
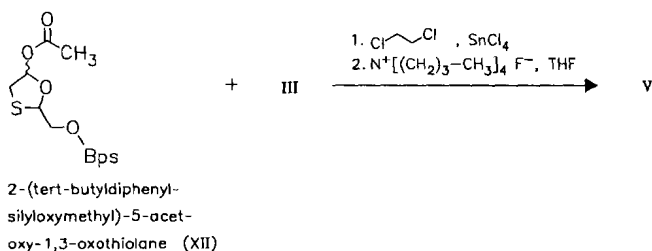
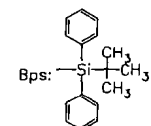
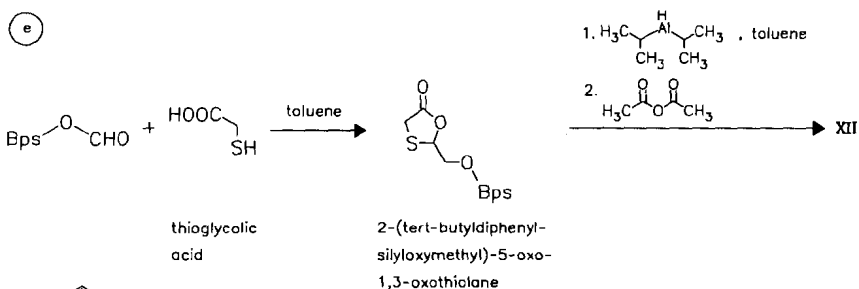
ATC: J05AF05

Use: antiviral, reverse transcriptase
inhibitorRN: 134678-17-4 MF: C₈H₁₁N₃O₃S MW: 229.26CN: (2*R-cis*)-4-amino-1-[2-(hydroxymethyl)-1,3-oxathiolan-5-yl]-2(1*H*)-pyrimidinone(2*S-cis*)-formRN: 134680-32-3 MF: C₈H₁₁N₃O₃S MW: 229.26

racemate

RN: 136891-12-8 MF: C₈H₁₁N₃O₃S MW: 229.26





Reference(s):

- a, b EP 382 526 (IAF Biochem. Int.; appl. 16.8.1990; USA-prior. 8.2.1989).
WO 9 117 159 (IAF Biochem. Int.; appl. 14.11.1991; GB-prior. 2.5.1990).
Bcach, I.W. et al.: J. Org. Chem. (JOCEAH) **57** (8), 2217 (1992).
(synthesis via L-gulose see also WO 9 210 496).
- c Humber, D.-C. et al.: Tetrahedron Lett. (TELEAY) **33** (32), 4625 (1992).
- d Drugs Future (DRFUD4) **18** (4), 319-323 (1993).
- e WO 9 111 186 (Emory Univ.; appl. 31.1.1991; USA-prior. 1.2.1990).
US 5 210 085 (Emory Univ.; 22.2.1991; USA-prior. 1.2.1990).
- f WO 9 429 301 (Biochem. Pharma. Inc.; appl. 7.6.1994; GB-prior. 7.6.1993).

process that avoids Lewis acids:

WO 9 529 174 (Glaxo; appl. 21.4.1995; GB-prior. 23.4.1994).

crystalline new form:

EP 517 145 (Glaxo; appl. 2.6.1992; GB-prior. 3.6.1991).

use for treating and preventing hepatitis B infection:

EP 494 119 (P. Belleau; IAF Biochem. Int.; Biochem. Pharma. Inc.; appl. 3.1.1992; GB-prior. 3.1.1991).

composition for HIV infections:

EP 513 917 (Glaxo; appl. 11.5.1992; GB-prior. 16.5.1991).

WO 9 504 525 (Andrulis Pharm.; appl. 3.8.1994; USA-prior. 4.8.1993).

combination with zidovudine and loviride:

WO 9 601 110 (Janssen Pharm.; appl. 23.6.1995; EP-prior. 1.7.1994).

Formulation(s): f. c. tabl. 100 mg; oral sol. 10 mg/ml; sol. 1 %; tabl. 150 mg

Trade Name(s):

D:	Combivir (Glaxo Wellcome)-comb. with Zidovudine	GB:	Combivir (Glaxo Wellcome)-comb. with Zidovudine	J:	Epivir (Glaxo Wellcome) Epivir (Nippon Wellcome)
F:	Epivir (Glaxo Wellcome)	I:	Combivir (Glaxo Wellcome)-comb. with Zidovudine	USA:	Combivir (Glaxo Wellcome)-comb. with Zidovudine
					Epivir (Glaxo Wellcome) 3TC (Glaxo Wellcome)

Lamotrigine

(BW-430C)

ATC: N03AX09

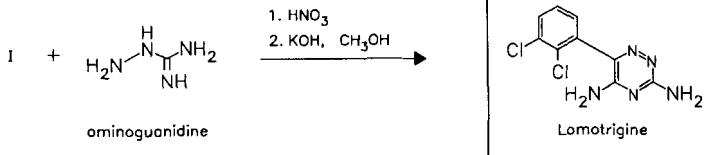
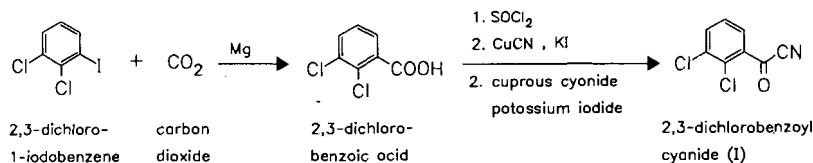
Use: anticonvulsant, glutamate inhibitor

RN: 84057-84-1 MF: C₉H₇Cl₂N₅ MW: 256.10 EINECS: 281-901-8

LD₅₀: 245 mg/kg (M, p.o.);

205 mg/kg (R, p.o.)

CN: 6-(2,3-dichlorophenyl)-1,2,4-triazine-3,5-diamine



Reference(s):

US 4 560 687 (Wellcome; 24.12.1985; appl. 5.3.1984; prior. 15.9.1981, 29.5.1980; GB-prior. 1.6.1979).

US 4 602 017 (Wellcome; 22.7.1986; appl. 27.2.1984; prior. 15.9.1981, 29.5.1980; GB-prior. 1.6.1979).

EP 21 121 (Wellcome; appl. 30.5.1980; GB-prior. 1.6.1979).

US 5 912 345 (Glaxo Wellcome; 15.6.1999; appl. 29.12.1995; GB-prior. 30.12.1994).

Formulation(s): tabl. 5 mg, 25 mg, 50 mg, 100 mg, 200 mg

Trade Name(s):

D: Lamictal (Glaxo Wellcome/ Desitin) GB: Lamictal (Glaxo Wellcome; 1995) USA: Lamictal (Glaxo Wellcome; 1998)
 F: Lamictal (Novartis) I: Lamictal (Wellcome)

Lanatoside C

(Lanatoside)

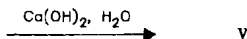
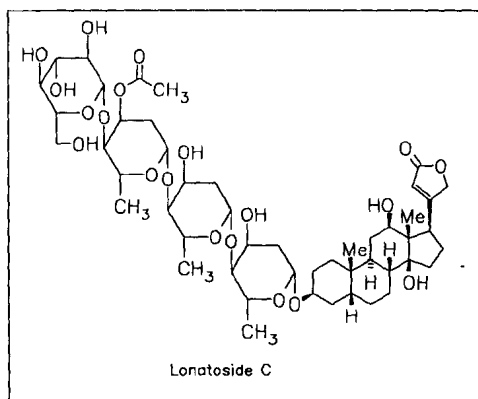
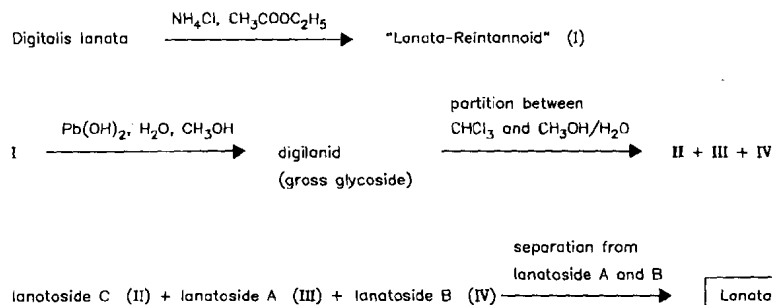
ATC: C01AA06

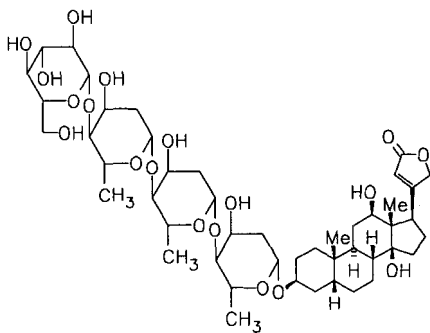
Use: cardiac glycoside

RN: 17575-22-3 MF: $C_{49}H_{76}O_{20}$ MW: 985.13 EINECS: 241-546-1

CN: (3 β ,5 β ,12 β)-3-[(*O*- β -D-glucopyranosyl-(1 \rightarrow 4)-*O*-3-*O*-acetyl-2,6-dideoxy- β -D-ribo-hexopyranosyl-(1 \rightarrow 4)-*O*-2,6-dideoxy- β -D-ribo-hexopyranosyl-(1 \rightarrow 4)-2,6-dideoxy- β -D-ribo-hexopyranosyl)oxy]-12,14-dihydroxycard-20(22)-enolide

deslanoside

RN: 17598-65-1 MF: $C_{47}H_{74}O_{19}$ MW: 943.09



Deslanoside (V)

Reference(s):

Stoll, A.; Kreis, W.: *Helv. Chim. Acta (HCACAV)* **16**, 1049 (1933).

HU 156 638 (Richter Gedeon; appl. 24.10.1967).

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. **12**, 617.

digilanid (gross glycoside preparation):

DRP 631 790 (Sandoz; appl. 1930).

Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. **8**, 227.

CH 245 219 (Dr. Wander; appl. 1944).

deslanoside (desacetyl-lanatoside C):

Stoll, A.; Kreis, W.: *Helv. Chim. Acta (HCACAV)* **16**, 1049 (1933).

DD 70 088 (C. Lindig, K. Repke; appl. 1.11.1968).

Formulation(s): amp. 0.4 mg/2 ml; drops 1 mg; tabl. 0.25 mg

Trade Name(s):

D:	Cedilanid (Sandoz); wfm Cedilanid Amp. (Sandoz)- desacetyl lanatoside C; wfm Cedilanid c. Th. (Sandoz)- comb.; wfm Cedilanid c. Th. Amp. (Sandoz)- desacetyl lanatoside C; wfm Celadigal (Beiersdorf); wfm Ceto sanol (Sanol); wfm Conjunctisan-A (vitOrgan)- desacetyl lanatoside C; wfm Digilanid (Sandoz)- glycoside total preparation; wfm	Euphyllinat (Byk Gulden)- comb.; wfm Lanatorot (Heumann)- comb.; wfm Lanatosid Hameln (Hameln); wfm Lanibion (Merck)-comb.; wfm Lanimerck (Merck); wfm Pandigal (Beiersdorf)- glycoside total preparation; wfm Pulmo Frenona curn Digitalis (Hefa-Frenon)- comb.; wfm	GB:	Cedilanid (Sandoz); wfm
			I:	Cedilanid (Sandoz)
			J:	Cedilanid (Sandoz-Sankyo) Digilanogen C (Fujisawa) Digysid (Kanto) Erpasin (Kowa Yakuhin) Lanaside (Toyo S.-Ono) Lanatos (Sanko) Lanimerck (Doitsu) Ranato C (Kobayashi Kako)
			USA:	Cedilanid (Sandoz); wfm Cedilanid D (Sandoz)- desacetyl lanatoside C; wfm
	F:	Cédilanide (Novartis)		

Lanoconazole

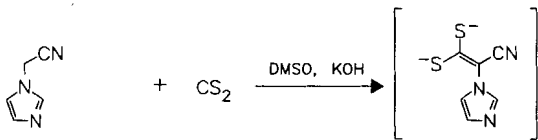
(NND 318; TJN-318)

ATC: D01

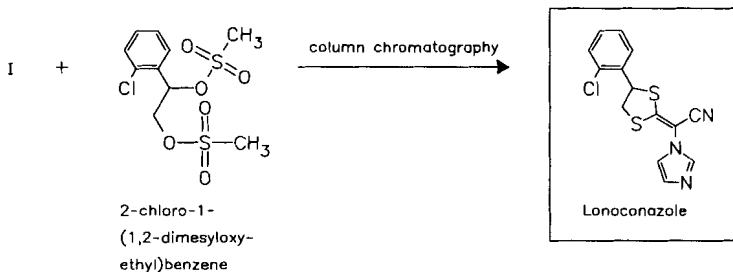
Use: antifungal

RN: 101530-10-3 MF: C₁₄H₁₀ClN₃S₂ MW: 319.84

CN: (E)-(±)-α-[4-(2-chlorophenyl)-1,3-dithiolan-2-ylidene]-1H-imidazole-1-acetonitrile

1-cyanomethyl-
imidazole

I

2-chloro-1-
(1,2-dimesyloxy-
ethyl)benzene

Lansoprazole

Reference(s):

EP 218 736 (Nihon Nohyaku; EP-prior. 9.10.1985).

preparation of E-isomer:

JP 02 121 983 (Nihon Noyaku; J-prior. 29.10.1988).

Formulation(s): cream 1 %; sol. 1 %*Trade Name(s):*

J: Astat (Tsumura)

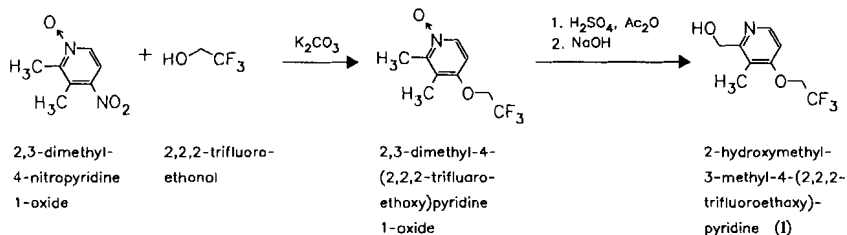
Lansoprazole

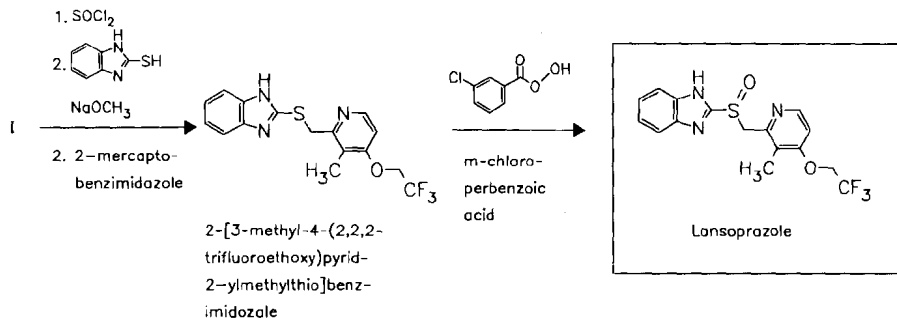
ATC: A02BC03

Use: antiulcer agent H⁺/K⁺-ATPase inhibitorRN: 103577-45-3 MF: C₁₆H₁₄F₃N₃O₂S MW: 369.37LD₅₀: >5 g/kg (M, p.o.);

>5 g/kg (R, p.o.)

CN: 2-[[[3-methyl-4-(2,2,2-trifluoroethoxy)-2-pyridinyl]methyl]sulfinyl]-1H-benzimidazole

2,3-dimethyl-
4-nitropyridine
1-oxide2,2,2-trifluoro-
ethanol2,3-dimethyl-4-
(2,2,2-trifluoro-
ethoxy)pyridine
1-oxide2-hydroxymethyl-
3-methyl-4-(2,2,2-
trifluoroethoxy)-
pyridine (I)



Reference(s):

EP 174 726 (Takeda; appl. 31.7.1985; J-prior. 16.8.1984).

stabilized pharmaceutical formulation:

EP 237 200 (Takeda; appl. 17.10.1990; J-prior. 21.2.1986, 13.2.1986).

medical use for treatment of osteoporosis:

JP 1 203 325 (Takeda; appl. 8.2.1988).

medical use for treatment of camylobacter infections:

EP 382 489 (Takeda; appl. 6.2.1990).

Formulation(s): cps. 15 mg, 30 mg

Trade Name(s):

D:	Agopton (Takeda)	F:	Lanzor (Hocchst Houdé; 1991)	I:	Lansox (Takeda)
	Lanzor (Albert-Roussel, Hoechst)		Ogast (Takeda; 1991)	J:	Takepron (Takeda)
		GB:	Zoton (Wyeth)	USA:	Prevacid (TAP)

Latamoxef

(Moxalactam; S-6059)

ATC: J01DA18

Use: β -lactam antibiotic (1-oxadethia-cephalosporin derivative)

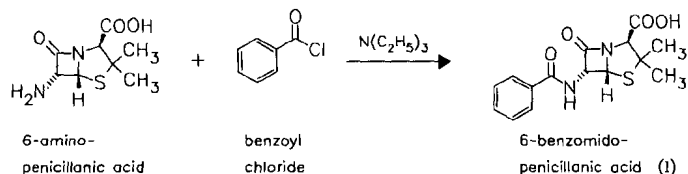
RN: 64952-97-2 MF: $\text{C}_{20}\text{H}_{20}\text{N}_6\text{O}_9\text{S}$ MW: 520.48 EINECS: 265-287-9

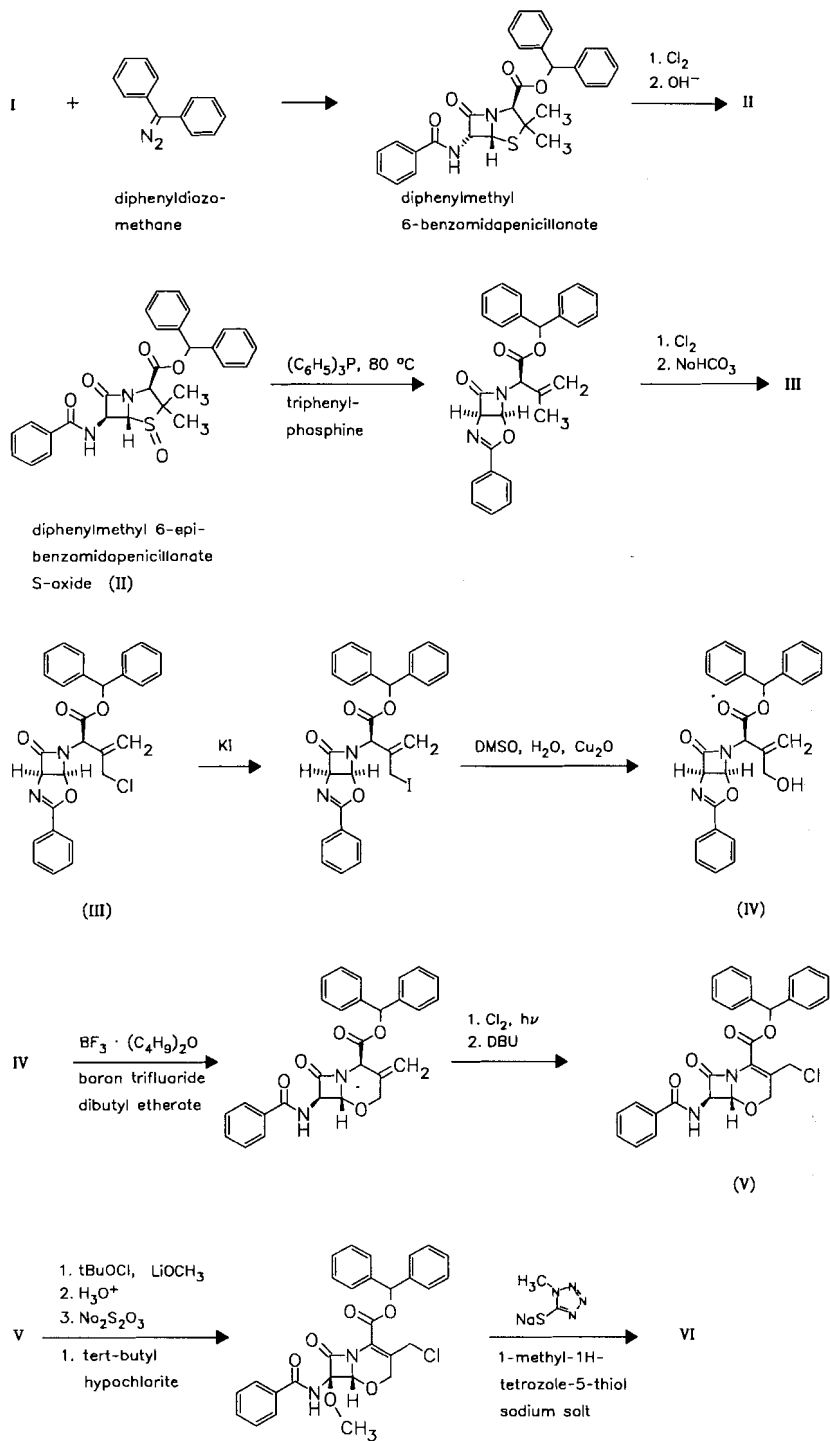
CN: [6R-[6 α ,7 α ,7(R*)]]-7-[[carboxy-(4-hydroxyphenyl)acetyl]amino]-7-methoxy-3-[[1-methyl-1H-tetrazol-5-yl]thio]methyl]-8-oxo-5-oxa-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

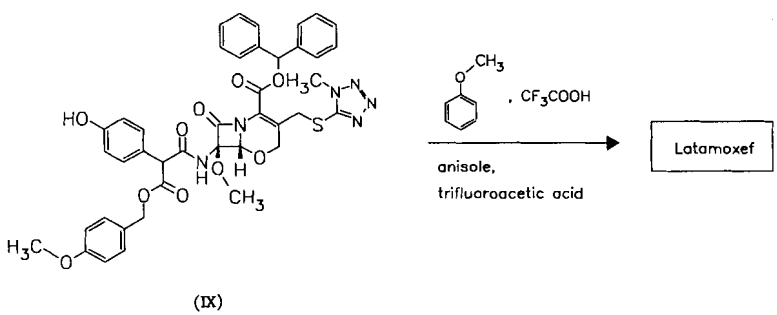
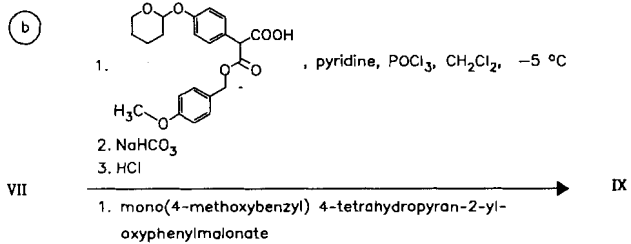
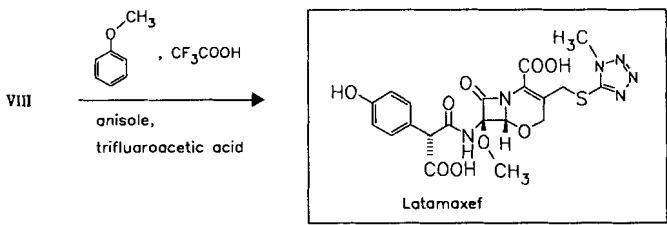
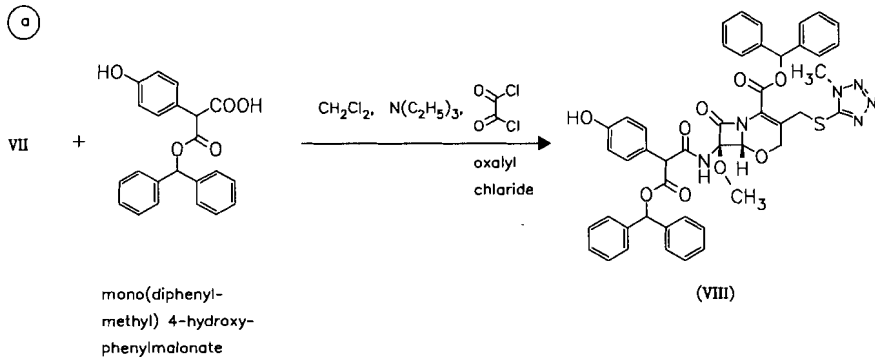
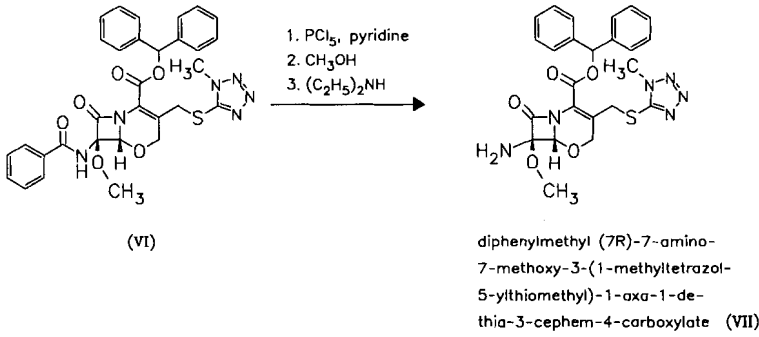
disodium salt

RN: 64953-12-4 MF: $\text{C}_{20}\text{H}_{18}\text{N}_6\text{Na}_2\text{O}_9\text{S}$ MW: 564.44 EINECS: 265-288-4

LD_{50} : 5300 mg/kg (M, i.v.); >10 g/kg (M, p.o.);
 5500 mg/kg (R, i.v.); >10 g/kg (R, p.o.)







Reference(s):

Nagata, W.: "Synthetic Aspects of 1-Oxacephem Antibiotics", in *Curr. Trends Org. Synth., Proc. Int. Conf.*, 4th, Tokyo, 22.-27.8.1982; Ed. by H. Nozaki; Pergamon Press 1983.

DOS 2 713 370 (Shionogi; appl. 25.3.1977; J-prior. 25.3.1976, 30.4.1976).

US 4 138 486 (Shionogi; 6.2.1979; J-prior. 25.3.1976, 30.4.1976).

US 4 180 571 (Shionogi; 25.12.1979; J-prior. 25.3.1976, 30.4.1976).

alternative syntheses:

Narisada, M. et al.: *J. Med. Chem. (JMCMAR)* **22**, 758 (1979).

Narisada, M. et al.: *Heterocycles (HTCYAM)* **7**, 839 (1977).

preparation of [6R-[6 α ,7 β ,7(R)]]-[[carboxy-(4-hydroxyphenyl)acetyl]amino] enantiomer and epimerization methods:*

EP 98 545 (Shionogi; appl. 1.7.1983; J-prior. 2.7.1982).

US 4 504 658 (Shionogi; 12.3.1985; J-prior. 2.7.1982).

stable lyophilisates:

US 4 418 058 (Shionogi; 29.11.1983; J-prior. 23.6.1980).

combination with other antibiotics:

US 4 452 778 (Eli Lilly; 5.6.1984; appl. 4.5.1979, 31.3.1980; 21.12.1981).

Formulation(s): amp. 250 mg, 500 mg, 1 g, 2 g, 10 g; inj. 1 g/3 ml, 1 g/20 ml (as sodium salt)

Trade Name(s):

D:	Festamoxin (Shionogi); wfm	Mactam (Coli) Moxa (Ital. Suisse)	Polimoxal (Herdel) Priolatt (Sancarlo)
I:	Baxal (Italsuisse) Betalactam (Bergamon)	Moxacef (Pulitzer) Moxatres (Radiumfarma)	Sectam (Locatelli) Shiomarin (Shionogi)
	Latoxacef (Magis)	Oxacef (Gibipharma)	J: USA: Moxam (Lilly); wfm

Latanoprost

(PhXA41; PhXA34 (as 15(R,S)-isomer))

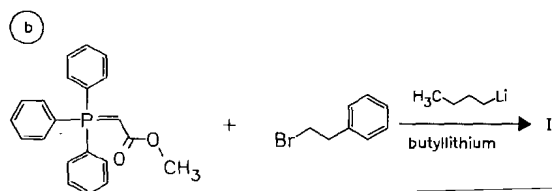
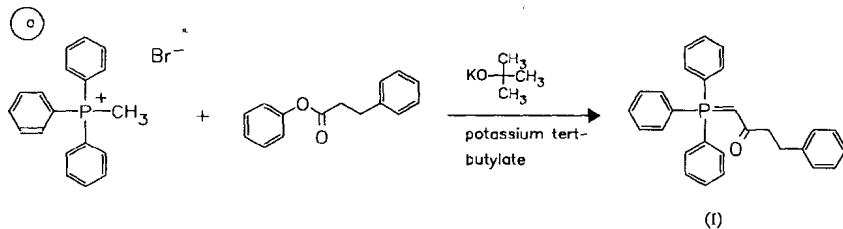
ATC: S01EX03

Use: antiglaucoma, prostaglandin

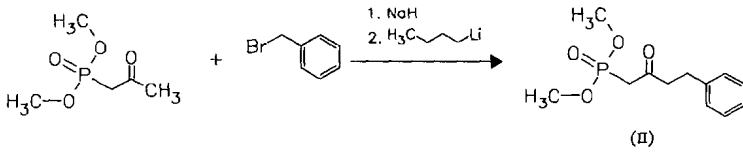
RN: 130209-82-4 MF: C₂₆H₄₀O₅ MW: 432.60

CN: [1R-[1 α (Z),2 β (R*),3 α ,5 α]]-7-[3,5-dihydroxy-2-(3-hydroxy-5-phenylpentyl)cyclopentyl]-5-heptenoic acid 1-methylethyl ester

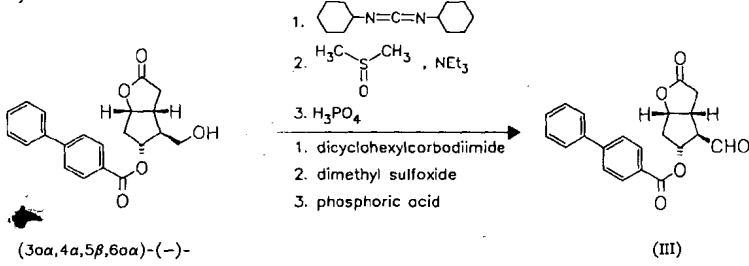
synthesis of intermediate I:



synthesis of intermediate II:

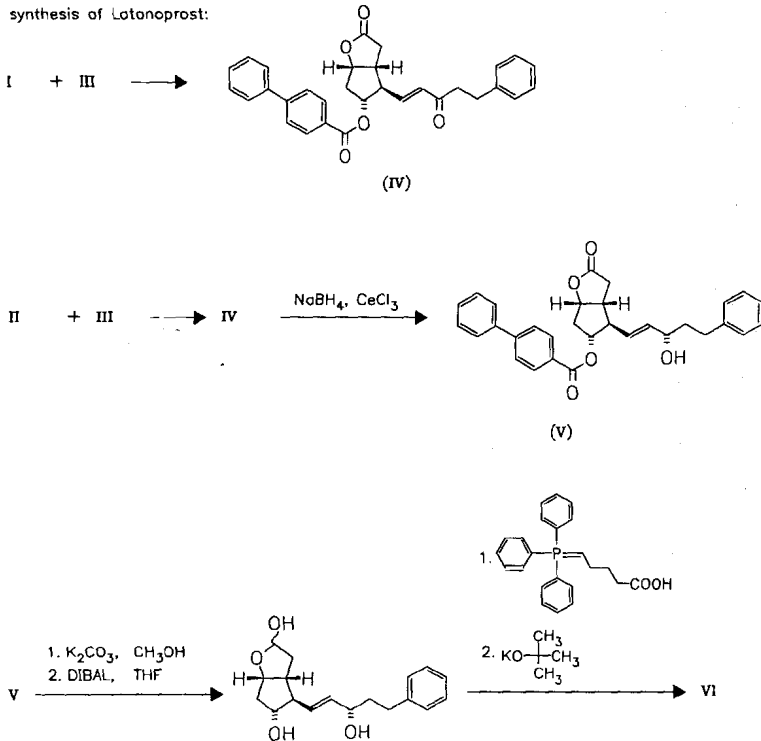


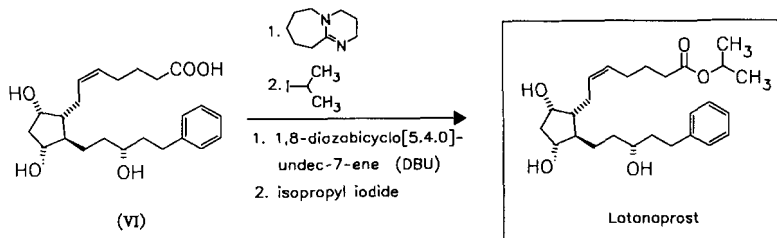
synthesis of intermediate III:



$(3\alpha,4\alpha,5\beta,6\alpha\alpha)-(-)-\text{hexahydro-4-(hydroxymethyl)-2-oxo-2H-cyclopento[b]furan-5-yl}$
1,1'-biphenyl-4-carboxylate

synthesis of Latanoprost:



*Reference(s):*

WO 9 002 553 (Pharmacia; appl. 22.3.1990; S-prior. 6.9.1988).
EP 364 417 (Pharmacia; appl. 18.4.1990).

synthesis of Corey lactone derivatives:

Corey, E.J. et al.: J. Am. Chem. Soc. (JACSAT) **93**, 1491 (1971).
Alm, A. et al.: Invest. Ophthalmol. Visual Sci. (IOVSDA) **1992**, Suppl. 1247.

Formulation(s): eye drops 50 µg/ml

Trade Name(s):

D: XALATAN (Pharmacia & Upjohn) GB: Xalatan (Pharmacia & Upjohn; 1997)
F: Xalatan (Pharmacia & Upjohn) USA: Xalatan (Pharmacia & Upjohn)

Leflunomide

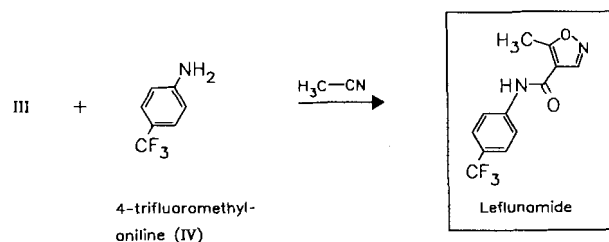
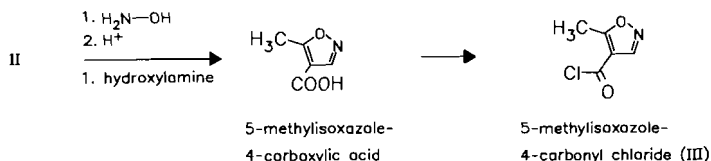
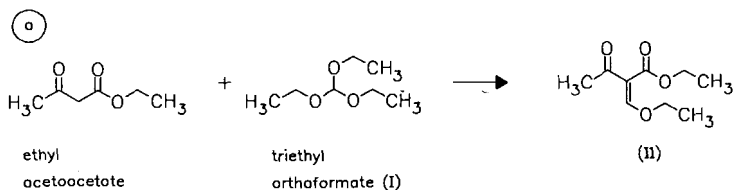
(HWA-486; SU 101)

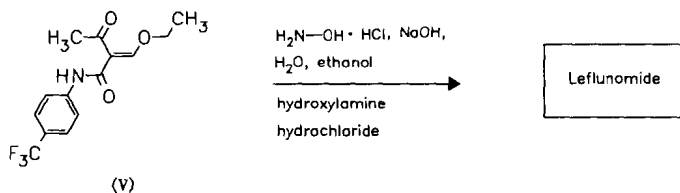
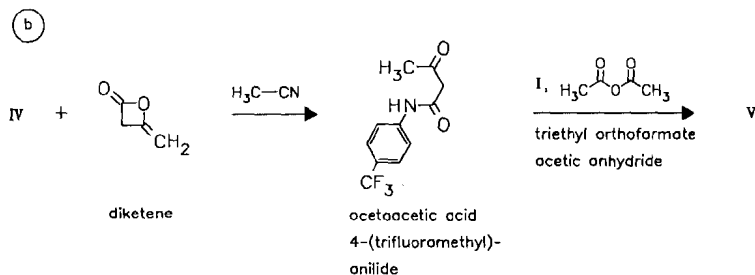
ATC: L04AX

Use: antirheumatic, immunosuppressant

RN: 75706-12-6 MF: C₁₂H₉F₃N₂O₂ MW: 270.21

CN: 5-Methyl-N-[4-(trifluoromethyl)phenyl]-4-isoxazolecarboxamide



**Reference(s):**

a,b DE 2 854 439 (Hoechst AG, D-prior. 16.12.1978).
DE 4 127 737 (Hoechst AG; appl. 22.8.1991).

isoxazole-4-carboxamides as neoplasm inhibitors and antirheumatics:
WO 9 117 748 (Hoechst AG; appl. 24.10.1990; D-prior. 18.5.1990).

thioamide analogs with anticancer activity:
WO 9 633 179 (Sugen; appl. 19.4.1996; USA-prior. 21.4.1995).

injectable formulations:
WO 9 633 745 (Sugen; appl. 17.4.1996; USA-prior. 26.4.1995).

Formulation(s): tabl. 10 mg, 20 mg, 100 mg

Trade Name(s):

D: Arava (Hoechst Marion USA: Arava (Hoechst Marion
Roussel) Roussel)

Lenampicillin

(KBT-1585)

ATC: S01AA
Use: antibacterial, semisynthetic β -lactam
antibiotic, derivative of ampicillin
(prodrug for oral application)

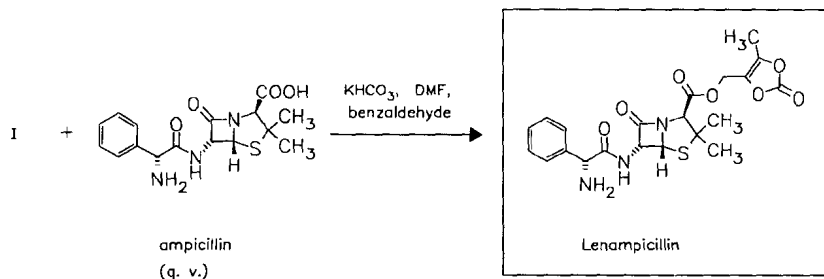
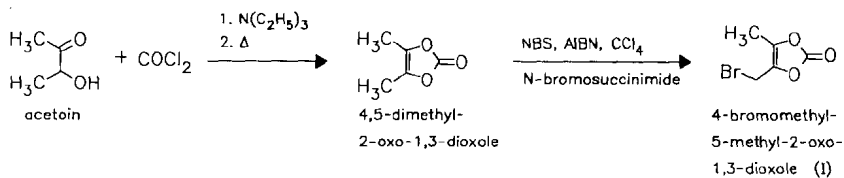
RN: 86273-18-9 MF: $\text{C}_{21}\text{H}_{23}\text{N}_3\text{O}_7\text{S}$ MW: 461.50

CN: [2S-[2 α ,5 α ,6 β (S*)]]-6-[(aminophenylacetyl)amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid (5-methyl-2-oxo-1,3-dioxol-4-yl)methyl ester

monohydrochloride

RN: 80734-02-7 MF: $\text{C}_{21}\text{H}_{23}\text{N}_3\text{O}_7\text{S} \cdot \text{HCl}$ MW: 497.96

LD₅₀: >700 mg/kg (M, i.v.); >8000 mg/kg (M, p.o.);
>800 mg/kg (R, i.v.); ca. 10000 mg/kg (R, p.o.)

**Reference(s):**

- Sakamoto, F. et al.: Chem. Pharm. Bull. (CPBTAL) **32**, 2241 (1984).
 Ikeda, S. et al.: Chem. Pharm. Bull. (CPBTAL) **32**, 4316 (1984).
 US 4 342 693 (Kanebo; 3.8.1982; J-prior. 30.4.1980).
 US 4 389 408 (Kanebo; 21.6.1983; J-prior. 30.4.1980, 22.5.1980).
 EP 39 086 (Kanebo; appl. 29.4.1981; J-prior. 30.4.1980, 22.5.1980).
 EP 39 477 (Kanebo; appl. 29.4.1981; J-prior. 30.4.1980).
 EP 61 206 (Kanebo; appl. 29.4.1981; J-prior. 30.4.1980, 22.5.1980).
 EP 90 344 (Kanebo; appl. 29.4.1981; J-prior. 30.4.1980).

Formulation(s): vial 250 mg (as hydrochloride)

Trade Name(s):

J: Takacillin (MECT; 1987) Varacillin (Kanebo; 1987)

Lentinan

(LC-33)

ATC: L03AX01

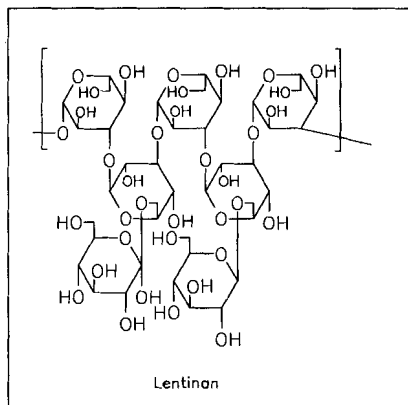
Use: immunostimulant, antineoplastic

RN: 37339-90-5 MF: unspecified MW: unspecified

LD₅₀: 250 mg/kg (M, i.v.);
 250 mg/kg (R, i.v.);
 >100 mg/kg (dog, i.v.)

CN: lentinan

Extraction of edible fungus *Lentinus edodes* with hot water, solubilization through treatment with aqueous urea.



Reference(s):

US 3 883 505 (Ajinomoto; 13.5.1975; J-prior. 17.7.1972).
 DE 2 336 378 (Ajinomoto; appl. 17.7.1973; J-prior. 17.7.1972).
 Chihara, J. et al.: Cancer Res. (CNREA8) **30**, 2776 (1970).
 Chihara, G. et al.: Nature (London) (NATUAS) **222**, 637 (1968).

structural study:

Sasaki, T. et al.: Carbohydr. Res. (CRBRAT) **47**, 99 (1976).

water soluble pharmaceutical formulation:

US 4 207 312 (Ajinomoto, Morishita; 10.6.1980; J-prior. 5.2.1975).

combination with CSF:

EP 326 149 (Green Cross, Morinaga; appl. 27.1.1989; J-prior. 29.1.1988).

Formulation(s): vial 1 g

Trade Name(s):

J: Lentinan (Ajinomoto-
 Morishita; Yamanouchi;
 1986)

Lercanidipine hydrochloride

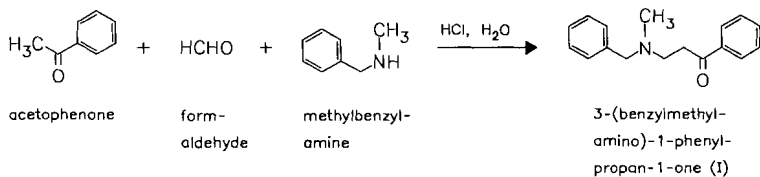
ATC: C08CA13
 Use: treatment of hypertension,
 vasoselective calcium antagonist

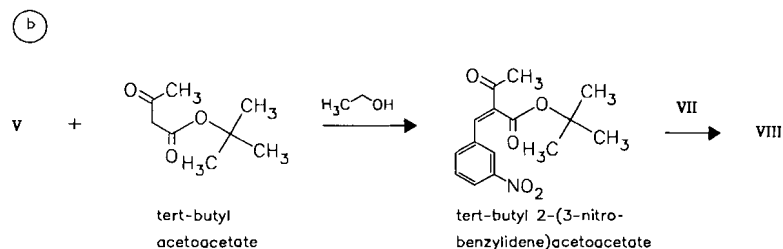
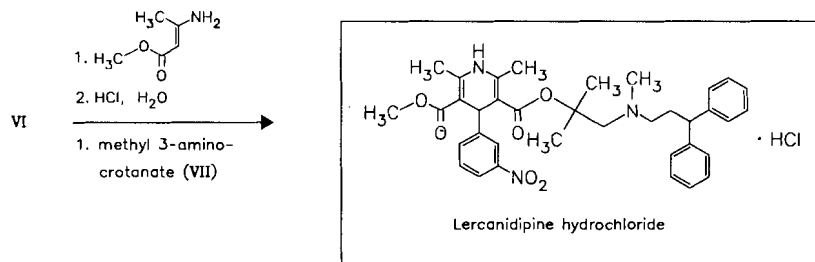
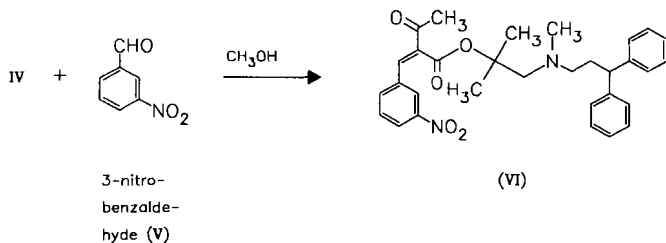
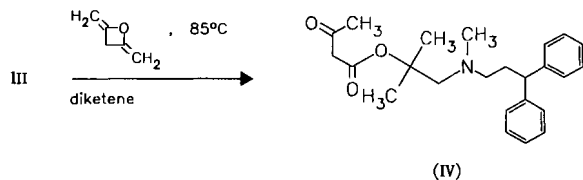
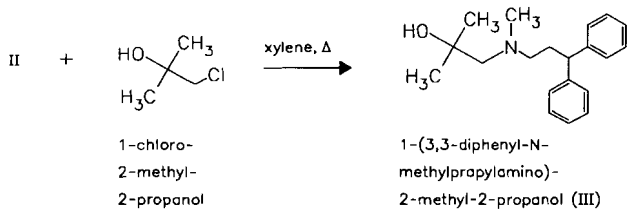
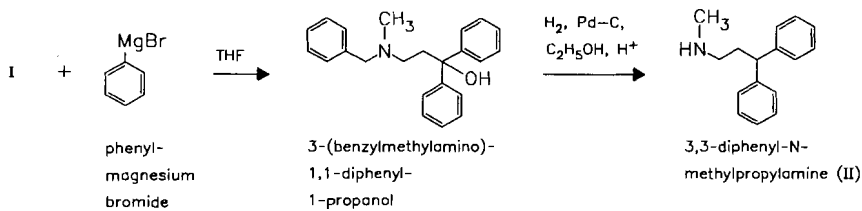
RN: 132866-11-6 MF: $C_{36}H_{41}N_3O_6 \cdot HCl$ MW: 648.20
 CN: 1,4-Dihydro-2,6-dimethyl-4-(3-nitrophenyl)-3,5-pyridinedicarboxylic acid 2-[(3,3-diphenylpropyl)methylamino]-1,1-dimethylethyl methyl ester hydrochloride

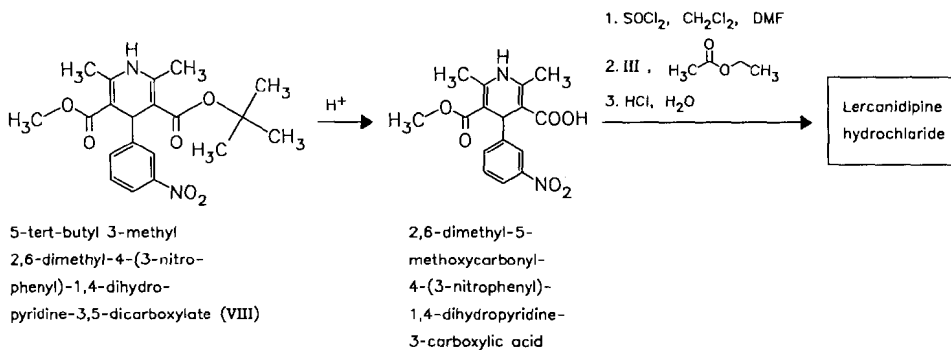
base

RN: 100427-26-7 MF: $C_{36}H_{41}N_3O_6$ MW: 611.74

(a)







Reference(s):

- Leonardi, A. et al.: Eur. J. Med. Chem. (EJMCA5) **33**, 399 (1998).
a EP 153 016 (Recordati Chem. and Pharm.; appl. 21.1.1985; GB-prior. 14.2.1984).
b WO 9 635 668 (Recordati Chem. and Pharm.; appl. 9.5.1996; I-prior. 12.5.1995).

preparation of 3-(benzylmethylamino)-1,1-diphenyl-1-propanol:
 Morrison; Rinderknecht: J. Chem. Soc. (JOCEAH) **1950**, 1510

preparation of 3,3-diphenyl-N-methylpropylamine:
 DE 925 468 (Farbwerke Hoechst; appl. 13.8.1941)

Formulation(s): tabl. 10 mg (as hydrochloride)

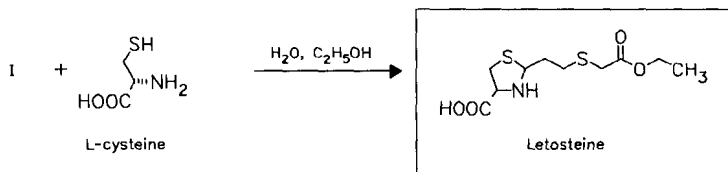
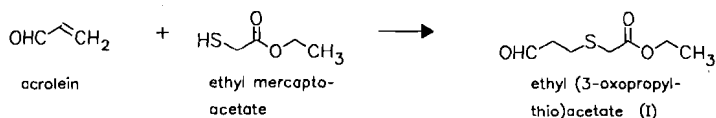
Trade Name(s):

GB: Zanedip (Napp) I: Zanedip (Recordati; 1999)

Letosteine

ATC: R05CB09
 Use: mucolytic agent

RN: 53943-88-7 MF: C₁₀H₁₇NO₄S₂ MW: 279.38 EINECS: 258-879-3
 CN: 2-[2-[(2-ethoxy-2-oxoethyl)thio]ethyl]-4-thiazolidinecarboxylic acid



Reference(s):

- DOS 2 410 307 (Ferlux-Chimie; appl. 22.3.1974; F-prior. 22.3.1973).
 US 4 032 534 (Ferlux-Chimie; 28.6.1977; F-prior. 22.3.1973).

Formulation(s): cps. 50 mg; gran. 25 mg/dose, 50 mg

Trade Name(s):

F: Visciotiol (Evans Medical) I: Letofort (Salus Research)

Viscotiol (Schiapparelli
Searle)

J: Viscotiol (ISF)

Letrozole

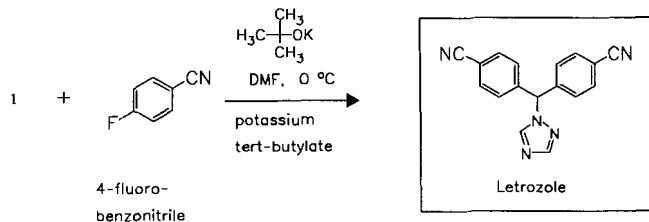
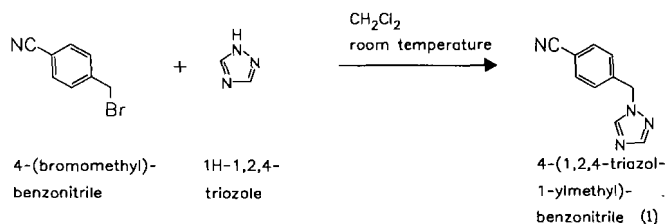
(CGS-20267)

ATC: L02BG04

Use: antineoplastic, aromatase inhibitor

RN: 112809-51-5 MF: C₁₇H₁₁N₅ MW: 285.31

CN: 4,4'-(1H-1,2,4-triazol-1-ylmethylene)bis[benzonitrile]

*Reference(s):*

EP 236 940 (Ciba-Geigy; appl. 5.3.1987; USA-prior. 7.3.1986).

alternativ preparation of 1 with K₂CO₃/KI in acetone:

US 4 978 672 (Ciba-Geigy; appl. 6.9.1988; USA-prior. 7.3.1986, 7.3.1988).

combination with 5- α -reductase inhibitors:

WO 9 218 132 (Merck & Co.; appl. 6.4.1992; USA-prior. 17.4.1991).

use to treat androgen deficiencies:

DE 445 368 (Schering AG; appl. 22.9.1994; D-prior. 22.9.1994).

Formulation(s): tabl. 2.5 mg*Trade Name(s):*

D: Femara (Novartis Pharma)

GB: Femara (Novartis)

F: Femara (Novartis)

USA: Femara (Novartis)

Leucinocaine

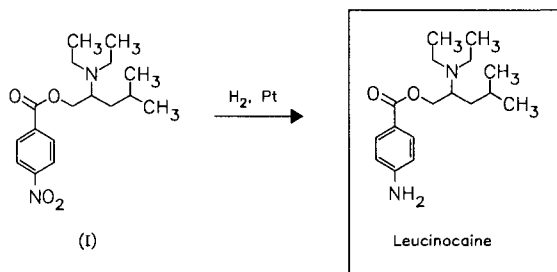
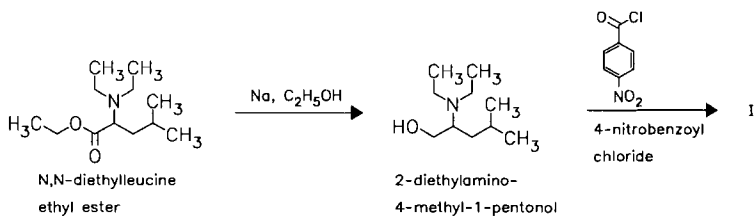
ATC: N01B

Use: local anesthetic

RN: 92-23-9 MF: C₁₇H₂₈N₂O₂ MW: 292.42

CN: 2-(diethylamino)-4-methyl-1-pentanol 4-aminobenzoate (ester)

monomesylateRN: 135-44-4 MF: C₁₇H₂₈N₂O₂ · CH₄O₃S MW: 388.53 EINECS: 205-191-6

**Reference(s):**

DRP 464 484 (Chem. Fabr. Flora; appl. 1923; CH-prior. 1922).

Formulation(s): amp. 200 mg/4 ml

Trade Name(s):

D: Panthesin-Balsam
(Sandoz); wfm

Panthesin-Hydergin
(Sandoz)-comb.; wfm

Levallorphan

Use: morphine antagonist, narcotic antagonist

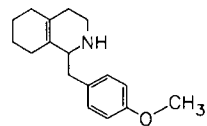
RN: 152-02-3 MF: $\text{C}_{19}\text{H}_{25}\text{NO}$ MW: 283.42 EINECS: 205-799-1

LD₅₀: 949 mg/kg (R, p.o.)

CN: 17-(2-propenyl)morphinan-3-ol

hydrogen tartrate

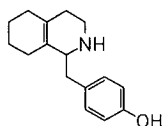
RN: 71-82-9 MF: $\text{C}_{19}\text{H}_{25}\text{NO} \cdot \text{C}_4\text{H}_6\text{O}_6$ MW: 433.50



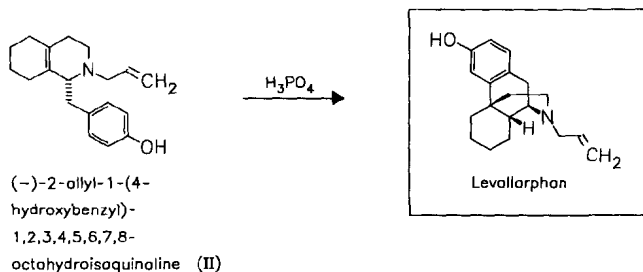
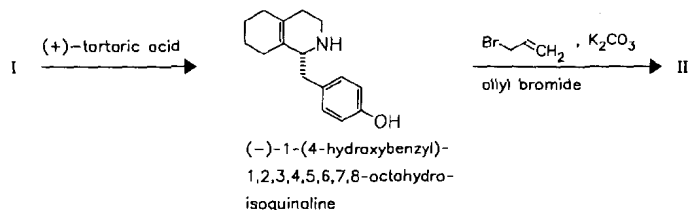
(±)-1-(4-methoxybenzyl)-
1,2,3,4,5,6,7,8-octahydro-
isoquinoline

(cf. levorphanol synthesis)

pyridine hydrochloride



(±)-1-(4-hydroxybenzyl)-
1,2,3,4,5,6,7,8-octahydro-
isoquinoline (1)

**Reference(s):**

Hellerbach, J.; Grüssner, A.; Schnider, O.: *Helv. Chim. Acta (HCACAV)* **39**, 429 (1956).
Ehrhart, Ruschig I, 131-132.

Formulation(s): amp. 1 mg/ml

Trade Name(s):

D: Lorfan (Roche); wfm J: Lorfan (Takeda); wfm
GB: Lorfan (Roche); wfm USA: Lorfan (Roche); wfm

Levamisole

ATC: P02CE01

Use: anthelmintic, immunostimulant
(tetramisole is used only in veterinary
range as anthelmintic)

RN: 14769-73-4 MF: $\text{C}_{11}\text{H}_{12}\text{N}_2\text{S}$ MW: 204.30 EINECS: 238-836-5

LD_{50} : 22 mg/kg (M, i.v.); 210 mg/kg (M, p.o.);
24 mg/kg (R, i.v.); 480 mg/kg (R, p.o.)

CN: (S)-2,3,5,6-tetrahydro-6-phenylimidazo[2,1-b]thiazole

monohydrochloride

RN: 16595-80-5 MF: $\text{C}_{11}\text{H}_{12}\text{N}_2\text{S} \cdot \text{HCl}$ MW: 240.76 EINECS: 240-654-6

Tetramisole

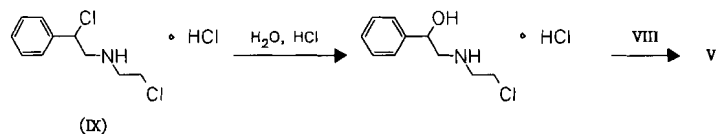
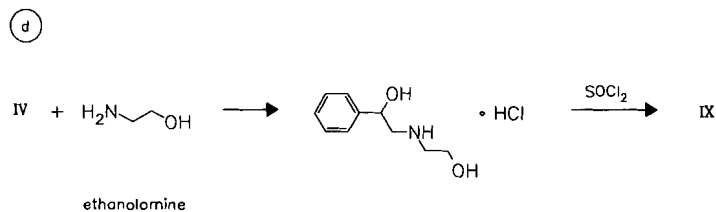
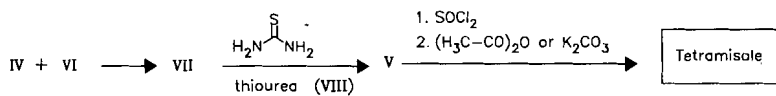
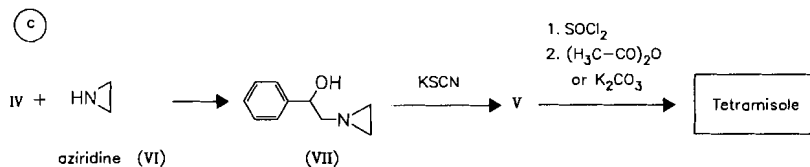
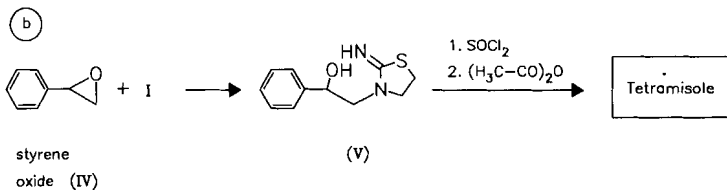
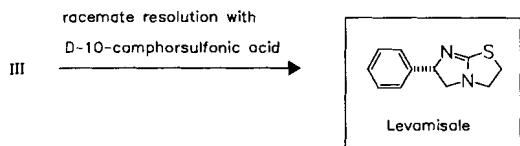
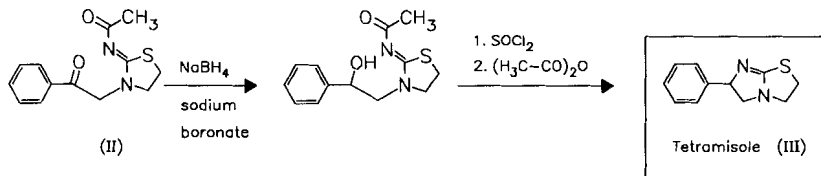
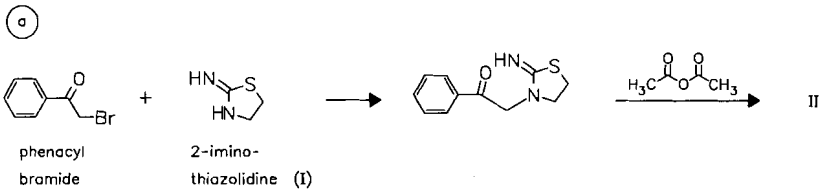
RN: 5036-02-2 MF: $\text{C}_{11}\text{H}_{12}\text{N}_2\text{S}$ MW: 204.30 EINECS: 225-729-3

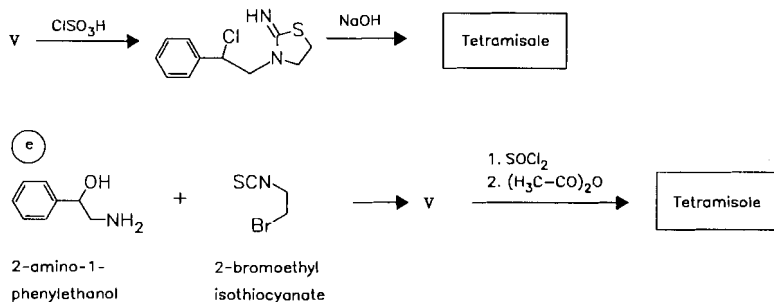
CN: (\pm)-2,3,5,6-tetrahydro-6-phenylimidazo[2,1-b]thiazole

monohydrochloride

RN: 5086-74-8 MF: $\text{C}_{11}\text{H}_{12}\text{N}_2\text{S} \cdot \text{HCl}$ MW: 240.76 EINECS: 225-799-5

LD_{50} : 22 mg/kg (M, i.v.); 210 mg/kg (M, p.o.);
24 mg/kg (R, i.v.); 480 mg/kg (R, p.o.)



*Reference(s):*

- a,b** US 3 274 209 (Janssen; 20.9.1966; prior. 11.5.1964, 3.8.1964, 2.10.1964, 7.4.1965).
Raeymaekers, A.H.M. et al.: J. Med. Chem. (JMCMAR) **9**, 545 (1966).
- c** Spicer, L.D. et al.: J. Org. Chem. (JOCEAH) **33**, 1350 (1968).
DAS 1 795 651 (ICI; appl. 13.7.1966; AUS-prior. 31.8.1965, 8.9.1965).
GB 1 076 109 (American Cyanamid; appl. 11.11.1965; USA-prior. 5.10.1965).
US 3 679 725 (American Cyanamid; 25.7.1972; prior. 5.10.1965, 22.9.1967, 11.6.1970).
GB 1 131 798 (ICI; appl. 4.7.1966; AUS-prior. 31.8.1965, 8.9.1965).
DAS 1 795 651 (ICI; appl. 13.7.1966; AUS-prior. 31.8.1965, 8.9.1965).
GB 1 131 799 (ICI; appl. 4.7.1966; AUS-prior. 19.7.1965, 26.7.1965, 31.8.1965, 8.9.1965).
GB 1 131 800 (ICI; appl. 4.7.1966; AUS-prior. 19.7.1965, 26.7.1965, 31.8.1965, 8.9.1965).
US 3 478 047 (ICI; 11.11.1969; GB-prior. 10.12.1965).
- d** DOS 2 233 481 (ICI; appl. 7.7.1972; GB-prior. 9.7.1971, 6.4.1972).
DOS 2 264 911 (ICI; appl. 7.7.1972; GB-prior. 9.7.1971, 6.4.1972).
US 3 855 234 (ICI; 17.12.1974; GB-prior. 9.7.1971, 6.4.1972).
US 4 070 363 (ICI; 24.1.1978; GB-prior. 13.4.1974).
US 4 107 170 (American Cyanamid; 15.8.1978; prior. 18.6.1973, 24.1.1974, 29.10.1975, 14.2.1977).
- e** DAS 2 034 081 (Chinoïn; appl. 9.7.1970; H-prior. 1.10.1969).

other methods:

- US 3 726 894 (American Cyanamid; 10.4.1973; prior. 24.6.1971).
DOS 2 326 308 (ICI; appl. 23.5.1973; GB-prior. 23.5.1973).
US 3 845 070 (ICI; 29.10.1974; GB-prior. 27.7.1971).
FR 2 224 472 (P. R. Dick, M. Rombi; appl. 5.4.1973).
US 4 090 025 (American Cyanamid; 16.5.1978; prior. 26.4.1973, 8.11.1976).
FR-appl. 2 359 844 (Propharma; appl. 28.7.1976).
FR-appl. 2 364 218 (Propharma; appl. 14.9.1976).

racemate resolution of tetramisole:

- US 3 463 786 (American Cyanamid; 26.8.1969; prior. 1.6.1966, 19.12.1967).

with D-10-camphersulfonic acid:

- DAS 1 645 991 (American Cyanamid; appl. 18.8.1967; USA-prior. 18.8.1966).
US 3 565 907 (American Cyanamid; 23.2.1971; prior. 18.8.1966, 23.4.1969).
Bullock, M.W. et al.: J. Med. Chem. (JMCMAR) **11**, 169 (1968).

with N-(p-toluenesulfonyl)-L-glutamic acid:

- US 3 579 530 (ICI; 18.5.1971; AUS-prior. 24.8.1967, 11.1.1968, 18.1.1968).
DAS 1 795 217 (ICI; appl. 23.8.1968; AUS-prior. 24.8.1967, 11.1.1968, 18.1.1968).

with N-(p-toluenesulfonyl)-l-pyroglutamic acid and 2,3-O,O-diaroyl-(+)-tartaric acids:

- DAS 1 907 609 (ICI; appl. 14.2.1969; GB-prior. 14.2.1968).

with di-(p-toluoyl)-(+)-tartaric acid:

- DAS 2 020 142 (Rhône-Poulenc; appl. 24.4.1970; F-prior. 24.4.1969).

regioselective levamisole synthesis by use of optical active rhodium-DIOP-complexes (asymmetric hydrogenation of 3-acyl-1-(2-methoxyethyl)-4-phenyl-4-imidazolin-2-ones):

DOS 2 718 058 (American Cyanamid; appl. 22.4.1977; USA-prior. 26.4.1976, 8.11.1976).

DOS 2 718 059 (American Cyanamid; appl. 22.4.1977; USA-prior. 26.4.1976, 8.11.1976).

US 4 087 611 (American Cyanamid; 2.5.1978; prior. 26.4.1976, 8.11.1976).

US 4 166 824 (American Cyanamid; 4.9.1979; prior. 14.6.1977, 14.4.1978).

racemization with bases:

US 3 673 206 (American Cyanamid; 27.6.1972; prior. 14.7.1966, 2.4.1969).

via 1-vinyl-4-phenyl-2-imidazolidinthione:

US 3 726 894 (American Cyanamid; 10.4.1973; appl. 24.6.1971).

levamisole resp. tetramisole embonate:

DAS 1 817 509 (ICI; appl. 30.12.1968; GB-prior. 8.1.1968).

use for treatment of scabies:

DOS 2 828 200 (Johnson & Johnson; appl. 27.6.1978; USA-prior. 28.6.1977).

US 4 150 141 (Johnson & Johnson; 17.4.1979; appl. 28.6.1977).

aqueous tetramisole preparation:

DAS 2 036 113 (ICI; appl. 21.7.1970; AUS-prior. 21.7.1969).

Formulation(s): tabl. 30 mg, 50 mg, 150 mg (as levamisole hydrochloride)

Trade Name(s):

D: Ergamisol (Janssen-Cilag) I: Ergamisol (Janssen)

F: Solaskil (Specia) USA: Ergamisol (Janssen)

Levobunolol

ATC: S01ED03

Use: beta blocking agent

RN: 47141-42-4 MF: $C_{17}H_{25}NO_3$ MW: 291.39

CN: (S)-5-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-3,4-dihydro-1(2H)-naphthalenone

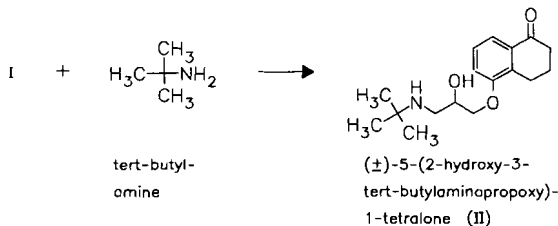
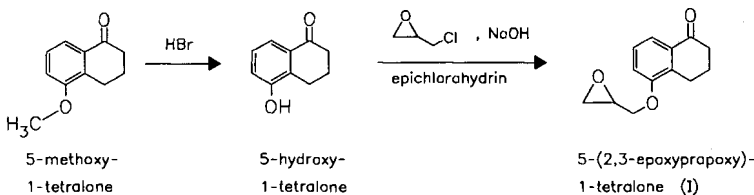
hydrochloride

RN: 27912-14-7 MF: $C_{17}H_{25}NO_3 \cdot HCl$ MW: 327.85 EINECS: 248-725-3

LD₅₀: 78 mg/kg (M, i.v.); 1220 mg/kg (M, p.o.);

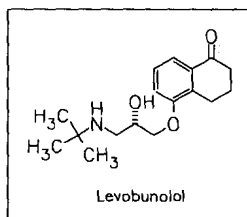
25 mg/kg (R, i.v.); 700 mg/kg (R, p.o.);

100 mg/kg (dog, p.o.)



II

racemate resolution with 1-tartaric acid

**Reference(s):**

DE 1 948 144 (Warner-Lambert; appl. 23.9.1969; USA-prior. 23.9.1968).

DE 1 967 162 (Warner-Lambert; appl. 23.9.1969; USA-prior. 23.9.1968).

US 3 641 152 (Warner-Lambert; 8.2.1972; prior. 23.9.1968).

racemate resolution:

DOS 2 046 043 (Warner-Lambert; appl. 17.9.1970; USA-prior. 17.9.1969).

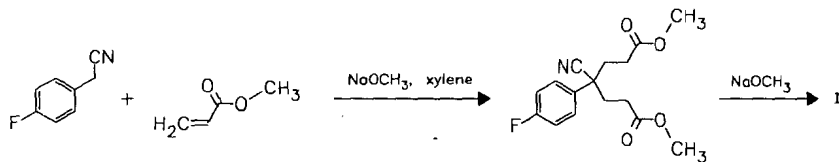
Formulation(s): eye drops 0.1 %, 0.25 %, 0.5 % (5 mg/ml) (as hydrochloride)**Trade Name(s):**

D:	Vistagan Liquifilm (Pharm-Allergan; 1985)	F:	Bétagan (Allergan)	I:	Vistagan (Allergan; 1987)
		GB:	Betagan (Allergan)		

Levocabastine

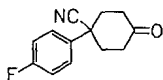
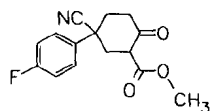
(R-50; 547)

ATC: R01AC02; S01GX02

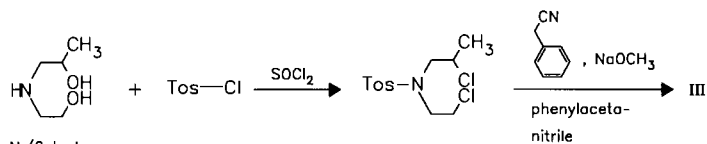
Use: antihistaminic (H₁-selective)RN: 79516-68-0 MF: C₂₆H₂₉FN₂O₂ MW: 420.53CN: [3S-[1(*cis*),3 α ,4 β]]-1-[4-cyano-4-(4-fluorophenyl)cyclohexyl]-3-methyl-4-phenyl-4-piperidinecarboxylic acid**monohydrochloride**RN: 79547-78-7 MF: C₂₆H₂₉FN₂O₂ · HCl MW: 456.99

4-fluoro-phenyl-acetonitrile

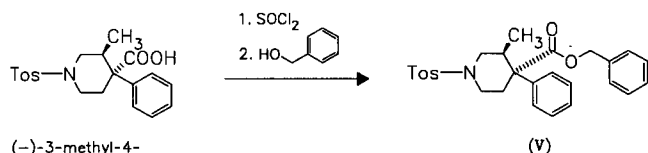
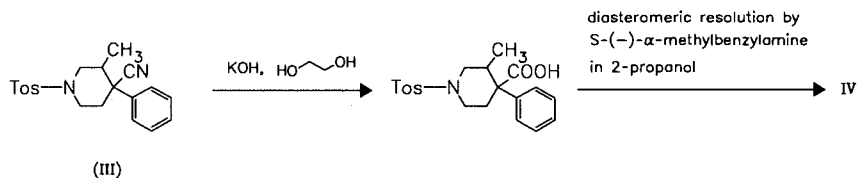
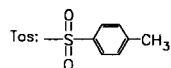
methyl acrylate



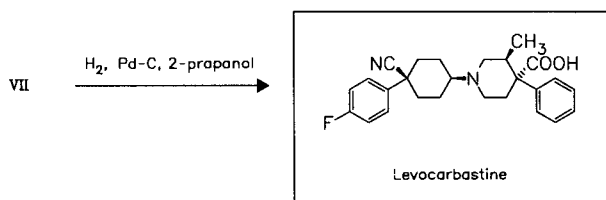
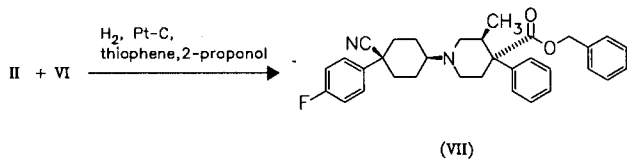
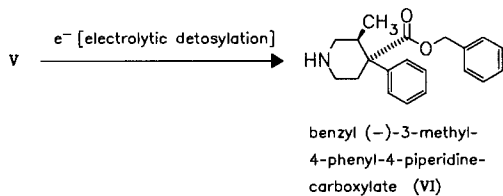
1-(4-fluorophenyl)-1-cyano-4-oxo-cyclohexane (II)



N-(2-hydroxy-ethyl)-2-hydroxy-propylamine



(-)-3-methyl-4-phenyl-1-tosyl-4-piperidinecarboxylic acid (IV)



Reference(s):

US 4 369 184 (Janssen; 18.1.1983; prior. 24.1.1980, 29.9.1980).
 EP 34 415 (Janssen; appl. 23.1.1981; USA-prior. 24.1.1980, 29.9.1980).

Formulation(s): susp. 0.5 mg/ml (nasal spray, eye drops as hydrochloride)

Trade Name(s):

D:	Levophta (CIBA Vision/ Winzer; as hydrochloride)	F:	Lévophta (Chauvin)	Livostin (Janssen)
	Livocab (Janssen-Cilag)	GB:	Livostin (CIBA Vision)	
		I:	Levostab (Formenti)	

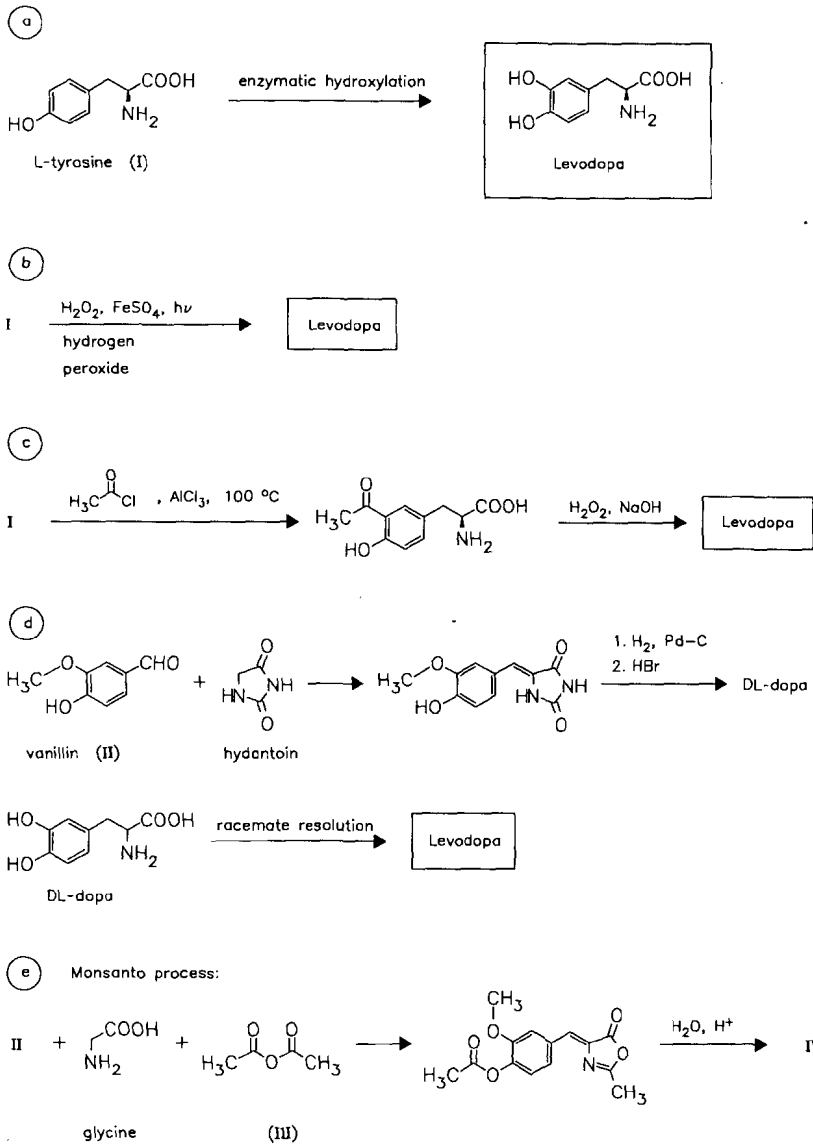
Levodopa

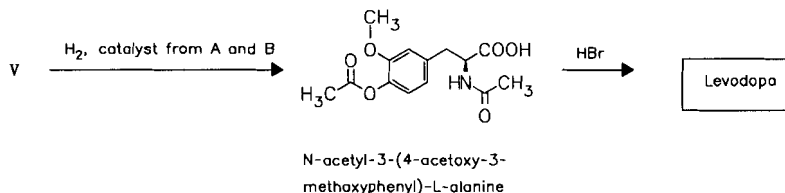
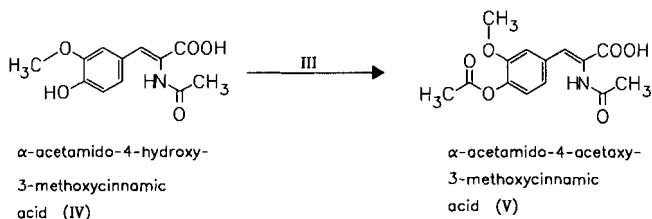
ATC: N04BA01

Use: antiparkinsonian

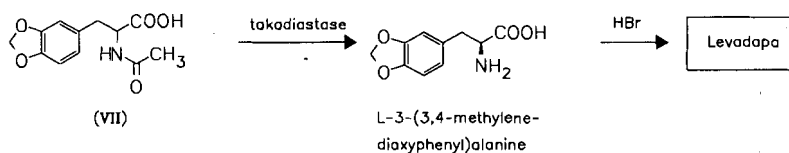
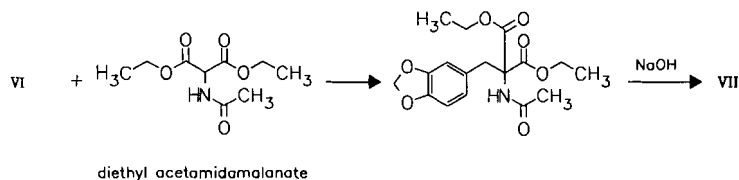
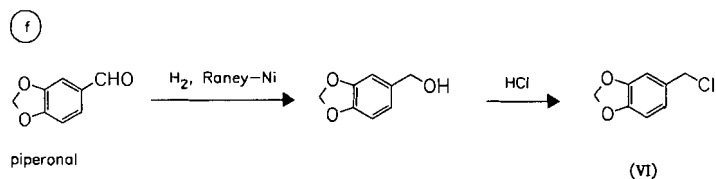
RN: 59-92-7 MF: C₉H₁₁NO₄ MW: 197.19 EINECS: 200-445-2

CN: 3-hydroxy-L-tyrosine





A: 1,5-cyclooctadienylrhodium chloride
 B: (+)-cyclohexylmethyl(2-methoxyphenyl)phosphine



Reference(s):

- a Amao, S. et al.: Sankyo Kenkyusho Nempo (SKKNAJ) **23**, 249 (1971).
Sih, C.J. et al.: J. Am. Chem. Soc. (JACSAT) **91**, 6204 (1969).
- b Waser, E.; Lewandowski, M.: Helv. Chim. Acta (HCACAV) **4**, 657 (1921).
hydroxylation with benzoyl peroxide:
DAS 2 026 952 (Schering; appl. 28.5.1970).
- c Bretschneider, H. et al.: Helv. Chim. Acta (HCACAV) **56**, 2857 (1973).
DAS 2 023 459 (Roche; appl. 13.5.1970; CH-prior. 14.5.1969).
DAS 2 023 460 (Roche; appl. 13.5.1970; CH-prior. 14.5.1969).
DAS 2 023 461 (Roche; appl. 13.5.1970; CH-prior. 14.5.1969).
similar method:
DAS 2 026 952 (Schering AG; appl. 28.5.1970).
- d US 2 605 282 (Dow; 1952; appl. 1949).
racemate resolution of DL-N-benzoyl-3-(4-hydroxy-3-methoxyphenyl)alanine with dehydroabietylamine:
DOS 1 964 420 (Roche; appl. 23.12.1969; CH-prior. 27.12.1968).

racemate resolution of DL-N-acetyl-3-(4-acetoxy-3-methoxyphenyl)alanine with (-)- α -phenylethylamine:
DOS 2 052 953 (Egyt; appl. 28.10.1970; H-prior. 28.10.1969).

with (+)-threo-2-amino-1-(4-nitrophenyl)-1,3-propanediol:
DOS 2 052 995 (Egyt; appl. 28.10.1970; H-prior. 28.10.1969).

alternative synthesis via 2,5 dioxopiperazine:

Losse, G. et al.: J. Prakt. Chem. (JPCEAO) **21**, 32 (1963).

e US 4 005 127 (Monsanto; 25.1.1977; prior. 8.3.1971).

DAS 2 123 063 (Monsanto; appl. 10.5.1971; USA-prior. 11.5.1970, 8.3.1971).

DAS 2 210 938 (Monsanto; appl. 7.3.1972; USA-prior. 8.3.1971).

US 4 124 533 (Monsanto; 7.11.1978; prior. 9.9.1968, 11.5.1970, 8.3.1971, 17.3.1975).

Knowles, W.S. et al.: J. Am. Chem. Soc. (JACSAT) **97**, 2567 (1975).

Vineyard, B.D. et al.: J. Am. Chem. Soc. (JACSAT) **99**, 5946 (1977).

similar method:

DOS 2 161 200 (IFR; appl. 9.12.1971; F-prior. 10.12.1970).

f Yamada, S. et al.: Chem. Pharm. Bull. (CPBTAL) **10**, 680, 688, 693 (1963).

alternative syntheses from piperonal:

Mori, K.: Nippon Kagaku Zasshi (NPKZAZ) **81**, 464 (1960).

Barry, R.H. et al.: J. Am. Chem. Soc. (JACSAT) **70**, 693 (1948).

other methods for racemate resolution of DL-dopa or its derivatives:

US 3 405 159 (Merck & Co.; 8.10.1968; appl. 17.11.1964).

CH 511 774 (Ajinomoto; appl. 22.4.1970; J-prior. 23.4.1969).

Yamada, S. et al.: J. Org. Chem. (JOCEAH) **40**, 3360 (1975).

racemate resolution of DL-N-benzoyldopa with cinchonine:

DOS 1 963 992 (Dynamit Nobel; appl. 20.12.1969).

racemization of D-N-benzoyldopa with acetanhydride:

DOS 1 963 991 (Dynamit Nobel; appl. 20.12.1969).

racemization of D-dopa by thermic treatment:

DAS 2 126 049 (Dynamit Nobel; appl. 26.5.1971).

fermentative and enzymatic methods:

from 3,4-dihydroxyphenylpyruvic acid by transamination by means of microorganisms:

DOS 2 041 418 (Anm. 14.8.1970; J-prior. 16.8.1969).

by means of transaminase from Alcaligenes faecalis (IAM 1015):

DAS 2 148 953 (Nisshin Flour Milling; appl. 30.9.1971; J-prior. 30.9.1970, 1.6.1971, 19.8.1971).

from pyrocatechol, pyruvic acid and ammonium salts by means of β -tyrosinase:

DAS 2 152 548 (Ajinomoto; appl. 21.10.1971; J-prior. 21.10.1970, 2.11.1970, 30.12.1970).

enzymatic resolution of DL-N-phenylacetyl-3-(3,4-methylenedioxyphenyl)alanine or DL-N-phenylacetyl-3-(3,4-dimethoxyphenyl)alanine or DL-N-phenylacetyl-1-3-(3,4-dihydroxyphenyl)-alanine by means of Escherichia coli-acylase:

DOS 2 100 445 (Astra; appl. 7.1.1971; S-prior. 19.1.1970, 25.6.1970).

isolation from the seed meal of fodder beans or vetch pods:

US 3 253 023 (Dow; 24.5.1966; appl. 27.9.1963).

combination with carbidopa:

US 3 769 424 (Merck & Co.; 30.10.1973; prior. 1.10.1968, 23.6.1969, 1.10.1970).

combination with etoperidone and trazodone:

US 4 131 675 (Angelini Francesco; 26.12.1978; appl. 9.2.1978).

Formulation(s): cps. 125 mg, 200 mg, 250 mg, 500 mg; tabl. 100 mg, 200 mg, 500 mg

Trade Name(s):

D: Dopaflex (medphano)

Madopar (Roche)-comb.
with benserazide

Nacom (Du Pont Pharma)-
comb. with carbidopa

F:	numerous generics Modopar (Roche)-comb. with benserazide Sinemet (Du Pont Pharma)- comb. with carbidopa	I:	Sinemet (Merck Sharp & Dohme)-comb. with carbidopa Larodopa (Roche) Madopar (Roche)-comb. with benserazide	USA:	Dopasol (Daiichi) Dopaston (Sankyo) Larodopa (Roche) Neodopaston (Sankyo)- comb. with carbidopa
GB:	Madopar (Roche)-comb. with benserazide	J:	Sinemet (Du Pont)-comb. with carbidopa Dopar! (Kyowa)		Larodopa (Roche) Sinemet (Du Pont)-comb. with carbidopa generic

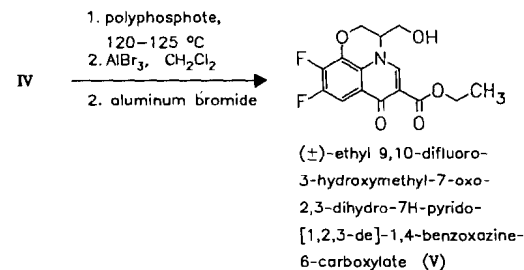
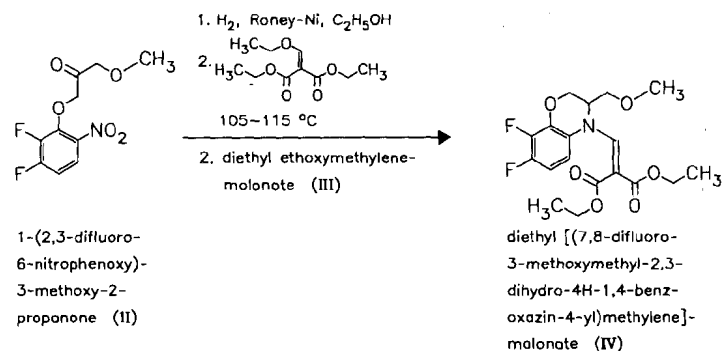
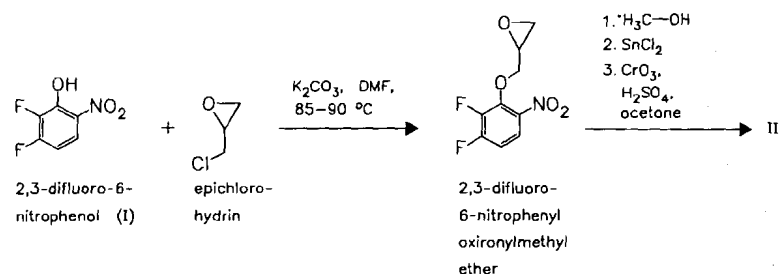
Levofloxacin((*S*)-Ofloxacin; DR-3355; HR-355; RWJ-25213)

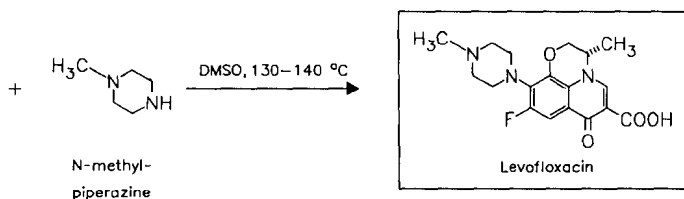
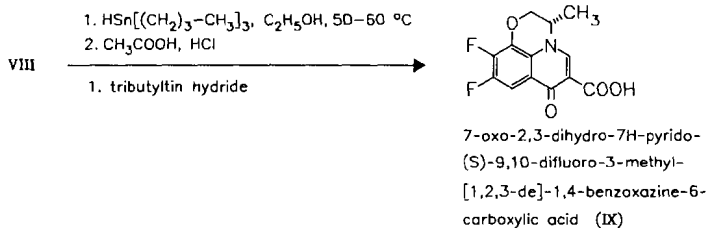
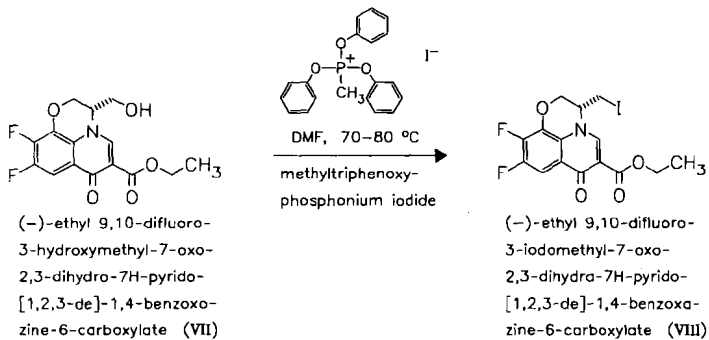
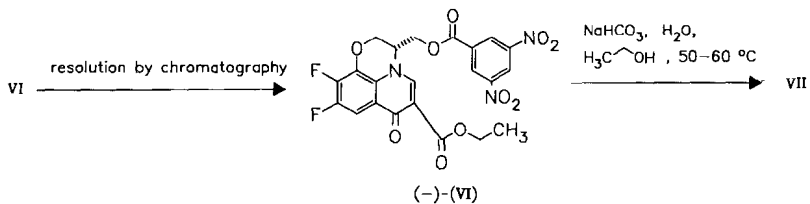
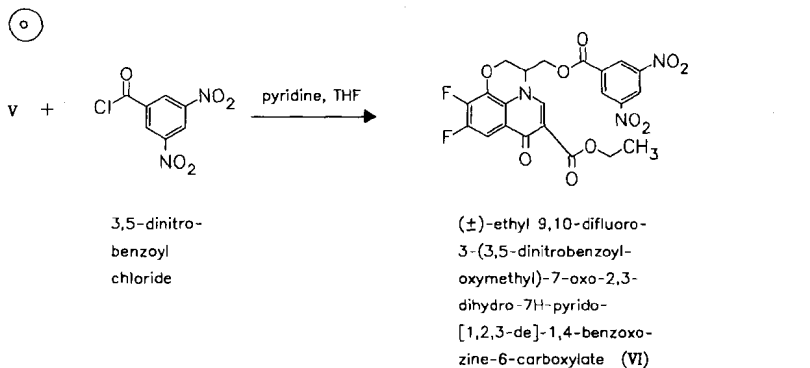
ATC: J01MA12

Use: antibacterial

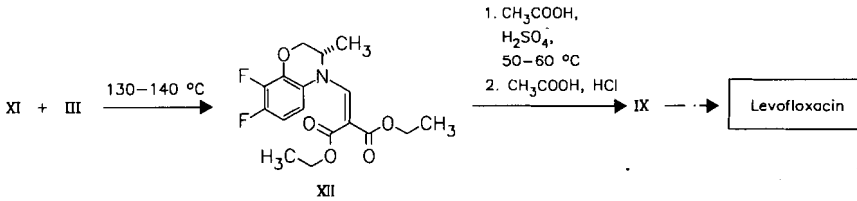
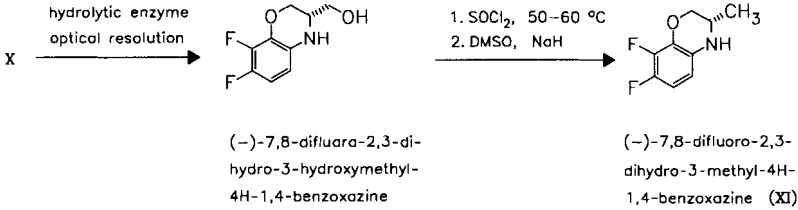
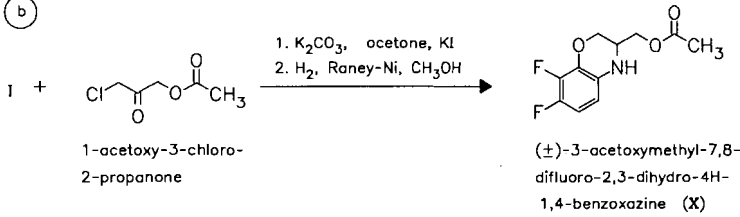
RN: 100986-85-4 MF: C₁₈H₂₀FN₃O₄ MW: 361.37LD₅₀: 1803 mg/kg (M, p.o.);

1478 mg/kg (R, p.o.)

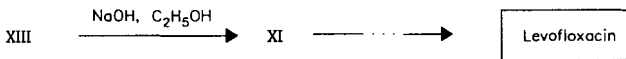
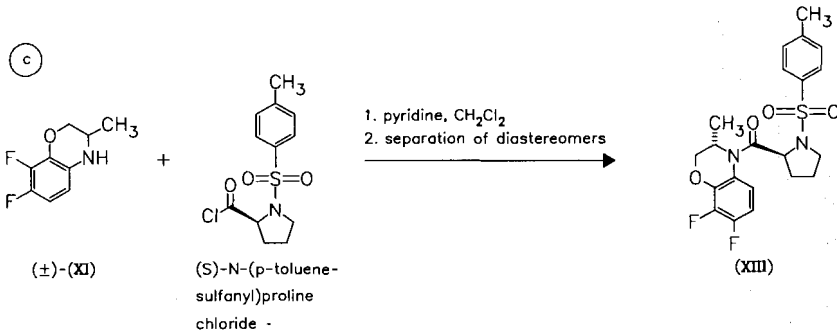
CN: (*S*)-9-fluoro-2,3-dihydro-3-methyl-10-(4-methyl-1-piperazinyl)-7-oxo-7H-pyrido[1,2,3-*de*]-1,4-benzoxazine-6-carboxylic acid**hydrate (2:1)**RN: 138199-71-0 MF: C₁₈H₂₀FN₃O₄ · 1/2H₂O MW: 740.76



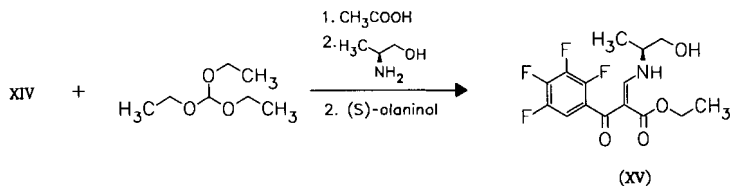
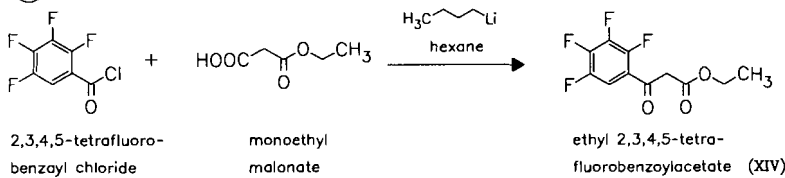
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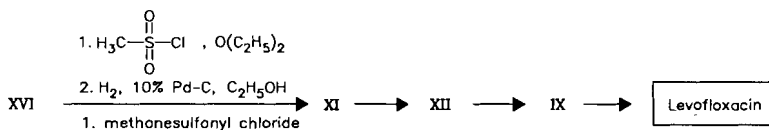
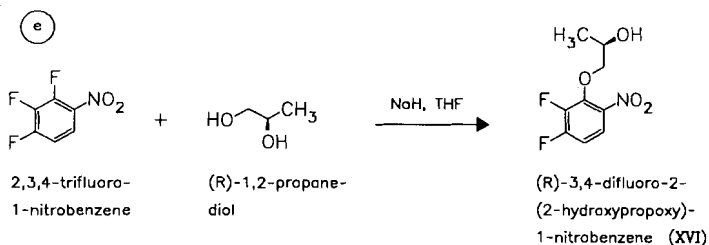
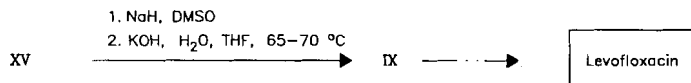


c



d



*Reference(s):*

- a-c EP 206 283 (Daiichi Seiyaku; appl. 20.6.1986; J-prior. 20.6.1985, 11.10.1985, 28.1.1986).
 d US 4 777 253 (Abbott Labs.; 11.10.1980; appl. 25.4.1986; USA-prior. 25.4.1986).
 DE 3 543 513 (Bayer AG; appl. 10.12.1985; D-prior. 10.12.1985).
 e EP 368 410 (Gist-Brocades; appl. 6.11.1989; EP-prior. 7.11.1988).
 Atarashi, S. et al.: Chem. Pharm. Bull. (CPBTAL) **35** (5), 1896 (1987).

preparation of 2,3-difluoro-6-nitrophenol:

- O'Neill, P.M et al.: J. Med. Chem. (JMCMAR) **37** (9), 1362 (1994).
 Hayakawa, I.; Hiramitsu, T.; Tanaka, Y.: Chem. Pharm. Bull. (CPBTAL) **32** (12), 4907 (1984).

preparation of intermediate XI:

JP 05 068 577 (Mercian Corp.; appl. 11.12.1990; J-prior. 11.12.1990).

synergistic combination with azidothymidine:

WO 9 013 542 (Daiichi Pharm.; appl. 27.4.1990; J-prior. 23.2.1990).

topical formulation:

EP 274 714 (Daiichi Seiyaku; appl. 18.12.1987; J-prior. 18.12.1987).

liposomes with increased retention:

WO 9 526 185 (Daiichi Pharm.; appl. 27.3.1995; J-prior. 28.3.1994).

Formulation(s): gran. 100 mg/g; tabl. 100 mg, 250 mg; vial 5 mg/ml, 25 mg/ml

Trade Name(s):

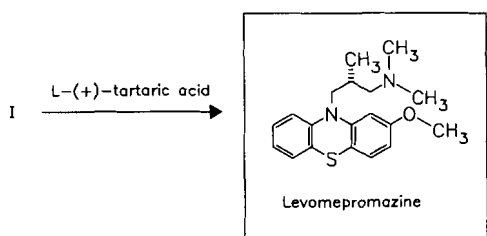
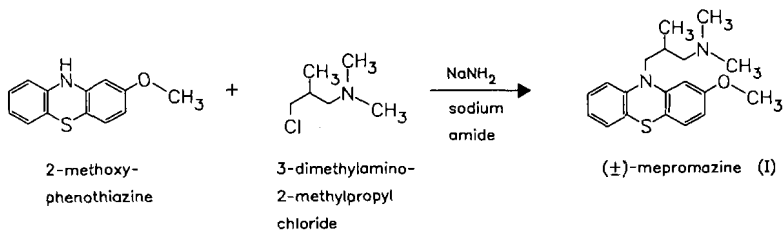
D: Tavanic (Hoechst Marion J: Cravit (Daiichi Seiyaku)
 Roussel; 1998) USA: Levaquin (Ortho-McNeil)

Levomepromazine

(Laevomepromazine; Methotrimeprazine)

ATC: N05AA02
 Use: neuroleptic

RN: 60-99-1 MF: C₁₉H₂₄N₂OS MW: 328.48 EINECS: 200-495-5
 LD₅₀: 39 mg/kg (M, i.v.); 370 mg/kg (M, p.o.);
 1100 mg/kg (R, p.o.)
 CN: (R)-2-methoxy-N,N,β-trimethyl-10H-phenothiazine-10-propanamine

monohydrochlorideRN: 1236-99-3 MF: $C_{19}H_{24}N_2OS \cdot HCl$ MW: 364.94 EINECS: 214-978-3LD₅₀: 75 mg/kg (M, i.v.); 380 mg/kg (M, p.o.)**maleate (1:1)**RN: 7104-38-3 MF: $C_{19}H_{24}N_2OS \cdot C_4H_4O_4$ MW: 444.55 EINECS: 230-412-8**Reference(s):**

US 2 837 518 (Rhône-Poulenc; 1958; F-prior. 1954).

DE 1 034 638 (Rhône-Poulenc; appl. 1955; F-prior. 1954).

Formulation(s): amp. 25 mg, 200 mg (as hydrochloride); sol. 40 mg/ml; tabl. 2 mg, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Trade Name(s):

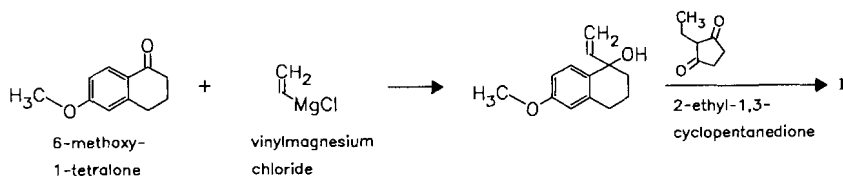
D:	Neurocil (Bayer Vital)	I:	Nozinan (Rhône-Poulenc Rorer)	Levaru (Mohan)
F:	Nozinan (Specia)	J:	Dedoran (Shionogi)	Levomezine (Toho)
GB:	Nozinan (Link)		Hirnamin (Shionogi; as maleate)	Levotomin (Yoshitomi)
				Sofmin (Dainippon)
				USA: Levoprome (Immunex)

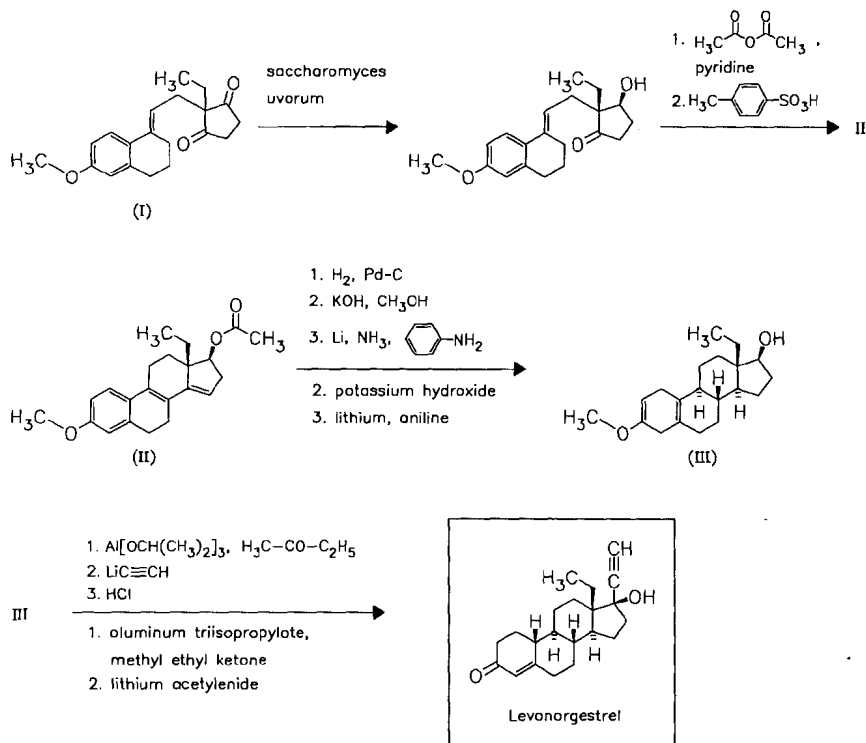
Levonorgestrel

(D-Norgestrel; Dexnorgestrel)

ATC: G03AC03

Use: progestogen

RN: 797-63-7 MF: $C_{21}H_{28}O_2$ MW: 312.45 EINECS: 212-349-8CN: (17 α)-13-ethyl-17-hydroxy-18,19-dinorpregn-4-en-20-yn-3-one

**Reference(s):**

Rufer, C. et al.: Justus Liebigs Ann. Chem. (JLACBF) **702**, 141 (1967).

alternative syntheses:

DOS 1 806 410 (Hoffmann-La Roche; appl. 31.10.1968; USA-prior. 2.11.1967).

Smith, H. et al.: J. Chem. Soc. (JCSOA9) **1964**, 4472.

ethynylation methods:

DD 114 807 (Reihe, Kutz; appl. 11.10.1974).

DE 2 030 056 (Schering AG; appl. 13.7.1970).

use as contraceptive:

DOS 1 922 005 (Schering AG; appl. 24.4.1969).

combination with 17 α -ethynylestradiol as contraceptive:

DOS 2 218 831 (Schering AG; appl. 14.4.1972).

DOS 2 335 265 (Schering AG; appl. 30.1.1975).

DAS 2 365 103 (Schering AG; appl. 21.12.1973).

DOS 2 431 704 (Asche; appl. 2.7.1974).

intrauterine anticonception:

DOS 2 361 206 (Schering AG; appl. 6.12.1973).

pharmaceutical formulation:

DOS 2 432 925 (Schering AG; appl. 5.7.1974).

DOS 2 449 865 (Schering AG; appl. 17.10.1974).

Formulation(s): drg. 0.03 mg, 0.1 mg, 0.15 mg, 0.25 mg; pessaries 52 mg

Trade Name(s):

D: Micro-30-Wyeth (Wyeth)
Microlut (Schering)

Mirena Intrauterinpressar
(Schering)

numerous combination
preparations

F:	Adepal (Wyeth-Lederle)- comb. with ethynylestradiol Microval (Wyeth-Lederle)- comb. with ethynylestradiol Minidril (Wyeth-Lederle)- comb. with ethynylestradiol Trinordiol (Wyeth- Lederle)-comb. with ethynylestradiol	I:	numerous combination preparations Binordiol (Wyeth)-comb. Bivlar (Schering)-comb. Egogyn (Schering)-comb. Evanor D (Wyeth)-comb. Microgynon (Schering)- comb. Microlut (Schering)	J:	Microlut (Nihon Schering) Micro 30 (Wyeth) Norgeston (Nihon Schering)
GB:	Microval (Wyeth) Mirena (Schering) Norgeston (Schering)		Novogyn (Schering)-comb. Ovranet (Wyeth)-comb. Trigynon (Schering)-comb. Trinordiol (Wyeth)-comb.	USA:	Alesse (Wyeth-Ayerst)- comb. Levlen (Berlex)-comb. Nordette (Wyeth-Ayerst)- comb. Tri-Levlen (Berlex)-comb. Triphasil (Wyeth-Ayerst)- comb.

Levorphanol

ATC: N02
Use: analgesic

RN: 77-07-6 MF: C₁₇H₂₃NO MW: 257.38 EINECS: 201-002-6

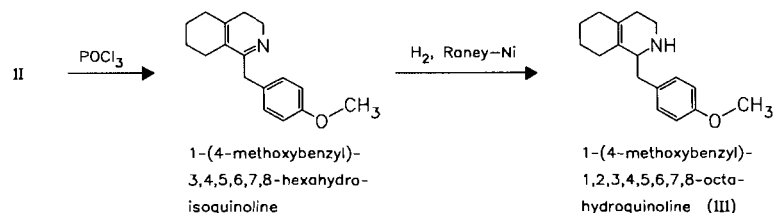
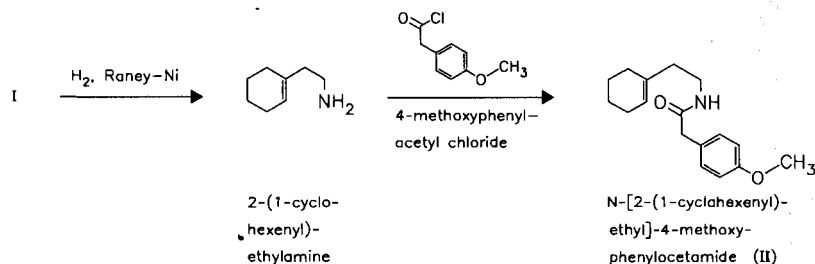
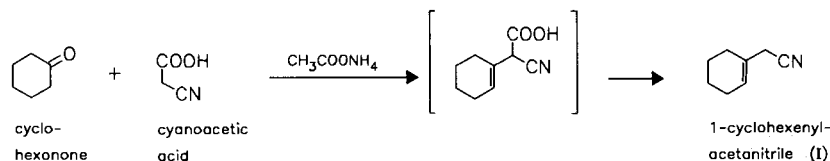
LD₅₀: 41 mg/kg (M, i.v.); 285 mg/kg (M, p.o.);
150 mg/kg (R, p.o.)

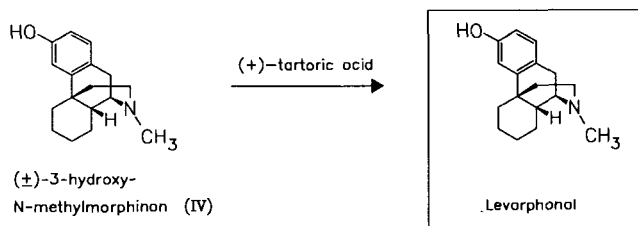
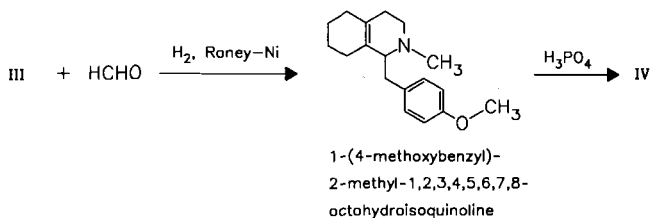
CN: 17-methylmorphinan-3-ol

tartrate (1:1)

RN: 125-72-4 MF: C₁₇H₂₃NO · C₄H₆O₆ MW: 407.46 EINECS: 204-753-8

LD₅₀: 32 mg/kg (M, i.v.); 285 mg/kg (M, p.o.);
27 mg/kg (R, i.v.); 150 mg/kg (R, p.o.);
46 mg/kg (dog, i.v.)



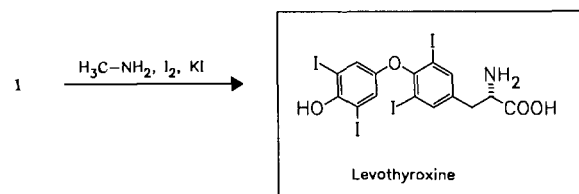
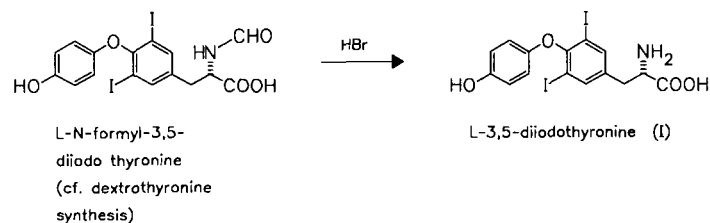
**Reference(s):**Ehrhart, Ruschig **I**, 130-131.Schnider, O.; Hellerbach, J.: *Helv. Chim. Acta (HCACAV)* **33**, 1437 (1950).Schnider, O.; Grüssner, A.: *Helv. Chim. Acta (HCACAV)* **34**, 2211 (1951).**Formulation(s):** amp. 2 mg/ml; tabl. 2 mg (as tartrate)**Trade Name(s):**

D: Dromoran (Roche); wfm GB: Dromoran (Roche); wfm USA: Levo-Dromoran (Roche)

Levothyroxine

ATC: H03AA01

Use: thyroid hormone

RN: 51-48-9 MF: C₁₅H₁₁I₄NO₄ MW: 776.87 EINECS: 200-101-1CN: *O*-(4-hydroxy-3,5-diiodophenyl)-3,5-diiodo-L-tyrosine**monosodium salt**RN: 55-03-8 MF: C₁₅H₁₀I₄NNaO₄ MW: 798.85 EINECS: 200-221-4LD₅₀: 20 mg/kg (R, i.p.); 50 mg/kg (R, s.c.)

Reference(s):

Nahm, H.; Siedel, W.: Chem. Ber. (CHBEAM) **96**, 1 (1963).
 DE 1 067 826 (Hoechst; appl. 1955).
 DE 1 077 673 (Hoechst; appl. 1958).

alternative syntheses from L-tyrosine via L-N-acetyl-3,5-diiodotyrosine ethyl ester:

DE 1 064 529 (G. Hillmann; appl. 1956).
 DE 1 065 855 (G. Hillmann; appl. 1956).
 US 2 803 654 (Baxter Labs.; 1957; prior. 1953).
 US 2 889 363 (Baxter Labs.; 1959; appl. 1955).
 US 2 889 364 (Baxter Labs.; 1959; appl. 1957).

Formulation(s): tabl. 0.025 mg, 0.05 mg, 0.075 mg, 0.1 mg, 0.125 mg, 0.150 mg, 0.175 mg, 0.2 mg, 0.3 mg
 (as sodium salt)

Trade Name(s):

D:	Eferox (Hexal)		Lévothyrox (Lipha Santé)		Tyronamin (Takeda; as sodium salt)
	Euthyrox (Merck)		L-thyroxine Roche (Roche)		
	Thevier (Glaxo Wellcome)	GB:	Eltroxin (Goldshield)	USA:	Levothroid (Forest; as sodium salt)
	L-Thyroxin "Henning" (Henning Berlin)	I:	Dermocinetic crema (Irbi)-comb.		Levoxyl (Jones Medical Industries; as sodium salt)
	numerous combination preparations		Somatoline emuls. (Manetti Roberts)-comb.		Synthroid (Knoll; as sodium salt)
F:	Euthyral (Lipha Santé)-comb.	J:	Thyradin-S (Teikoku Zoki)		

Lidocaine

(Lignocaine)

ATC: C01BB01; C05AD01; D04AB01;
 N01BB02; R02AD02; S01HA07;
 S02DA01

Use: local anesthetic, antiarrhythmic

RN: 137-58-6 MF: C₁₄H₂₂N₂O MW: 234.34 EINECS: 205-302-8

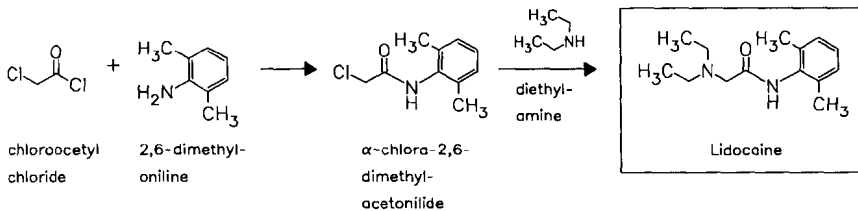
LD₅₀: 20 mg/kg (M, i.v.); 220 mg/kg (M, p.o.);
 18 mg/kg (R, i.v.); 317 mg/kg (R, p.o.)

CN: 2-(diethylamino)-N-(2,6-dimethylphenyl)acetamide

monohydrochloride

RN: 73-78-9 MF: C₁₄H₂₂N₂O · HCl MW: 270.80 EINECS: 200-803-8

LD₅₀: 15 mg/kg (M, i.v.); 220 mg/kg (M, p.o.);
 21 mg/kg (R, i.v.)

**Reference(s):**

US 2 441 498 (AB Astra; 1948; S-prior. 1943).
 DE 968 561 (AB Astra; appl. 1944; S-prior. 1943).

hydrochloride monohydrate:

US 2 797 241 (C.L.M. Brown, A. Poole; 1957; GB-prior. 1953).

Formulation(s): amp. 0.5 %, 1 %, 2 %, 25 mg; gel 2 %; ointment 5 %; sol. 4 % (as hydrochloride)

Trade Name(s):

D:	Gelicain (curasan) Heweneuril (Hevert) Licain (curasan) Xylocain (Astra) Xyloneural (Strathmann) numerous generics	I:	Luan (Molteni; as hydrochloride) Neolidocaton (Dentalica)-comb. Odontalg (Giovanardi; as hydrochloride) Ortodermina (Salus Research; as hydrochloride) Xylocaina (Astra-Simes; as hydrochloride) Xylocaina epinefrina (Astra-Simes)-comb. Xylocaina iniett. (Astra-Simes; as hydrochloride)	J:	Xylocaina Spray (Astra-Simes; as hydrochloride) Xylonor (Ogna)-comb. combination preparations Leostesin N (Showa) Xylocaine (Astra-Fujisawa)
F:	Xylocaine (Astra) Xylocard (Astra) numerous combination preparations	USA:	Anestacon (PolyMedica; as hydrochloride) EMLA (Astra) Lidocaine (Roxane) Lidocaine Hydrochloride (Elkins-Sinn) Xylocaine (Astra) Xylocaine (Astra; as hydrochloride)		
GB:	Xylocaine (Astra) Xylocard (Astra) numerous combination preparations				

Lidoflazine

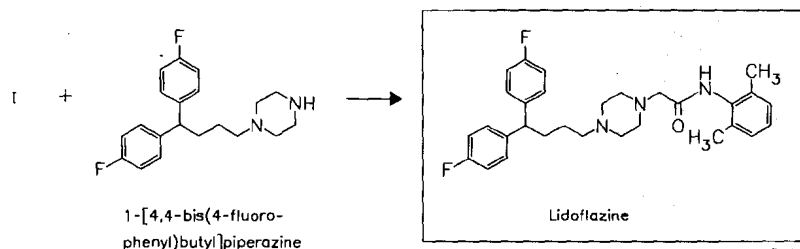
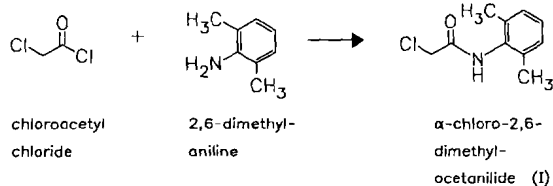
ATC: C08EX01

Use: coronary vasodilator

RN: 3416-26-0 MF: C₃₀H₃₅F₂N₃O MW: 491.63 EINECS: 222-312-8LD₅₀: 40 mg/kg (M, i.v.); >2 g/kg (M, p.o.);

>3.2 g/kg (R, p.o.)

CN: 4-[4,4-bis(4-fluorophenyl)butyl]-N-(2,6-dimethylphenyl)-1-piperazineacetamide



Reference(s):

US 3 267 104 (Janssen; 16.8.1966; prior. 9.6.1964, 14.5.1965).

GB 1 055 100 (Janssen; appl. 8.6.1965; USA-prior. 9.6.1964, 14.5.1965).

NL-appl. 6 507 312 (Janssen; appl. 9.6.1965; USA-prior. 9.6.1964, 14.5.1965).

Formulation(s): tabl. 60 mg

Trade Name(s):

D: Clinium (Janssen); wfm Corflazine (Syntex); wfm Clinium (Janssen); wfm
 F: Clinium (LeBrun); wfm I: Clavidene (Corvi); wfm USA: Clinium (McNeil); wfm

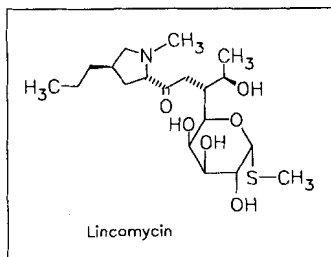
Lincomycin

ATC: J01FF02

Use: antibiotic

RN: 154-21-2 MF: C₁₈H₃₄N₂O₆S MW: 406.54 EINECS: 205-824-6LD₅₀: 13.9 g/kg (M, p.o.);

1 g/kg (R, p.o.)

CN: (2*S*-*trans*)-methyl 6,8-dideoxy-6-[[[(1-methyl-4-propyl-2-pyrrolidinyl)carbonyl]amino]-1-thio-D-*erythro*- α -D-galacto-octopyranoside**monohydrochloride**RN: 859-18-7 MF: C₁₈H₃₄N₂O₆S · HCl MW: 443.01 EINECS: 212-726-7From fermentation solutions of *Streptomyces lincolnensis*.*Reference(s):*

US 3 086 912 (Upjohn; 23.4.1963; prior. 3.7.1961).

US 3 155 580 (Upjohn; 3.11.1964; prior. 30.8.1961).

US 4 091 204 (Upjohn; 23.5.1978; prior. 20.12.1974, 24.9.1976).

lincomycin derivatives:

US 3 380 992 (Upjohn; 30.4.1968; prior. 5.8.1964, 14.6.1965).

Formulation(s): amp. 300 mg, 600 mg; cps. 250 mg, 500 mg; syrup 250 mg (as hydrochloride)*Trade Name(s):*

D: Albitoc (Pharmacia & GB: Lincocin (Upjohn); wfm J: Lincocin (Upjohn-
 Upjohn) Mycivin (Boots); wfm Sumitomo Chem.)
 F: Lincocine (Pharmacia & I: Lincocin (Upjohn) USA: Lincocin (Upjohn); wfm
 Upjohn)

Liothyronine

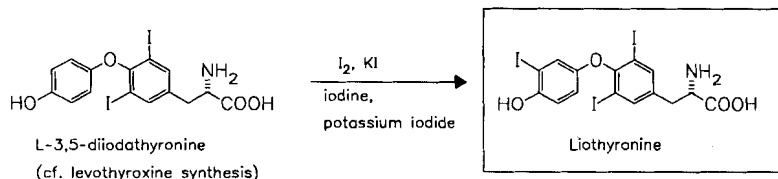
ATC: H03AA02

Use: thyroid hormone

RN: 6893-02-3 MF: C₁₅H₁₂I₃NO₄ MW: 650.98 EINECS: 229-999-3

CN: O-(4-hydroxy-3-iodophenyl)-3,5-diiodo-L-tyrosine

monosodium saltRN: 55-06-1 MF: C₁₅H₁₁I₃NNaO₄ MW: 672.96 EINECS: 200-223-5

**Reference(s):**

US 2 823 164 (Nat. Res. Dev. Corp.; 1958; prior. 1953).

US 2 993 928 (Glaxo; 25.7.1961; GB-prior. 15.1.1957).

GB 671 070 (Glaxo; appl. 1949).

Formulation(s): tabl. 0.005 mg, 0.02 mg, 0.025 mg, 0.05 mg, 0.1 mg; vial 0.01 mg/ml, 0.1 mg/ml**Trade Name(s):**

D: Thybon (Henning Berlin)
Thyrotardin (Henning Berlin)
Trijodthyronin (Berlin-Chemie)
numerous combination preparations

Euthyral (Lipha Santé)-comb.
GB: Tertroxin (Link)
I: Titre (Teofarma)
J: Thyronamin (Takeda)
Thyronine (Taisho)
USA: Cytomel (Jones Medical Industries; as sodium salt)

Cytomel (SmithKline Beecham; as sodium salt)
Triostat (SmithKline Beecham; as sodium salt)
Triostat (Jones Medical Industries; as sodium salt)

F: Cynomel (Marion Merrell)

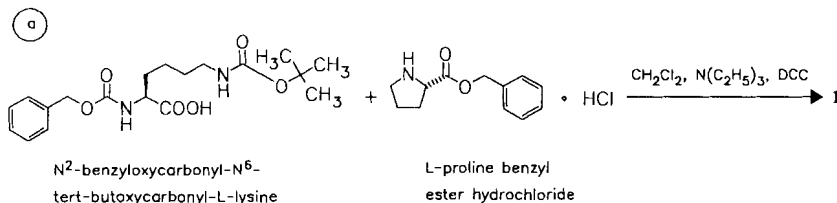
Lisinopril
(MK-521)

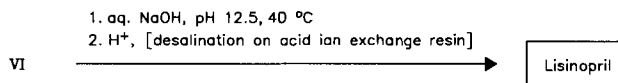
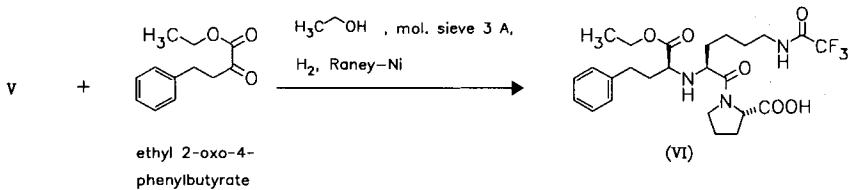
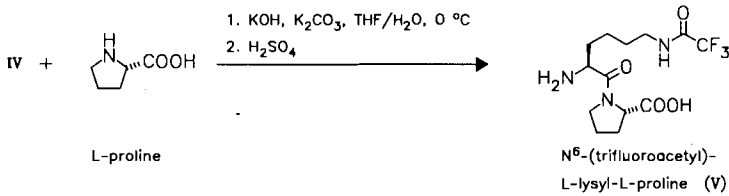
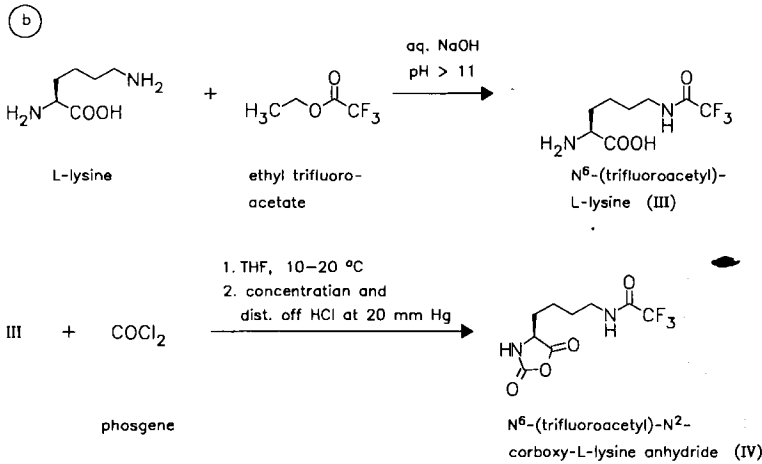
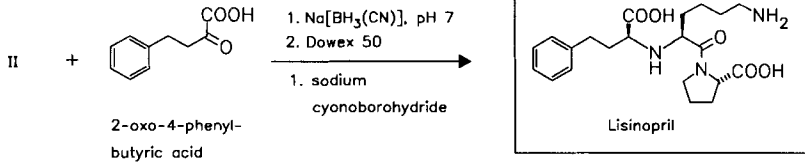
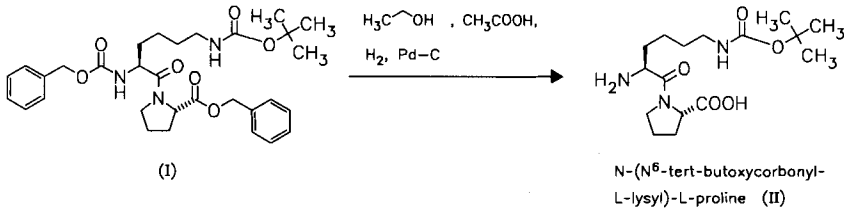
ATC: C09AA03

Use: angiotensin-converting enzyme inhibitor (for use as antihypertensive and in congestive heart failure, oral absorption about 25 % (6-60 %), long acting (plasma half-life 12.6 hrs), once-daily dosing)

RN: 76547-98-3 MF: $C_{21}H_{31}N_3O_5$ MW: 405.50 EINECS: 278-488-1CN: (S)-1-[N²-(1-carboxy-3-phenylpropyl)-L-lysyl]-L-proline**dihydrate**RN: 83915-83-7 MF: $C_{21}H_{31}N_3O_5 \cdot 2H_2O$ MW: 441.53LD₅₀: >20 g/kg (M, p.o.);

>20 g/kg (R, p.o.)





Reference(s):

Patchett, A.A. et al.: Nature (London) (NATUAS) **288**, 280 (1980).

- a** US 4 374 829 (Merck & Co.; 22.2.1983; prior. 11.12.1978, 7.5.1979, 9.10.1979, 17.2.1981).
 US 4 472 380 (Merck & Co.; 18.9.1984; prior. 11.12.1978, 7.5.1979, 9.10.1978, 17.2.1981, 27.9.1982).
 EP 12 401 (Merck & Co.; appl. 10.12.1979; USA-prior. 11.12.1978).
 Wu, M.T. et al.: J. Pharm. Sci. (JPMSAE) **74**, 352 (1985).
- b** Blacklock, T.J. et al.: J. Org. Chem. (JOCEAH) **53**, 836 (1988).
 EP 168 769 (Merck & Co.; appl. 11.7.1985; USA-prior. 16.7.1984).

alternative processes:

EP 79 521 (Merck & Co.; appl. 3.11.1982; USA-prior. 9.11.1981, 9.8.1982).
 EP 336 368 (Kanegafuchi; appl. 4.4.1989; J-prior. 4.4.1988).

synthesis of N⁶-(trifluoroacetyl)-L-lysine:

EP 279 716 (Rhône-Poulenc; appl. 18.1.1988; F-prior. 26.1.1987).

N⁶-(trifluoroacetyl)-L-lysyl-L-proline, aromatic sulfonic acid salts:

US 4 720 554 (Ajinomoto; 19.1.1988; J-prior. 6.12.1985).
 US 4 786 737 (Ajinomoto; 22.11.1988; J-prior. 6.12.1985).
 EP 293 244 (Hamari Chemicals; appl. 27.5.1988; J-prior. 29.5.1987).

purification of N⁶-(trifluoroacetyl)-L-lysyl-L-proline:

US 4 935 526 (Rhône-Poulenc; 19.6.1990; F-prior. 6.4.1988).
 EP 340 056 (Rhône-Poulenc; appl. 31.3.1989; F-prior. 6.4.1988).

medical use in congestive heart failure:

EP 241 201 (Merck & Co.; appl. 31.3.1987; USA-prior. 7.4.1986).

combination with calcium antagonistic dihydropyridines:

DOS 3 437 917 (Bayer; appl. 17.10.1984).

Formulation(s): tabl. 2.5 mg, 5mg, 10mg, 20 mg, 40 mg (USA); (as dihydrate) comb. with hydrochlorothiazide: tabl. 20 mg lisinopril with 12.5 mg or 25 mg hydrochlorothiazide

Trade Name(s):

D:	Acerbon (Zeneca; 1990)	I:	Alapril (Sigma-Tau)	Prinzide (Merck & Co.)-
	Acercomp (Zeneca)-comb.		Prinivil (Du Pont)	comb. with
	Coric (Du Pont; 1990)		Zestril (Zeneca)	hydrochlorothiazide
F:	Prinivil (Du Pont)	J:	Longes (Shionogi)	Zestoretic (Stuart)-comb.
	Prinzide (Du Pont)-comb.		Zestril (Zeneca-Sumitomo);	with hydrochlorothiazide
	Zestoretic (Zeneca Pharma)		ICI)	Zestril (Stuart; Zeneca;
	Zestril (Zeneca Pharma)	USA:	Prinivil (Merck & Co.;	1988)
GB:	Carace (Du Pont)		1988)	
	Zestril (Zeneca; 1988)			

Lobeline

ATC: N06

Use: respiratory analeptic, nicotine withdrawal agent

RN: 90-69-7 MF: C₂₂H₂₇NO₂ MW: 337.46 EINECS: 202-012-3

LD₅₀: 6300 µg/kg (M, i.v.)

CN: [2S-[2α,6α(R*)]]-2-[6-(2-hydroxy-2-phenylethyl)-1-methyl-2-piperidinyl]-1-phenylethanone

hydrochloride

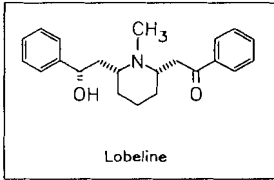
RN: 134-63-4 MF: C₂₂H₂₇NO₂·HCl MW: 373.92 EINECS: 205-150-2

LD₅₀: 7800 µg/kg (M, i.v.)

sulfate (2:1)

RN: 134-64-5 MF: C₂₂H₂₇NO₂·1/2H₂O₄S MW: 773.00 EINECS: 205-151-8

LD₅₀: 55.3 mg/kg (M, i.p.)



From *Lobelia inflata* L. by extraction of the slightly acidic extract of the drug with chloroform and subsequent purification.

Reference(s):

Wieland, H.: Ber. Dtsch. Chem. Ges. (BDCGAS) **54**, 1784 (1921).

Wieland, H.; Dragendorff, O.: Justus Liebigs Ann. Chem. (JLACBF) **473**, 83 (1929).

syntheses:

Wieland, H.; Drishaus, J.: Justus Liebigs Ann. Chem. (JLACBF) **473**, 102 (1929).

Scheuing, G.; Winterhalder, L.: Justus Liebigs Ann. Chem. (JLACBF) **473**, 126 (1929).

Formulation(s): amp. 3 mg, 10 mg; tabl. 2 mg (as sulfate)

Trade Name(s):

D:	Citotal (Müller/ Göppingen)-comb.; wfm		Unilobin (Rhône-Poulenc); wfm
	Stenopressin (Efeke)- comb.; wfm	F:	Lobatox (Sobio); wfm
		J:	Atmulatin (Dainippon)

Lobenzarit

ATC: M01

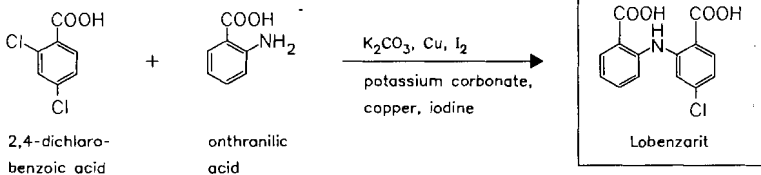
Use: anti-inflammatory

RN: 63329-53-3 MF: C₁₄H₁₀ClNO₄ MW: 291.69

CN: 2-[(2-carboxyphenyl)amino]-4-chlorobenzoic acid

sodium salt

RN: 64808-48-6 MF: C₁₄H₈NNa₂O₄ MW: 300.20



Reference(s):

US 4 092 426 (Chugai; 30.5.1978; J-prior. 12.4.1976).

BE 842 832 (Chugai; appl. 11.6.1976; J-prior. 11.6.1975).

DE 2 526 092 (Chugai; prior. 11.6.1975).

Formulation(s): tabl. 40 mg, 80 mg (as sodium salt)

Trade Name(s):

J: Carfenil (Chugai; 1986)

Lofepramine

(Lopramine)

ATC: N06AA07

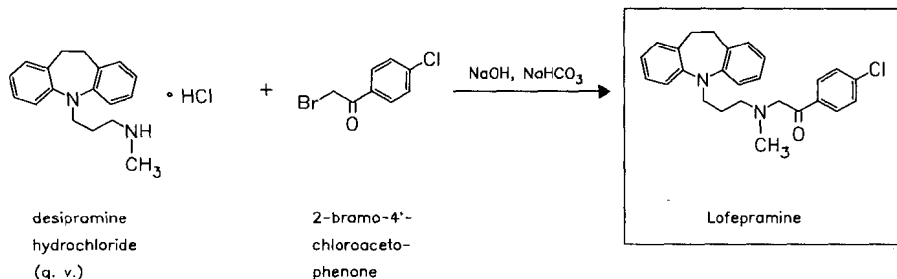
Use: antidepressant

RN: 23047-25-8 MF: C₂₆H₂₇ClN₂O MW: 418.97 EINECS: 245-396-8

CN: 1-(4-chlorophenyl)-2-[[3-(10,11-dihydro-5H-dibenz[b,f]azepin-5-yl)propyl]methylamino]ethanone

monohydrochlorideRN: 26786-32-3 MF: C₂₆H₂₇ClN₂O · HCl MW: 455.43 EINECS: 248-002-2LD₅₀: >5 g/kg (M, p.o.);

>5 g/kg (R, p.o.)

**Reference(s):**

GB 1 177 525 (Leo; appl. 13.4.1967; valid from 2.4.1968).

DOS 1 770 153 (Leo; appl. 8.4.1968; GB-prior. 13.4.1967).

GB 1 497 306 (Leo; appl. 3.7.1975; valid from 30.6.1976).

DOS 2 628 558 (Leo; appl. 25.6.1976; GB-prior. 3.7.1975).

US 3 637 660 (Leo; 25.1.1972; appl. 8.4.1968; GB-prior. 13.4.1967).

medical use as antidepressant:

GB 1 498 857 (Leo; appl. 3.7.1975; valid from 30.6.1976).

US 4 061 747 (Leo; 6.12.1977; GB-prior. 3.7.1975).

Eriksoo, E.; Rohte, O.: *Arzneim.-Forsch. (ARZNAD)* **20**, 1561 (1970).**Formulation(s):** f. c. tabl. 10 mg, 25 mg, 35 mg, 70 mg (as hydrochloride)**Trade Name(s):**

D: Gamonil (Merck; 1977)

GB: Gamanil (Merck; 1983)

J: Amplit (Daiichi; 1981)

Lofexidine

(MDL-14042; BA-168; RMI-14042)

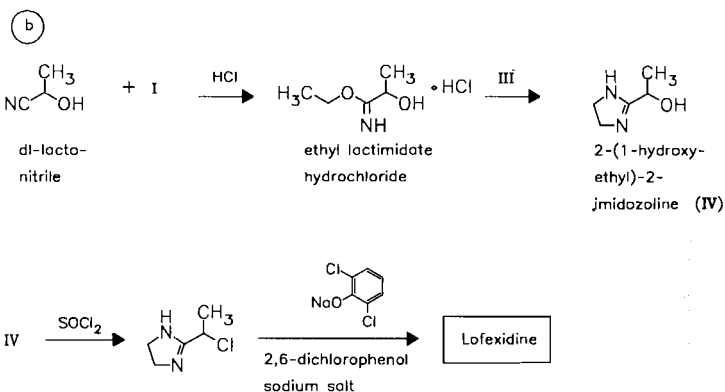
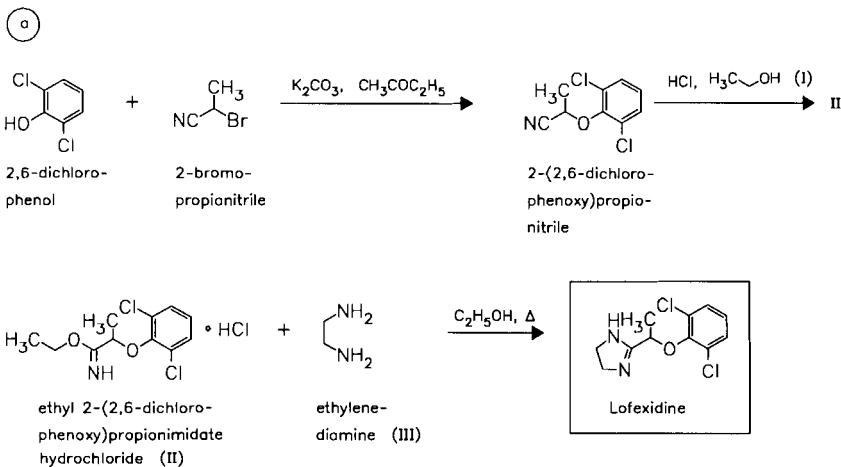
ATC: C02

Use: antihypertensive, α_2 -agonist, relief of symptoms of opiate withdrawalRN: 31036-80-3 MF: C₁₁H₁₂Cl₂N₂O MW: 259.14LD₅₀: 13 mg/kg (M, i.v.); 100 mg/kg (M, p.o.)

13 mg/kg (R, i.v.); 100 mg/kg (R, p.o.)

CN: 2-[1-(2,6-dichlorophenoxy)ethyl]-4,5-dihydro-1H-imidazole

hydrochlorideRN: 21498-08-8 MF: C₁₁H₁₂Cl₂N₂O · HCl MW: 295.60



Reference(s):

- a** US 3 966 757 (Nattermann GmbH; 29.6.1976; D-prior. 23.2.1967).
 DOS 1 695 555 (Nordmark-Werke; appl. 23.2.1967).
 GB 1 181 356 (Nordmark-Werke; valid from 23.2.1968; D-prior. 23.2.1967).
b DE 1 935 479 (Nordmark-Werke; appl. 12.7.1967; D-prior. 12.7.1967). addition to DOS 1 695 555.

synthesis of 2-(1-chloroethyl)-2-imidazole:

Klarer, W.; Urech, E.: *Helv. Chim. Acta (HCACAV)* **27**, 1762 (1944).

use as insecticides:

DE 2 818 367 (Ciba-Geigy; appl. 26.4.1978; CH-prior. 29.4.1977).

Formulation(s): tabl. 0.2 mg (as hydrochloride)

Trade Name(s):

D: Lofetensin (Nattermann); GB: Britloflex (Britannia Pharm.); BritLoflex (Britannia) wfm

Lomefloxacin

(NY-198)

ATC: J01MA07; S01AX17

Use: quinolone antibacterial, gyrase inhibitor

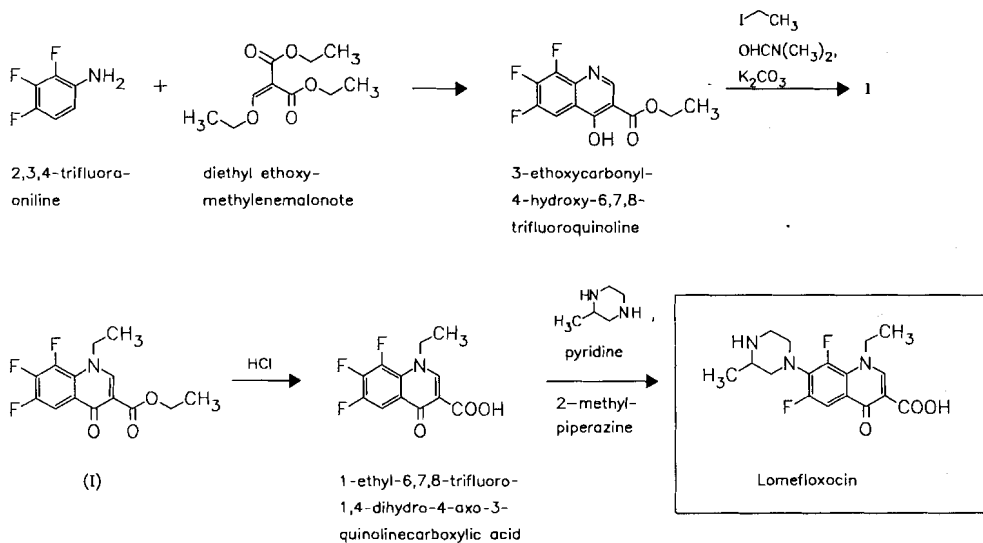
RN: 98079-51-7 MF: C₁₇H₁₉F₂N₃O₃ MW: 351.35LD₅₀: 246 mg/kg (M, i.v.); >4 g/kg (M, p.o.);

3800 mg/kg (R, p.o.)

CN: (±)-1-ethyl-6,8-difluoro-1,4-dihydro-7-(3-methyl-1-piperazinyl)-4-oxo-3-quinolinecarboxylic acid

monohydrochlorideRN: 98079-52-8 MF: C₁₇H₁₉F₂N₃O₃ · HCl MW: 387.81LD₅₀: 253 mg/kg (M, i.v.); 1608 mg/kg (M, p.o.);

328 mg/kg (R, i.v.); 1556 mg/kg (R, p.o.)

**Reference(s):**

EP 140 116 (Hokuriku; appl. 15.9.1984; J-prior. 19.9.1983, 12.3.1984, 18.6.1984).

DE 3 433 924 (Hokuriku; appl. 15.9.1984; J-prior. 19.9.1983, 12.3.1984, 18.6.1984).

US 4 528 287 (Hokuriku; 9.7.1985; appl. 17.9.1984; J-prior. 19.9.1983, 12.3.1984, 18.6.1984).

isotonic solution for i.v. administration or as ophthalmic or nasal solution:

US 4 780 465 (Hokuriku; 25.10.1988; appl. 20.5.1987; J-prior. 14.1.1987).

DOS 3 715 918 (Hokuriku; appl. 13.5.1987; J-prior. 14.1.1987).

synthesis of 1-ethyl-6,7,8-trifluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid:

DE 3 031 767 (Kyorin; appl. 22.8.1980; J-prior. 22.8.1979).

lyophilizate:

EP 322 892 (Kyorin; appl. 28.12.1988; J-prior. 28.12.1987).

Formulation(s): eye drops 0.3 %; tabl. 200 mg, 400 mg (as hydrochloride)**Trade Name(s):**

F: Logiflox (Monsanto)

I: Chimono (Lusofarmaco)

Maxaquin (Schiapparelli

Searle)

Uniquin (Alfa

Wassermann)

J: Bareon (Hokuriku; 1990)

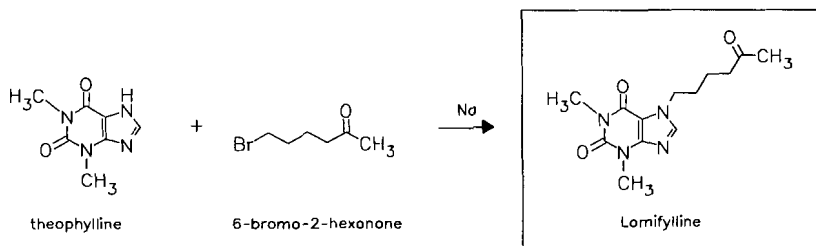
Lomefact (Shionogi; 1990)

USA: Maxaquin (Searle; Unimed)

Lomifylline

ATC: C04

Use: vasodilator (peripheral)

RN: 10226-54-7 MF: C₁₃H₁₈N₄O₃ MW: 278.31 EINECS: 233-547-0CN: 3,7-dihydro-1,3-dimethyl-7-(5-oxohexyl)-1*H*-purine-2,6-dione*Reference(s):*

US 3 422 107 (Chemische Werke Albert; 14.1.1969; D-prior. 5.9.1964, 2.7.1965, 10.7.1965, 24.7.1965).

DE 1 233 405 (Chemische Werke Albert; appl. 5.9.1964).

alternative syntheses:

DOS 2 302 772 (Chemische Werke Albert; appl. 20.1.1973).

DOS 2 330 741 (Chemische Werke Albert; appl. 16.6.1973).

use as dissolving intermediary:

DE 1 250 968 (Chemische Werke Albert; appl. 24.7.1965).

oral pharmaceutical form:

DOS 2 520 978 (Hoechst; appl. 10.5.1975).

Formulation(s): tabl. 80 mg*Trade Name(s):*F: Cervilane (Cassenne)-
comb.**Lomustine**

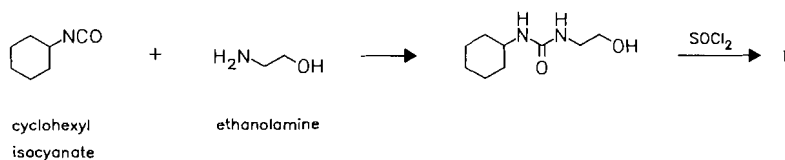
(CCNU)

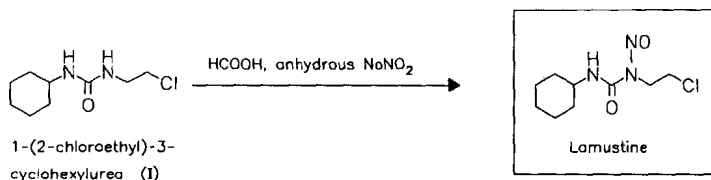
ATC: L01AD02

Use: antineoplastic

RN: 13010-47-4 MF: C₉H₁₆ClN₃O₂ MW: 233.70 EINECS: 235-859-2LD₅₀: 38 mg/kg (M, p.o.);

70 mg/kg (R, p.o.)

CN: *N*-(2-chloroethyl)-*N*'-cyclohexyl-*N*-nitrosourea

**Reference(s):**

Johnston, T.P. et al.: J. Med. Chem. (JMCMAR) **9**, 892 (1966).

starting material:

Johnston, T.P. et al.: J. Med. Chem. (JMCMAR) **6**, 669 (1963).

Formulation(s): cps. 10 mg, 40 mg; tabl. 10 mg, 40 mg

Trade Name(s):

D: Cecenu (medac)

I: Belustine (Rhône-Poulenc

USA: CeeNU (Bristol-Myers

F: Bélustine (Roger Bellon)

Rorer)

Squibb)

Lonazolac

ATC: M01AB09

Use: non-steroidal anti-inflammatory

RN: 53808-88-1 MF: $C_{17}H_{13}ClN_2O_2$ MW: 312.76 EINECS: 258-791-5

CN: 3-(4-chlorophenyl)-1-phenyl-1H-pyrazole-4-acetic acid

calcium salt

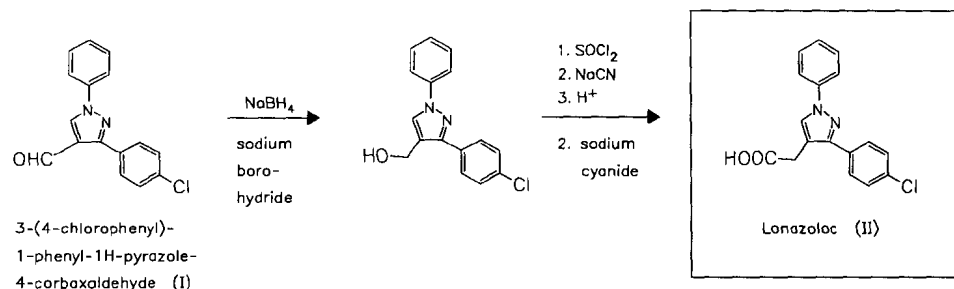
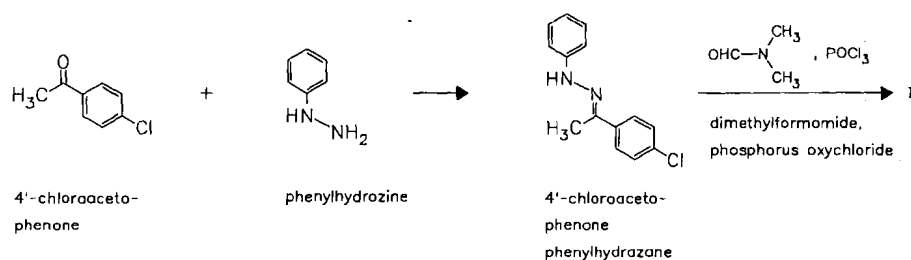
RN: 75821-71-5 MF: $C_{34}H_{24}CaCl_2N_4O_4$ MW: 663.57 EINECS: 278-322-8

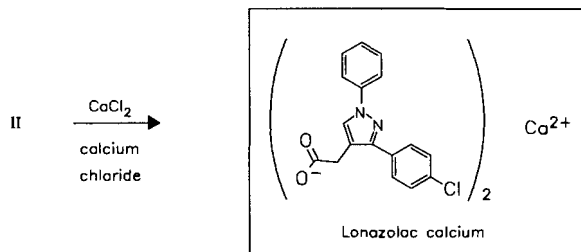
LD₅₀: 670 mg/kg (M, p.o.);

845 mg/kg (R, p.o.);

790 mg/kg (g. p., p.o.);

650 mg/kg (rabbit, p.o.)



**Reference(s):**

DE 1 946 370 (Byk Gulden; appl. 12.9.1969).
 US 4 325 962 (Byk Gulden; 20.4.1982; D-prior. 12.9.1969).
 US 4 146 721 (Byk Gulden; 27.3.1979; D-prior. 12.9.1968).
 Rainer, G. et al.: *Arzneim.-Forsch. (ARZNAD)* **31**, 649 (1981).

alternative synthesis of calcium salt:

EP 299 504 (Spofa; appl. 15.7.1988; CS-prior. 17.7.1987).

alternative synthesis of the free acid:

GB 1 373 212 (Wyeth; appl. 7.12.1970).

combination with analgesics:

DE 2 605 243 (Byk Gulden; appl. 11.2.1976; LUX-prior. 14.2.1975).

medical use for thrombocyte aggregation inhibition:

DE 3 444 633 (Byk Gulden; appl. 7.12.1984; CH-prior. 23.12.1983).

Formulation(s): suppos. 400 mg; tabl. 200 mg, 300 mg

Trade Name(s):

D: Argun (Merckle) arthro akut (Byk Gulden;
Byk Tosse)

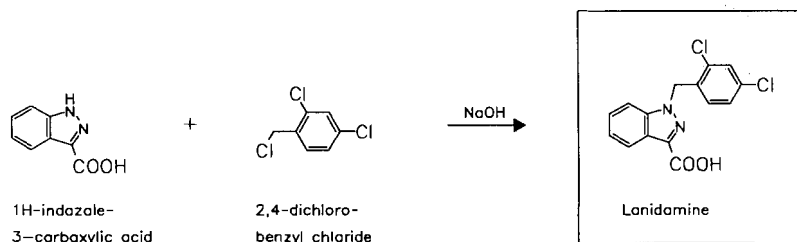
Lonidamine

ATC: L01XX07
Use: antineoplastic

RN: 50264-69-2 MF: $C_{15}H_{10}Cl_2N_2O_2$ MW: 321.16 EINECS: 256-510-0

LD₅₀: 435 mg/kg (M, i.p.); 900 mg/kg (M, p.o.);
525 mg/kg (R, i.p.); 1700 mg/kg (R, p.o.)

CN: 1-[(2,4-dichlorophenyl)methyl]-1H-indazole-3-carboxylic acid

**Reference(s):**

DE 2 310 031 (Aziende chimiche Riunite; appl. 28.2.1973; I-prior. 29.2.1972).
 US 3 895 026 (Aziende chimiche Riunite; 15.7.1975; I-prior. 29.2.1972).
 Corsi, G.; Palazzo, G.: *J. Med. Chem. (JMCMAR)* **19**, 778 (1976).

alternative synthesis:

ES 545 644 (Lab. Ausonia; appl. 29.7.1985).

medical use for treatment of cancer:

BE 894 111 (Angelini Inst.; appl. 13.8.1982; I-prior. 17.8.1981).

Formulation(s): tabl. 150 mg*Trade Name(s):*I: Doridamina (Angelini;
1987)**Loperamide**

ATC: A07DA03

Use: antidiarrheal

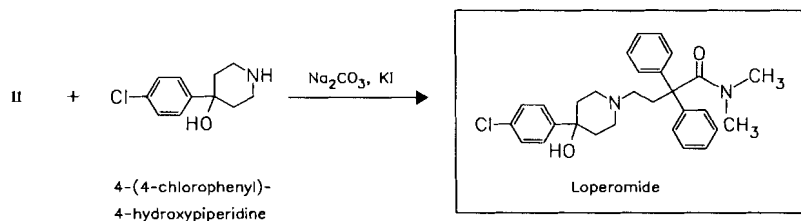
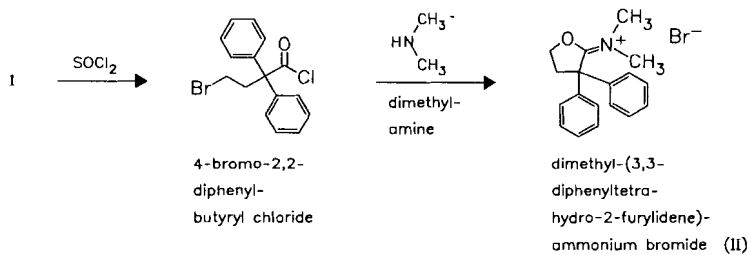
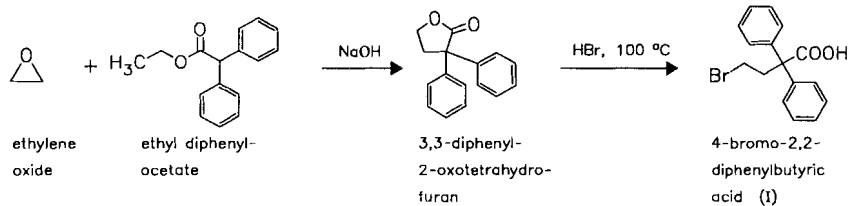
RN: 53179-11-6 MF: C₂₉H₃₃ClN₂O₂ MW: 477.05 EINECS: 258-416-5LD₅₀: 105 mg/kg (M, p.o.);

5.1 mg/kg (R, i.v.); 98 mg/kg (R, p.o.);

2.8 mg/kg (dog, i.v.); 40 mg/kg (dog, p.o.)

CN: 4-(4-chlorophenyl)-4-hydroxy-*N,N*-dimethyl- α,α -diphenyl-1-piperidinebutanamide**monohydrochloride**RN: 34552-83-5 MF: C₂₉H₃₃ClN₂O₂ · HCl MW: 513.51 EINECS: 252-082-4LD₅₀: 12.64 mg/kg (M, i.v.); 105 mg/kg (M, p.o.);

7.49 mg/kg (R, i.v.); 185 mg/kg (R, p.o.)



Reference(s):

Stokbroehx, R.A. et al.: J. Med. Chem. (JMCMAR) **16**, 782 (1973).
 US 3 714 159 (Janssen; 30.1.1973; prior. 1.6.1970, 30.3.1971).
 FR-appl. 2 100 711 (Janssen; appl. 28.5.1971; USA-prior. 1.6.1970, 30.3.1971).
 US 3 884 916 (Janssen; 20.5.1975; prior. 1.6.1970, 30.3.1971, 7.12.1972).
 DOS 2 126 559 (Janssen; appl. 28.5.1971; USA-prior. 1.6.1970, 30.3.1971).

Formulation(s): cps. 2 mg; sol. 0.2 mg; syrup 1 mg/5 ml; tabl. 2 mg (as hydrochloride)

Trade Name(s):

D:	Imodium (Janssen-Cilag; 1976)	Imodium (Janssen-Cilag; 1976)	Loperyl (SmithKline Beecham)
	Sanifug (Wolff)	GB: Imodium (Janssen-Cilag; 1975)	Tebloc (Lafare)
	Santax (Asche)	Lopergan (Norgine)	J: Lopemin (Dainippon; 1981)
	numerous generics	Novimode (Tillomed)	USA: Imodium (Janssen; 1977)
F:	Altocel (Irex)	I: Dissenten (SPA; 1979)	Imodium (McNeil; 1977)
	Arestal (Janssen-Cilag)	Imodium (Janssen; 1979)	
	Diaretyl (RPR Cooper)	Lopemid (Gentili)	
	Dyspagon (Pierre Fabre)		

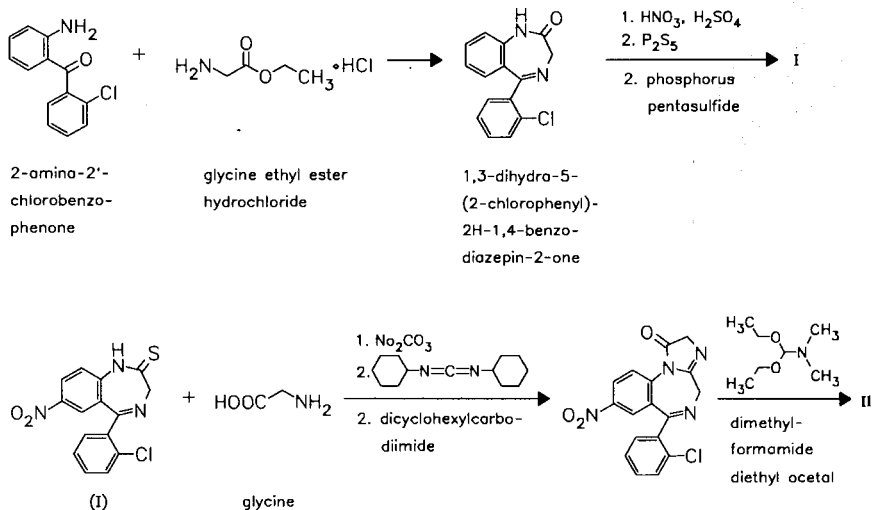
Loprazolam

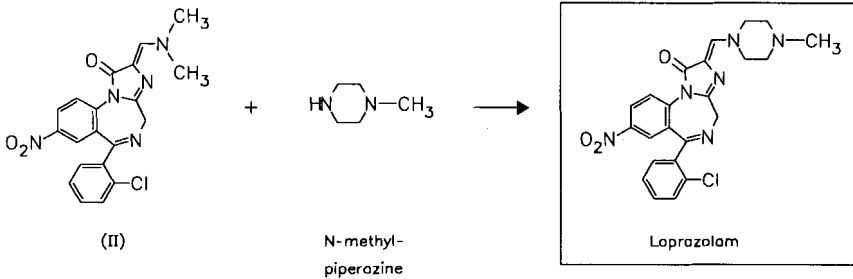
ATC: N05CD11

Use: tranquilizer, hypnotic

RN: 61197-73-7 MF: $C_{23}H_{21}ClN_6O_3$ MW: 464.91LD₅₀: >1 g/kg (M, p.o.)

CN: (Z)-6-(2-chlorophenyl)-2,4-dihydro-2-[(4-methyl-1-piperazinyl)methylene]-8-nitro-1H-imidazo[1,2-a][1,4]benzodiazepin-1-one

mesylateRN: 61197-93-1 MF: $C_{23}H_{21}ClN_6O_3 \cdot xCH_4O_3S$ MW: unspecified

*Reference(s):*

DOS 2 605 652 (Roussel-Uclaf; appl. 12.2.1976; GB-prior. 4.11.1975, 15.2.1975).
 US 4 044 142 (Roussel-Uclaf; 23.8.1977; GB-prior. 15.2.1975, 4.9.1975).

alternative synthesis:

DOS 3 211 243 (Roussel-Uclaf; appl. 26.3.1982; F-prior. 27.3.1981).

synthesis of 1,3-dihydro-7-nitro-5-(2-chlorophenyl)-2H-1,4-benzodiazepin-2-thione:

Sternbach, L.H. et al.: J. Med. Chem. (JMCMAR) **6**, 261 (1963).
 Hester, J.B. et al.: J. Med. Chem. (JMCMAR) **14**, 1078 (1971).
 DOS 2 164 777 (Upjohn; appl. 27.12.1971; USA-prior. 3.3.1971).
 US 3 402 171 (Roche; 17.9.1968; CH-prior. 2.12.1960).

Formulation(s): tabl. 1 mg, 2 mg (as mesylate)

Trade Name(s):

D: Sonin (Lipha; 1987) GB: Dormonoct (Roussel; 1983); wfm generics
 F: Havlane (Diamant; 1984)

Loratadine

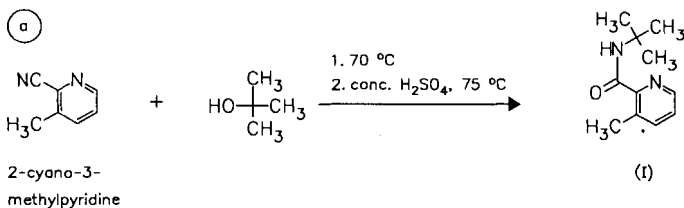
(Sch-29851)

ATC: R06AX13

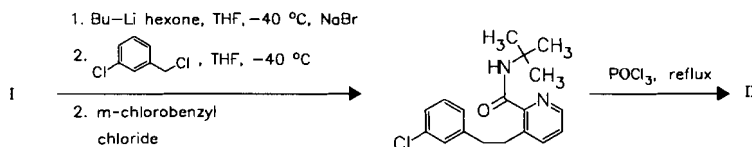
Use: antiallergic, non-sedating antihistaminic

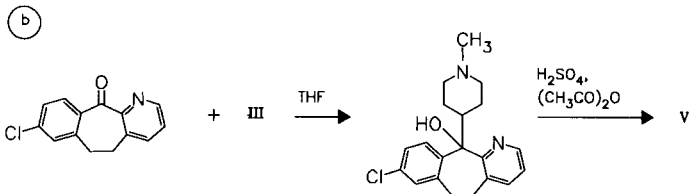
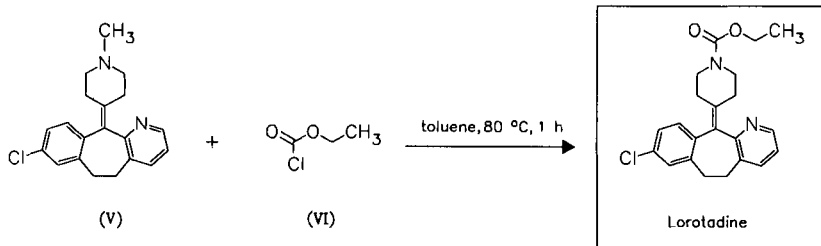
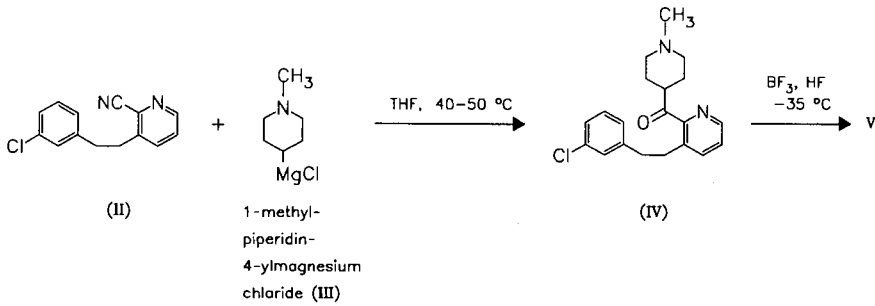
RN: 79794-75-5 MF: C₂₂H₂₃ClN₂O₂ MW: 382.89

CN: 4-(8-chloro-5,6-dihydro-11H-benzo[5,6]cyclohepta[1,2-b]pyridin-11-ylidene)-1-piperidinecarboxylic acid ethyl ester

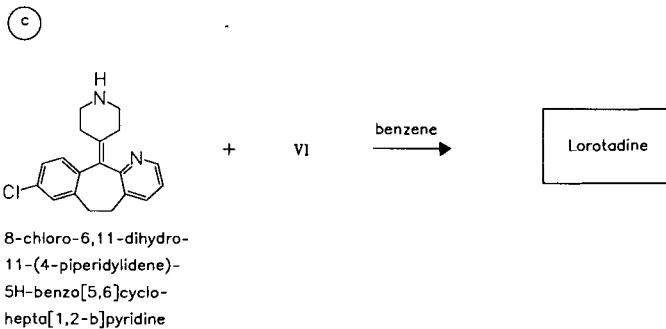
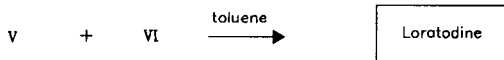


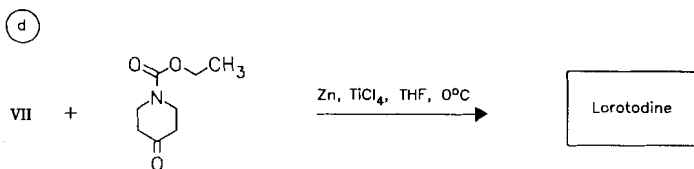
2-cyano-3-
methylpyridine



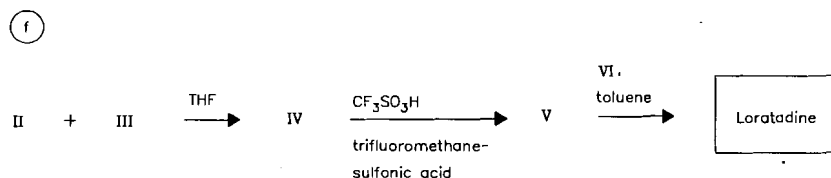
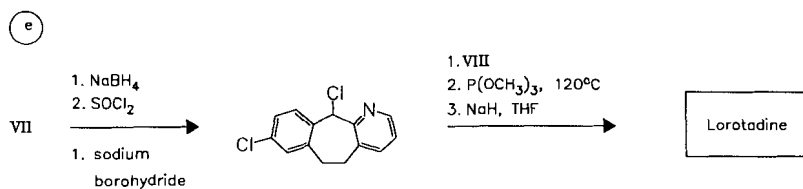


8-chloro-5,6-dihydro-11H-benzo[5,6]cyclohepta[1,2-b]pyridin-11-one (VII)





1-(ethoxycarbonyl)-
4-piperidinone (VIII)



Reference(s):

- US 4 454 143 (Schering Corp.; 12.6.1984; prior. 16.3.1981).
 US 4 560 688 (Schering Corp.; 24.12.1985; prior. 16.3.1981).
 US 4 282 233 (Schering Corp.; 4.8.1981; prior. 19.6.1980).
 US 4 355 036 (Schering Corp.; 19.10.1982; prior. 19.6.1980, 16.3.1981).
 EP 42 544 (Schering; USA-prior. 19.6.1980).
 a R Schumacher, D.P. et al.: J Org. Chem. (JOCEAH) **54**, 2242 (1989).
 US 4 731 447 (Schering Corp.; 15.3.1988; prior. 13.5.1985, 12.3.1986).
 b Villani, F.J. et al.: *Arzneim.-Forsch. (ARZNAD)* **36**, 1311 (1986).
 Villani, F.J. et al.: *J. Med. Chem. (JMCMAR)* **15** (7), 750 (1972).
 c US 4 355 036 (Schering; 19.10.1982; appl. 16.3.1981; USA-prior. 19.6.1980).
 d WO 9 840 376 (Cilag; appl. 6.3.1998; CH-prior. 11.3.1997).
 WO 9 838 166 (Jackson; appl. 26.2.1998).
 e WO 9 200 293 (Schering Corp.; appl. 21.6.1991; USA-prior. 22.6.1990).
 f WO 8 803 138 (Schering; appl. 29.10.1987; USA-prior. 31.10.1986).

Formulation(s): eff. tabl. 10 mg; syrup 10 mg/spoon; tabl. 10 mg

Trade Name(s):

D:	Lisino (Essex Pharma; 1989)	Clarityne (Schering-Plough)	I:	Clarityne (Schering-Plough)	
F:	Clarinate Repetabs (Schering-Plough)-comb.	GB:	Clarityn (Schering-Plough; 1989)	USA:	Fristamin (Lifepharm)
					Claritin (Schering)

Lorazepam

ATC: N05BA06

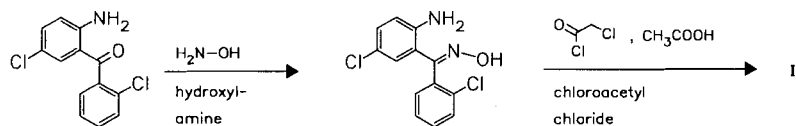
Use: tranquilizer, anxiolytic

RN: 846-49-1 MF: C₁₅H₁₀Cl₂N₂O₂ MW: 321.16 EINECS: 212-687-6LD₅₀: 1850 mg/kg (M, p.o.);

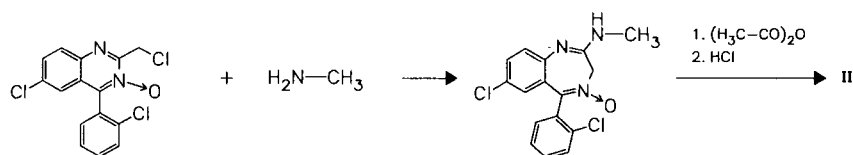
4500 mg/kg (R, p.o.);

>2 g/kg (dog, p.o.)

CN: 7-chloro-5-(2-chlorophenyl)-1,3-dihydro-3-hydroxy-2H-1,4-benzodiazepin-2-one

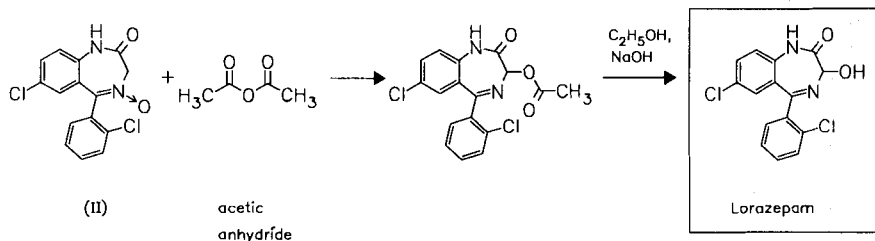


2-amino-2',5-dichlorobenzophenone



6-chloro-2-chloromethyl-4-(2-chlorophenyl)-quinazoline 3-oxide (I)

methyl-amine



(II)

acetic anhydride

Lorazepam

Reference(s):

US 3 296 249 (American Home Products; 3.1.1967; appl. 4.6.1963; prior. 29.8.1961, 5.3.1962).

US 3 176 009 (American Home Products; 30.3.1965; prior. 5.3.1962).

GB 1 022 642 (American Home; appl. 28.8.1962; USA-prior. 29.8.1961, 5.3.1962).

GB 1 022 644 (American Home; appl. 28.8.1962; USA-prior. 29.8.1961, 5.3.1962).

GB 1 022 645 (American Home; appl. 28.8.1962; USA-prior. 29.8.1961, 5.3.1962).

GB 1 057 492 (American Home; appl. 29.8.1968; addition to GB 1 022 642).

DE 1 445 412 (American Home; appl. 17.8.1962; USA-prior. 29.8.1961, 5.3.1962).

DE 1 645 904 (American Home; appl. 17.8.1962; USA-prior. 29.8.1961, 5.3.1962).

DE 1 795 509 (American Home; appl. 17.8.1962; USA-prior. 29.8.1961, 5.3.1962).

Formulation(s): amp. 2 mg/ml, 4 mg/ml; tabl. 0.5 mg, 1 mg, 2.5 mg**Trade Name(s):**D: Laubeel (Desitin)
Pro-Dorm (Synthelabo)Punktyl (Krewel
Meuselbach)Somagerol (Brenner-Efeka)
Tavor (Wyeth)

F: Tolid (Dolorgiel)
 F: Temesta (Wyeth-Lederle)
 GB: Ativan (Wyeth)
 I: Control (Bayopharm)

Lorans (Schiapparelli
 Searle)
 Quait (SIT)
 Tavor (Wyeth)

J: Wypax (Yamanouchi)
 USA: Ativan (Wyeth-Ayerst)

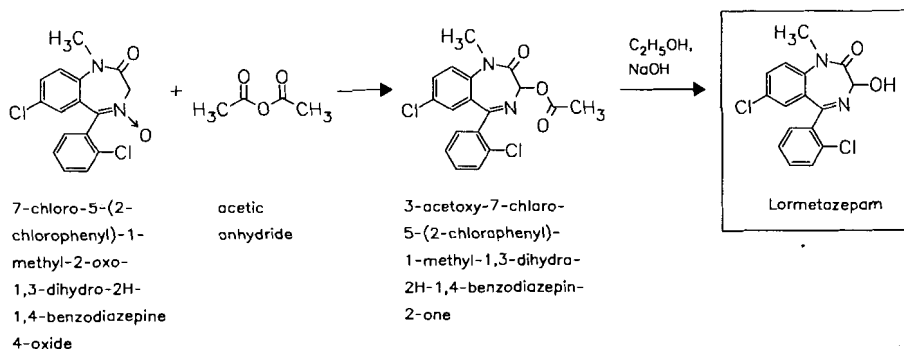
Lormetazepam

ATC: N05CD06
 Use: tranquilizer, hypnotic

RN: 848-75-9 MF: C₁₆H₁₂Cl₂N₂O₂ MW: 335.19 EINECS: 212-700-5

LD₅₀: 1790 mg/kg (M, p.o.);
 >10 g/kg (R, p.o.)

CN: 7-chloro-5-(2-chlorophenyl)-1,3-dihydro-3-hydroxy-1-methyl-2H-1,4-benzodiazepin-2-one



Reference(s):

US 3 295 249 (American Home Products; 3.1.1967; prior. 4.6.1963, 5.3.1962, 29.8.1961).

Formulation(s): cps. 0.5 mg, 1 mg, 2 mg; tabl. 0.5 mg, 1 mg, 2 mg

Trade Name(s):

D: Ergocalm (Brenner-Efeka)
 Loretam (Wyeth)
 Noctamid (Asche;
 Schering)

F: Noctamide (Schering)
 GB: Loramet (Wyeth); wfm
 Noctamid (Schering); wfm
 generics

I: Minias (Farmades)
 J: Evamyl (Schering)
 Loramet (Wyeth)
 USA: Loramet (Wyeth); wfm

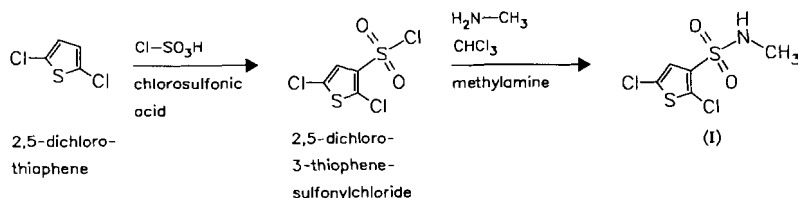
Lornoxicam

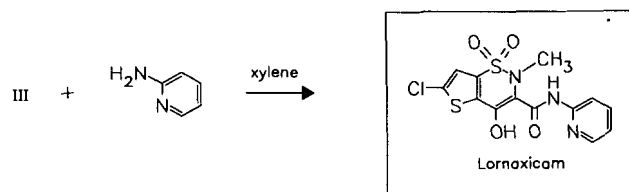
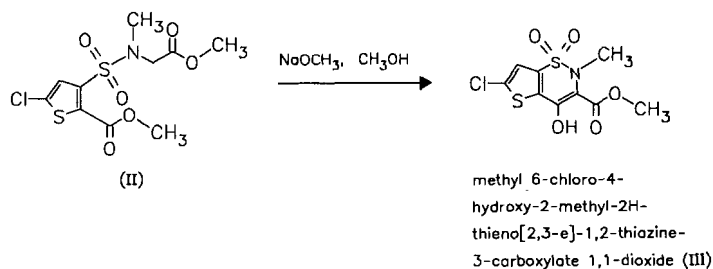
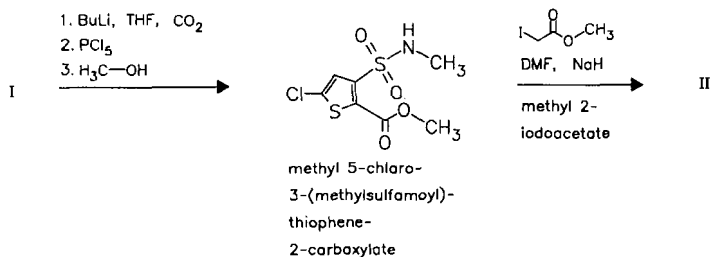
(Chlortenoxicam; Ro-13-9297)

ATC: M01AC05
 Use: anti-inflammatory, nonsteroid
 antiphlogistic agent

RN: 70374-39-9 MF: C₁₃H₁₀ClN₃O₄S₂ MW: 371.83

CN: 6-Chloro-4-hydroxy-2-methyl-N-2-pyridinyl-2H-thieno[2,3-*e*]-1,2-thiazine-3-carboxamide 1,1-dioxide



**Reference(s):**

DE 2 838 851 (Hoffmann-La Roche; appl. 6.9.1978; LU-prior. 6.9.1977).

process for the preparation of 5-chloro-3-chlorosulfonyl-2-thiophenecarboxylic esters:

EP 34 072 (CL Pharma A. G.; appl. 7.4.1989; A-prior. 2.5.1988).

pharmaceutical composition containing lornoxicam and disodium EDTA:

WO 9 809 654 (Nycomed Austria GmbH; appl. 1.9.1997; A-prior. 3.9.1996).

Formulation(s): tabl. 2 mg, 8 mg

Trade Name(s):

D: Telos (Merckle; 1999)

GB: Xefo (Nycomed Amersham)

I: Acabel (Formenti)

Losartan potassium

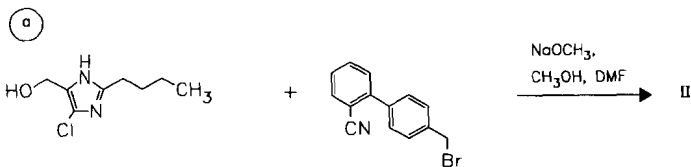
(DuP-753; MK-954)

ATC: C02EX01; C09CA01

Use: antihypertensive, angiotensin II blocker

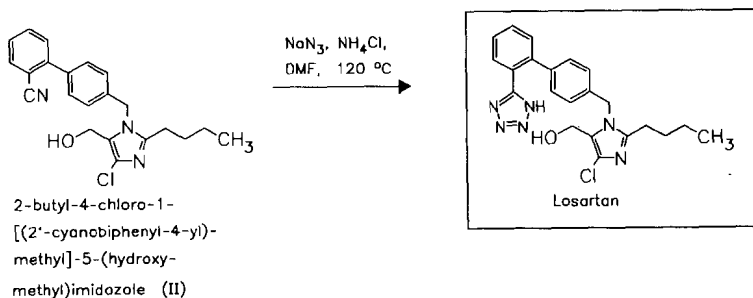
RN: 124750-99-8 MF: C₂₂H₂₂ClKN₆O MW: 461.01

CN: 2-butyl-4-chloro-1-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-1H-imidazole-5-methanol monopotassium salt

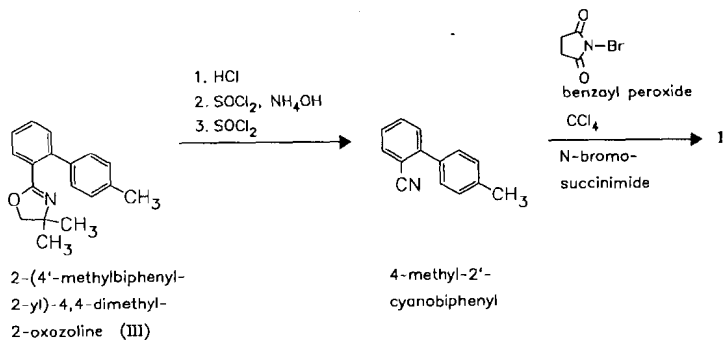
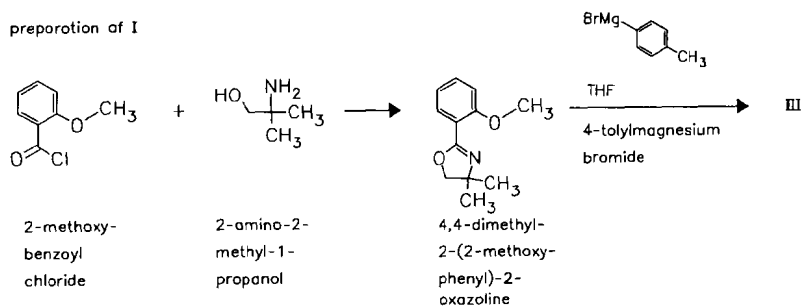


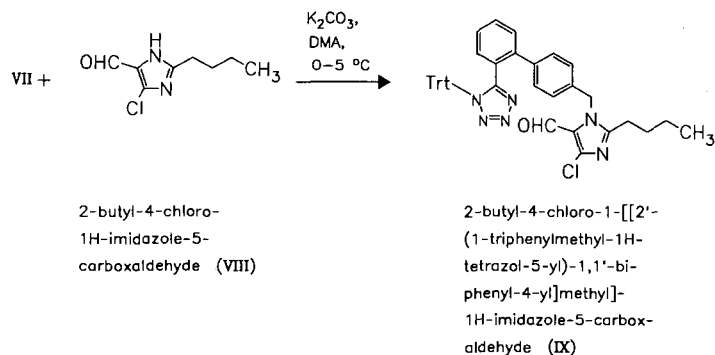
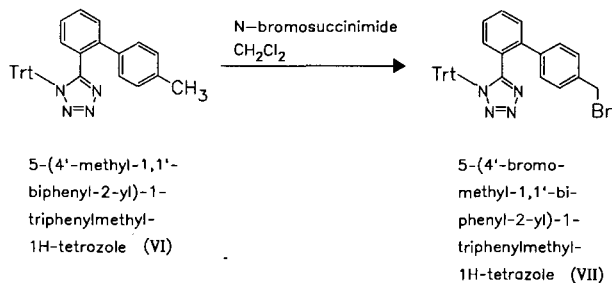
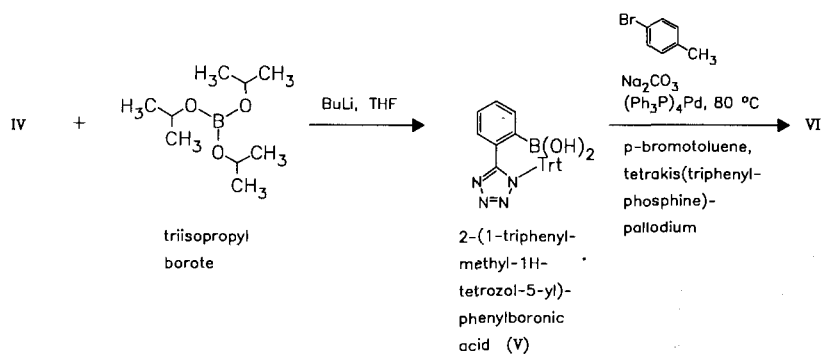
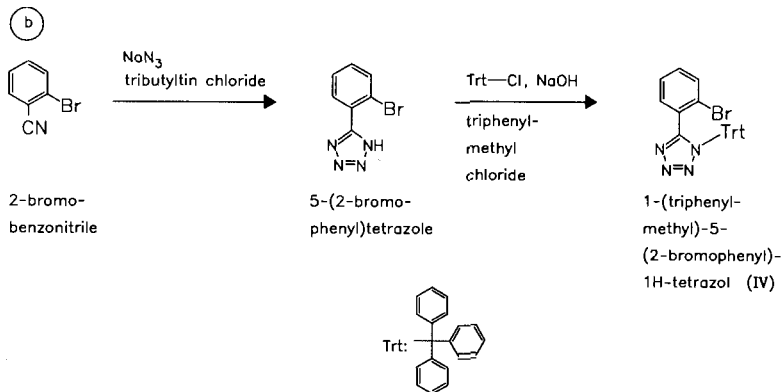
2-butyl-4-chloro-5-hydroxymethylimidazole

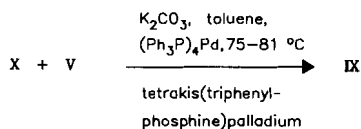
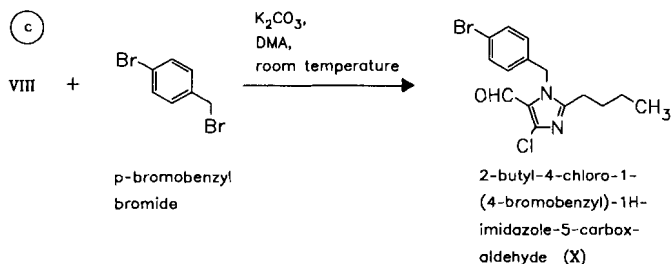
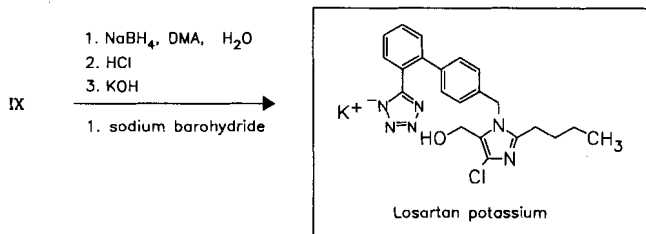
4'-bromomethyl-2-cyanobiphenyl (I)



preparation of I







Reference(s):

- Larsen, R.D. et al.: J. Med. Chem. (JMCMAR) **59** (21), 6391 (1994).
 a EP 324 377 (Du Pont de Nemours; appl. 5.1.1989; USA-prior. 7.1.1988).
 Carini, D.J. et al.: J. Med. Chem. (JMCMAR) **34**, 2525 (1991).
 b,c Smith, G.B. et al.: J. Org. Chem. (JOCEAH) **59**, 8151-8156 (1994).
 US 5 130 439 (Du Pont de Nemours; 14.7.1992; USA-prior. 18.11.1991).
 US 5 310 928 (Du Pont de Nemours; 10.5.1994; USA-prior. 18.11.1991).

polymorphs of losartan potassium:

WO 9 517 396 (Merck & Co.; du Pont de Nemours; appl. 21.12.1994; USA-prior. 23.12.1993).

preparation of 2-butyl-4-chloro-5-hydroxymethylimidazole:

Beoschelli, D.H.; Connor, D.T.: Heterocycles (HTCYAM) **35** (1), 121-124 (1993).

Shy, Y.-J.; Frey, L.F.; Tschaen, D.M.; Verhoeven, T.R.: Synth. Commun. (SYNCAV) **23** (18), 2623-2630 (1993).

preparation of 4'-bromomethyl-2-cyanobiphenyl via bromination with N-bromosuccinimide:

Tanaka, A. et al.: Bioorg. Med. Chem. (BMECEP) **6** (1), 15-30 (1998).

Huang, H.C. et al.: J. Med. Chem. (JMCMAR) **36** (15), 2172-2181 (1993).

synthesis of intermediate V:

Lo, Y.S.; Rossano, L.T.; Meloni, D.J.; Moore, J.R.; Lee, Y.-C.; Arneet, J.F.: J. Heterocycl. Chem. (JHTCAD) **32** (1), 355 (1995).

synthesis of intermediate VIII:

Griffiths, G.H. et al.: J. Org. Chem. (JOCEAH) **64**, 8084 (1999).

Griffiths, G.J.: Chimia (CHIMAD) **51** (6), 283 (1997).

combination with e. g. lovastatin:

WO 9 526 188 (Merck & Co.; appl. 24.3.1995; USA-prior. 29.3.1994).

new form with specific properties:

WO 9 517 396 (Merck & Co., Du Pont; appl. 21.12.1994; USA-prior. 23.12.1993).

use for treatment of neurodegenerative processes:

WO 9 521 609 (Ciba-Geigy; appl. 26.1.1995; EP-prior. 8.2.1994).

US 5 091 390 (Du Pont de Nemours; appl. 20.9.1990; USA-prior. 20.9.1990).

composition with potassium channel activator:

EP 561 357 (Merck; appl. 16.3.1993; D-prior. 20.3.1992).

composition for direct compression tabl.:

EP 511 767 (Merck & Co.; appl. 21.4.1992; USA-prior. 29.4.1991).

use for treatment of cardiac and vascular hypertrophy:

DE 4 036 706 (Hoechst; appl. 17.11.1990; D-prior. 17.11.1990).

Formulation(s): tabl. 12.5 mg, 25 mg, 50 mg

Trade Name(s):

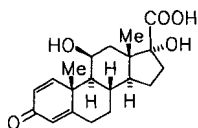
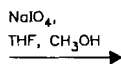
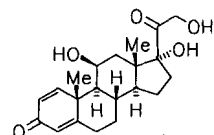
D: Lorzaar (MSD Chibropharm)	F: Cozaar (Merck Sharp & Dohme-Chibret)	I: Losaprex (Merck & Co.)
Lorzaar (MSD Chibropharm)-comb. with hydrochlorothiazide	Hyzaar (Merck Sharp & Dohme-Chibret)-comb.	USA: Cozaar (Merck & Co.; 1995)
	GB: Cozaar (Merck Sharp & Dohme)	Hyzaar (Merck & Co.)- comb. with hydrochlorothiazide

Loteprednol etabonate

Use: ocular antiinflammatory soft
corticosteroid

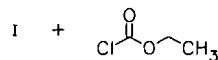
RN: 82034-46-6 MF: C₂₄H₃₁ClO₇ MW: 466.96

CN: (11β,17α)-17-[(Ethoxycarbonyloxy)-11-hydroxy-3-oxoandrosta-1,4-diene-17-carboxylic acid
chloromethyl ester

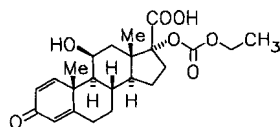
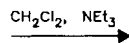


prednisolone (q. v.)

11β,17α-dihydroxy-
3-oxoandrosta-1,4-diene-
17β-carboxylic acid (I)



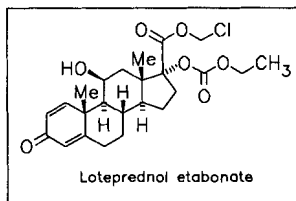
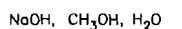
ethyl
chloroformate



17α-(ethoxycarbonyloxy)-
11β-hydroxy-3-oxoandrosta-
1,4-diene-17-carboxylic acid (II)



chloromethyl
iodide



Loteprednol etabonate

Reference(s):

BE 889 563 (Otsuka Pharm. Co. Ltd.; appl. 9.7.1981; USA-prior. 10.7.1980).

oxidation of prednisolone with sodium periodate:

Hirschmann et al.: Chem. Ind. (London) (CHINAG) **1958**, 682

suspension of loteprednol etabonate:

WO 9 511 669 (Pharmos Corp.; USA-prior. 25.10.1993).

US 5 747 061 (Pharmos Corp.; 5.5.1998; USA-prior. 25.10.1993).

Formulation(s): ophthalmic susp. 0.2% 5 ml, 10 ml, 0.5% 2.5 ml, 5 ml, 10 ml, 15 ml

Trade Name(s):

USA: Alrex (Bausch & Lomb
Pharm.; 1998)

Lotemax (Bausch & Lomb
Pharm.)

Lovastatin

(Mevinolin; MK 803; Monakolin-K)

ATC: B04AB; C10AA02

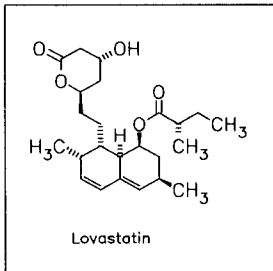
Use: HMG-CoA-reductase inhibitor,
antihypercholesterolemic

RN: 75330-75-5 MF: C₂₄H₃₆O₅ MW: 404.55

LD₅₀: >1 g/kg (M, p.o.)

CN: [1*S*-[1α(*R**),3α,7β,8β(2*S**,4*S**),8αβ]]-2-methylbutanoic acid 1,2,3,7,8,8a-hexahydro-3,7-dimethyl-8-[2-(tetrahydro-4-hydroxy-6-oxo-2*H*-pyran-2-yl)ethyl]-1-naphthalenyl ester

Fermentation of *Aspergillus terreus* (ATCC 20541).

*Reference(s):*

US 4 294 926 (Merck & Co.; 13.10.1981, appl. 15.6.1979; prior. 23.1.1980).

US 4 342 767 (Merck & Co.; 3.8.1982; prior. 16.6.1980, 15.6.1979, 23.1.1980).

US 4 294 846 (Merck & Co.; 13.10.1981; 28.5.1980, 21.9.1979).

US 4 231 938 (Merck & Co.; 4.11.1980; prior. 15.6.1979).

EP 22 478 (Merck & Co.; 13.6.1980; USA-prior. 15.6.1979).

Alberts, A.W. et al.: Proc. Natl. Acad. Sci. USA (PNASA6) **77**, 3957 (1980).

Buckland, B. et al.: Novel Microb. Prod. Med. Agric., [Pap. Int. Conf. Biotechnol. Microb. Prod.] 1st, **1988** (56RDAV), 161, Ed. A. L. Demain (Elsevier, Amsterdam).

fermentation of Monascus ruber:

DE 3 006 216 (Sankyo; appl. 20.2.1980; J-prior. 20.2.1979).

US 4 323 648 (Sankyo; 6.4.1982; J-prior. 11.5.1979).

DOS 3 028 284 (Sankyo; appl. 25.7.1980; J-prior. 27.7.1979).

synthesis of intermediates:

JP 59 193 883 (Suntry; appl. 9.3.1983).

JP 59 186 973 (Suntry; appl. 9.3.1983).

JP 59 186 972 (Suntry; appl. 9.3.1983).

medical use for the treatment of prostatomegaly:

JP 56 115 717 (A. Endo; appl. 19.2.1980).

total synthesis:

Quinkert, G. et al.: Synform (SNFMDF) **2**, 84, 111 (1984) (review).

Majewski, M. et al.: Tetrahedron Lett. (TELEAY) **25**, 2101 (1984).

Wovkulich, P.M. et al.: J. Am. Chem. Soc. (JACSAT) **111**, 2596 (1989).

Clive, D.L. et al.: J. Am. Chem. Soc. (JACSAT) **110**, 6914 (1988).

Hirama, M.; Iwashita, M.: Tetrahedron Lett. (TELEAY) **24**, 1811 (1983).

new fermentation process:

EP 877 089 (Gist-Brocades; EP-prior. 7.5.1997).

WO 9 837 220 (Gist-Brocades; appl. 20.2.1998; EP-prior. 20.2.1997).

WO 9 837 179 (Gist-Brocades; appl. 20.2.1998; EP-prior. 20.2.1997).

WO 9 736 996 (Gist-Brocades; appl. 21.3.1997; EP-prior. 28.3.1996)

fermentation of Coniothyrium fuckelii:

US 5 409 820 (Apotex; USA-prior. 6.8.1993).

Formulation(s): tabl. 10 mg, 20 mg, 40 mg

Trade Name(s):

D: Mevinacor (Merck Sharp & Dohme; 1989) USA: Mevacor (Merck Sharp & Dohme; 1987)

Loxapine

ATC: N05AH01

Use: neuroleptic, anxiolytic

RN: 1977-10-2 MF: C₁₈H₁₈ClN₃O MW: 327.82 EINECS: 217-835-3

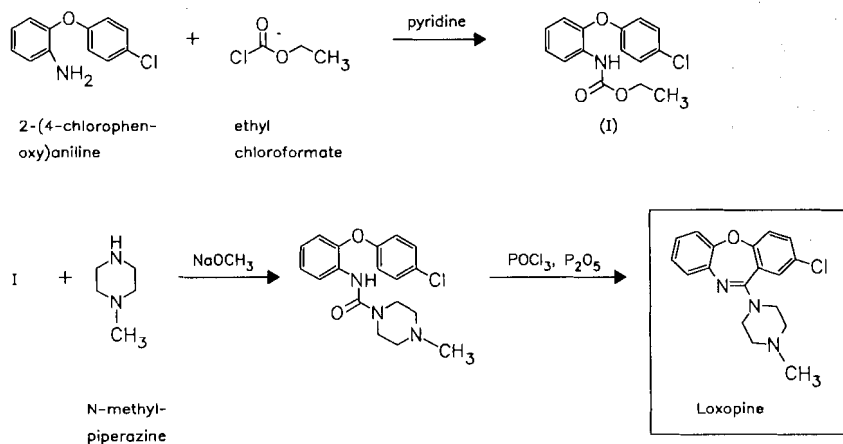
LD₅₀: 22 mg/kg (M, i.v.); 40 mg/kg (M, p.o.);

18 mg/kg (R, i.v.); 151 mg/kg (R, p.o.)

CN: 2-chloro-11-(4-methyl-1-piperazinyl)dibenz[*b,f*][1,4]oxazepine

succinate (1:1)

RN: 27833-64-3 MF: C₁₈H₁₈ClN₃O · C₄H₆O₄ MW: 445.90 EINECS: 248-682-0



Reference(s):

US 3 412 193 (American Cyanamid; 19.11.1968; appl. 13.12.1965).

Schmutz, J. et al.: Helv. Chim. Acta (HCACAV) **50**, 245 (1967).

alternative syntheses:

US 3 546 226 (Dr. A. Wander; 8.12.1970, CH-prior. 30.5.1963, 27.9.1963, 13.3.1967, 22.3.1967, 9.5.1967, 14.7.1967, 3.11.1967).

DE 1 470 426 (Dr. A. Wander; appl. 25.5.1964; CH-prior. 30.5.1963, 27.9.1963).

Formulation(s): cps. 5 mg, 10 mg, 25 mg, 50 mg

Trade Name(s):

F: Loxapac (Wyeth-Lederle;
1980)

GB: Loxapac (Wyeth)
I: Loxapac (Cyanamid); wfm

USA: Loxitane (Lederle; 1975)
generic

Loxoprofen

ATC: M01

Use: anti-inflammatory, analgesic

RN: 68767-14-6 MF: C₁₅H₁₈O₃ MW: 246.31

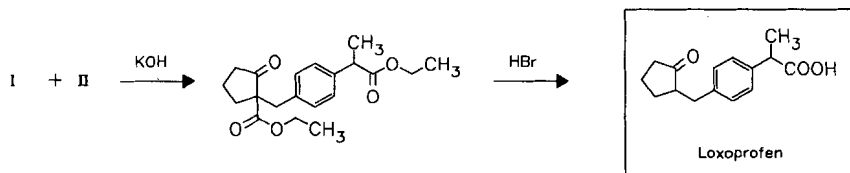
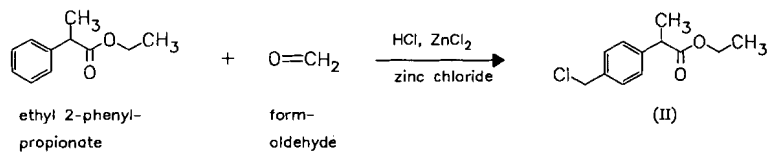
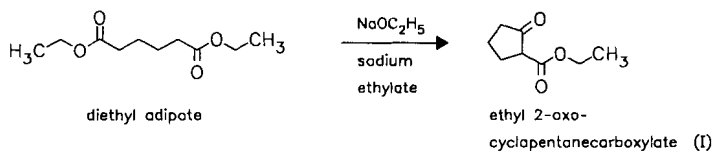
CN: α -methyl-4-[(2-oxocyclopentyl)methyl]benzeneacetic acid

sodium salt

RN: 80382-23-6 MF: C₁₅H₁₇NaO₃ MW: 268.29

LD₅₀: 740 mg/kg (M, i.v.); 3030 mg/kg (M, p.o.);

155 mg/kg (R, i.v.); 145 mg/kg (R, p.o.)

*Reference(s):*

US 4 161 538 (Sankyo; 17.7.1979; J-prior. 5.4.1977).

DOS 2 814 556 (Sankyo; appl. 4.4.1978; J-prior. 5.4.1977).

synthesis of I:

Zupancic, B.G.; Trpin, J.: Monatsh. Chem. (MOCMB7) **98**, 369 (1967).

synthesis of II:

FR 2 134 197 (Lab. Logeais; appl. 26.4.1971).

Formulation(s): oral: 3x60 mg/d

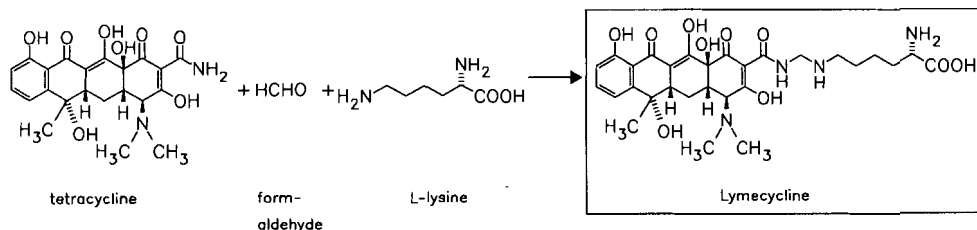
Trade Name(s):

J: Loxonin (Sankyo; 1986)

Lymecycline

ATC: J01AA04

Use: antibiotic

RN: 992-21-2 MF: C₂₉H₃₈N₄O₁₀ MW: 602.64 EINECS: 213-592-2LD₅₀: 181 mg/kg (M, i.v.)CN: [4S-(4α,4α,5α,6β,12α)]-N⁶-[[[4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,6,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-2-naphthacetyl]carbonyl]amino]methyl]-L-lysine**Reference(s):**

DE 1 134 071 (Carlo Erba; appl. 7.11.1960; I-prior. 23.11.1959).

US 3 042 716 (Pfizer; 3.7.1962; appl. 4.12.1961).

Formulation(s): cps. 150 mg, 300 mg (calculated as tetracycline)**Trade Name(s):**

F: Tetralysal (Galderma)

GB: Tetralysal (Galderma)

I: Ciclisin (Fabo); wfm

Lisinbiotic

(Farmacosmici); wfm

Lisinciclina (Biotrading);

wfm

Stiltetra (Ellea); wfm

Tetralysal (Erba); wfm

Tralisin (Firma); wfm

J: Tetralysal (Fujisawa)

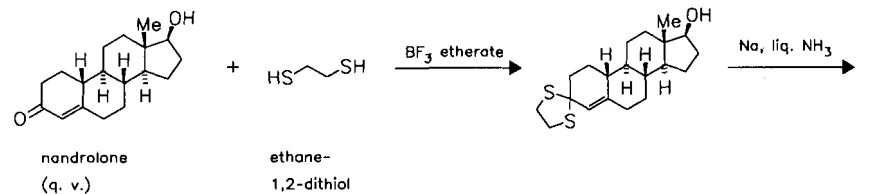
Lynestrenol

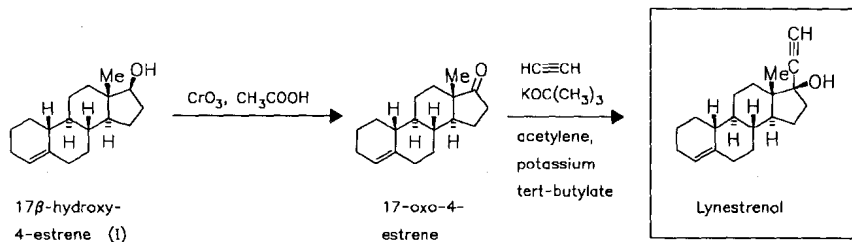
ATC: G03AC02; G03DC03

Use: progestogen (in comb. with estrogen as oral contraceptive)

RN: 52-76-6 MF: C₂₀H₂₈O MW: 284.44 EINECS: 200-151-4

CN: (17α)-19-norpregn-4-en-20-yn-17-ol



*Reference(s):*

GB 841 411 (Organon; appl. 2.4.1958; NL-prior. 10.4.1957).

alternative syntheses:

GB 875 549 (Organon; appl. 31.12.1959; NL-prior. 13.1.1959).

US 2 878 267 (Organon; appl. 16.4.1958; NL-prior. 1.5.1957).

Formulation(s): tabl. 0.5 mg, 1 mg, 5 mg (in combinations)

Trade Name(s):

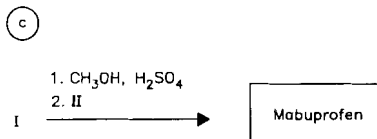
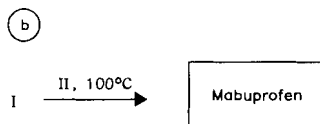
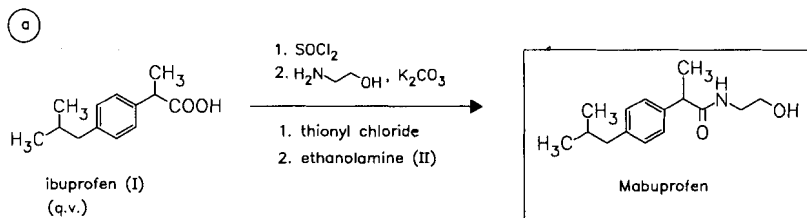
D:	Exlutona (Organon)	Physiostat (Organon)-comb.	Linseral (Proter)-comb.; wfm
	Orgametril (Organon)		
	numerous generics and combination preparations	GB: Minilyn (Organon)-comb.; wfm	Lyndiol (Ravasini Organon)-comb.; wfm
F:	Exluton (Organon)	I: Franovul (Francia Farm.)-comb.; wfm	J: o-Lyndiol (Organon-Sankyo)-comb.
	Orgametril (Organon)		
	Ovanon (Organon)-comb.		

Mabuprofen

(Aminoprofen; AU-7801)

ATC: M01AE; M02A

Use: topical anti-inflammatory

RN: 82821-47-4 MF: C₁₅H₂₃NO₂ MW: 249.35 EINECS: 280-048-9LD₅₀: 2828 mg/kg (M, s.c.)CN: *N*-(2-hydroxyethyl)- α -methyl-4-(2-methylpropyl)benzeneacetamide*Reference(s):*

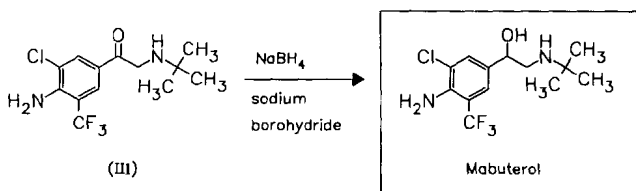
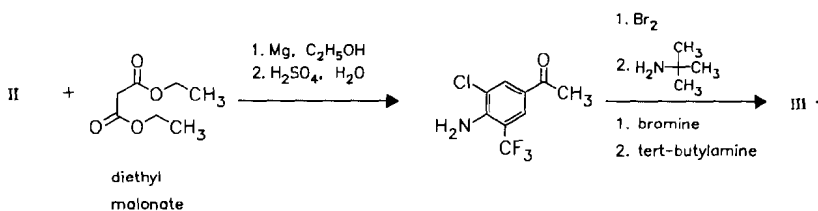
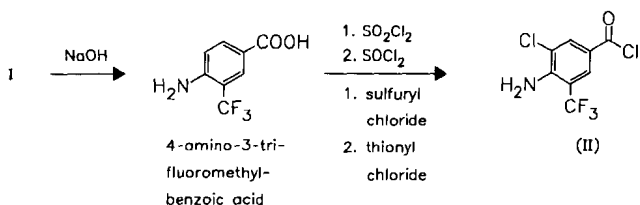
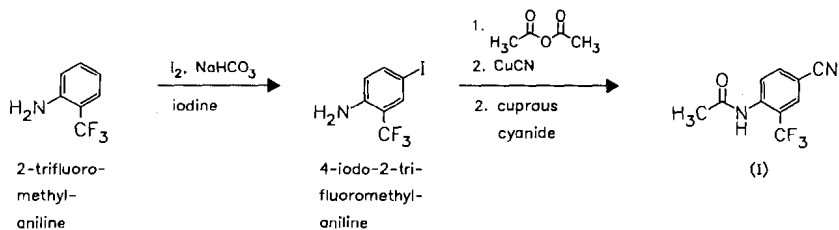
- a DE 3 121 595 (Calzada; appl. 30.5.1981; E-prior. 10.3.1981).
Zhang, D.; Ji, H., Yang, S.: *Zhongguo Yiyao Gongye Zazhi (ZYGZEA)* **25** (12), 535 (1994).
- b ES 2 028 601 (Prodesfarma S. A.; appl. 4.2.1991; E-prior. 4.2.1990).
ES 2 007 236 (Laboratoio Aldo-Union S. A.; appl. 16.6.1988).
- c ES 2 023 585 (Prodesfarma S. A.; appl. 17.10.1990).

Formulation(s): pump spray 10 %*Trade Name(s):*E: Aldospray Analgesico
(Aldo Union; 1989)Formix (Lab. Padro; 1990)
Sedaspray (Lusi; 1989)**Mabuterol**

ATC: R03

Use: bronchodilator

RN: 56341-08-3 MF: C₁₃H₁₈ClF₃N₂O MW: 310.75CN: 4-amino-3-chloro- α -[[1,1-dimethylethyl)amino]methyl]-5-(trifluoromethyl)benzenemethanol

**Reference(s):**

Keck, J. et al.: *Arzneim.-Forsch. (ARZNAD)* **34** (II), 1612 (1984).

Formulation(s): tabl. 0.05 mg

Trade Name(s):

J: Broncholin (Kaken)

Mafenide

ATC: D06BA03; G01AE01

Use: chemotherapeutic

RN: 138-39-6 MF: C₇H₁₀N₂O₂S MW: 186.24 EINECS: 205-326-9

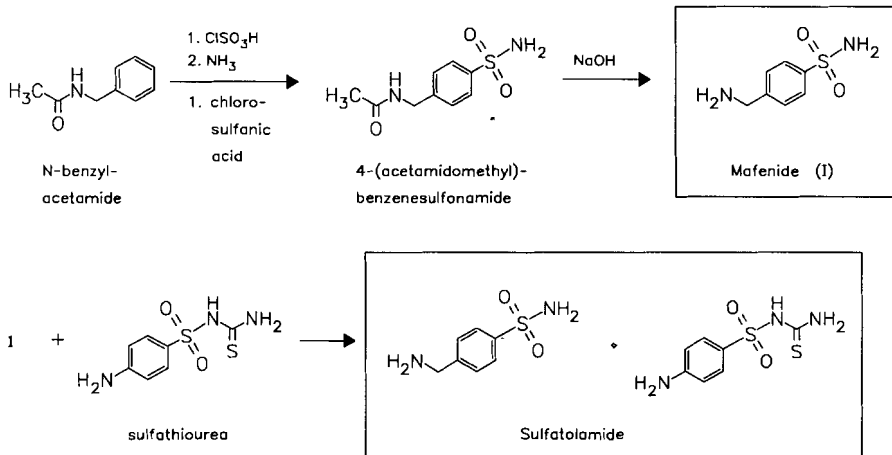
CN: 4-(aminomethyl)benzenesulfonamide

acetate

RN: 13009-99-9 MF: C₇H₁₀N₂O₂S · C₂H₄O₂ MW: 246.29

hydrochloride

RN: 138-37-4 MF: C₇H₁₀N₂O₂S · HCl MW: 222.70

SulfatolamideRN: 1161-88-2 MF: C₇H₁₀N₂O₂S · C₇H₉N₃O₂S₂ MW: 417.54 EINECS: 214-600-7CN: 4-amino-*N*-(aminothioxomethyl)benzenesulfonamide compd. with 4-(aminomethyl)benzenesulfonamide (1:1)**Reference(s):****mafenide:**

DRP 726 386 (I. G. Farben; appl. 1939).

US 2 288 531 (Winthrop; 1942; D-prior. 1939).

sulfathiourea:

FR 913 920 (Rhône-Poulenc; appl. 1942).

sulfatolamide:

US 2 696 454 (Schenley Ind.; 1954; CH-prior. 1949).

DE 836 350 (Bayer; appl. 1944).

Formulation(s): cream 8.5 %, 11.2 g/100 g (as acetate); eye drops 2.5 mg/g, 5 % (as propionate)**Trade Name(s):**

D: Combiamid (Winzer; as hydrochloride)
Marbaletten (Bayer; as sulfatolamide); wfm
Napaltan (Winthrop; as mafenide); wfm

F: Anafiuose (Guillaumin et Hales; as mafenide)-comb.; wfm
GB: Sulfamylon (Winthrop; as mafenide); wfm
Sulfomyl (Winthrop); wfm

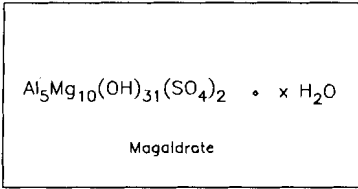
J: Paramenyl (Takeda)
USA: Sulfamylon (Dow Hickam; as acetate)

Magaldrate

ATC: A02AD02

Use: antacid

RN: 74978-16-8 MF: Al₃H₃₁Mg₁₀O₃₉S₂ · xH₂O MW: unspecifiedCN: aluminum magnesium hydroxide sulfate (Al₃Mg₁₀(OH)₃₁(SO₄)₂) hydrate



AlCl_3 is treated with NaOH (mole ratio 1:6) to yield an aqueous sodium aluminate solution, 1.2 mole MgSO_4 (in aqueous solution) are added, the precipitate is washed and dried.

Reference(s):

US 2 923 660 (Byk Gulden; 2.2.1960; D-prior. 5.8.1955).

Formulation(s): chewing tabl. 400 mg, 800 mg; gel 80 mg, 800 mg; susp. 540 mg, 800 mg; tabl. 400 mg, 480 mg

Trade Name(s):

D: Riopan (Byk Gulden; Roland)	I: Riopan (Byk Gulden)	generics; wfm
	USA: Riopan (Ayerst); wfm	

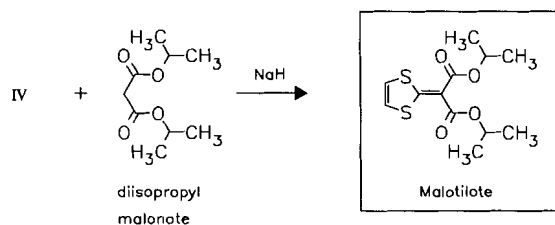
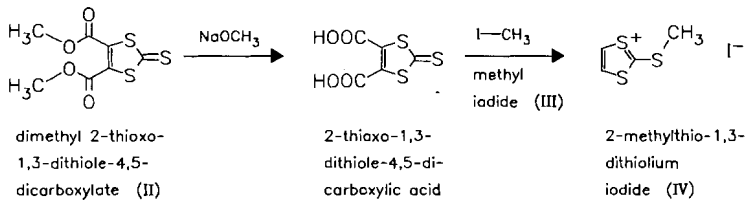
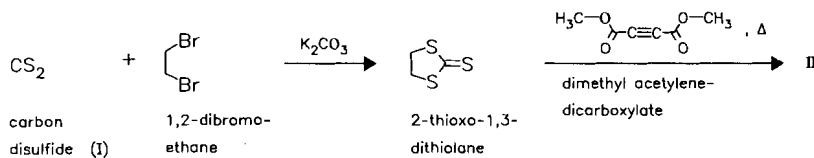
Malotilate

Use: liver therapeutic, hepatoprotectant

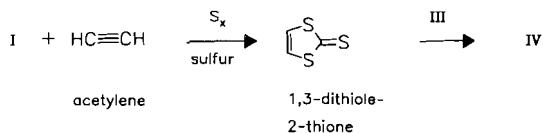
RN: 59937-28-9 MF: $\text{C}_{12}\text{H}_{16}\text{O}_4\text{S}_2$ MW: 288.39 EINECS: 261-987-3

LD_{50} : 729 mg/kg (M, i.v.); 3120 mg/kg (M, p.o.); 2065 mg/kg (R, p.o.)

CN: 1,3-dithiol-2-ylidenepropanedioic acid bis(1-methylethyl) ester



alternative synthesis of 2-methylthio-1,3-dithiolium iodide (IV):



Reference(s):

DOS 2 545 569 (Nihon Nohyaku; appl. 10.10.1975; J-prior. 18.10.1974, 22.10.1974).

US 4 035 387 (Nihon Nohyaku; 12.7.1977; J-prior. 18.10.1974, 22.10.1974).

medical use against liver diseases:

DOS 2 625 012 (Nihon Nohyaku; appl. 3.6.1976; USA-prior. 6.6.1975).

FR 2 313 037 (Nihon Nohyaku; appl. 4.6.1976; USA-prior. 6.6.1975).

2-thioxo-1,3-dithiolane:

Fujinami, T. et al.: Bull. Chem. Soc. Jpn. (BCSJA8) **55**, 1174 (1982).

dimethyl 2-thioxo-1,3-dithiole-4,5-dicarboxylate:

Gorgues, A. et al.: J. Chem. Soc., Chem. Commun. (JCCCAT) **1983**, 405.

O'Connor, B.R.; Jones, F.N.: J. Org. Chem. (JOCEAH) **35**, 2002 (1970).

alternative synthesis of 2-thioxo-1,3-dithiolane:

Mayer, R. et al.: Angew. Chem. (ANCEAD) **76**, 143 (1964).

Formulation(s): tabl. 200 mg

Trade Name(s):

J: Kantec (Daiichi/Nihon Nohyaku)

Manidipine

(Franidipine)

ATC: C02DE; C08CA11

Use: calcium antagonist, antihypertensive

RN: 89226-50-6 MF: C₃₅H₃₈N₄O₆ MW: 610.71

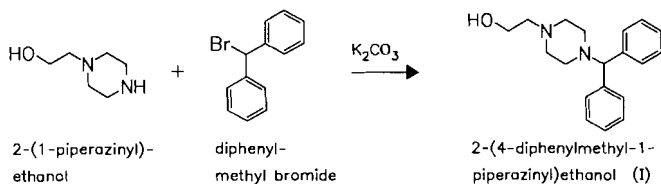
CN: 1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-3,5-pyridinedicarboxylic acid 2-[4-(diphenylmethyl)-1-piperazinyl]ethyl methyl ester

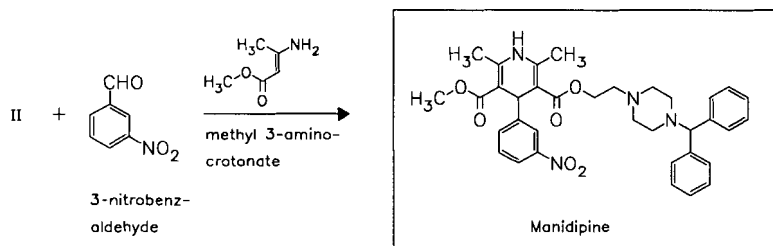
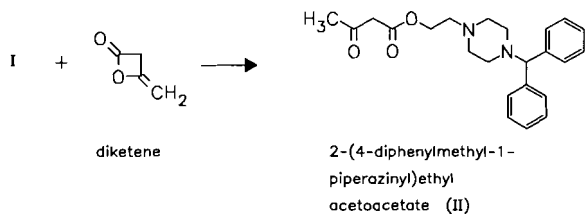
dihydrochloride

RN: 89226-75-5 MF: C₃₅H₃₈N₄O₆ · 2HCl MW: 683.63

LD₅₀: 62.2 mg/kg (Mm, i.v.); 68 mg/kg (Mf, i.v.); 190 mg/kg (Mm, p.o.); 171 mg/kg (Mf, p.o.); 387 mg/kg (Mm, s.c.); 340 mg/kg (Mf, s.c.);

66.5 mg/kg (Rm, i.v.); 48.8 mg/kg (Rf, i.v.); 247 mg/kg (Rm, p.o.); 156 mg/kg (Rf, p.o.); 222 mg/kg (Rm, s.c.); 199 mg/kg (Rf, s.c.)



**Reference(s):**

EP 94 159 (Takeda; appl. 15.4.1983; J-prior. 10.5.1982).

medical use as anti-arteriosclerotic:

JP 1 022 017 (Takeda; appl. 9.7.1984).

Formulation(s): tabl. 5 mg, 10 mg, 20 mg (as dihydrochloride)

Trade Name(s):

J: Calslot (Takeda; 1991)

Maprotiline

ATC: N06AA21

Use: antidepressant

RN: 10262-69-8 MF: C₂₀H₂₃N MW: 277.41 EINECS: 233-599-4

LD₅₀: 31 mg/kg (M, i.v.); 660 mg/kg (M, p.o.);

38 mg/kg (R, i.v.); 760 mg/kg (R, p.o.)

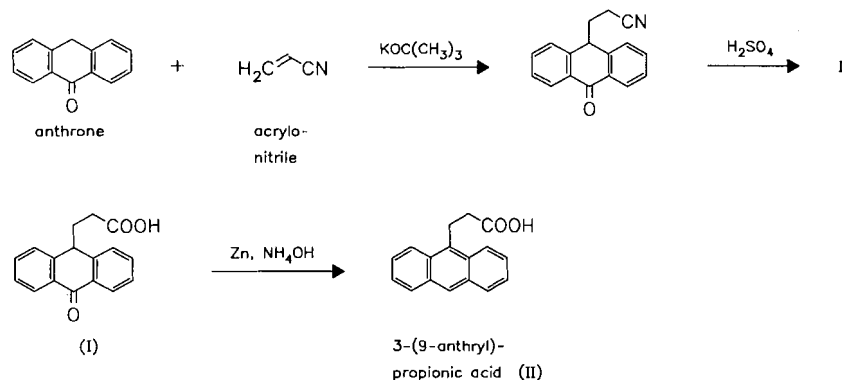
CN: *N*-methyl-9,10-ethanoanthracene-9(10*H*)-propanamine

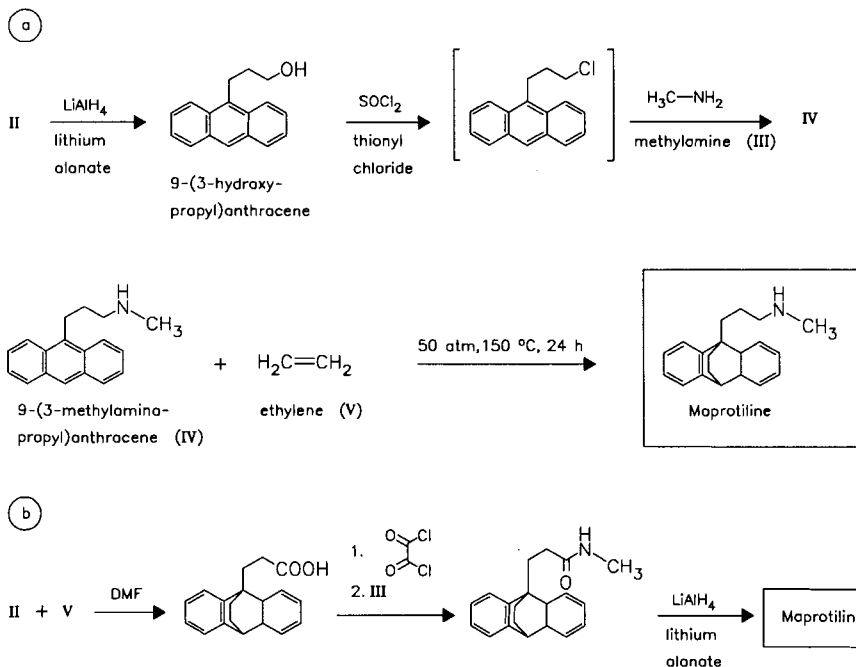
hydrochloride

RN: 10347-81-6 MF: C₂₀H₂₃N · HCl MW: 313.87 EINECS: 233-758-8

LD₅₀: 31 mg/kg (M, i.v.); 480 mg/kg (M, p.o.);

35 mg/kg (R, i.v.); 760 mg/kg (R, p.o.)



**Reference(s):**

DE 1 518 691 (Ciba; appl. 16.12.1965; CH-prior. 23.12.1964).
 CH 467 237 (Ciba; appl. 23.12.1964).
 CH 467 747 (Ciba; appl. 23.12.1964).

Formulation(s): amp. 25 mg (as hydrochloride); f. c. tabl. 10 mg, 25 mg, 50 mg, 75 mg

Trade Name(s):

D:	Deprelept (Promonta Lundbeck)	F:	Psymion (Desitin)	J:	Ludiomil (Novartis; as hydrochloride)
	Ludiomil (Novartis; as hydrochloride)		Ludiomil (Novartis; as hydrochloride)	USA:	Ludiomil (Novartis; as hydrochloride); wfm generics
	Mapro-Gry (GRY)Maprolu (Neuro Hexal)	GB:	Ludiomil (Novartis; as hydrochloride)		
	Mirpan (Dolorgret)	I:	Ludiomil (Novartis; as hydrochloride)		

Maruyama

(Z-100)

ATC: L03A

Use: immunostimulant adjuvant in
radiation-induced leucopenia

RN: 64060-36-2 MF: unspecified MW: unspecified
 CN: Z 100 (polyester)

Extraction of *Mycobacterium tuberculosis* Aoyama B. with hot water.

Reference(s):

JP 8 094 247 (C. Maruyama; appl. 7.10.1980).
 DE 3 048 699 (C. Maruyama; appl. 23.12.1980).
 GB 2 088 399 (C. Maruyama; appl. 28.11.1980).
 DE 3 407 823 (Zeria; appl. 2.3.1984; J-prior. 4.3.1983).
 US 4 746 511 (Zeria; 24.5.1988; appl. 28.7.1986; prior. 2.3.1984; J-prior. 4.3.1983).

Formulation(s): amp. 20 µg

Trade Name(s):

J: Ancer 20 (Z-100) (Zeria;
1991)

Mazaticol

ATC: N04AA10

Use: antiparkinsonian, muscle relaxant

RN: 42024-98-6 MF: C₂₁H₂₇NO₃S₂ MW: 405.58

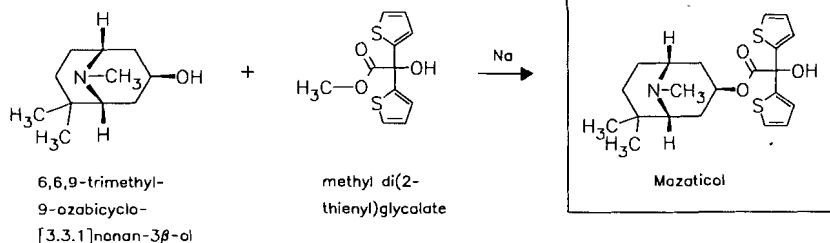
CN: *exo*-α-hydroxy-α-2-thienyl-2-thiopheneacetic acid 6,9,9-trimethyl-9-azabicyclo[3.3.1]non-3-yl ester

hydrochloride

RN: 32891-29-5 MF: C₂₁H₂₇NO₃S₂ · HCl MW: 442.04

LD₅₀: 20.2 mg/kg (M, i.v.); 263 mg/kg (M, p.o.);

12.9 mg/kg (R, i.v.); 1182 mg/kg (R, p.o.)



Reference(s):

DOS 2 026 462 (Tanabe Seiyaku; appl. 29.5.1970; J-prior. 8.10.1969).

US 3 673 195 (Tanabe Seiyaku; 27.6.1972; prior. 25.5.1970).

Yoneda, N. et al.: Chem. Pharm. Bull. (CPBTAL) **20**, 476 (1972).

Formulation(s): tabl. 4 mg (as hydrochloride)

Trade Name(s):

J: Pentona (Tanabe)

Mazindol

ATC: A08AA05

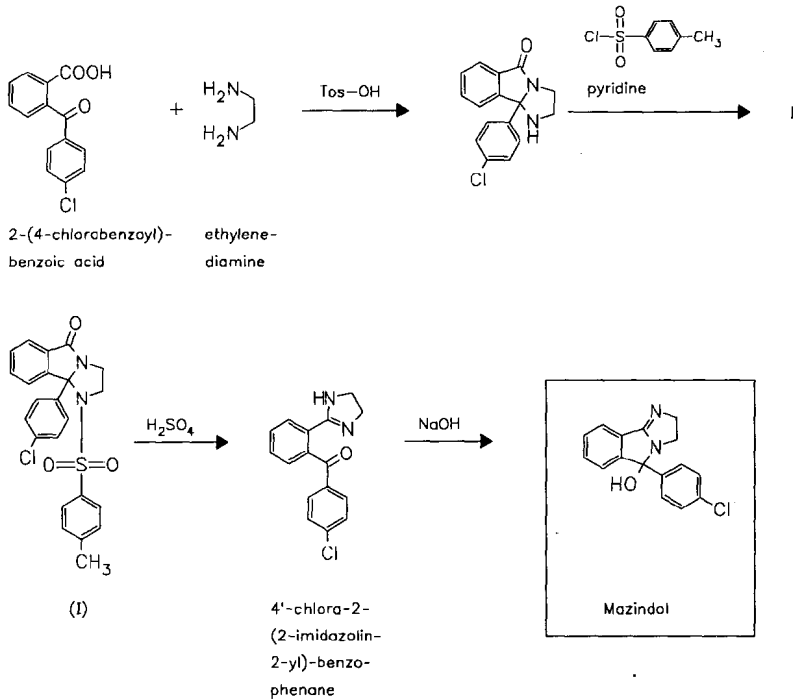
Use: appetite depressant

RN: 22232-71-9 MF: C₁₆H₁₃ClN₂O MW: 284.75 EINECS: 244-857-0

LD₅₀: 44.8 mg/kg (M, p.o.);

36.3 mg/kg (R, p.o.)

CN: 5-(4-chlorophenyl)-2,5-dihydro-3H-imidazo[2,1-a]isoindol-5-ol

**Reference(s):**

DOS I 770 030 (Sandoz; appl. 22.3.1968; USA-prior. 23.3.1967).

US 3 597 445 (Sandoz-Wander; 3.8.1971; appl. 19.6.1968).

US 3 763 178 (American Home Products; 2.10.1973; appl. 5.9.1968; prior. 15.9.1965, 2.9.1966, 14.3.1967).

alternative syntheses:

DOS I 795 105 (Sandoz; appl. 10.8.1968; USA-prior. 15.8.1967, 3.5.1968).

DOS I 814 540 (Sandoz; appl. 12.12.1968; USA-prior. 18.12.1967, 23.7.1968).

DOS I 930 488 (Sandoz; appl. 16.6.1969; USA-prior. 19.6.1968).

Formulation(s): tabl. 1 mg, 2 mg**Trade Name(s):**

D: Teronac (Wander); wfm

I: Mazildene (Lifepharm);

USA: Sanorex (Sandoz); wfm

GB: Teronac (Wander); wfm

wfm

Mebendazole

ATC: P02CA01

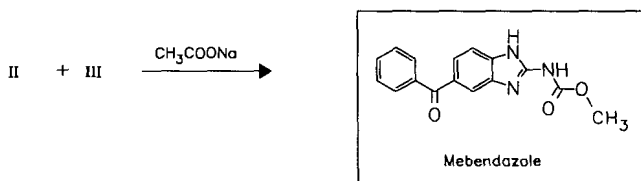
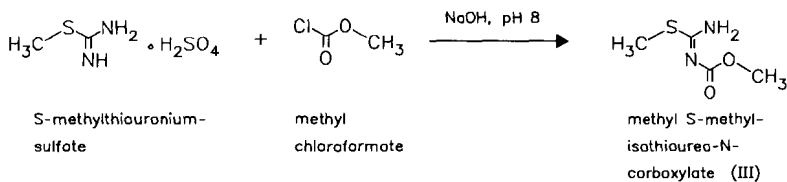
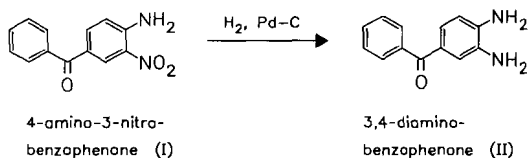
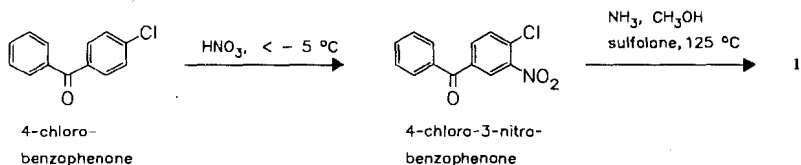
Use: anthelmintic

RN: 31431-39-7 MF: C₁₆H₁₃N₃O₃ MW: 295.30 EINECS: 250-635-4LD₅₀: 620 mg/kg (M, p.o.);

714 mg/kg (R, p.o.);

1280 mg/kg (dog, p.o.)

CN: (5-benzoyl-1H-benzimidazol-2-yl)carbamic acid methyl ester

**Reference(s):**

DE 2 029 637 (Janssen; appl. 16.6.1970; USA-prior. 20.6.1969).

US 3 657 267 (Janssen; 18.4.1972; prior. 20.6.1969).

Formulation(s): chewable tabl. 100 mg; susp. 100 mg/5 ml; tabl. 100 mg, 500 mg**Trade Name(s):**D: Surfent (Ardeypharm)
Vermox (Janssen-Cilag;
1976)GB: Vermox (Janssen-Cilag;
1976)
I: Vermox (Janssen; 1979)J: Mebendazol (Janssen
Kyowa)
USA: Vermox (Janssen; 1975)**Mebeverine**

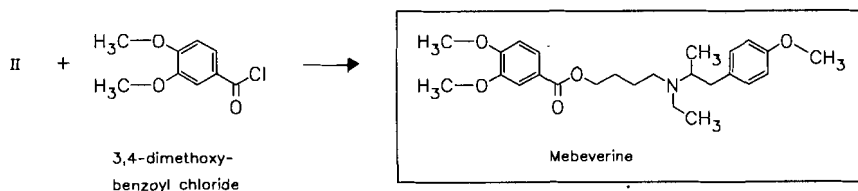
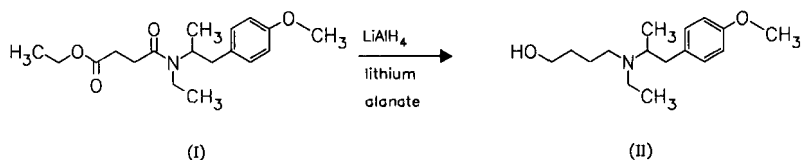
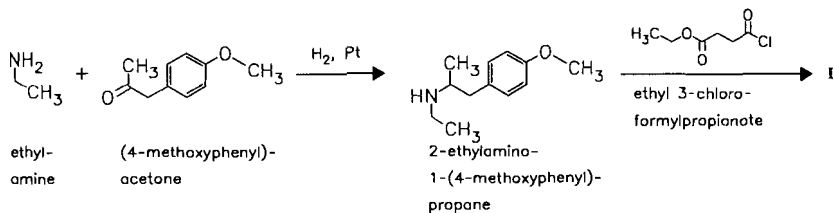
ATC: A03AA04

Use: antispasmodic

RN: 3625-06-7 MF: C₂₅H₃₅NO₅ MW: 429.56 EINECS: 222-830-4LD₅₀: 24 mg/kg (M, i.v.); 995 mg/kg (M, p.o.)

CN: 3,4-dimethoxybenzoic acid 4-[ethyl[2-(4-methoxyphenyl)-1-methylethyl]amino]butyl ester

hydrochlorideRN: 2753-45-9 MF: C₂₅H₃₅NO₅ · HCl MW: 466.02 EINECS: 220-400-0LD₅₀: 17.7 mg/kg (R, i.v.); 1540 mg/kg (R, p.o.)

**Reference(s):**

DE 1 126 889 (N. V. Philips; appl. 20.11.1958; NL-prior. 23.11.1957).

alternative synthesis:

GB 1 009 082 (N. V. Philips; appl. 19.10.1961; NL-prior. 22.10.1960).

Formulation(s): cps. 100 mg; drg. 135 mg; s. r. cps. 200 mg (as hydrochloride); susp. 10 mg

Trade Name(s):

D:	Duspatal (Solvay Arzneimittel; as hydrochloride)-comb.	Duspatalin (Solvay; as hydrochloride)	Fybogel Mebeverine (Reckitt & Colman)-comb.
F:	Colopriv (Biotherapie; as hydrochloride)	Spasmopriv (Irex; as hydrochloride)	I: Duspatal Duphar (UCM)
GB:	Colofac (Solvay)		

Mebhydrolin

ATC: R06AX15

Use: antihistaminic

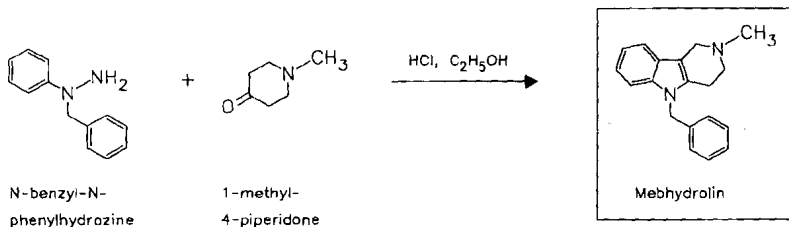
RN: 524-81-2 MF: $\text{C}_{19}\text{H}_{20}\text{N}_2$ MW: 276.38 EINECS: 208-364-4

CN: 2,3,4,5-tetrahydro-2-methyl-5-(phenylmethyl)-1H-pyrido[4,3-b]indole

naphthalene-1,5-disulfonate (2:1)

RN: 6153-33-9 MF: $\text{C}_{19}\text{H}_{20}\text{N}_2 \cdot 1/2\text{C}_{10}\text{H}_8\text{O}_6\text{S}_2$ MW: 841.07 EINECS: 228-170-3

LD₅₀: 40 mg/kg (M, i.v.)

*Reference(s):*

GB 721 171 (Bayer; appl. 1952; D-prior. 1951).

Formulation(s): drg. 50 mg, 76 mg (as napadisilate); s. r. tabl. 150 mg; susp. 50 mg; tabl. 50 mg*Trade Name(s):*

D:	Omcril (Bayer); wfm	GB:	Fabahistin (Bayer); wfm
	Omeril (Tropon-Dome)	I:	Incidal (Bayropharm)
	Hollister Stier); wfm	J:	Incidal (Yoshitomi)

Mebutamate

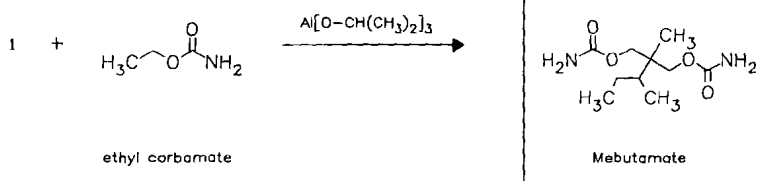
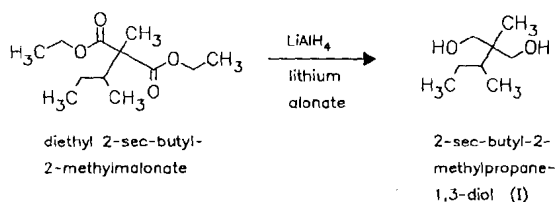
ATC: N05BC04

Use: neurosedative, antihypertensive

RN: 64-55-1 MF: C₁₀H₂₀N₂O₄ MW: 232.28 EINECS: 200-587-5LD₅₀: 550 mg/kg (M, p.o.);

1160 mg/kg (R, p.o.)

CN: 2-methyl-2-(1-methylpropyl)-1,3-propanediol dicarbamate

*Reference(s):*

US 2 878 280 (Carter Products; 17.3.1959; prior. 29.11.1955).

Formulation(s): tabl. 300 mg*Trade Name(s):*

F:	Dévalène (Dexo)-comb.	J:	Mega (Ono)	Dormate (Wallace); wfm
I:	Sigmafon (Lafare)	USA:	Capla (Wallace); wfm	

Mecamylamine

(Dimecamine)

ATC: C02BB01

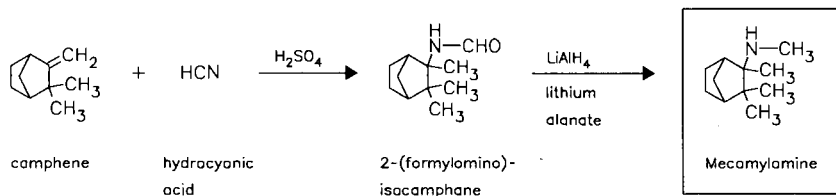
Use: ganglionic blocker, antihypertensive

RN: 60-40-2 MF: C₁₁H₂₁N MW: 167.30 EINECS: 200-476-1LD₅₀: 11.9 mg/kg (M, i.v.); 90 mg/kg (M, p.o.)

CN: N,2,3,3-tetramethylbicyclo[2.2.1]heptan-2-amine

hydrochlorideRN: 826-39-1 MF: C₁₁H₂₁N · HCl MW: 203.76 EINECS: 212-555-8LD₅₀: 14 mg/kg (M, i.v.); 92 mg/kg (M, p.o.);

21 mg/kg (R, i.v.); 208 mg/kg (R, p.o.)

**Reference(s):**

US 2 831 027 (Merck & Co.; 1958, prior. 1955).

Stein, G.A. et al.: J. Am. Chem. Soc. (JACSAT) **78**, 1514 (1956).**Formulation(s):** tabl. 2.5 mg (as hydrochloride)**Trade Name(s):**

D: Mevasine (Sharp & Dohme); wfm

GB: Inversine (Merck Sharp & Dohme); wfm

USA: Inversine (Merck Sharp & Dohme)

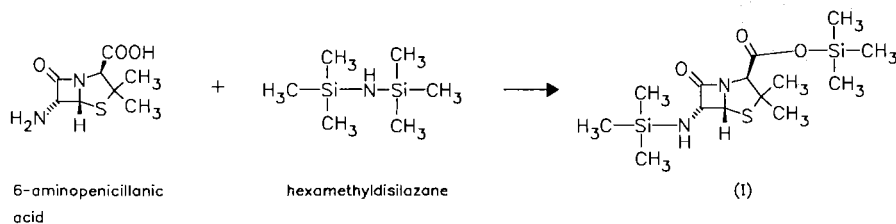
F: Inversine (Merck Sharp & Dohme); wfm

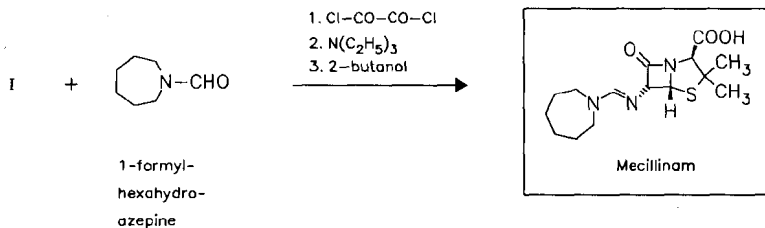
J: Mevasine (Meiji)

Mecillinam

ATC: J01CA11

Use: antibiotic

RN: 32887-01-7 MF: C₁₅H₂₃N₃O₃S MW: 325.43 EINECS: 251-277-1CN: [2S-(2 α ,5 α ,6 β)]-6-[[[hexahydro-1H-azepin-1-yl)methylene]amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

*Reference(s):*

DOS 2 055 531 (Loevens; appl. 11.11.1970; GB-prior. 11.11.1969, 8.7.1970).
GB 1 293 590 (Loevens; appl. 11.11.1969, 8.7.1970; valid from 10.11.1970).

Formulation(s): amp. 0.2 g, 0.4 g, 0.5 g, 1 g

Trade Name(s):

GB: Selexidin (Burgess); wfm

Selexidin (Leo); wfm

USA: Coactin (Roche); wfm

Meclofenamic acid

ATC: M01AG04; M02AA18

Use: anti-inflammatory, antirheumatic, antipyretic

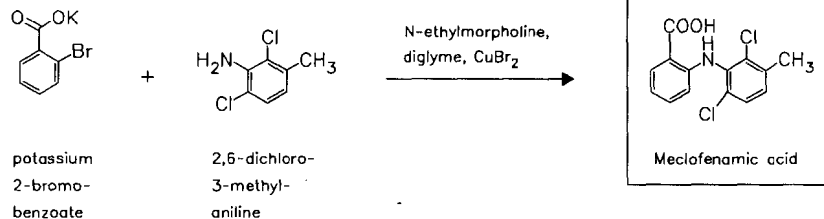
RN: 644-62-2 MF: C₁₄H₁₁Cl₂NO₂ MW: 296.15 EINECS: 211-419-5

LD₅₀: 100 mg/kg (R, p.o.)

CN: 2-[(2,6-dichloro-3-methylphenyl)amino]benzoic acid

monosodium salt

RN: 6385-02-0 MF: C₁₄H₁₀Cl₂NNaO₂ MW: 318.14 EINECS: 228-983-3

*Reference(s):*

DE 1 149 015 (Parke Davis; appl. 22.6.1961; USA-prior. 12.1.1961).

US 3 313 848 (Parke Davis; 11.4.1967; prior. 12.1.1961, 18.9.1962, 18.6.1964).

Formulation(s): cps. 50 mg, 100 mg; suppos. 200 mg (as sodium salt)

Trade Name(s):

I: Movens (Inverni della Beffa); wfm

Meclomen (Warner-Lambert); wfm

generic

USA: Meclomen (Parke Davis); wfm

Meclomen (Parke Davis; as sodium salt); wfm

Meclofenoxate

(Centrophenoquine)

ATC: N06BX01

Use: neuroenergetic

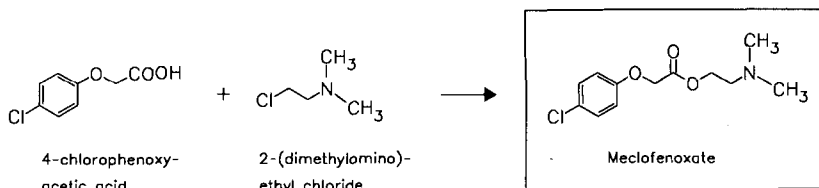
RN: 51-68-3 MF: C₁₂H₁₆ClNO₃ MW: 257.72 EINECS: 200-116-3LD₅₀: 1750 mg/kg (M, p.o.);

2600 mg/kg (R, p.o.)

CN: (4-chlorophenoxy)acetic acid 2-(dimethylamino)ethyl ester

hydrochlorideRN: 3685-84-5 MF: C₁₂H₁₆ClNO₃ · HCl MW: 294.18 EINECS: 222-473-4LD₅₀: 330 mg/kg (M, i.v.); 1750 mg/kg (M, p.o.);

865 mg/kg (R, p.o.)

**Reference(s):**Thuillier, G.; Rumpf, P.; Thuillier, J.: C. R. Hebd. Seances Acad. Sci. (COREAF) **249**, 2081 (1959).

FR 398 M (Centre Nat'l. Recherche Sci., appl. 15.4.1959).

Formulation(s): amp. 250 mg, 500 mg, 2 g (as hydrochloride); drg. 200 mg, 500 mg; f. c. tabl. 100 mg, 250 mg**Trade Name(s):**

D:	CERUTIL (Isis Pharma)	F:	Lucidril (Lipha Santé; as hydrochloride)	J:	Lucidril (Dainippon)
	Helfergin (Promonta)				Meclon (Toho)
	Lundbeck; Isis Pharma; as hydrochloride)	GB:	Lucidril (Reckitt & Colman); wfm		Macroeat (Hishiyama)
		I:	Lucidril (Bracco); wfm		Proseryl (Funai)

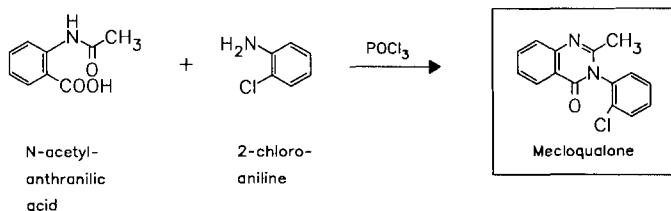
Mecloqualone

ATC: N05C

Use: hypnotic, sedative

RN: 340-57-8 MF: C₁₅H₁₁ClN₂O MW: 270.72 EINECS: 206-432-8LD₅₀: 470 mg/kg (M, p.o.)

CN: 3-(2-chlorophenyl)-2-methyl-4(3H)-quinazolinone

**Reference(s):**Jackman, G.B. et al.: J. Pharm. Pharmacol. (JPPMAB) **12**, 528 (1960).Klosa, J.: J. Prakt. Chem. (JPCEAO) **14** [4], 84 (1961).

Trade Name(s):

F: Nubarène (Diamant); wfm

Meclozine

(Histamethizine; Meclizine)

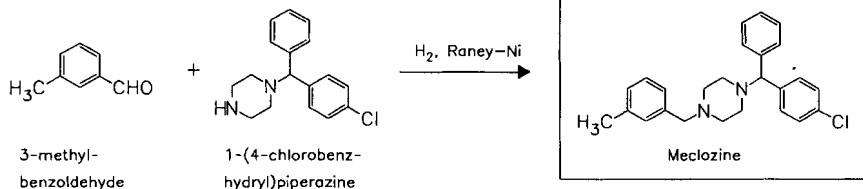
ATC: R06AE05

Use: antihistaminic

RN: 569-65-3 MF: C₂₅H₂₇ClN₂ MW: 390.96 EINECS: 209-323-3LD₅₀: 1650 mg/kg (M, p.o.);

1750 mg/kg (R, p.o.)

CN: 1-[4-(4-chlorophenyl)phenylmethyl]-4-[(3-methylphenyl)methyl]piperazine

dihydrochlorideRN: 1104-22-9 MF: C₂₅H₂₇ClN₂ · 2HCl MW: 463.88 EINECS: 214-164-8LD₅₀: 1600 mg/kg (M, p.o.)**dihydrochloride monohydrate**RN: 31884-77-2 MF: C₂₅H₂₇ClN₂ · 2HCl · H₂O MW: 481.90*Reference(s):*

US 2 709 169 (UCB; 1955; B-prior. 1951).

Formulation(s): drg. 12.5 mg; suppos. 50 mg; tabl. 12.5 mg, 25 mg, 50 mg (as dihydrochloride)*Trade Name(s):*

D: Bonamine (Pfizer; as hydrochloride)

Diligen (Rodleben; Vedim; as hydrochloride)-comb.

Peremesin (Bristol-Myers Squibb; as hydrochloride)

Postadoxin (Rodleben; as hydrochloride)-comb.

Postafen (UCB; as hydrochloride)

F: Agyrax (Medim; as hydrochloride)

GB: Ancolan (Duncan, Flockhart); wfm

Ancoloxin (Duncan, Flockhart)-comb.; wfm

I: Neo-Istafene (UCB-Smith); wfm

J: Bonamine (Taito Pfizer) Taizer (Taito Pfizer)

USA: Antivert (Pfizer; as hydrochloride)

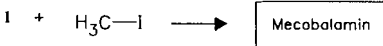
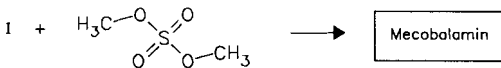
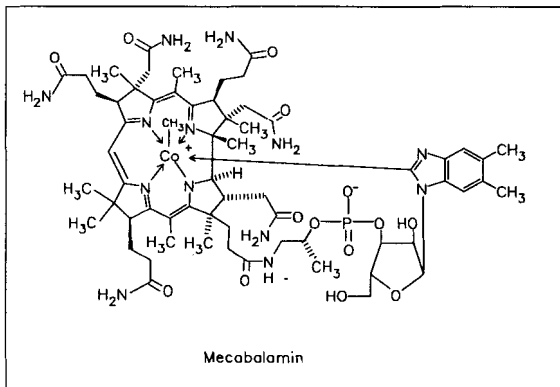
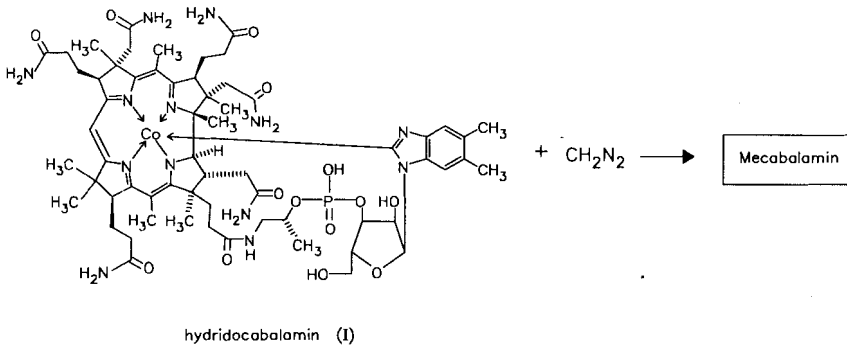
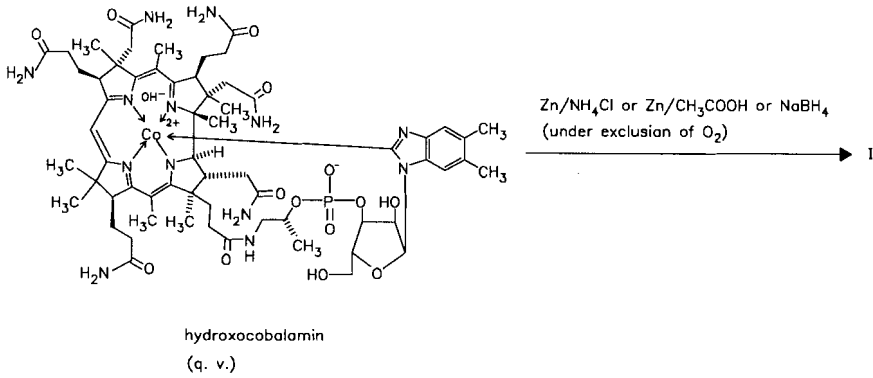
Bonine (Pfizer; as hydrochloride)

Mecobalamin

(Methylcobalamin)

ATC: V03AB

Use: vitamin B₁₂-preparationsRN: 13422-55-4 MF: C₆₃H₉₁CoN₁₃O₁₄P MW: 1344.41 EINECS: 236-535-3CN: cobinamide Co-methyl deriv. hydroxide dihydrogen phosphate (ester) inner salt 3'-ester with 5,6-dimethyl-1- α -D-ribofuranosyl-1H-benzimidazole



Reference(s):

- Müller, O.; Müller, G.: *Biochem. Z. (BIZEA2)* **336**, 299 (1962).
 Dolphin, D.H.; Johnson, A.W.: *Proc. Chem. Soc., London (PCSLAW)* **1963**, 311.
 Dolphin, D.H.; Johnson, A.W.: *J. Chem. Soc. (JCSOA9)* **1965**, 2174.
 Boos, R.N. et al.: *Science (Washington, D.C.) (SCIEAS)* **117**, 603 (1953).
 Smith, E.L. et al.: *Nature (London) (NATUAS)* **194**, 1175 (1962).

review:

Bernhauer, K. et al.: *Angew. Chem. (ANCEAD)* **75**, 1145 (1963).*Formulation(s)*: tabl. 500 µg; vial 10 µg, 500 µg*Trade Name(s)*:

F:	Algobaz (Labaz)	J:	Calomide-Me	Hitocobamin-M
	Lyométhyl (Bouchara)		(Yamanouchi)	(Hishiyama)
	Méthylcobaz (Labaz)		Cobamain (Kyowa)	Vancomin (Dainippon)
			Cobametin (Sankyo)	

Mecysteine hydrochloride

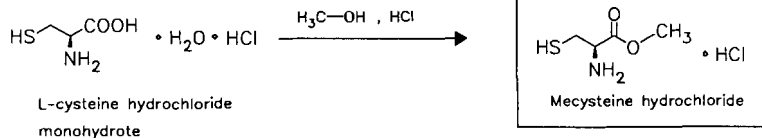
Use: mucolytic agent

RN: 18598-63-5 MF: C₄H₉NO₂S · HCl MW: 171.65 EINECS: 227-208-6LD₅₀: 2300 mg/kg (M, p.o.)

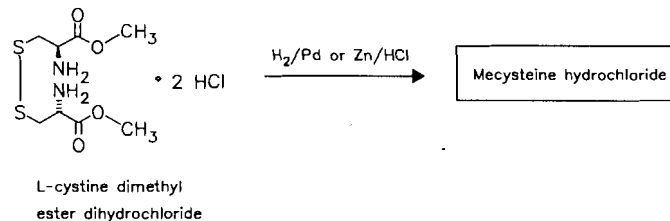
CN: L-cysteine methyl ester hydrochloride

mecysteineRN: 2485-62-3 MF: C₄H₉NO₂S MW: 135.19 EINECS: 219-625-7

(a)



(b)

*Reference(s)*:

- a Bergmann, M.; Michalis, G.: *Ber. Dtsch. Chem. Ges. (BDCGAS)* **63**, 987 (1930).
 b Zervas, L.; Theodoropoulos, D.M.: *J. Am. Chem. Soc. (JACSAT)* **78**, 1359 (1956).

Formulation(s): drg. 100 mg; suppos. 100 mg, 200 mg; tabl. 0.05 g, 0.1 g*Trade Name(s)*:

F:	Acthiol J. (Joullié); wfm	Ectazis (Nichiiko)	Fuszemin S (Taiyo)
GB:	Visclair (Sinclair)	Epecoal (Beppu)	Higlomin (Wakamoto)
I:	Actiol (SIT)	Epectan (Seiko)	Jeorgen (Sanwa)
	Donatiol (AGIPS)-comb.	Equerin (Nissin)	Moltanine (Toho K.-Tokyo)
J:	Aslos-C (Nissin)	Fustant (Kanto)	Tanabe

Pectite (Kissei)
Pelmain (Sawai)

Radcol (Nippon Universal)
Sekinin (Tokyo Hosei)

Thibrin (Kyowa-Hoei)
Zeotin (Toa Eiyo)

Medazepam

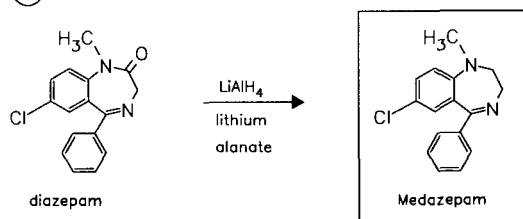
ATC: N05BA03
Use: tranquilizer, anxiolytic

RN: 2898-12-6 MF: C₁₆H₁₅ClN₂ MW: 270.76 EINECS: 220-783-4

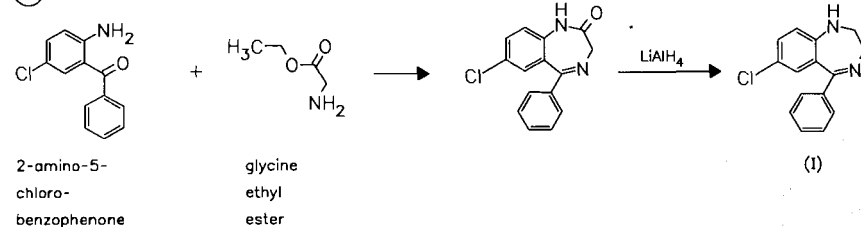
LD₅₀: 475 mg/kg (M, p.o.);
900 mg/kg (R, p.o.)

CN: 7-chloro-2,3-dihydro-1-methyl-5-phenyl-1*H*-1,4-benzodiazepine

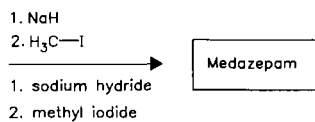
(a)



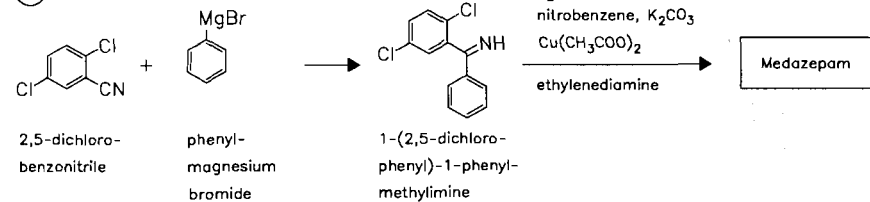
(b)



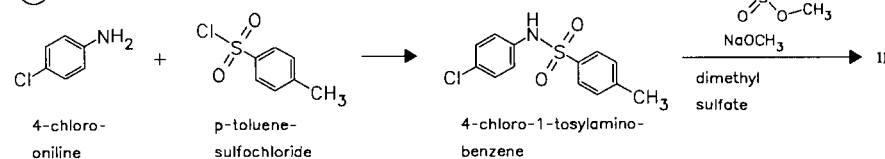
I

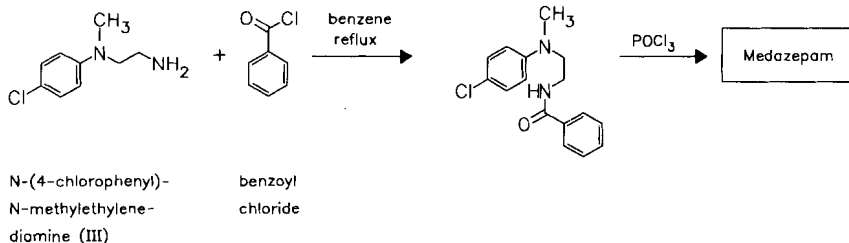
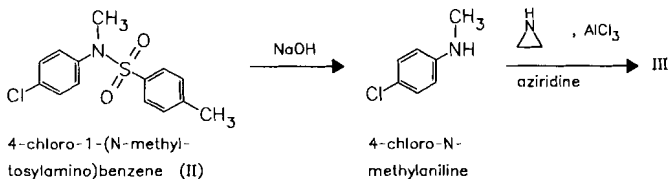


(c)



(d)



*Reference(s):*

- a,b** US 3 109 843 (Roche; 5.11.1963; appl. 21.6.1962; prior. 28.7.1961).
 US 3 131 178 (Roche; 28.4.1964; prior. 28.7.1961, 4.12.1961, 21.6.1962).
 Sternbach, L.H. et al.: J. Org. Chem. (JOCEAH) **28**, 2456 (1963).
c DAS 1 934 385 (Sumitomo; appl. 7.7.1969).
d DAS 1 695 188 (Roche; appl. 23.5.1967; USA-prior. 3.6.1966).
 DAS 1 795 811 (Roche; appl. 23.5.1967).

alternative syntheses:

- US 3 141 890 (Roche; 21.7.1964; prior. 28.7.1961, 4.12.1961, 21.6.1962).
 US 3 144 439 (Roche; 11.8.1964; prior. 28.7.1961, 4.12.1961, 21.6.1962).
 DE 1 445 864 (Roche; appl. 27.7.1962; USA-prior. 28.7.1961).
 DOS 2 204 484 (Sumitomo; appl. 31.1.1972; J-prior. 9.2.1971, 6.4.1971, 28.5.1971).
 DOS 2 217 301 (Sumitomo; appl. 10.4.1972; J-prior. 12.4.1971).

1-demethyl-derivative from 5-chloro-2-(2,3-dioxopiperazino)benzophenone:

- DAS 1 906 254 (Sumitomo; appl. 7.2.1969; J-prior. 2.4.1968).
 DAS 1 965 980 (Sumitomo; appl. 7.2.1969; J-prior. 2.4.1968).

Formulation(s): cps. 5 mg, 10 mg; tabl. 2.5 mg, 5 mg, 10 mg

Trade Name(s):

D:	Medazepam AWD Tabletten (ASTA Medica AWD) Rudotel Tabletten (OPW)	I:	Debrum (Sigma-Tau)- comb. Nobrium (Roche)	Kobazepam (Nihon Iyakuhin) Metonas (Kanto)
F:	Nobrium (Roche); wfm	J:	Azepamid (Taiyo) Cerase (Torii)	Narsis (Sumitomo) Nobrium (Nippon Roche)
GB:	Nobrium (Roche); wfm			Resmit (Shionogi)

Medibazine

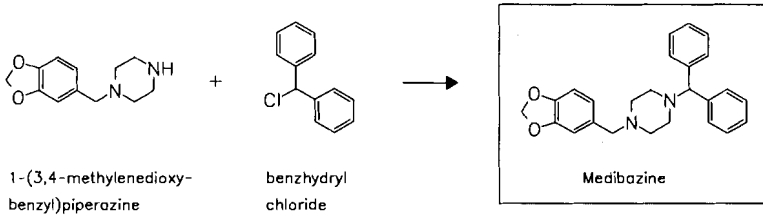
ATC: C01

Use: coronary vasodilator

RN: 53-31-6 MF: C₂₅H₂₆N₂O₂ MW: 386.50 EINECS: 200-168-7

LD₅₀: 41 mg/kg (M, i.v.)

CN: 1-(1,3-benzodioxol-5-ylmethyl)-4-(diphenylmethyl)piperazine

**Reference(s):**

US 3 119 826 (Science Union; 28.1.1964; F-prior. 12.4.1961).

Trade Name(s):

F: Vialبران (Servier); wfm

Medifoxamine

ATC: N06A

Use: antidepressant

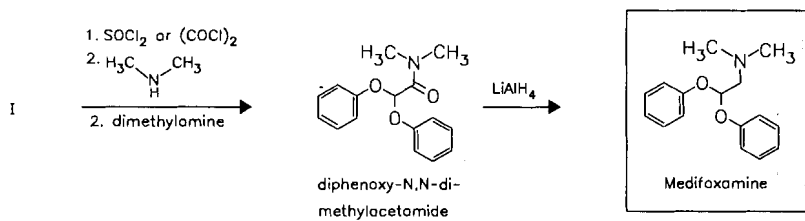
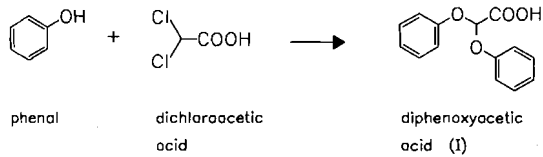
RN: 32359-34-5 MF: $C_{16}H_{19}NO_2$ MW: 257.33 EINECS: 251-011-4

LD₅₀: 750 mg/kg (M, p.o.)

CN: *N,N*-dimethyl-2,2-diphenoxyethanamine

fumarate (1:1)

RN: 16604-45-8 MF: $C_{16}H_{19}NO_2 \cdot C_4H_4O_4$ MW: 373.41 EINECS: 240-657-2

**Reference(s):**

FR 5 498 (Lab. Gerda; appl. 1966).

Brunet, M.A. et al.: Bull. Soc. Chim. Fr. (BSCFAS), 2000 (1967).

additional synthesis:

FR 2 645 147 (Lab. Rolland; appl. 3.4.1989).

FR 2 601 004 (Lab. Rolland; appl. 7.7.1986).

FR 2 588 553 (Lab. Rolland; appl. 16.10.1985).

EP 226 475 (Lab. Rolland; appl. 22.7.1985).

synthesis of diphenoxyacetic acid:

Alphen, J. van: Recl. Trav. Chim. Pays-Bas (RTCPA3) **46**, 144 (1927).

Scheibler, H.; Depner, M.: J. Prakt. Chem. (JPCEAO) **7**, 60 (1958).

DE 561 281 (Chem. Fabrik von Heyden; appl. 1930),

also EP 226 475, FR 2 601 004.

medical use for treatment of cerebral hypoxia and senility:

FR 2 589 357 (Lab. Rolland; appl. 5.11.1985).

FR 2 583 639 (Lab. Rolland; appl. 24.6.1985).

Formulation(s): tabl. 50 mg

Trade Name(s):

F: Clédial (Lipha Santé)

Medrogestone

ATC: G03DB03

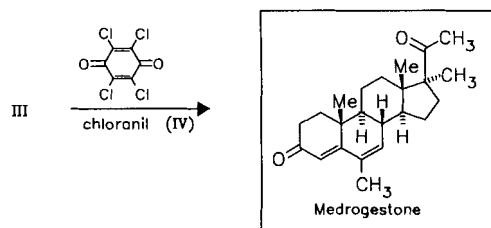
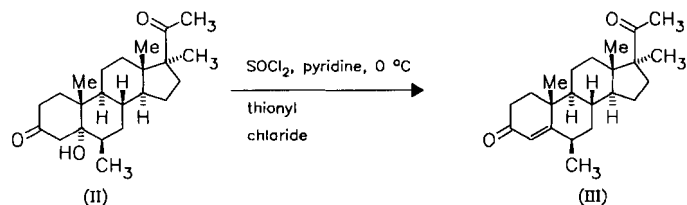
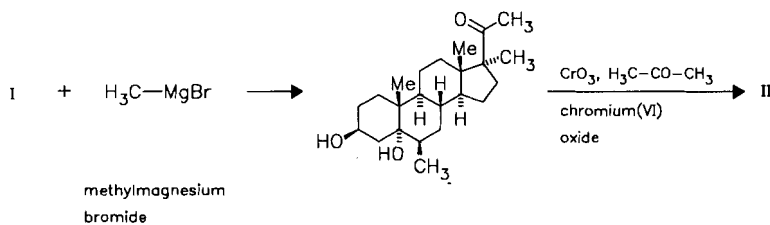
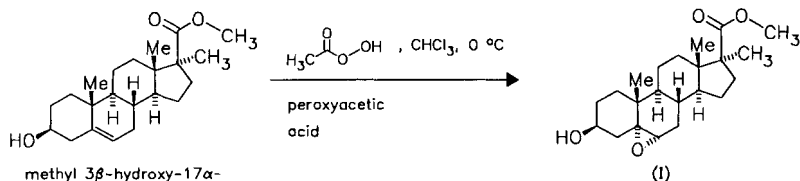
Use: progestogen

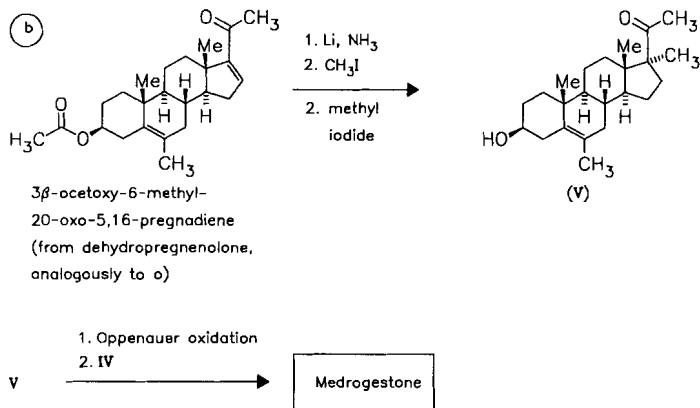
RN: 977-79-7 MF: C₂₃H₃₂O₂ MW: 340.51 EINECS: 213-555-0

LD₅₀: 850 mg/kg (g.p., p.o.)

CN: 6,17-dimethylpregna-4,6-diene-3,20-dione

ⓐ



**Reference(s):**

- a** US 3 133 913 (American Home Products, 19.5.1964; appl. 11.9.1961).
Deghenghi, R.; Gaudry, R.: J. Am. Chem. Soc. (JACSAT) **83**, 4668 (1961).

starting material:

Plattner, P.A. et al.: Helv. Chim. Acta (HCACAV) **31**, 603 (1948).

- b** Deghenghi, R. et al.: J. Med. Chem. (JMCMAR) **6**, 301 (1963).

starting material:

Burn, D. et al.: J. Chem. Soc. (JCSOA9) **1957**, 4092.

alternative syntheses:

US 3 170 936 (American Home Products; 23.2.1965; appl. 7.8.1963).

US 3 210 387 (American Home Products; 5.10.1965; appl. 6.5.1963; CDN-prior. 28.11.1962).

Formulation(s): tabl. 5 mg, 25 mg

Trade Name(s):

D: Presomen (Solvay
Arzneimittel)-comb.

Prothil (Solvay
Arzneimittel)

I: Colprone (Wyeth)

USA: Colprone (Ayerst); wfm

F: Colprone (Wyeth-Lederle)

Medroxyprogesterone acetate

ATC: G02B; G03D

Use: antineoplastic, progestogen

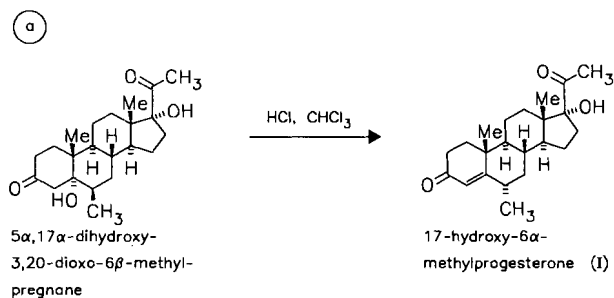
RN: 71-58-9 MF: C₂₄H₃₄O₄ MW: 386.53 EINECS: 200-757-9

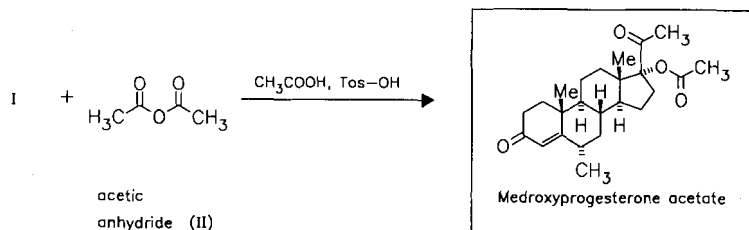
LD₅₀: >16 g/kg (M, p.o.);

>6.4 g/kg (R, p.o.);

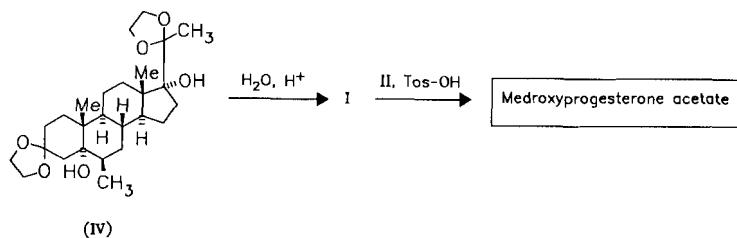
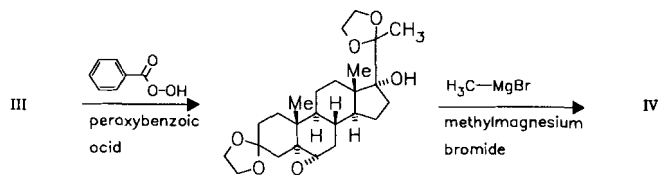
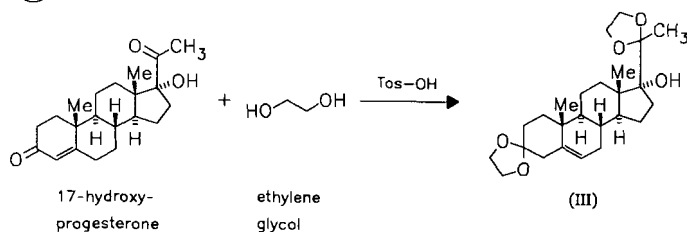
>5 g/kg (dog, p.o.)

CN: (6α)-17-(acetyloxy)-6-methylpregn-4-ene-3,20-dione





(b)

*Reference(s):*

- a** US 3 147 290 (Upjohn; 1.9.1964; appl. 17.5.1961; prior. 23.11.1956).
Ellis, B. et al.: J. Chem. Soc. (JCSOA9) **1957**, 4092.
starting material: cf. literature cited under a
- b** US 3 061 616 (Societa Farmaceutici Italia; 30.10.1962; appl. 17.9.1958; GB-prior. 24.4.1958).
DE 1 097 986 (Syntex; appl. 29.8.1957; MEX-prior. 8.9.1956).
Babcock, J.C. et al.: J. Am. Chem. Soc. (JACSAT) **80**, 2904 (1958).
starting material:
Bernstein, S. et al.: J. Am. Chem. Soc. (JACSAT) **76**, 5674 (1954).
The Merck Index, 4756 (Rahway 1976).

alternative syntheses:

- DE 1 081 456 (British Drug Houses; appl. 21.8.1958; GB-prior. 13.8.1957).
DE 1 101 415 (Searle; appl. 24.9.1958; USA-prior. 27.9.1957).
US 3 043 832 (Ormonoterapia Richter; 10.7.1962; appl. 28.4.1961; I-prior. 27.2.1961).

*review:*Ehrhardt, Ruschig **III**, 352.

Formulation(s): amp. 500 mg, 1 g; susp. 500 mg; susp. 150 mg/ml, 500 mg/ml; tabl. 2.5 mg, 5 mg, 10 mg, 100 mg, 200 mg, 250 mg, 400 mg, 500 mg

Trade Name(s):

D:	Clinofem (Pharmacia & Upjohn)-comb. Clinovir (Pharmacia & Upjohn) Depo-Clinovir (Pharmacia & Upjohn) Farlutal (Pharmacia & Upjohn) MPA (Hexal)-comb.		Divina (Innothéra)-comb. Farlutal (Pharmacia & Upjohn) Gestoral (Novartis) Prodasona (Pharmacia & Upjohn) Depo-Provera (Pharmacia & Upjohn) Farlutal (Pharmacia & Upjohn) Provera (Pharmacia & Upjohn) combination preparations		Farlutal (Farmitalia) Lutoral (Midy) Provera (Upjohn) Hysron (Kyowa) Provera (Upjohn) Amen (Carnrick) Depo-Provera (Pharmacia & Upjohn) Premphase (Wyeth-Ayerst) Prempro (Wyeth-Ayerst) Provera (Pharmacia & Upjohn)
F:	Depo-Prodasona (Pharmacia & Upjohn)-comb. Depo-Provera (Pharmacia & Upjohn)	GB:	Depo-Provera (Pharmacia & Upjohn) Provera (Pharmacia & Upjohn)		
		I:	Depo-Provera (Upjohn)		

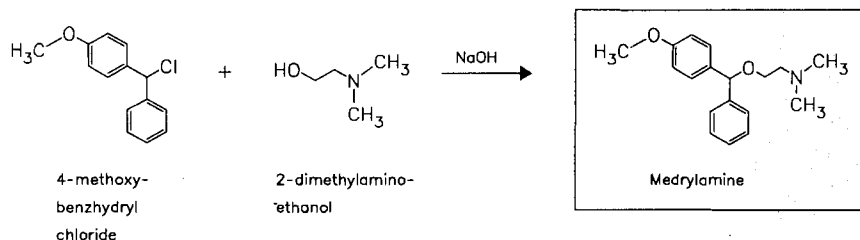
Medrylamine

ATC: R06
Use: topical antihistaminic

RN: 524-99-2 MF: C₁₈H₂₃NO₂ MW: 285.39 EINECS: 208-368-6
CN: 2-[(4-methoxyphenyl)phenylmethoxy]-N,N-dimethylethanamine

hydrochloride

RN: 6027-00-5 MF: C₁₈H₂₃NO₂ · HCl MW: 321.85 EINECS: 227-888-4
LD₅₀: 148 mg/kg (M, i.p.)



Reference(s):

US 2 668 856 (UCB; 1954; appl. 1948).

Formulation(s): ointment 20 mg/g (2 %) (as hydrochloride)

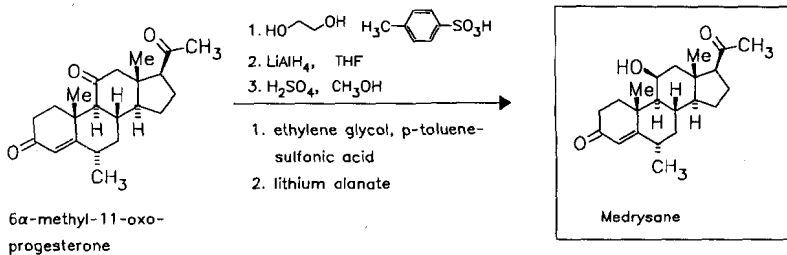
Trade Name(s):

D:	Corti-Postafen (UCB)-comb.; wfm	Postafen Salbe (UCB); wfm
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Medrysona

ATC: S01BA08
Use: glucocorticoid

RN: 2668-66-8 MF: C₂₂H₃₂O₃ MW: 344.50 EINECS: 220-208-7
LD₅₀: 338 mg/kg (R, i.p.)
CN: (6 α ,11 β)-11-hydroxy-6-methylpregn-4-ene-3,20-dione

**Reference(s):**

US 2 864 837 (Upjohn; 1958; prior. 1958).

US 2 968 655 (Upjohn; 1961; prior. 1956).

starting material:Spero, G.B. et al.: J. Am. Chem. Soc. (JACSAT) **78**, 6213 (1956).

US 2 968 655 (Upjohn; 1961; prior. 1956).

Formulation(s): eye drops 10 mg; eye ointment 10 mg**Trade Name(s):**

D:	Ophthocortin (Winzer)	generic	Medrocort (Upjohn); wfm
	Spectramedryn (Pharm-Allergan)	I: Medramil (Farmigea)-comb.	
F:	Medryson Faure (CIBA Vision)	USA: HMS Liquifilm (Allergan); wfm	

Mefenamic acid

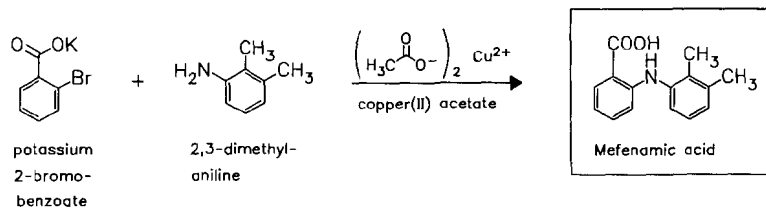
ATC: M01AG01

Use: anti-inflammatory, antirheumatic, analgesic

RN: 61-68-7 MF: C₁₅H₁₅NO₂ MW: 241.29 EINECS: 200-513-1LD₅₀: 96 mg/kg (M, i.v.); 525 mg/kg (M, p.o.);

112 mg/kg (R, i.v.); 740 mg/kg (R, p.o.)

CN: 2-[(2,3-dimethylphenyl)amino]benzoic acid

**Reference(s):**

US 3 138 636 (Parke Davis; 23.6.1964; appl. 23.6.1960).

DE 1 163 846 (Parke Davis; appl. 22.6.1961; USA-prior. 23.6.1960).

alternative syntheses:

DAS 1 186 073 (Parke Davis; appl. 30.4.1963; CDN-prior. 18.9.1962).

DAS 1 186 074 (Parke Davis; appl. 30.4.1963; CDN-prior. 18.9.1962).

DAS 1 186 870 (Parke Davis; appl. 30.4.1963; CDN-prior. 18.9.1962).

DAS 1 186 871 (Parke Davis; appl. 30.4.1963; CDN-prior. 18.9.1962).

Formulation(s): cps. 250 mg; powder 500 mg, 1 g; suppos. 125 mg, 500 mg; susp. 50 mg

Trade Name(s):

D:	Parkemed (Parke Davis)	J:	Baphameritin M (Hishiyama)	USA:	Ponstan (Parke Davis); wfm
F:	Ponalar (Parke Davis)		Bonabol (Sawai)		Ponstel (Parke Davis)
F:	Ponstyl (Parke Davis)		Pontal (Parke Davis-Sankyo)		
GB:	Meflam (Trinity)		Spantac (Uji)		
	Ponstan (Elan)				
I:	Lysalgot (SIT)				

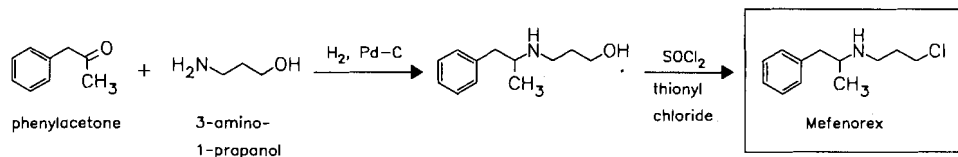
Mefenorex

ATC: A08AA09

Use: appetite depressant

RN: 17243-57-1 MF: C₁₂H₁₈ClN MW: 211.74 EINECS: 241-279-0CN: *N*-(3-chloropropyl)- α -methylbenzeneethanamine**hydrochloride**RN: 5586-87-8 MF: C₁₂H₁₈ClN · HCl MW: 248.20 EINECS: 226-985-9LD₅₀: 49 mg/kg (M, i.v.); 230 mg/kg (M, p.o.);

35 mg/kg (R, i.v.); 410 mg/kg (R, p.o.)

**Reference(s):**

DE 1 210 873 (Hoffmann-La Roche; appl. 18.3.1959).

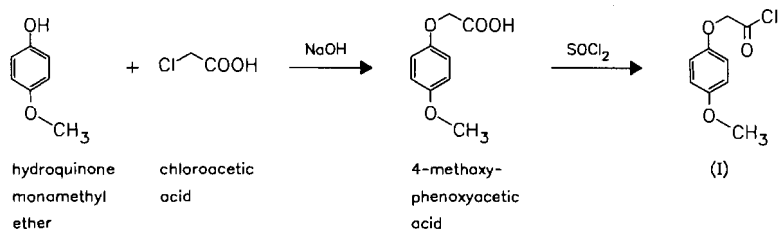
Formulation(s): drg. 40 mg (as hydrochloride)**Trade Name(s):**

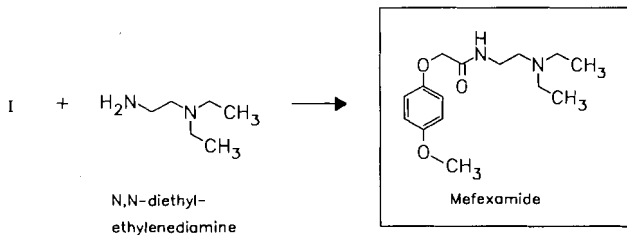
D:	Rondimen (ASTA Medica)	F:	Incital (Pierre Fabre Santé)
	AWD; as hydrochloride)	USA:	Anexate (Roche); wfm

Mefexamide

ATC: N05C

Use: psychoanaleptic, CNS stimulant

RN: 1227-61-8 MF: C₁₅H₂₄N₂O₃ MW: 280.37 EINECS: 214-963-1LD₅₀: 168 mg/kg (M, i.v.); 1500 μ g/kg (M, p.o.)CN: *N*-[2-(diethylamino)ethyl]-2-(4-methoxyphenoxy)acetamide**monohydrochloride**RN: 3413-64-7 MF: C₁₅H₂₄N₂O₃ · HCl MW: 316.83 EINECS: 222-304-4

**Reference(s):**

Thuillier, G.; Rumpf, P.: Bull. Soc. Chim. Fr. (BSCFAS) **1960**, 1786.

Formulation(s): amp. 150 mg; tabl. 150 mg

Trade Name(s):

F: Meféxadyne (Anphar); Timodyne (Anphar); wfm
 I: Perneurion (Crinos); wfm

Mefloquine

ATC: P01BA05
 Use: antimalarial

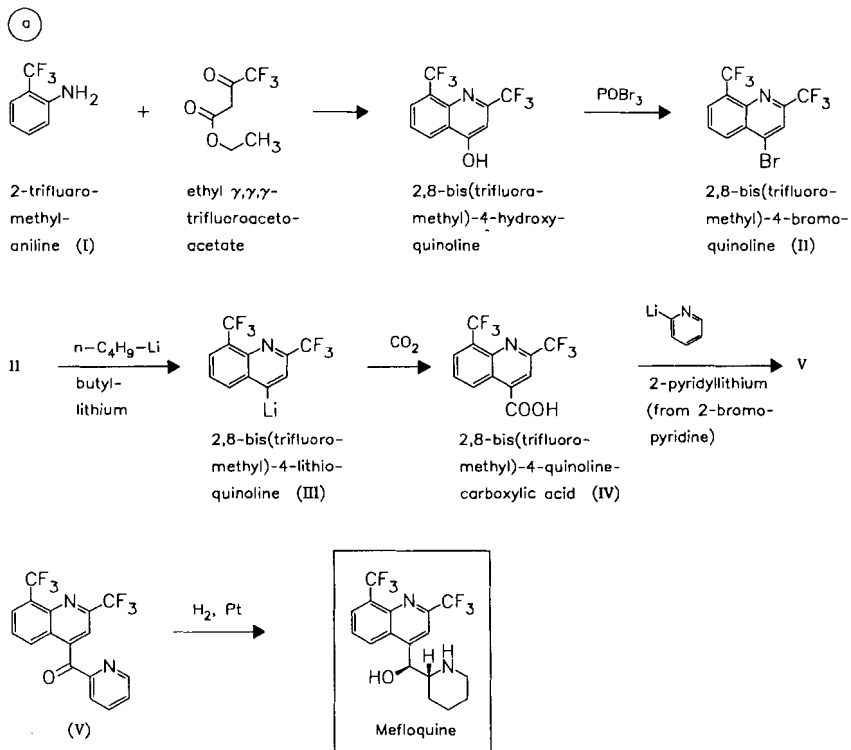
RN: 53230-10-7 MF: $C_{17}H_{16}F_6N_2O$ MW: 378.32

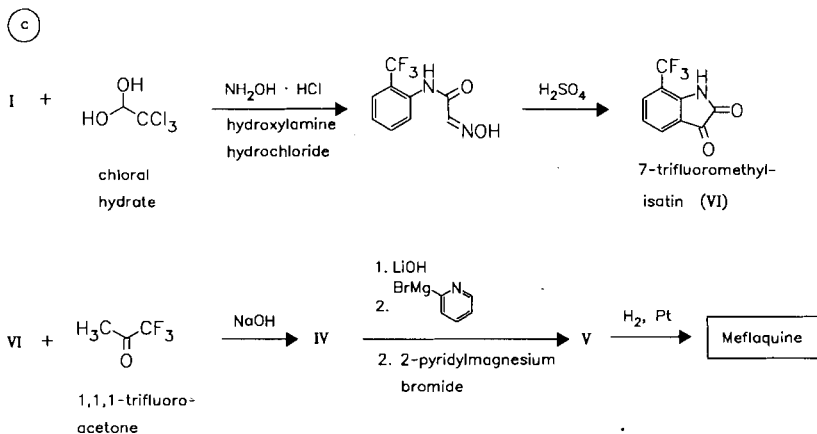
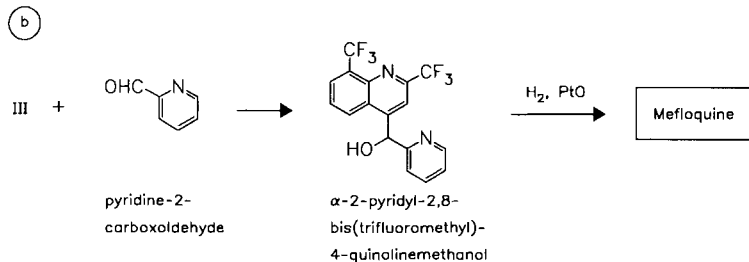
CN: (R^*, S^*)-(\pm)- α -2-piperidinyl-2,8-bis(trifluoromethyl)-4-quinolinemethanol

monohydrochloride

RN: 51773-92-3 MF: $C_{17}H_{16}F_6N_2O \cdot HCl$ MW: 414.78 EINECS: 257-412-0

LD₅₀: 880 mg/kg (R, p.o.)





Reference(s):

- a Ohnmacht, C.J. et al.: J. Med. Chem. (JMCMAR) **14**, 926 (1971).
 b DOS 2 806 909 (Roche; appl. 17.2.1978; USA-prior. 17.2.1977).
 c DOS 2 940 443 (BASF; appl. 5.10.1979).

alternative synthesis:

EP 103 259 (Roche; appl. 6.9.1983; CH-prior. 10.9.1982).

preparation of pure mefloquine hydrochloride:

US 4 507 482 (Roche; 26.3.1985; CH-prior. 14.4.1982).
 EP 92 185 (Roche; appl. 14.4.1983; CH-prior. 14.4.1982).

hydrochloride modification E:

EP 137 375 (Roche; appl. 20.9.1984; CH-prior. 7.10.1983).

Formulation(s): tabl. 250 mg (as hydrochloride)

Trade Name(s):

D:	Lariam (Roche)	GB:	Lariam (Roche)
F:	Lariam (Roche; as hydrochloride)	I:	Lariam (Roche)
		USA:	Lariam (Roche)

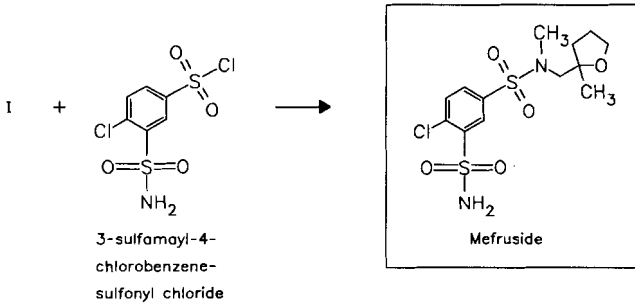
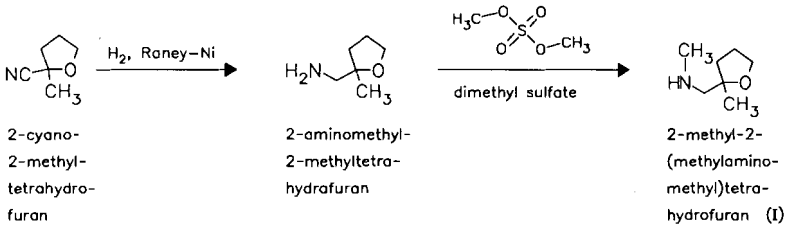
Mefruside

ATC: C03BA05
 Use: diuretic

RN: 7195-27-9 MF: $\text{C}_{13}\text{H}_{19}\text{ClN}_2\text{O}_5\text{S}_2$ MW: 382.89 EINECS: 230-562-4

LD₅₀: 500 mg/kg (M, i.v.); >10 g/kg (M, p.o.);
 500 mg/kg (R, i.v.); >10 g/kg (R, p.o.);
 >5 g/kg (dog, p.o.)

CN: 4-chloro-N¹-methyl-N¹-[(tetrahydro-2-methyl-2-furanyl)methyl]-1,3-benzenedisulfonamide



Reference(s):

GB 1 031 916 (Bayer; appl. 30.11.1964; D-prior. 30.11.1963).

Formulation(s): tabl. 25 mg

Trade Name(s):

D:	Baycaron (Bayer Vital)	Sali-Prent (Bayer Vital)-comb.	I:	Baycaron (Bayer); wfm
	Bendigon (Bayer Vital)-comb.	Sali-Presinol (Bayer)-comb.		Mefrusal (Bayropharm); wfm
	Caprinol (Bayer)-comb.; wfm	Thomaeamin (Thomae)-comb.; wfm	J:	Rexitene Plus (LPB)-comb.; wfm
	Duranifin Sali (durachemie)-comb.	F:		Baycaron (Yoshitomi)
	Sali-Adalat (Bayer Vital)-comb.	GB:		

Megestrol acetate

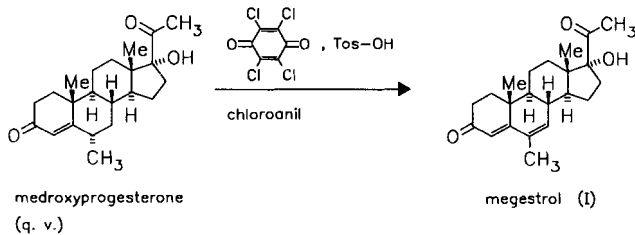
ATC: G03D

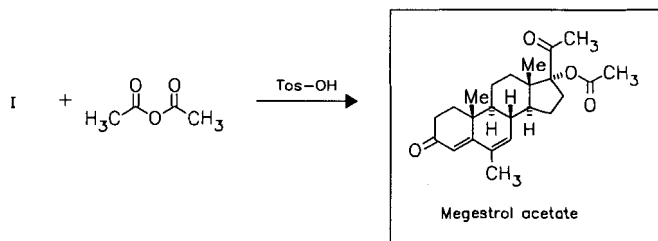
Use: progestogen (palliative treatment of breast and endometrial carcinoma)

RN: 595-33-5 MF: C₂₄H₃₂O₄ MW: 384.52 EINECS: 209-864-5

LD₅₀: 56 mg/kg (M, i.v.)

CN: 17-(acetyloxy)-6-methylpregna-4,6-diene-3,20-dione



*Reference(s):*

US 2 891 079 (Searle; 16.6.1959; prior. 23.1.1959).
Ringold, H.J. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 3712 (1959).

Formulation(s): oral susp. 40 mg/ml; tabl. 20 mg, 40 mg, 160 mg

Trade Name(s):

D:	Megestat (Bristol-Myers Squibb)	GB:	Megace (Bristol-Myers Squibb)	USA:	Megestil (Boehringer Mannh.)
F:	Megace (Bristol-Myers Squibb)	I:	Megace (Bristol-Myers Squibb)		Megace (Bristol-Myers Squibb) generics

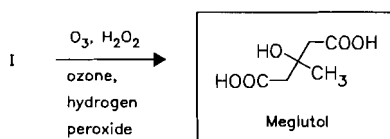
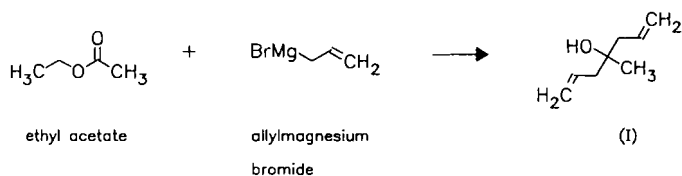
Meglutol

ATC: C10AX05
Use: antihyperlipidemic

RN: 503-49-1 MF: C₆H₁₀O₅ MW: 162.14 EINECS: 207-971-1

LD₅₀: 7330 mg/kg (M, p.o.)

CN: 3-hydroxy-3-methylpentanedioic acid

*Reference(s):*

Rabinowitz, J.L. et al.: Biochem. Prep. (BIPRAP) **6**, 25 (1958).

medical use:

US 3 629 449 (Aligarh Muslim University; 21.12.1971; prior. 22.4.1968).

Formulation(s): cps. 500 mg; tabl. 1 g

Trade Name(s):

I: Mevalon (Guidotti)

Melengestrol acetate

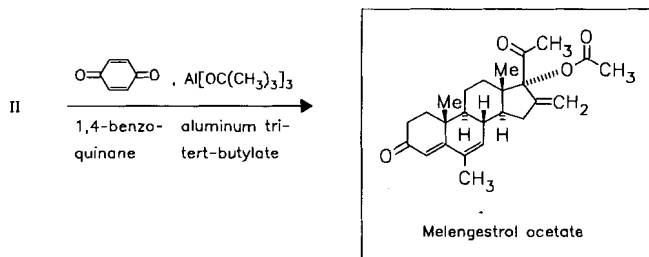
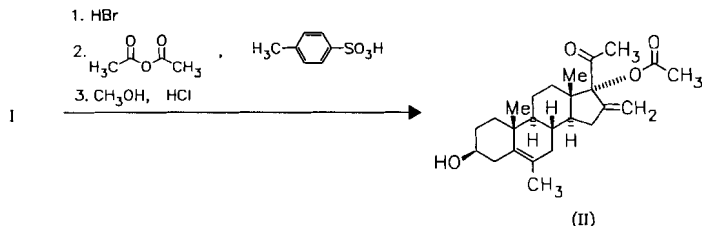
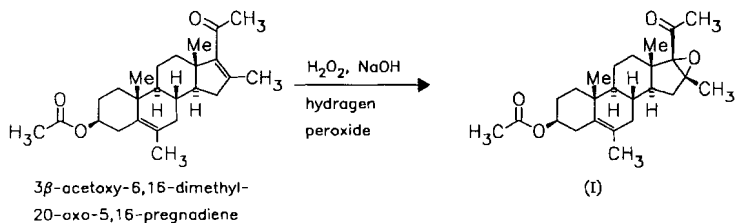
ATC: G03D

Use: progestogen, antineoplastic

RN: 2919-66-6 MF: C₂₅H₃₂O₄ MW: 396.53 EINECS: 220-859-7
 CN: 17-(acetyloxy)-6-methyl-16-methylenepregna-4,6-diene-3,20-dione

melengestrol

RN: 5633-18-1 MF: C₂₃H₃₀O₃ MW: 354.49 EINECS: 227-073-3

**Reference(s):**

GB 886 619 (British Drug Houses; valid from 14.6.1960; prior. 28.12.1959).

starting material:

GB 850 423 (British Drug Houses; valid from 26.6.1959; prior. 9.7.1958).

GB 870 286 (British Drug Houses; valid from 19.10.1959; prior. 4.11.1958).

Kirk, D.N. et al.: J. Chem. Soc. (JCSOA9) **1961**, 2821.

alternative synthesis:

US 3 117 966 (British Drug Houses; 14.1.1964; prior. 27.9.1961).

Trade Name(s):

USA: MGA (Upjohn); wfm

Melitracen

ATC: N06AA14

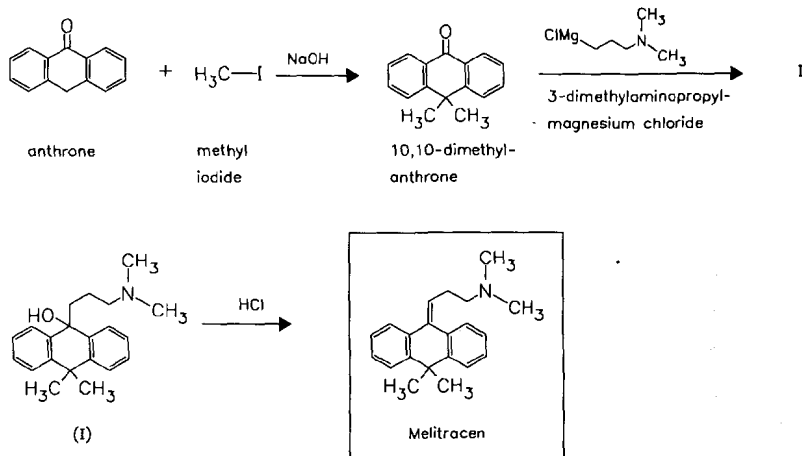
Use: antidepressant

RN: 5118-29-6 MF: C₂₁H₂₅N MW: 291.44 EINECS: 225-858-5LD₅₀: 52 mg/kg (M, i.v.); 315 mg/kg (M, p.o.);

170 mg/kg (R, p.o.)

CN: 3-(10,10-dimethyl-9(10*H*)-anthracenylidene)-*N,N*-dimethyl-1-propanamine**hydrochloride**RN: 10563-70-9 MF: C₂₁H₂₅N · HCl MW: 327.90 EINECS: 234-150-5LD₅₀: 52 mg/kg (M, i.v.); 315 mg/kg (M, p.o.);

170 mg/kg (R, p.o.)

**Reference(s):**

US 3 177 209 (Kefalas; 6.4.1965; GB-prior. 16.9.1960, 17.2.1961).

US 3 190 893 (Kefalas; 22.6.1965; GB-prior. 17.2.1961).

DE 1 177 633 (Kefalas; appl. 14.2.1962; GB-prior. 17.2.1961).

DE 1 294 375 (Kefalas; appl. 7.9.1961; GB-prior. 16.9.1960).

Holm, T.: Acta Chem. Scand. (ACHSE7) **17**, 2437 (1963).**Formulation(s):** amp. 20 mg/2 ml; drg. 10 mg, 25 mg**Trade Name(s):**

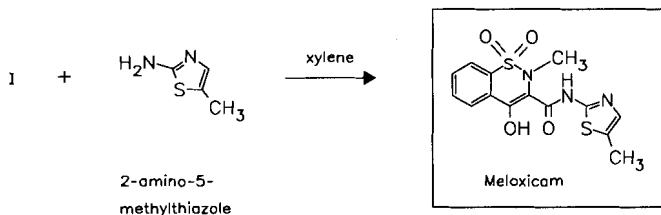
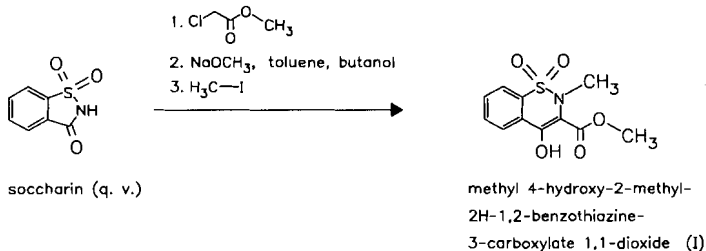
D:	Trausabun (Byk Gulden); wfm	I:	Deanxit (Lusofarmaco)- comb.
	Trausabun (Promonta); wfm	J:	Melixeran (Lusofarmaco)
			Thymeol (Takeda)

Meloxicam
(UH-AC 62XX)

ATC: M01AC06

Use: anti-inflammatory, cyclooxygenase-2 inhibitor

RN: 71125-38-7 MF: C₁₄H₁₃N₃O₄S₂ MW: 351.41CN: 4-hydroxy-2-methyl-*N*-(5-methyl-2-thiazolyl)-2*H*-1,2-benzothiazine-3-carboxamide 1,1-dioxide

**Reference(s):**

DE 2 756 113 (Thomae GmbH; 21.6.1979; D-prior. 16.12.1977).

ophthalmic solutions:

WO 9 301 814 (Lab. Europhta; appl. 17.7.1992; F-prior. 18.7.1991).

plaster for high-bioavailability:

JP 04 321 624 (Hisamitsu Pharm.; appl. 19.4.1991; J-prior. 19.4.1991).

combination with 5-lipoxygenase inhibitors:

WO 9 641 626 (Searle & Co.; appl. 11.6.1996; USA-prior. 12.6.1995).

combination with leukotriene A hydrolase inhibitor:

WO 9 641 625 (Searle & Co.; appl. 11.6.1996; USA-prior. 12.6.1995).

combination with leukotriene inhibitors:

WO 9 641 645 (Searle & Co.; appl. 11.6.1996; USA-prior. 12.6.1995).

medical use:

WO 9 703 667 (Merck & Co.; appl. 15.7.1996; USA-prior. 19.7.1995).

Formulation(s): cps. 7.5 mg; supp. 7.5 mg, 15 mg; tabl. 7.5 mg

Trade Name(s):

D: Mobec (Boehringer Ing.) F: Mobic (Boehringer Ing.) GB: Mobic (Boehringer Ing.)

Melperone

(Methylperone; Metylperon)

ATC: N05AD03

Use: neuroleptic

RN: 3575-80-2 MF: C₁₆H₂₂FNO MW: 263.36

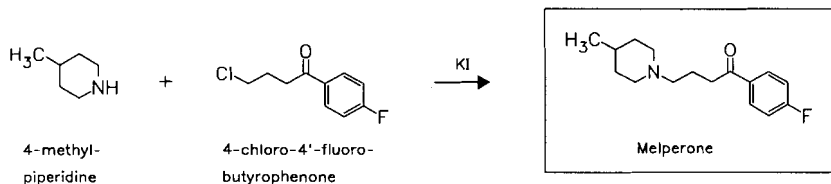
CN: 1-(4-fluorophenyl)-4-(4-methyl-1-piperidiny)-1-butanone

hydrochloride

RN: 1622-79-3 MF: C₁₆H₂₂FNO · HCl MW: 299.82 EINECS: 216-599-9

LD₅₀: 35 mg/kg (M, i.v.); 230 mg/kg (M, p.o.);

40 mg/kg (R, i.v.); 330 mg/kg (R, p.o.)

**Reference(s):**

US 3 816 433 (Ferrosan; 11.6.1974; prior. 24.7.1964, 22.3.1966, 29.4.1968, 5.10.1970).

DE 1 268 146 (Ferrosan; appl. 28.7.1964; GB-prior. 29.7.1963).

Formulation(s): amp. 50 mg/2 ml; drg. 10 mg, 25 mg, 50 mg, 100 mg; sol. 25 mg/5 ml (as hydrochloride)

Trade Name(s):

D: Eunerpan (Knoll)

Melphalan

ATC: L01AA03

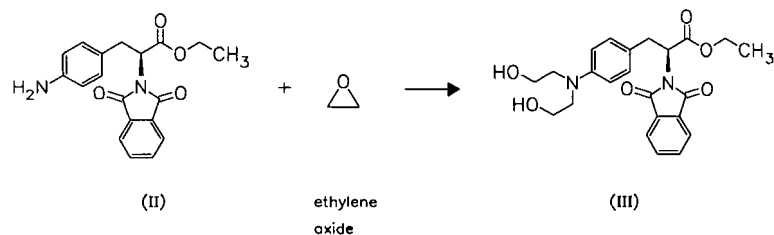
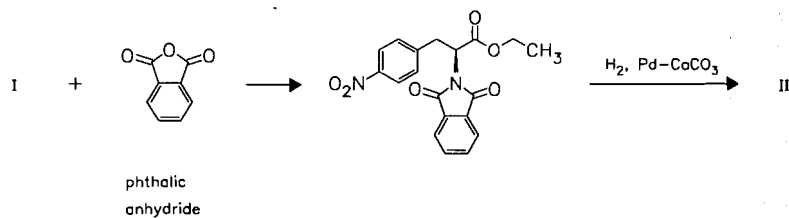
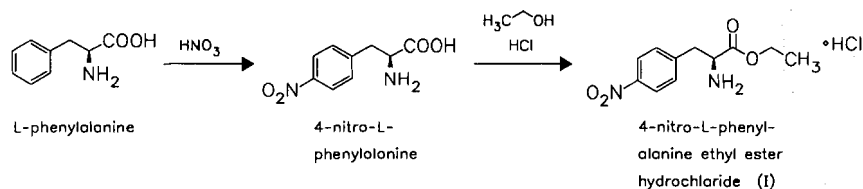
Use: antineoplastic

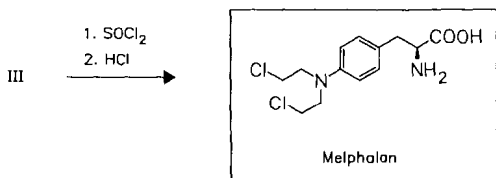
RN: 148-82-3 MF: $\text{C}_{13}\text{H}_{18}\text{Cl}_2\text{N}_2\text{O}_2$ MW: 305.21 EINECS: 205-726-3

LD₅₀: 20.8 mg/kg (M, i.v.);

4.1 mg/kg (R, i.v.); 11.2 mg/kg (R, p.o.)

CN: 4-[bis(2-chloroethyl)amino]-L-phenylalanine



**Reference(s):**

US 3 032 584 (Nat. Res. Dev. Corp.; 1.5.1962; GB-prior. 17.3.1953).

US 3 032 585 (Nat. Res. Dev. Corp.; 1.5.1962; GB-prior. 3.12.1954).

synthesis of intermediate II:

EP 233 733 (Kureha; appl. 5.2.1987; J-prior. 19.2.1986).

Formulation(s): amp. 50 mg/10 ml; tabl. 2 mg, 5 mg

Trade Name(s):

D:	Alkeran (Glaxo Wellcome)	GB:	Alkeran (Glaxo Wellcome)	I:	Alkeran (Glaxo Wellcome)
F:	Alkérán (Glaxo Wellcome)		Alkeran (Calmic)	USA:	Alkeran (Glaxo Wellcome)

Memantine

ATC: N06DX01

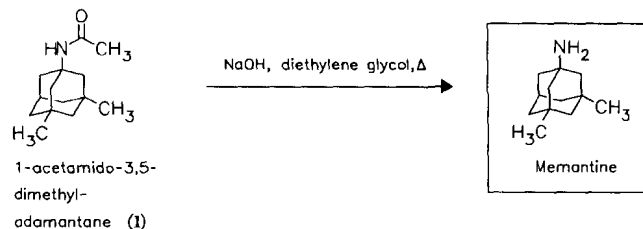
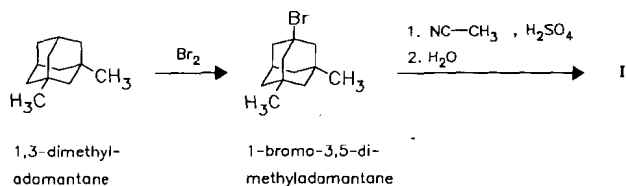
Use: antispasmodic, myotonolytic,
antiparkinsonian, muscle relaxant

RN: 19982-08-2 MF: $\text{C}_{12}\text{H}_{21}\text{N}$ MW: 179.31

CN: 3,5-dimethyltricyclo[3.3.1.1^{3,7}]decan-1-amine

hydrochloride

RN: 41100-52-1 MF: $\text{C}_{12}\text{H}_{21}\text{N} \cdot \text{HCl}$ MW: 215.77

**Reference(s):**

US 3 391 142 (Eli Lilly; 2.7.1968; appl. 9.2.1966).

Gerzon, K. et al.: J. Med. Chem. (JMCMAR) **6**, 760 (1963).

1,3-dimethyl-adamantane:

Schleyer, P. v. R.; Nicholas, R.D.: Tetrahedron Lett. (TELEAY) **9**, 305 (1961).

Formulation(s): amp. 10 mg; drops 10 mg/g; f. c. tabl. 10 mg (as hydrochloride)

Trade Name(s):

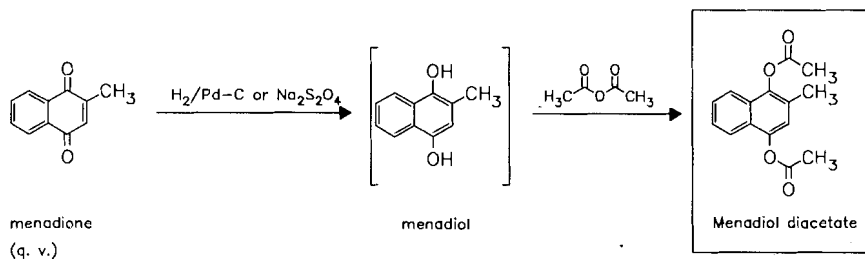
D: Akatinol (Merz)

Menadiol diacetate

(Acetomenadione; Acetomenaftone)

ATC: A11
Use: antihemorrhagic, vitamin K-
derivative (prothrombogenic)RN: 573-20-6 MF: C₁₅H₁₄O₄ MW: 258.27 EINECS: 209-352-1

CN: 2-methyl-1,4-naphthalenediol diacetate

diphosphate dicalcium saltRN: 74347-27-6 MF: C₁₁H₈Ca₂O₈P₂ MW: 410.28*Reference(s):*

Horii et al.: Pharm. Bull. (PHBUA9) 5, 82 (1957).

Formulation(s): amp. 8.86 mg/ml (as diphosphate dicalcium salt)*Trade Name(s):*D: Pertix-Solo-Hommel
(Hommel)GB: Ketovite (Paines & Byrne)-
comb.

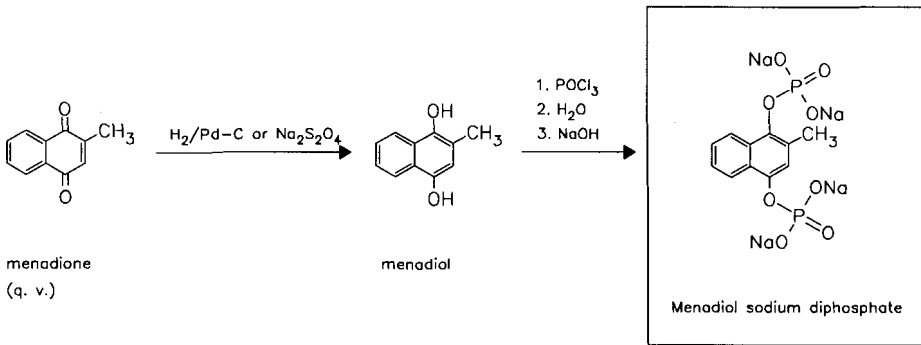
J: Kativ (Takeda)

Menadiol sodium diphosphateATC: A11
Use: antihemorrhagic vitaminRN: 131-13-5 MF: C₁₁H₈Na₄O₈P₂ MW: 418.05 EINECS: 205-012-1LD₅₀: 350 mg/kg (M, s.c.);

231 mg/kg (R, i.p.)

CN: 2-methyl-1,4-naphthalenediol bis(dihydrogen phosphate) tetrasodium salt

hexahydrateRN: 6700-42-1 MF: C₁₁H₈Na₄O₈P₂·6H₂O MW: 530.18**menadiol diphosphate**RN: 84-98-0 MF: C₁₁H₁₂O₈P₂ MW: 334.16

**Reference(s):**

Fieser, L.F. et al.: J. Am. Chem. Soc. (JACSAT) **62**, 228 (1940).
 US 2 380 621 (Roche; 1945; CH-prior. 1942).
 US 2 345 690 (Roche; 1944; appl. 1941).
 US 2 354 132 (Roche; 1944; appl. 1940).

synthesis of intermediate II:

EP 233 733 (Kureha; appl. 5.2.1987; J-prior. 19.2.1986).

Formulation(s): amp. 10 mg/1 ml, tabl. 10 mg

Trade Name(s):

D:	Styptobion (Merck)-comb; wfm	GB:	Synkavit (Roche); wfm Kativ (Takeda)	USA:	Synkavite (Roche; as hexahydrate); wfm
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Menadione

(Menaphthone; Menaquinone; Vitamin K₃)

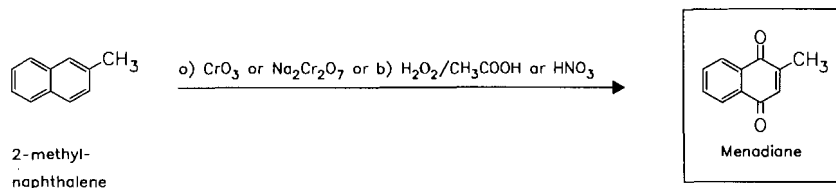
ATC: B02BA02

Use: antihemorrhagic vitamin
(prothrombogenic)

RN: 58-27-5 MF: C₁₁H₈O₂ MW: 172.18 EINECS: 200-372-6

LD₅₀: 500 mg/kg (M, p.o.)

CN: 2-methyl-1,4-naphthalenedione

**Reference(s):****a oxidation with chromic acid and derivatives:**

Fieser, L.F. et al.: J. Am. Chem. Soc. (JACSAT) **61**, 2559, 3216 (1939).
 US 2 402 226 (Velsicol; 1946; appl. 1943).

b oxidation with hydrogen peroxide:

Arnold; Larson: J. Org. Chem. (JOCEAH) **5**, 250 (1940).
 US 2 373 003 (Univ. of Minnesota; 1945; appl. 1941).
 Adam, W. et al.: Angew. Chem. (ANCEAD) **106**, 2545 (1994).

Formulation(s): tabl. 2 mg

Trade Name(s):

F: Bilkaby (Lehning)

J: generic

Menadione sodium bisulfite

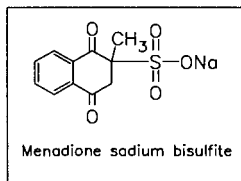
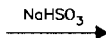
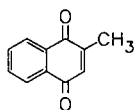
(Menaphthone sodium bisulfite)

ATC: A11

Use: antihemorrhagic vitamin

RN: 130-37-0 MF: $C_{11}H_9NaO_5S$ MW: 276.24 EINECS: 204-987-0

CN: 1,2,3,4-tetrahydro-2-methyl-1,4-dioxo-2-naphthalenesulfonic acid sodium salt

*Reference(s):*Moore, M.B.: J. Am. Chem. Soc. (JACSAT) **63**, 2049 (1941).Baker, B.R. et al.: J. Am. Chem. Soc. (JACSAT) **64**, 1096 (1942).Menotti, A.R.: J. Am. Chem. Soc. (JACSAT) **65**, 1209 (1943).

US 2 367 302 (Abbott; 1945; appl. 1940).

Formulation(s): amp. 1 mg, 2 mg, 3 mg, 10 mg, 50 mg*Trade Name(s):*D: Chloramsaar (Chephasaar)-
comb.; wfmGeriatric-Mulsin (Mucos)-
comb.; wfmLentinorm (Kanoldt)-
comb.; wfmPoly-Vitamin-Saar
(Chephasaar)-comb.; wfm
Prenatal (Cyanamid)-
comb.; wfm

Tetracycletten (Voigt); wfm

F: Arhémapectine vitaminée
(Gallier)-comb.; wfm
Cépévit K (UCB)-comb.;
wfm

I: Vitamina K Salf (Salf)

J: Menadione Inj. (Nord)

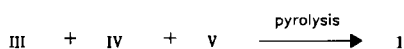
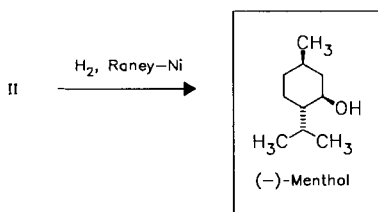
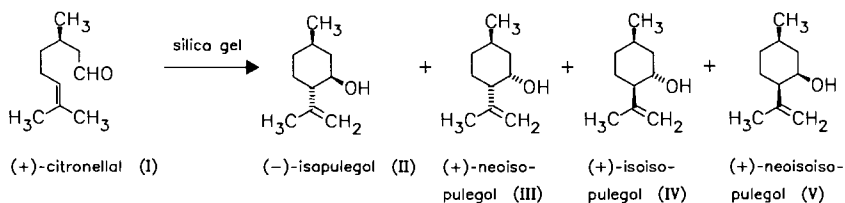
(-)-MentholUse: anesthetic (combination ingredient in
antitussives and expectorants)RN: 2216-51-5 MF: $C_{10}H_{20}O$ MW: 156.27 EINECS: 218-690-9LD₅₀: 3400 mg/kg (M, p.o.);

3300 mg/kg (R, p.o.)

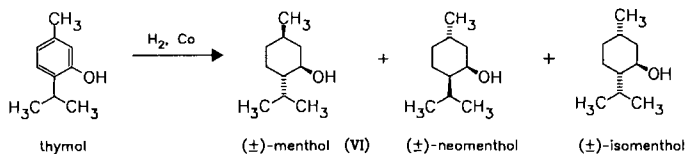
CN: [1R-(1 α ,2 β ,5)]-5-methyl-2-(1-methylethyl)cyclohexanol

a isolation from peppermint oils, containing 70-80 % free menthol, by freezing and recrystallization

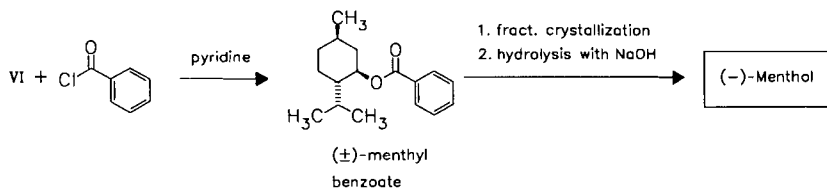
b from (+)-citronellal (containing at 80 % in citronellal)



c



recycling: epimerization to the ratio
 (±)-menthol : (±)-neomenthol : (±)-isomenthol =
 6 : 3 : 1 under hydrogenation conditions;
 separation of (±)-menthol by distillation



(+)-Menthol can be racemized under thymol hydrogenation conditions (also with Raney-Ni).

Reference(s):

review:

Ullmanns Encykl. Tech Chem., 4. Aufl., Vol. 20, 220.

b DAS 1 197 081 (A. Boake Roberts & Co.; appl. 31.10.1963).

c *racemate resolution of* (±)-menthyl benzoate:

DOS 2 109 456 (Haarmann & Reimer; appl. 27.2.1971).

Formulation(s): cream 0.042-1 %; drg. 1 mg; ointment, sol. in numerous concentrations; powder 1 %

Trade Name(s):

D:	numerous combination preparations	I:	numerous combination preparations	Thera-Gesic (Mission)-comb.
F:	numerous combination preparations	USA:	Listerine (Warner-Lambert)-comb.	numerous combination preparations
GB:	numerous combination preparations		Panalgesic Gold (ECR)-comb.	

Mepacrine

(Quinacrine; Atebrin)

ATC: P01AX05

Use: antimalarial

RN: 83-89-6 MF: C₂₃H₃₀ClN₃O MW: 399.97 EINECS: 201-508-7

LD₅₀: 50 mg/kg (M, i.v.); 1320 mg/kg (M, p.o.)

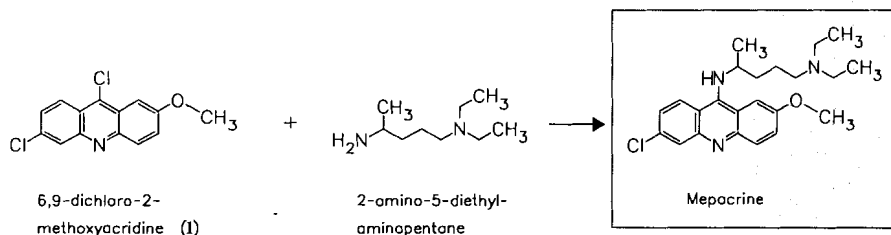
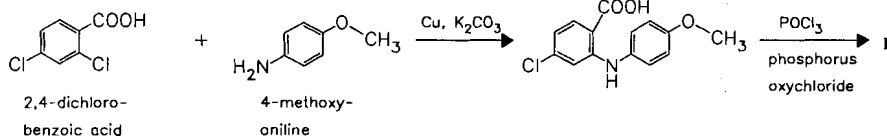
CN: N⁴-(6-chloro-2-methoxy-9-acridinyl)-N¹,N¹-diethyl-1,4-pentanediamine

dihydrochloride

RN: 69-05-6 MF: C₂₃H₃₀ClN₃O · 2HCl MW: 472.89 EINECS: 200-700-8

LD₅₀: 38 mg/kg (M, i.v.); 557 mg/kg (M, p.o.);

29 mg/kg (R, i.v.); 660 mg/kg (R, p.o.)



Reference(s):

DRP 553 072 (I. G. Farben; appl. 1930).

Wingler, A.: Angew. Chem. (ANCEAD) **61**, 49 (1949).

Formulation(s): tabl. 100 mg

Trade Name(s):

F:	Collagenan (Sobio)-comb.; wfm	Tenicridine (Norgan); wfm
USA:	Atabrine (Winthrop); wfm	

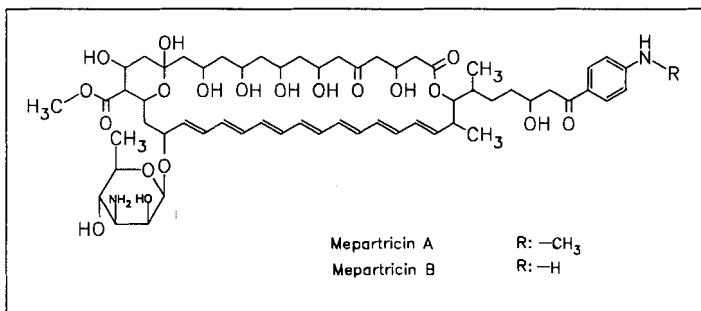
Mepartricin

(Methylpartricin)

ATC: A01AB16; D01AA06; G01AA09
 Use: polyene antibiotic (for treatment of candidal and trichomonal gynaecological infections, treatment of benign prostatic hypertrophy)

RN: 11121-32-7 MF: $C_{60}H_{88}N_2O_{19}$ MW: 1141.36
 LD₅₀: 11.1 mg/kg (M, i.p.); 4300 µg/kg (M, i.v.); >2 g/kg (M, p.o.)
 CN: partricin methyl ester

1. fermentation of *Streptomyces oureofaciens*
2. methylation with excess of diazomethane



Reference(s):

DE 2 154 436 (Spa; appl. 2.11.1971; GB-prior. 3.11.1970).
 GB 1 359 473 (Spa; appl. 3.11.1970).
 GB 1 406 774 (Spa; appl. 15.2.1973).
 GB 1 462 442 (Spa; appl. 29.8.1974).
 DE 2 406 628 (Spa; appl. 12.2.1974; GB-prior. 15.2.1973).
 US 3 773 925 (Spa; 20.11.1973; appl. 3.11.1971; GB-prior. 3.11.1970).
 Bruzzese, T. et al.: *Experientia (EXPEAM)* **28**, 1515 (1972).
 Pandey, R.C. et al.: *J. Antibiot. (JANTAJ)* **30**, 158 (1973).
 Tweit, R.C. et al.: *J. Antibiot. (JANTAJ)* **35**, 997 (1982).

water soluble formulation:

GB 1 413 256 (Spa; appl. 14.5.1973).
 GB 1 463 348 (Spa; appl. 3.9.1974).

medical use for treatment of benign prostatic hypertrophy:

US 4 237 117 (Spa; 2.12.1980; prior. 6.11.1978, 5.10.1979).

liposomal formulation:

WO 89 103 677 (Board of Regents; Univ. of Texas Syst.; appl. 27.10.1988; USA-prior. 27.10.1987).

structure of partricin:

Tweit, R.C. et al.: *J. Antibiot. (JANTAJ)* **35**, 997 (1982).

Formulation(s): tabl. 50000 iu/g, 40 mg; vaginal cream 5000 iu/g; vaginal tabl. 25000 iu.

Trade Name(s):

I: Ipertrofan (SPA; 1986) Montricin (SPA; 1988 as sodium lauryl sulfate) Tricandil (SPA; 1975)

Mepenzolate bromide

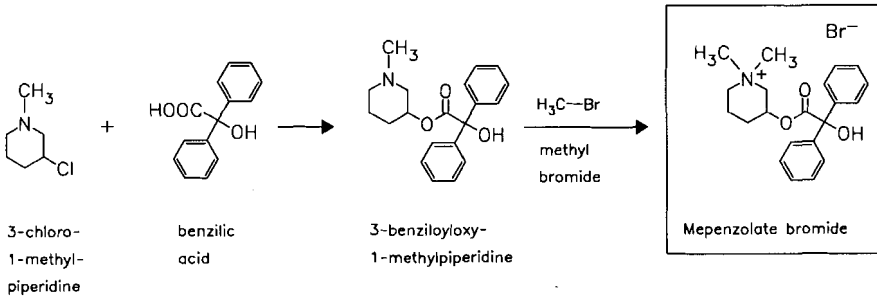
ATC: A03AB12

Use: anticholinergic

RN: 76-90-4 MF: C₂₁H₂₆BrNO₃ MW: 420.35 EINECS: 200-992-7LD₅₀: 9800 µg/kg (M, i.v.); 900 mg/kg (M, p.o.);

22 mg/kg (R, i.v.); 742 mg/kg (R, p.o.)

CN: 3-[(hydroxydiphenylacetyl)oxy]-1,1-dimethylpiperidinium bromide

*Reference(s):*

US 2 918 408 (Lakeside Labs.; 1959; prior. 1950).

Formulation(s): tabl. 7.5 mg, 15 mg, 25 mg*Trade Name(s):*

F: Cantil (Roger Bellon); wfm

GB: Cantil (M.C.P.

Pharmaceuticals); wfm

I: Canril Lakeside (Roger Bellon)

Colibantil (Tosi-Novara)

Colum (Jamco)

Enterocantril (RBS

Pharma)-comb.

Enterocantril (Roger

Bellon)-comb.

Gastropidil (Fabo)

J: Eftoron (Maruko Seiyaku)

Sachicoron (Zensei)

Tendalin (Nihon Yakuhin)

Trancolon (Fujisawa)

USA: Cantil (Hoechst Marion

Roussel)

Mephenesin

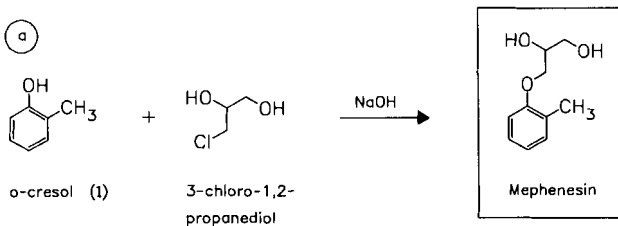
ATC: M03BX06

Use: muscle relaxant

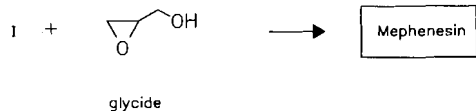
RN: 59-47-2 MF: C₁₀H₁₄O₃ MW: 182.22 EINECS: 200-427-4LD₅₀: 175 mg/kg (M, i.v.); 720 mg/kg (M, p.o.);

133 mg/kg (R, i.v.); 625 mg/kg (R, p.o.)

CN: 3-(2-methylphenoxy)-1,2-propanediol



(b)

*Reference(s):*

- a Marie, E.R.: J. Chem. Soc. (JCSOA9) **101**, 310 (1912).
 b GB 628 497 (British Drug Houses; appl. 1948).

Formulation(s): drg. 250 mg; tabl. 500 mg

Trade Name(s):

D:	Dolo Visano (Kade)	Traumalgyl (Pharmadéveloppement)- comb.	Relaxar (Bouty)
F:	Algipan Baume (Darcy)- comb. Décontractyl (Synthelabo)- comb.	GB: Myanesin (Duncan, Flockhart); wfm	Relaxar Linimento (Bouty)-comb.
		I: Mefenesina (Tariff. Integrativo)	J: Curaresin (Kyoto) Myanol (Chugai) Myoserol (Sankyo)
			USA: Tolserol (Squibb); wfm

Mephenytoin

(Methoin)

ATC: N03AB04

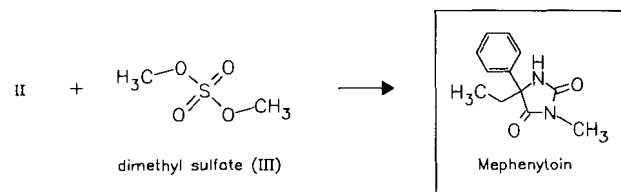
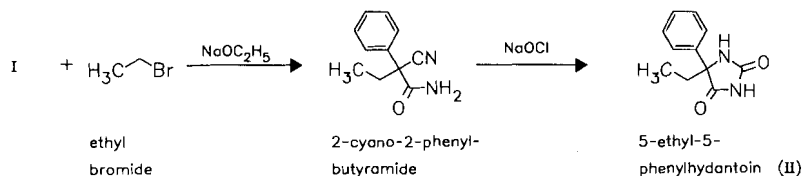
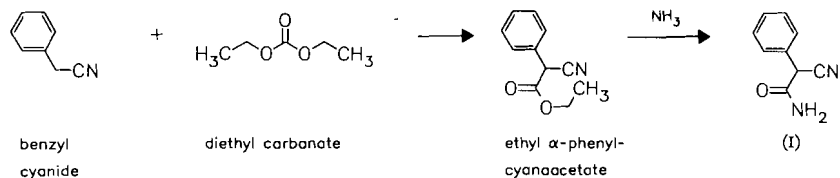
Use: antiepileptic, anticonvulsant

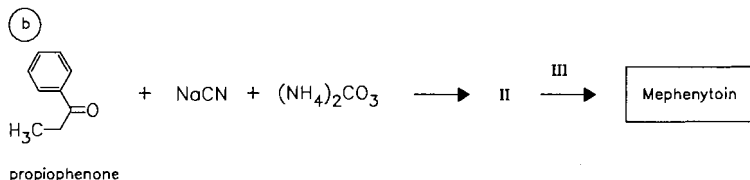
RN: 50-12-4 MF: C₁₂H₁₄N₂O₂ MW: 218.26 EINECS: 200-012-8LD₅₀: 440 mg/kg (M, p.o.);

850 mg/kg (R, p.o.)

CN: 5-ethyl-3-methyl-5-phenyl-2,4-imidazolidinedione

(a)



**Reference(s):**

Ehrhart-Ruschig, Vol. 1, 196.

DRP 309 508 (Chem. Fabrik von Heyden; appl. 1914).

FR 769 667 (Sandoz; 1934).

Formulation(s): tabl. 100 mg**Trade Name(s):**

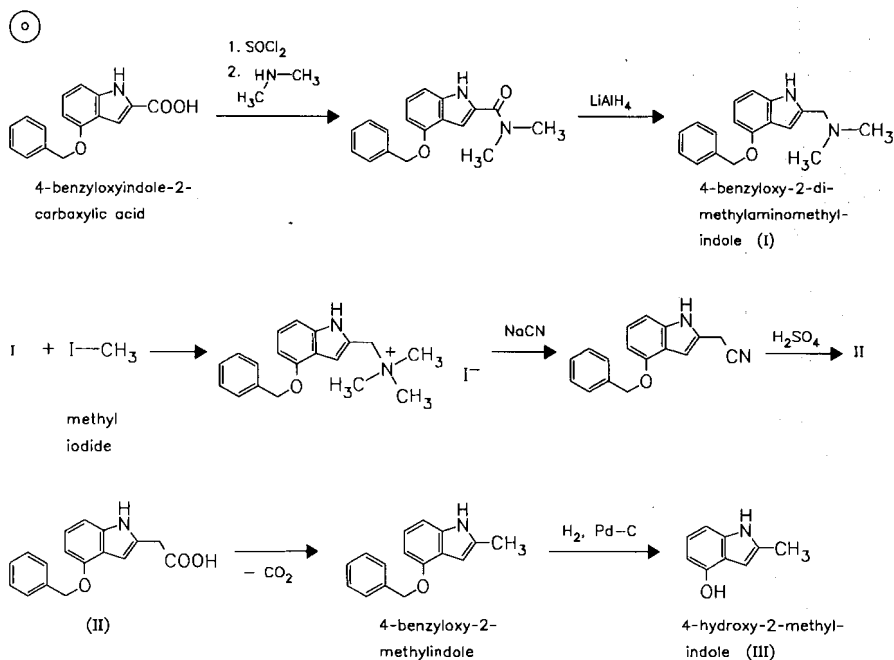
D: Mesantoin (Sandoz); wfm GB: Mesantoin (Sandoz); wfm USA: Mesantoin (Sandoz); wfm

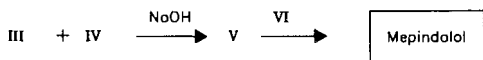
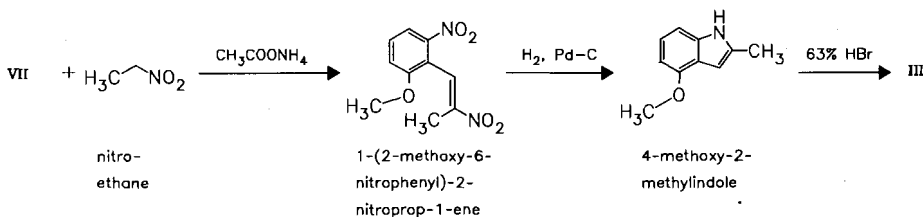
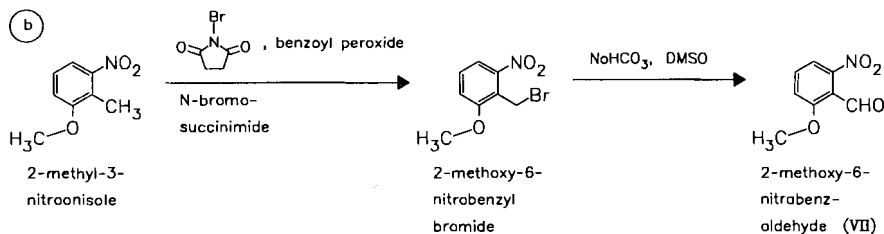
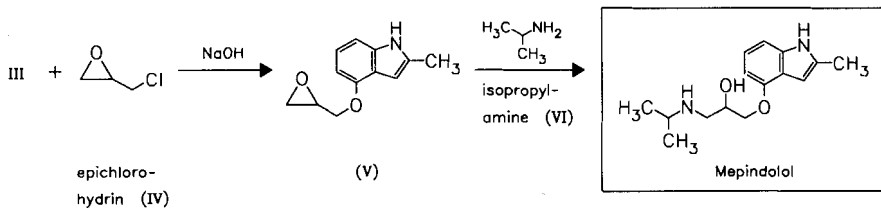
F: Sédantoinal (Sandoz); wfm I: Mesantoina (Sandoz); wfm

Mepindolol

ATC: C07AA14

Use: beta blocking agent, antianginal

RN: 23694-81-7 MF: C₁₅H₂₂N₂O₂ MW: 262.35 EINECS: 245-831-1CN: 1-[(1-methylethyl)amino]-3-[(2-methyl-1*H*-indol-4-yl)oxy]-2-propanol**sulfate**RN: 56396-94-2 MF: C₃₀H₄₄N₄O₄ · H₂SO₄ MW: 622.78

**Reference(s):**

- a GB 1 260 907 (Sandoz; appl. 23.5.1969; BR-prior. 7.6.1968).
Seemann, F. et al.: *Helv. Chim. Acta (HCACAV)* **54**, 2411 (1971).
b DOS 2 905 054 (Schering AG; appl. 8.2.1979).

combination with hydrochlorothiazide:

DOS 3 027 392 (Schering AG; appl. 17.7.1980).

Formulation(s): f. c. tabl. 2.5 mg, 5 mg (as sulfate)

Trade Name(s):

D: Corindocomb (Schering)-
comb. with
hydrochlorothiazide

Corindolan (Schering; as
sulfate)

I: Betagon (Schering; as
sulfate)
Mepicor (Corvi; as sulfate)

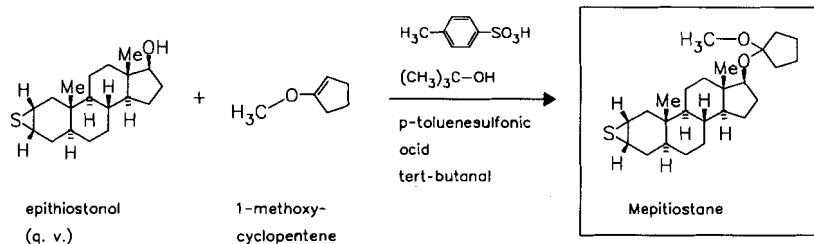
Mepitiostane

ATC: L02BA

Use: antiestrogen, antineoplastic

RN: 21362-69-6 MF: C₂₅H₄₀O₂S MW: 404.66

CN: (2 α ,3 α ,5 α ,17 β)-2,3-epithio-17-[(1-methoxycyclopentyl)oxy]androstane

**Reference(s):**

DE 1 668 659 (Shionogi; appl. 27.1.1968; J-prior. 28.1.1967).

US 3 567 713 (Shionogi; 2.3.1971; appl. 26.1.1968; J-prior. 28.1.1967).

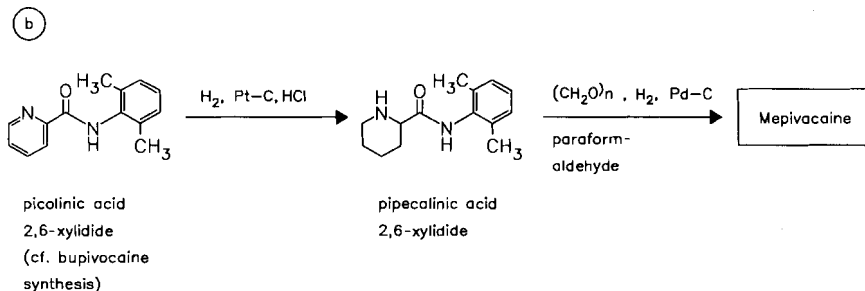
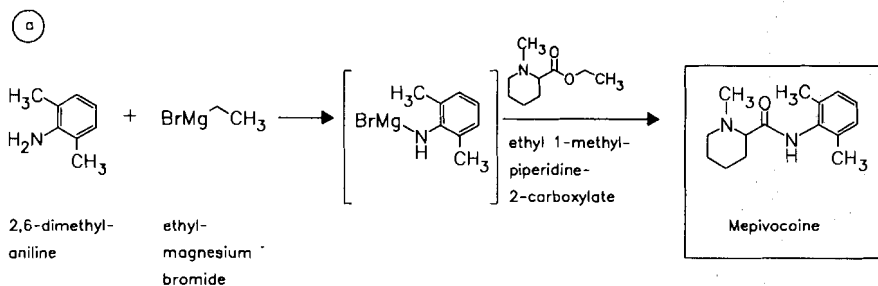
Trade Name(s):

J: Thioderon (Shionogi; 1979)

Mepivacaine

ATC: N01BB03

Use: local anesthetic

RN: 22801-44-1 MF: $\text{C}_{15}\text{H}_{22}\text{N}_2\text{O}$ MW: 246.35CN: (\pm)-*N*-(2,6-dimethylphenyl)-1-methyl-2-piperidinecarboxamide**monohydrochloride**RN: 1722-62-9 MF: $\text{C}_{15}\text{H}_{22}\text{N}_2\text{O} \cdot \text{HCl}$ MW: 282.82 EINECS: 217-023-9LD₅₀: 32 mg/kg (M, i. v.)

Reference(s):

- a US 2 799 679 (AB Bofors; 1957; S-prior. 1955).
Ekenstam, B. af et al.: Acta Chem. Scand. (ACHSE7) **11**, 1183 (1957).
Rinderknecht, H.: Helv. Chim. Acta (HCACAV) **42**, 1324 (1959).
- b DOS 2 726 200 (Bofors; appl. 10.6.1977; S-prior. 22.6.1976).
US 4 110 331 (Bofors; 29.8.1978; S-prior. 22.6.1976).

analogous method with methylation before hydrogenation of pyridine nucleus:

GB 826 668 (Crookes Labs.; appl. 1955).

D-(-)-mepivacaine:

DOS 2 259 517 (Bofors; appl. 5.12.1972; USA-prior. 6.12.1971).

Formulation(s): amp. 0.5 %, 1 %, 2 %, 3 %, 4 % (as hydrochloride)

Trade Name(s):

D:	Meaverin (Rhône-Poulenc Rorer)	F:	Carbocaine (Astra; as hydrochloride)		Mepident (Parke Davis)
	Mecain (curasan)	GB:	Estradurin (Lundbeck)-comb.; wfm		Mepiforan (Bieffe Medital)
	Mepivastesin (Espe)				Mepimynol (Molteni)
	Scandicain (Astra)	I:	Carbocaina (Astra-Simes)	J:	Carbocain (Yoshitomi)
	numerous combination preparations		Carbocaina adrenalina (Pierrel)-comb.	USA:	Polocaine (Astra; as hydrochloride)

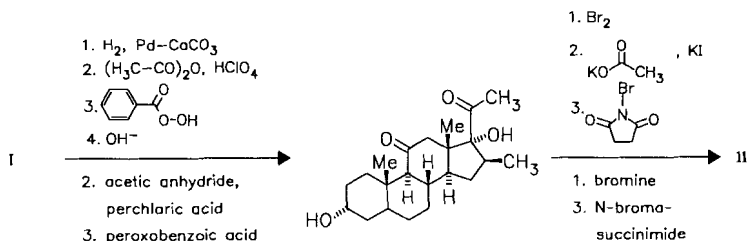
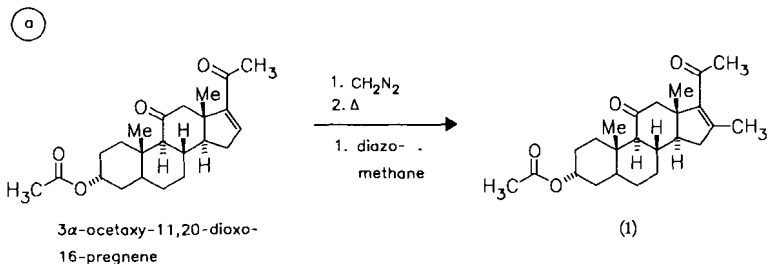
Meprednisone

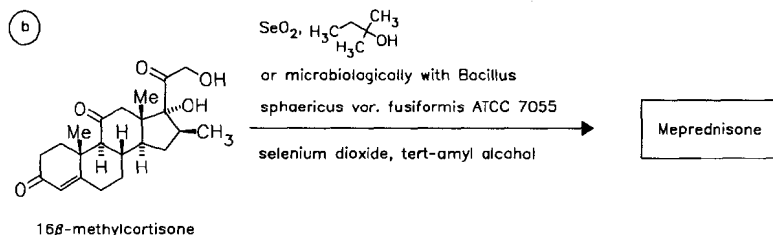
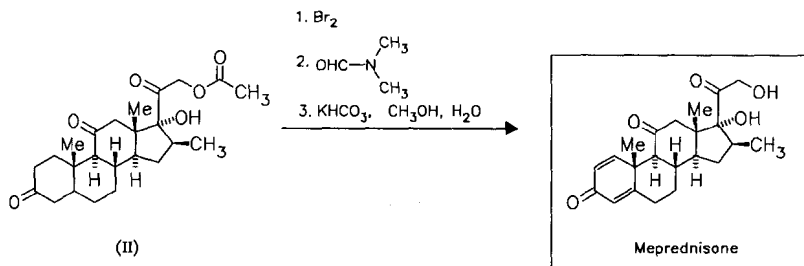
ATC: H02AB15

Use: glucocorticoid

RN: 1247-42-3 MF: C₂₂H₂₈O₅ MW: 372.46 EINECS: 214-996-1

CN: (16β)-17,21-dihydroxy-16-methylpregna-1,4-diene-3,11,20-trione



**Reference(s):**

US 3 164 618 (Schering Corp., 5.1.1965; prior. 23.7.1957, 8.5.1958).
 Taub, D. et al.: J. Am. Chem. Soc. (JACSAT) **82**, 4012 (1960); **80**, 4435 (1958).
 Oliveto, E.P. et al.: J. Am. Chem. Soc. (JACSAT) **80**, 4428 (1958).

starting material for a:

Slates, H.L.; Wandler, N.L.: J. Org. Chem. (JOCEAH) **22**, 498 (1957).
 US 2 671 794 (Glidden; 1954; prior. 1950, 1949).

alternative syntheses:**from hecogenin:**

Nathansohn, G.B. et al.: Experientia (EXPEAM) **17**, 448 (1961).

from sitosterin:

US 4 041 055 (Upjohn; 9.8.1977; prior. 17.11.1975).

Trade Name(s):

F: Betalone (Lepetit); wfm
 I: Corti-Bi (Sidus); wfm

Policort (Lepetit)-comb.;
 wfm

USA: Betapar (Parke Davis); wfm
 Betapred (Schering); wfm

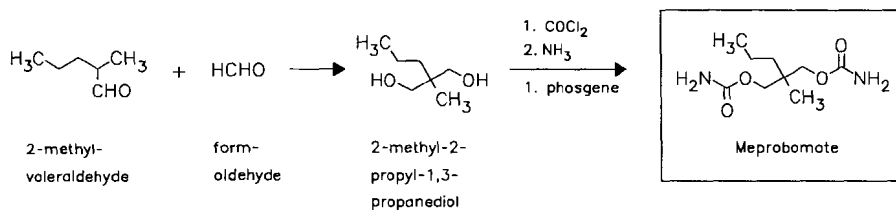
Meprobamate

ATC: N05BC01
 Use: tranquilizer

RN: 57-53-4 MF: C₉H₁₈N₂O₄ MW: 218.25 EINECS: 200-337-5

LD₅₀: 230 mg/kg (M, i.v.); 750 mg/kg (M, p.o.);
 350 mg/kg (R, i.v.); 794 mg/kg (R, p.o.)

CN: 2-methyl-2-propyl-1,3-propanediol dicarbamate



Reference(s):

US 2 724 720 (Carter Products; 1955; prior. 1953).

Ludwig, B.J.; Piech, E.C.: J. Am. Chem. Soc. (JACSAT) **73**, 5779 (1951).*Formulation(s):* f. c. tabl. 200 mg, 400 mg*Trade Name(s):*

D:	Meprobamat Saar (Philopharm) Visano (Kade)		generics and numerous combination preparations	Harmonin (Yoshitomi) Mepron (Choseido) Mepron (Kanto)
F:	Equanil (Sanofi Winthrop) Meprobamate Richard (Richard) Novalm (LDM Santé)	GB: I: J:	Equagesic (Wyeth)-comb. Meprob (Tariff. Nazionale) Quanil (Wyeth) Atraxin (Daiichi) Erina (Sumitomo)	USA: Equagesic (Wyeth-Ayerst) Equanil (Wyeth-Ayerst) Miltown (Wallace)

Meproscillarín

(Rambufaside; Meproscillaridin)

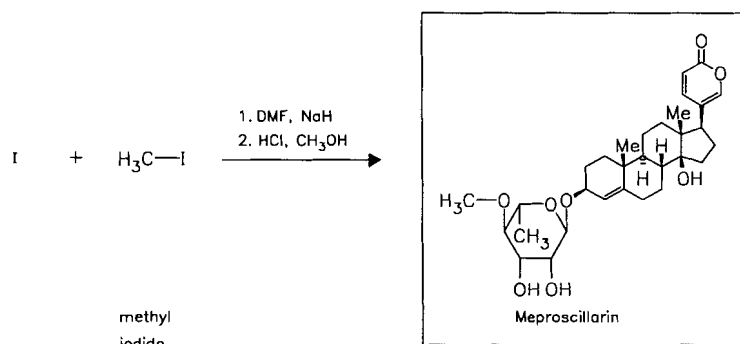
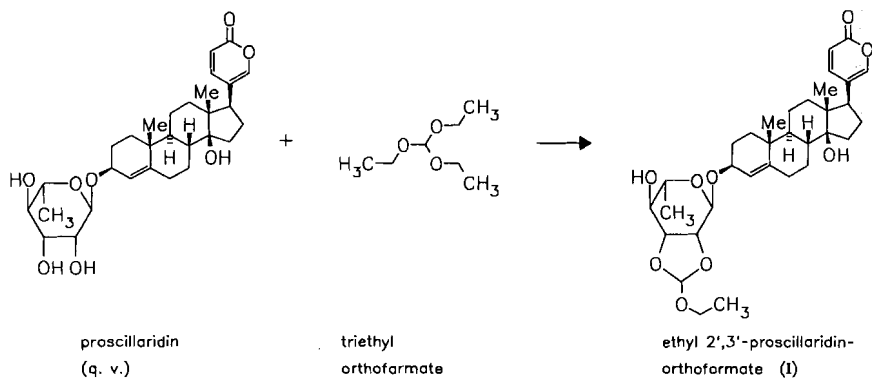
ATC: C01AB

Use: cardiac glycoside

RN: 33396-37-1 MF: C₃₁H₄₄O₈ MW: 544.69 EINECS: 251-493-6LD₅₀: 2800 µg/kg (M, i.v.); 12.5 mg/kg (M, p.o.);

5800 µg/kg (R, i.v.); 79 mg/kg (R, p.o.)

CN: (3β)-3-[(6-deoxy-4-O-methyl-α-L-mannopyranosyl)oxy]-14-hydroxybufa-4,20,22-trienolide

*Reference(s):*

DOS 2 301 382 (Knoll; appl. 12.1.1973).

DOS 2 427 976 (Knoll; appl. 10.6.1974).

Kubinyi, H.: Arzneim.-Forsch. (ARZNAD) **28** (I), 491 (1978).

alternative syntheses:

DE 1 910 207 (Knoll; appl. 28.2.1969).

Kubinyi, H.: Arch. Pharm. Ber. Dtsch. Pharm. Ges. (APBDAJ) **304**, 531 (1971).*combination with verapamil:*

DOS 2 746 881 (BASF; appl. 19.10.1977).

Formulation(s): tabl. 0.25 mg*Trade Name(s):*

D: Clift (Knoll); wfm

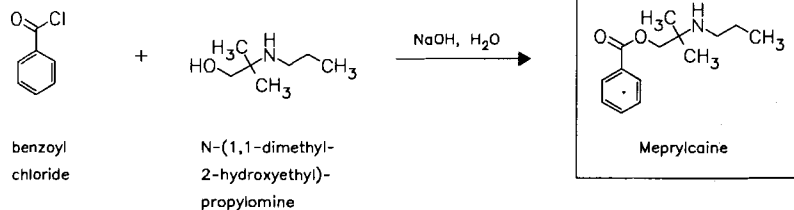
Meprylcaine

ATC: N01B

Use: local anesthetic

RN: 495-70-5 MF: C₁₄H₂₁NO₂ MW: 235.33

CN: 2-methyl-2-(propylamino)-1-propanol benzoate (ester)

*Reference(s):*

US 2 421 129 (Oradent Chem.; 1947; prior. 1944).

local anesthetic effective injection solution:

US 2 767 207 (Mizzy Inc.; 1956; prior. 1953).

Formulation(s): cream, gel, sol.*Trade Name(s):*

J: Epirocain (Eisai); wfm

USA: Oracaine (Mizzy); wfm

Meptazinol

ATC: N02AX

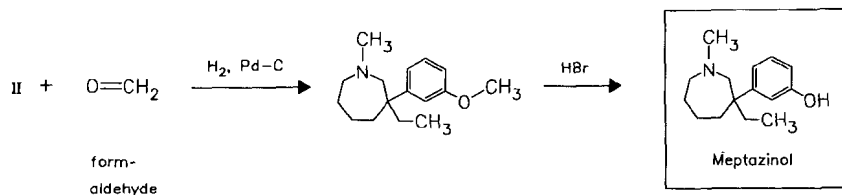
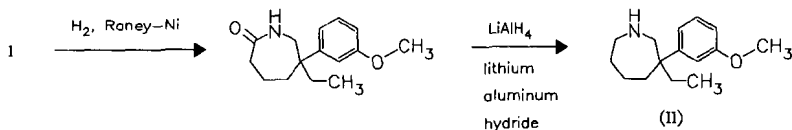
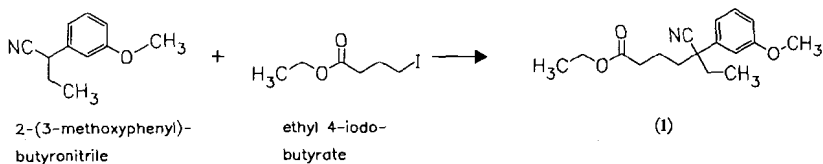
Use: narcotic, analgesic

RN: 54340-58-8 MF: C₁₅H₂₃NO MW: 233.36 EINECS: 259-109-9

CN: 3-(3-ethylhexahydro-1-methyl-1H-azepin-3-yl)phenol

hydrochlorideRN: 59263-76-2 MF: C₁₅H₂₃NO · HCl MW: 269.82 EINECS: 261-683-0LD₅₀: 282 mg/kg (M, p.o.);

1260 mg/kg (R, p.o.)

**Reference(s):**

DOS 1 941 534 (Wyeth; appl. 14.8.1969; GB-prior. 16.8.1968, 4.9.1968, 28.1.1969).
 GB 1 285 025 (Wyeth; Complete Specification 12.8.1969; prior. 16.8.1968, 4.9.1968, 28.1.1969).

alternative syntheses:

Bradley, G. et al.: Eur. J. Med. Chem. (EJMCA5) **15**, 375 (1980).

synthesis of enantiomers:

DOS 2 105 463 (Wyeth; appl. 5.2.1971; GB-prior. 6.2.1970).

combination with ibuprofen:

EP 99 186 (Wyeth; appl. 18.6.1983; GB-prior. 8.7.1982).

Formulation(s): amp. 100 mg/ml; tabl. 200 mg (as hydrochloride)

Trade Name(s):

D: Meptid (Wyeth; as hydrochloride) GB: Meptid (Monmouth)

Mepyramine

(Pyrilamine)

ATC: D04AA02; R06AC01
 Use: antihistaminic

RN: 91-84-9 MF: $\text{C}_{17}\text{H}_{23}\text{N}_3\text{O}$ MW: 285.39 EINECS: 202-102-2

LD₅₀: 23 mg/kg (M, i.v.); 220 mg/kg (M, p.o.);
 950 mg/kg (R, p.o.)

CN: *N*-[(4-methoxyphenyl)methyl]-*N,N*-dimethyl-*N*-2-pyridinyl-1,2-ethanediamine

monohydrochloride

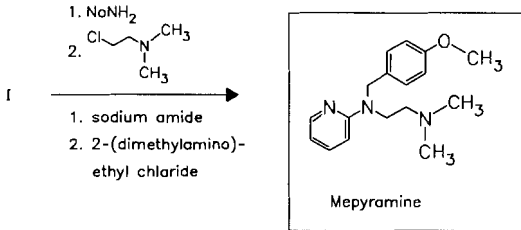
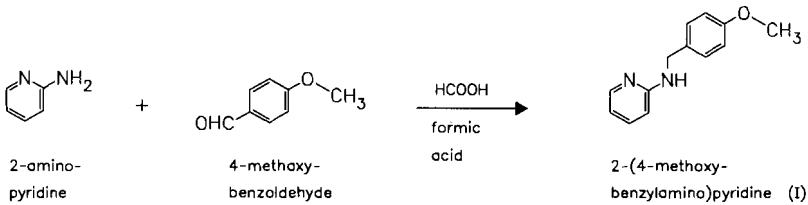
RN: 6036-95-9 MF: $\text{C}_{17}\text{H}_{23}\text{N}_3\text{O} \cdot \text{HCl}$ MW: 321.85 EINECS: 227-920-7

LD₅₀: 25 mg/kg (M, i.v.); 325 mg/kg (M, p.o.)

maleate (1:1)

RN: 59-33-6 MF: $\text{C}_{17}\text{H}_{23}\text{N}_3\text{O} \cdot \text{C}_4\text{H}_4\text{O}_4$ MW: 401.46 EINECS: 200-422-7

LD₅₀: 23 mg/kg (M, i.v.); 220 mg/kg (M, p.o.);
 513 mg/kg (R, p.o.)

**Reference(s):**

US 2 502 151 (Rhône-Poulenc; 1950; F-prior. 1943).

Formulation(s): amp. 15 mg, 25 mg; cream 2 %; tabl. 25 mg, 100 mg

Trade Name(s):

D:	Praecinal (Pfleger)-comb.; wfm Snup (Karlspharma)-comb.; wfm Triaminic (Wander)-comb.; wfm Vistosan A (Pharm-Allergen)-comb.; wfm	F:	Nortussine (Norgine Pharma)-comb. Triaminic (Novartis)-comb.	Poly-Histine-D (Sanofi; as maleate)-comb.; wfm Rynatan (Wallace; as tannate)-comb.; wfm Triaminic (Novartis Consumer)-comb.; wfm Triotann (Duramed; as tannate)-comb.; wfm
GB:	Anthisan (May & Baker); wfm	USA:	Atrohist (Medeva; as tannate)-comb.; wfm	

Mequitazine

ATC: R06AD07

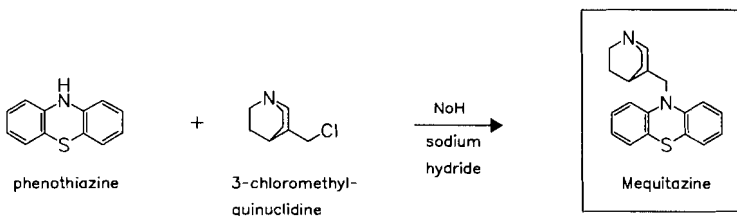
Use: antihistaminic, sedative

RN: 29216-28-2 MF: C₂₀H₂₂N₂S MW: 322.48 EINECS: 249-521-7

LD₅₀: 210 mg/kg (M, p.o.);

245 mg/kg (R, p.o.)

CN: 10-(1-azabicyclo[2.2.2]oct-3-ylmethyl)-10H-phenothiazine

**Reference(s):**

DOS 2 009 555 (Sogeras; appl. 28.2.1970; GB-prior. 3.3.1969).

US 3 987 042 (Auclair; M. et al.; 19.10.1976; prior. 17.8.1973).

Formulation(s): syrup 1.25 mg/ml, 2.5 mg/ml; tabl. 5 mg

Trade Name(s):

D:	Metaplexan (Rhône-Poulenc Rorer; 1977)	GB:	Primalan (Rhône-Poulenc Rorer; 1976)	J:	Nipdazin (Nippon Shoji; 1983)
F:	Butix (Pierre Fabre) Primalan (Inava; 1976)	I:	Primalan (Rhône-Poulenc Rorer; 1985)		

Merbromin

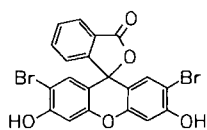
(Mercurochrome)

ATC: D08

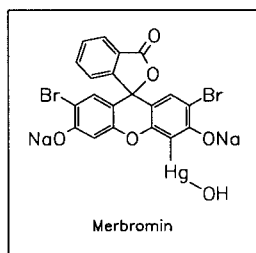
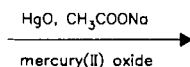
Use: antiseptic

RN: 55728-51-3 MF: C₂₀H₁₀Br₂HgO₆ MW: 706.69 EINECS: 259-779-2

CN: (2',7'-dibromo-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-(9H)xanthen]-4'-yl)hydroxymercury

disodium saltRN: 129-16-8 MF: C₂₀H₈Br₂HgNa₂O₆ MW: 750.66 EINECS: 204-933-6LD₅₀: 50 mg/kg (M, i.v.)

2',7'-dibromofluorescein



Merbromin

Reference(s):

US 1 535 003 (E. C. White; 1925; prior. 1921).

Formulation(s): sol. 2 %*Trade Name(s):*

D:	Mercurochrom-Lösung (Krewel Meuselbach)	F:	Pharmadose (Gilbert)
		I:	Mercurocromo (SIT)

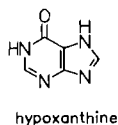
Mercaptopurine

ATC: L01BB02

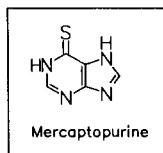
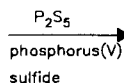
Use: antineoplastic

RN: 50-44-2 MF: C₅H₄N₄S MW: 152.18 EINECS: 200-037-4LD₅₀: 80 mg/kg (M, i.v.); 260 mg/kg (M, p.o.);
250 mg/kg (R, i.v.)

CN: 1,7-dihydro-6H-purine-6-thione



hypoxanthine



Mercaptopurine

Reference(s):

GB 713 286 (Wellcome Found.; appl. 1951).

alternative syntheses:

US 2 721 866 (Burroughs Wellcome; 1955; appl. 1954).
 US 2 724 711 (Burroughs Wellcome; 1955; appl. 1954).
 US 2 933 498 (Burroughs Wellcome; 1960; appl. 1954).

Formulation(s): tabl. 50 mg

Trade Name(s):

D:	NERCAP (medac)	GB:	Puri-Nethol (Glaxo Wellcome)	Mern (Tanabe)
F:	Purinéthol (Glaxo Wellcome)	I:	Ismipur (Nuovo ISM)	6-MP (Dojin)
		J:	Classen (Nippon Shoji)	Thioinosie (Morishita)
			Leukerin (Takeda)	USA: Purinethol (Glaxo Wellcome)

Meropenem

(SM-7338; ICI-194660)

ATC: J01DH02

Use: carbapenem, antibiotic

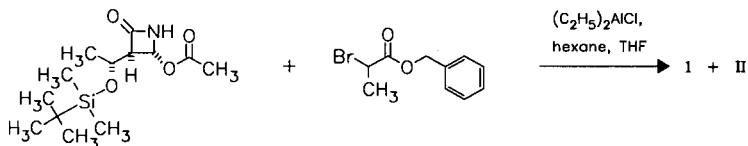
RN: 96036-03-2 MF: C₁₇H₂₅N₃O₅S MW: 383.47

LD₅₀: 2650 mg/kg (M, i.v.); >5 g/kg (M, p.o.);
 2850 mg/kg (R, i.v.); >5 g/kg (R, p.o.)

CN: [4*R*-[3(3*S**,5*S**),4*α*,5*β*,6*β*(*R**)]]-3-[[5-[(dimethylamino)carbonyl]-3-pyrrolidinyl]thio]-6-(1-hydroxyethyl)-4-methyl-7-oxo-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid

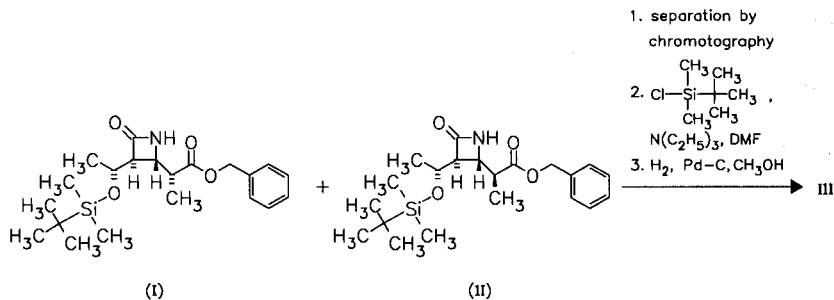
trihydrate

RN: 119478-56-7 MF: C₁₇H₂₅N₃O₅S · 3H₂O MW: 437.51



4(*R*)-acetoxo-3(*R*)-
 [1(*R*)-(tert-butyl-di-
 methylsilyloxy)ethyl]-
 azetidin-2-one

benzyl 2-bromo-
 propionate



1. separation by
 chromatography

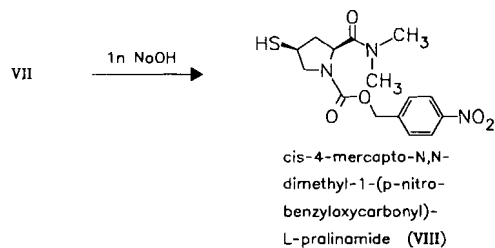
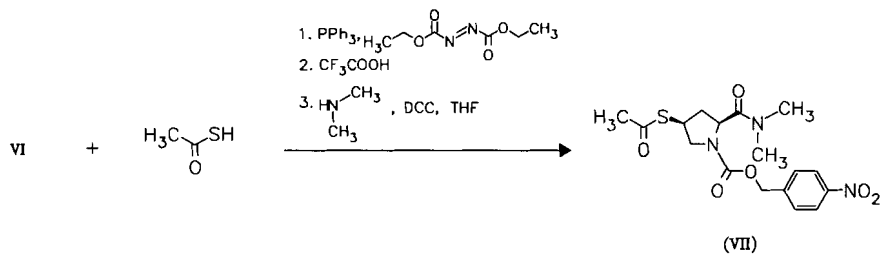
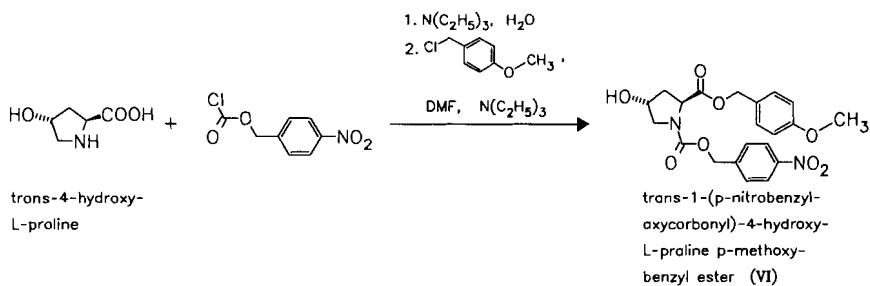
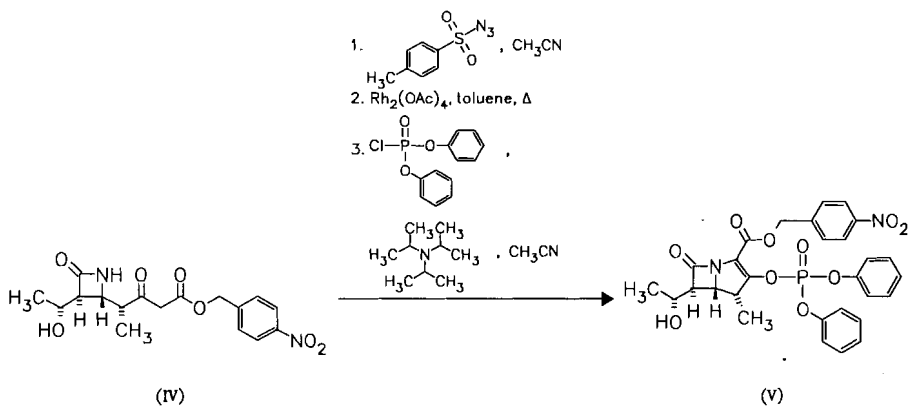
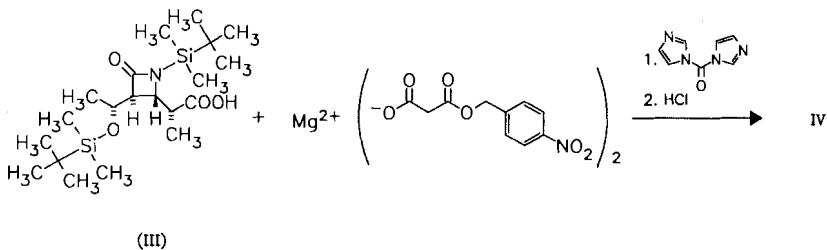
2. Cl-Si(CH₃)₃,
 N(C₂H₅)₃, DMF

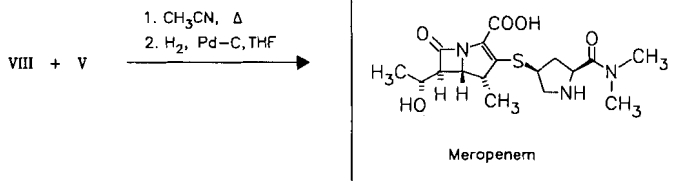
3. H₂, Pd-C, CH₃OH

(I)

(II)

III



**Reference(s):**

EP 126 587 (Sumitomo Chemical Co. Ltd; appl. 28.11.1984; J-prior. 9.5.1983, 15.6.1983, 12.7.1983, 3.9.1983, 11.11.1983, 10.2.1984).

synthesis of 4(R)-acetoxy-3(R)-[1(R)-(tert-butyl)dimethylsilyloxy]ethyl]azetid-2-one:

Reider, P.J. et al.: *Tetrahedron Lett.* (TELEAY) 2293 (1982).

Kobayashi, Y. et al.: *Tetrahedron* (TETRAB) 48, 55 (1992).

EP 256 377 (Sumitomo Pharmaceuticals Co., Ltd; appl. 24.2.1988; J-prior. 30.7.1986, 26.6.1987) (trihydrate).

preparation of β -lactams:

JP 01 075 488 (Sumitomo Pharmaceuticals Co., Ltd; appl. 22.3.1989; J-prior. 17.9.1982).

JP 60 233 076 (Sumitomo Chemical Co., Ltd; appl. 19.11.1985; CA-prior. 3.5.1984).

stable ophthalmic oily suspensions containing β -lactams:

JP 06 340 529 (Sumitomo Pharma; Santen Pharma Co. Ltd; J-prior. 1.6.1993, 13.12.1994).

stable topical film preparations:

JP 06 001 718 (Sumitomo Pharma; appl. 11.1.1994; J-prior. 17.6.1992).

in combination with penicillin, cephalosporin, penem and carbapenem antibiotics:

EP 640 607 (Hoffmann-La Roche; appl. 1.3.1995; CH-prior. 24.8.1993; 31.5.1994).

synergistic antimicrobial pharmaceutical compositions containing carbapenem and cephalosporins or penicillins:

EP 384 410 (Banya Pharmaceuticals Co., Ltd; appl. 29.8.1990; J-prior. 21.2.1989, 14.4.1989).

synergistic effects with human monoclonal antibody:

EP 441 395 (Sumitomo Pharmaceuticals Co., Ltd; appl. 14.8.1991; J-prior. 8.2.1990).

manufacture of sterilized dried sodium carbonate for pharmaceutical compounds:

JP 04 198 137 (Sumitomo Pharmaceuticals Co., Ltd; appl. 17.7.1992; J-prior. 28.1.1990).

Formulation(s): amp. 500 mg, 1 g; vial 250 mg, 500 mg, 1000 mg meropenem trihydrate equivalent

Trade Name(s):

D: Meronem (Grünenthal;
Zeneca)

GB: Meronem (Zeneca)
I: Merrem (Zeneca); wfm

J: Meropen (Sumitomo)
USA: Merrem (Zeneca)

Mesalazine

(5-ASA; Fisalamine; Mesalamine)

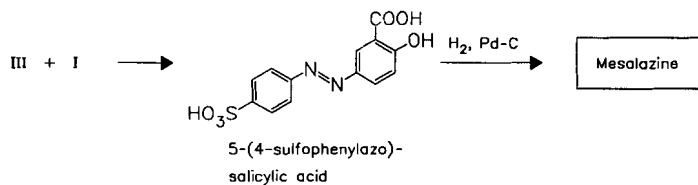
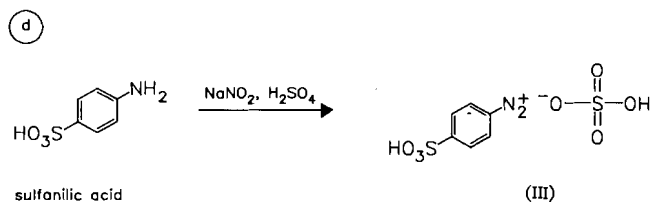
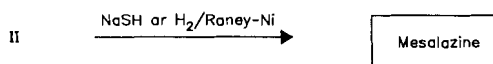
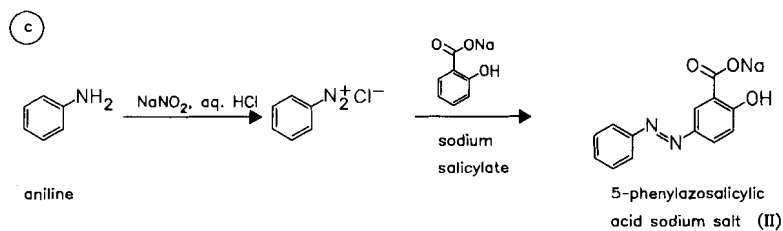
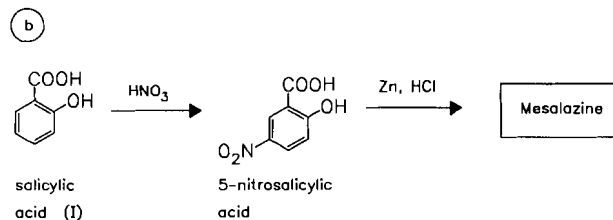
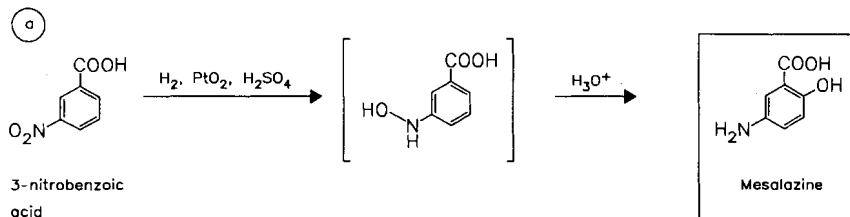
ATC: A07EC02

Use: treatment of gastrointestinal disorders
(ulcerative colitis, Crohn's disease)

RN: 89-57-6 MF: C₇H₇NO₃ MW: 153.14 EINECS: 201-919-1

LD₅₀: 681 mg/kg (M, i.p.); 5 g/kg (M, p.o.);
132 mg/kg (R, i.p.); 2800 mg/kg (R, p.o.)

CN: 5-amino-2-hydroxybenzoic acid



Active metabolite of sulfasalazine.

Reference(s):

- a US 2 198 249 (Du Pont; 1940; appl. 1938).
- b Weil, H. et al.: Ber. Dtsch. Chem. Ges. (BDCGAS) **55**, 2664 (1922).
- c DOS 3 638 364 (Bayer; appl. 11.11.1986).
DD 255 941 (VEB Chem. Pharm. Oranienburg; appl. 24.12.1986).
- d EP 253 788 (Nobelkemi; appl. 17.6.1987; S-prior. 7.7.1986).

review:

The Merck Index, 11th Ed., 5806 (Rahway 1989).

medical use for treatment of dermatological disorders:

EP 352 826 (Gist-Brocades; appl. 1.5.1989; N-prior. 5.5.1988).

medical use for treatment of psoriasis:

EP 291 159 (Dak-Lab.; appl. 31.3.1988; GB-prior. 1.4.1987).

medical use for treatment of colitis ulcerosa and Crohn's disease:

WO 8 102 671 (Ferring; appl. 20.3.1980).

medical use for treatment of coronary circulation diseases:

WO 8 903 216 (Ferring; appl. 13.10.1988; DK-prior. 14.10.1987).

soluble pharmaceutical formulations:

DOS 3 151 196 (K. H. Bauer; appl. 23.12.1981).

US 4 664 256 (Ferring; 12.5.1987; prior. 6.9.1983).

controlled-release formulation:

EP 131 485 (Rowell Lab.; appl. 6.6.1984; USA-prior. 7.7.1983).

Formulation(s): rectal susp. 2g/30 ml, 4 g/60 ml; suppos. 250 mg, 500 mg; tabl. 250 mg, 400 mg, 500 mg

Trade Name(s):

D:	Asacolitin (Henning Berlin)	GB:	Asacol (SmithKline Beecham)	J:	Salofalk (Interfalk)
	Claversal (Merckle; SmithKline Beecham)		Pentasa (Yamanouchi)		Pentasa (Kyorin; Nisshin Kyorin)
	Pentasa (Ferring)	I:	Salofalk (Thames)	USA:	Asacol (Procter & Gamble)
	Salofalk (Falk)		Asacol (Giuliani)		Pentasa (Hoechst Marion Roussel)
F:	Pentasa (Ferring)		Claversal (Smith Kline & French)		Rowasa (Solvay)
	Rowasa (Solvay Pharma)		Pentasa (Brocades)		

Mesna

ATC: R05CB05; V03AF01

Use: detoxificant, mucolytic agent

RN: 19767-45-4 MF: C₂H₅NaO₃S₂ MW: 164.18 EINECS: 243-285-9

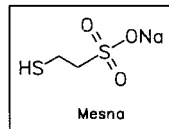
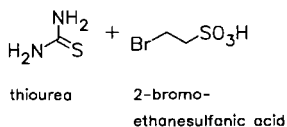
LD₅₀: 1720 mg/kg (M, i.v.); 6102 mg/kg (M, p.o.);

1510 mg/kg (R, i.v.); 4440 mg/kg (R, p.o.)

CN: 2-mercaptoethanesulfonic acid

free acid

RN: 3375-50-6 MF: C₂H₆O₃S₂ MW: 142.20 EINECS: 222-167-0

*Reference(s):*

US 2 695 310 (Lever Brothers; 1954; appl. 1951).

Schramm, C.H. et al.: J. Am. Chem. Soc. (JACSAT) **77**, 6231 (1955).

US 3 567 835 (UCB; 2.3.1971; GB-prior. 7.5.1965) - only medical use.

from ethylenesulfide and sodium hydrogen sulfite:

Reppe, W.: Justus Liebig's Ann. Chem. (JLACBF) **601**, 127 (1956).

from 2-chloroethanesulfonic acid and NaSH:

DRP 619 299 (Henkel; appl. 1933).

detoxicant for therapy with cyclophosphamide and ifosfamide:

DAS 2 756 018 (ASTA-Werke; appl. 14.12.1977).

salts with amines (mucolytics):

DAS 1 620 629 (UCB; appl. 5.5.1966; GB-prior. 7.5.1965).

Formulation(s): amp. 100 mg/ml, 600 mg; tabl. 400 mg, 600 mg

Trade Name(s):

D:	Mistabronco (UCB)	GB:	Urimitexan (ASTA Medica)	Uromitexan (ASTA Medica)
	Uromitexan (ASTA Medica AWD)	I:	Ausobronc (Biotekfarma)	J: Uromitexan (Shionogi)
F:	Mucofluid (UCB)		Mucofluid (UCB)	USA: Mesnex (Bristol-Myers Squibb)
	Uromitexan 400 (ASTA Medica)		Mucolene (Formenti)	

Mesoridazine

ATC: N05AC03

Use: psychosedative, antipsychotic

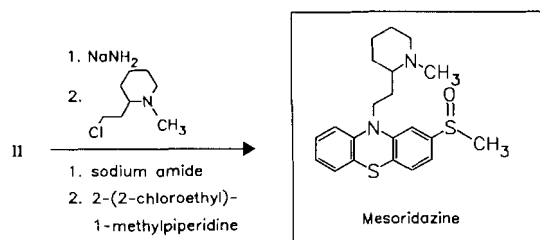
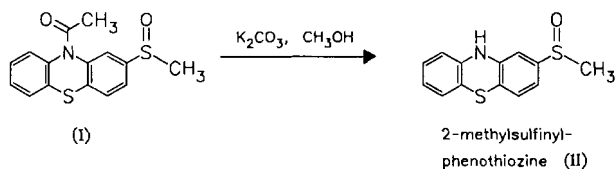
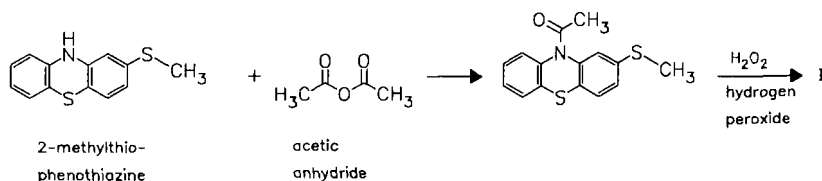
RN: 5588-33-0 MF: $C_{21}H_{26}N_2OS_2$ MW: 386.58

LD₅₀: 26 mg/kg (M, i.v.); 560 mg/kg (M, p.o.);
644 mg/kg (R, p.o.)

CN: 10-[2-(1-methyl-2-piperidinyl)ethyl]-2-(methylsulfinyl)-10H-phenothiazine

monobenzenesulfonate

RN: 32672-69-8 MF: $C_{21}H_{26}N_2OS_2 \cdot C_6H_6O_3S$ MW: 544.76



Reference(s):

US 3 084 161 (Sandoz; 2.4.1963; CH-prior. 10.3.1960).

Formulation(s): amp. 25 mg; drg. 5 mg; tabl. 10 mg, 25 mg, 100 mg (as monobenzenesulfonate)

Trade Name(s):

F: Lidanil (Salvoxyyl-Wander); USA: Serentil (Boehringer Ing.)
wfm

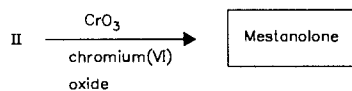
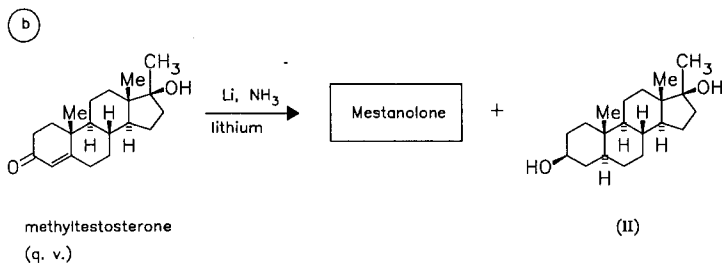
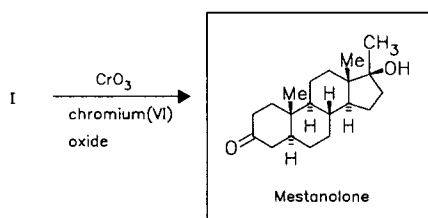
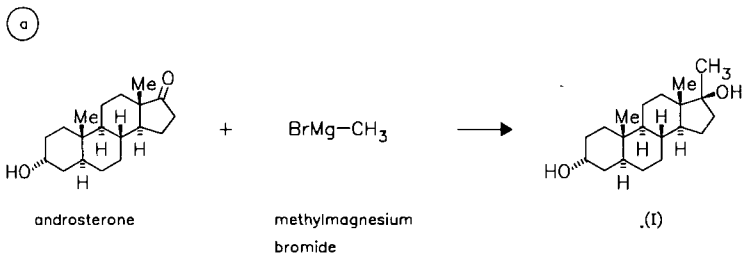
Mestanolone

ATC: A14

Use: anabolic, androgen

RN: 521-11-9 MF: C₂₀H₃₂O₂ MW: 304.47 EINECS: 208-302-6LD₅₀: >3 g/kg (M, p.o.);

>3 g/kg (R, p.o.)

CN: (5 α ,17 β)-17-hydroxy-17-methylandrostan-3-one*Reference(s):*

a GB 464 396 (Schering AG; appl. 1935).

Ruzicka, L. et al.: *Helv. Chim. Acta (HCACAV)* **18**, 994, 1487 (1935).*starting material:*

The Merck Index, 676 (Rahway 1976).

b US 2 763 670 (Syntex; 1956, MEX-prior. 1954).

Formulation(s): 10 - 30 mg/day

Trade Name(s):

GB: Androstalone (Roussel);
wfm
J: Andoron (Sawai)
Mestalone (Hokuriku)

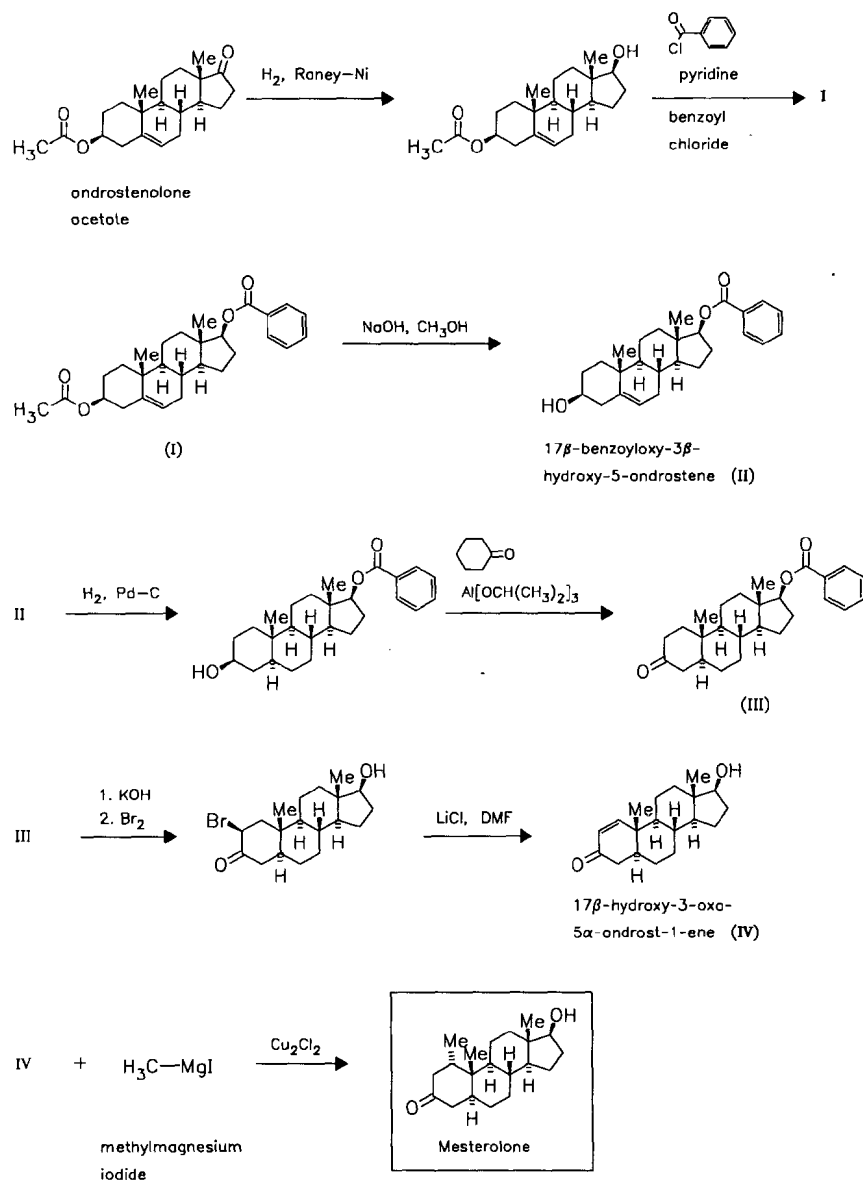
Methyantalon (Sanwa)
Prohormo (Toyo Pharmar)
Protenolon (Showa)
Restore (Tokyo Tanabe)

Tantarone (Mohan)
Yonchlon Syr. (Santen-
Yamanouchi)

Mesterolone

ATC: G03BB01

Use: androgen

RN: 1424-00-6 MF: C₂₀H₃₂O₂ MW: 304.47 EINECS: 215-836-3CN: (1 α ,5 α ,17 β)-17-hydroxy-1-methylandrostan-3-one

Reference(s):

DE 1 152 100 (Schering AG; appl. 23.12.1960).

alternative syntheses:

DE 1 122 944 (Schering AG; appl. 6.4.1960).

DE 1 131 667 (Schering AG; appl. 21.7.1960).

Formulation(s): tabl. 25 mg, 50 mg*Trade Name(s):*D: Proviron (Schering)
Vistimon (Jenapharm)F: Proviron (Schering)
GB: Proviron (Schering)

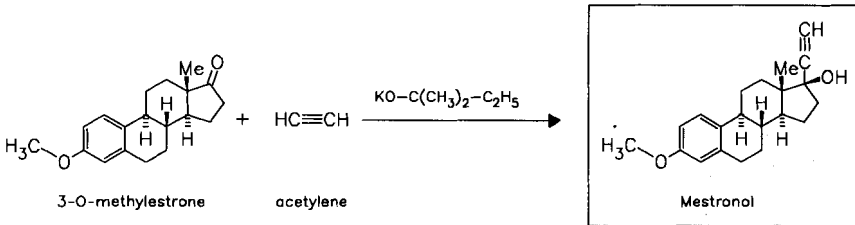
I: Pro-Viron (Schering)

Mestranol

ATC: G03

Use: estrogen (in combination with
progestogen as oral contraceptive)RN: 72-33-3 MF: C₂₁H₂₆O₂ MW: 310.44 EINECS: 200-777-8LD₅₀: >10 g/kg (M, p.o.);

>10 g/kg (R, p.o.)

CN: (17 α)-3-methoxy-19-norpregna-1,3,5(10)-trien-20-yn-17-ol*Reference(s):*

US 2 666 769 (Searle; 1954; appl. 1952).

Colton, F.B. et al.: J. Am. Chem. Soc. (JACSAT) **79**, 1123 (1957).

DE 1 096 354 (Schering AG; appl. 1.8.1959).

Formulation(s): drg. 0.05 mg, 0.08 mg; tabl. 0.05 mg*Trade Name(s):*D: Gestamestrol (Hermal-Chemie)-comb.
Ortho-Novum (Janssen-Cilag)-comb.
Ovosiston (Jenapharm)
F: Métrulène (Searle)-comb.; wfm
Métrulène-test (Searle)-comb.; wfm
Noracycline (Ciba-Geigy)-comb.; wfm
Orgaluton (Organon)-comb.; wfm
O.V. 28 (Biosedra)-comb.; wfm
GB: Menophase (Searle)I: Norinyl-1 (Searle)-comb.
Ortho-Novin 1/50 (Janssen-Cilag)-comb.
Elan (Valeas)-comb.; wfm
Franovul (Francia Farm.)-comb.; wfm
Luteolas (Serono)-comb.; wfm
Lyndiol (Ravasini)
Organon)-comb.; wfm
Metrolen (SPA)-comb.; wfm
Ortho-Novum (Cilag-Chemie)-comb.; wfm
Ovaras (Serono)-comb.; wfmJ: Regovar (Recordati); wfm
Devocin (Shionogi)
Enavid (Dainippon)-comb.
Lutedione (Teikoku Zoki)-comb.
Lyndiol (Organon-Sankyo)-comb.
Norluten D (Shionogi)-comb.
USA: Nelova (Warner Chilcott)-comb.
Norethin (Roberts)-comb.
Norinyl (Searle)-comb.
Ortho-Novum (Ortho-McNeil)-comb.

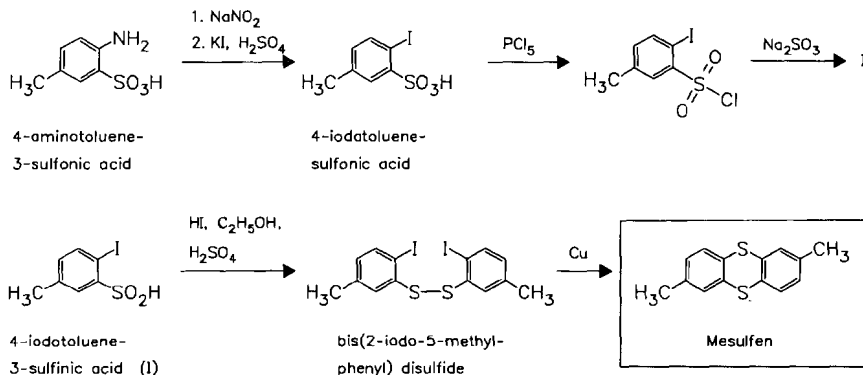
Mesulfen
 (Thianthol)

ATC: D10AB05; P03AA03

Use: topical scabicide, antipruritic

RN: 135-58-0 MF: C₁₄H₁₂S₂ MW: 244.38 EINECS: 205-202-4

CN: 2,7-dimeththianthrene

**Reference(s):**Barber, H.J.; Smiles, S.: J. Chem. Soc. (JCSOA9) **1928**, 1141.*alternative synthesis (from toluene, sulfur and AlCl₃):*

DE 365 169 (Bayer; appl. 1919).

Formulation(s): ointment 5-25 %**Trade Name(s):**

D: Citemul (Medopharm)

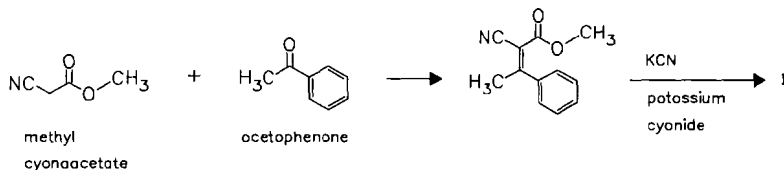
I: Mitigal (Bayropharm);
wfmJ: Mitigal (Sigurtà); wfm
Scabol (Daiichi)
Mesuximide
 (Methsuximide)

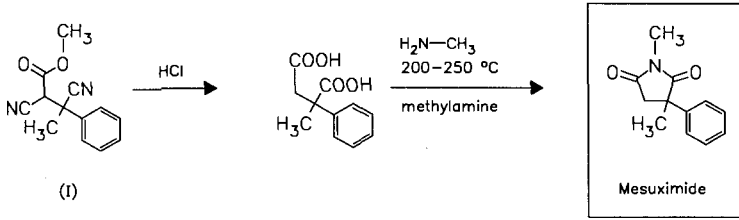
ATC: N03AD03

Use: antiepileptic

RN: 77-41-8 MF: C₁₂H₁₃NO₂ MW: 203.24 EINECS: 201-026-7LD₅₀: 900 mg/kg (M, p.o.)

CN: 1,3-dimethyl-3-phenyl-2,5-pyrrolidinedione





Reference(s):

US 2 643 257 (Parke Davis; 1953; prior. 1950).
 Miller, C.A.; Long, L.M.: J. Am. Chem. Soc. (JACSAT) **73**, 4895 (1951); **75**, 373 (1953).

Formulation(s): cps. 150 mg, 300 mg

Trade Name(s):

D: Petinutin (Parke Davis) GB: Celontin (Parke Davis); USA: Celontin (Parke Davis)
 wfm

Metaclazepam

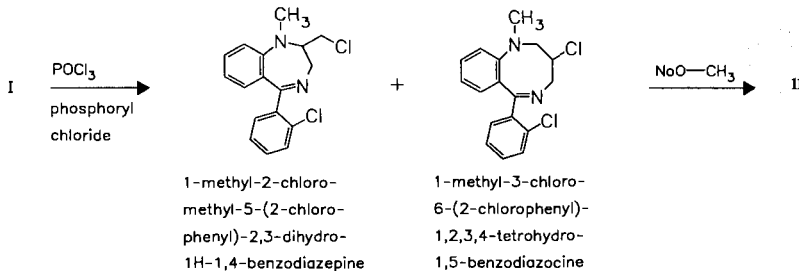
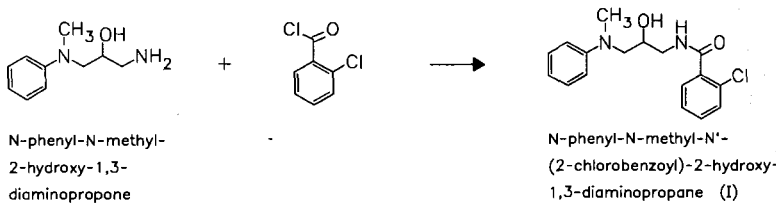
(Brometazepam; Metuclazepam)

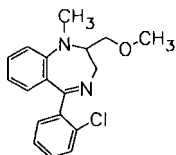
ATC: N05BA
 Use: anxiolytic, benzodiazepine derivative

RN: 84031-17-4 MF: C₁₈H₁₈BrClN₂O MW: 393.71
 LD₅₀: 1578 mg/kg (M, p.o.)
 CN: 7-bromo-5-(2-chlorophenyl)-2,3-dihydro-2-(methoxymethyl)-1-methyl-1H-1,4-benzodiazepine

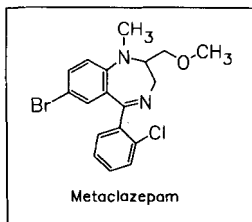
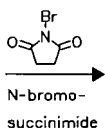
monohydrochloride

RN: 61802-93-5 MF: C₁₈H₁₈BrClN₂O · HCl MW: 430.17 EINECS: 263-234-4
 LD₅₀: 1578 mg/kg (M, p.o.)





1-methyl-2-methoxy-methyl-5-(2-chlorophenyl)-2,3-dihydro-1H-1,4-benzodiazepine (II)



Reference(s):

- BE 799 001 (Kali-Chemie; appl. 2.5.1973; D-prior. 3.5.1972).
 DOS 2 520 937 (Kali-Chemie; appl. 10.5.1975).
 US 4 098 786 (Kali-Chemie; 4.7.1978; appl. 23.9.1976; D-prior. 3.5.1972).
 US 4 244 869 (Kali-Chemie; 13.1.1981; D-prior. 3.5.1972, 10.5.1975).
 Liepmann, H. et al.: Eur. J. Med. Chem. (EJMCA5) **11**, 501 (1976).

medical use as analgesic:

EP 96 320 (Kali-Chemie; appl. 28.5.1983; D-prior. 5.6.1982).

Formulation(s): drops 10 mg/ml; tabl. 5 mg, 10 mg (as hydrochloride)

Trade Name(s):

D: Talis (Kali-Chemie; 1990);
wfm

Metacycline

(Methacycline; Méthylèncycline)

ATC: J01AA05

Use: antibiotic

RN: 914-00-1 MF: $C_{22}H_{22}N_2O_8$ MW: 442.42 EINECS: 213-017-5

LD₅₀: 660 mg/kg (R, i.p.)

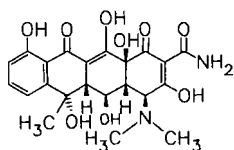
CN: [4S-(4 α ,4 $\alpha\alpha$,5 α ,5 $\alpha\alpha$,12 $\alpha\alpha$)]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-6-methylene-1,11-dioxo-2-naphthacencarboxamide

monohydrochloride

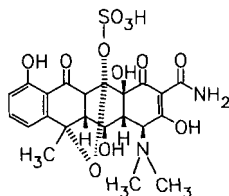
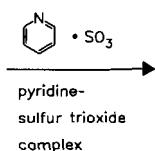
RN: 3963-95-9 MF: $C_{22}H_{22}N_2O_8 \cdot HCl$ MW: 478.89 EINECS: 223-568-3

LD₅₀: 193 mg/kg (M, i.v.); 3450 mg/kg (M, p.o.);

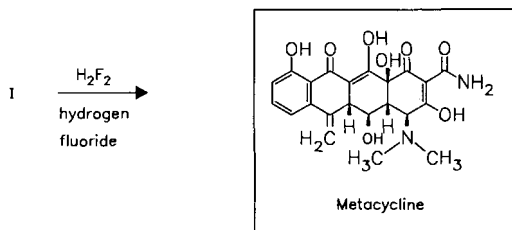
202 mg/kg (R, i.v.); >2 g/kg (R, p.o.)



oxytetracycline



(I)



Reference(s):

US 2 984 686 (Pfizer; 16.5.1961; appl. 19.12.1960).
 US 3 026 354 (Pfizer; 20.3.1962; prior. 15.12.1960).
 cf. also doxycycline

Formulation(s): cps. 150 mg, 300 mg; drops 100 mg; susp. 100 mg (as hydrochloride)

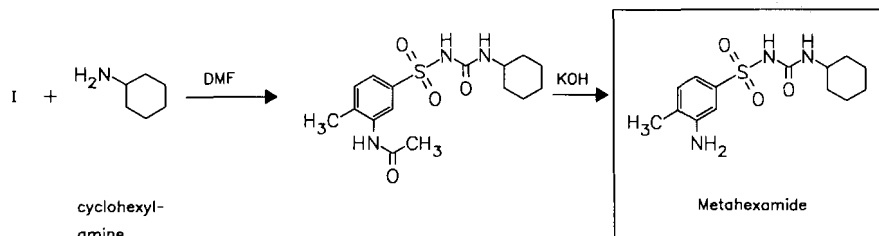
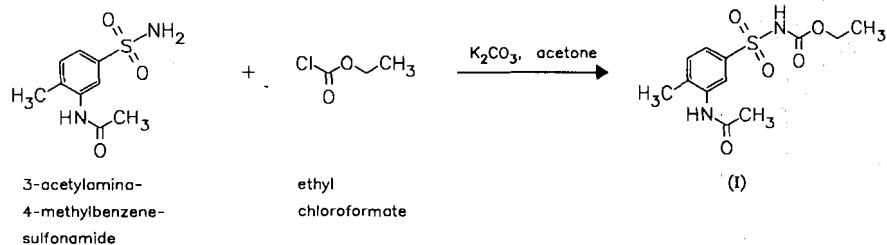
Trade Name(s):

D:	Rondo-Bron (Mack)- comb.; wfm	Physiomycine (Laphal)	J:	Adramycin (Sanko)
	Rondo-Bron (Mack)-comb. with guaiphenesin; wfm	GB: Rondomycin (Pfizer); wfm		Rondomycin (Taito Pfizer)
	Rondomycin (Mack); wfm	I: Esarondil (Terapeutico M.R.)	USA:	Rondomycin (Wallace); wfm
F:	Lysocline (Parke Davis)	Rotilen (Terapeutico Mil.)		
		Stafilon (AGIPS)		

Metahexamide

ATC: A10BB10
 Use: antidiabetic

RN: 565-33-3 MF: C₁₄H₂₁N₃O₃S MW: 311.41 EINECS: 209-276-9
 CN: 3-amino-N-[(cyclohexylamino)carbonyl]-4-methylbenzenesulfonamide



Reference(s):

GB 831 043 (Boehringer Mannh.; appl. 1958; D-prior. 1957).

Formulation(s): tabl. 100 mg

Trade Name(s):

F: Isodiane (Servier); wfm

Metamizole sodium

ATC: N02BB02

Use: analgesic, antipyretic, anti-inflammatory

RN: 68-89-3 MF: $C_{13}H_{16}N_3NaO_4S$ MW: 333.34 EINECS: 200-694-7LD₅₀: 2197 mg/kg (M, i.v.); 2891 mg/kg (M, p.o.);

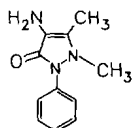
2182 mg/kg (R, i.v.); 3 g/kg (R, p.o.)

CN: [(2,3-dihydro-1,5-dimethyl-3-oxo-2-phenyl-1*H*-pyrazol-4-yl)methylamino]methanesulfonic acid sodium salt

monohydrate

RN: 5907-38-0 MF: $C_{13}H_{16}N_3NaO_4S \cdot H_2O$ MW: 351.36

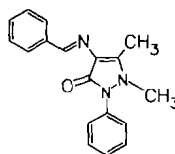
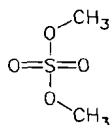
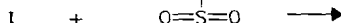
metamizole

RN: 50567-35-6 MF: $C_{13}H_{17}N_3O_4S$ MW: 311.36 EINECS: 256-627-74-amino-2,3-dimethyl-1-phenyl-5- Δ^3 -pyrazolone
(cf. aminophenazone synthesis)

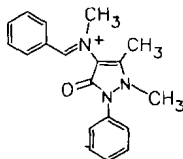
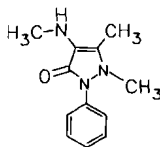
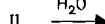
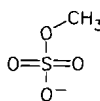
+



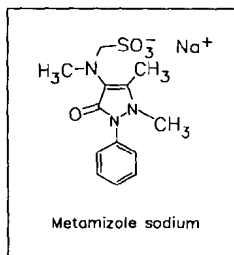
benzaldehyde

4-benzylidenomino-2,3-dimethyl-1-phenyl-5- Δ^3 -pyrazolone (I)

dimethyl sulfate

4-benzylidenemethylammonio-2,3-dimethyl-1-phenyl-5- Δ^3 -pyrazolone methyl sulfate (II)2,3-dimethyl-4-methylamino-1-phenyl-5- Δ^3 -pyrazolone

formaldehyde



Reference(s):

Ehrhart, Ruschig, I, 171.

DRP 476 663 (I.G. Farben; 1922).

DRP 421 505 (I.G. Farben; appl. 1920),

DRP 467 627 (I.G. Farben; appl. 1921).

DRP 476 643 (I.G. Farben; appl. 1921).

Formulation(s): amp. 1 g, 2.5 g, 5 g; drops 500 mg; f. c. tabl. 500 mg; suppos. 300 mg, 750 mg, 1 g; syrup 250 mg

Trade Name(s):

D:	Novalgin (Hoechst) Novaminsulfon (Braun Melsungen; Lichtenstein; ratiopharm) Novaminsulfon-ratiopharm (ratiopharm)	F:	Novalgin (Hoechst) Pyréthane (Gerda) combination preparations	J:	Sulpylon (Hokuriku) Sulpyna (Kanto)
		I:	Novalgina (Hoechst-I)- comb. Trisalgina (Molteni)-comb.	USA:	Novaldin (Winthrop); wfm

Metampicillin

ATC: J01CA14

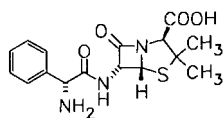
Use: antibiotic

RN: 6489-97-0 MF: C₁₇H₁₉N₃O₄S MW: 361.42 EINECS: 229-365-6

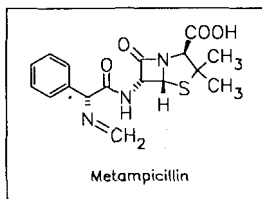
CN: [2S-[2α,5α,6β(S*)]]-3,3-dimethyl-6-[[('methyleneamino)phenylacetyl]amino]-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

monosodium salt

RN: 6489-61-8 MF: C₁₇H₁₈N₃NaO₄S MW: 383.40



ampicillin
(q. v.)



Metampicillin

Reference(s):

GB 1 081 093 (Soc. d'Etudes de Recherche et d'Applicat. Scientifiques et Medicals; appl. 17.3.1964; valid from 12.3.1965).

Formulation(s): amp. 250 mg, 500 mg, 1 g; cps. 250 mg, 500 mg (as sodium salt)

Trade Name(s):

F:	Magnipen (Clin-Midy); wfm	I:	Suvipen (Sarbach); wfm Magnipen (Midy); wfm
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Metandienone

(Methandienone; Methandrostenolone)

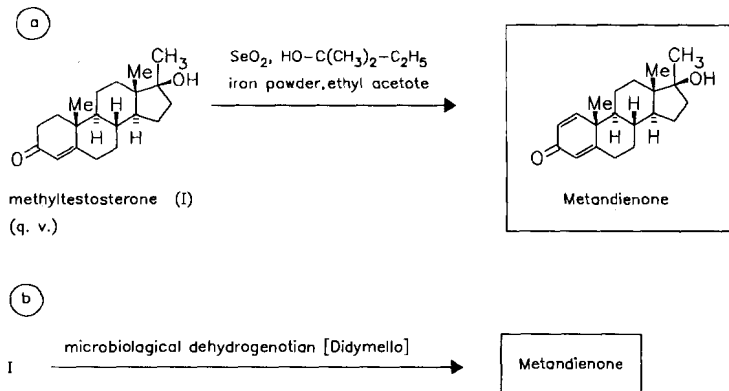
ATC: A14AA03; D11AE01

Use: anabolic, androgen

RN: 72-63-9 MF: C₂₀H₂₈O₂ MW: 300.44 EINECS: 200-787-2

LD₅₀: >1 g/kg (R, p.o.)

CN: (17β)-17-hydroxy-17-methylandrosta-1,4-dien-3-one

**Reference(s):**

- a** US 2 900 398 (Ciba; 1959; CH-prior. 1956).
Meystre, Ch. et al.: *Helv. Chim. Acta (HCACAV)* **39**, 734 (1956).
b Vischer, F. et al.: *Helv. Chim. Acta (HCACAV)* **38**, 1502 (1955).

Formulation(s): ointment 10 mg/g; tabl. 2 mg, 5 mg

Trade Name(s):

D:	Dianabol (Ciba); wfm	GB:	Dianabol (Ciba); wfm		Perholin (Ion); wfm
F:	Dianabol (Ciba-Geigy); wfm	I:	Dianabol (Ciba); wfm	J:	Abirol (Takeda)
	Dianavit (Ciba-Geigy)-comb.; wfm		Metabolina (Guidi); wfm		Anoredan (Kodama)
			Metastenol (Farber-Ref); wfm	USA:	Dianabol (Ciba); wfm

Metapramine

ATC: N06A
Use: antidepressant

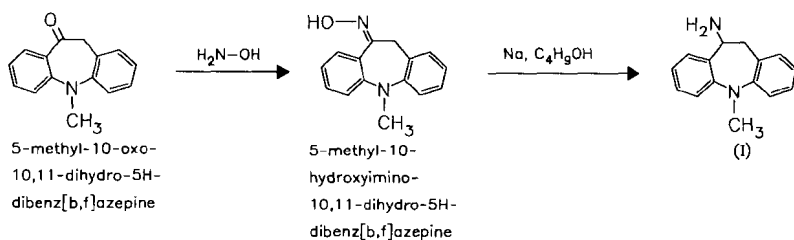
RN: 21730-16-5 MF: C₁₆H₁₈N₂ MW: 238.33
CN: 10,11-dihydro-*N*,5-dimethyl-5*H*-dibenz[*b,f*]azepin-10-amine

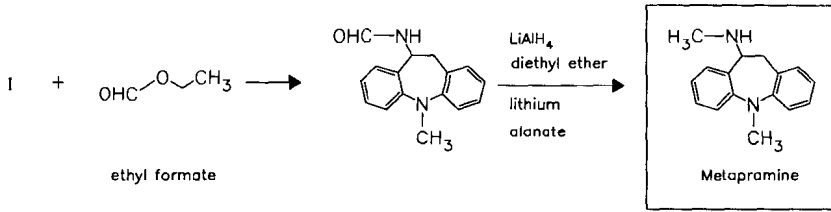
fumarate

RN: 93841-84-0 MF: C₁₆H₁₈N₂ · C₄H₄O₄ MW: 354.41

hydrochloride

RN: 21737-55-3 MF: C₁₆H₁₈N₂ · xHCl MW: unspecified EINECS: 244-555-9



**Reference(s):**

FR-M 6 616 (Rhône-Poulenc; appl. 14.4.1967).

ZA 6 800 345 (Rhône-Poulenc; appl. 19.6.1968; F-prior. 18.1.1967, 9.11.1967).

alternative synthesis:

DOS 2 159 678 (Rhône-Poulenc; appl. 1.12.1971; F-prior. 1.12.1970).

Formulation(s): tabl. 50 mg (as fumarate)**Trade Name(s):**

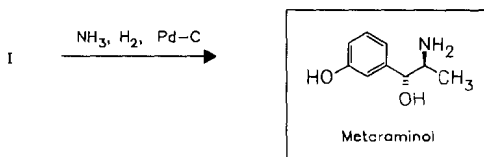
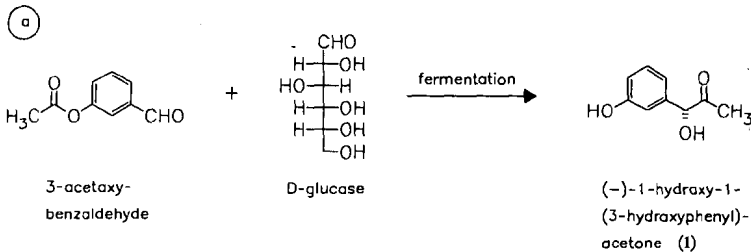
F: Rodostene (Rhône-Poulenc); wfm

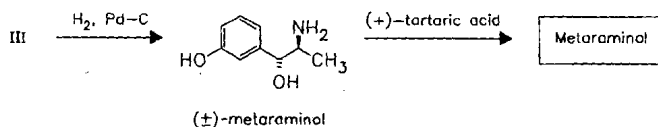
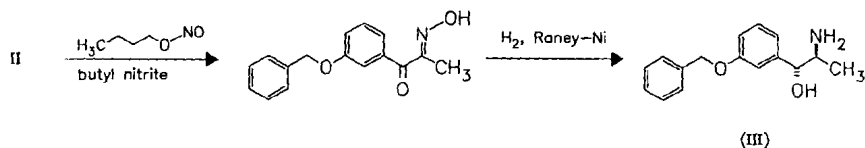
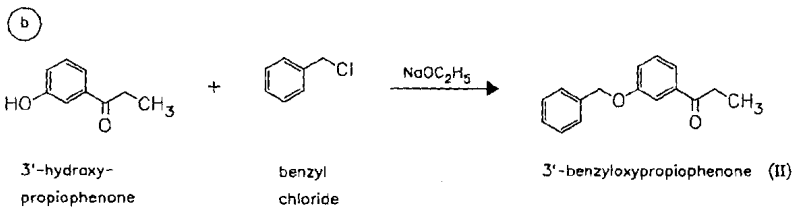
Timaxel (Specia); wfm

Metaraminol

ATC: C01CA09

Use: sympathomimetic

RN: 54-49-9 MF: $C_9H_{13}NO_2$ MW: 167.21LD₅₀: 51 mg/kg (M, i.v.); 99 mg/kg (M, p.o.);
240 mg/kg (R, p.o.)CN: [R-(R*,S*)]- α -(1-aminoethyl)-3-hydroxybenzenemethanol**hydrogen tartrate (1:1)**RN: 33402-03-8 MF: $C_9H_{13}NO_2 \cdot C_4H_6O_6$ MW: 317.29 EINECS: 251-502-3LD₅₀: 39 mg/kg (M, i.v.); 99 mg/kg (M, p.o.);
3427 μ g/kg (R, i.v.); 240 mg/kg (R, p.o.)

**Reference(s):**

- a DRP 555 404 (I. G. Farben; appl. 1930).
US 1 951 302 (Winthrop; 1934; D-prior. 1930).
b DRP 571 229 (I. G. Farben; appl. 1930).
US 1 948 162 (Winthrop; 1934; D-prior. 1930).
US 1 995 709 (Sharp & Dohme; 1935; appl. 1931).
GB 396 951 (I. G. Farben; appl. 1932; D-prior. 1931).

Formulation(s): amp. 10 mg/ml (as hydrogen tartrate)

Trade Name(s):

D:	Araminum (Sharp & Dohme); wfm	GB:	Aramine (Merck Sharp & Dohme)	USA:	Aramine (Merck Sharp & Dohme; as bitartrate)
F:	Aramine (Merck Sharp & Dohme); wfm	I:	Levicor (Bioindustria)		
		J:	Araminon (Merck-Banyu)		

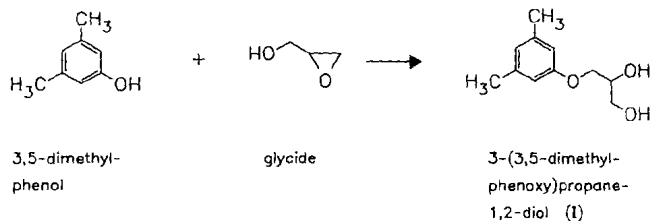
Metaxalone

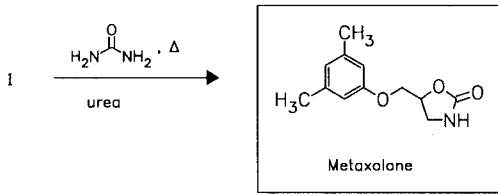
ATC: M03
Use: muscle relaxant

RN: 1665-48-1 MF: C₁₂H₁₅NO₃ MW: 221.26 EINECS: 216-777-6

LD₅₀: 1690 mg/kg (M, p.o.);
775 mg/kg (R, p.o.)

CN: 5-[(3,5-dimethylphenoxy)methyl]-2-oxazolidinone



**Reference(s):**

US 3 062 827 (A. H. Robins; 6.11.1962; prior. 19.6.1959).

Formulation(s): tabl. 400 mg

Trade Name(s):

USA: Skelaxin (Carnrick)

Metenolone acetate

(Methenolone acetate)

ATC: A14AA04

Use: anabolic

RN: 434-05-9 MF: $\text{C}_{22}\text{H}_{32}\text{O}_3$ MW: 344.50 EINECS: 207-097-0

LD₅₀: 4 g/kg (M, p.o.);

4 g/kg (R, p.o.)

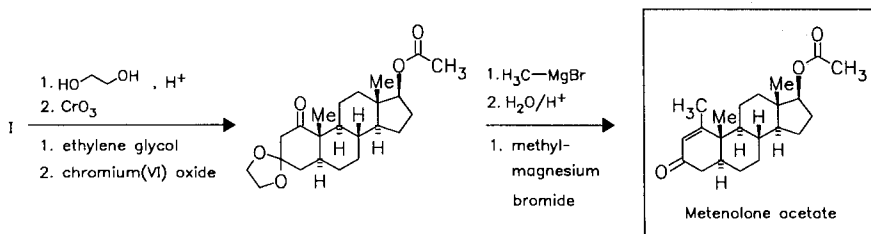
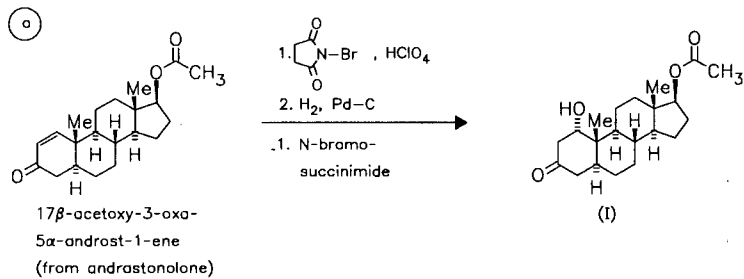
CN: (5 α ,17 β)-17-(acetyloxy)-1-methylandroster-1-en-3-one

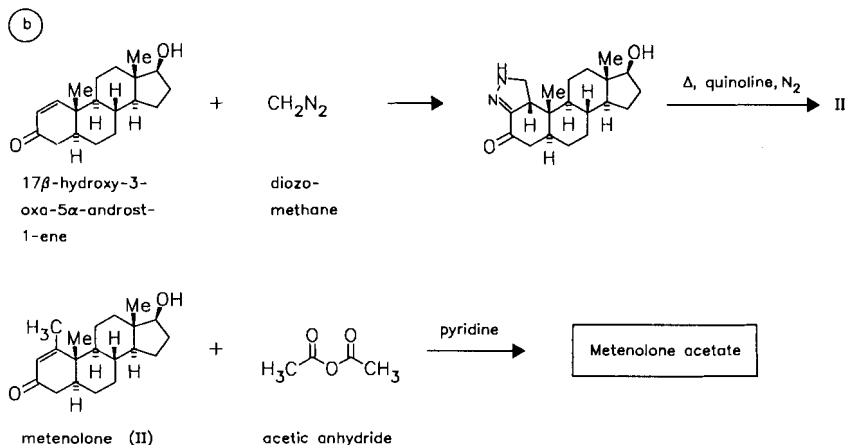
metenolone

RN: 153-00-4 MF: $\text{C}_{20}\text{H}_{30}\text{O}_2$ MW: 302.46 EINECS: 205-812-0

metenolone enanthate

RN: 303-42-4 MF: $\text{C}_{27}\text{H}_{42}\text{O}_3$ MW: 414.63 EINECS: 206-141-6



*Reference(s):*

- a** DE 1 152 100 (Schering AG; appl. 23.11.1960).
DE 1 154 467 (Schering AG; appl. 22.7.1961).
- b** DE 1 023 764 (Schering AG; appl. 6.2.1957).
DE 1 072 991 (Schering AG; appl. 25.10.1958).
DE 1 096 353 (Schering AG; appl. 11.7.1961).
DE 1 117 113 (Schering AG; appl. 5.12.1959).
DE 1 135 900 (Schering AG; appl. 27.8.1960).

starting material:

Butenandt, A.; Dannenberg, H.: Chem. Ber. (CHBEAM) **71**, 1681 (1938).

alternative syntheses:

GB 977 082 (Schering AG; valid from 17.3.1961; D-prior. 6.4.1960, 21.7.1960, 23.12.1960).
GB 977 083 (Schering AG; valid from 17.3.1961; D-prior. 6.4.1960).

review:

Wiechert, R.: Z. Naturforsch., B: Anorg. Chem., Org. Chem., Biochem., Biophys., Biol. (ZENBAX) **196**, 944 (1964).

Formulation(s): amp. 20 mg/ml, 50 mg/ml, 100 mg/ml; tabl. 5 mg, 25 mg

Trade Name(s):

D:	Primobolan Depot (Schering; as enanthate) numerous generics as acetate	GB:	Primobolan Depot (Schering Chemicals); wfm		Primobolan Inj. (Nihon Schering)
F:	Primobolan (SEPPS); wfm Primobolan-Depot (SEPPS; as enanthate); wfm	I:	Primobolan Depot (Schering)	USA:	Primobolan Depot (Schering); wfm
		J:	Primobolan Depot (Nihon Schering; as enanthate)		Primobolan Depot (Schering; as enanthate); wfm

Metformin

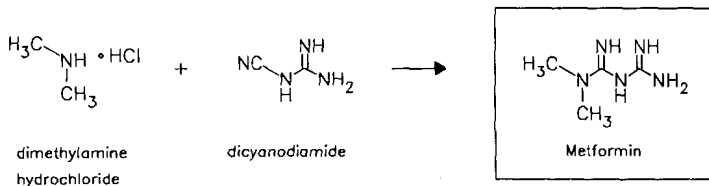
(Dimethylbiguanide)

ATC: A10BA02
Use: antidiabetic

RN: 657-24-9 MF: C₄H₁₁N₅ MW: 129.17 EINECS: 211-517-8
LD₅₀: 247 mg/kg (M, i.p.); 230 mg/kg (M, s.c.)
CN: *N,N*-dimethylimidodicarbonimidic diamide

monohydrochloride

RN: 1115-70-4 MF: C₄H₁₁N₅ · HCl MW: 165.63 EINECS: 214-230-6

**Reference(s):**

DE 1 023 757 (Heumann & Co.; appl. 1955) - only methods.

FR-appl. 2 322 860 (Aron S.A.R.L.; appl. 5.9.1975).

Formulation(s): f. c. tabl. 500 mg, 850 mg; s. r. tabl. 850 mg; tabl. 500 mg, 850 mg (as hydrochloride)**Trade Name(s):**

D:	Diabetase (Azupharma)	I:	Diabetosan (Brocchieri)	Glycoran (Nippon Shinyaku)
	Glucophage (Lipha)		Glibomet (Guidotti)-comb.	Insuloid M (Ono)
	Mediabet (Medice)		Glucamide (Lipha)-comb.	Langer-K (Kanto)
	Mescorit (Boehringer Mannh.)		Glucophage (Lipha)	Melbin (Sumitomo)
F:	Glucinan (Lipha Santé)		Glucosulfa (Lipha)-comb.	Metolmin (Kodama)
	Glucophage (Lipha Santé)		Metforal (Guidotti)	USA: Glucophage (Bristol-Myers Squibb)
	Stagid (Merck-Clévenot)	J:	Pleiamide (Guidotti)-comb.	
GB:	Glucophage (Lipha)		Diabetose B (Nichiiko)	

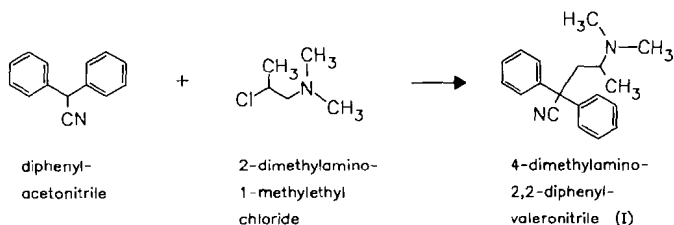
Methadone

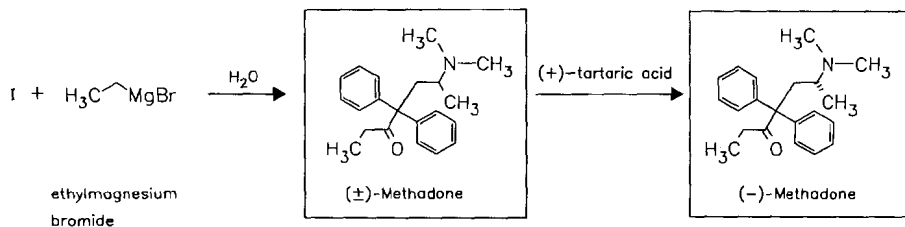
ATC: N02AC02

Use: analgesic, narcotic (heroin substitution therapy)

RN: 76-99-3 MF: $\text{C}_{21}\text{H}_{27}\text{NO}$ MW: 309.45 EINECS: 200-996-9

CN: 6-(dimethylamino)-4,4-diphenyl-3-heptanone

hydrochlorideRN: 1095-90-5 MF: $\text{C}_{21}\text{H}_{27}\text{NO} \cdot \text{HCl}$ MW: 345.91 EINECS: 214-140-7LD₅₀: 16 mg/kg (M, i.v.); 124 mg/kg (M, p.o.);
9200 µg/kg (R, i.v.); 30 mg/kg (R, p.o.)**(±)-methadone**RN: 297-88-1 MF: $\text{C}_{21}\text{H}_{27}\text{NO}$ MW: 309.45**(±)-hydrochloride**RN: 125-56-4 MF: $\text{C}_{21}\text{H}_{27}\text{NO} \cdot \text{HCl}$ MW: 345.91**(-)-methadone**RN: 125-58-6 MF: $\text{C}_{21}\text{H}_{27}\text{NO}$ MW: 309.45**(-)-hydrochloride**RN: 5967-73-7 MF: $\text{C}_{21}\text{H}_{27}\text{NO} \cdot \text{HCl}$ MW: 345.91 EINECS: 227-756-6

**Reference(s):**

DE 865 314 (Farbw. Hoechst; appl. 1941).

DE 870 700 (Farbw. Hoechst; appl. 1942).

DE 890 506 (Farbw. Hoechst; appl. 1944).

Ehrhart, G.; Bockmühl, M.: Justus Liebigs Ann. Chem. (JLACBF) **561**, 52 (1948).**alternative procedure for racemate resolution:**

US 2 644 010 (Merck & Co.; 1953; appl. 1947).

US 2 983 757 (Abbott; 1961; appl. 1959).

Formulation(s): amp. 5 mg/ml, 10 mg/ml; drops 5 mg; tabl. 5 mg, 10 mg, 20 mg, 40 mg**Trade Name(s):**

D: L-Polamidon (Hoechst)

F: Méthadone AP (Mayoly-Spindler)

GB: Physeptone (Glaxo Wellcome)

I: Eptadone (Zambon Italia)
Metado (Formulario Naz.)

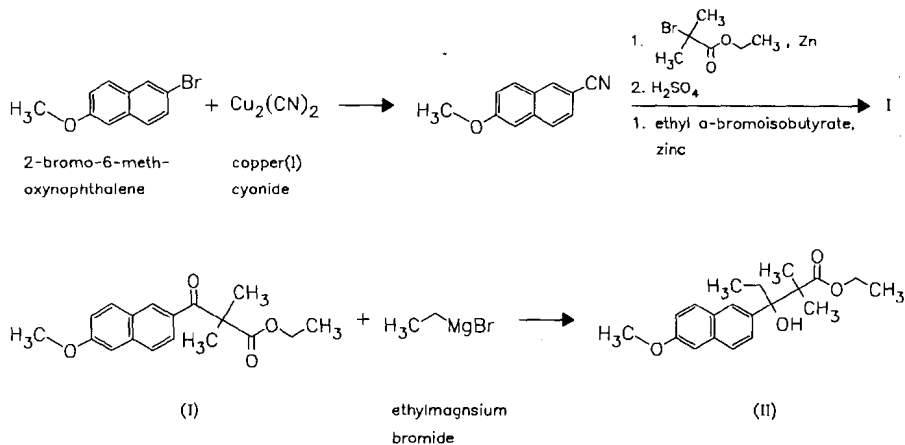
Metadone (Molteni)

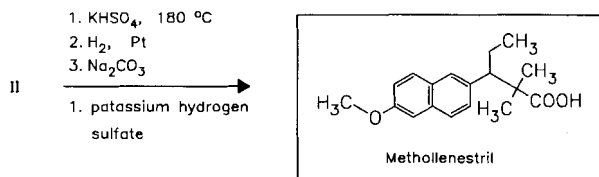
USA: Dolophine Hydrochloride (Roxane)
generic**Methallenestril**

(Methallenoestril; Methallenoestrol)

ATC: G03CB03; G03CC03

Use: estrogen

RN: 517-18-0 MF: $\text{C}_{18}\text{H}_{22}\text{O}_3$ MW: 286.37 EINECS: 208-232-6CN: β -ethyl-6-methoxy- α,α -dimethyl-2-naphthalenepropanoic acid

**Reference(s):**

US 2 547 123 (A. Horeau; 1951; F-prior. 1947).

Horeau, A. et al.: C. R. Hebd. Seances Acad. Sci. (COREAF) **224**, 862 (1947).Horeau, A. et al.: Bull. Soc. Chim. Fr. (BSCFAS) **1948**, 711; 1955, 955.**starting material:**

DOS 2 619 614 (Hoechst; appl. 4.5.1976).

Formulation(s): tabl. 3 mg**Trade Name(s):**

GB: Vallestiril (Searle); wfm

Vallestiril (Dainippon)

J: Ercostron (Green Cross)

USA: Vallestiril (Searle); wfm

Methamphetamine

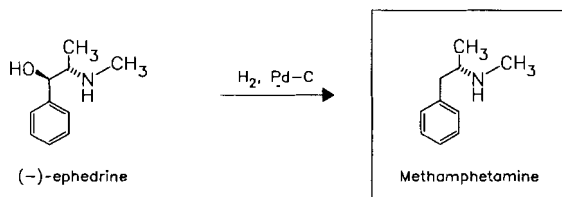
(Desoxyephedrine)

ATC: N06BA03

Use: sympathomimetic, psychostimulant, appetite depressant

RN: 537-46-2 MF: $\text{C}_{10}\text{H}_{15}\text{N}$ MW: 149.24 EINECS: 208-668-7

CN: (S)-N,α-dimethylbenzeneethanamine

hydrochlorideRN: 51-57-0 MF: $\text{C}_{10}\text{H}_{15}\text{N} \cdot \text{HCl}$ MW: 185.70 EINECS: 200-106-9**Reference(s):**Emde, H.: Helv. Chim. Acta (HCACAV) **12**, 365 (1929).**Formulation(s):** tabl. 5 mg, 10 mg, 15 mg (as hydrochloride)**Trade Name(s):**

D: Pervitin (Temmler); wfm

USA: Desoxyn (Abbott; as

J: Philopon (Dainippon)

hydrochloride)

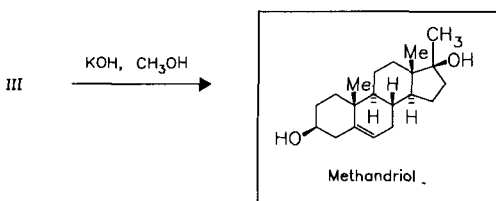
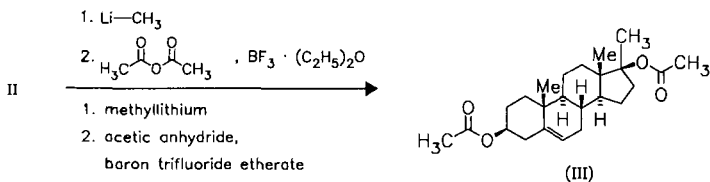
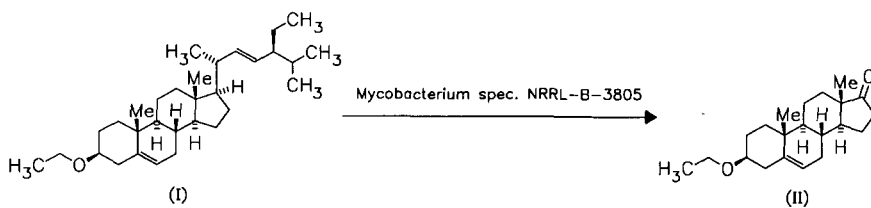
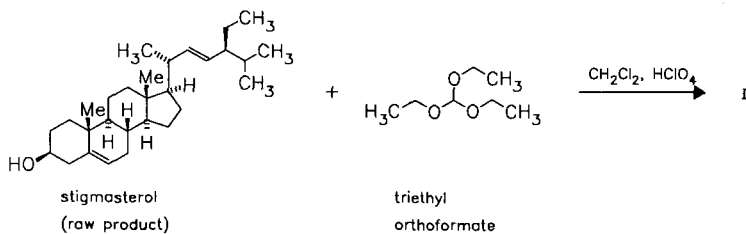
Methandriol

ATC: A14

Use: anabolic, androgen

RN: 521-10-8 MF: $\text{C}_{20}\text{H}_{32}\text{O}_2$ MW: 304.47 EINECS: 208-301-0

CN: (3β,17β)-17-methylandroster-5-ene-3,17-diol

dipropionateRN: 3593-85-9 MF: C₂₆H₄₀O₄ MW: 416.60**Reference(s):**

- DOS 2 534 911 (Schering AG; appl. 1.8.1975).
Ruzicka, L. et al.: *Helv. Chim. Acta (HCACAV)* **18**, 1487 (1935).
Miescher, K.; Klarer, W.: *Helv. Chim. Acta (HCACAV)* **22**, 962 (1939).

Formulation(s): amp. 50 mg/ml (as dipropionate)

Trade Name(s):

I:	Anacufen (Difa Coopervision)-comb.; wfm Metilandrostandiolo Schering (Schering); wfm Metildiolo (Orma)-comb.; wfm	Otormon F (Farmades).- comb.; wfm Panfaco (Difa Coopervision)-comb.; wfm Sinesex (Wells); wfm	Troformone (Biomedica Foscama); wfm USA: Methostan (Schering); wfm Stenediol (Organon); wfm
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Methapyrilene

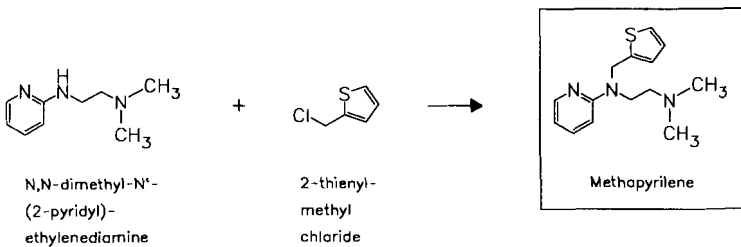
(Thenylpyramine)

ATC: R06AC05

Use: antihistaminic

RN: 91-80-5 MF: $C_{14}H_{19}N_3S$ MW: 261.39 EINECS: 202-099-8LD₅₀: 20 mg/kg (M, i.v.); 182 mg/kg (M, p.o.)CN: *N,N*-dimethyl-*N'*-2-pyridinyl-*N'*-(2-thienylmethyl)-1,2-ethanediamine**monohydrochloride**RN: 135-23-9 MF: $C_{14}H_{19}N_3S \cdot HCl$ MW: 297.85 EINECS: 205-184-8LD₅₀: 17.5 mg/kg (M, i.v.); 182 mg/kg (M, p.o.);

200 mg/kg (R, p.o.)

fumarate (2:3)RN: 33032-12-1 MF: $C_{14}H_{19}N_3S \cdot 3/2C_4H_4O_4$ MW: 871.00 EINECS: 251-351-3**Reference(s):**Weston, A.W.: J. Am. Chem. Soc. (JACSAT) **69**, 980 (1947).

US 2 581 868 (Monsanto; 1952; prior. 1946).

fumarate:

GB 694 805 (Monsanto; valid from 1950; USA-prior. 1949).

Formulation(s): cps. 50 mg, 100 mg (as hydrochloride)**Trade Name(s):**

D:	Contac Liquid (Vonora)- comb.; wfm	Brexin (Savage)-comb.; wfm	Hista-Clopane (Lilly)- comb.; wfm
	Copyronilum (Lilly)- comb.; wfm	Citra (Boyle)-comb.; wfm	Histadyl E.C. (Lilly; as fumarate)-comb.; wfm
	Sedanoct (Woelm)-comb.; wfm	Co-Pyronil (Dista)-comb.; wfm	Histadyl Fum. (Lilly; as fumarate); wfm
	tiffaforte (Tiffapharm; as fumarate); wfm	Ephed-Organidin (Wallace); wfm	Histadyl Pulvules (Lilly); wfm
I:	Co-Pyronil (Lilly); wfm	Excedrin P.M. (Bristol- Myers; as fumarate)-comb.; wfm	
USA:	Allerest (Pharmacraft; as fumarate)-comb.; wfm		

Methaqualone

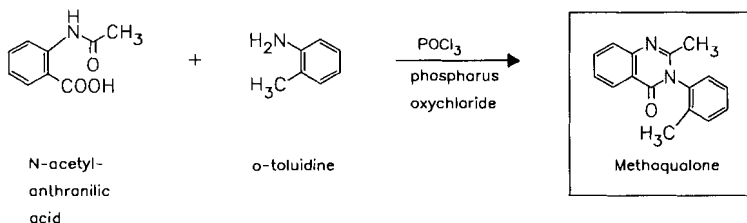
ATC: N05CM01

Use: hypnotic

RN: 72-44-6 MF: $C_{16}H_{14}N_2O$ MW: 250.30 EINECS: 200-780-4LD₅₀: 420 mg/kg (M, p.o.);

185 mg/kg (R, p.o.)

CN: 2-methyl-3-(2-methylphenyl)-4(3*H*)-quinazolinone

monohydrochlorideRN: 340-56-7 MF: C₁₆H₁₄N₂O · HCl MW: 286.76 EINECS: 206-431-2LD₅₀: 120 mg/kg (M, i.v.); 400 mg/kg (M, p.o.);
120 mg/kg (R, i.v.); 410 mg/kg (R, p.o.)**Reference(s):**

GB 843 073 (Labs. Torade; appl. 22.8.1958; USA-prior. 9.5.1958).

Klosa, J.: J. Prakt. Chem. (JPCEAO) [4], **20**, 283 (1963).**Formulation(s):** tabl. 200 mg**Trade Name(s):**

D:	Normi-Nox (Herbrand); wfm	Mandrax (Houdé)-comb; wfm	Normorest (Doitsu-Aoi)
	Optinoxan (Robisch); wfm	Mandrax (I.S.H.)-comb; wfm	Orzolon (Kobayashi)
	Revonol (Cascan); wfm		USA: Parest (Parke Davis); wfm
F:	Divinoctal (I.S.H.)-comb; wfm	GB: Revonal (Merck); wfm	Quaalude (Rorer); wfm
	Isonox (Ucépha)-comb; wfm	J: Hyminal (Eisai)	Somnafac (Cooper); wfm
		Meroctan (Sanwa)	Sopor (Amar-Stone); wfm
		Nene (Sankyo)	

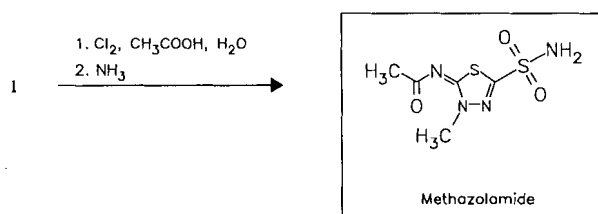
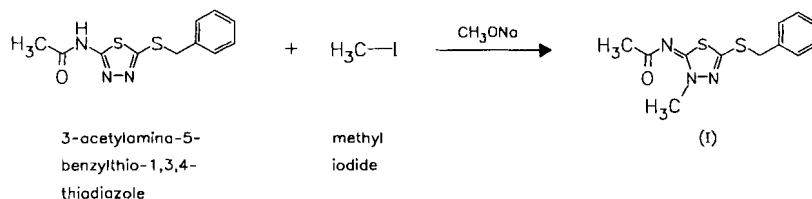
Methazolamide

ATC: C03; S01EC

Use: diuretic (carboanhydrase inhibitor)

RN: 554-57-4 MF: C₅H₈N₄O₃S₂ MW: 236.28 EINECS: 209-066-7LD₅₀: >1 g/kg (M, i.v.)

CN: N-[5-(aminosulfonyl)-3-methyl-1,3,4-thiadiazol-2(3H)-ylidene]acetamide



Reference(s):

US 2 783 241 (American Cyanamid; 1957; prior. 1955).

Formulation(s): tabl. 50 mg*Trade Name(s):*

F: Neptazane (Théraplix); J: Neptazane (Lederle) generics
 wfm USA: Neptazane (Lederle); wfm

Methdilazine

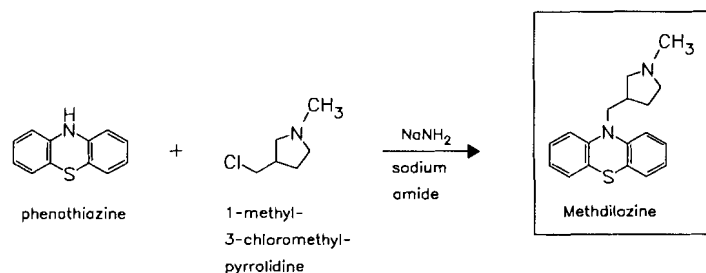
ATC: R06AD04
 Use: antiallergic, antihistaminic

RN: 1982-37-2 MF: C₁₈H₂₀N₂S MW: 296.44 EINECS: 217-841-6LD₅₀: 225 mg/kg (M, p.o.);

162 mg/kg (R, p.o.)

CN: 10-[(1-methyl-3-pyrrolidinyl)methyl]-10*H*-phenothiazine**monohydrochloride**RN: 1229-35-2 MF: C₁₈H₂₀N₂S · HCl MW: 332.90 EINECS: 214-967-3LD₅₀: 190 mg/kg (M, p.o.);

260 mg/kg (R, p.o.)

*Reference(s):*

US 2 945 855 (Mead Johnson; 19.7.1960; prior. 21.10.1958).

DE 1 049 382 (Cilag; appl. 1956; CH-prior. 1955).

Formulation(s): tabl. 8 mg (as hydrochloride)*Trade Name(s):*

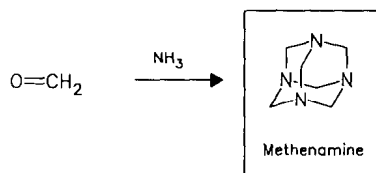
GB: Dilosyn (Duncan, Flockhart); wfm
 USA: Tacaryl (Westwood); wfm

Methenamine

(Formamine; Hexamethylentetramine; HMT; HHMTA;
 Metenamine; Urotropin)

ATC: G04AA01
 Use: antibacterial (urinary)

RN: 100-97-0 MF: C₆H₁₂N₄ MW: 140.19 EINECS: 202-905-8CN: 1,3,5,7-tetraazatricyclo[3.3.1.1^{3,7}]decane**mandelate (1:1)**RN: 587-23-5 MF: C₈H₈O₃ · C₆H₁₂N₄ MW: 292.34 EINECS: 209-597-4

hippurate (1:1)RN: 5714-73-8 MF: $C_9H_9NO_3 \cdot C_6H_{12}N_4$ MW: 319.37 EINECS: 227-206-5LD₅₀: 1500 mg/kg (M, i.p.); 2870 mg/kg (M, s.c.)**Reference(s):**

US 2 762 799 (J. Meissner; 1956; D-prior. 1952).

US 2 762 800 (J. Meissner; 1956; D-prior. 1951).

Formulation(s): f. c. tabl. 250 mg, 500 mg, 1000 mg; cream 13 g/100g; drg. 500 mg, 1000 mg**Trade Name(s):**

D:	Antihydral (Robugen)	Elmitolo (Bayer); wfm	J:	Hexamine (Mohan;
	Mandelamine (Parke	Esamet (Tariff. Integrativo)		Nisshin-Yamagata)
	Davis)	Esation vitaminico	USA:	Urex (3M; as hippurate)
	Urotractan (Klinge)	(Lafare); wfm		Uro-Phosphate (ECR)
F:	Aromalgyl (Plantes et	Etiliodina B1 (Ceccarelli)-		Mandelamine (Warner
	Medecines)-comb.	comb.; wfm		Chilcott Professional
	Mictasol (J. P. Martin)-	Jodoibs (Benvegna); wfm		Products; as mandelate)
	comb.	Mictasol (Zoja)-comb.;		Urised (PolyMedica)-
	Uromil (Iprad)-comb.	wfm		comb.
GB:	Hiprex (3M Health Care)	Tionamil (Ogna)-comb.;		Uroqid-Acid (Beach; as
I:	Cinarbile cpr. (Benvegna)-	wfm		mandelate)
	comb.; wfm			

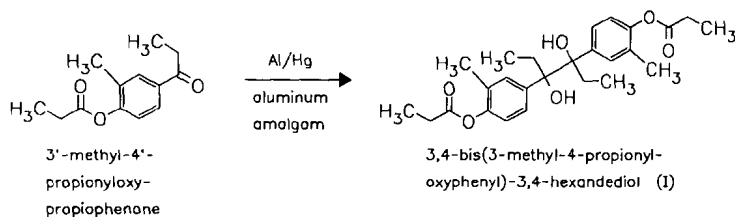
Methestrol dipropionate

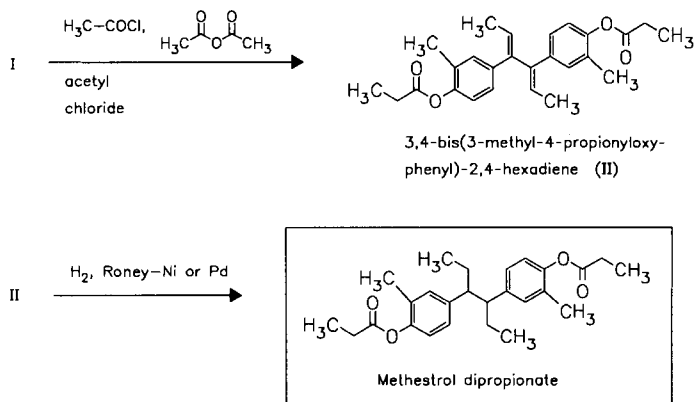
ATC: G03C

Use: estrogen

RN: 84-13-9 MF: $C_{26}H_{34}O_4$ MW: 410.55

CN: 4,4'-(1,2-diethyl-1,2-ethanediyl)bis[2-methylphenol] dipropionate

methestrolRN: 130-73-4 MF: $C_{20}H_{26}O_2$ MW: 298.43

**Reference(s):**

Niederl, V. et al.: J. Am. Chem. Soc. (JACSAT) **70**, 508 (1948).

alternative syntheses:

Marson, L.M.: Bull. Chim. Farm. (BCFAAI) **102**, 317 (1963).

Burckhalter, J.H.; Seiwald, R.J.: J. Org. Chem. (JOCEAH) **24**, 445 (1959).

Formulation(s): 4 x 1 mg/day (oral)

Trade Name(s):

USA: Meprane (Reed & Carrick); wfm

Methocarbamol

ATC: M03BA03

Use: muscle relaxant

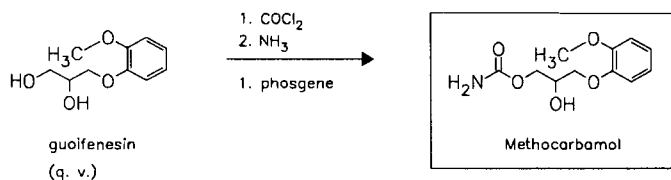
RN: 532-03-6 MF: $\text{C}_{11}\text{H}_{15}\text{NO}_5$ MW: 241.24 EINECS: 208-524-3

LD₅₀: 774 mg/kg (M, i.v.); 812 mg/kg (M, p.o.);

1320 mg/kg (R, p.o.);

2 g/kg (dog, p.o.)

CN: 3-(2-methoxyphenoxy)-1,2-propanediol 1-carbamate

**Reference(s):**

US 2 770 649 (Robins; 1956; prior. 1955).

Yale, H.L. et al.: J. Am. Chem. Soc. (JACSAT) **72**, 3710 (1950).

Formulation(s): amp. 100 mg/ml; tabl. 250 mg, 500 mg, 750 mg; tabl. (USA) 325 mg, 400 mg in comb. with aspirin

Trade Name(s):

D: Ortoton (Bastian-Werk)

GB: Robaxin (Shire)

Miowas (Wassermann);

F: Lumirelax (Jumer Sa)-
comb.

I: Miowas (IFI); wfm

wfm

J: Carbametin (Uji)

Carxin (Kanto)
Methocabal (Zeria)
Methocal (Daiko)

Nichirakishin S (Nichiiko)
Ohlaxin (Ohta)
USA: Robaxin (Robins)

Robaxisal (Robins)-comb.
generics

Methohexital

(Methohexitone)

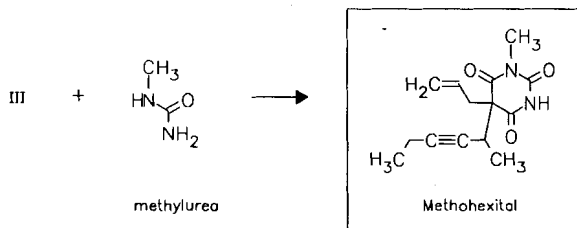
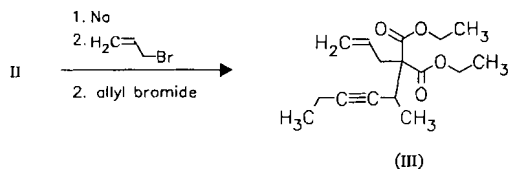
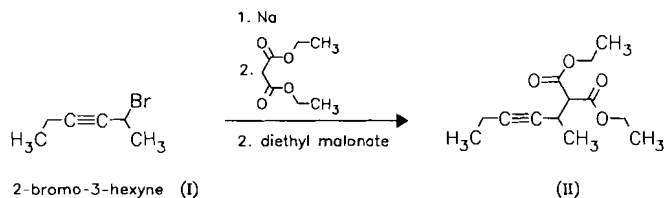
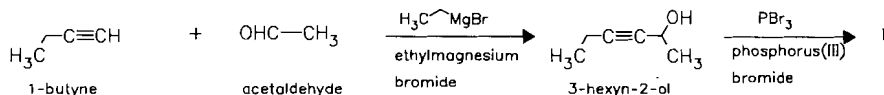
ATC: N01AF01; N05CA15
Use: narcotic

RN: 18652-93-2 MF: C₁₄H₁₈N₂O₃ MW: 262.31

CN: (±)-1-methyl-5-(1-methyl-2-pentynyl)-5-(2-propenyl)-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione

sodium salt

RN: 60634-69-7 MF: C₁₄H₁₇N₂NaO₃ MW: 284.29



Reference(s):

US 2 872 448 (Eli Lilly; 3.2.1959; prior. 4.4.1956).

Formulation(s): vial 100 mg, 500 mg (as sodium salt)

Trade Name(s):

D: Brevimytal-Natrium (Lilly) GB: Brietal Sodium (Lilly)
F: Brietal (Lilly); wfm

USA: Brevital Sodium (Jones Medical Industries)

Methotrexate

(Amethopterin)

ATC: N01AF01; N05CA15

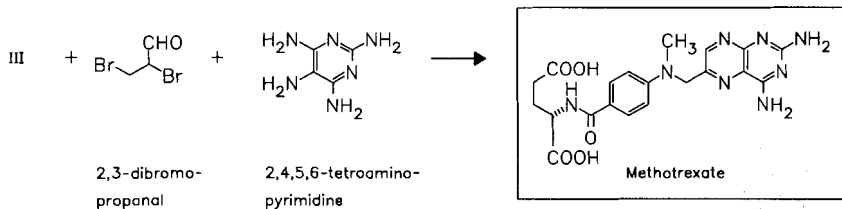
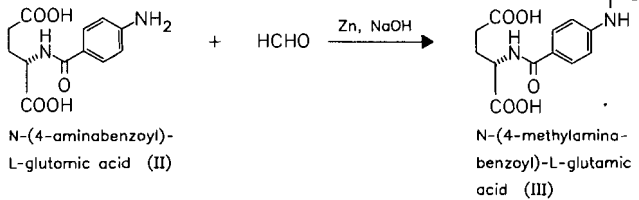
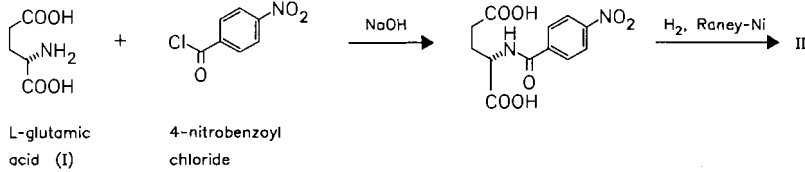
Use: antineoplastic (folic acid antagonist)

RN: 59-05-2 MF: C₂₀H₂₂N₈O₅ MW: 454.45 EINECS: 200-413-8LD₅₀: 65 mg/kg (M, i.v.); 146 mg/kg (M, p.o.);

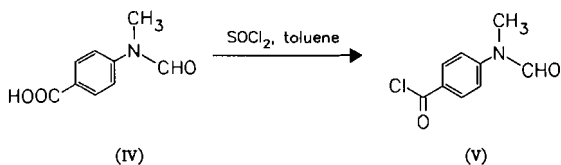
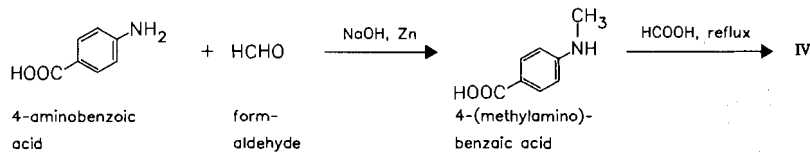
14 mg/kg (R, i.v.); 135 mg/kg (R, p.o.)

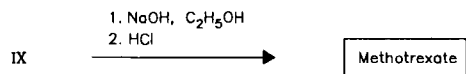
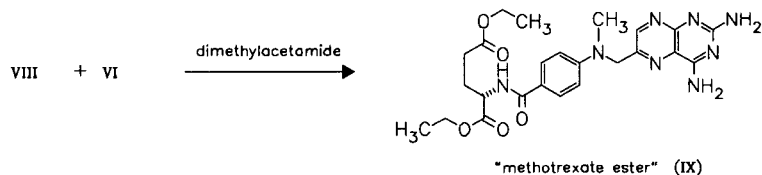
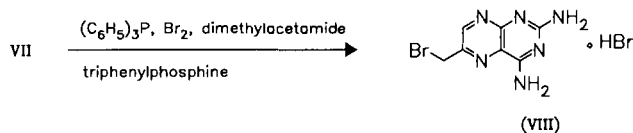
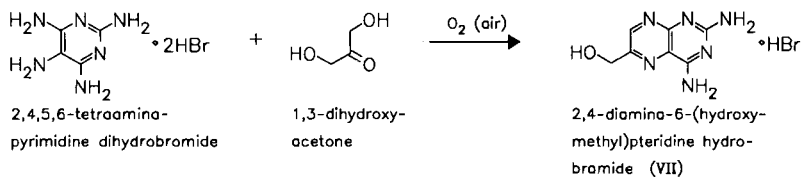
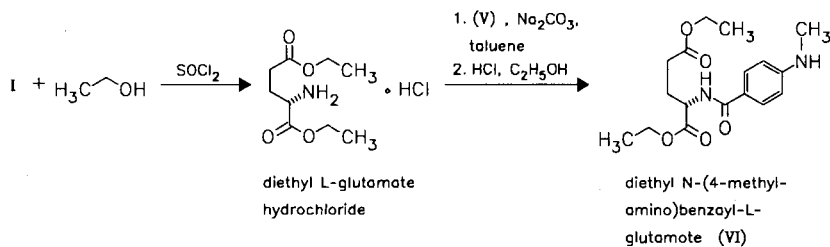
CN: *N*-[4-[[[(2,4-diamino-6-pteridyl)methyl]methylamino]benzoyl]-L-glutamic acid

(a)



(b)



**Reference(s):**

Seeger, D.R. et al.: J. Am. Chem. Soc. (JACSAT) **71**, 1753 (1949).

alternative syntheses:

Piper, J.R.; Montgomery, J.A.: J. Heterocycl. Chem. (JHTCAD) **11**, 279 (1974).

Chaykowsky, M. et al.: J. Med. Chem. (JMCMAR) **17**, 1212 (1974).

DOS 2 741 270 (US-Secr. of Commerce Nat. Techn. Inform. Service; appl. 14.9.1977; USA-prior. 17.11.1976).

US 4 057 548 (J. Wiecko; 8.11.1977; prior. 11.11.1975, 30.3.1976).

US 4 067 867 (J. Wiecko; 10.1.1978; prior. 11.11.1975, 30.3.1976, 8.10.1976).

US 4 080 325 (US-Secr. of Health; 21.3.1978; appl. 17.11.1976).

DOS 2 741 383 (Lonza; appl. 14.9.1977; CH-prior. 12.8.1977).

various syntheses of N-(4-methylaminobenzoyl)-L-glutamic acid:

DOS 2 824 011 (Lonza; appl. 1.6.1978; CH-prior. 12.8.1977).

US 3 892 801 (American Cyanamid; 1.7.1975; appl. 11.9.1974).

US 4 136 101 (American Cyanamid; 23.1.1979; prior. 3.2.1978).

Formulation(s): amp. 5 mg, 25 mg, 50 mg, 200 mg, 500 mg, 100 mg, 5000 mg; tabl. 2.5 g, 7.5 g, 10 g (as disodium salt)

Trade Name(s):

D: Farmitrexat (Pharmacia & Upjohn)

Lantarel (Lederle)
Metex (medac)

F: generic
Ledertrexate (Lederle)

Méthothrexate Roger
Bellon (Rhône-Poulenc
Rorer Bellon)
generic

GB: Maxtrex (Pharmacia &
Upjohn)
Methotrexate (Wyeth)
generic

I: generic
J: generic
USA: Rheumatrex (Lederle)
generic

Methoxamine

ATC: C01CA10

Use: sympathomimetic, vasoconstrictor

RN: 390-28-3 MF: C₁₁H₁₇NO₃ MW: 211.26 EINECS: 206-867-3

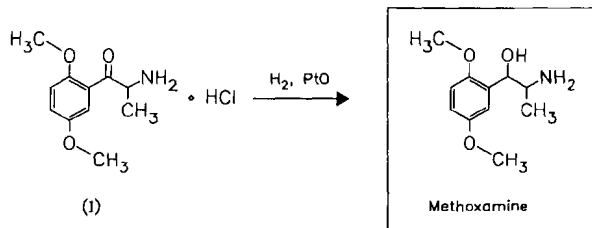
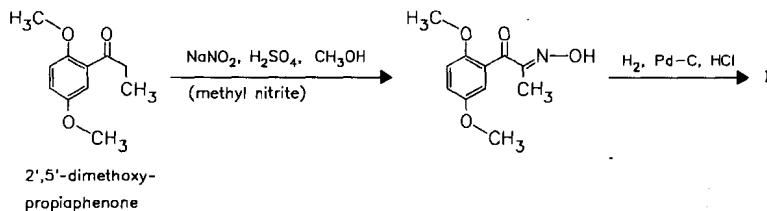
LD₅₀: 30 mg/kg (M, p.o.)

CN: α -(1-aminoethyl)-2,5-dimethoxybenzenemethanol

hydrochloride

RN: 61-16-5 MF: C₁₁H₁₇NO₃ · HCl MW: 247.72 EINECS: 200-499-7

LD₅₀: 5030 μ g/kg (M, i.v.)



Reference(s):

US 2 359 707 (Burroughs Wellcome; 1944; prior. 1942).

Formulation(s): amp. 20 mg/ml (as hydrochloride)

Trade Name(s):

D: Rolinex (Röhm Pharma)-
comb.; wfm

GB: Vasoxine (Glaxo
Wellcome)

J: Mexan (Nippon Shinyaku)
USA: Vasoxyl (Glaxo Wellcome)

I: Vasoxine (Wellcome); wfm

Methoxsalen

(Ammoidin; Methoxypsoralen; Methoxysalen;
Xanthotoxin)

ATC: D05AD02; D05BA02

Use: radioprotector

RN: 298-81-7 MF: C₁₂H₈O₄ MW: 216.19 EINECS: 206-066-9

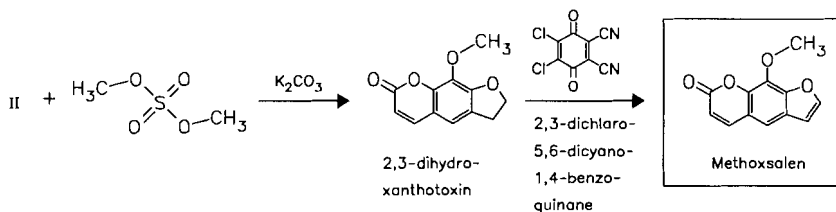
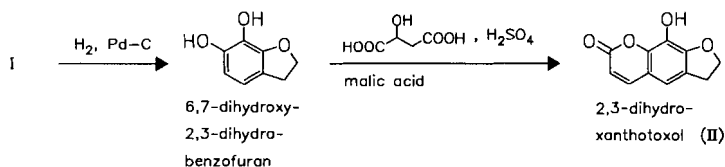
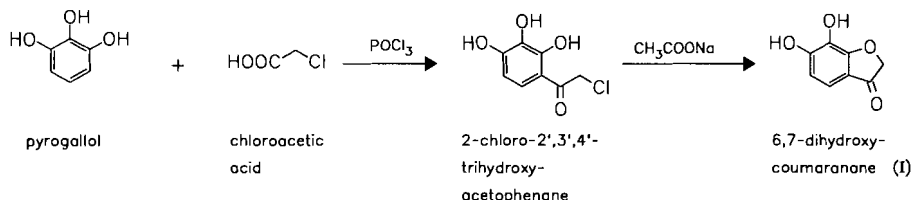
CN: 9-methoxy-7H-furo[3,2-g][1]benzopyran-7-one

a

from plant material:

8-geranylloxpsoralen is obtained by extraction from *Ammi majus* with n-hexane, which is dealkylated with $\text{CH}_3\text{COOH}/\text{H}_2\text{SO}_4$ to 8-hydroxypsoralen and then is methylated with dimethyl sulfate

b

*Reference(s):*

- a** US 2 889 337 (US-Secret. of Agriculture; 1959; appl. 1956).
b US 4 129 576 (T. C. Elder; 12.12.1978; prior. 12.4.1976, 24.6.1976).
 US 4 129 575 (T. C. Elder; 12.12.1978; prior. 12.4.1976).

alternative syntheses:

- US 4 150 042 (Roche; 17.4.1979; prior. 29.7.1977, 8.3.1978).
 US 4 107 182 (Roche; 15.8.1978; appl. 29.7.1977).
 US 4 147 703 (Roche; 3.4.1979; appl. 29.7.1977).
 DOS 2 820 263 (Thomae; appl. 10.5.1978).
 US 4 169 840 (Oy Star; 2.10.1979; SF-prior. 3.10.1977).

Formulation(s): sol. 0.1 g/100 ml, 0.75 g/100 ml, 1.5 mg; tabl. 10 mg

Trade Name(s):

D:	Meladinine (Galderma)	J:	Meladinine (Nippon Shoji)	Oxsoralen (ICN)
F:	Méladinine (Promedica)		Oxsoralen (Taisho)	
	Psoraderm-S (Sunlife)	USA:	8-MOP (ICN)	

Methoxyflurane

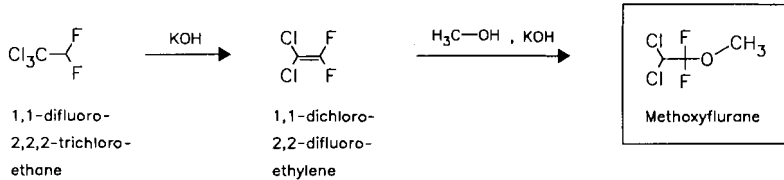
ATC: N01AB03

Use: inhalation anesthetic

RN: 76-38-0 MF: C₃H₄Cl₂F₂O MW: 164.97 EINECS: 200-956-0LD₅₀: 150 mg/kg (M, i.v.);

3600 mg/kg (R, p.o.)

CN: 2,2-dichloro-1,1-difluoro-1-methoxyethane

**Reference(s):**

GB 928 786 (Dow; appl. 9.2.1960; USA-prior. 3.4.1959, 20.7.1959).

Formulation(s): sol. 125 mg/125 ml**Trade Name(s):**

D: Penthrane (Abbott); wfm

I: Pentrane (Abbott); wfm

USA: Penthrane (Abbott); wfm

GB: Penthrane (Abbott); wfm

J: Penthrane (Abbott)

Methscopolamine bromide

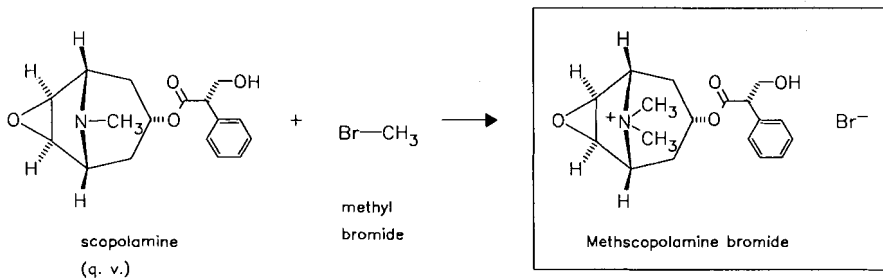
(Hyoscine methobromide)

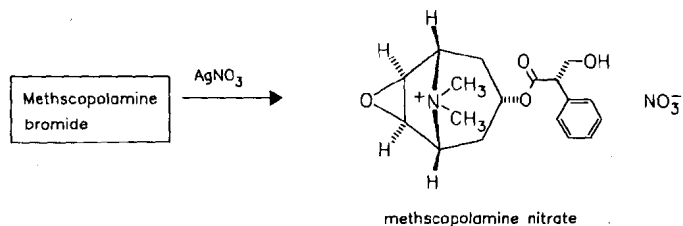
ATC: A03

Use: parasympatholytic, antispasmodic

RN: 155-41-9 MF: C₁₈H₂₄BrNO₄ MW: 398.30 EINECS: 205-844-5LD₅₀: 26.806 mg/kg (M, i.v.); 619 mg/kg (M, p.o.);

42.5 mg/kg (R, i.v.); 3400 mg/kg (R, p.o.)

CN: [7(S)-(1 α ,2 β ,4 β ,5 α ,7 β)]-7-(3-hydroxy-1-oxo-2-phenylpropoxy)-9,9-dimethyl-3-oxa-9-azoniatricyclo[3.3.1.0^{2,4}]nonane bromide**nitrate**RN: 6106-46-3 MF: C₁₈H₂₄N₂O₇ MW: 380.40 EINECS: 228-065-2**methysulfate**RN: 18067-13-5 MF: C₁₈H₂₄NO₄·CH₃SO₄ MW: 429.49 EINECS: 241-975-4

**Reference(s):**

DE 145 996 (E. Merck AG; appl. 1902).
US 2 753 288 (Upjohn; 1956; prior. 1952).

Formulation(s): cps. 2.5 mg; syrup 1.25 mg/5 ml; tabl. 1.25 mg

Trade Name(s):

D:	Holopon (Byk Gulden); wfm Ichtho-Spasmin (Ichthyol)- comb.; wfm Methscopolamin (Upjohn); wfm	Oragallin S (Hormon- Chemie)-comb.; wfm Skopyl (Pharmacia; as nitrate); wfm Spasmo-Bilicura (Mueller Göppingen)-comb.; wfm	GB: Pamine (Upjohn); wfm Skopyl (Farillon); wfm J: Ace (Ono) Meporamin (Taiyo) USA: Pamine (Upjohn); wfm
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Methyclothiazide

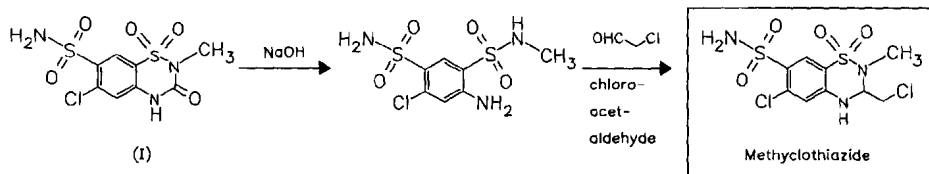
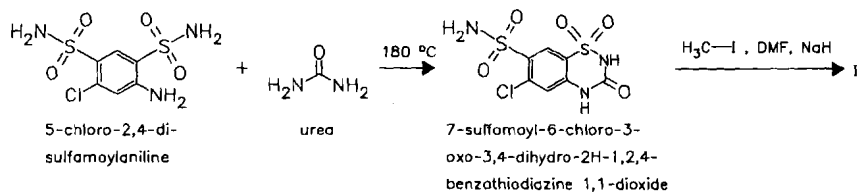
ATC: C03AA08

Use: diuretic

RN: 135-07-9 MF: $\text{C}_9\text{H}_{11}\text{Cl}_2\text{N}_3\text{O}_4\text{S}_2$ MW: 360.24 EINECS: 205-172-2

LD₅₀: 400 mg/kg (M, i.v.); >10 g/kg (M, p.o.);
>4 g/kg (R, p.o.)

CN: 6-chloro-3-(chloromethyl)-3,4-dihydro-2-methyl-2H-1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide

**Reference(s):**

Close, W.J. et al.: J. Am. Chem. Soc. (JACSAT) **82**, 1132 (1960).

Formulation(s): tabl. 2.5 mg, 5 mg

Trade Name(s):

F:	Isobar (Jacques Logeais)- comb.	Enduronyl (Abbott)-comb.; wfm	J: D.A.II-Tablets (Dura) Dallergy (Laser)
GB:	Enduron (Abbott); wfm	I: Enduronil (Abbott)-comb.	Dura-Vent (Dura)

Enduron (Dainippon)
 Extendryl (Fleming)
 Mescolor (Horizon)

Omnihist (We)
 USA: Aquatensen (Wallace)
 Diutensen-R (Wallace)

Enduron (Abbott)

Methyldopa

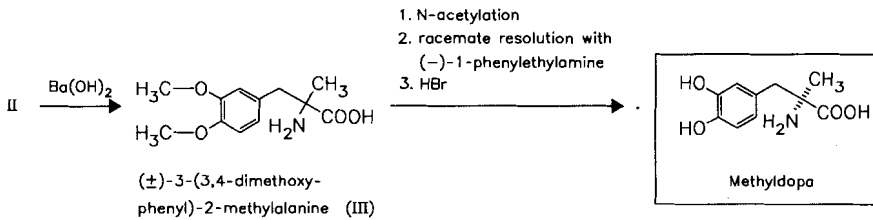
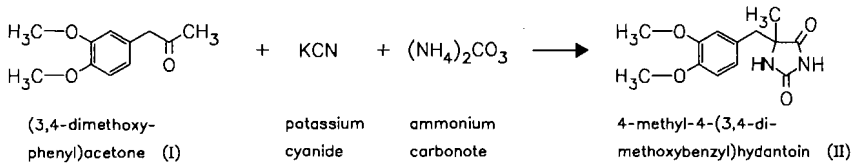
ATC: C02AB01

Use: antihypertensive

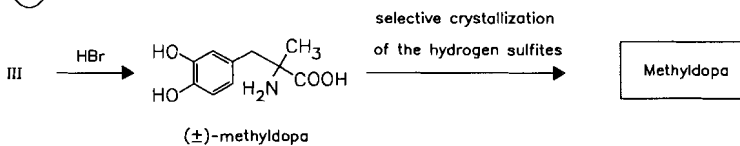
RN: 555-30-6 MF: C₁₀H₁₃NO₄ MW: 211.22 EINECS: 209-089-2

CN: 3-hydroxy- α -methyl-L-tyrosine

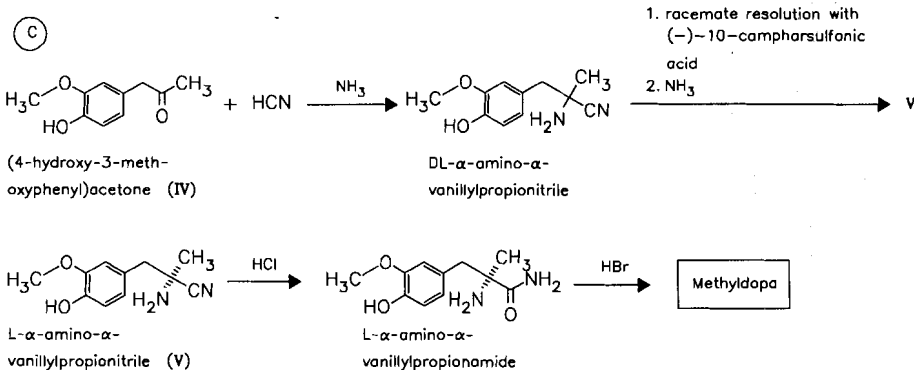
(A)



(B)

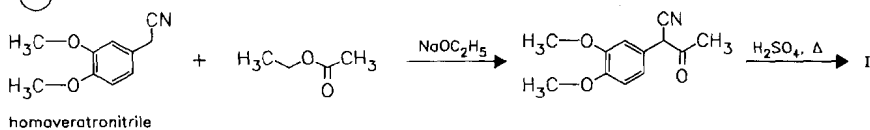


(C)

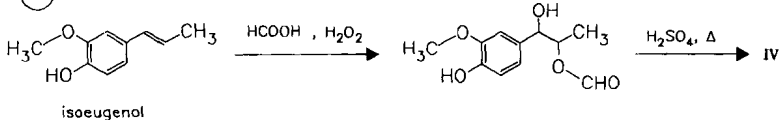


(D) Starting products:

(a)



(b)



Reference(s):

- A** US 2 868 818 (Merck & Co.; 13.1.1959; prior. 15.12.1953).
 GB 936 074 (Merck & Co.; appl. 18.10.1960; USA-prior. 8.4.1960, 24.8.1960).
 DE 1 171 931 (Merck & Co.; prior. 6.10.1960).
 Tristram, E.W. et al.: J. Org. Chem. (JOCEAH) **29**, 2053 (1964).
- B** Stein, G.A. et al.: J. Am. Chem. Soc. (JACSAT) **77**, 700 (1955).
 Chem. Eng. from 8.11.1965; p. 247.
 US 3 158 648 (Merck & Co.; 24.11.1964; prior. 11.7.1961, 9.4.1962).
- C** Reinhold, D.F. et al.: J. Org. Chem. (JOCEAH) **33**, 1209 (1968).
 FR 1 492 765 (Merck & Co.; appl. 10.10.1963; USA-prior. 11.10.1962, 19.9.1963).
similar method via L-α-acetylamino-α-vanillylpropionitrile:
 GB 1 142 595 (Merck & Co.; appl. 23.5.1967, 12.2.1969).
alternative syntheses:
 US 3 366 679 (Merck & Co.; 30.1.1968; prior. 11.10.1962, 19.9.1963).
 DOS 2 302 937 (Tanabe; appl. 22.1.1973; J-prior. 22.1.1972).
 US 3 517 057 (Merck & Co.; 23.6.1970; appl. 21.9.1967).
 DE 1 235 946 (Boehringer Mannh.; appl. 8.8.1964).
 DE 1 235 947 (Bayer; appl. 16.1.1963).
 DE 1 258 416 (Knoll; appl. 9.10.1964).
 DE 1 269 622 (Knoll; appl. 22.12.1966).
 DOS 2 406 898 (BASF; appl. 14.2.1974).
 AT 250 936 (Egyesült; appl. 3.11.1964; HU-prior. 18.11.1963).
 FR 1 502 972 (Merck & Co.; appl. 21.10.1966; USA-prior. 22.10.1965).
 FR 1 531 877 (Sankyo; appl. 18.7.1967; J-prior. 11.8.1966, 21.2.1967).
 GB 1 321 802 (D.D.S.A.; appl. 5.2.1971).
- Da** Steinetal, G.A.: J. Am. Chem. Soc. (JACSAT) **77**, 700 (1955).
- Db** GB 2 059 955 (Merck & Co.; appl. 9.9.1980; USA-prior. 13.9.1979, 28.9.1979).

medical use:

US 3 344 023 (Merck & Co.; 12.4.1983; prior. 8.4.1960, 24.8.1960, 1.2.1963; reexamination request 21.12.1981).

Formulation(s): drg. 250 mg, 500 mg; f. c. tabl. 125 mg, 250 mg, 500 mg; tabl. 250 mg, 500 mg

Trade Name(s):

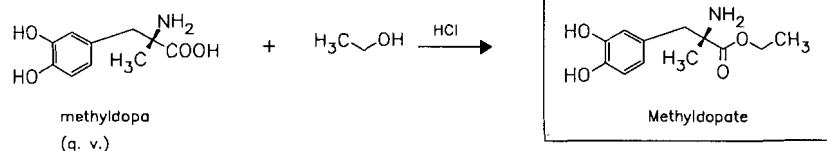
D:	Caprinol (Bayer Vital)-comb.	Sembrina (Boehringer Mannh.)	Hydromet (Merck Sharp & Dohme)-comb.; wfm
	Dopegyt (Thiemann)	F:	Aldomet (Merck Sharp & Dohme-Chibret; 1964)
	Presinol (Bayer Vital; 1963)		I:
	Sali-Presinol (Bayer)-comb.	GB:	Aldomet (Merck Sharp & Dohme; 1962); wfm
			Dopamet (Berk); wfm
			Medopren (Malesci)
			Medozide (Malesci)-comb.

J:	Saludopin (SIT)-comb. Aldomet (Merck-Banyu) Becanat (Kissei) Eldopane (Takata-Shionogi) Ledopan (Mochida)	Medopa (Kaigai-Nippon Kayaku) Meprin (Kyorin) Metholes (Taisho) Methoplain (Kowa Yakuhin) Polinal (Yamanouchi)	Sankaira (Hotta) USA: Aldoclor (Merck Sharp & Dohme) Aldomet (Merck Sharp & Dohme; 1963) Aldoril (Merck Sharp & Dohme) and generics
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Methyldopate

ATC: C02AB01

Use: antihypertensive

RN: 2544-09-4 MF: C₁₂H₁₇NO₄ MW: 239.27 EINECS: 219-821-2CN: 3-hydroxy- α -methyl-L-tyrosine ethyl ester**hydrochloride**RN: 2508-79-4 MF: C₁₂H₁₇NO₄ · HCl MW: 275.73 EINECS: 219-720-3**Reference(s):**

US 2 868 818 (Merck & Co.; 13.1.1959; prior. 15.12.1953).

medical use (for injection):

US 3 230 143 (Merck & Co.; 18.1.1966; appl. 22.6.1961, 28.12.1962, 14.5.1965).

FR-M 2 153 (Merck & Co.; appl. 20.9.1962; USA-prior. 22.6.1961).

Formulation(s): amp. 250 mg/ml, 500 mg/ml; f. c. tabl. 125 mg, 250 mg, 500 mg**Trade Name(s):**

D:	Presinol pro inj. (Bayer Vital)	Methyldopa (Merck Sharp & Dohme-Chibret)	USA: Aldomet Ester HCl Inj. (Merck Sharp & Dohme)
F:	Aldomet (Merck Sharp & Dohme-Chibret)	GB: Aldomet Inj. (Merck Sharp & Dohme)	

Methylergometrine

(Methylergonovine)

ATC: G02AB01

Use: uterotonic, oxytocic

RN: 113-42-8 MF: C₂₀H₂₅N₃O₂ MW: 339.44 EINECS: 204-027-0LD₅₀: 85 mg/kg (M, i.v.); 187 mg/kg (M, p.o.);

23 mg/kg (R, i.v.); 93 mg/kg (R, p.o.)

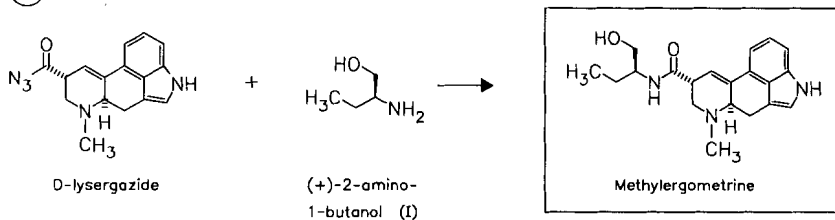
CN: [8β(S)]-9,10-didehydro-N-[1-(hydroxymethyl)propyl]-6-methylergoline-8-carboxamide

maleate (1:1)RN: 57432-61-8 MF: C₂₀H₂₅N₃O₂ · C₄H₄O₄ MW: 455.51 EINECS: 260-734-4LD₅₀: 85 mg/kg (M, i.v.); 187 mg/kg (M, p.o.);

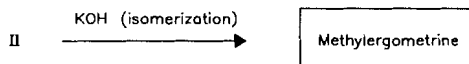
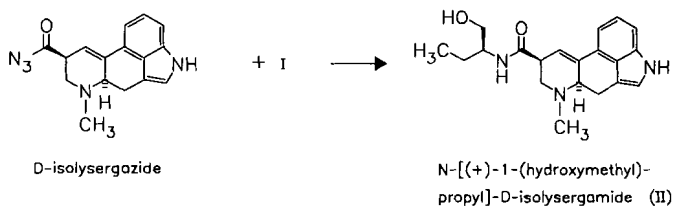
23 mg/kg (R, i.v.); 93 mg/kg (R, p.o.)

tartrate (2:1)RN: 6209-37-6 MF: C₂₀H₂₅N₃O₂ · 1/2C₄H₆O₆ MW: 828.96

(a)



(b)

**Reference(s):**

US 2 265 207 (Sandoz; 1941; CH-prior. 1939).

Formulation(s): amp. 0.2 mg/ml; drg. 0.125 mg; drops 0.25 mg/ml; sol. 0.24 mg/100 ml; tabl. 0.125 mg (as maleate)

Trade Name(s):

D:	Methergin (Novartis Pharma)	I:	Methergin (Novartis)	USA:	Ryegonovin (Morishita)
	Syntometrin (Novartis Pharma)-comb.	J:	Levospan (Isei)		Ergotrate Maleate (Lilly); wfm
F:	Methergin (Novartis)		Metenarin (Teikoku Zoki)		Methergine (Sandoz); wfm
			Methergin (Sandoz-Sankyo)		

Methylestreolone

(Normethandrone; Normethandrolone)

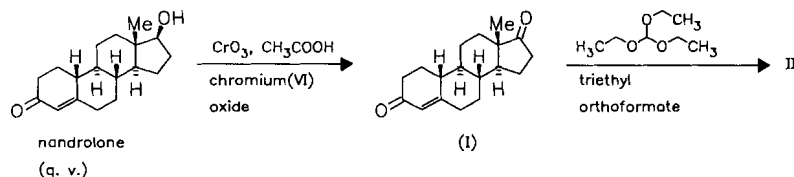
ATC: G03DC31

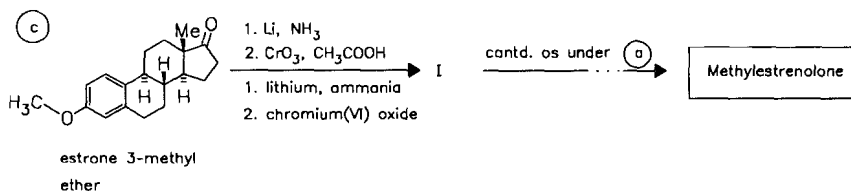
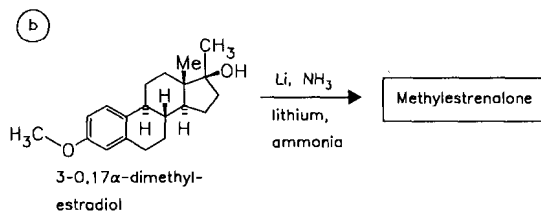
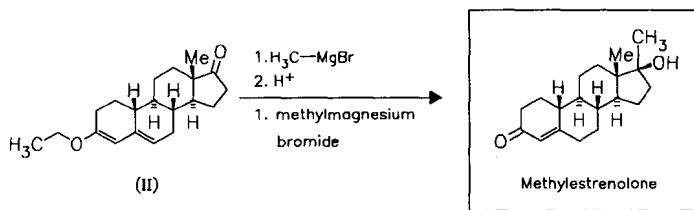
Use: progestogen

RN: 514-61-4 MF: C₁₉H₂₈O₂ MW: 288.43 EINECS: 208-183-0

CN: (17β)-17-hydroxy-17-methylestr-4-en-3-one

(a)



**Reference(s):**

a,b Djerassi, C. et al.: J. Am. Chem. Soc. (JACSAT) **76**, 4092 (1954).

c US 2 744 122 (Syntex; 1956; MEX-prior. 1951).

US 2 774 777 (Syntex; 1956; prior. 1952).

Djerassi, C. et al.: J. Am. Chem. Soc. (JACSAT) **76**, 4092 (1954).

alternative synthesis:

US 2 849 461 (P. de Ruggieri; 1958; appl. 1957).

Trade Name(s):

D: Gynäkosit (Boehringer
Mannh.)-comb.; wfm

F: Orgastéron (Organon); wfm USA: Methalutin (Parke Davis);
wfm.

Methylmethionine sulfonium chloride

(Methiosulfonii chloridum; MMS; Vitamin U)

ATC: A02

Use: peptic ulcer therapeutic, antidote

RN: 1115-84-0 MF: $\text{C}_6\text{H}_{14}\text{ClNO}_2\text{S}$ MW: 199.70 EINECS: 214-231-1

LD₅₀: 259 mg/kg (M, i.v.); >6 g/kg (M, p.o.);

432 mg/kg (R, i.v.); >6 g/kg (R, p.o.)

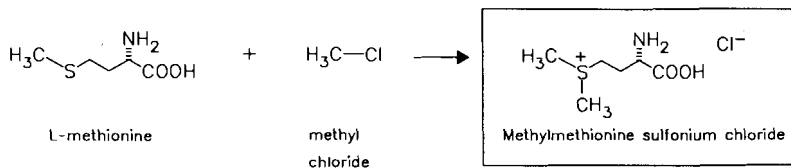
CN: (S)-(3-amino-3-carboxypropyl)dimethylsulfonium chloride

bromide

RN: 33515-11-6 MF: $\text{C}_6\text{H}_{14}\text{BrNO}_2\text{S}$ MW: 244.15

iodide

RN: 3493-11-6 MF: $\text{C}_6\text{H}_{14}\text{INO}_2\text{S}$ MW: 291.15

*Reference(s):*

DE 1 239 697 (Degussa; appl. 20.2.1963).

therapy of renal diseases:

US 4 122 189 (Kaken; 24.10.1978; J-prior. 31.3.1976).

GB 1 538 000 (Kaken; appl. 30.3.1977; J-prior. 31.3.1976).

DOS 2 714 391 (Kaken; appl. 31.3.1977; J-prior. 31.3.1976).

*hyperlipidemic effect:*Seri, K. et al.: *Arzneim.-Forsch. (ARZNAD)* **28**, 1711 (1978).*Formulation(s):* drg. 12.5 mg; sol. 0.4 g/100 g*Trade Name(s):*

D:	Medosalgol (Loges)- comb.; wfm	I:	Quamon (Neopharmed; as methylsulfate); wfm	New Edion-U (SS Seiyaku)
	Stacho-Zym (Kattwiga)- comb.; wfm	J:	Cabagin (Kowa)	Nichigreen U (Nichijiko)
F:	Ardesyl (Beytout); wfm		Gaston U (Tokyo Hosei)	Showa U (Showa)
	Lobarthrose (Opodex); wfm		Kizankohl (Sanko)	U-vit. (Hamari)
			Kizankohl U (Sanko)	Vitas U (Kaken)
			New U-TIV (Zeria)-comb.	Yucron (Daigo Eiyo)
				combination preparations

Methylpentynol

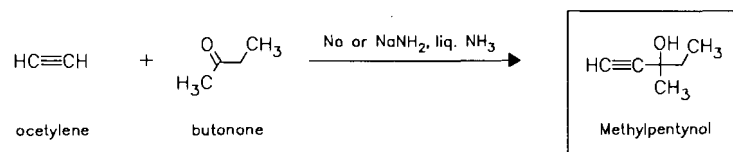
(Meparfynol)

ATC: N05CM15

Use: sedative

RN: 77-75-8 MF: C₆H₁₀O MW: 98.15 EINECS: 201-055-5LD₅₀: 525 mg/kg (M, p.o.)

CN: 3-methyl-1-pentyn-3-ol

*Reference(s):*

DRP 285 770 (Bayer; 1913).

DRP 289 800 (Bayer; 1913).

DRP 291 185 (Bayer; 1914).

Formulation(s): cps. 250 mg*Trade Name(s):*

D:	Allotropal (Heyl); wfm		N-Oblivon (Latéma; as methylpentynol carbamate); wfm	Oblivon (British Schering); wfm
	Melval (Kattwiga)-comb.; wfm			USA: Dormison (Schering); wfm
F:	N-Oblivon (Latéma); wfm	GB:	Insomnol (Medo); wfm	

Methylphenidate

ATC: N06BA04
Use: psychotonic

RN: 113-45-1 MF: C₁₄H₁₉NO₂ MW: 233.31 EINECS: 204-028-6

LD₅₀: 41 mg/kg (M, i.v.); 150 mg/kg (M, p.o.);

48 mg/kg (R, i.v.); 367 mg/kg (R, p.o.)

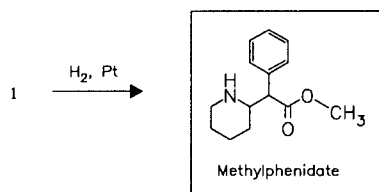
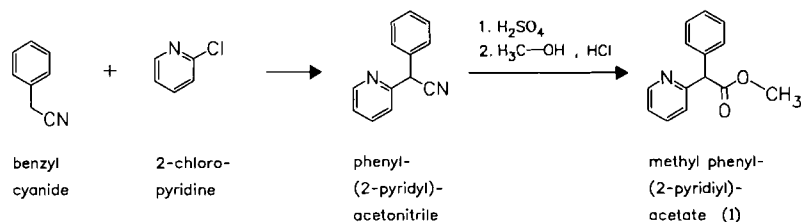
CN: α-phenyl-2-piperidineacetic acid methyl ester

hydrochloride

RN: 298-59-9 MF: C₁₄H₁₉NO₂·HCl MW: 269.77 EINECS: 206-065-3

LD₅₀: 40 mg/kg (M, i.v.); 60 mg/kg (M, p.o.);

50 mg/kg (R, i.v.); 350 mg/kg (R, p.o.)

**Reference(s):**

US 2 507 631 (Ciba; 1950; CH-prior. 1944).

separation of diastereomers:

US 2 957 880 (Ciba; 1960; CH-prior. 1953).

Panizzon, L.: Helv. Chim. Acta (HCACAV) **27**, 1748 (1948).

Formulation(s): amp. 20 mg; tabl. 5 mg, 10 mg, 20 mg (as hydrochloride)

Trade Name(s):

D: Ritalin (Novartis Pharma)

I: Ritalin (Ciba); wfm

USA: Ritalin (Novartis)

F: Ritaline (Novartis)

J: Ritalin (Ciba-Geigy-

GB: Ritalin (Novartis)

Takeda)

Methylphenobarbital

(Mephobarbital; Methylphenobarbitone)

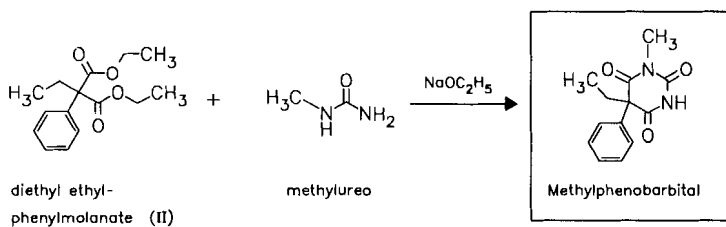
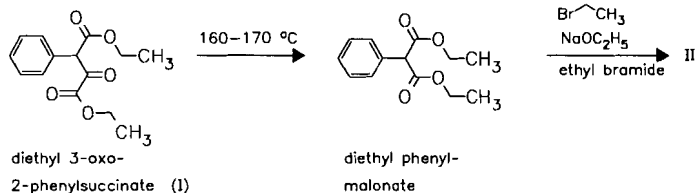
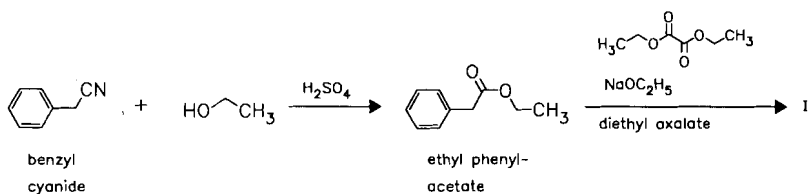
ATC: N03AA01

Use: anticonvulsant, sedative

RN: 115-38-8 MF: C₁₃H₁₄N₂O₃ MW: 246.27 EINECS: 204-085-7

LD₅₀: 300 mg/kg (M, p.o.)

CN: 5-ethyl-1-methyl-5-phenyl-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione

**Reference(s):**

DRP 537 366 (I. G. Farben; 1929).
 DRP 590 175 (I. G. Farben; 1932).

Formulation(s): tabl. 30 mg, 60 mg, 200 mg

Trade Name(s):

D:	Prominal (Bayer); wfm	Prominalette (Bracco);	USA: Mebaral (Sanofi)
GB:	Prominal (Sanofi Winthrop)	wfm	
I:	Prominal (Bracco); wfm	J: Prominal (Bayer)	

Methylprednisolone

ATC: D07AA01; D10AA02; H02AB04
 Use: glucocorticoid

RN: 83-43-2 MF: C₂₂H₃₀O₅ MW: 374.48 EINECS: 201-476-4
 LD₅₀: >4 g/kg (R, p.o.)
 CN: (6 α ,11 β)-11,17,21-trihydroxy-6-methylpregna-1,4-diene-3,20-dione

acetate

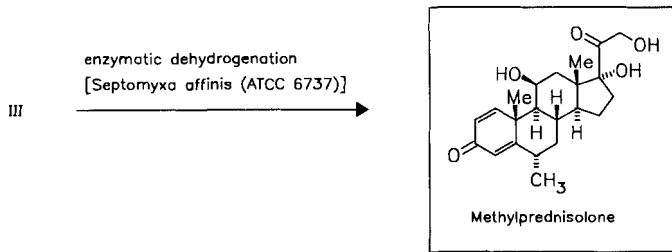
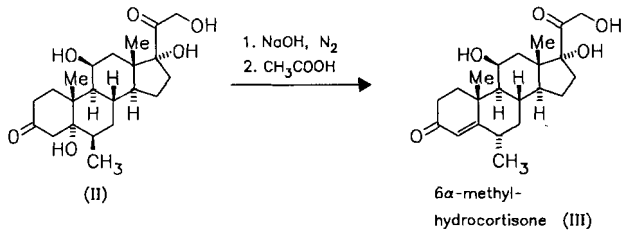
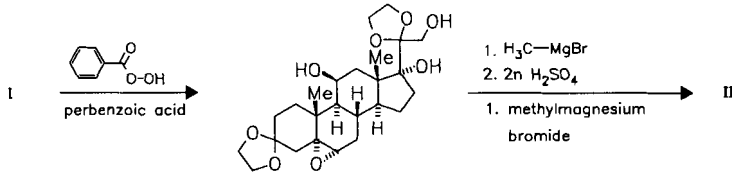
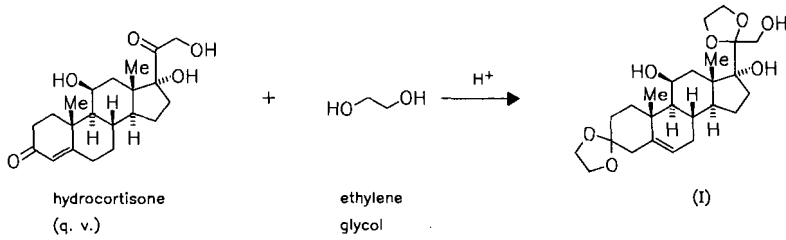
RN: 53-36-1 MF: C₂₄H₃₂O₆ MW: 416.51 EINECS: 200-171-3
 LD₅₀: >10 g/kg (R, p.o.)

succinate

RN: 2921-57-5 MF: C₂₆H₃₄O₈ MW: 474.55 EINECS: 220-863-9

succinate sodium salt

RN: 2375-03-3 MF: C₂₆H₃₃NaO₈ MW: 496.53 EINECS: 219-156-8
 LD₅₀: 750 mg/kg (M, i.v.); >5 g/kg (M, p.o.);
 640 mg/kg (R, i.v.); >5 g/kg (R, p.o.)

**Reference(s):**

US 2 897 218 (Upjohn; 28.7.1959; appl. 23.11.1956; prior. 23.4.1956).

Speero, G.G. et al.: J. Am. Chem. Soc. (JACSAT) **78**, 6213 (1956); **79**, 1515 (1957).**alternative syntheses:**

US 3 053 832 (Schering Corp.; 11.9.1962; prior. 29.4.1957).

Fried, J.H. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 1235 (1959).

US 4 041 055 (Upjohn; 9.8.1977; appl. 17.11.1975).

Formulation(s): amp. 20 mg, 30 mg, 40 mg, 60 mg, 80 mg; cream 0.1 %; ointment 0.1 %; tabl. 6 mg, 24 mg, 60 mg**Trade Name(s):**

D: Advantan (Schering)
 Depo-Medrate (Pharmacia & Upjohn)
 Medrate (Pharmacia & Upjohn)
 Metypred (Orion Pharma)
 Urbason (Hoechst)

F: Dépo-Medrol (Pharmacia & Upjohn)
 Médrol (Pharmacia & Upjohn)
 Solu-Médrol (Pharmacia & Upjohn)
 GB: Medrone (Pharmacia & Upjohn)

I: Advantan (Schering)
 Asmacortone (Nuovo Cons. Sanit. Naz.)
 Avancort (Farmades)
 Depo Medrol (Upjohn)
 Emmetip (Zanoni)
 Esametone (Lisapharma)
 Firmacort (Firma)

Medrol (Upjohn)	Urbason Retard (Hoechst)	Dura-Meth (Foy); wfm
Medrol Loz. Antiance (Upjohn)-comb.	J: Medrol (Upjohn)	Medrol (Upjohn); wfm
Metilpre (Formulario Naz.)	USA: A-methaPred (Abbott); wfm	Neo-Medrol (Upjohn)-comb.; wfm
Neomedrol Veriderm (Upjohn)-comb.	Depo-Medrol (Upjohn; as acetate); wfm	Solu-Medrol (Upjohn; as 21-hemisuccinate); wfm
Solu-medrol (Upjohn)	Depo-Predate (Legere); wfm	
Urbason (Hoechst)		

Methyltestosterone

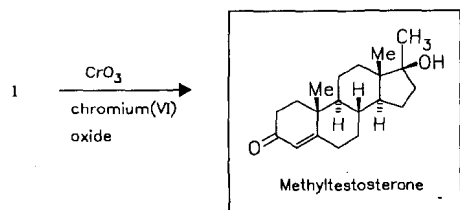
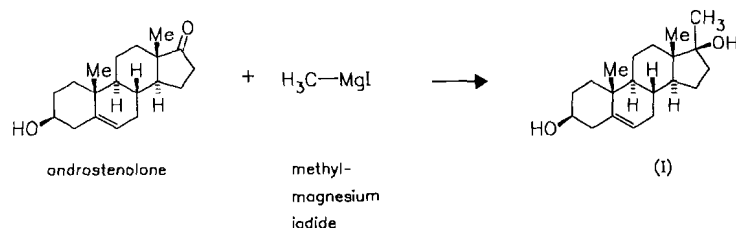
ATC: G03BA02; G03EK01

Use: androgen

RN: 58-18-4 MF: C₂₀H₃₀O₂ MW: 302.46 EINECS: 200-366-3LD₅₀: 1860 mg/kg (M, p.o.);

2500 mg/kg (R, p.o.)

CN: (17β)-17-hydroxy-17-methylandro-4-en-3-one

*Reference(s):*

- US 2 143 453 (Ciba; 1939; CH-prior. 1935).
 US 2 374 369 (Ciba; 1945; CH-prior. 1939).
 US 2 374 370 (Ciba; 1945; CH-prior. 1939).
 Ruzicka, L.: *Helv. Chim. Acta (HCACAV)* **18**, 1487 (1935).

starting material:

The Merck Index, 2846 (Rahway 1976).

alternative syntheses:

- US 2 384 335 (Alien Property Custodian; 1945; NL-prior. 1936).
 US 2 386 331 (Ciba; 1945; CH-prior. 1938).
 US 2 435 013 (Ciba; 1948; CH-prior. 1941).
 Bharucha, K.R.: *Experientia (EXPEAM)* **14**, 5 (1958).

Formulation(s): cps. 5 mg, 10 mg, 25 mg*Trade Name(s):*

D: Femoviron Dragees (Albert-Roussel)-comb.; wfm	Gerobion (Merck)-comb.; wfm	Hormocornut B (AGM)-comb.; wfm
	Gevraben (Cedra)-comb.; wfm	Hormo-Gerobion (Merck)-comb.; wfm

Hormovitan (ASTA)- comb.; wfm	Testifortan (Promonta)- comb.; wfm	Veinotrope
Klimax Taeschner (Taeschner); wfm	Tropodil (Tropon)-comb.; wfm	Méthyltestostéron (Lobica); wfm
Lipogeron 300 (Nattermann)-comb.; wfm	Viracton plus (Promonta)- comb.; wfm	GB: Mepilin (Duncan, Flockhart)-comb.; wfm
Medigeron (Medice)- comb.; wfm	F: Climatérine (Lucien)- comb.; wfm	I: Testovis (SIT)
Pasuma (Cascan)-comb.; wfm	Glosso-Stérandryl (Roussel); wfm	J: Enarmon Tab. (Teikoku Zoki)
Primodian (Schering)- comb.; wfm	Triphosadénine	Primodian (Nihon Schering)-comb.
Primogeron (Schering)- comb.; wfm	Méthyltestostérone	Sanstron (Sankyo)
Reginol (Merz)-comb.; wfm	Composé (Débat)-comb.; wfm	USA: Android (ICN) Estratest (Solvay) Testred (ICN) Virilon (Star)

Methylthionium chloride

(Methylenblau; Methylene blue)

ATC: V03AB17; V04CG05

Use: diagnostic (for gastric function test),
antidote (cyanide poisonings)

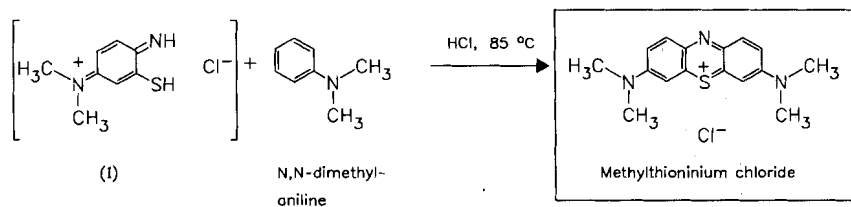
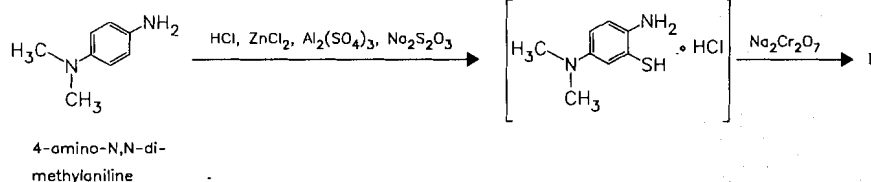
RN: 61-73-4 MF: C₁₆H₁₈ClN₃S MW: 319.86 EINECS: 200-515-2

LD₅₀: 77 mg/kg (M, i.v.); 3500 mg/kg (M, p.o.);
1250 mg/kg (R, i.v.); 1180 mg/kg (R, p.o.)

CN: 3,7-bis(dimethylamino)phenothiazin-5-ium chloride

trihydrate

RN: 7220-79-3 MF: C₁₆H₁₈ClN₃S · 3H₂O MW: 373.91



Reference(s):

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 8, 237.

Formulation(s): amp. 10 mg/ml, 50 mg/ml, 100 mg/ml; tabl. 65 mg

Trade Name(s):

D: Methylenblau Vitis
(Neopharma)

Collyre Bleu Laiter
(Leurquin)-comb.

Mictasol Bleu (Martin-
Johnson & Johnson-MSD)-
comb.

F: Antiseptique-
Calmante (Chauvin)-comb.

	Pastilles Monléon (Toulade)-comb. Stilla (Phygiène)-comb.	USA: Blu Meti (Formulario Naz.) Urised (PolyMedica)- comb.	Urolene Blue (Star Pharmaceut.)
I:	Blu Di Meti (Scfm)		

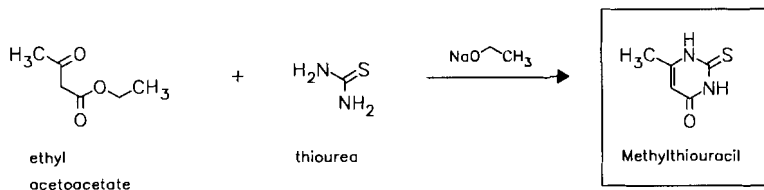
Methylthiouracil

ATC: H03BA01
Use: thyroid therapeutic

RN: 56-04-2 MF: C₅H₆N₂OS MW: 142.18 EINECS: 200-252-3

LD₅₀: 1500 mg/kg (R, p.o.)

CN: 2,3-dihydro-6-methyl-2-thioxo-4(1H)-pyrimidinone

**Reference(s):**

List, R.: Justus Liebigs Ann. Chem. (JLACBF) **236**, 1 (1886).

Anderson, G.W. et al.: J. Am. Chem. Soc. (JACSAT) **67**, 2197 (1945).

Formulation(s): tabl. 0.025 g, 0.1 g

Trade Name(s):

D:	Pitufren comp. (Brunnengräber)-comb.; wfm	F:	Frenantol Comp. (Laroche Navarron); wfm	USA:	Muracin (Organon); wfm
J:		J:	Methiocil (Chugai)		

Methyprylon

ATC: N05CE02
Use: hypnotic

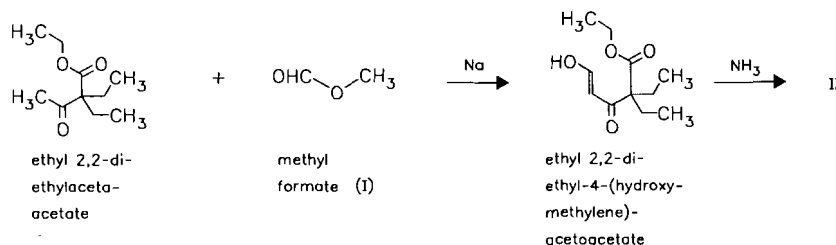
RN: 125-64-4 MF: C₁₀H₁₇NO₂ MW: 183.25 EINECS: 204-745-4

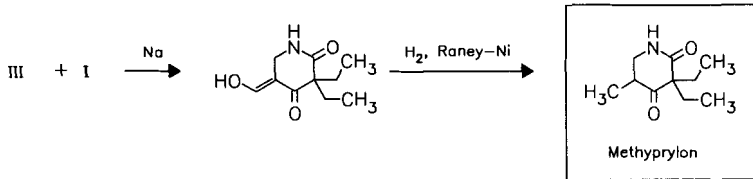
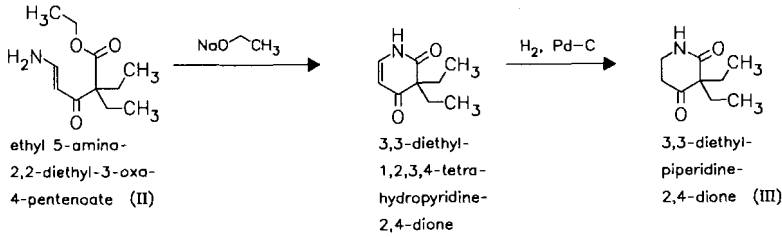
LD₅₀: 275 mg/kg (M, i.v.); 890 mg/kg (M, p.o.);

380 mg/kg (R, i.v.); 860 mg/kg (R, p.o.);

300 mg/kg (dog, p.o.)

CN: 3,3-diethyl-5-methyl-2,4-piperidinedione



**Reference(s):**

US 2 680 116 (Hoffmann-La Roche; 1954; CH-prior. 1951).
 DRP 634 284 (Hoffmann-La Roche; 1935).
 US 2 151 047 (Hoffmann-La Roche; prior. 1938).

Formulation(s): tabl. 200 mg

Trade Name(s):

D: Noludar (Roche); wfm J: Noctan (Yamanouchi)
 GB: Noludar (Roche) USA: Noludar (Roche); wfm

Methysergide

ATC: N02CA04

Use: serotonin antagonist, antimigraine agent

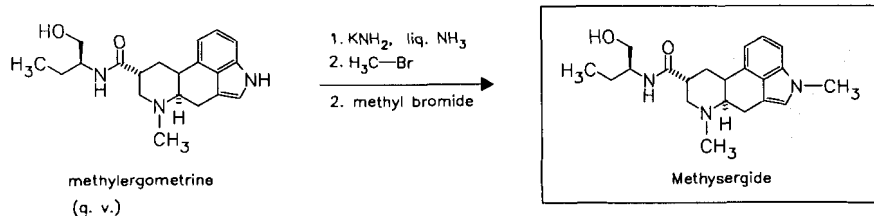
RN: 361-37-5 MF: $\text{C}_{21}\text{H}_{27}\text{N}_3\text{O}_2$ MW: 353.47 EINECS: 206-644-0

LD₅₀: 185 mg/kg (M, i.v.); 440 mg/kg (M, p.o.)

CN: [8β(S)-9,10-didehydro-N-[1-(hydroxymethyl)propyl]-1,6-dimethylergoline-8-carboxamide

hydrogen maleate (1:1)

RN: 129-49-7 MF: $\text{C}_{21}\text{H}_{27}\text{N}_3\text{O}_2 \cdot \text{C}_4\text{H}_4\text{O}_4$ MW: 469.54 EINECS: 204-950-9

**Reference(s):**

US 3 113 133 (Sandoz; 3.12.1963; CH-prior. 18.5.1956).
 US 3 218 324 (Sandoz; 16.11.1965; CH-prior. 18.5.1956, 20.3.1957, 16.4.1957, 7.3.1958, 11.3.1960).
 DE 1 076 137 (Sandoz; appl. 7.5.1957; CH-prior. 18.5.1956, 20.3.1957).

Formulation(s): s. r. tabl. 3 mg; tabl. 1 mg, 2 mg (as hydrogen maleate)

Trade Name(s):

D: Deseril-retard (Novartis Pharma)

GB: Deseril (Novartis)

Sansert (Sandoz; as maleate); wfm

I: Deseril (Sandoz)

F: Désernil Sandoz (Novartis)

USA: Sansert (Sandoz); wfm

Metiazinic acid

ATC: M01; N02

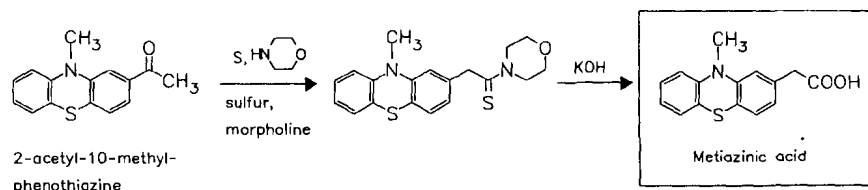
(Acide métiazinique)

Use: anti-inflammatory

RN: 13993-65-2 MF: C₁₅H₁₃NO₂S MW: 271.34 EINECS: 237-795-0LD₅₀: 350 mg/kg (M, i.v.); 800 mg/kg (M, p.o.);

495 mg/kg (R, p.o.);

2 g/kg (dog, p.o.)

CN: 10-methyl-10*H*-phenothiazine-2-acetic acid**Reference(s):**

GB 1 048 680 (Rhône-Poulenc; appl. 27.10.1965; F-prior. 29.10.1964, 30.10.1964, 28.12.1964, 24.9.1965).

ester derivatives:

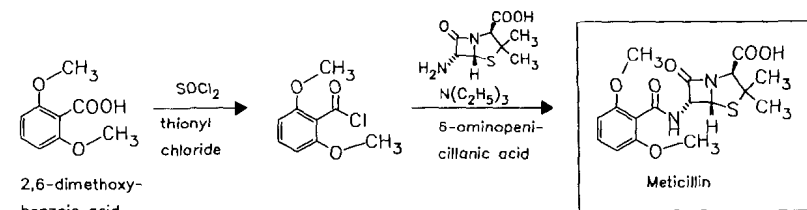
US 3 424 748 (Rhône-Poulenc; 28.1.1969; F-prior. 22.10.1965, 25.8.1966).

Formulation(s): cps. 125 mg, 250 mg**Trade Name(s):**F: Soridermal (Specia); wfm
Soripal (Specia); wfmI: Soripal (Carlo Erba); wfm
Soripal (Farmitalia); wfmJ: Roimal (Nippon Rhodia)
Soripal (Torii)**Meticillin**

ATC: J01CF03

(Methicillin)

Use: antibiotic

RN: 61-32-5 MF: C₁₇H₂₀N₂O₆S MW: 380.42 EINECS: 200-505-8LD₅₀: 3720 mg/kg (M, i.v.)CN: [2*S*-(2 α ,5 α ,6 β)]-6-[(2,6-dimethoxybenzoyl)amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid**sodium salt monohydrate**RN: 7246-14-2 MF: C₁₇H₁₉N₂NaO₆S · H₂O MW: 420.42

Reference(s):

US 2 951 839 (Beecham; 6.9.1960; GB-prior. 15.7.1959).

Formulation(s): amp. 0.5 g, 1 g/ml, 4 g, 6 g (as sodium salt)

Trade Name(s):

D:	Cinopenil (Hoechst); wfm	Pénistaph (Bristol); wfm	Celbenin (Beecham-Massengill); wfm
F:	Chibro-Flabelline (Merck Sharp & Dohme-Chibret)-comb.; wfm	GB: Celbenin (Beecham; 1960)	Staphcillin (Bristol); wfm
	Flabelline (Delagrance); wfm	I: Staficyn (Firma)	
		J: Methocillin (Meiji)	
		Staphcillin (Banyu)	
		USA: Azapen (Pfizer); wfm	

Meticrane

ATC: C03BA09

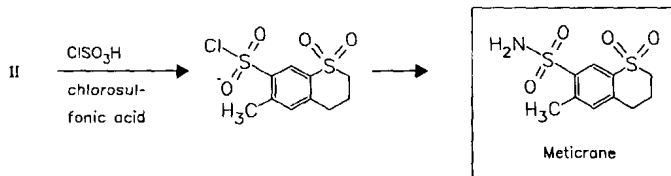
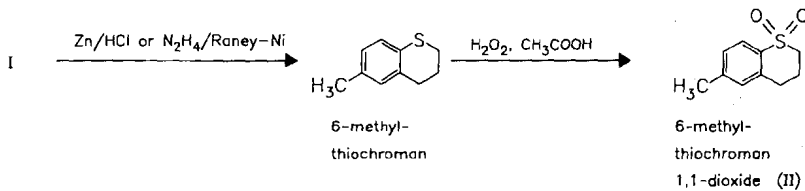
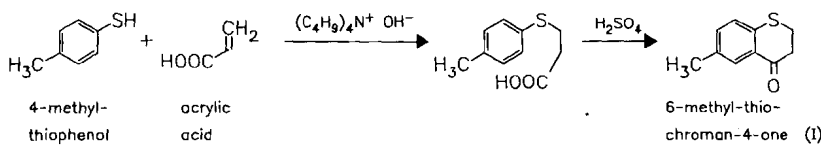
Use: diuretic

RN: 1084-65-7 MF: C₁₀H₁₃NO₄S₂ MW: 275.35 EINECS: 214-112-4

LD₅₀: 325 mg/kg (M, i.v.); >20 g/kg (M, p.o.);

445 mg/kg (R, i.v.); >16 g/kg (R, p.o.)

CN: 3,4-dihydro-6-methyl-2H-1-benzothiopyran-7-sulfonamide 1,1-dioxide



Reference(s):

FR 1 365 504 (S.I.F.A; appl. 24.5.1963).

Formulation(s): tabl. 150 mg

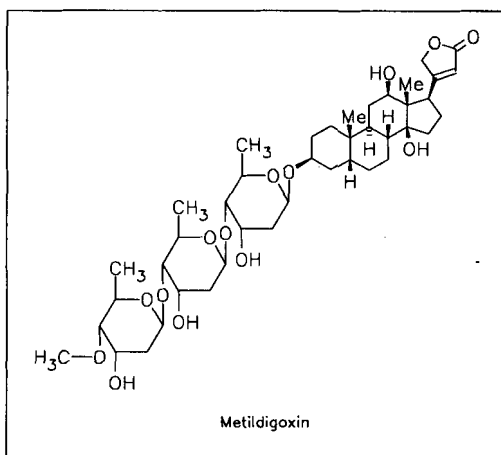
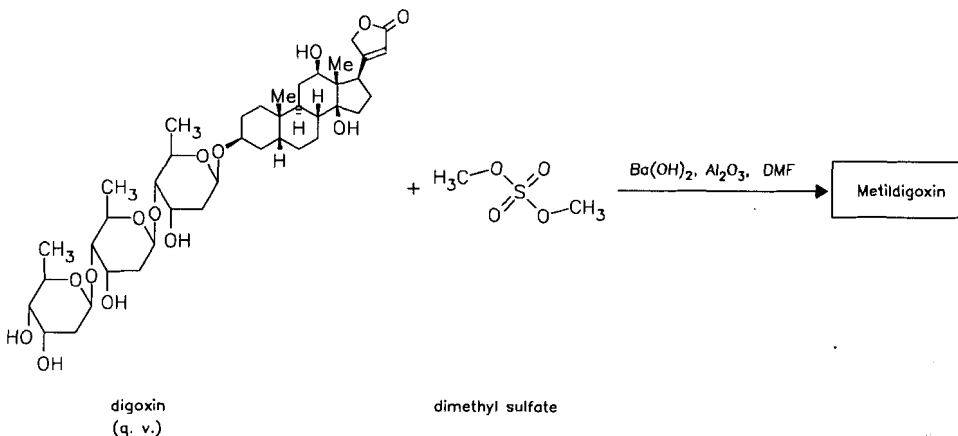
Trade Name(s):

F:	Fontilix (Diamant); wfm	J:	Aresten (Nippon Shinyaku)
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Metildigoxin(Medigoxin; β -Methyldigoxin)

ATC: C01AA08

Use: cardiac glycoside

RN: 30685-43-9 MF: $C_{42}H_{66}O_{14}$ MW: 794.98 EINECS: 250-292-0CN: (3 β ,5 β ,12 β)-3-[(*O*-2,6-dideoxy-4-*O*-methyl- β -D-*ribo*-hexopyranosyl-(1 \rightarrow 4)-*O*-2,6-dideoxy- β -D-*ribo*-hexopyranosyl-(1 \rightarrow 4)-2,6-dideoxy- β -D-*ribo*-hexopyranosyl)oxy]-12,14-dihydroxycard-20(22)-enolid**Reference(s):**

- DE 1 643 665 (Boehringer Mannh.; appl. 20.9.1967).
 DOS 1 961 034 (Boehringer Mannh.; appl. 5.12.1969).
 US 3 538 078 (Boehringer Mannh.; 3.11.1970; D-prior. 7.5.1968).

methylation with methyl mesylate:

- DOS 2 734 401 (LEK; appl. 29.7.1977; YU-prior. 20.8.1976).
 US 4 145 528 (LEK; 20.3.1979; YU-prior. 20.8.1976).

Formulation(s): amp. 0.2 mg; tabl. 0.1 mg, 0.15 mg

Trade Name(s):

D:	Lanitop (Boehringer Mannh.; 1971)	I:	Cardiolan (Tosi-Novara) Lanitop (Boehringer Mannh.; 1973)	J:	Miopat (Polifarma) Lanirapid (Yamanouchi; 1979)
F:	Lanitop (Roussel); wfm				

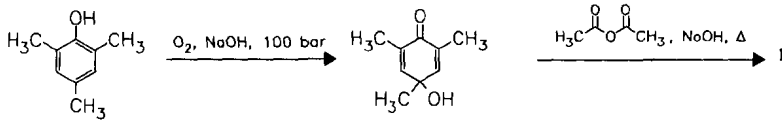
Metipranolol

ATC: S01ED04

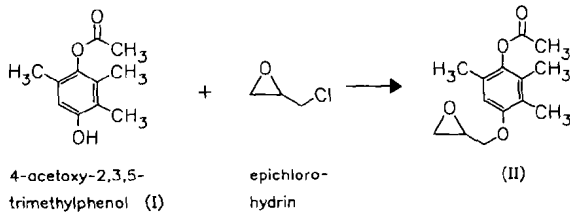
Use: beta blocking agent

RN: 22664-55-7 MF: C₁₇H₂₇NO₄ MW: 309.41 EINECS: 245-151-5

CN: 4-[2-hydroxy-3-[(1-methylethyl)amino]propoxy]-2,3,6-trimethylphenol 1-acetate



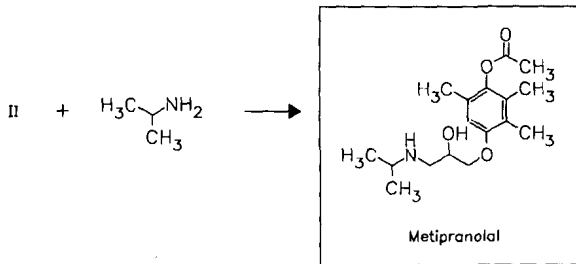
2,4,6-trimethyl-phenol



4-acetoxy-2,3,5-trimethylphenol (I)

epichloro-
hydrin

(II)



Metipranolol

Reference(s):

DOS 1 668 964 (Spofa; appl. 1968; P-prior. 1967).

CS 1 150 020 (L. Blaha; appl. 26.11.1970).

synthesis of 4-acetoxy-2,3,5-trimethylphenol:

DOS 2 314 600 (Teijin; appl. 23.3.1973; J-prior. 25.3.1972).

Formulation(s): drg. 20 mg; eye drops 1 mg/ml, 3 mg/ml, 6 mg/ml (0.1 %, 0.3 %, 0.6 %); tabl. 20 mg**Trade Name(s):**

D:	Betamann (Mann) Normoglaucion (Mann)- comb.	Torrat (Boehringer Mannh.) Tri-Torrat (Boehringer Mannh.)	F:	Bétanol (Europhta) Turoptin (CIBA Vision)- comb.
			I:	

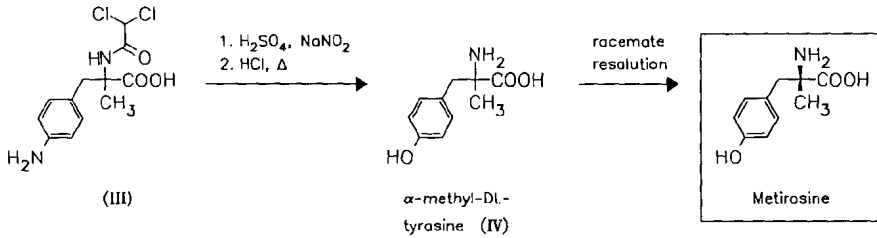
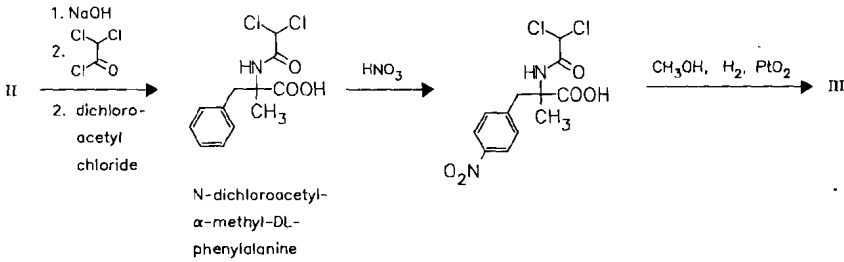
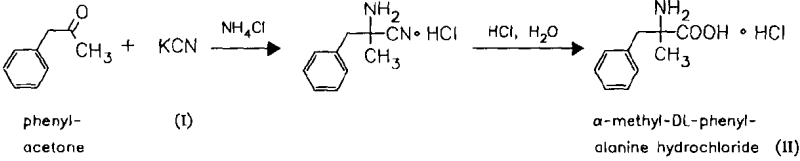
Metirosine(Metyrosine; α -Methyltyrosine)

ATC: C02KB01

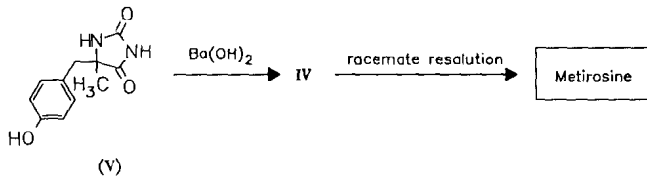
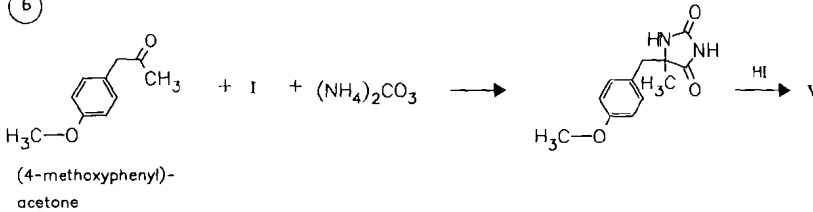
Use: antihypertensive (at pheochromocytoma)

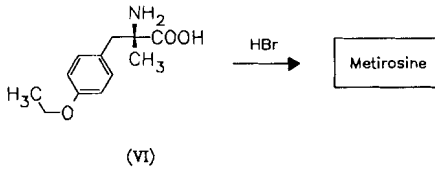
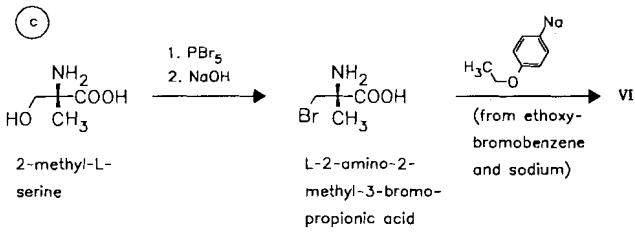
RN: 672-87-7 MF: $C_{10}H_{13}NO_3$ MW: 195.22 EINECS: 211-599-5CN: α -methyl-L-tyrosine

(a)



(b)





Reference(s):

- a Stein, G.A. et al.: J. Am. Chem. Soc. (JACSAT) **77**, 700 (1955).
US 2 868 818 (Merck & Co.; 13.1.1959; appl. 15.12.1953).
- b Potts, K.T.: J. Chem. Soc. (JCSOA9) **1955**, 1632.
- c DOS 1 543 763 (Merck & Co.; appl. 25.5.1966; USA-prior. 3.6.1965).
GB 1 105 103 (Merck & Co.; appl. 1.6.1966; USA-prior. 3.6.1965).

alternative syntheses:

enantioselective synthesis from L-tyrosine via the reaction product from N,O-bis(carbobenzoxy)-L-tyrosine with benzaldehyde and its methylation:

US 4 508 921 (Merck & Co.; 2.4.1985; appl. 28.6.1984).

DL-metirosine by reaction of N,N-dimethyl-4-hydroxybenzylamine with ethyl 2-nitropropionate:

Saari, W.S.: J. Org. Chem. (JOCEAH) **32**, 4074 (1967).

combination with carbidopa:

US 4 389 415 (Merck & Co.; 21.6.1983; USA-prior. 24.1.1978, 5.10.1979, 20.7.1981).

EP 3 353 (Merck & Co.; appl. 24.1.1979; USA-prior. 24.1.1978).

Formulation(s): cps. 250 mg

Trade Name(s):

GB: Demser (Merck Sharp & Dohme); wfm

USA: Demser (Merck Sharp & Dohme)

Metixene

(Methixene)

ATC: N04AA03

Use: antiparkinsonian, antispasmodic

RN: 4969-02-2 MF: C₂₀H₂₃NS MW: 309.48 EINECS: 225-610-6

LD₅₀: 18 mg/kg (M, i.v.); 430 mg/kg (M, p.o.)

CN: 1-methyl-3-(9H-thioxanthen-9-ylmethyl)piperidine

hydrochloride

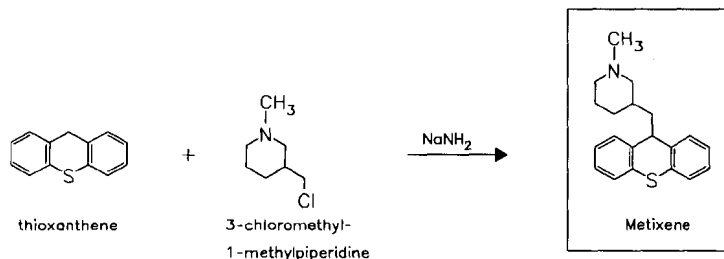
RN: 1553-34-0 MF: C₂₀H₂₃NS · HCl MW: 345.94 EINECS: 216-300-1

LD₅₀: 18 mg/kg (M, i.v.); 346 mg/kg (M, p.o.);

24 mg/kg (R, i.v.); 1460 mg/kg (R, p.o.)

hydrochloride monohydrate

RN: 7081-40-5 MF: C₂₀H₂₃NS · HCl · H₂O MW: 363.95

**Reference(s):**

US 2 905 590 (The Wander Comp.; 22.9.1959; prior. 7.5.1958).

Formulation(s): tabl. 2.5 mg, 5 mg, 15 mg (as hydrochloride)

Trade Name(s):

D:	Tremarit (Novartis Pharma)	Tremonil (Sandoz; as hydrochloride hydrate); wfm	Dalpan (Grelan)
F:	Spasmenzyme (Salvoxy-Wander)-comb.; wfm		Methyloxan (Nippon Shoji-Kodama)
GB:	Tremonil (Wander); wfm	I: Tremaril (Sandoz)	Thioperkin (Hokuriku)
		J: Atosil (Teisan)	USA: Trest (Dorsey); wfm
		Cholinfall (Tokyo Tanabe)	

Metoclopramide

ATC: A03FA01

Use: anti-emetic, gastric therapeutic

RN: 364-62-5 MF: $\text{C}_{14}\text{H}_{22}\text{ClN}_3\text{O}_2$ MW: 299.80 EINECS: 206-662-9

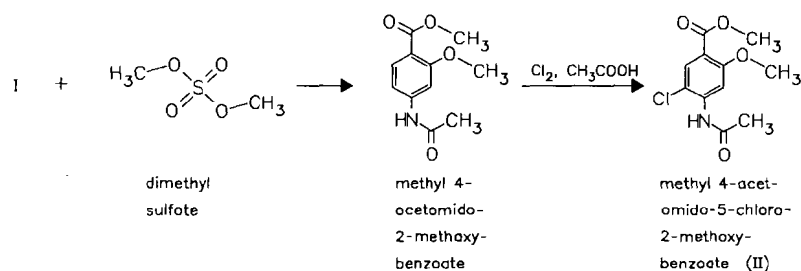
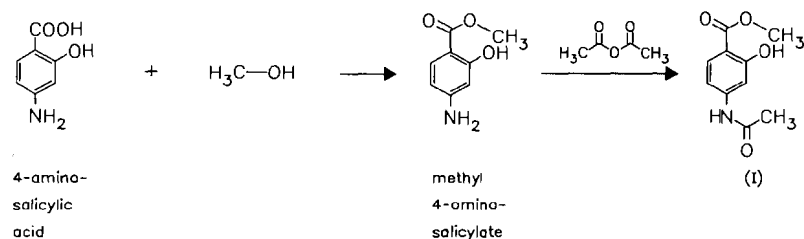
CN: 4-amino-5-chloro-*N*-[2-(diethylamino)ethyl]-2-methoxybenzamide

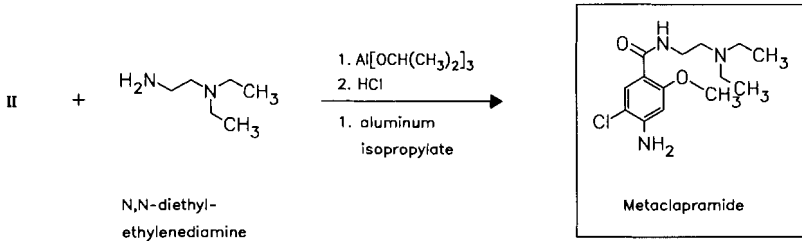
monohydrochloride

RN: 7232-21-5 MF: $\text{C}_{14}\text{H}_{22}\text{ClN}_3\text{O}_2 \cdot \text{HCl}$ MW: 336.26 EINECS: 230-634-5

monohydrochloride monohydrate

RN: 54143-57-6 MF: $\text{C}_{14}\text{H}_{22}\text{ClN}_3\text{O}_2 \cdot \text{HCl} \cdot \text{H}_2\text{O}$ MW: 354.28



*Reference(s):*

- DE 1 233 877 (Soc. d'Etudes Scientifiques et Industrielles de l'Ile-de-France; appl. 14.7.1962; F-prior. 25.7.1961).
- FR 1 313 758 (Soc. d'Etudes Scientifiques et Industrielles de l'Ile-de-France; appl. 25.7.1961).
- US 3 177 252 (Soc. d'Etudes Scientifiques et Industrielles de l'Ile-de-France; 6.4.1965; F-prior. 25.7.1961).
- US 3 219 528 (Soc. d'Etudes Scientifiques et Industrielles de l'Ile-de-France; 23.11.1965; F-prior. 25.7.1961, 5.8.1961, 4.11.1961).
- US 3 357 978 (Soc. d'Etudes Scientifiques et Industrielles de l'Ile-de-France; 12.12.1967; F-prior. 5.3.1963).

alternative syntheses:

- DOS 1 932 512 (Huhtamaki; appl. 26.6.1969; SF-prior. 28.6.1968).
- DAS 1 960 130 (Yamanouchi; appl. 29.11.1969; J-prior. 2.12.1968, 9.12.1968, 4.4.1969).
- DAS 1 966 453 (Yamanouchi; appl. 29.11.1969; J-prior. 9.12.1968).
- DAS 2 102 848 (Delmar; appl. 21.1.1971; USA-prior. 21.1.1970).
- DAS 2 119 724 (Teikoku Hormone Mfg.; appl. 22.4.1971; J-prior. 24.4.1970).
- DAS 2 162 917 (Soc. d'Etudes Scientifiques et Industrielles de l'Ile-de-France; appl. 17.12.1971; J-prior. 21.12.1970).
- DAS 2 166 117 (Teikoku Hormone Mfg.; appl. 22.4.1971; J-prior. 24.4.1970).
- DAS 2 166 118 (Teikoku Hormone Mfg.; appl. 22.4.1971; J-prior. 24.4.1970).
- DAS 2 342 934 (Delmar; appl. 24.8.1973; GB-prior. 25.8.1972, 13.12.1972, 16.4.1973).
- DAS 2 365 988 (Heumann & Co.; appl. 12.7.1973).

starting material:

- DAS 2 335 439 (Heumann & Co.; appl. 12.7.1973).

Formulation(s): amp. 10 mg/2 ml, 50 mg/10 ml; cps. 10 mg, 30 mg; drops 4 mg, 5 mg; liquid 4 mg; s. r. cps. 30 mg; sol. 1 mg/ml, 15 mg/15 ml, 5 mg/5 ml; suppos. 10 mg, 20 mg; tabl. 10 mg (as hydrochloride hydrate)

Trade Name(s):

D:	Cerucal (ASTA Medica AWD)	Primpéran (Thera France; 1964)	Plasil enzimatico (Lepetit)-comb.
	Gastronerton (Dolorgiet)	GB: Gastrobid Continus (Napp)	Randum (Roussel)
	Gastrosil (Heumann)	Maxolon (Monmouth; 1967)	Viscal (Zoja)
	Gastro-Timelets (Temmler)		J: Donopon-GP (Sana)
	Paspertase (Solvay)	Paramax (Lorex)-comb.	Peraprin (Taiyo Yakuko Takayama)
	Arzneimittel)-comb.	I: Citroplus (Irbi)	Primperan (Fujisawa; 1970)
	Paspertin (Solvay Arzneimittel; 1965)	Clopan (Firma)	Putoprin (Mohan)
	generics	Cronauzan (ASTA Medica)	Terperan (Teikoku Zoki)
F:	Anausin Metoclopramide (ASTA Medica)	Ede (Teofarma)-comb.	
	Céphalgan (UPSA)-comb.	Eugastran (Piam)-comb.	USA: Reglan (Robins; 1979)
	Metoclopramide GNR (GNR-pharma)	Geffér (Boehringer Mannh.)	
		Plasil (Lepetit; 1967)	

Metolazone

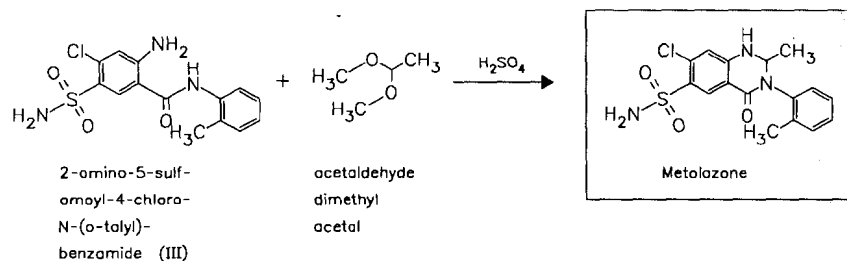
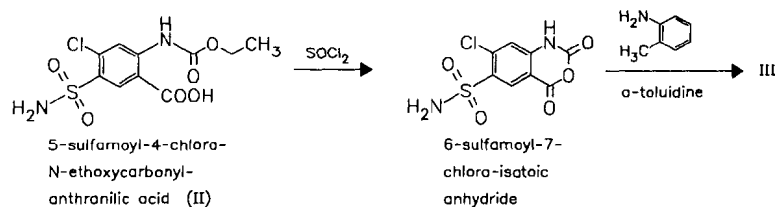
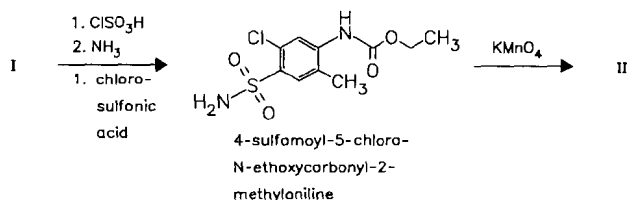
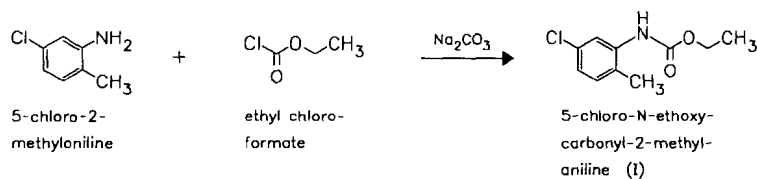
ATC: C03BA08

Use: diuretic, antihypertensive

RN: 17560-51-9 MF: C₁₆H₁₆ClN₃O₃S MW: 365.84 EINECS: 241-539-3LD₅₀: >5 g/kg (M, p.o.);

>5 g/kg (R, p.o.)

CN: 7-chloro-1,2,3,4-tetrahydro-2-methyl-3-(2-methylphenyl)-4-oxo-6-quinazolinesulfonamide

**Reference(s):**

DAS 1 620 740 (Pennwalt; appl. 24.12.1966; USA-prior. 3.1.1966).

DOS 2 131 622 (Pennwalt; appl. 25.6.1971; USA-prior. 29.6.1970).

US 3 360 518 (Wallace & Tiernan; 26.12.1967; prior. 3.1.1966).

US 3 557 111 (Wallace & Tiernan; 19.1.1971; prior. 29.3.1968).

US 3 761 480 (Pennwalt; 25.9.1973; prior. 10.7.1968, 7.11.1969, 15.3.1972).

DOS 2 035 657 (Sumitomo; appl. 17.7.1970; J-prior. 22.7.1969, 25.2.1970, 27.3.1970).

Formulation(s): tabl. 2.5 mg, 5 mg, 10 mg**Trade Name(s):**

D: Zaroxolyn (Heumann)

I: Zaroxolyn (SmithKline

J: Normelan (Sandoz-

GB: Metenix (Hoechst)

Beecham)

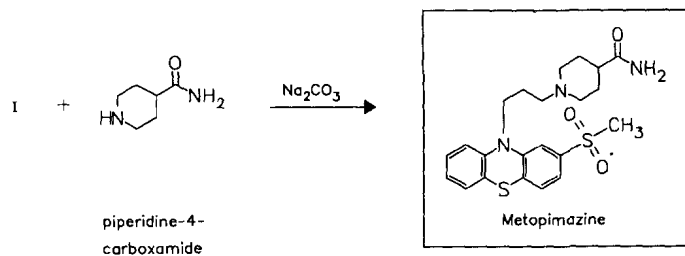
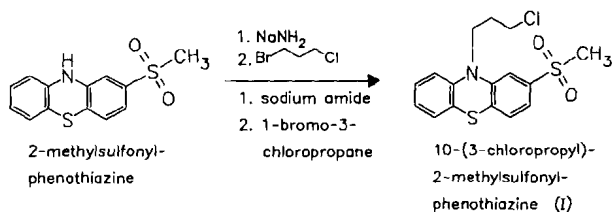
Sankyo)

USA: Mykrox (Medeva)
Zaroxolyn (Medeva)

Metopimazine

ATC: A04AD05
Use: anti-emetic

RN: 14008-44-7 MF: C₂₂H₂₇N₃O₃S₂ MW: 445.61 EINECS: 237-818-4
CN: 1-[3-[2-(methylsulfonyl)-10H-phenothiazin-10-yl]propyl]-4-piperidinecarboxamide



Reference(s):

DE 1 092 476 (Rhône-Poulenc; appl. 14.4.1959; F-prior. 24.4.1958).

Formulation(s): amp. 10 mg/1 ml; cps. 15 mg; drg. 2.5 mg; sol. 4 mg/ml, 5 mg/5 ml; suppos. 5 mg; tabl. 2.5 mg

Trade Name(s):

F: Vogalène (Schwarz)

Metoprolol

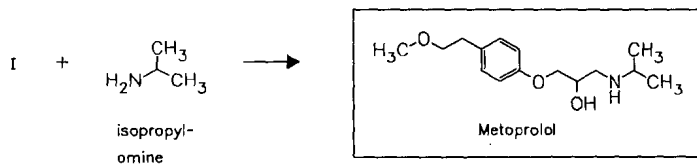
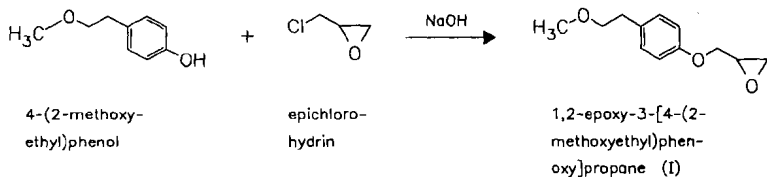
ATC: C07AB02
Use: beta blocking agent

RN: 51384-51-1 MF: C₁₅H₂₅NO₃ MW: 267.37 EINECS: 253-483-7
LD₅₀: 62 mg/kg (M, i.v.); 1050 mg/kg (M, p.o.);
71.9 mg/kg (R, i.v.); 3470 mg/kg (R, p.o.);
60 mg/kg (dog, i.v.)

CN: 1-[4-(2-methoxyethyl)phenoxy]-3-[(1-methylethyl)amino]-2-propanol

tartrate (2:1)

RN: 56392-17-7 MF: C₁₅H₂₅NO₃ · 1/2C₄H₆O₆ MW: 684.82 EINECS: 260-148-9

**Reference(s):**

DAS 2 106 209 (AB Hässle; appl. 10.2.1971; S-prior. 18.2.1970).
 US 3 873 600 (AB Hässle; 25.3.1975; S-prior. 18.2.1970).
 US 3 998 790 (AB Hässle; 21.12.1976; appl. 15.1.1974; prior. 19.3.1973).

(S)-enantiomer:

US 5 034 535 (Astra; 23.7.1991; S-prior. 22.4.1988).
 US 5 362 757 (Sepracor; 8.11.1994; appl. 16.11.1992; prior. 18.3.1991).

Formulation(s): amp. 5 mg/5 ml; s. r. f. c. tabl. 200 mg; s. r. tabl. 200 mg; tabl. 50 mg, 100 mg (as tartrate)

Trade Name(s):

D:	Azumetop (Azupharma)	F:	Logimax (Astra)-comb.	I:	Igroton Lopresor (Novartis)-comb.
	Beloc (Astra; 1976)		Logroton (Novartis Pharma SA)-comb.		Lopresor (Novartis; 1978)
	Lopresor (Novartis Pharma; 1976)		Lopressor (Novartis Pharma SA; 1980)		Seloken (Astra; 1978)
	Prelis (Novartis Pharma; 1982)		Seloken (Astra; 1980)	J:	Lopresor (Ciba-Geigy)
	Sigaprolol (Kytta-Siegfried)	GB:	Betaloc (Astra; 1975)		Seloken (Fujisawa; 1983)
	Treloc (Astra)-comb. generics		Co-betaloc (Astra; as tartrate)-comb.	USA:	Lopressor (Novartis; 1978)
			Lopresor (Novartis; 1975)		

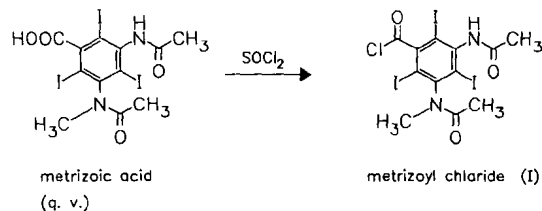
Metrizamide

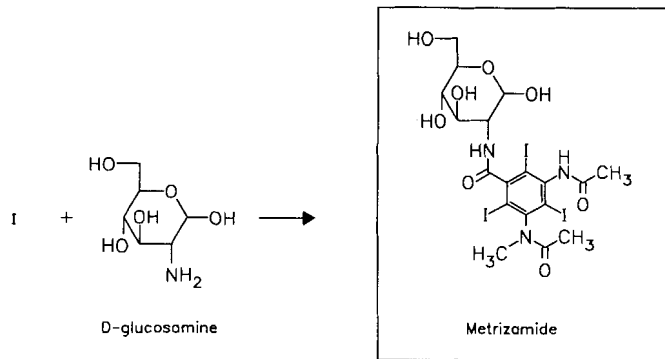
ATC: V08AB01

Use: X-ray contrast medium

RN: 55134-11-7 MF: C₁₈H₂₂I₃N₃O₈ MW: 789.10

CN: 2-[[3-(acetylamino)-5-(acetyl(methylamino))-2,4,6-triiodobenzoyl]amino]-2-deoxy-D-glucopyranose





Reference(s):

US 3 701 771 (Nyegaard; 31.10.1972; GB-prior. 27.6.1969, 9.2.1970).
 DOS 2 031 724 (Nyegaard; appl. 26.6.1970; GB-prior. 27.6.1969, 9.2.1970).

Formulation(s): amp. 3.75 g, 6.75 g (12.5 %, 13.5 %, 18.75 %)

Trade Name(s):

D: Amipaque (Schering; 1977); wfm	F: Amipaque (Sterling Winthrop; 1980); wfm	USA: Amipaque (Winthrop-Breon; 1975); wfm
Arnipaque (Schering); wfm	J: Amipaque (Schering; 1981)	

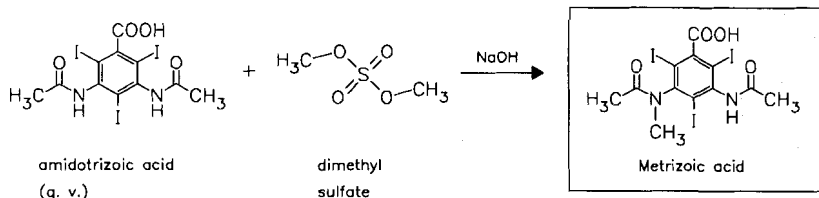
Metrizic acid

ATC: V08AA02
 Use: X-ray contrast medium

RN: 1949-45-7 MF: C₁₂H₁₁I₃N₂O₄ MW: 627.94 EINECS: 217-761-1
 LD₅₀: 10 g/kg (M, i.v.); >46.8 mg/kg (M, p.o.);
 14.3 g/kg (R, i.v.); 38.1 mg/kg (R, p.o.)
 CN: 3-(acetilamino)-5-(acetilmethylamino)-2,4,6-triiodobenzoic acid

monosodium salt

RN: 7225-61-8 MF: C₁₂H₁₀I₃N₂NaO₄ MW: 649.92 EINECS: 230-624-0



Reference(s):

GB 973 881 (Nyegaard; appl. 5.12.1960; N-prior. 8.12.1959).
 GB 987 796 (Nyegaard; appl. 26.2.1962; N-prior. 28.2.1961).
 US 3 178 473 (Nyegaard; 13.4.1965; appl. 2.3.1962).

Formulation(s): amp. 100 mg, 150 mg, 260 mg, 350 mg, 370 mg, 440 mg (as Ca-, Mg-, Na- and meglumine salt)

Trade Name(s):

D: Ronpacon (Cilag-Chemie); F: Isopaque (Winthrop); wfm USA: Isopaque (Winthrop); wfm
wfm J: Isopaque (Torii); wfm

Metronidazole

ATC: A01AB17; D06BX01; G01AF01;
J01XD01; P01AB01

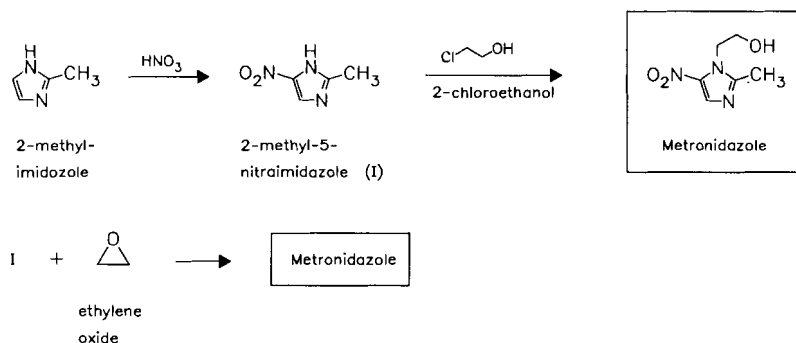
Use: chemotherapeutic (trichomonas)

RN: 443-48-1 MF: C₆H₉N₃O₃ MW: 171.16 EINECS: 207-136-1

LD₅₀: 3800 mg/kg (M, p.o.);

3 g/kg (R, p.o.)

CN: 2-methyl-5-nitro-1*H*-imidazole-1-ethanol



Reference(s):

US 2 944 061 (Rhône-Poulenc; 5.7.1960; F-prior. 20.9.1975).

Formulation(s): cps. 250 mg, 375 mg; f. c. tabl. 250 mg, 400 mg; suppos. 100 mg (vaginal); tabl. 250 mg, 400 mg; vaginal tabl. 100 mg; vial 5 g/1000 ml

Trade Name(s):

D: Arilin (Wolff)	GB: Anabact (ASTA Medica AWD)	J: Vagilen (Farmigea)
Canesten-Clont-	Elyzol (Dumex)	Asuzol (Fuji)
Kombipack. (Bayer)	Flagyl (Rhône-Poulenc Rorer)	Flagyl (Shionogi)
Clont (Bayer Vital)	Metrogel (Novartis)	Nida (Toyo Pharmar)
Flagyl (Rhône-Poulenc Rorer)	Rozex (Stafford-Miller)	Takimetol (Nakataki)
Fossyol (Merckle)	Zidoval (3M)	Trichocide (Green Cross)
generics		Wagitran (Nakataki)
F: Flagyl (Specia)	I: Deffamon (SPA)	USA: Flagyl (SCS)
Rodogyl (Specia)-comb.	Flagyl (Farmitalia)	Flagyl (SCS; as hydrochloride)
Rozagel (Biorga)	Metronid (Formulario Naz.)	Flagyl (Searle)
Tergynan (Bouchara)-comb.	Metronidazolo Same (Savoma)	Helidac (Procter & Gamble)

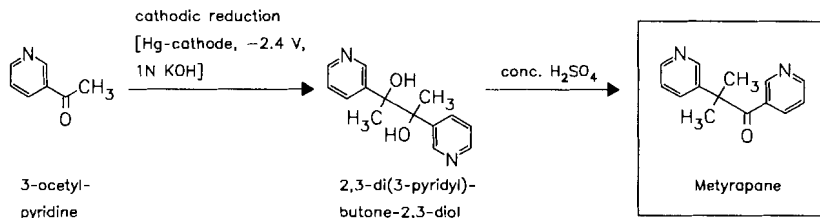
Metyrapone

ATC: V04CD01

Use: adrenocorticostatic

RN: 54-36-4 MF: C₁₄H₁₄N₂O MW: 226.28 EINECS: 200-206-2

CN: 2-methyl-1,2-di-3-pyridinyl-1-propanone



Reference(s):

Chart, J.J. et al.: *Experientia (EXPEAM)* **14**, 151 (1958).
 Allen, M.J.: *J. Org. Chem. (JOCEAH)* **15**, 435 (1950). - (pinacol-synthesis)
 Bencze, W.L.; Allen, M.J.: *J. Am. Chem. Soc. (JACSAT)* **81**, 4015 (1959).

as intermediate mentioned in:

US 2 923 710 (Ciba; 2.2.1960, prior. 14.7.1958).
 US 2 966 493 (Ciba; 27.12.1960; appl. 10.3.1958).

Formulation(s): cps. 250 mg

Trade Name(s):

D:	Metopiron (Ciba); wfm	GB:	Metopirone (Novartis)	J:	Metopiron (Ciba-Geigy-Takeda)
F:	Metopirone (Novartis Pharma SA)	I:	Metopiron (Ciba); wfm	USA:	Metopirone (Ciba); wfm

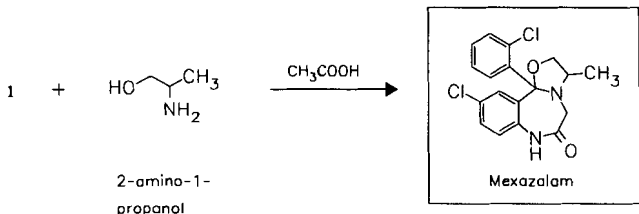
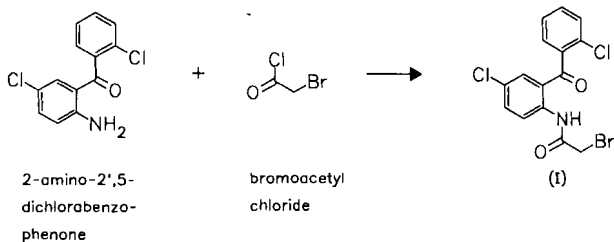
Mexazolam

ATC: N05
 Use: tranquilizer, anxiolytic

RN: 31868-18-5 MF: C₁₈H₁₆Cl₂N₂O₂ MW: 363.24

LD₅₀: 4571 mg/kg (M, p.o.);
 4500 mg/kg (R, p.o.)

CN: 10-chloro-11b-(o-chlorophenyl)-2,3,7,11b-tetrahydro-3-methyloxazolo[3,2-d][1,4]benzodiazepin-6(5H)-one



Reference(s):

Migadera, T. et al.: *J. Med. Chem. (JMCMAR)* **14**, 520 (1971).
 JP 4 941 439 (Sankyo; appl. 21.12.1970).

Formulation(s): 0.5 mg, 1 mg

Trade Name(s):

J: Melex (Sankyo)

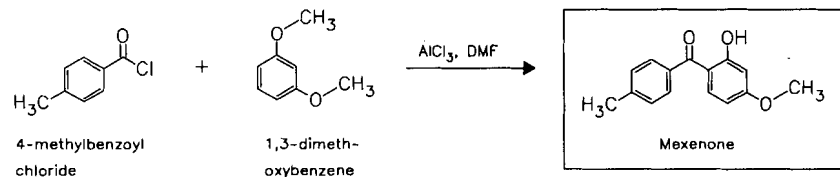
Mexenone

ATC: D02B

Use: ultraviolet screen

RN: 1641-17-4 MF: C₁₅H₁₄O₃ MW: 242.27 EINECS: 216-691-9

CN: (2-hydroxy-4-methoxyphenyl)(4-methylphenyl)methanone



Reference(s):

US 2 773 903 (American Cyanamid; 1956; prior. 1955).

Formulation(s): cream 4 %

Trade Name(s):

GB: Uvistat (WB Pharmaceuticals); wfm

Mexiletine

ATC: C01BB02

Use: anticonvulsant, antiarrhythmic

RN: 31828-71-4 MF: C₁₁H₁₇NO MW: 179.26 EINECS: 250-825-7

LD₅₀: 23 mg/kg (M, i.v.); 320 mg/kg (M, p.o.);

41 mg/kg (R, i.v.)

CN: 1-(2,6-dimethylphenoxy)-2-propanamine

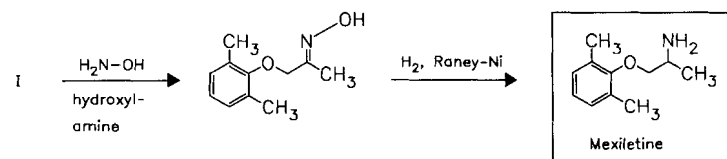
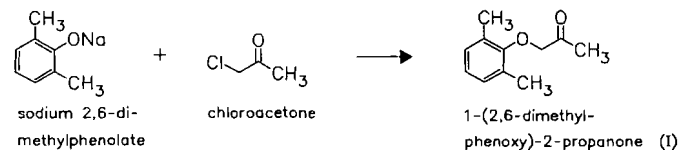
hydrochloride

RN: 5370-01-4 MF: C₁₁H₁₇NO · HCl MW: 215.72 EINECS: 226-362-1

LD₅₀: 21 mg/kg (M, i.v.); 272 mg/kg (M, p.o.);

27 mg/kg (R, i.v.); 330 mg/kg (R, p.o.);

19 mg/kg (dog, i.v.); 356 mg/kg (dog, p.o.)



Reference(s):

US 3 954 872 (Boehringer Ing.; 4.5.1976; D-prior. 16.9.1966, 17.8.1967).
 DE 1 543 369 (Boehringer Ing.; prior. 16.9.1966).

composition and use:

US 4 031 244 (Boehringer Ing.; 21.6.1977; D-prior. 17.8.1967).

Formulation(s): amp. 25 mg/ml, 250 mg/10 ml; cps. 100 mg, 150 mg, 200 mg; s. r. cps. 360 mg (as hydrochloride)

Trade Name(s):

D:	Mexitil (Boehringer Ing.; 1979)	GB:	Mexitil (Boehringer Ing.; 1976)	J:	Mexitil (Boehringer Ing.; 1985)
F:	Mexitil (Boehringer Ing.; 1980)	I:	Mexitil (Boehringer Ing.; 1982)	USA:	Mexitil (Boehringer Ing.; 1986) generics

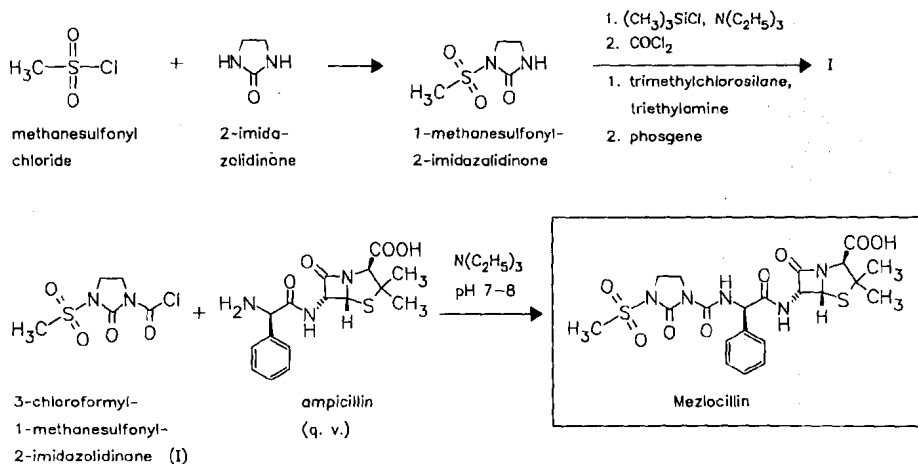
Mezlocillin

ATC: J01CA10
 Use: antibiotic

RN: 51481-65-3 MF: C₂₁H₂₅N₅O₈S₂ MW: 539.59 EINECS: 257-233-8
 CN: [2*S*-[2α,5α,6β(*S**)]]-3,3-dimethyl-6-[[[[[3-(methylsulfonyl)-2-oxo-1-imidazolidinyl]carbonyl]amino]phenylacetyl]amino]-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

monosodium salt

RN: 42057-22-7 MF: C₂₁H₂₄N₅NaO₈S₂ MW: 561.57 EINECS: 255-640-5
 LD₅₀: 6329 mg/kg (M, i.v.); >16 g/kg (M, p.o.);
 2636 mg/kg (R, i.v.); >20 g/kg (R, p.o.)



Reference(s):

DOS 2 152 967 (Bayer; appl. 23.10.1971).
 DOS 2 152 968 (Bayer; appl. 23.10.1971).
 DOS 2 318 955 (Bayer; appl. 14.4.1973).
 US 3 974 142 (Bayer; 10.8.1976; appl. 3.9.1974; D-prior. 23.10.1971).

combination with e. g. oxacillin:

DOS 2 737 673 (Bayer; appl. 20.8.1977).

Formulation(s): vial 0.5g/5 ml, 1 g/10 ml, 2 g/20 ml, 5 g/50 ml

Trade Name(s):

D:	Baypen (Bayer Vital; 1977)	F:	Baypen (Bayer-Pharma)	J:	Baypen (Yoshitomi; 1982)
	Melocin (curasan)	GB:	Baypen (Bayer; 1980); wfm	USA:	Mezlin (Bayer; 1981)
	Optocillin (Bayer Vital; 1979)-comb. with oxacillin	I:	Baypen (Bayer; 1983)		

Mianserin

ATC: N06AX03

Use: antidepressant

RN: 24219-97-4 MF: C₁₈H₂₀N₂ MW: 264.37 EINECS: 246-088-6

LD₅₀: 365 mg/kg (M, p.o.)

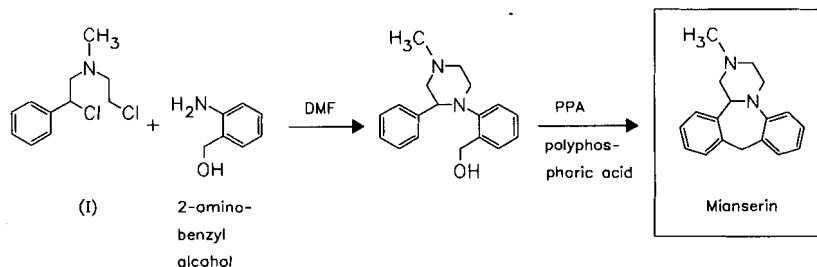
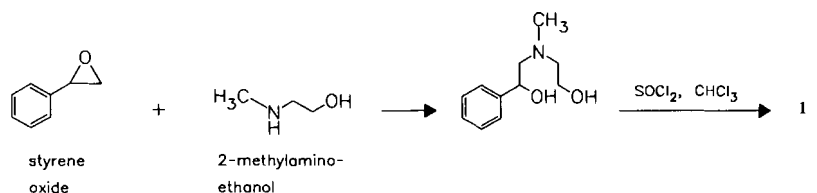
CN: 1,2,3,4,10,14b-hexahydro-2-methyldibenzo[*c,f*]pyrazino[1,2-*a*]azepine

monohydrochloride

RN: 21535-47-7 MF: C₁₈H₂₀N₂ · HCl MW: 300.83 EINECS: 244-426-7

LD₅₀: 31 mg/kg (M, i.v.); 224 mg/kg (M, p.o.);

31.85 mg/kg (R, i.v.); 780 mg/kg (R, p.o.)



Reference(s):

DOS 2 505 239 (Akzo; appl. 7.2.1975; NL-prior. 9.2.1974).

medical use:

US 4 128 641 (HZJ Research Center; 5.12.1978; prior. 31.7.1975, 28.2.1977).

older methods:

DOS 1 695 556 (Organon; appl. 9.3.1967; NL-prior. 12.3.1966).

US 3 534 041 (Organon; 13.10.1970; NL-prior. 12.3.1966).

Burg, W.J. Van der et al.: J. Med. Chem. (JMCMAR) **13**, 35 (1970).

Formulation(s): f. c. tabl. 10 mg, 30 mg, 60 mg (as hydrochloride)

Trade Name(s):

D:	Tolvin (Organon; 1975)	F:	Athymil (Organon; 1979)	GB:	Bolvidon (Organon; 1976); wfm
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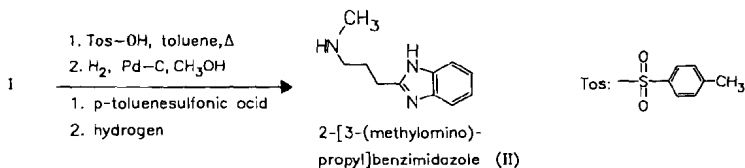
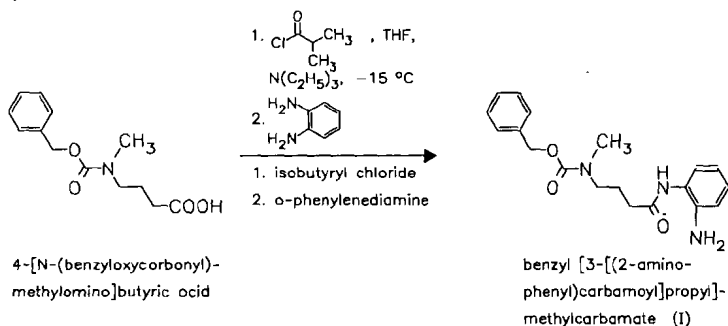
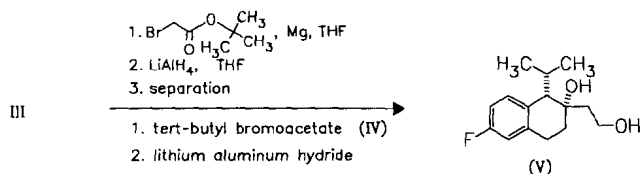
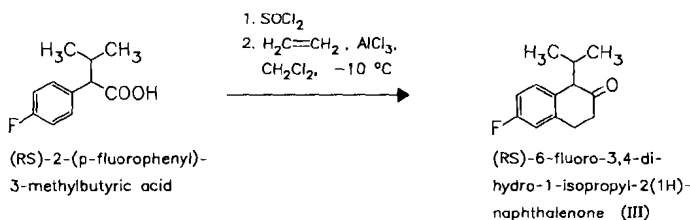
Norval (Bencard; 1976);
wfmI: Lantanon (Organon Italia;
1979)

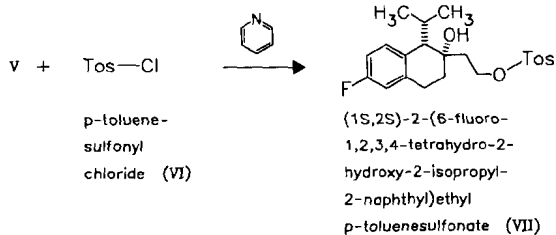
J: Tetramide (Sankyo; 1983)

Mibefradil hydrochloride

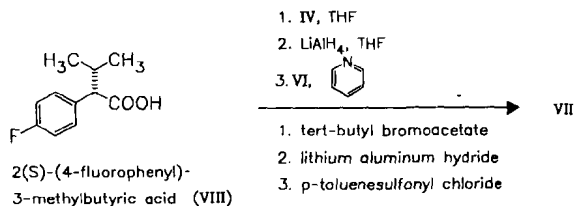
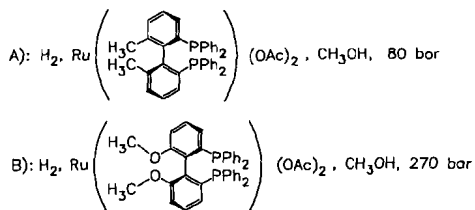
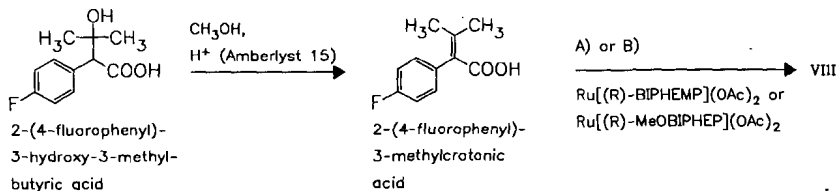
(Ro-40-5967; Ro-40-5967/001)

ATC: C08CX01

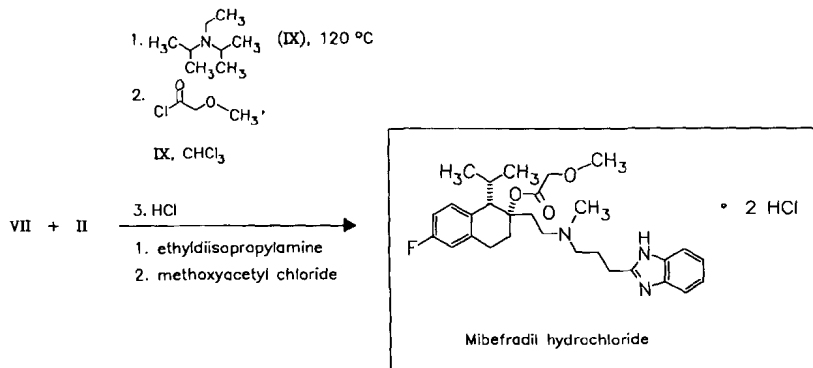
Use: antihypertensive, calcium channel
blockerRN: 116666-63-8 MF: $C_{29}H_{38}FN_3O_3 \cdot 2HCl$ MW: 568.56CN: (1*S*-*cis*)-methoxyacetic acid 2-[2-[[3-(1*H*-benzimidazol-2-yl)propyl]methylamino]ethyl]-6-fluoro-1,2,3,4-tetrahydro-1-(1-methylethyl)-2-naphthalenyl ester dihydrochloride**base**RN: 116644-53-2 MF: $C_{29}H_{38}FN_3O_3$ MW: 495.64**synthesis of intermediate II:****synthesis of intermediate VII:**



asymmetric synthesis of intermediate VII:



synthesis of the final product:



Reference(s):

EP 268 148 (Hoffmann-La Roche AG; appl. 25.5.1988; CH-prior. 14.11.1986).

synthesis of intermediate VII:

EP 177 960 (Hoffmann-La Roche AG; appl. 16.4.1986; CH-prior. 11.10.1984).

asymmetric synthesis of 2(S)-(4-fluorophenyl)-3-methylbutyric acid:

Cramer, Y. et al.: *Chimia (CHIMAD)* **51** (6), 303 (1997).

synthesis of 2-(4-fluorophenyl)-3-methylcrotonic acid:

Noyori, R. et al.: *J. Org. Chem. (JOCEAH)* **52**, 3176 (1987).

Takaya, H. et al.: *J. Org. Chem. (JOCEAH)* **61**, 5510 (1996).

Schmid, R. et al.: *Helv. Chim. Acta (HCACAV)* **71**, 897 (1988).

Heiser, B. et al.: *Tetrahedron: Asymmetry (TASYE3)* **2**, 51 (1991).

EP 787 711 (Hoffmann-La Roche AG; appl. 6.8.1997; CH-prior. 31.1.1996).

Formulation(s): f. c. tabl. 50 mg, 100 mg

Trade Name(s):

D: Cerate (ASTA Medica
AWD); wfm

Posicor (Roche); wfm
USA: Posicor (Roche); wfm

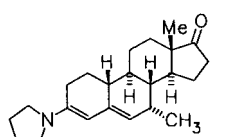
Mibolerone

ATC: G03

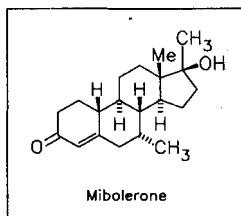
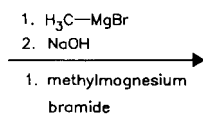
Use: oral contraceptive, anabolic

RN: 3704-09-4 MF: C₂₀H₃₀O₂ MW: 302.46 EINECS: 223-046-5

CN: (7 α ,17 β)-17-hydroxy-7,17-dimethylestr-4-en-3-one



7 α -methyl-3-pyrrolidino-19-norandrosta-3,5-dien-17-one
(from 3,17-dioxo-7 α -methyl-19-nor-4-androstene)

*Reference(s):*

US 3 341 557 (Upjohn; 12.9.1967; prior. 5.6.1961, 6.11.1960, 6.6.1958).

FR-M 4 521 (Upjohn; appl. 4.6.1962; USA-prior. 5.6.1961).

alternative synthesis:

Campbell, J.A.; Babcock, J.C.: *J. Am. Chem. Soc. (JACSAT)* **81**, 4069 (1959).

separation of the 7 α -, 7 β -isomers:

NL 6 601 855 (Ciba; appl. 14.2.1966; CH-prior. 15.2.1965).

Trade Name(s):

GB: Matenon (Upjohn); wfm

USA: Cheque (Upjohn); wfm

Miciniccate

(Nicotinyl cyclandelate)

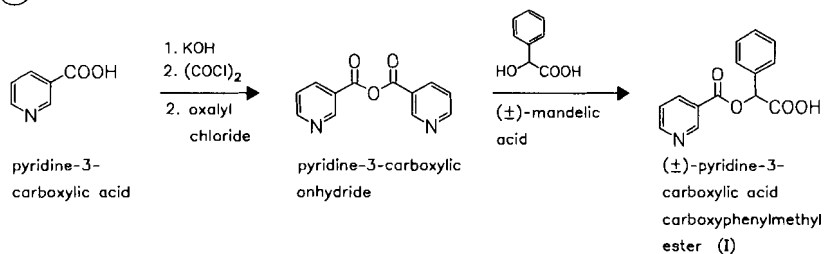
ATC: C04A

Use: vasodilator (for treatment of chronic obliterating peripheral arteriopathy and microcirculatory disorders)

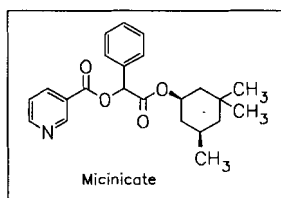
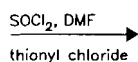
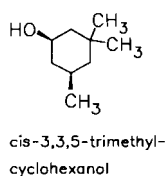
RN: 39537-99-0 MF: C₂₃H₂₇NO₄ MW: 381.47

CN: (\pm)-*cis*-3-pyridinecarboxylic acid 2-oxo-1-phenyl-2-[(3,3,5-trimethylcyclohexyl)oxy]ethyl ester

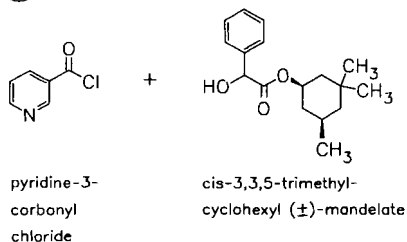
a



I



b



Micinicate

Reference(s):

a EP 157 151 (Ravizza; appl. 22.2.1985; I-prior. 3.7.1984).

b JP 47 034 365 (Mitsui; appl. 12.4.1971).

DOS 2 461 909 (Gaver; appl. 31.12.1974; CH-prior. 3.1.1974).

synthesis of cis-3,3,5-trimethylcyclohexyl mandelate:Funcke, A.B.H. et al.: *Arzneim.-Forsch. (ARZNAD)* **3**, 505 (1953).**Formulation(s):** tabl. 400 mg**Trade Name(s):**

I: Micivas (Ravizza; IT); wfm

MiconazoleATC: A01AB09; A07AC01; D01AC02;
G01AF04; J02AB01; S02AA13

Use: topical antifungal

RN: 22916-47-8 MF: $C_{18}H_{14}Cl_4N_2O$ MW: 416.14 EINECS: 245-324-5LD₅₀: 90.57 mg/kg (M, i.v.); 872 mg/kg (M, p.o.);

105 mg/kg (R, i.v.); >3 g/kg (R, p.o.);

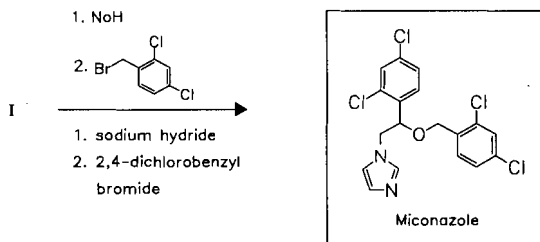
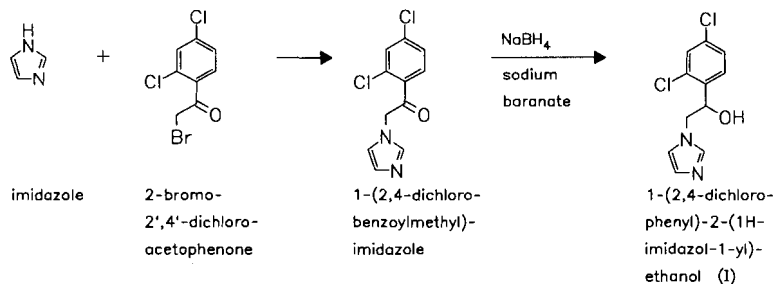
60 mg/kg (dog, i.v.)

CN: 1-[2-(2,4-dichlorophenyl)-2-[(2,4-dichlorophenyl)methoxy]ethyl]-1H-imidazole

mononitrate

RN: 22832-87-7 MF: C₁₈H₁₄Cl₄N₂O · HNO₃ MW: 479.15 EINECS: 245-256-6

LD₅₀: 28 mg/kg (M, i.v.); 578 mg/kg (M, p.o.);
14.7 mg/kg (R, i.v.); 920 mg/kg (R, p.o.);
>160 mg/kg (dog, p.o.)



Reference(s):

DAS 1 940 388 (Janssen; appl. 8.8.1969; USA-prior. 19.8.1968, 23.7.1969).
US 3 717 655 (Janssen; 20.2.1973; appl. 19.8.1968).
US 3 839 574 (Janssen; 1.10.1974; prior. 23.7.1969).

Formulation(s): cream 2 g/100 g, 20 mg/g; vaginal cream 20 mg/g; powder 2 g/100 g, 20 mg/g (as mononitrate); sol. 20 mg/ml; tabl. 250 mg (as free base)

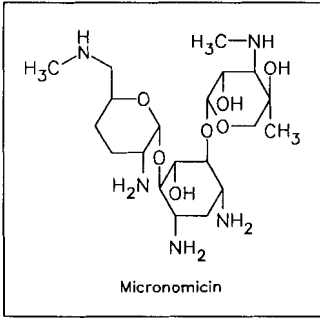
Trade Name(s):

D:	Acnidazil (Janssen-Cilag)-comb.	Daktarin (Janssen-Cilag SA; 1974)	Gyno-Daktarin (Janssen-Cilag)
	Daktar (Janssen-Cilag; 1974)	Gyno-Daktarin (Janssen-Cilag SA)	I: Andergin (Pierrel)
	Epi-Monistat (Janssen-Cilag; 1974)	Miconazole GNR (GNR-pharma)	Daktacort (Janssen)-comb.
	Gyno-Daktar (Janssen-Cilag; 1974)	GB: Acnidazil (Janssen-Cilag)-comb.	Daktarin (Janssen; 1975)
	Gyno-Monistat (Janssen-Cilag; 1974)	Daktacort (Janssen-Cilag)-comb.	Micoderm (Kemyos)
F:	Britane (M. Johnson & Johnson-MSD)	Daktarin (Janssen-Cilag; 1974)	Miconal (Ecobi)
			Micotef (LPB)
			Prilagin (Gambar)
			J: Florid (Mochida; 1980)
			USA: Monistat (Ortho)

Micronomicin

ATC: S01AA22
Use: antibiotic, antibacterial

RN: 52093-21-7 MF: C₂₀H₄₁N₅O₇ MW: 463.58
CN: O-2-amino-2,3,4,6-tetradeoxy-6-(methylamino)-α-D-erythro-hexopyranosyl-(1→4)-O-[3-deoxy-4-C-methyl-3-(methylamino)-β-L-arabinopyranosyl(1→6)]-2-deoxy-D-streptamine

sulfateRN: 66803-19-8 MF: $C_{20}H_{41}N_5O_7 \cdot xH_2SO_4$ MW: unspecifiedPreparation by fermentation of *Micromonospora sagamiensis* var. *nonreductans* nov. sp. MK-65, ATCC 21826.**Reference(s):**

- Okachi, R. et al.: J. Antibiot. (JANTAJ) **27**, 793 (1974).
 Nara, T. et al.: J. Antibiot. (JANTAJ) **28**, 21 (1975).
 DOS 2 326 781 (Kyowa Ferm.; appl. 25.5.1973; J-prior. 27.5.1972).
 US 4 045 298 (Kyowa Ferm.; 30.8.1977; J-prior. 27.5.1972).

structure:Egan, R.S. et al.: J. Antibiot. (JANTAJ) **28**, 29 (1975).**total synthesis from gentamicin $C_{1\alpha}$:**

- JP 50 126 639 (appl. 25.3.1974).
 JP 50 149 647 (appl. 28.5.1974).
 JP 50 149 646 (appl. 28.5.1974).
 JP 50 131 949 (appl. 9.4.1974).
 JP 50 123 640 (appl. 15.5.1974).
 JP 50 129 531 (appl. 29.3.1974).

Formulation(s): amp. 60 mg, 120 mg; eye drops 0.3 %; ointment 0.3 % (as sulfate)**Trade Name(s):**

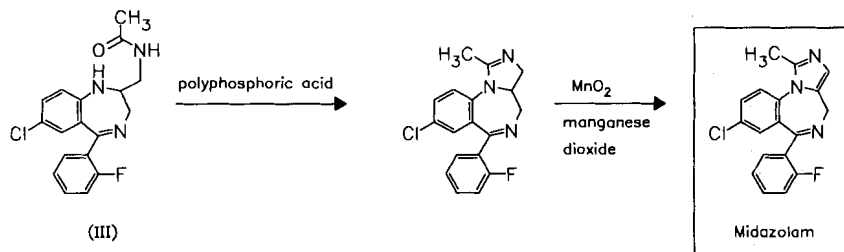
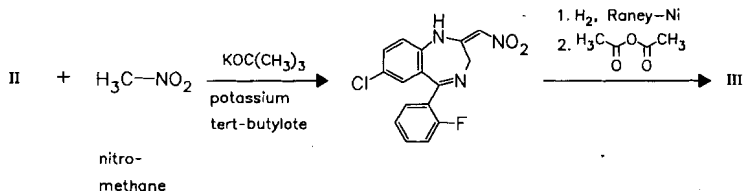
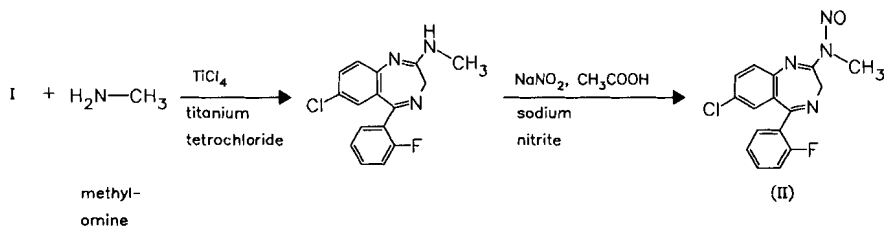
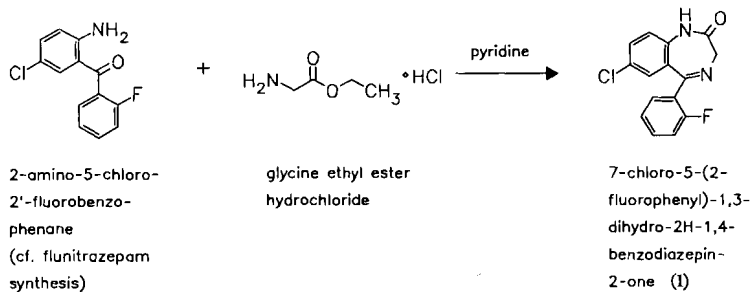
F: Microphta (Europhtha) J: Sagamicin (Kyowa Hakko) Santemycin (Santen)

Midazolam

ATC: N05CD08

Use: hypnotic

RN: 59467-70-8 MF: $C_{18}H_{13}ClFN_3$ MW: 325.77 EINECS: 261-774-5LD₅₀: 50 mg/kg (M, i.v.);
75 mg/kg (R, i.v.); 215 mg/kg (R, p.o.)CN: 8-chloro-6-(2-fluorophenyl)-1-methyl-4*H*-imidazo[1,5-*a*][1,4]benzodiazepine**monohydrochloride**RN: 59467-96-8 MF: $C_{18}H_{13}ClFN_3 \cdot HCl$ MW: 362.24 EINECS: 261-776-6**maleate (1:1)**RN: 59467-94-6 MF: $C_{18}H_{13}ClFN_3 \cdot C_4H_4O_4$ MW: 441.85 EINECS: 261-775-0



Reference(s):
 DOS 2 540 522 (Hoffmann-La Roche; appl. 11.9.1975; USA-prior. 11.9.1974).
 US 4 280 957 (Hoffmann-La Roche; 28.7.1981; prior. 8.2.1977).

Formulation(s): amp. 5 mg/5 ml, 15mg/3 ml; f. c. tabl. 7.5 mg (as hydrochloride)

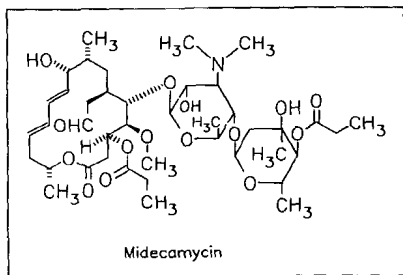
Trade Name(s):

D:	Dormicum (Roche; 1984)	GB:	Hypnovel (Hoffmann-La Roche; 1983)	J:	Dormicum (Roche)
F:	Hypnovel (Produits Roche)			USA:	Versed (Roche; 1986)

Midecamycin
 (Espinomycin; Midecamycin; Mydecamycin)

ATC: J01FA03
 Use: macrolide antibiotic

RN: 35457-80-8 MF: $\text{C}_{41}\text{H}_{67}\text{NO}_{15}$ MW: 813.98 EINECS: 252-578-0
 LD₅₀: 1 g/kg (M, i.v.); 5800 mg/kg (M, p.o.); 9600 mg/kg (R, p.o.)
 CN: leucomycin V 3,4^B-dipropanoate



Macrolide antibiotic from cultures of *Streptomyces mycarofaciens*. Midecamycin A₂, A₃ and A₄ exist also in small amounts in the complex beside main component Midecamycin.

Reference(s):

US 3 761 588 (Meiji Seika; 25.9.1973; J-prior. 6.2.1969, 25.9.1969).

Niida, T. et al.: J. Antibiot. (JANTAJ) **24**, 319 (1971).

Tsuruoka, T. et al.: J. Antibiot. (JANTAJ) **24**, 452 (1971).

Inouye, S. et al.: J. Antibiot. (JANTAJ) **24**, 460 (1971).

Formulation(s): cps. 50 mg, 100 mg, 200 mg; tabl. 400 mg

Trade Name(s):

F:	Midécacine (Clin-Midy); wfm	I:	Midecin (Farmaka)	Rubimycin (Nikken)
		J:	Medemycin (Meiji)	

Midecamycin acetate

(Miokamycin)

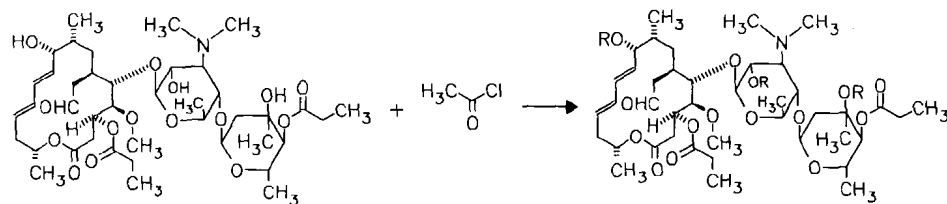
ATC: J01FA03

Use: antibiotic

RN: 55881-07-7 MF: C₄₅H₇₁NO₁₇ MW: 898.05 EINECS: 259-879-6

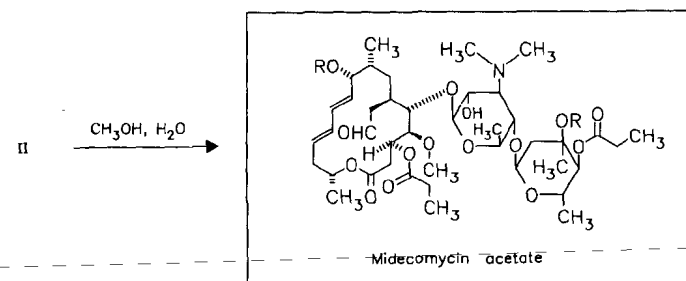
LD₅₀: >5 g/kg (M, p.o.)

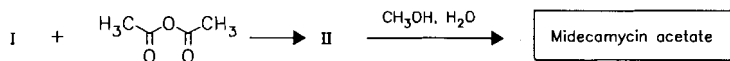
CN: leucomycin V 3^B,9-diacetate 3,4^B-dipropanoate



midecomycin (I)
(q. v.)

(II)



**Reference(s):**

DE 2 004 686 (Meiji; prior. 3.2.1970).
 US 3 761 588 (Meiji; 25.9.1973; J-prior. 25.9.1969).
 DOS 2 835 547 (Meiji; appl. 14.8.1978; J-prior. 15.8.1977).
 DOS 2 537 375 (Meiji; appl. 22.8.1975; J-prior. 27.8.1974).
 US 4 017 607 (Meiji; 12.4.1977; J-prior. 27.8.1974).
 US 4 188 480 (Meiji; 12.2.1980; J-prior. 15.8.1977).
 Omoto, S. et al.: J. Antibiot. (JANTAJ) **24**, 536 (1976).
 Nakamura, K. et al.: Chem. Lett. (CMLTAG) **1978**, 1293.

Formulation(s): tabl. 400 mg

Trade Name(s):

F:	Mosil (Menarini)	Miocamen (Menarini; 1985)	J:	Miocamycin (Meiji Seika; 1985)
I:	Macroral (Malesci; 1985)	Miokacin (Firma; 1986)		

Midodrine

ATC: C01CA17

Use: antihypotensive, α -adrenergic, vasoconstrictor

RN: 97476-58-9 MF: $\text{C}_{12}\text{H}_{18}\text{N}_2\text{O}_4$ MW: 254.29

CN: (\pm)-2-amino-N-[2-(2,5-dimethoxyphenyl)-2-hydroxyethyl]acetamide

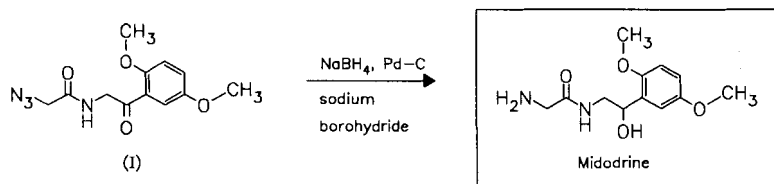
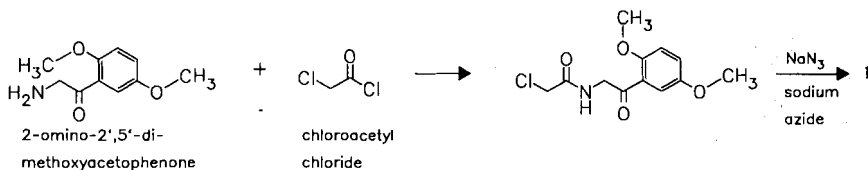
monohydrochloride

RN: 3092-17-9 MF: $\text{C}_{12}\text{H}_{18}\text{N}_2\text{O}_4 \cdot \text{HCl}$ MW: 290.75

LD₅₀: 56.2 mg/kg (M, i.v.); 246 mg/kg (M, p.o.);

18.2 mg/kg (R, i.v.); 68.8 mg/kg (R, p.o.);

150 mg/kg (dog, p.o.)

**Reference(s):**

DAS 2 523 735 (Lentia; appl. 28.5.1975; A-prior. 24.7.1974).

alternative syntheses:

AT 241 435 (Österr. Stickstoffwerke Linz; appl. 11.6.1963; valid from 15.12.1964).

DOS 2 506 110 (Lentia; appl. 13.2.1975).

BE 838 512 (Chemie Linz AG; appl. 12.8.1976; D-prior. 13.2.1975).

Formulation(s): amp. 5 mg; drops 10 mg/ml; tabl. 2.5 mg, 5 mg (as hydrochloride)

Trade Name(s):

D: Gutron (Nycomed) I: Gutron (Guidotti) USA: ProAmatine (Roberts)
 F: Gutron (Nycomed SA) J: Metligine (Taisho)

Midoriamin

(Thiamine cobaltchlorophylline complex)

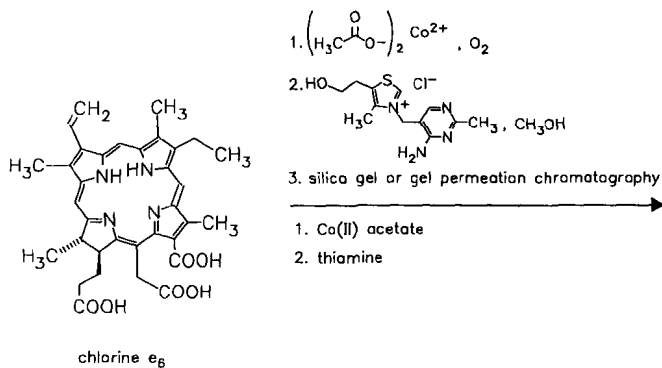
ATC: A02B

Use: ulcer therapeutic

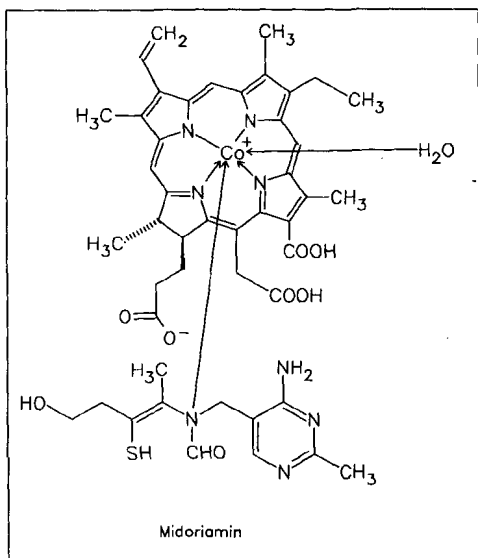
RN: 87211-44-7 MF: $C_{46}H_{53}CoN_8O_9S$ MW: 952.98LD₅₀: 209 mg/kg (M, i.p.); 3066 mg/kg (M, p.o.); 406 mg/kg (M, s.c.);

82 mg/kg (R, i.p.); 3590 mg/kg (R, p.o.); 201 mg/kg (R, s.c.)

CN: [OC-6-24-(2S-trans)]-[N-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-N-(4-hydroxy-2-mercapto-1-methyl-1-butenyl)formamide]aqua[18-carboxy-20-(carboxymethyl)-8-ethenyl-13-ethyl-2,3-dihydro-3,7,12,17-tetramethyl-21H,23H-porphine-2-propanoato(5-)-N²¹,N²²,N²³,N²⁴]dihydrogencobaltate(2-)



Midoriamin



Reference(s):

JP 1 052 779 (Green Cross; appl. 15.7.1988).
 JP 63 264 483 (Green Cross; appl. 11.3.1988).
 JP 63 264 420 (Green Cross; appl. 11.3.1988).
 JP 57 062 281 (Green Cross; Nisshin Flour Mill; appl. 1.10.1980).
 JP 58 041 885 (Green Cross, Nisshin Flour Mill; appl. 1.4.1982).

medical use for treatment of gastritis:

JP 2 149 522 (Green Cross; appl. 30.11.1988).

Formulation(s): tabl. 5 mg

Trade Name(s):

J: Midoriamin (Green Cross;
 Nisshin Flour; 1988)

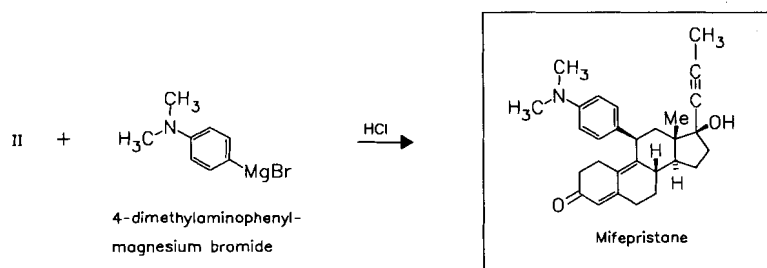
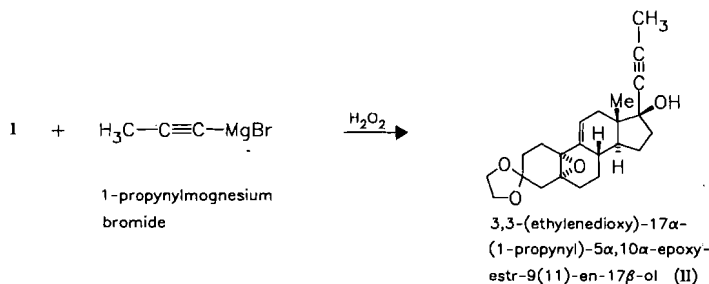
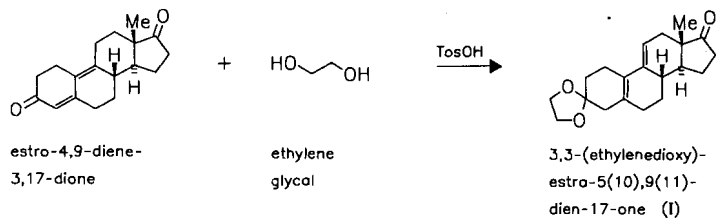
Mifepristone

(RU-486)

ATC: G03A; G03D; G03XB01
Use: abortifacient, orally active
 progesterone and glucocorticoid
 receptor antagonist, contraceptive

RN: 84371-65-3 **MF:** C₂₉H₃₅NO₂ **MW:** 429.60

CN: (11β,17β)-11-[4-(dimethylamino)phenyl]-17-hydroxy-17-(1-propynyl)estra-4,9-dien-3-one



Reference(s):

- EP 57 115 (Roussel-Uclaf; appl. 8.1.1982; F-prior. 9.1.1981).
 US 4 386 085 (Roussel-Uclaf; 31.5.1983; appl. 10.6.1982; F-prior. 9.1.1981).
 US 4 447 424 (Roussel-Uclaf; 8.5.1984; appl. 10.6.1982; F-prior. 9.1.1981).
 US 4 519 946 (Roussel-Uclaf; 28.5.1985; appl. 25.5.1984; prior. 9.1.1982, 10.6.1982, 30.3.1984; F-prior. 9.1.1981).
 US 4 634 695 (Roussel-Uclaf; 6.1.1987; appl. 22.1.1985; prior. 9.1.1982, 25.5.1984, 10.6.1982, 30.3.1984; F-prior. 9.1.1981).

synthesis of 3,3-(ethylenedioxy)estra-5(10),9(11)-dien-17-one:

BE 651 813 (Merck & Co.; appl. 1964).

alternative synthesis:

- FR 1 336 083 (Roussel-Uclaf; appl. 1962).
 NL 6 406 712 (Roussel-Uclaf; appl. 1964; F-prior. 1963).
 BE 651 812 (Merck & Co.; appl. 1964).

Formulation(s): tabl. 200 mg

Trade Name(s):

F: Mifégyne (Exelgyn) GB: Mifegyne (Exelgyn)

Miglitol

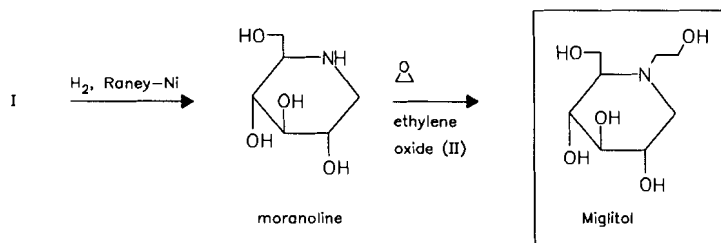
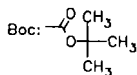
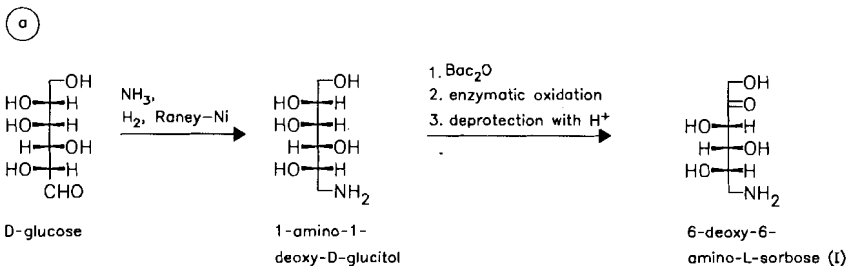
(Bay-m-1099)

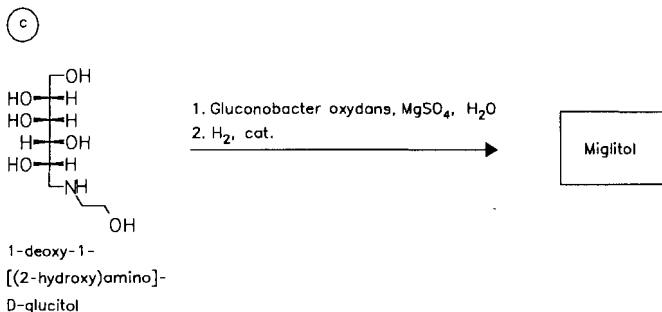
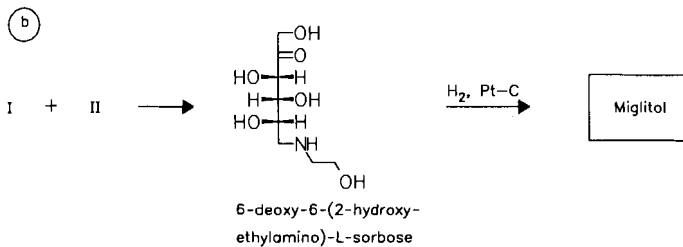
ATC: A10BF02

Use: antidiabetic, α -glucosidase inhibitor

RN: 72432-03-2 MF: $C_8H_{17}NO_5$ MW: 207.23 EINECS: 276-661-6

CN: [2*R*-(2 α ,3 β ,4 α ,5 β)]-1-(2-Hydroxyethyl)-2-(hydroxymethyl)-3,4,5-piperidinetriol





Reference(s):

preparation of moranoline via N-formyl-6-amino-6-deoxy-L-sorbose:

DE 3 611 841 (Bayer; appl. 9.4.1986; D-prior. 9.4.1986).

a DE 2 758 025 (Bayer AG; 12.7.1979; appl. 24.12.1977; D-prior. 27.8.1977).

EP 49 858 (Bayer AG; appl. 7.10.1981; D-prior. 15.10.1981).

JP 54 106 477 (Nippon Shinyaku; appl. 3.2.1978).

b DE 3 024 901 (Bayer AG; appl. 1.7.1980).

c EP 477 160 (Monsanto Co.; 25.3.1992; appl. 19.9.1991; USA-prior. 20.9.1990).

Formulation(s): tabl. 25 mg, 50 mg, 100 mg

Trade Name(s):

D: Diastabol (Sanofi-Synthelabo; 1998)

USA: Glyset (Pharmacia & Upjohn; 1999)

Milnacipran hydrochloride

(Midalcipran hydrochloride)

ATC: N06AX17

Use: antidepressant, 5-HT and norepinephrine reuptake-inhibitor

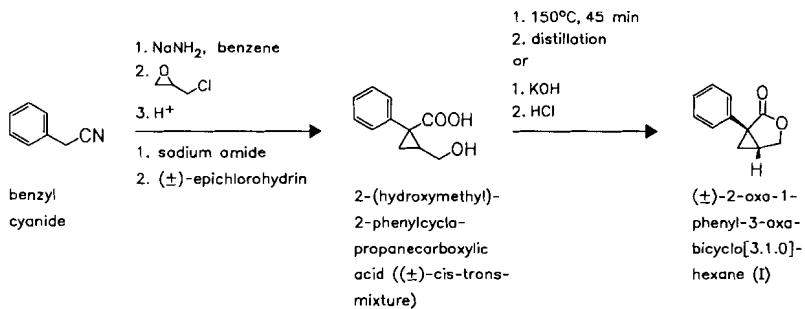
RN: 101152-94-7 MF: $\text{C}_{15}\text{H}_{22}\text{N}_2\text{O} \cdot \text{HCl}$ MW: 282.82

CN: (\pm)-*cis*-2-(Aminomethyl)-*N,N*-diethyl-1-phenylcyclopropanecarboxamide monohydrochloride

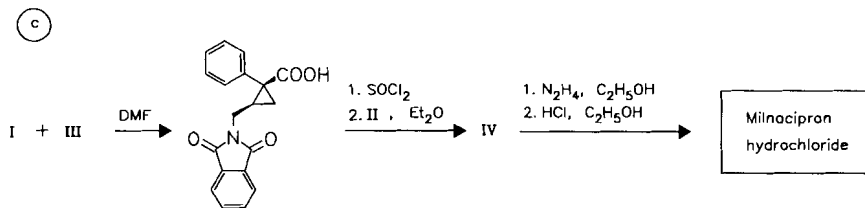
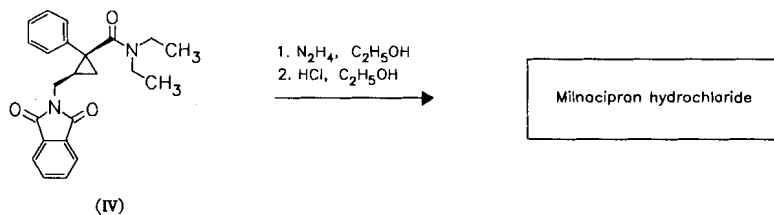
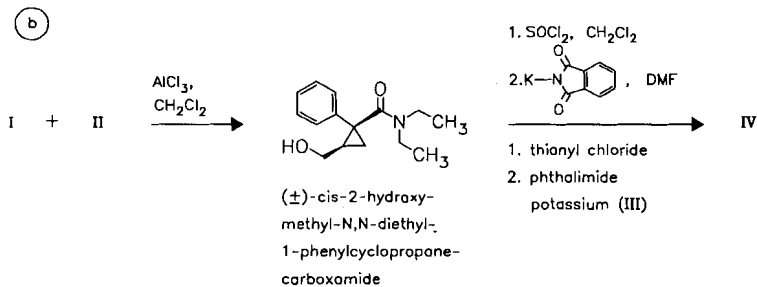
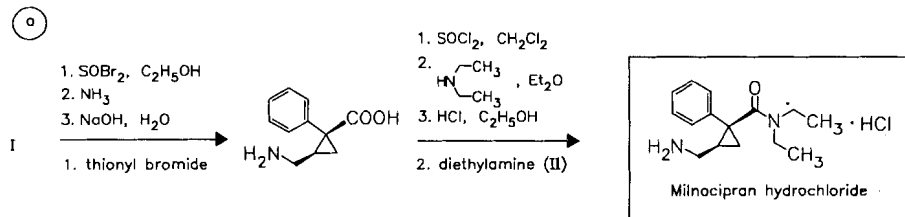
(\pm)-*cis*-base

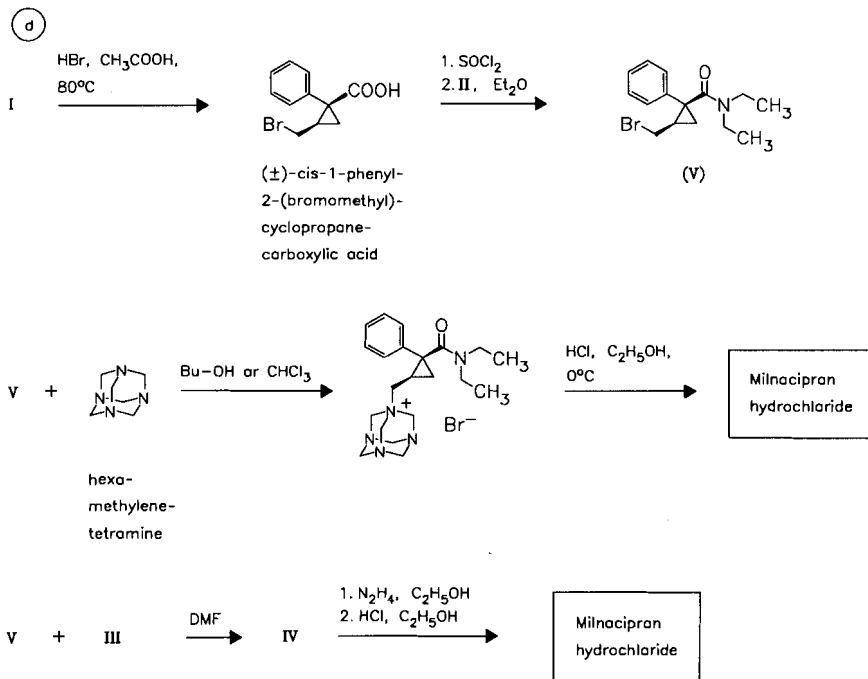
RN: 92623-85-3 MF: $\text{C}_{15}\text{H}_{22}\text{N}_2\text{O}$ MW: 246.35

synthesis of intermediate I: 2-oxo-1-phenyl-3-oxabicyclo[3.1.0]hexane



finalisation of Milnacipran hydrochloride



**Reference(s):***synthesis of intermediate I:*

Mouzi, G.; Cousse, H.; Bonnaud, B: *Synthesis (SYNTBF)* **1978** (4), 304.

a EP 068 999 (Pierre Fabre S. A.; appl. 21.6.1982; F-prior. 23.6.1981).

b EP 377 381 (Pierre Fabre S. A.; appl. 27.12.1987; F-prior. 28.12.1988).

c EP 200 638 (Pierre Fabre S. A.; appl. 22.4.1986; F-prior. 25.4.1985).

d FR 2 581 060 (Pierre Fabre Medicament; appl. 31.10.1986; F-prior. 25.4.1985).

synthesis of 1-aryl-2-(aminomethyl)cyclopropanecarboxylic acid derivatives:

Bonnaud, B. et al.: *J. Med. Chem. (JMCMAR)* **30**, 318 (1987)

alternative syntheses:

Shuto, S. et al.: *J. Org. Chem. (JOCEAH)* **61**, 915 (1996)

Shuto, S. et al.: *J. Méd. Chem. (JMCMAR)* **38**, 2964 (1995)

prolonged-release pharmaceuticals containing milnacipran:

WO 9 808 495 (Pierre Fabre S. A.; appl. 26.8.1997; F-prior. 28.8.1996)

compositions containing milnacipran and idazoxan:

WO 9 735 574 (Pierre Fabre S. A.; appl. 25.3.1997; F-prior. 25.3.1996)

Formulation(s): cps. 50 mg (as hydrochloride)

Trade Name(s):

F: Ixel (Pierre Fabre; 1997)

Milrinone

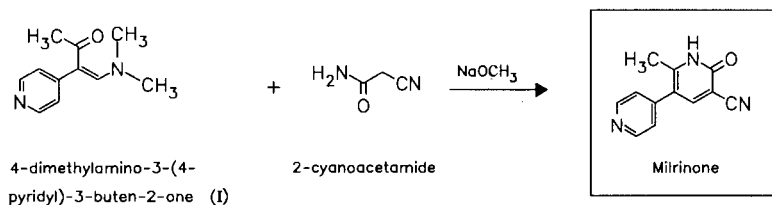
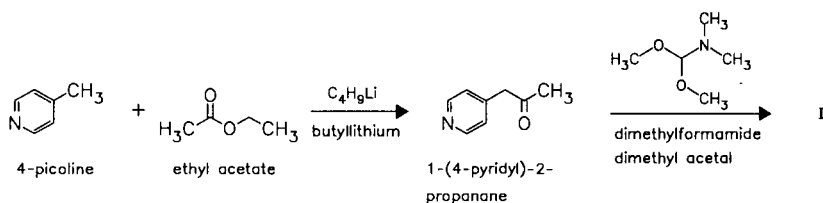
ATC: C01CE02

Use: cardiotonic, phosphodiesterase III-inhibitor

RN: 78415-72-2 MF: C₁₂H₉N₃O MW: 211.22 EINECS: 278-903-6LD₅₀: 79 mg/kg (M, i.v.); 137 mg/kg (M, p.o.);

73 mg/kg (R, i.v.); 91 mg/kg (R, p.o.)

CN: 1,6-dihydro-2-methyl-6-oxo[3,4'-bipyridine]-5-carbonitrile

lactateRN: 100286-97-3 MF: C₁₂H₉N₃O · xC₃H₆O₃ MW: unspecified**Reference(s):**

DOS 3 044 568 (Sterling Drug; appl. 26.11.1980; USA-prior. 26.11.1979, 20.10.1980, 28.3.1980, 6.11.1980).

US 4 312 875 (Sterling Drug; 26.1.1982; prior. 26.11.1979, 20.10.1980, 28.3.1980, 6.11.1980).

US 4 313 951 (Sterling Drug; 2.2.1982; prior. 26.11.1979, 20.10.1980, 28.3.1980, 6.11.1980).

Singh, B.: Heterocycles (HTCYAM) **23**, 1479 (1985).**alternative synthesis:**

ES 544 504 (Inke; appl. 25.6.1985).

DD 274 620 (Arzneimittelwerk Dresden; appl. 2.8.1988).

DD 256 131 (Akademie der Wissenschaften; appl. 4.7.1986).

sustained release pharmaceutical composition:

EP 164 959 (Sterling Drug; appl. 30.5.1985; GB-prior. 4.6.1984, 30.5.1985).

Formulation(s): amp. 10 mg/10 ml (as free base); USA: bag 100 ml, 200 ml (200 µg/ml); vial 10 ml, 20 ml (1 mg/ml) (as lactate)

Trade Name(s):

D: Corotop (Sanofi Winthrop) F: Corotrope (Sanofi Winthrop; as lactate) J: Milrila (Yamanouchi) USA: Primcor (Sanofi)

Miltefosine

(D 18506; Hexadecylphosphocholine)

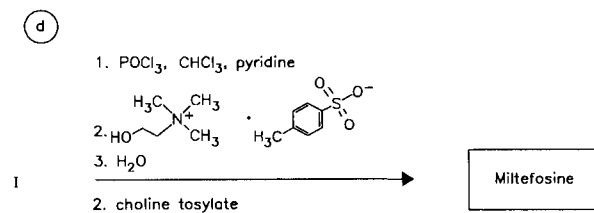
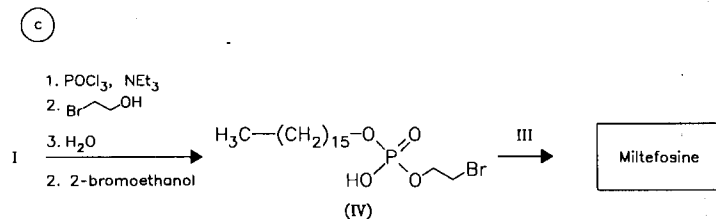
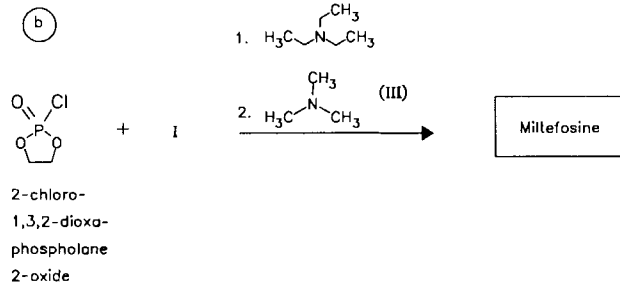
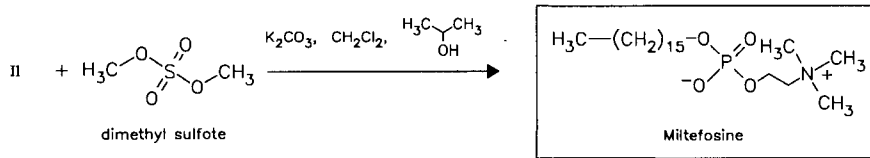
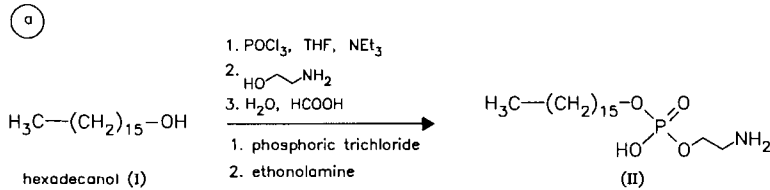
ATC: L01XX09

Use: antitumor (topical treatment)

RN: 58066-85-6 MF: C₂₁H₄₆NO₄P MW: 407.58LD₅₀: 246 mg/kg (R, p.o);

680 mg/kg (Mm, p.o);

603 mg/kg (Mf, p.o).

CN: 2-[[[Hexadecyloxy]hydroxyphosphinyl]oxy]-*N,N,N*-trimethylethanaminium inner salt

Reference(s):

- a Kaatze, U. et al.: Chem. Phys. Lipids (CPLIA4) **27** (3), 263-280 (1980).
EP 225 608 (Max-Planck-Ges.; appl. 4.12.1986; D-prior. 4.12.1985).

preparation of quaternized ethanamine phosphate esters for oral or topical treatment of leishmaniasis:
EP 534 445 (Max-Planck-Ges.; appl. 24.9.1992; D-prior. 27.9.1991).

- b Eibl, H.; Engel, J.: Prog. Exp. Tumor Res. (EXPTAR) **34**, 1 (1992).
Kametani, F. et al.: Nippon Kagaku Kaishi (NKAKB8) **9**, 1452-1458 (1984).
c Nuhn, P. et al.: Pharmazie (PHARAT) **37** (10), 706-708 (1982).
d EP 521 297 (ASTA Medica; appl. 26.6.1992; D-prior. 4.7.1991).

synergistic antitumor pharmaceuticals containing them and allylglycerins:
AT 393 505 (Max-Planck-Gesellschaft; appl. 27.4.1987).

Formulation(s): sol. 60 mg/ml (10 ml bottles)

Trade Name(s):

D: Miltex (ASTA Medica
AWD)

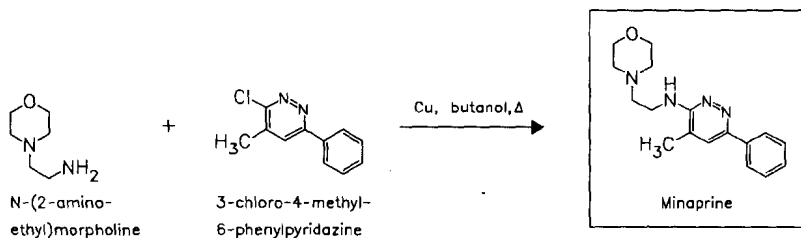
Minaprine

ATC: N06AX07
Use: antidepressant

RN: 25905-77-5 MF: C₁₇H₂₂N₄O MW: 298.39 EINECS: 247-329-8
CN: N-(4-methyl-6-phenyl-3-pyridazinyl)-4-morpholineethanamine

dihydrochloride

RN: 25953-17-7 MF: C₁₇H₂₂N₄O · 2HCl MW: 371.31
LD₅₀: 63 mg/kg (M, i.p.)

*Reference(s):*

- DOS 2 229 215 (CEPBEPE; appl. 15.6.1972; GB-prior. 18.6.1971).
GB 1 345 880 (CEPBEPE; valid from 16.6.1972; prior. 18.6.1971).
ZA 730 671 (CEPBEPE; appl. 3.1.1973).

medical use:

US 4 169 158 (Laborit Henri; 25.9.1979, GB-prior. 18.6.1971).

Formulation(s): drops 5 %; tabl. 50 mg, 100 mg (as dihydrochloride)

Trade Name(s):

F: Cantor (Clin-Comar-Byla; 1980); wfm
I: Cantor (Clin-Midy); wfm
J: Alcas (Taisho)
Cantor (Midy; 1984)

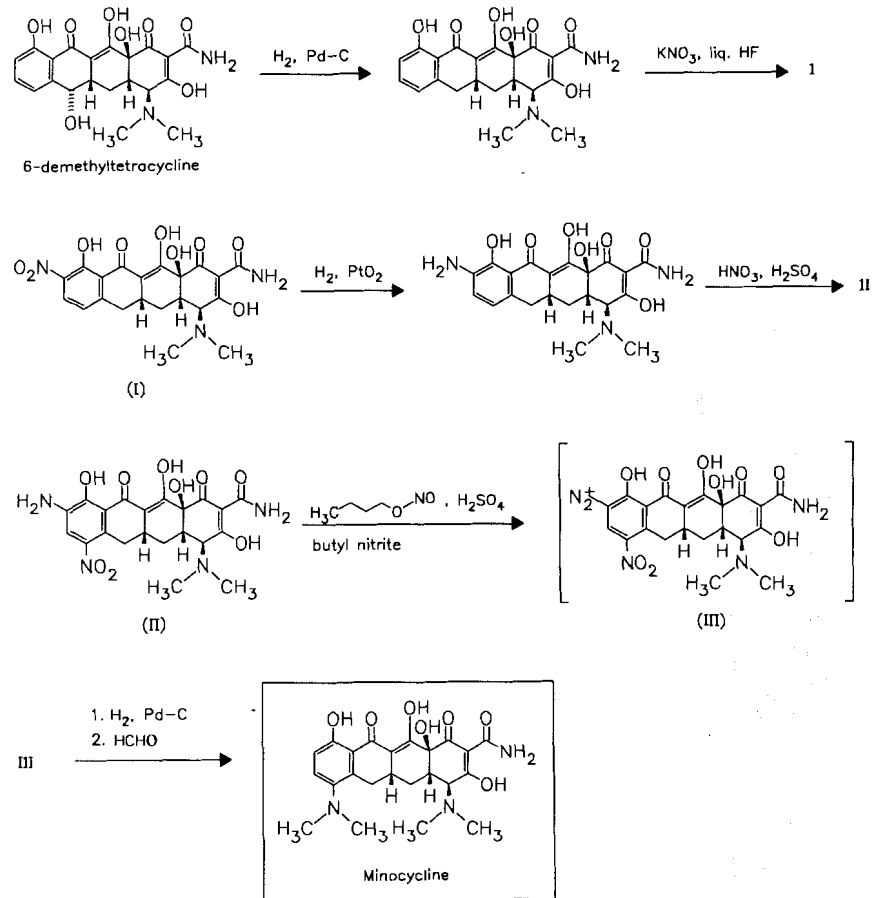
Minocycline

ATC: J01AA08

Use: antibiotic

RN: 10118-90-8 MF: $C_{23}H_{27}N_3O_7$ MW: 457.48LD₅₀: 140 mg/kg (M, i.v.); 3100 mg/kg (M, p.o.)CN: [4*S*-(4 α ,4 α ,5 α ,12 α)]-4,7-bis(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,10,12,12a-tetrahydroxy-1,11-dioxo-2-naphthacene-carboxamide**monohydrochloride**RN: 13614-98-7 MF: $C_{23}H_{27}N_3O_7 \cdot HCl$ MW: 493.94 EINECS: 237-099-7LD₅₀: 154 mg/kg (M, i.v.); 3600 mg/kg (M, p.o.);

164 mg/kg (R, i.v.); 2380 mg/kg (R, p.o.)

**Reference(s):**

US 3 148 212 (American Cyanamid; 8.9.1964; appl. 22.12.1961).

US 3 226 436 (American Cyanamid; 28.12.1965; prior. 24.10.1961, 22.12.1961, 17.5.1963).

US 3 345 410 (American Cyanamid; 3.10.1967; prior. 14.3.1966, 1.12.1966).

Church, R.F.R. et al.: J. Org. Chem. (JOCEAH) **36**, 723 (1971).

DE 1 245 942 (American Cyanamid; appl. 15.5.1962; USA-prior. 21.10.1961, 22.12.1961, 7.2.1962).

DE 1 643 767 (American Cyanamid, prior. 16.1.1968).

intermediates:

US 3 403 179 (American Cyanamid; 24.9.1968; prior. 10.1.1967).

US 3 483 251 (American Cyanamid; 9.12.1969; prior. 3.3.1967).

purification:

DOS 2 309 582 (American Cyanamid; appl. 26.2.1973; USA-prior. 11.5.1972).

Formulation(s): cps. 50 mg, 100 mg; f. c. tabl. 50 mg, 100 mg; susp. 50 mg/60 ml (oral); vial 100 mg (as hydrochloride)*Trade Name(s):*

D:	Akin (Sanofi Winthrop)	Zacnan (Lipha Santé)	J:	Minomycin (Lederle-Takeda)
	Klinomycin (Lederle; 1972)	GB: Aknemin (Merck Sharp & Dohme)-comb.	USA:	Dynacin (Medicis)
	generics	Dentomycin (Wyeth)		Minocin (Lederle; 1971)
F:	Acneline (Wyeth-Lederle)	Minocin (Wyeth; 1973)-comb.		Vectrin (Warner Chilcott; 1973)
	Minolis (Noviderm)			
	Mynocine (Wyeth-Lederle; 1973)	I: Minocin (Cyanamid; 1972)		

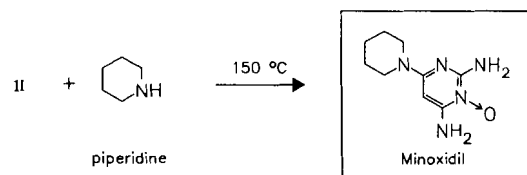
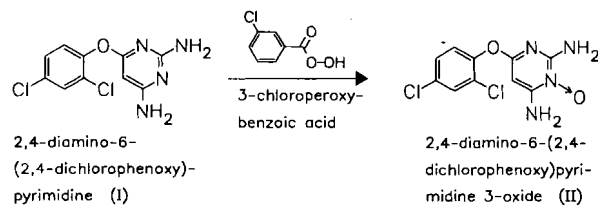
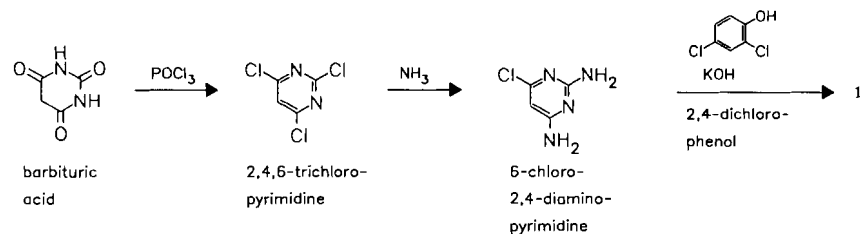
Minoxidil

ATC: C02DC01; D11AX01

Use: antihypertensive

RN: 38304-91-5 MF: C₉H₁₅N₃O MW: 209.25 EINECS: 253-874-2LD₅₀: 51 mg/kg (M, i.v.); >1 g/kg (M, p.o.);
49 mg/kg (R, i.v.); 1321 mg/kg (R, p.o.)

CN: 6-(1-piperidiny)-2,4-pyrimidinediamine 3-oxide



Reference(s):

DE 1 620 649 (Upjohn; prior. 28.10.1966).
 US 3 382 247 (Upjohn; 7.5.1968; appl. 1.11.1965).
 US 3 461 461 (Upjohn; 12.8.1969; appl. 1.1.1965).
 US 3 644 364 (Upjohn; 22.2.1972; appl. 31.3.1970).
 DAS 2 114 887 (Upjohn; appl. 27.3.1971; USA-prior. 31.3.1970).
 DOS 2 114 887 (Upjohn; appl. 27.3.1971; USA-prior. 31.3.1970).

topical composition and use for hair growth:

US 4 139 619 (Upjohn; 13.2.1979; prior. 24.5.1976).

Formulation(s): topical gel 2 %; topical sol. 2 %; tabl. 2.5 mg, 10 mg

Trade Name(s):

D:	Lonolox (Pharmacia & Upjohn; 1982)	GB:	Loniten (Pharmacia & Upjohn; 1980)	Normoxidil (Medosan)
F:	Alostil (Sanofi Winthrop)		Regaine (Pharmacia & Upjohn; 1988)	Regaine (Pharmacia & Upjohn)
	Lonoten (Pharmacia & Upjohn; 1984)	I:	Aloxidil (IDI)	Tricoxidil (Bioindustria)
	Néoxidil (Galderma)		Loniten (Pharmacia & Upjohn; 1983)	USA: Loniten (Upjohn; 1979); wfm
	Regaine (Pharmacia & Upjohn; 1987)		Minovital (Therapeutic)	Rogaine (Pharmacia & Upjohn); wfm
			Minoximen (Menarini)	generics

Mirtazapine

(6-Azamianserin; Mepirzepine; Org-3770)

ATC: N06AX11

Use: antidepressant, 5-HT_{2/3}-antagonist

RN: 61337-67-5 MF: C₁₇H₁₉N₃ MW: 265.36

CN: 1,2,3,4,10,14b-hexahydro-2-methylpyrazino[2,1-a]pyrido[2,3-c][2]benzazepine

racemate

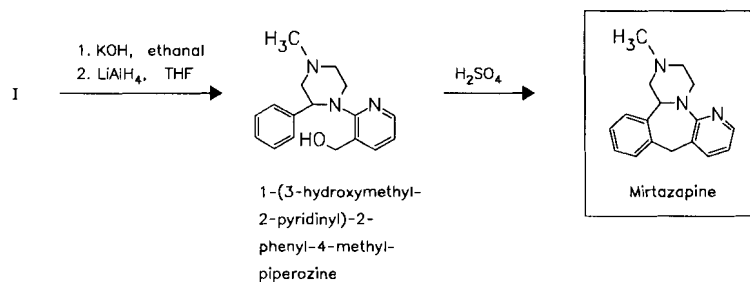
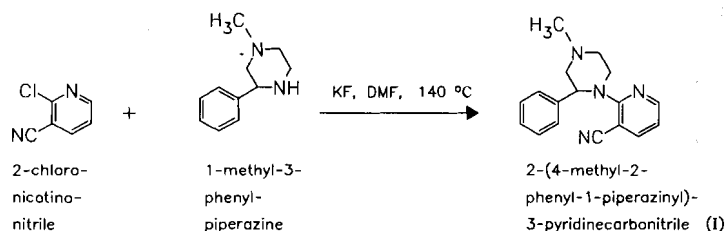
RN: 85650-52-8 MF: C₁₇H₁₉N₃ MW: 265.36 EINECS: 288-060-6

(R)-enantiomer

RN: 61364-37-2 MF: C₁₇H₁₉N₃ MW: 265.36 EINECS: 262-735-5

(S)-enantiomer

RN: 61337-87-9 MF: C₁₇H₁₉N₃ MW: 265.36 EINECS: 262-714-0



Reference(s):

DE 2 614 406 (AKZO; appl. 2.4.1976; NL-prior. 5.4.1975).

separation of enantiomers:

WO 9 407 814 (AKZO; appl. 1.10.1993; NL-prior. 7.10.1992).

oral formulations:

EP 436 252 (AKZO; appl. 19.12.1990; NL-prior. 30.12.1989).

combination with L-amino acid decarboxylase inhibitors:

WO 8 901 774 (British Technology Group; appl. 1.9.1988; GB-prior. 2.9.1987, 1.9.1988).

Formulation(s): tabl. 15 mg, 30 mg

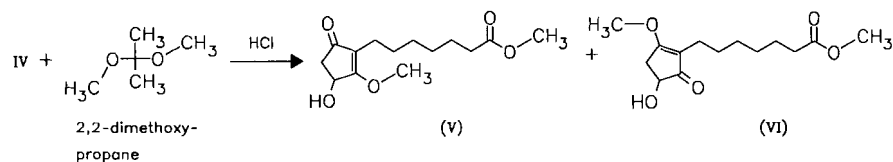
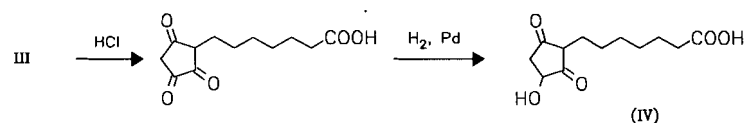
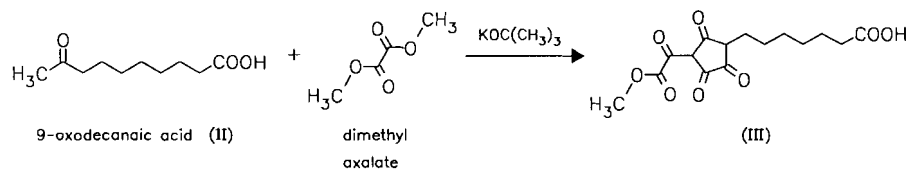
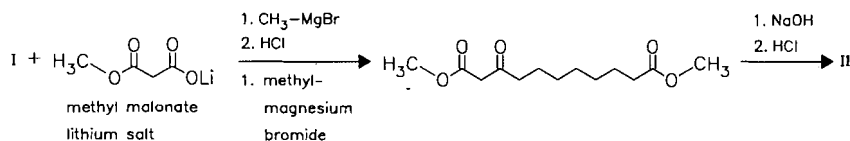
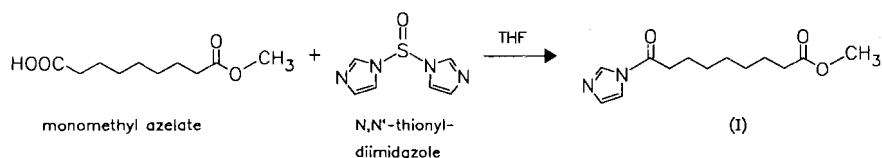
Trade Name(s):

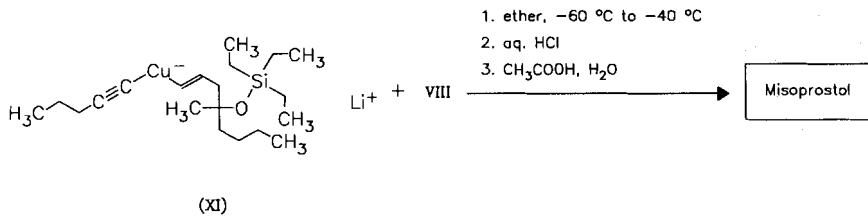
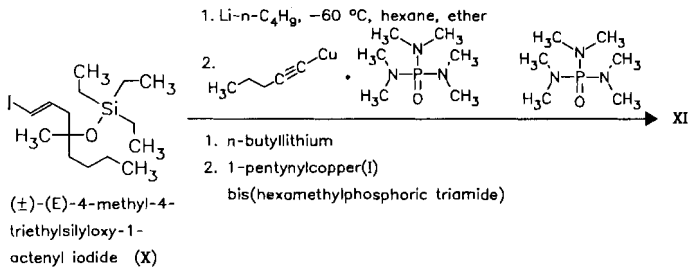
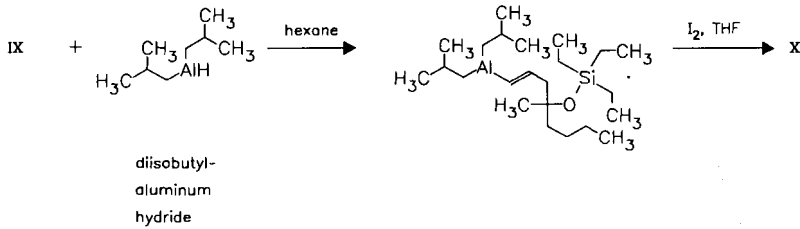
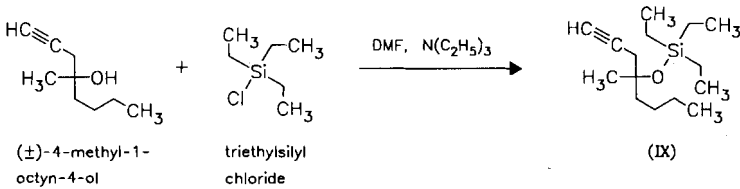
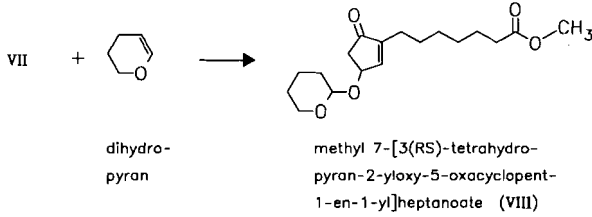
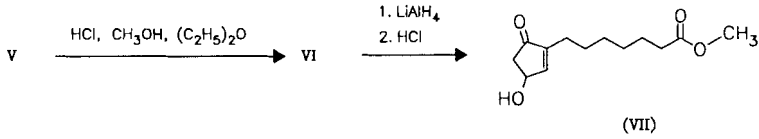
I: Remeron (Organon Italia) USA: Remeron (Organon)

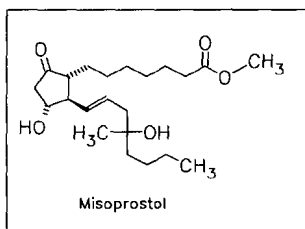
Misoprostol

ATC: A02BB01

Use: peptic ulcer therapeutic

RN: 59122-46-2 MF: C₂₂H₃₈O₅ MW: 382.54CN: (11 α ,13E)-11,16-dihydroxy-16-methyl-9-oxoprost-13-en-1-oic acid methyl ester



*Reference(s):*

Collins, P.W. et al.: J. Med. Chem. (JMCMAR) **20**, 1152 (1977).
 DOS 2 513 212 (Searle; appl. 25.3.1975; USA-prior. 26.3.1974).
 US 3 965 143 (Searle; 22.6.1976; appl. 26.3.1974).
 US 4 060 691 (Searle; 29.11.1977; prior. 26.3.1974).
 FR 2 274 289 (Searle; appl. 26.3.1975; USA-prior. 26.3.1974).
 GB 1 492 426 (Searle; appl. 25.3.1975; USA-prior. 26.3.1974).

Formulation(s): f. c. 0.2 mg (comb. with diclofenac sodium); tabl. 0.1 mg, 0.2 mg

Trade Name(s):

D:	Cytotec (Heumann; 1986)		Naprtec (Searle)-comb.	J:	Cytotec (Nippon)
F:	Artotec (Monsanto)-comb.	I:	Artrotec (Monsanto)-comb.		Monsanto-Kaken)
	Cytotec (Monsanto; 1987)		Cytotec (Monsanto)	USA:	Cytotec (Searle)
GB:	Arthrotec (Searle)-comb.		Misofenac (Sefarm)-comb.		
	Cytotec (Searle)		Symbol (Sefarm)		

Mitobronitol

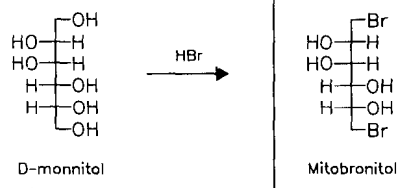
ATC: L01AX01

Use: antineoplastic

RN: 488-41-5 MF: C₆H₁₂Br₂O₄ MW: 307.97 EINECS: 207-676-8

LD₅₀: 2200 mg/kg (M, i.v.); 1380 mg/kg (M, p.o.);
 1370 mg/kg (R, i.v.); 1500 mg/kg (R, p.o.)

CN: 1,6-dibromo-1,6-dideoxy-D-mannitol

*Reference(s):*

GB 959 407 (Chinoïn; appl. 15.9.1961; H-prior. 15.9.1960, 6.9.1961).

Formulation(s): cps. 50 mg; tabl. 125 mg, 250 mg

Trade Name(s):

D:	Myelobromol (Hormon-Chemie); wfm	GB:	Myelobromol (Berk); wfm
		J:	Myebrol (Kyorin)

Mitomycin

ATC: L01DC03

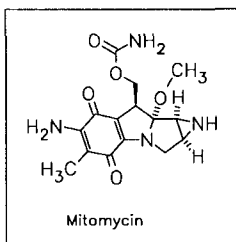
Use: antineoplastic

RN: 50-07-7 MF: C₁₅H₁₈N₄O₅ MW: 334.33 EINECS: 200-008-6LD₅₀: 4 mg/kg (M, i.v.); 23 mg/kg (M, p.o.);

3 mg/kg (R, i.v.); 30 mg/kg (R, p.o.);

720 µg/kg (dog, i.v.)

CN: [1aR-(1α,8β,8α,8bα)]-6-amino-8-[[[(aminocarbonyloxy)methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methylazirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione

From culture of *Streptomyces caespitosus*; column chromatographic purification.**Reference(s):**

GB 830 874 (Kyowa Hakko; appl. 8.4.1958; J-prior. 6.4.1957).

US 3 042 582 (Bristol-Myers; 3.7.1962; prior. 11.12.1958).

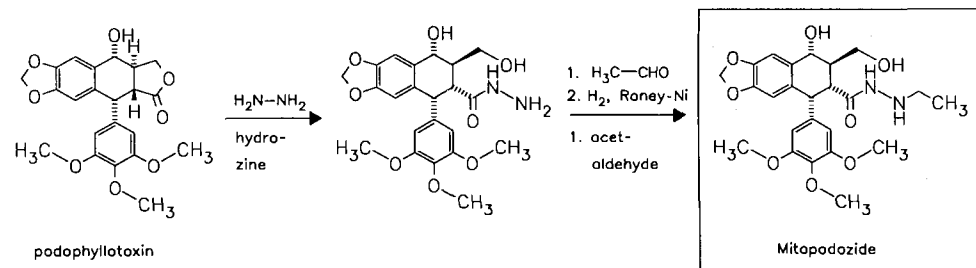
Formulation(s): vial 2 mg, 5 mg, 20 mg, 40 mg**Trade Name(s):**D: Mito-medac (medac)
Mitomycin (medac)F: Amétycine (Sanofi
Winthrop)
I: Mitomycin-C (Kyowa)J: Mitomycin (Kyowa Hakko)
USA: Mutamycin (Bristol-Myers
Squibb)**Mitopodozide**

ATC: L01

Use: antineoplastic

RN: 1508-45-8 MF: C₂₄H₃₀N₂O₈ MW: 474.51 EINECS: 216-138-1LD₅₀: 140 mg/kg (R, i.v.)

CN: [5R-(5α,6α,7β,8α)]-5,6,7,8-tetrahydro-8-hydroxy-7-(hydroxymethyl)-5-(3,4,5-trimethoxyphenyl)naphtho[2,3-d]-1,3-dioxole-6-carboxylic acid 2-ethylhydrazide

**Reference(s):**

US 3 054 802 (Sandoz; 18.9.1962; CH-prior. 7.10.1960).

hydrazinolysis of podophyllotoxin:

Rutschmann, J.; Renz, J.: *Helv. Chim. Acta (HCACAV)* **42**, 890 (1959).

Formulation(s): amp. 200 mg/ml, 1000 mg/5 ml

Trade Name(s):

D: Proresid (Sandoz); wfm

Mitotane

ATC: H02CA

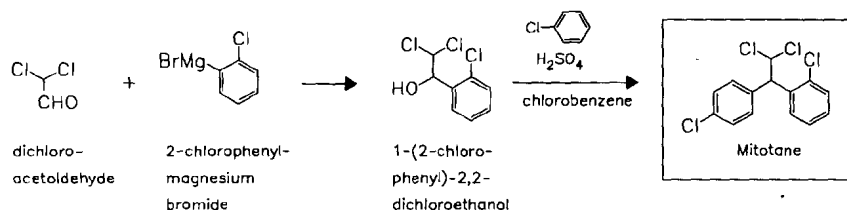
Use: antineoplastic

RN: 53-19-0 MF: $C_{14}H_{10}Cl_4$ MW: 320.05 EINECS: 200-166-6

LD₅₀: >4 g/kg (M, p.o.);

>5 g/kg (R, p.o.)

CN: 1-chloro-2-[2,2-dichloro-1-(4-chlorophenyl)ethyl]benzene



Reference(s):

Hailer, B.L. et al.: *J. Am. Chem. Soc. (JACSAT)* **67**, 1591 (1945).

Formulation(s): tabl. 500 mg

Trade Name(s):

USA: Lysodren (Bristol-Myers Squibb)

Mitoxantrone

ATC: L01DB07

Use: anticoplastic

RN: 65271-80-9 MF: $C_{22}H_{28}N_4O_6$ MW: 444.49

CN: 1,4-dihydroxy-5,8-bis[[2-[(2-hydroxyethyl)amino]ethyl]amino]-9,10-anthracenedione

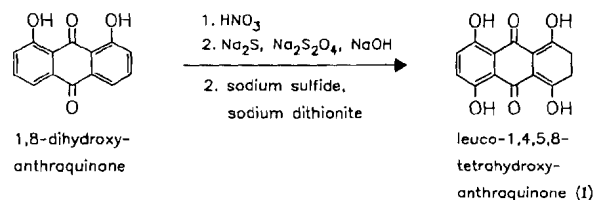
dihydrochloride

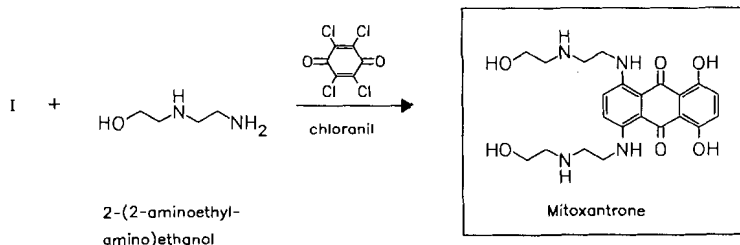
RN: 70476-82-3 MF: $C_{22}H_{28}N_4O_6 \cdot 2HCl$ MW: 517.41 EINECS: 274-619-1

LD₅₀: 11300 μ g/kg (M, i.v.); 502 mg/kg (M, p.o.);

4800 μ g/kg (R, i.v.); 682 mg/kg (R, p.o.);

375 μ g/kg (dog, i.v.)



**Reference(s):**

- DE 2 835 661 (American Cyanamid; prior. 14.8.1978).
 US 4 197 249 (American Cyanamid; 8.4.1980; prior. 15.8.1977).
 US 4 278 689 (American Cyanamid; 14.7.1981; prior. 11.7.1978).
 Zee-Cheng, R.K. Y.; Cheng, C.C.: J. Med. Chem. (JMCMAR) **21**, 291 (1978).
 Murdock, K.C. et al.: J. Med. Chem. (JMCMAR) **22**, 1024 (1979).

synthesis of 1,4,5,8-tetrahydroxyanthraquinone:

- SU 230 188 (I. D. Belkin et al.; appl. 3.8.1967).
 SU 266 777 (I. D. Belkin et al.; appl. 5.5.1968).

Formulation(s): amp. 2 mg/ml, 10 mg/5 ml, 20 mg/10 ml, 25 mg/12.5 ml, 30 mg/15 ml (as dihydrochloride)

Trade Name(s):

D:	Novantron (Lederle; 1985)	F:	Novantrone (Wyeth-Lederle; 1986)	I:	Novantrone (Wyeth-Lederle; 1987)
	Onkotrone (ASTA Medica AWD)	GB:	Novantrone (Wyeth; 1984)	J:	Novantron (Lederle; 1987)
				USA:	Novantrone (Immunex)

Mizolastine

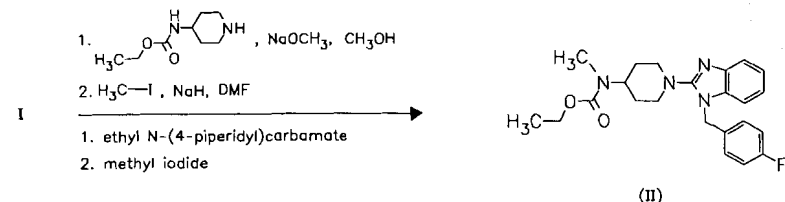
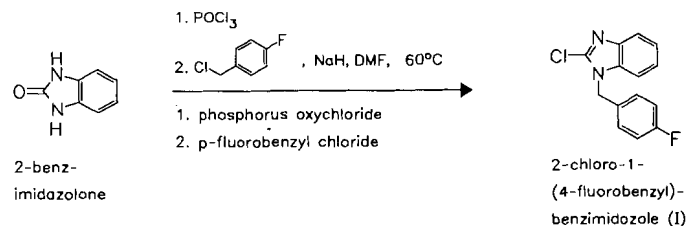
(SL-85.0324; MKC-431)

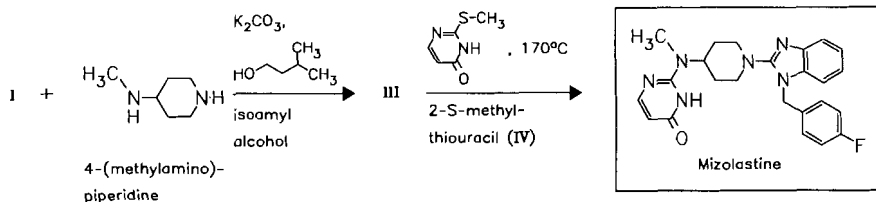
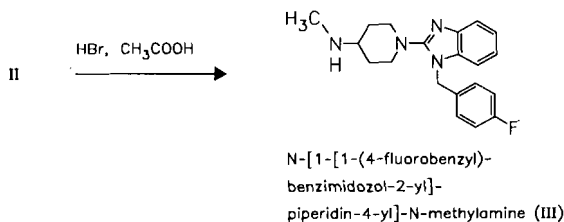
ATC: R06AX25

Use: antihistamine, histamine H₁-receptor antagonist

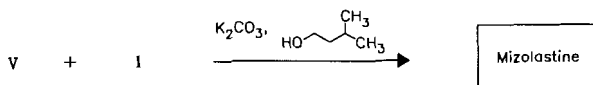
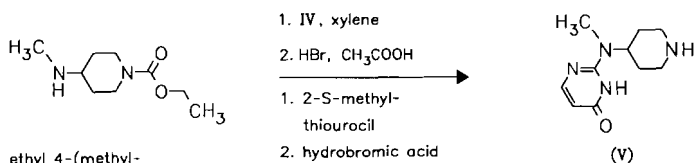
RN: 108612-45-9 MF: C₂₄H₂₅FN₆O MW: 432.50

CN: 2-[[1-[1-[(4-Fluorophenyl)methyl]-1H-benzimidazol-2-yl]-4-piperidinyl]methylamino]-4(3H)-pyrimidinone





alternative way:



Reference(s):

synthesis of 2-chloro-1-(4-fluorobenzyl)benzimidazole:

Parrodi, C.; Quintero-Cortes, L.; Sandoval-Ramirez: *Synth. Commun. (SYNCAV)* **26**, 17 (1996).

synthesis:

EP 217 700 (Synthelabo; appl. 2.9.1986; F-prior. 11.9.1985).

formulation:

WO 9 732 584 (Synthelabo; appl. 28.2.1997; F-prior. 4.3.1996).

Formulation(s): f. c. tabl. 10 mg; tabl. 10 mg

Trade Name(s):

D:	Mizollen (Synthelabo; 1998)	GB:	Mizollen (Lorex Synthelabo)	Zollistam (Vita)
	Zolim (Schwarz Pharma)	I:	Mizollen (Synthelabo)	

Mizoribine

ATC: L04

Use: immunosuppressive

RN: 50924-49-7 MF: $\text{C}_9\text{H}_{13}\text{N}_3\text{O}_6$ MW: 259.22

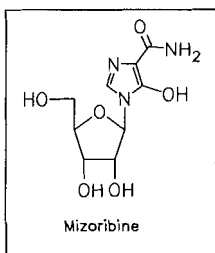
LD₅₀: 500 mg/kg (M, i.v.); >4.883 g/kg (M, p.o.);
1500 mg/kg (R, i.v.); 2.847 g/kg (R, p.o.)

CN: 5-hydroxy-1-β-D-ribofuranosyl-1H-imidazole-4-carboxamide

Isolation from cultures of *Eupenicillium brefeldianum* NRRL 5734.

a Amberlite IRA-4I1/pH 10.

b Chromatography on DEAE-Sephadex A-25.



Reference(s):

BE 799 805 (Toyo Jozo; appl. 31.11.1973; J-prior. 21.5.1973).

DOS 2 326 916 (Toyo Jozo; appl. 23.5.1973; J-prior. 21.5.1973).

Mizuno, K. et al.: J. Antibiot. (JANTAJ) **27**, 775 (1974).

controlled-release formulation:

JP 59 227 817 (Toyo Jozo; appl. 7.6.1983).

Formulation(s): f. c. tabl. 10 mg; tabl. 10 mg

Trade Name(s):

J: Bredinin (Toyo Jozo)

Moclobemide

(Ro-11-1163)

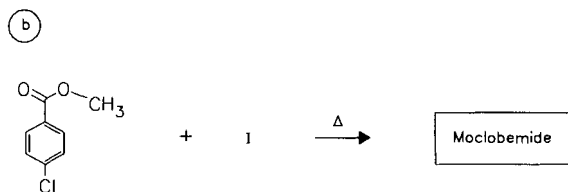
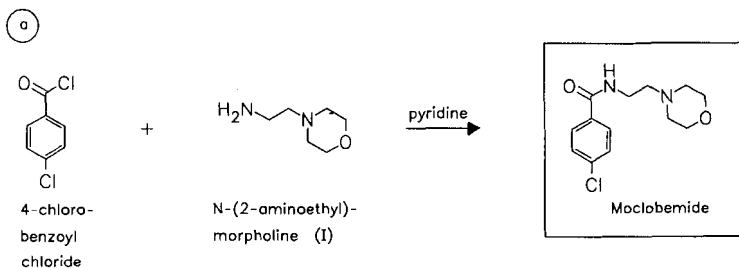
ATC: N06AG02

Use: antidepressant, reversible
nonhydrazide MAO-A-inhibitor,
antiparkinsonian

RN: 71320-77-9 MF: C₁₃H₁₇ClN₂O₂ MW: 268.74

LD₅₀: 707 mg/kg (R, p.o.)

CN: 4-chloro-N-[2-(4-morpholinyl)ethyl]benzamide



Reference(s):

DE 2 706 179 (Hoffmann-La Roche; appl. 14.2.1977; A-prior. 16.2.1976).

GB 1 512 194 (Hoffmann-La Roche; appl. 24.5.1978; A-prior. 16.2.1976, 2.9.1976, 20.4.1977, 17.2.1976, 4.6.1976).

medical use for treatment of cognitive disorders:

US 4 906 626 (Hoffmann-La Roche; 6.3.1990; appl. 13.1.1989; CH-prior. 8.12.1988).

Formulation(s): f. c. tabl. 150 mg, 300 mg; tabl. 100 mg, 150 mg, 300 mg*Trade Name(s):*

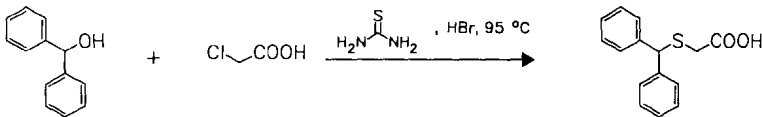
D: Aurorix (Roche)

F: Moclamine (Produits
Roche)GB: Manerix (Roche)
I: Aurorix (Roche)**Modafinil**
(CRL-40476)

ATC: N06BA07

Use: psychostimulant, α_1 -adrenoceptor
agonist (treatment of narcolepsy and
idiopathic hypersomnia)RN: 68693-11-8 MF: $C_{15}H_{15}NO_2S$ MW: 273.36

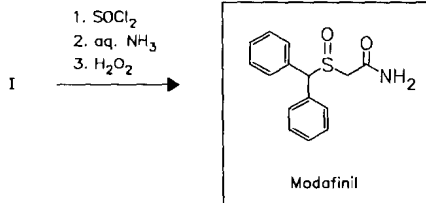
CN: 2-[(diphenylmethyl)sulfinyl]acetamide

racemateRN: 112111-49-6 MF: $C_{15}H_{15}NO_2S$ MW: 273.36**(+)-form**RN: 112111-47-4 MF: $C_{15}H_{15}NO_2S$ MW: 273.36**(-)-form**RN: 112111-43-0 MF: $C_{15}H_{15}NO_2S$ MW: 273.36

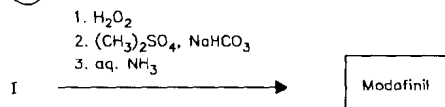
benzhydrol

2-(diphenylmethyl-
thio)acetic acid (I)

(a)



(b)



Reference(s):

DE 2 809 625 (Laboratoire L. Lafon; appl. 5.10.1978; GB-prior. 31.3.1977).
 EP 233 106 (Laboratoire L. Lafon; appl. 19.8.1987; F-prior. 31.1.1986).

use of modafinil as neuroprotective agent:

EP 462 004 (Laboratoire L. Lafon; appl. 18.12.1991; F-prior. 14.6.1990).

use for treatment of urinary and fecal incontinence:

EP 594 507 (Laboratoire L. Lafon; appl. 27.4.1994; F-prior. 23.1.1992).

use as a brain anti-ischemia:

EP 547 952 (Laboratoire L. Lafon; appl. 23.6.1993; F-prior. 13.12.1991).

use for treatment of sleep apnea and ventilation problems of central origin:

WO 9 500 132 (Laboratoire L. Lafon; appl. 5.1.1995; F-prior. 22.6.1993).

use for modifying feeding behavior:

WO 9 501 171 (Laboratoire L. Lafon; appl. 12.1.1995; 30.6.1993).

Formulation(s): tabl. 100 mg

Trade Name(s):

F: Modiodal (Lafon)

Moexipril

(CI-925; RS-10085 (base); RS-10085-197; SPM-925)

ATC: C09AA13; C09AB13

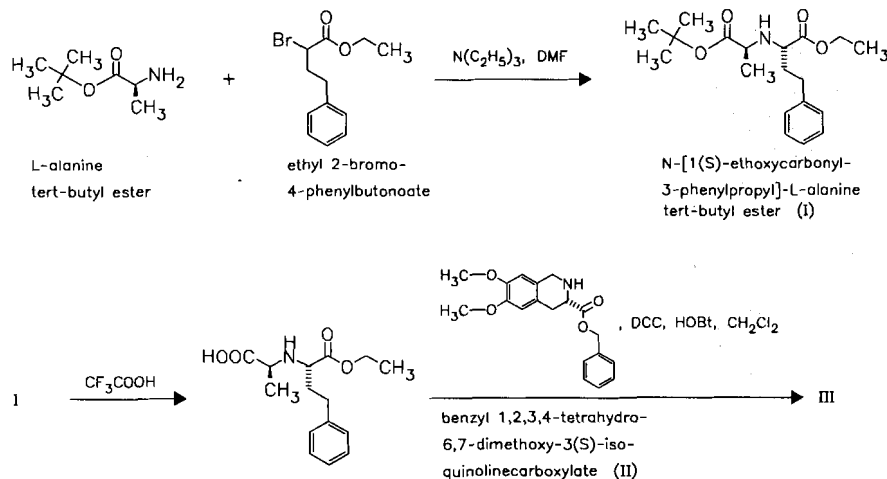
Use: antihypertensive (ACE inhibitor)

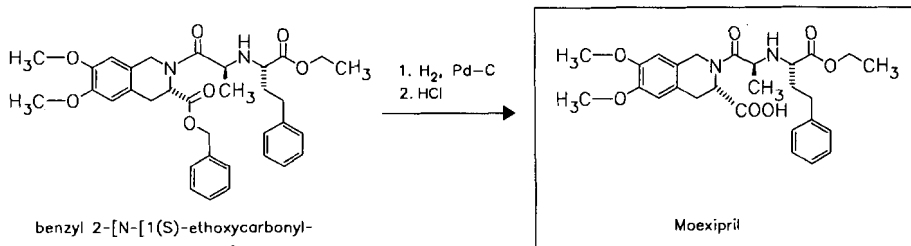
RN: 103775-10-6 MF: $C_{27}H_{34}N_2O_7$ MW: 498.58

CN: [3S-[2[R*(R*)],3R*]]-2-[2-[[1-(ethoxycarbonyl)-3-phenylpropyl]amino]-1-oxopropyl]-1,2,3,4-tetrahydro-6,7-dimethoxy-3-isoquinolinecarboxylic acid

monohydrochloride

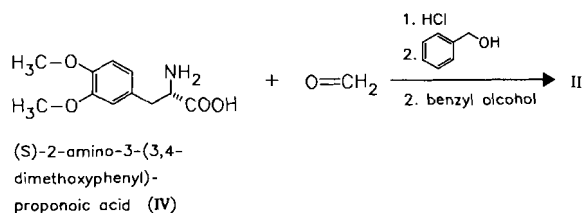
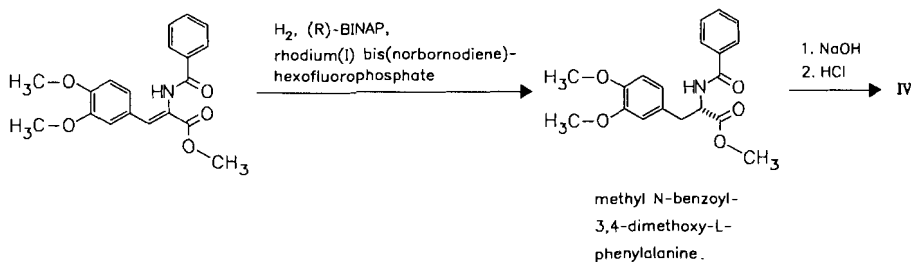
RN: 82586-52-5 MF: $C_{27}H_{34}N_2O_7 \cdot HCl$ MW: 535.04





benzyl 2-[N-[1(S)-ethoxycarbonyl-3-phenylpropyl]-L-alanyl]-1,2,3,4-tetrahydro-6,7-dimethoxy-3(S)-isoquinolinecarboxylate (III)

synthesis of the starting material II:



Reference(s):

- EP 96 157 (Warner-Lambert; appl. 1.10.1981; USA-prior. 3.10.1980, 20.2.1981).
 EP 49 605 (Warner-Lambert; appl. 1.10.1981; USA-prior. 3.10.1980).
 O'Reilly, N.J. et al.: *Synthesis (SYNTBF)* **7**, 550-556 (1990).
 US 4 912 221 (Occidental Chemical Corp., appl. 27.10.1988).

formulation stabilized with ascorbic acid:

- EP 264 887 (Warner-Lambert Co.; appl. 19.10.1987; USA-prior. 20.10.1986).

Formulation(s): f. c. tabl. 7.5 mg, 15 mg; USA: f. c. tabl. 7.5 mg, 12.5 mg, 15 mg, 25 mg (in comb. with hydrochlorothiazide) (as hydrochloride)

Trade Name(s):

D:	Fempres (Isis Pharma)	I:	Fempres (Schwarz)	USA:	Uniretic (Schwarz)
GB:	Perdix (Schwarz)		Primoxil (Bayer Italia)		Univasc (Schwarz)

Mofebutazone

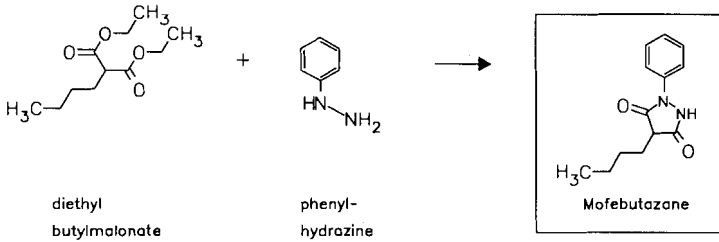
ATC: M01AA02; M02AA02

Use: antirheumatic, anti-inflammatory, analgesic

RN: 2210-63-1 MF: C₁₃H₁₆N₂O₂ MW: 232.28 EINECS: 218-641-1

LD₅₀: 600 mg/kg (M, i.v.);
1750 mg/kg (R, p.o.)

CN: 4-butyl-1-phenyl-3,5-pyrazolidinedione

sodium saltRN: 41468-34-2 MF: C₁₃H₁₅N₂NaO₂ MW: 254.27**Reference(s):**

GB 839 057 (Comm. Farmaceutica Milanese; appl. 27.11.1957; I-prior. 28.11.1956).
 Büchi, J. et al.: Helv. Chim. Acta (HCACAV) **36**, 75 (1953).

Formulation(s): amp. 650 mg/3 ml (as sodium salt); cps. 200 mg; drg. 150 mg-comb.; f. c. tabl. 300 mg

Trade Name(s):

D:	Diadin (Diadin)	F:	Arcobutina (Silbert et Ripert)-comb.; wfm	Monbutina (Lafare); wfm
	Mofesal (Medice)			Reumatox (Medosan); wfm
	Vasotonin (Merz)-comb.	I:	Chemiartröl (Gazzoni); wfm	

Mofezolac

(N-22)

ATC: M01; N02

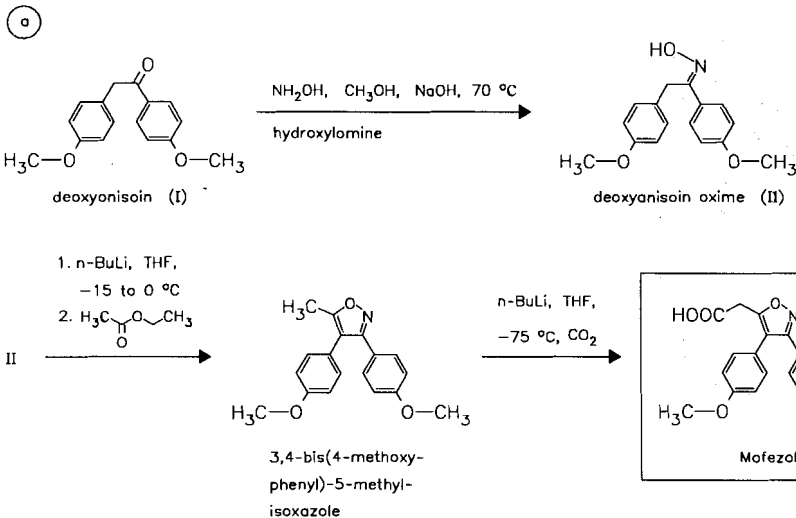
Use: anti-inflammatory, analgesic

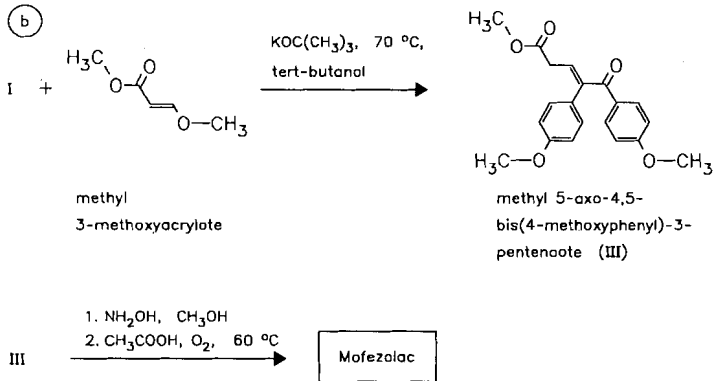
RN: 78967-07-4 MF: C₁₉H₁₇NO₅ MW: 339.35LD₅₀: 1528 mg/kg (M, p.o.);

887 mg/kg (R, p.o.);

800 mg/kg (dog, p.o.)

CN: 3,4-bis(4-methoxyphenyl)-5-isoxazoleacetic acid



*Reference(s):*

EP 26 928 (CDC Life Sciences Inc.; appl. 3.10.1980; CA-prior. 5.10.1979).

synthesis with ClCO₂Et instead CO₂:

JP 02 223 568 (Taiho Pharmaceuticals; appl. 20.11.1989; J-prior. 2.11.1988).

EP 454 871 (Taiho Pharmaceuticals; appl. 19.11.1990; J-prior. 21.11.1989).

JP 03 220 180 (Taiho Pharmaceuticals; appl. 24.1.1990; J-prior. 24.1.1990).

EP 464 218 (Taiho Pharmaceuticals; appl. 22.1.1991; J-prior. 24.1.1990).

transdermal formulations:

JP 05 017 354 (Nichiban KK; appl. 3.7.1991; J-prior. 3.7.1991).

stable injection solution:

AT 391 415 (Kwizda; appl. 26.7.1989; A-prior. 26.7.1989).

Trade Name(s):

J: Disopain (Taiho-Yoshitomi)

Molindone

ATC: N05AE02

Use: tranquilizer, sedative

RN: 7416-34-4 MF: C₁₆H₂₄N₂O₂ MW: 276.38

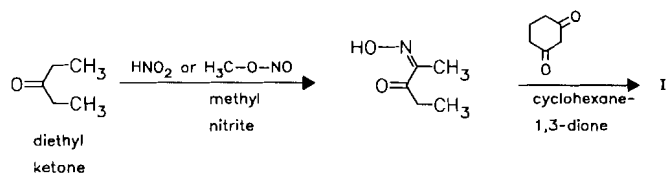
CN: 3-ethyl-1,5,6,7-tetrahydro-2-methyl-5-(4-morpholinylmethyl)-4H-indol-4-one

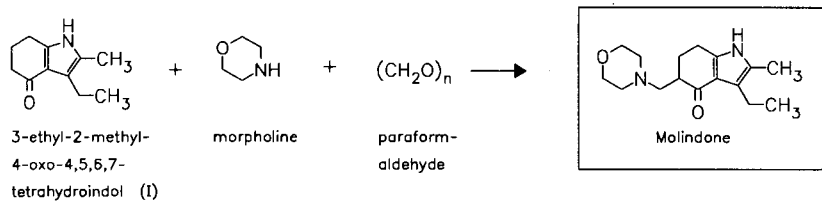
monohydrochloride

RN: 15622-65-8 MF: C₁₆H₂₄N₂O₂ · HCl MW: 312.84

LD₅₀: 670 mg/kg (M, p.o.);

261 mg/kg (R, p.o.)



**Reference(s):**

DAS 1 545 774 (Endo Labs.; appl. 16.10.1965).

US 3 491 093 (Endo Labs.; 20.1.1970; prior. 2.3.1964, 3.4.1964, 11.5.1966, 29.11.1967).

combination with amantadine (antidepressant):

US 4 148 896 (Du Pont; 10.4.1979; appl. 22.2.1978).

Formulation(s): sol. 20 mg/ml; tabl. 5 mg, 10 mg, 25 mg, 50 mg, 100 mg**Trade Name(s):**

USA: Moban (Gate)

Molsidomine

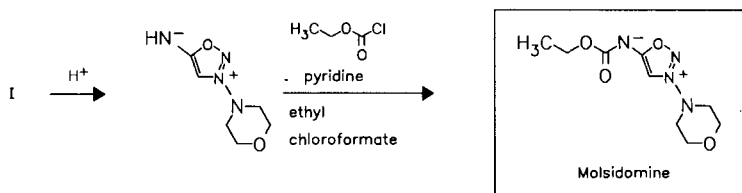
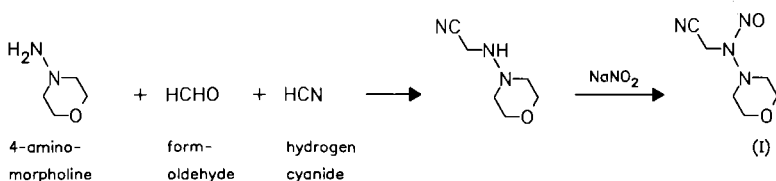
ATC: C01DX12

Use: coronary vasodilator

RN: 25717-80-0 MF: $\text{C}_9\text{H}_{14}\text{N}_4\text{O}_4$ MW: 242.24 EINECS: 247-207-4LD₅₀: 800 mg/kg (M, i.v.); 830 mg/kg (M, p.o.);

760 mg/kg (R, i.v.); 1050 mg/kg (R, p.o.)

CN: 5-[(ethoxycarbonyl)amino]-3-(4-morpholinyl)-1,2,3-oxadiazolium inner salt

**Reference(s):**

DAS 1 695 897 (Takeda; appl. 1.7.1967; J-prior. 4.7.1966).

synthesis of 4-aminomorpholine:

DAS 2 532 124 (Cassella; appl. 18.7.1975).

US 3 769 283 (Takeda, 30.10.1973; J-prior. 4.7.1966).

Formulation(s): amp. 2 mg; s. r. tabl. 8 mg; tabl. 1 mg, 2 mg, 4 mg

Trade Name(s):

D:	Corvaton (Hoechst; 1977) duracoron (durachemie) Molsicor (betapharm)	Molsidomine (Heumann; ct-Arzneimittel; ratiopharm) Molsihexal (Hexal)	I:	Molsidolat (Hoechst; 1980); wfm Molsiton (Edmond); wfm
F:	Corvasal (Hoechst; 1983)		J:	Morial (Takeda; 1972)

Mometasone furoate

ATC: D07AB
Use: topical glucocorticoid, anti-inflammatory

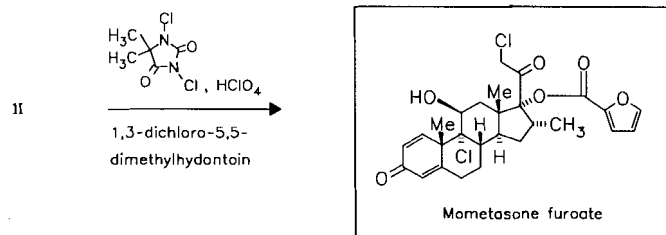
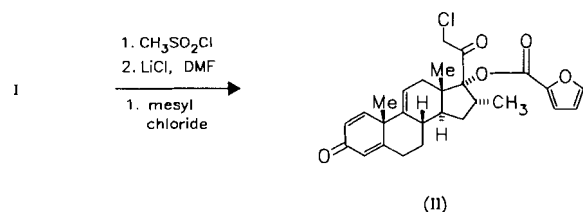
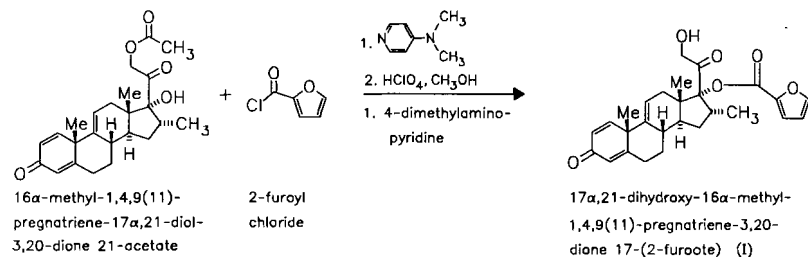
RN: 83919-23-7 MF: $C_{27}H_{30}Cl_2O_6$ MW: 521.44

LD₅₀: 300 mg/kg (R, s.c.)

CN: (11 β ,16 α)-9,21-dichloro-17-[(2-furanylcarbonyl)oxy]-11-hydroxy-16-methylpregna-1,4-diene-3,20-dione

mometasone

RN: 105102-22-5 MF: $C_{22}H_{28}Cl_2O_4$ MW: 427.37



Reference(s):

- EP 57 401 (Schering Corp.; appl. 25.1.1982; USA-prior. 2.2.1981).
US 4 472 393 (Schering Corp.; 18.9.1984; appl. 29.7.1982; prior. 2.2.1981).
Shapiro, E.L. et al.: J. Med. Chem. (JMCMAR) **30**, 1581 (1987).

cream:

- EP 262 681 (Schering Corp.; appl. 1.10.1987; USA-prior. 2.10.1986).

lotion:

- US 4 775 529 (Schering Corp.; 4.10.1988; appl. 21.5.1987).

Formulation(s): cream 0.1 %; lotion 0.1 %; ointment 0.1 % (1 mg/g)

Trade Name(s):

D:	Ecural (Essex Pharma)	I:	Altosone (Essex Italia)	USA:	Elocon (Schering-Plough;
GB:	Elocon (Schering-Plough)		Elocon (Schering-Plough)		1988)
	Nasorex (Schering-Plough)-comb.	J:	Ecotone (Schering-Plough)		
			Flumeta (Shionogi)		

Monobenzene

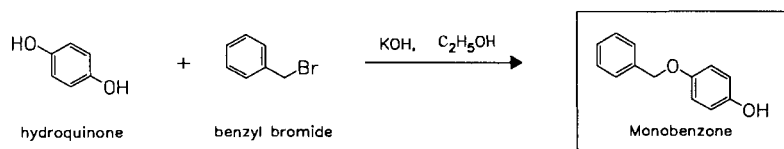
Use: depigmentant (melanin inhibitor against hyperpigmentation of skin)

RN: 103-16-2 MF: C₁₃H₁₂O₂ MW: 200.24 EINECS: 203-083-3

LD₅₀: >600 mg/kg (M, i.p.);

4500 mg/kg (R, i.p.)

CN: 4-(phenylmethoxy)phenol



Reference(s):

Schiff, H.; Pellizzari, G.: Justus Liebigs Ann. Chem. (JLACBF) **221**, 365 (1883).

Formulation(s): cream 20 %

Trade Name(s):

D:	Depigman (Hermal); wfm	I:	Dermochinona (Chinoin);	USA:	Benoquin (Elder)
			wfm		

Montelukast sodium

(MK-476; MK-0476; L-706631)

ATC: R03DC03

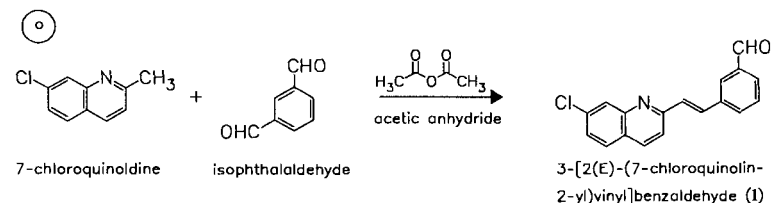
Use: antiallergic, antiasthmatic, leukotriene antagonist

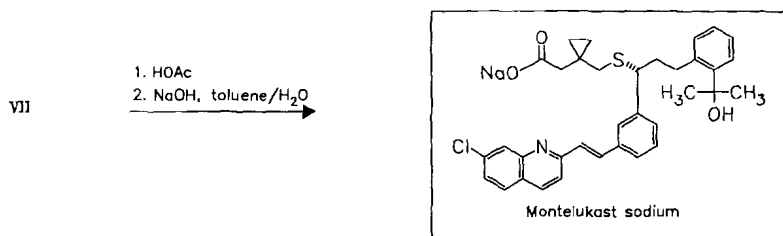
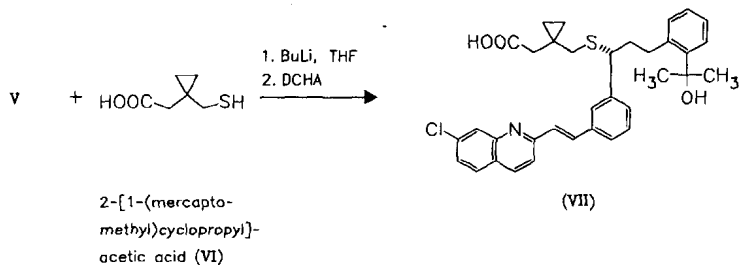
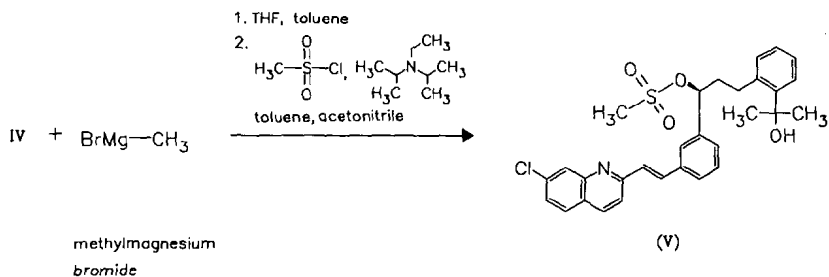
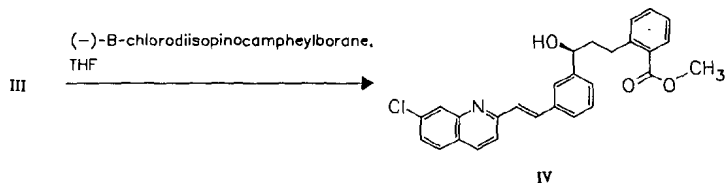
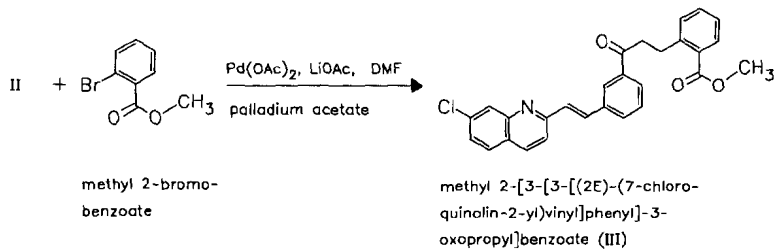
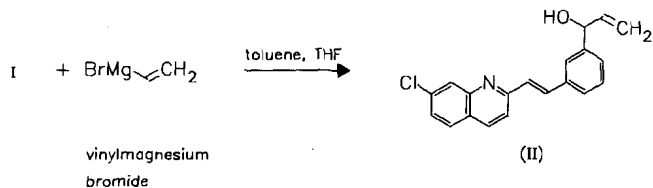
RN: 151767-02-1 MF: C₃₅H₃₅ClNNaO₃S MW: 608.18

CN: 1-[[[(1R)-1-[3-[(1E)-2-(7-Chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio]methyl]cyclopropaneacetic acid sodium salt

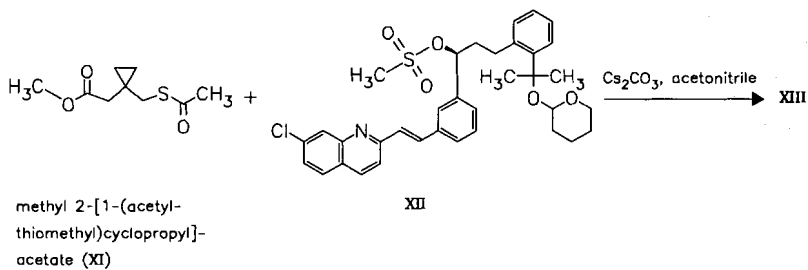
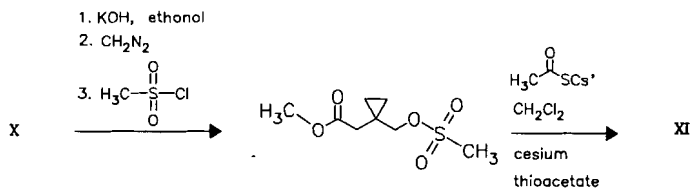
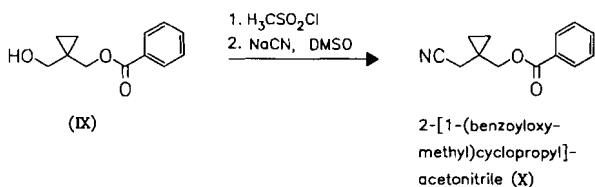
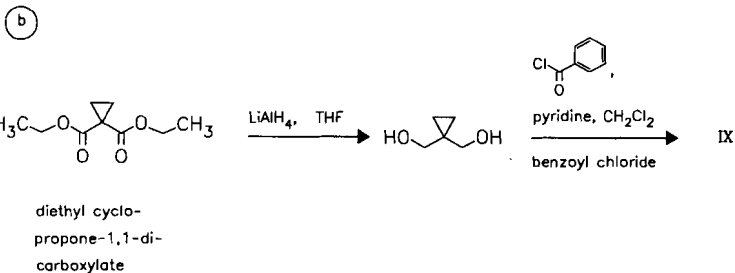
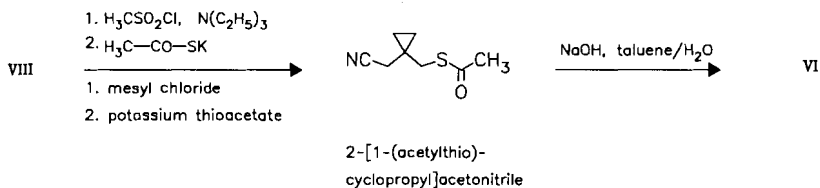
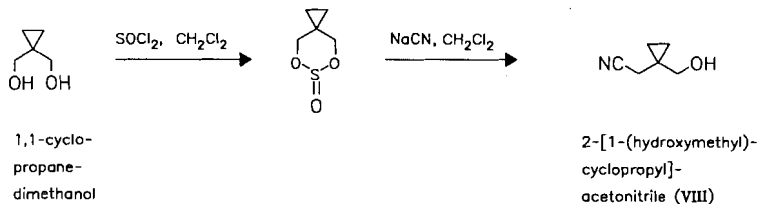
acid

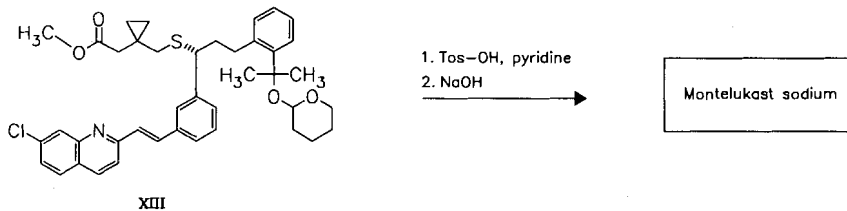
RN: 158966-92-8 MF: C₃₅H₃₆ClNO₃S MW: 586.20



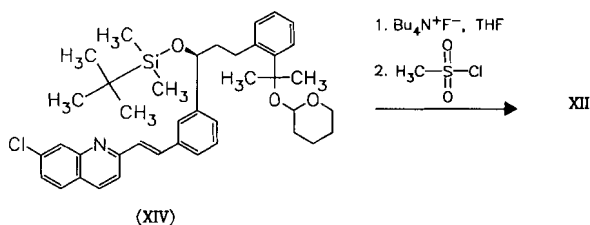
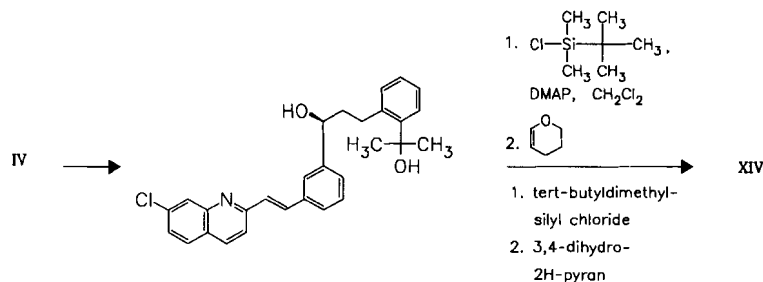


aa synthesis of intermediate VI





(ba) intermediate XII can be synthesized from



Reference(s):

- a EP 480 717 (Merck Frosst; appl. 10.10.1991; USA-prior. 12.10.1990, 8.8.1991).
 aa US 5 523 477 (Merck + Co.; 4.6.1996; USA-prior. 23.1.1995).
 b WO 9 518 107 (Merck + Co.; appl. 22.12.1994; USA-prior. 28.12.1993, 9.12.1994).
 Labelle, M. et al.: Bioorg. Med. Chem. Lett. (BMCLE8) 5, 283 (1995).

synthesis of starting material I:

US 4 851 409 (Merck Frosst Can.; 25.7.1987; USA-prior. 14.2.1986).

pharmaceutical composition with loratidine:

WO 9 728 797 (Merck + Co.; appl. 4.2.1997; USA-prior. 8.2.1996).

Formulation(s): chewable tabl. 5 mg, 50 mg; f. c. tabl. 10 mg; tabl. 5 mg, 10 mg (as sodium salt)

Trade Name(s):

D:	Singulair (MSD Dieckmann)	I:	Lukasm (Sigmatau Montegen (Gentili))	USA:	Singulair (Merck Sharp & Dohme; 1998)
GB:	Singulair (Merck Sharp & Dohme)		Singulair (Merck Sharp & Dohme)		

Moperone

(Methylperidol; Mopiperone)

ATC: N05AD04

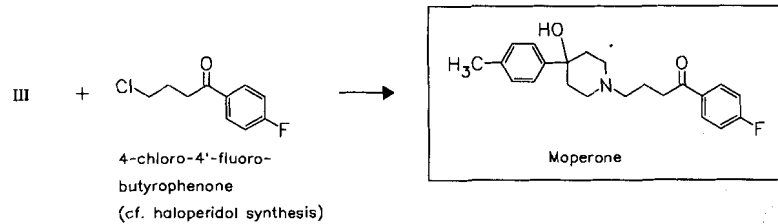
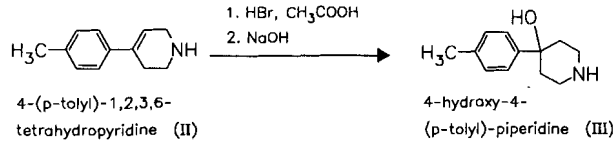
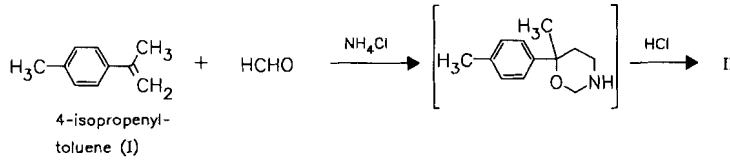
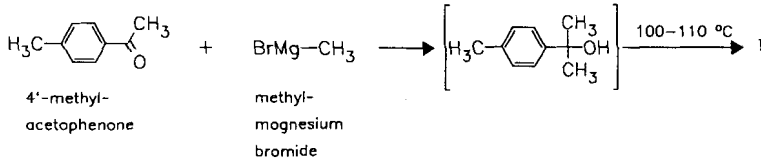
Use: neuroleptic, antipsychotic

RN: 1050-79-9 MF: $\text{C}_{22}\text{H}_{26}\text{FNO}_2$ MW: 355.45 EINECS: 213-887-6

CN: 1-(4-fluorophenyl)-4-[4-hydroxy-4-(4-methylphenyl)-1-piperidinyl]-1-butanone

hydrochlorideRN: 3871-82-7 MF: C₂₂H₂₆FNO₂ · HCl MW: 391.91 EINECS: 223-392-7LD₅₀: 15.5 mg/kg (M, i.v.); 218 mg/kg (M, p.o.);

12.1 mg/kg (R, i.v.); 152 mg/kg (R, p.o.)

**Reference(s):**

GB 881 893 (P. A. J. Janssen; appl. 22.4.1958; valid from 14.4.1959).

Formulation(s): amp. 5 mg/1 ml; tabl. 5 mg, 20 mg (as hydrochloride)**Trade Name(s):**

D:	Luvatrena (Cilag-Chemie); wfm	F:	Sedalium (Fournier Frères)-comb.; wfm	I:	Luvatren (Cilag-Chemie); wfm
				J:	Luvatren (Yamanouchi)

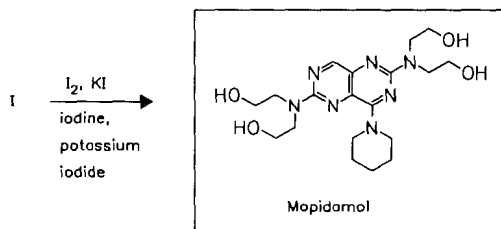
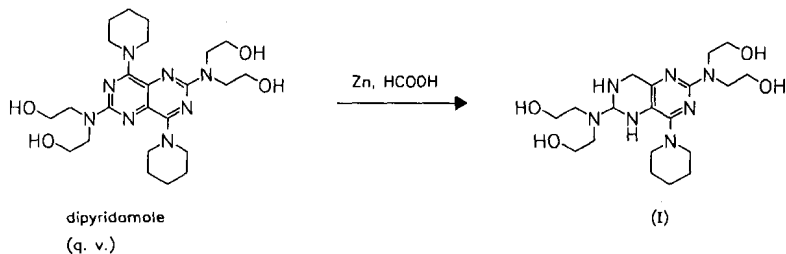
Mopidamol

ATC: B01AC
 Use: thrombosis and metastasis prophylactic, antineoplastic

RN: 13665-88-8 MF: C₁₉H₃₁N₇O₄ MW: 421.50 EINECS: 237-145-6LD₅₀: 148 mg/kg (M, i.v.); 465 mg/kg (M, p.o.);

3 g/kg (R, p.o.)

CN: 2,2',2'',2'''-[4-(1-piperidinyl)pyrimido[5,4-d]pyrimidine-2,6-diyl]dinitrilo]tetrakis[ethanol]

**Reference(s):**

DAS 1 470 341 (Thomae; appl. 9.3.1963).

starting material:

DE 1 116 676 (Thomae; appl. 14.3.1955).

US 3 031 450 (Thomae; 24.4.1962; D-prior. 30.4.1959).

Formulation(s): amp. 150 mg/3 ml; cps. 250 mg**Trade Name(s):**

D: Rapenton (Thomae); wfm

Moracizine

(Ethmosine; Etmosin; Moricizine)

ATC: C01BG01

Use: class I antiarrhythmic

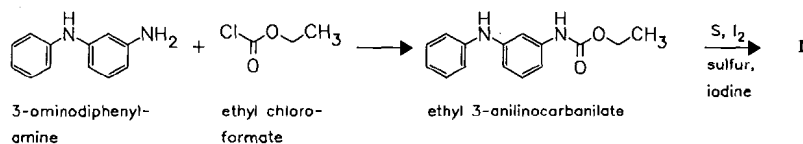
RN: 31883-05-3 MF: $\text{C}_{22}\text{H}_{25}\text{N}_3\text{O}_4\text{S}$ MW: 427.53 EINECS: 250-854-5LD₅₀: 131 mg/kg (M, i.p.); 36 mg/kg (M, i.v.);

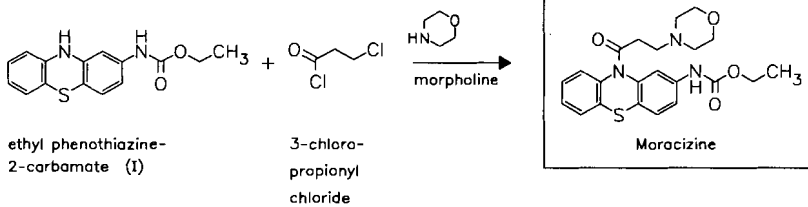
105 mg/kg (R, i.p.); 11 mg/kg (R, i.v.)

CN: [10-[3-(4-morpholinyl)-1-oxopropyl]-10H-phenothiazin-2-yl]carbamic acid ethyl ester

monohydrochlorideRN: 29560-58-5 MF: $\text{C}_{22}\text{H}_{25}\text{N}_3\text{O}_4\text{S} \cdot \text{HCl}$ MW: 463.99LD₅₀: 36 mg/kg (M, i.v.);

11 mg/kg (R, i.v.); 1 g/kg (R, p.o.)



**Reference(s):**

- DE 2 014 201 (Academy of Medical Sci. USSR; appl. 24.3.1970).
 US 3 740 395 (Academy of Medical Sci. USSR; prior. 16.8.1971; 14.10.1969).
 US 3 864 487 (A.N. Gritsenko et al.; 4.2.1975; prior. 16.8.1971, 10.10.1969).
 GB 1 269 969 (Academy of Medical Sci. USSR; appl. 25.9.1969).
 Gritsenko, A.N. et al.: Khim. Farm. Zh. (KHFZAN) **6**, 17 (1972).
 SU 332 835 (Academy of Medical Sci. USSR; appl. 15.1.1965).
 SU 329 891 (Academy of Medical Sci. USSR; appl. 19.7.1965).

Formulation(s): tabl. 200 mg, 250 mg, 300 mg (as hydrochloride)

Trade Name(s):

USA: Ethmozine (Roberts)

Morclofone

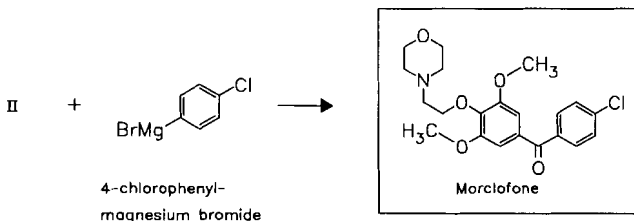
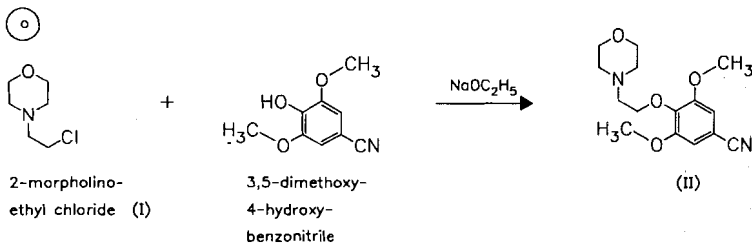
ATC: R05DB25

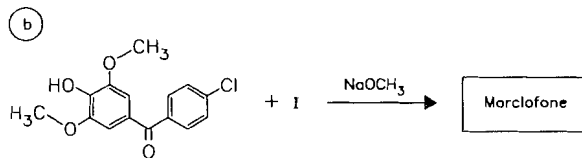
Use: antitussive

RN: 31848-01-8 MF: $C_{21}H_{24}ClNO_5$ MW: 405.88 EINECS: 250-838-8
 LD₅₀: 552 mg/kg (M, p.o.)
 CN: (4-chlorophenyl)[3,5-dimethoxy-4-[2-(4-morpholinyl)ethoxy]phenyl]methanone

hydrochloride

RN: 31848-02-9 MF: $C_{21}H_{24}ClNO_5 \cdot HCl$ MW: 442.34 EINECS: 250-839-3
 LD₅₀: 609 mg/kg (M, p.o.);
 1290 mg/kg (R, p.o.)





4'-chloro-3,5-dimethoxy-
4-hydroxybenzophenone

Reference(s):

DOS 2 016 707 (Carlo Erba; appl. 8.4.1970; I-prior. 15.4.1969).

Formulation(s): syrup 50 mg (1 %) (as hydrochloride)

Trade Name(s):

I: Plausitin (Carlo Erba)

Morinamide

(Morfazinamida)

ATC: J04AK04

Use: tuberculostatic

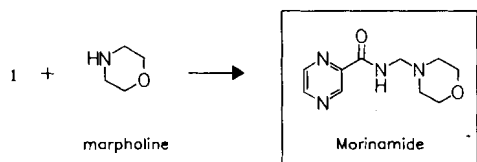
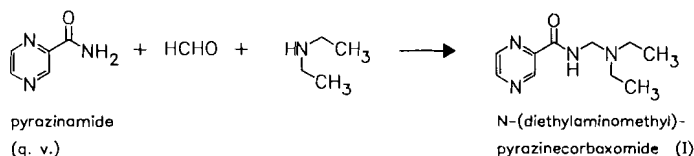
RN: 952-54-5 MF: C₁₀H₁₄N₄O₂ MW: 222.25 EINECS: 213-460-4

LD₅₀: 2750 mg/kg (M, i.p.)

CN: N-(4-morpholinylmethyl)pyrazinecarboxamide

monohydrochloride

RN: 1473-73-0 MF: C₁₀H₁₄N₄O₂ · HCl MW: 258.71 EINECS: 216-013-1



Reference(s):

DE 1 129 492 (Bracco; appl. 23.6.1960; CH-prior. 31.7.1959).

Formulation(s): amp. 1 g; tabl. 500 mg (as hydrochloride)

Trade Name(s):

F: Piazoline (Beytout); wfm I: Piazofolina (Bracco)

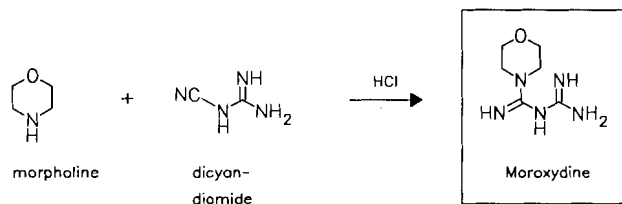
Moroxydine

ATC: J05AX01

Use: antiviral, influenza therapeutic

RN: 3731-59-7 MF: C₆H₁₃N₅O MW: 171.20 EINECS: 223-093-1

CN: N-(aminoiminomethyl)-4-morpholinecarboximidamide

monohydrochlorideRN: 3160-91-6 MF: $C_6H_{13}N_5O \cdot HCl$ MW: 207.67 EINECS: 221-612-6LD₅₀: 325 mg/kg (M, i.v.); >6.25 g/kg (M, p.o.)**Reference(s):**

GB 776 176 (A. B. Kabi; appl. 1954; S-prior. 1953).

Formulation(s): tabl. 100 mg, 400 mg (as hydrochloride)**Trade Name(s):**

D:	Flumidin (Kabi); wfm	Anrus (Towa S.-Aoi)	Pathin (Tokyo Tanabe)
F:	Assur (Delagrange)-comb.; wfm	Enless (Zeria)	Sanflumin (Sanwa)
	Virustat (Delagrange); wfm	Flue (Kobayashi Kako)	Tamaxin (Sawai)
J:	ABOB (Nichiiiko; Sankyo)	Infermine (Hokuriku)	Vilusron (Kanto)
	Aboryl (Taisho)	Nicefull (Kyorin)	Virusmin (Sumitomo)
		Pansil (Iwaki)	Virusmohin (Mohan)

Morphine

(Morphium)

ATC: N02AA01

Use: analgesic, sedative

RN: 57-27-2 MF: $C_{17}H_{19}NO_3$ MW: 285.34 EINECS: 200-320-2LD₅₀: 135 mg/kg (M, i.v.); 524 mg/kg (M, p.o.);

140 mg/kg (R, i.v.); 335 mg/kg (R, p.o.);

133 mg/kg (dog, i.v.)

CN: (5 α ,6 α)-7,8-didehydro-4,5-epoxy-17-methylmorphinan-3,6-diol**hydrochloride**RN: 52-26-6 MF: $C_{17}H_{19}NO_3 \cdot HCl$ MW: 321.80 EINECS: 200-136-2LD₅₀: 180 mg/kg (M, i.v.); 745 mg/kg (M, p.o.);

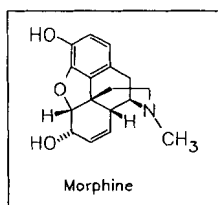
265 mg/kg (R, i.v.); 335 mg/kg (R, p.o.);

175 mg/kg (dog, i.v.)

sulfate (2:1)RN: 64-31-3 MF: $C_{17}H_{19}NO_3 \cdot 1/2H_2SO_4$ MW: 668.76 EINECS: 200-582-8LD₅₀: 156 mg/kg (M, i.v.); 600 mg/kg (M, p.o.);

70 mg/kg (R, i.v.); 461 mg/kg (R, p.o.);

316 mg/kg (dog, i.v.)



By extraction of poppy-heads or opium with water, precipitation with aqueous Na_2CO_3 -solution, washing of the precipitate with ethanol and dissolving in diluted acetic acid.

Reference(s):

Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. 3, 233.

newer methods:

DOS 2 726 925 (Knoll; appl. 15.6.1977).

isolation on ion-exchanger:

DOS 2 905 468 (Kutnowskie Zaklady Farmaceut. Polfa; appl. 13.2.1979; PL-prior. 15.2.1978).

Formulation(s): amp. 10 mg, 20 mg, 100 mg; s. r. cps. 10 mg, 20 mg, 30 mg, 50 mg, 60 mg, 100 mg; suppos. 10 mg, 20 mg, 30 mg (as sulfate)

Trade Name(s):

D:	Capros (Rhône-Poulenc Rorer; medac)		MXL (Napp; as sulfate)		MS Contin (Shionogi; as sulfate)
	Kapanol (Glaxo Wellcome)		Oramorph (Boehringer Ing.; as sulfate)	USA:	Duramorph (Elkins-Sinn; as sulfate)
	MST Mundipharma (Mundipharma)		Rapiject (Evans; as sulfate)		Kadian (Zeneca; as sulfate)
	generic		Sevredol (Napp; as sulfate)		MS Contin (Purdue Frederick; as sulfate)
F:	Colchimax (Hoechst Houdé)-comb.	I:	Zomorph (Link; as sulfate)		MSIR (Purdue Frederick; as sulfate)
	Lamaline (Solvay Pharma)-comb.		Cardiostenol (Molteni)-comb.		OMS (Upsher-Smith; as sulfate)
	Morphine Meram sans conservateur (RPR Cooper)		MS Contin (ASTA Medica; as sulfate)		RMS Suppos. (Upsher-Smith; as sulfate)
	Moscontin (ASTA Medica)		Skenan (Ethypharm)		Roxanol (Roxane; as sulfate)
GB:	Cyclimorph (Glaxo Wellcome)-comb.	J:	numerous generics as hydrochloride		generics
	MST Continus (Napp)		Morphine Hydrochloride (Dainippon; Sankyo; Takeda; Tanabe)		

Mosapramine

ATC: N05AX10

Use: neuroleptic, metabolite of clocapramine, combined 5-HT/dopamine receptor antagonist

RN: 89419-40-9 MF: $\text{C}_{28}\text{H}_{35}\text{ClN}_4\text{O}$ MW: 479.07

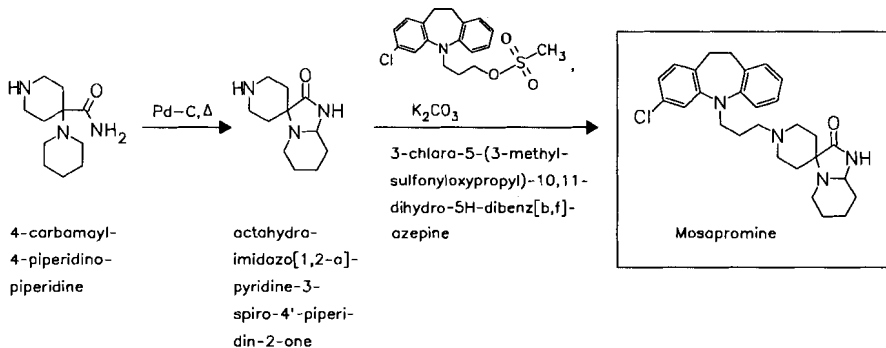
LD₅₀: 74 mg/kg (M, i.p.); 1008 mg/kg (M, p.o.); 1147 mg/kg (M, s.c.); 201 mg/kg (R, i.p.); 4912 mg/kg (R, p.o.)

CN: (\pm)-1'-[3-(3-chloro-10,11-dihydro-5H-dibenz[b,f]azepin-5-yl)propyl]hexahydrospiro[imidazo[1,2-a]pyridine-3(2H),4'-piperidin]-2-one

dihydrochloride

RN: 98043-60-8 MF: $\text{C}_{28}\text{H}_{35}\text{ClN}_4\text{O} \cdot 2\text{HCl}$ MW: 551.99

LD₅₀: 1008 mg/kg (M, p.o.); 4912 mg/kg (R, p.o.)

**Reference(s):**

EP 73 845 (Yoshitomi; appl. 3.9.1981).

US 4 337 260 (Yoshitomi; 29.6.1982; appl. 10.9.1981).

DE 3 170 724 (Yoshitomi; appl. 3.9.1981).

Tashiro, Ch. et al.: Yakugaku Zasshi (YKKZAJ) **109**, 93 (1989); C.A. (CHABA8) **112**, 35749j (1989).**sustained-release microsphere:**

WO 9 410 982 (Yoshitomi Pharm.; appl. 15.11.1993; J-prior. 17.11.1992).

Formulation(s): tabl. 10 mg, 15 mg, 25 mg (as dihydrochloride)**Trade Name(s):**

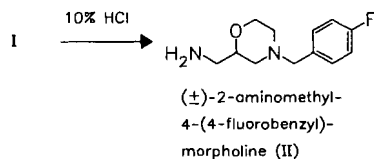
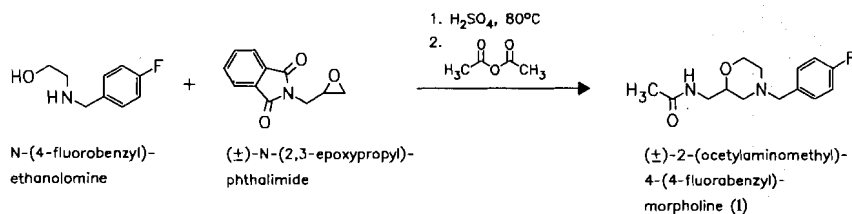
J: Cremin (Yoshitomi; 1989)

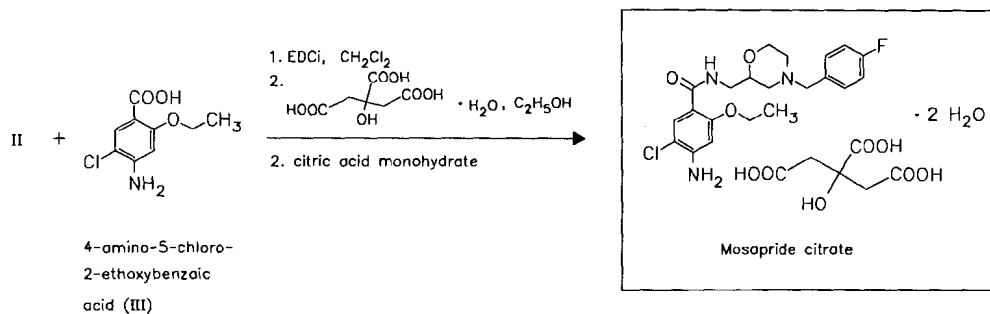
Mosapride citrate

(AS-4370)

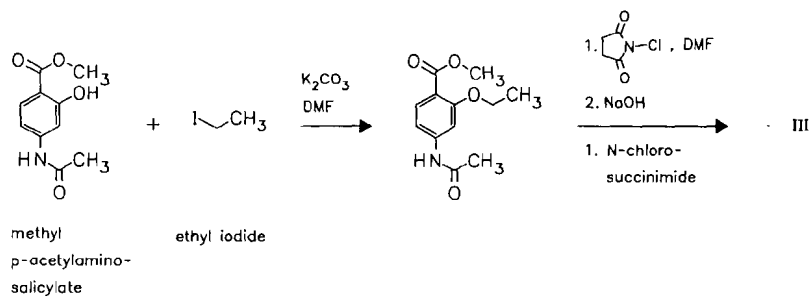
Use: 5-HT₄-agonist, promotility agent, treatment of gastroesophageal reflux diseaseRN: 112885-42-4 MF: C₂₁H₂₅ClFN₃O₃ MW: 421.90

CN: 4-Amino-5-chloro-2-ethoxy-N-[[4-[(4-fluorophenyl)methyl]-2-morpholinyl]methyl]benzamide citrate





intermediate III can be prepared from



Reference(s):

EP 243 959 (Dainippon Pharm.; appl. 29.4.1987; J-prior. 30.4.1986).

Kato, S. et al.: J. Med. Chem. (JMCMAR) **34** (2), 616 (1991).

Kato, S. et al.: Chem. Pharm. Bull. (CPBTAL) **40** (6), 1470 (1992).

optical isomers:

Morie, T. et al.: Chem. Pharm. Bull. (CPBTAL) **42** (4), 877 (1994).

Morie, T. et al.: Heterocycles (HTCYAM) **38** (5), 1033 (1994).

oral dosage form with a proton pump inhibitor:

WO 9 725 065 (Astra; 17.7.1997; appl. 20.12.1996; S-prior. 8.1.1996)

Formulation(s): powder 10 mg/g (as citrate); tabl. 2.5 mg, 5 mg

Trade Name(s):

J: Gasmotin (Dainippon; 1998)

Moxaverine

ATC: G04BE

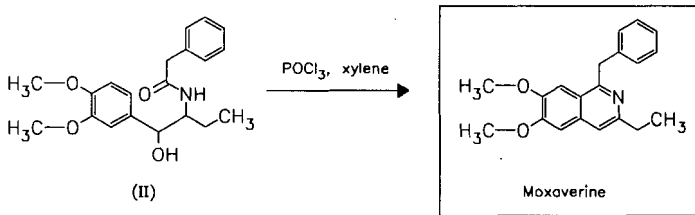
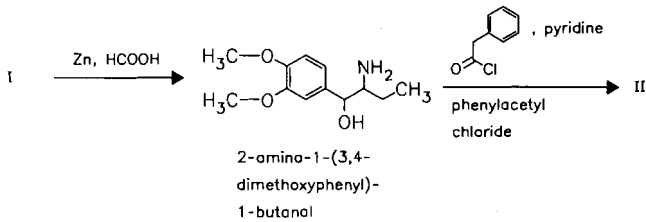
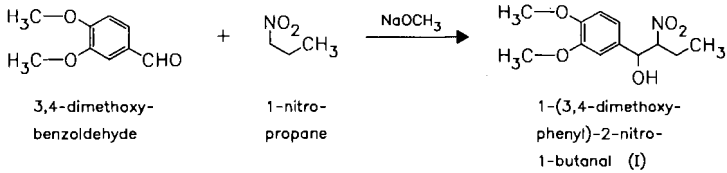
Use: antispasmodic

RN: 10539-19-2 MF: C₂₀H₂₁NO₂ MW: 307.39 EINECS: 234-117-5

CN: 3-ethyl-6,7-dimethoxy-1-(phenylmethyl)isoquinoline

hydrochloride

RN: 1163-37-7 MF: C₂₀H₂₁NO₂ · HCl MW: 343.85 EINECS: 214-607-5

**Reference(s):**

GB 1 030 022 (Orgamol; appl. 7.5.1963; CH-prior. 16.6.1962).

Formulation(s): amp. 150 mg/5 ml; drg. 100 mg, 150 mg (as hydrochloride)

Trade Name(s):

D: Certonal (Sertürner)

Kallaterol (Ursapharm)-
comb.

I: Kollateral (Ursapharm)
Eupaverina (Bracco); wfm

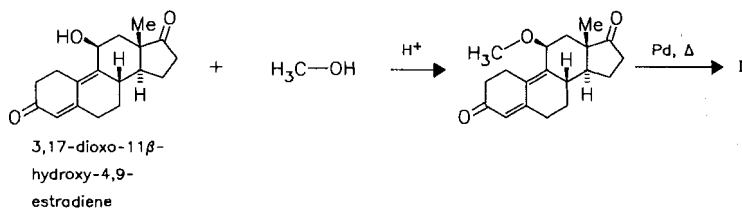
Moxestrol

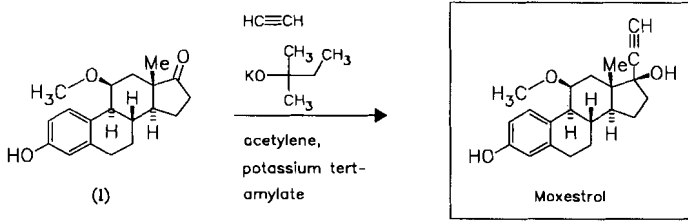
ATC: G03CB04

Use: estrogen

RN: 34816-55-2 MF: $\text{C}_{21}\text{H}_{26}\text{O}_3$ MW: 326.44

CN: (11 β ,17 α)-11-methoxy-19-norpregna-1,3,5(10)-trien-20-yne-3,17-diol





Reference(s):

US 3 579 545 (Roussel-Uclaf; 18.5.1971; F-prior. 7.9.1966, 9.12.1966, 28.2.1967, 9.3.1967).
 FR-M 6 182 (Roussel-Uclaf; appl. 28.2.1967).
 Azadian-Boulanger, G.; Bertin, D.: *Chim. Ther. (CHTPBA)* **8**, 451 (1973).

starting material:

Joly, R. et al.: *C. R. Seances Acad. Sci., Ser. C (CHDCAQ)* **258**, 5669 (1964) (total synthesis).

Formulation(s): tabl. 50 µg

Trade Name(s):

F: Surestryl (Roussel-Uclaf)

Moxifloxacin hydrochloride

(Bay-12-8039)

ATC: J01MA14

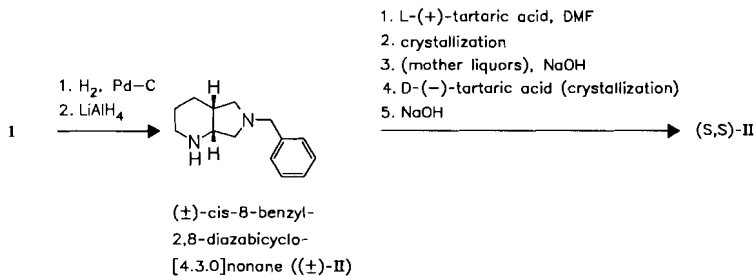
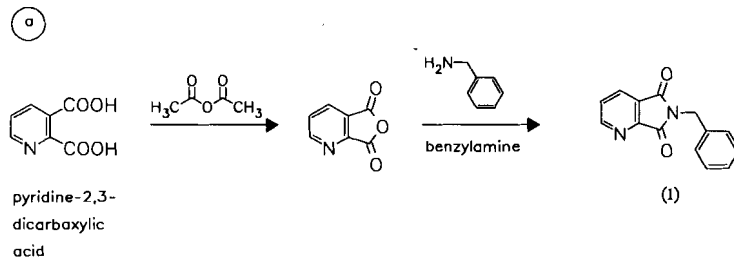
Use: fluoroquinolone antibacterial

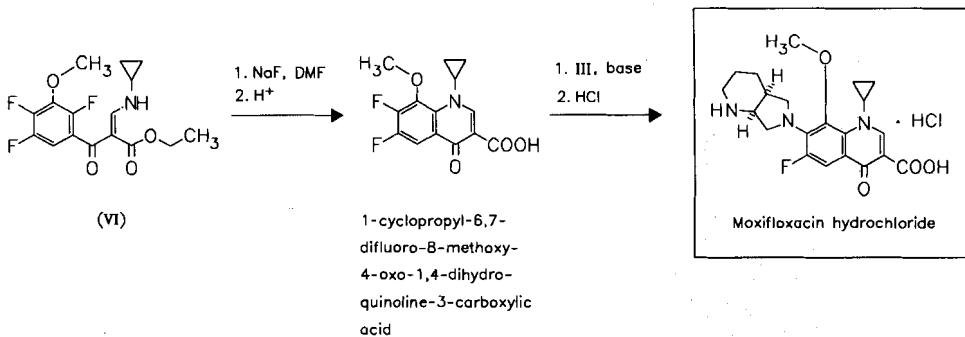
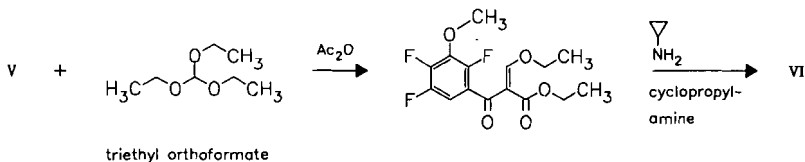
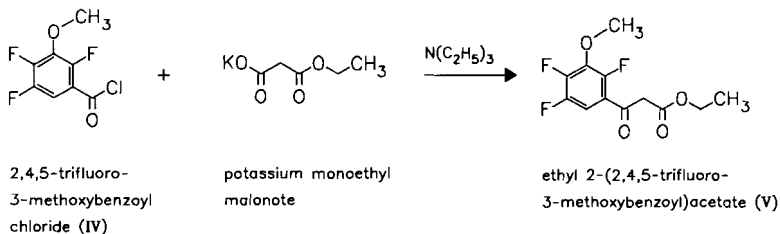
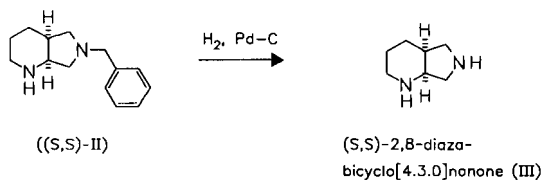
RN: 186826-86-8 MF: $\text{C}_{21}\text{H}_{24}\text{FN}_3\text{O}_4 \cdot \text{HCl}$ MW: 437.90

CN: 1-Cyclopropyl-6-fluoro-1,4-dihydro-8-methoxy-7-[(4a*S*,7a*S*)-octahydro-6*H*-pyrrolo[3,4-*b*]pyridin-6-yl]-4-oxo-3-quinolinecarboxylic acid

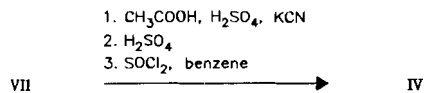
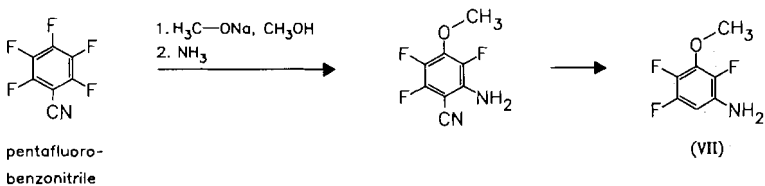
base

RN: 151096-09-2 MF: $\text{C}_{21}\text{H}_{24}\text{FN}_3\text{O}_4$ MW: 401.44

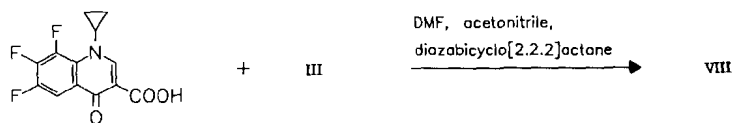




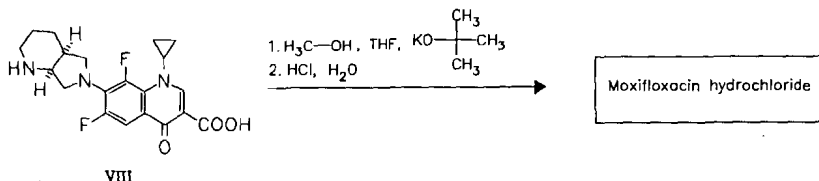
aa synthesis of IV



(b)



1-cyclopropyl-6,7,8-
trifluoro-1,4-dihydro-
4-oxo-3-quinoline-
carboxylic acid



Reference(s):

- a DE 4 208 792 (Bayer AG; appl. 19.3.1992; D-prior. 19.3.1992).
 aa EP 241 206 (Sankyo; appl. 31.3.1987; J-prior. 31.3.1986).
 b EP 550 903 (Bayer AG; appl. 28.12.1992; D-prior. 19.3.1992).
 DE 19 751 948 (Bayer AG; appl. 24.11.1997; D-prior. 24.11.1997).

formulation with controlled release of moxifloxacin:

DE 19 546 249 (Bayer AG; appl. 12.12.1995; D-prior. 12.12.1995).

Formulation(s): f. c. tabl. 400 mg

Trade Name(s):

D: Avalox (Bayer)

Avelox (Bayer; 1999)

Tovan (Bayer AG)

Moxisylyte

(Thymoxamine)

ATC: C04AX10

Use: vasodilator (peripheral)

RN: 54-32-0 MF: C₁₆H₂₅NO₃ MW: 279.38 EINECS: 200-204-1

LD₅₀: 225 mg/kg (M, p.o.)

CN: 4-[2-(dimethylamino)ethoxy]-2-methyl-5-(1-methylethyl)phenol acetate (ester)

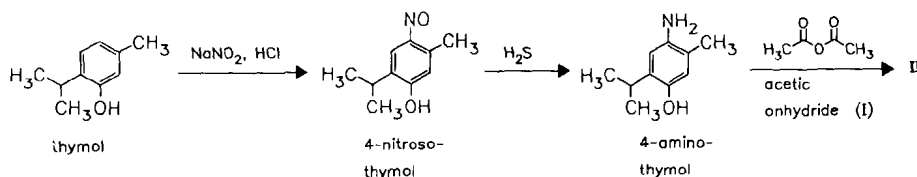
hydrochloride

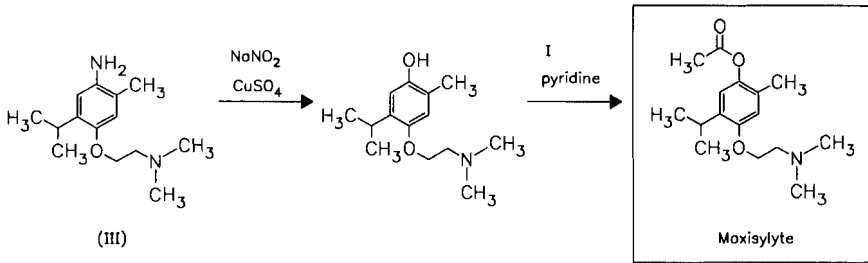
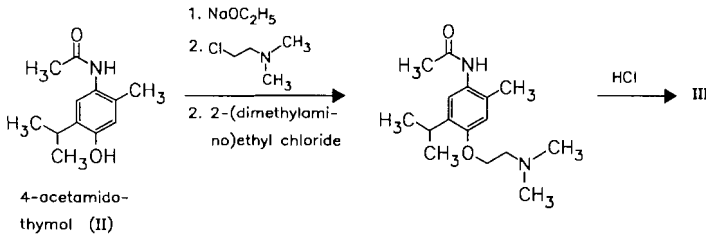
RN: 964-52-3 MF: C₁₆H₂₅NO₃ · HCl MW: 315.84 EINECS: 213-519-4

LD₅₀: 28 mg/kg (M, i.v.); 225 mg/kg (M, p.o.);

32 mg/kg (R, i.v.); 740 mg/kg (R, p.o.);

54.5 mg/kg (dog, i.v.)



**Reference(s):**

DE 905 738 (Diwag; appl. 1943).

combination with steroids (e. g. for treatment of asthma):

GB 1 535 531 (W. R. Warner & Co.; appl. 17.10.1975; valid from 15.10.1976).

Formulation(s): drg. 30 mg; tabl. 30 mg, 40 mg, 60 mg, 120 mg (as hydrochloride)**Trade Name(s):**

D:	Vasoklin (Gödecke); wfm	Icavex (ASTA Medica)	J:	Moxyl (Fujirebio)
F:	Carlytène (ASTA Medica)	GB: Erecnos (Fournier)		Thimozil (Kohjin)
	Erecnos (Débat)	I:	Arlitene (ASTA Medica)	

Moxonidine

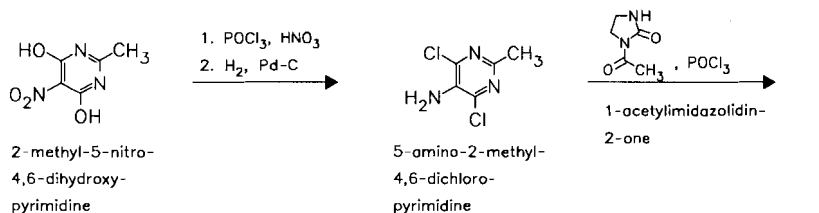
(BDF-5895)

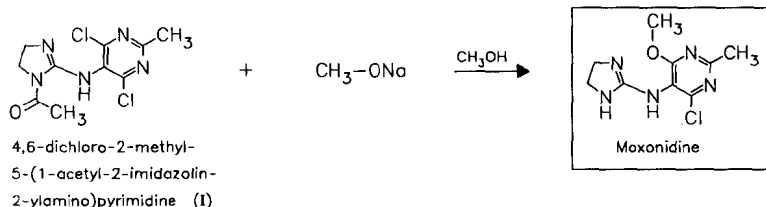
ATC: C02AC05

Use: antihypertensive, presynaptic α_2 -adrenoceptor agonistRN: 75438-57-2 MF: C₉H₁₂ClN₅O MW: 241.68LD₅₀: 320 mg/kg (M, p.o.);

115 mg/kg (Rf, p.o.); 143 mg/kg (Rm, p.o.)

CN: 4-chloro-N-(4,5-dihydro-1H-imidazol-2-yl)-6-methoxy-2-methyl-5-pyrimidinamine



**Reference(s):**

DOS 2 849 537 (Beiersdorf; appl. 15.11.1978).

DOS 2 937 023 (Beiersdorf; appl. 13.9.1979).

synthesis of 5-amino-2-methyl-4,6-dichloropyrimidine:Huber, W.; Hölscher, H.A.: Chem. Ber. (CHBEAM) **71B**, 87 (1938).Ochiai, E.; Kashida, Y.: Yakugaku Zasshi (YKKZAJ) **62**, 97 (1942).**medical use for promoting growth:**

DOS 3 904 795 (Beiersdorf; appl. 17.2.1989).

combination with hydrochlorothiazide, triamterene:

EP 317 855 (Beiersdorf; appl. 12.11.1988; D-prior. 24.11.1987).

Formulation(s): f. c. tabl. 0.2 mg, 0.3 mg, 0.4 mg**Trade Name(s):**D: Cynt (Beiersdorf-Lilly/
Lilly; 1991)Physiotens (Solvay
Arzneimittel; 1991)F: Physiotens (Solvay
Pharma)

GB: Physiotens (Solvay)

Mupirocin

(Pseudomonic acid)

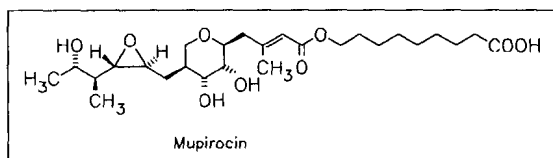
ATC: D06AX09; R01AX06

Use: antibiotic

RN: 12650-69-0 MF: C₂₆H₄₄O₉ MW: 500.63LD₅₀: 1638 mg/kg (M, i.v.); 5 g/kg (M, p.o.);

1310 mg/kg (R, i.v.); 5 g/kg (R, p.o.)

CN: [2S-[2α(E),3β,4β,5α[2R*,3R*(1R*,2R*)]]]-9-[[3-methyl-1-oxo-4-[tetrahydro-3,4-dihydroxy-5-[[3-(2-hydroxy-1-methylpropyl)oxiranyl]methyl]-2H-pyran-2-yl]-2-butenyl]oxy]nonanoic acid

Fermentation of *Pseudomonas fluorescens* NCIB 10586.**Reference(s):**

DE 2 227 739 (Beecham; GB-prior. 12.6.1971).

US 3 977 943 (Beecham; 31.8.1976; appl. 7.7.1975; prior. 27.3.1974).

US 4 071 536 (Beecham; 31.1.1978; prior. 12.6.1971).

Fuller, A.T. et al.: Nature (London) (NATUAS) **234**, 416 (1971).**structure:**Chain, E.B. et al.: J. Chem. Soc., Chem. Commun. (JCCCAT) **20**, 847 (1974).

Formulation(s): cream 20 mg/g; ointment 2 % (as calcium salt)

Trade Name(s):

D:	Turixin (SmithKline Beecham)	GB:	Bactroban (SmithKline Beecham)	J:	Bactroban (SmithKline Beecham)
F:	Bactroban (SmithKline Beecham; 1985)	I:	Bactroban (SmithKline Beecham)	USA:	Bactroban (SmithKline Beecham; 1988)

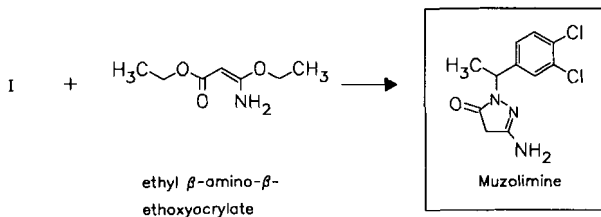
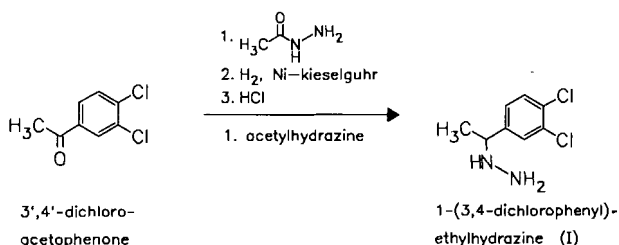
Muzolimine

ATC: C03CD01

Use: diuretic

RN: 55294-15-0 MF: C₁₁H₁₁Cl₂N₃O MW: 272.14 EINECS: 259-573-2

CN: 5-amino-2-[1-(3,4-dichlorophenyl)ethyl]-2,4-dihydro-3H-pyrazol-3-one



Reference(s):

DE 2 366 559 (Bayer; prior. 17.4.1973).

DOS 2 363 139 (Bayer; appl. 19.12.1973).

Möller, E.; Horstmann, H.; Meng, K.: Pharmatherapeutica (PHARDW) **1**, 540 (1977).

US 3 957 814 (Bayer; 18.5.1976; appl. 15.4.1974; D-prior. 17.3.1973).

synthesis of 1-(3,4-dichlorophenyl)ethylhydrazine:

DE 1 003 215 (Hoechst; appl. 1954).

Houben-Weyl **10/2**, 47.

Formulation(s): tabl. 20.7 mg, 31 mg, 248 mg

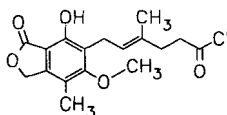
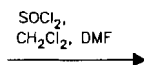
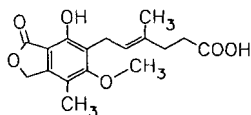
Trade Name(s):

D:	Edrul (Zyma/Bayer; 1985); wfm	I:	Edrul (Bayropharm; 1983); wfm
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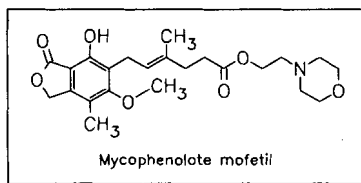
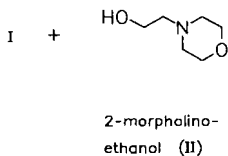
Mycophenolate mofetil

(ME-MPA; RS-61443)

ATC: L04AA06

Use: anti-inflammatory,
immunosuppressiveRN: 128794-94-5 MF: C₂₃H₃₁NO₇ MW: 433.50CN: (E)-6-(1,3-dihydro-4-hydroxy-6-methoxy-7-methyl-3-oxo-5-isobenzofuranyl)-4-methyl-4-hexenoic acid
2-(4-morpholinyl)ethyl ester**hydrochloride**RN: 116680-01-4 MF: C₂₃H₃₁NO₇ · HCl MW: 469.96

(E)-6-(1,3-dihydro-4-hydroxy-6-methoxy-7-methyl-3-oxo-5-isobenzofuranyl)-4-methyl-4-hexenoic acid

mycophenolic acid
chloride (I)**Reference(s):**

US 4 727 069 (Syntex; appl. 30.1.1987; USA-prior. 30.1.1987).

preparation by azeotropic water removal from I and II:

US 5 247 083 (Syntex; appl. 10.7.1992; USA-prior. 10.7.1992).

treatment of allograft rejection:

US 4 786 637 (Syntex; appl. 22.1.1988; USA-prior. 30.1.1987, 4.9.1987, 22.1.1988, 17.8.1988).

immunoassays for mycophenolic acid derivatives:

WO 9 602 004 (Behringwerke AG; appl. 29.6.1995; USA-prior. 7.7.1994).

high dose oral suspension:

WO 9 509 626 (Syntex; appl. 27.9.1994; USA-prior. 1.10.1993).

high-dosage unit formulation obtained by hot-melt filling:

WO 9 426 266 (Syntex; appl. 10.5.1994; USA-prior. 13.5.1993).

intravenous formulation using crystalline anhydrous mycophenolate mofetil:

WO 9 507 902 (Syntex; appl. 12.9.1994; USA-prior. 15.9.1993).

combination of immunosuppressives:

WO 9 202 229 (SmithKline Beecham Corp.; appl. 7.8.1991; USA-prior. 10.8.1990, 5.12.1990).

WO 9 119 498 (Du Pont Merck; appl. 5.6.1991; USA-prior. 6.11.1990).

Formulation(s): cps. 250 mg; tabl. 500 mg**Trade Name(s):**

D: CellCept (Roche)

GB: CellCept (Roche)

USA: CellCept (Roche)

F: CellCept (Produits Roche)

I: CellCept (Roche)

Mycophenolic acid

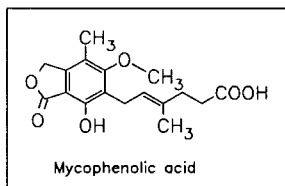
ATC: L04AA06

Use: antibiotic, antineoplastic, antiviral

RN: 24280-93-1 MF: C₁₇H₂₀O₆ MW: 320.34 EINECS: 246-119-3LD₅₀: 1 g/kg (M, p.o.);

450 mg/kg (R, i.v.); 352 mg/kg (R, p.o.)

CN: (E)-6-(1,3-dihydro-4-hydroxy-6-methoxy-7-methyl-3-oxo-5-isobenzofuranyl)-4-methyl-4-hexenoic acid

By fermentation of *Penicillium stoloniferum*.*Reference(s):*

BE 862 618 (Lilly; appl. 4.1.1978; USA-prior. 21.3.1977).

GB 1 157 099 (ICI; valid from 31.7.1967; prior. 27.9.1966, 13.6.1967).

*structure:*Logan, W.R.; Newbold, G.T.: J. Chem. Soc. (JCSOA9) **1957**, 1946.*use as immunosuppressive and anticancer agent:*Williams, R.H.: J. Antibiot. (JANTAJ) **21**, 463 (1968).Suzuki, S. et al.: J. Antibiot. (JANTAJ) **22**, 297 (1969).

GB 1 157 100 (ICI; valid from 2.8.1967; prior. 27.9.1966).

*antiviral activity:*Ando, K. et al.: J. Antibiot. (JANTAJ) **21**, 649 (1968).*total synthesis:*Birch, A.J.: J. Chem. Soc., Chem. Commun. (JCCCAT) **1969**, 788.Canonica, L. et al.: Tetrahedron Lett. (TELEAY) **1971**, 2691.*review:*Carter, S.B. et al.: Nature (London) (NATUAS) **223**, 848 (1969).*Trade Name(s):*

USA: Melbex (Lilly); wfm

Myrtecaine

(Nopoxamine)

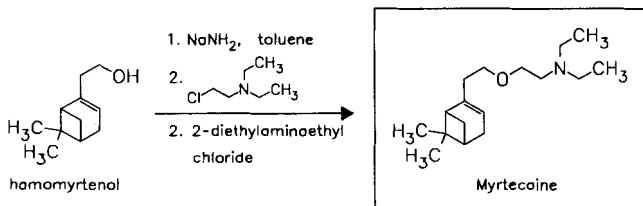
ATC: N01B

Use: local anesthetic, antispasmodic

RN: 7712-50-7 MF: C₁₇H₃₁NO MW: 265.44 EINECS: 231-735-7LD₅₀: 48 mg/kg (M, i.v.)

CN: 2-[2-(6,6-dimethylbicyclo[3.1.1]hept-2-en-2-yl)ethoxy]-N,N-diethylethanamine

lauryl sulfateRN: 76157-55-6 MF: C₁₇H₃₁NO · C₁₂H₂₆O₄S MW: 531.84

*Reference(s):*

GB 861 900 (O. P. Gaudin; appl. 1959).

Formulation(s): chewing tabl. 2.5 mg (as lauryl sulfate); cream 1 g/100 g, 10 g/100 g; tabl. 2.5 mg

Trade Name(s):

D: Acidrine (Solvay Pharma)-
comb.

Algesal (Solvay Pharma)-
comb.

Algesalona (Solvay
Pharma)-comb.

F: Acidrine (Solvay Pharma)-
comb.

Algésal Suractivé (Solvay
Pharma)-comb.

I: Acidrine (Solvay Pharma)-
comb.

Nabilone

ATC: A04

Use: anti-emetic, controlled substance

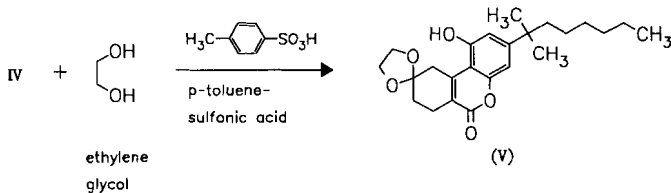
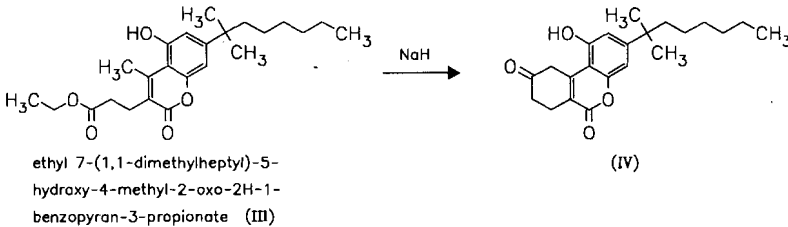
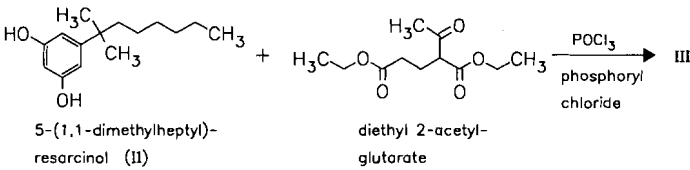
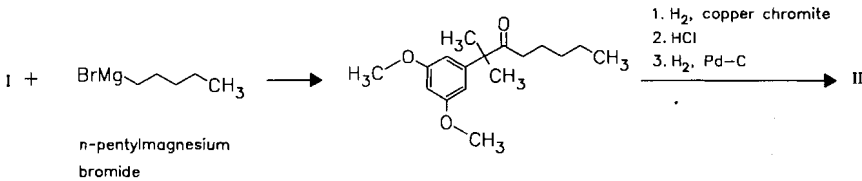
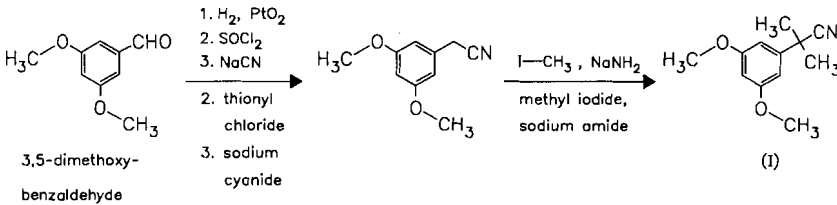
RN: 51022-71-0 MF: C₂₄H₃₆O₃ MW: 372.55

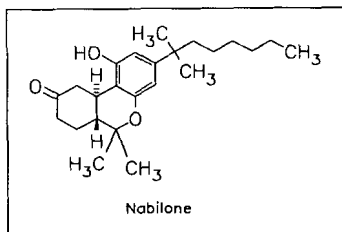
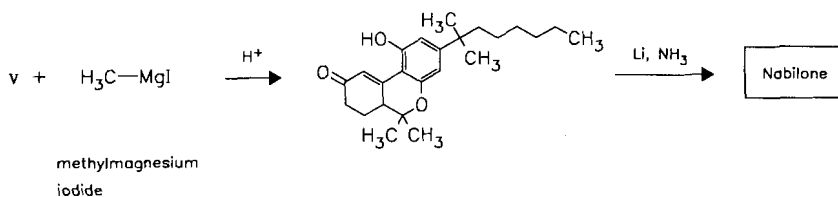
LD₅₀: >1000 mg/kg (M, p.o.);

>1000 mg/kg (R, p.o.);

>1 mg/kg (dog, i.v.); >5 mg/kg (dog, p.o.)

CN: *trans*-(±)-3-(1,1-dimethylheptyl)-6,6a,7,8,10,10a-hexahydro-1-hydroxy-6,6-dimethyl-9*H*-dibenzo[*b,d*]pyran-9-one



**Reference(s):**

DOS 2 451 934 (Eli Lilly; appl. 31.10.1974; USA-prior. 5.11.1973).
 DOS 2 451 932 (Eli Lilly; appl. 31.10.1974; USA-prior. 5.11.1973).
 US 3 944 673 (Eli Lilly; 16.3.1976; prior. 23.5.1975, 5.11.1973).
 US 3 928 598 (Eli Lilly; 23.12.1975; prior. 5.11.1973).
 US 3 953 603 (Eli Lilly; 27.4.976; prior. 5.11.1973, 1.5.1974).

synthesis of 5-(1,1-dimethylheptyl)resorcinol:

Adams, R. et al.: J. Am. Chem. Soc. (JACSAT) **70**, 664 (1948).

Formulation(s): cps. 1 mg

Trade Name(s):

GB: Cesamet (Lilly); wfm

Nabumetone

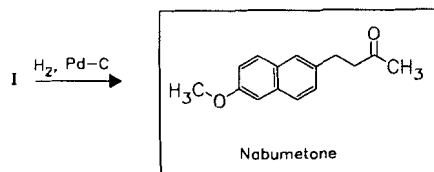
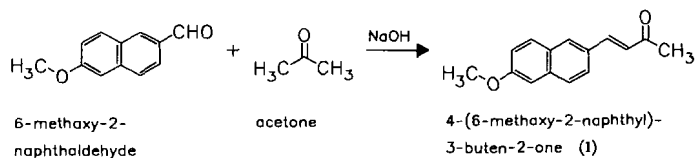
ATC: M01AX01

Use: analgesic, anti-inflammatory (NSAI)

RN: 42924-53-8 MF: $\text{C}_{15}\text{H}_{16}\text{O}_2$ MW: 228.29

LD₅₀: 2380 mg/kg (M, i.p.); 4290 mg/kg (M, p.o.);
1520 mg/kg (R, i.p.); 3880 mg/kg (R, p.o.)

CN: 4-(6-methoxy-2-naphthalenyl)-2-butanone



Reference(s):

DE 2 463 219 (Beecham; appl. 4.9.1974; GB-prior. 11.9.1973).
 DE 2 442 305 (Beecham; appl. 4.9.1974; GB-prior. 11.9.1973).
 US 4 061 779 (Beecham; 6.12.1977; GB-prior. 11.9.1973).
 US 4 420 639 (Beecham; 13.12.1983; GB-prior. 11.9.1973).

alternative syntheses:

EP 376 516 (Hoechst Celanese; appl. 7.12.1989; USA-prior. 8.12.1988).
 JP 2 101 038 (Beecham; appl. 19.12.1988; GB-prior. 10.7.1988, 19.12.1987).
 ES 8 507 452 (Bioiberica; appl. 28.9.1984).
 Govdic, A.C. et al.: J. Med. Chem. (JMCMAR) **21**, 1260 (1978).
 Prabhakar, C. et al.: Org. Process Res. Dev. (OPRDFK) **3**, 121 (1999).

topical formulation:

EP 167 062 (Beecham; appl. 19.6.1985; GB-prior. 29.6.1984).

Formulation(s): susp. 500 mg/5 ml; f. c. tabl. 500 mg, 750 mg

Trade Name(s):

D:	Arthaxan (SmithKline Beecham; 1987); wfm	I:	Artaxan (SmithKline Beecham)	J:	Relifen (Fujisawa; 1990)
GB:	Relifex (Bencard; 1987)		Nabuser (Procter & Gamble)	USA:	Relafen (SmithKline Beecham)

Nadolol

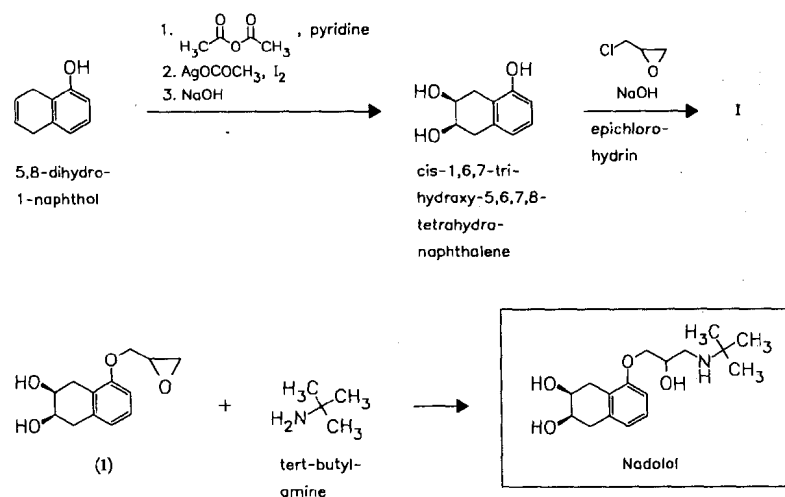
ATC: C07AA12; C07BA

Use: beta blocking agent, antihypertensive

RN: 42200-33-9 MF: C₁₇H₂₇NO₄ MW: 309.41 EINECS: 255-706-3

LD₅₀: 47.1 mg/kg (M, i.v.); 3800 mg/kg (M, p.o.);
 59.2 mg/kg (R, i.v.); 5300 mg/kg (R, p.o.);
 >500 mg/kg (dog, p.o.)

CN: *cis*-5-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-1,2,3,4-tetrahydro-2,3-naphthalenediol



Reference(s):

Condon, M.E. et al.: J. Med. Chem. (JMCMAR) **21**, 913 (1978).
 US 3 935 267 (Squibb; 27.1.1976; prior. 22.6.1970, 1.12.1971).
 US 3 982 021 (Squibb; 21.9.1976; prior. 22.6.1970, 1.12.1971, 9.10.1975).
 US 4 156 789 (Squibb; 29.5.1979; prior. 22.6.1970, 1.12.1971, 9.10.1975).
 DOS 2 258 995 (Squibb; appl. 1.12.1972; USA-prior. 1.12.1971).
 DAS 2 130 393 (Squibb; appl. 18.6.1971; USA-prior. 22.6.1970).
 DOS 2 421 549 (Squibb; appl. 3.5.1974; USA-prior. 3.5.1973).

starting material:

Gutsche, C.D. et al.: Org. Synth. (ORSYAT), Coll. Vol. IV, 887.

Formulation(s): tabl. 20 mg, 40 mg, 60 mg, 80 mg, 120 mg

Trade Name(s):

D:	Solgol (Bristol-Myers Squibb; 1978)		Corgaretic (Sanofi Winthrop)-comb.	USA:	Corgard (Bristol-Myers Squibb; 1979); wfm
F:	Corgard (Sanofi Winthrop; 1982)	I:	Corgard (Bristol-Myers Squibb)		Corgard (Squibb); wfm
GB:	Corgard (Sanofi Winthrop; 1979)	J:	Nadic (Dainippon) Nadolol (Squibb)		Corzide (Squibb); wfm Nadolol (Mydal) generic

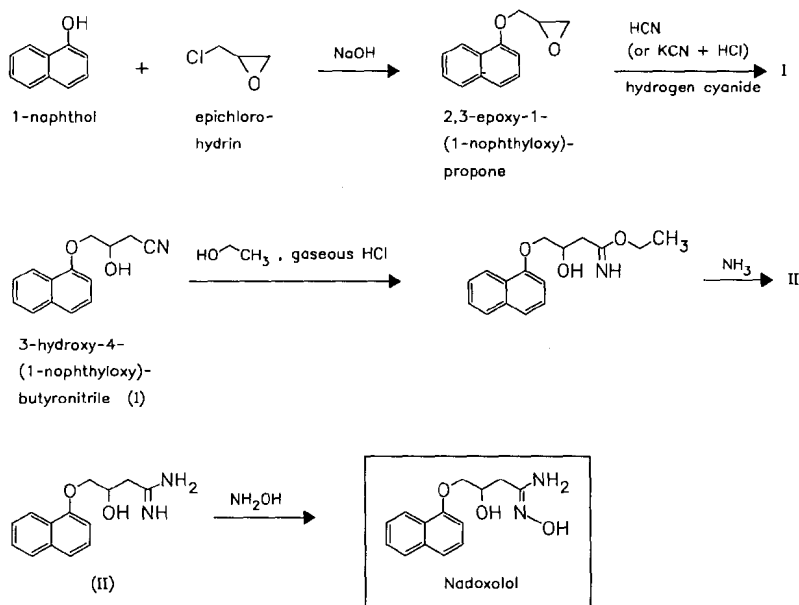
Nadoxolol

ATC: C01B
 Use: antiarrhythmic

RN: 54063-51-3 MF: C₁₄H₁₆N₂O₃ MW: 260.29
 CN: N,3-dihydroxy-4-(1-naphthalenyloxy)butanimidamide

monohydrochloride

RN: 35991-93-6 MF: C₁₄H₁₆N₂O₃ · HCl MW: 296.75 EINECS: 252-825-2
 LD₅₀: 180 mg/kg (M, i.v.); 1 g/kg (M, p.o.)

**Reference(s):**

DOS 2 166 869 (Orsymonde; appl. 28.6.1971; F-prior. 29.6.1970, 1.4.1971).

Formulation(s): tabl. 250 mg (as hydrochloride)

Trade Name(s):

F: Bradyl 250 (Lafon)

Nafamostat

(FUT-175; Nafamstat)

ATC: V03A

Use: protease inhibitor, treatment of acute pancreatitis

RN: 81525-10-2 MF: $C_{19}H_{17}N_5O_2$ MW: 347.38

CN: 4-[(aminoiminomethyl)amino]benzoic acid 6-(aminoiminoethyl)-2-naphthalenyl ester

dihydrochloride

RN: 80251-32-7 MF: $C_{19}H_{17}N_5O_2 \cdot 2HCl$ MW: 420.30

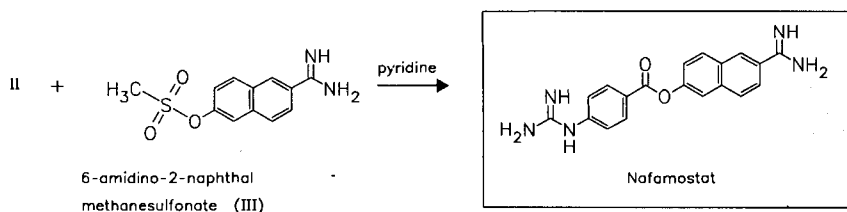
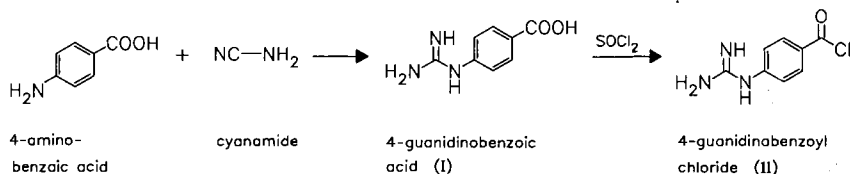
dimesylate

RN: 82956-11-4 MF: $C_{19}H_{17}N_5O_2 \cdot 2CH_4O_3S$ MW: 539.59

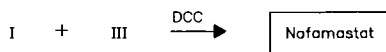
LD₅₀: 24.4 mg/kg (M, i.v.); 4600 mg/kg (M, p.o.);

162 mg/kg (R, i.p.); 16.4 mg/kg (R, i.v.); 3050 mg/kg (R, p.o.); 9200 mg/kg (R, s.c.)

(a)



(b)



Reference(s):

EP 48 433 (Torii; appl. 15.9.1981; J-prior. 28.4.1981, 16.9.1980).

US 4 454 338 (Torii; 12.6.1984; appl. 9.9.1981; J-prior. 28.4.1981, 16.9.1980).

US 4 532 255 (Torii; 30.7.1985; prior. 20.1.1984; prior. 9.9.1981; J-prior. 28.4.1981, 16.9.1980).

Aoyama, T. et al.: Chem. Pharm. Bull. (CPBTAL) **33**, 1485 (1985).

synthesis of 4-guanidinobenzoic acid:

DE 950 552 (Hoechst; appl. 1956).

synthesis of 6-amidino-2-naphthol methanesulfonate:

JP 50 123 649 (Kyowa Hakko; appl. 15.3.1974).

Wagner, G. et al.: Pharmazie (PHARAT) **32**, 761 (1977).

Formulation(s): vial 10 mg, 50 mg (as dimesylate)

Trade Name(s):

J: Futhan (Torii; Banyu;
1986)

Nafcillin

ATC: J01C
Use: antibiotic

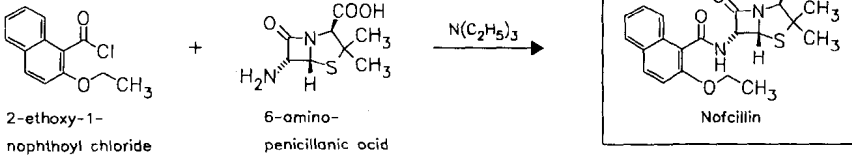
RN: 147-52-4 MF: $C_{21}H_{22}N_2O_5S$ MW: 414.48 EINECS: 205-690-9
CN: [2S-(2 α ,5 α ,6 β)]-6-[[[2-ethoxy-1-naphthalenyl]carbonyl]amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

monosodium salt

RN: 985-16-0 MF: $C_{21}H_{21}N_2NaO_5S$ MW: 436.46 EINECS: 213-574-4
LD₅₀: 1 g/kg (M, i.v.);
633 mg/kg (dog, i.v.)

monosodium salt monohydrate

RN: 7177-50-6 MF: $C_{21}H_{21}N_2NaO_5S \cdot H_2O$ MW: 454.48

*Reference(s):*

US 3 157 639 (Beecham; 17.11.1964; GB-prior. 19.8.1959).
GB 880 400 (Beecham; appl. 15.7.1959; 19.8.1959; addition to GB 870 395 from 15.7.1958).
US 3 248 386 (American Home Products; 26.4.1966; appl. 30.12.1960).

Formulation(s): cps. 250 mg; vial 500 mg, 1 g, 2 g (as monosodium salt monohydrate)

Trade Name(s):

USA: Unipen (Wyeth-Ayerst)

Naftidrofuryl

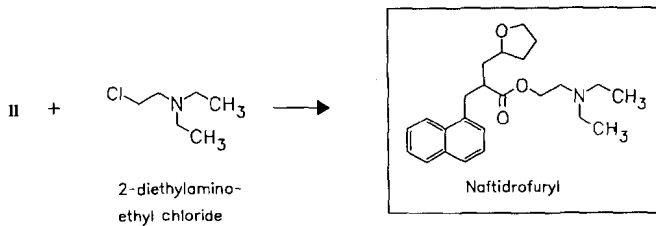
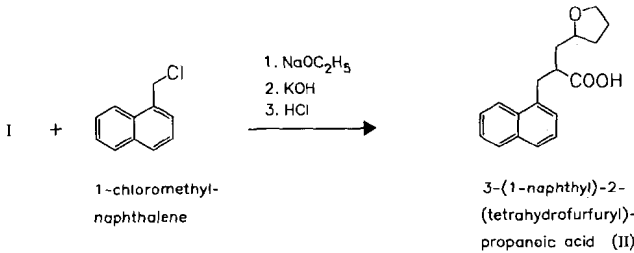
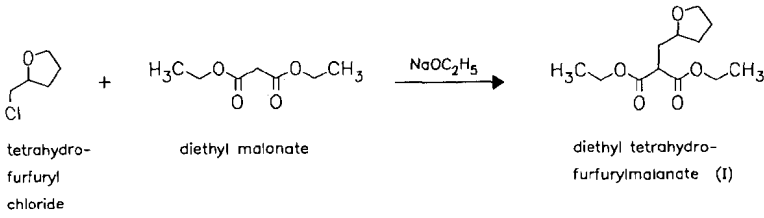
(Nafrolyl)

ATC: C04AX21
Use: vasodilator

RN: 31329-57-4 MF: $C_{24}H_{33}NO_3$ MW: 383.53 EINECS: 250-572-2
LD₅₀: 23 mg/kg (M, i.v.); 365 mg/kg (M, p.o.);
1890 mg/kg (R, p.o.)
CN: tetrahydro- α -(1-naphthalenylmethyl)-2-furanpropanoic acid 2-(diethylamino)ethyl ester

hydrogen oxalate

RN: 3200-06-4 MF: $C_{24}H_{33}NO_3 \cdot C_2H_2O_4$ MW: 473.57 EINECS: 221-703-0
LD₅₀: 18.4 mg/kg (M, i.v.); 567 mg/kg (M, p.o.);
11.08 mg/kg (R, i.v.); 711 mg/kg (R, p.o.)

**Reference(s):**

DAS 1 543 741 (Lipha; appl. 24.3.1964; F-prior. 28.3.1963).
 FR 1 363 948 (Lipha; appl. 28.3.1963).
 FR-M 3 843 (Lipha; appl. 17.3.1964).
 US 3 334 096 (Lipha; 1.8.1967; F-prior. 28.3.1963).

pharmaceutical formulation for retard form:

DOS 2 800 654 (Lipha; appl. 7.1.1978; F-prior. 13.1.1977).

Formulation(s): amp. 200 mg; cps. 100 mg; f. c. tabl. 200 mg; s. r. drg. 100 mg

Trade Name(s):

D:	Artocoron (Knoll)	Nafti (Isis Puren; ratiopharm)	GB:	Praxilène (Lipha Santé)
	Azunaftil (Azupharma)	Naftilong (Hexal)		Praxilene (Lipha; as oxalate)
	Dusodril (Lipha)		I:	Esdedril (Lipha)
	Luctor (Sanofi Winthrop)	F:		Praxilene (Formenti)
	nafti (ct-Arzneimittel)			

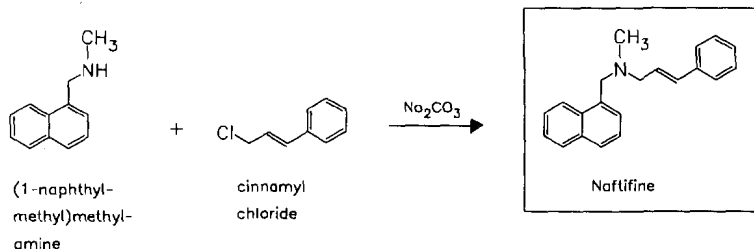
Naftifine
 (Naftifungin)

ATC: D01AE22

Use: antifungal

 RN: 65472-88-0 MF: C₂₁H₂₁N MW: 287.41

CN: (E)-N-methyl-N-(3-phenyl-2-propenyl)-1-naphthalenemethanamine

**Reference(s):**

DOS 2 716 943 (Sandoz; appl. 16.4.1977; CH-prior. 28.4.1976).

DOS 2 809 211 (Sandoz; appl. 3.3.1978).

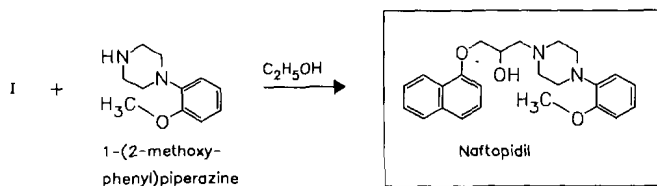
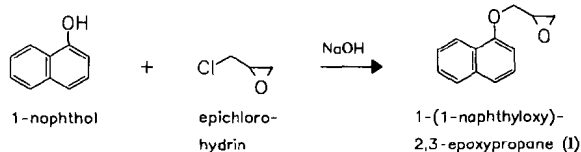
US 4 282 251 (Sandoz; CH-prior. 28.4.1976).

Formulation(s): cream 10 mg/g; gel 10 mg/g; sol. 10 mg/ml**Trade Name(s):**

D: Exoderil (Rentschler; 1985) I: Suadian (Schering) USA: Naftin (Allergan)

Naftopidil

(BM-15275; KT-611)

Use: α_1 -antagonist, treatment of dysuria/
BPH, antihypertensiveRN: 57149-07-2 MF: $\text{C}_{24}\text{H}_{28}\text{N}_2\text{O}_3$ MW: 392.50CN: 4-(2-Methoxyphenyl)- α -[(1-naphthalenyloxy)methyl]-1-piperazineethanol**Reference(s):**

DE 2 408 804 (Boehringer Mannheim; D-prior. 23.2.1974)

synthesis of potential metabolites:Kutscher, B. et al.: Arch. Pharm. (Weinheim, Ger.) (ARPMAS) **326** (10), 803-806 (1993).**use for the treatment of dysuria caused by BPH:**

EP 401 653 (Boehringer Mannheim; appl. 30.5.1990; D-prior. 7.6.1989).

combination for the treatment of impotence:

WO 9 930 697 (Pfizer; appl. 29.10.1998; USA-prior. 16.12.1997).

Formulation(s): tabl. 25 mg, 50 mg

Trade Name(s):

J: Flivas (Asahi Chemical)

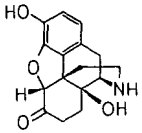
Nalbuphine

ATC: N02AF02

Use: morphine antagonist, analgesic

RN: 20594-83-6 MF: $C_{21}H_{27}NO_4$ MW: 357.45 EINECS: 243-901-6CN: (5 α ,6 α)-17-(cyclobutylmethyl)-4,5-epoxymorphinan-3,6,14-triol**hydrochloride**RN: 23277-43-2 MF: $C_{21}H_{27}NO_4 \cdot HCl$ MW: 393.91 EINECS: 245-549-9LD₅₀: 140 mg/kg (dog, i.v.); 1100 mg/kg (dog, p.o.)

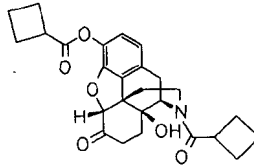
a



14-hydroxydihydro-
normorphinone (I)
(cf. naloxone synthesis)

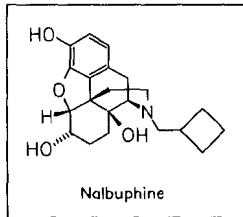
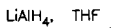


cyclobutane-
carbonyl
chloride

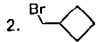


(II)

II



b

1. $NaBH_4$, C_2H_5OH 

2. 1. sodium borohydride

2. cyclobutylmethyl
bromide

Nalbuphine

Reference(s):

GB 1 119 270 (Endo; valid from 16.12.1966; USA-prior. 19.1.1966).

US 3 332 950 (Endo; 25.7.1967; prior. 6.12.1966, 15.5.1963, 23.3.1963).

Formulation(s): amp. 10 mg/ml, 20 mg/2 ml (as hydrochloride)**Trade Name(s):**

D: Nubain (Du Pont Pharma)

GB: Nubain (Du Pont)

F: Nubain (Du Pont)

USA: Nubain (Endo)

Nalidixic acid

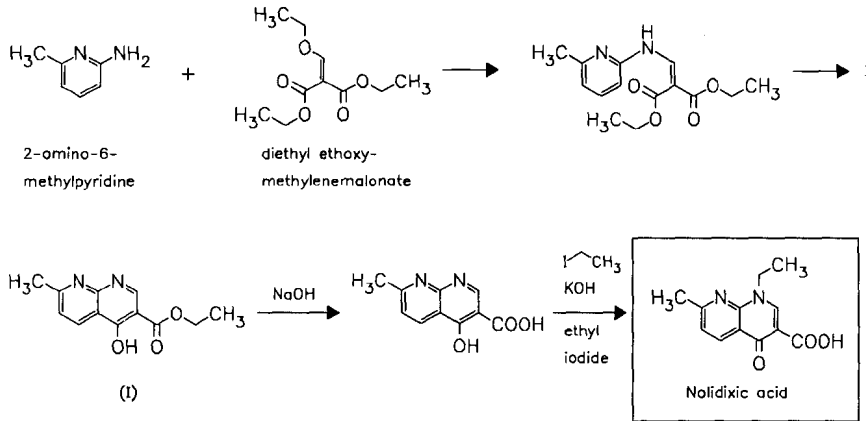
ATC: G04AB01

Use: chemotherapeutic (urinary tract infections)

RN: 389-08-2 MF: C₁₂H₁₂N₂O₃ MW: 232.24 EINECS: 206-864-7LD₅₀: 101 mg/kg (M, i.v.); 572 mg/kg (M, p.o.);

88.4 mg/kg (R, i.v.); 2040 mg/kg (R, p.o.)

CN: 1-ethyl-1,4-dihydro-7-methyl-4-oxo-1,8-naphthyridine-3-carboxylic acid

**Reference(s):**

US 3 149 104 (Sterling Drug; 15.9.1964; prior. 3.1.1961).

Leshner, G. Y. et al.: J. Med. Pharm. Chem. (JMPCAS) **5**, 1063 (1962).**alternative synthesis:**

GB 1 338 023 (Koli Chem. Comp.; appl. 19.4.1971; J-prior. 20.2.1970).

Formulation(s): aq. susp. 60 ml/ml; gran. 660 mg; tabl. 250 mg, 500 mg, 1 g**Trade Name(s):**

D:	Nogacit (Winthrop); wfm Nogram (Winthrop); wfm	Nalissina (Rhône-Poulenc Rorer)	Nalidicron (San-a) Narigix (Taiyo)
F:	Négram (Sanofi Winthrop)	Neg-Gram (Sanofi Winthrop)	Oxoranol (Mohan) Poleon (Sumitomo)
GB:	Mictral (Sanofi Winthrop) Negram (Sanofi Winthrop)- comb. Uriben (Rosemont)-comb.	Uralgin (Ceccarelli) Uri-Flor (AGIPS) Urogram (Firma)	Restelon (Maruishi) Uicelate (Toyo Jozo) Urologin N (Takata)
I:	Betaxina (Terapeutico M.R.) Nalidixin (Nuovo Cons. Sanit. Naz.) Naligram (Geymonat)	J: Entolon (Sawai) Innoxalon (Sanko) Kusnarin (Kodama) Mirtolor (Zensei) Mytacin (Fuji)	Wintomylon (Daiichi) Wintron (Tobishi) generic USA: NegGram (Sanofi Winthrop)

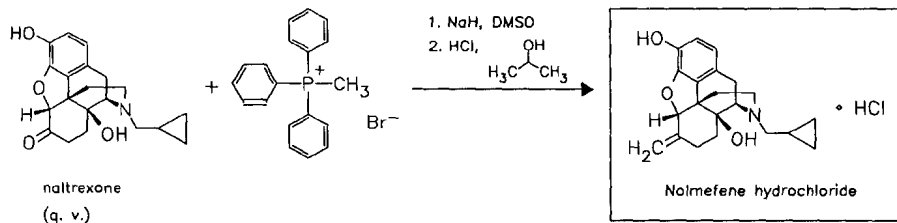
Nalmefene

(NIH-10365; Nalmetrene (base); JF-1; ORF-11676)

ATC: V03AB30

Use: cognition disorders therapeutic, antagonist to narcotics, neuronal injury inhibitor

RN: 55096-26-9 MF: C₂₁H₂₅NO₃ MW: 339.44CN: (5 α)-17-(cyclopropylmethyl)-4,5-epoxy-6-methylenemorphan-3,14-diol

monohydrochlorideRN: 58895-64-0 MF: $C_{21}H_{25}NO_3 \cdot HCl$ MW: 375.90**(+)-base**RN: 131378-67-1 MF: $C_{21}H_{25}NO_3$ MW: 339.44**(+)-monohydrochloride**RN: 131712-55-5 MF: $C_{21}H_{25}NO_3 \cdot HCl$ MW: 375.90**Reference(s):**Hahn, F.E. et al.: J. Med. Chem. (JMCMAR) **18**, 259 (1975).**synthesis of nalmefene from naltrexone:**

US 7 421 900 (Nat. Inst. of Health; appl. 28.8.1990; USA-prior. 26.10.1989).

US 4 322 426 (Du Pont de N.; appl. 30.3.1982; USA-prior. 28.4.1980).

US 4 751 307 (Mallinckrodt, Inc.; appl. 27.2.1987; USA-prior. 17.1.1985).

EP 140 367 (Key Pharm. Inc.; appl. 8.5.1985; USA-prior. 1.11.1983).

use of nalmefene:

US 4 880 813 (Baker Cummins Pharm.; appl. 14.11.1989; USA-prior. 22.7.1988).

WO 8 910 125 (Baker Cummins Pharm.; appl. 2.11.1989; USA-prior. 27.4.1988).

WO 8 702 586 (Key Pharmaceuticals; appl. 7.5.1987; 29.1.1985).

US 4 639 455 (Key Pharmaceuticals; appl. 27.1.1987; USA-prior. 2.1.1984).

US 4 863 928 (Baker Cummins Pharm.; appl. 5.9.1989; USA-prior. 4.1.1989).

US 4 877 791 (Baker Cummins Pharm.; appl. 31.10.1989; USA-prior. 1.11.1988).

US 4 923 875 (Baker Cummins Pharm.; appl. 8.5.1990; 10.7.1989).

WO 9 218 126 (Baker Cummins Pharm.; appl. 29.10.1992; USA-prior. 10.4.1991).

WO 9 118 605 (Finland; appl. 12.12.1991; USA-prior. 4.6.1990).

formulation:

US 4 511 570 (Key Pharmaceuticals; appl. 16.4.1985; 28.3.1983).

combination:

WO 9 531 985 (Italy; appl. 30.11.1995; 1-prior. 24.5.1994).

Formulation(s): amp. 100 $\mu g/ml$, 2 mg/2 ml; syringe 2 mg/2 ml (as hydrochloride)**Trade Name(s):**

USA: Revox (Ohmeda)

Nalorphine

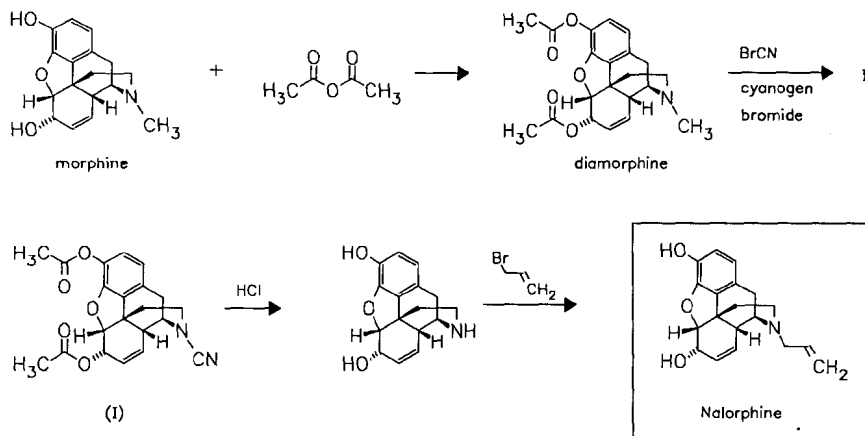
ATC: V03AB02

Use: morphine antagonist

RN: 62-67-9 MF: $C_{19}H_{21}NO_3$ MW: 311.38 EINECS: 200-546-1LD₅₀: 127 mg/kg (M, i.v.); 1140 mg/kg (M, p.o.);

226 mg/kg (R, i.v.)

CN: (5 α ,6 α)-7,8-didehydro-4,5-epoxy-17-(2-propenyl)morphinan-3,6-diol

hydrochlorideRN: 57-29-4 MF: $C_{19}H_{21}NO_3 \cdot HCl$ MW: 347.84 EINECS: 200-321-8LD₅₀: 63 mg/kg (M, i.v.);
1150 mg/kg (R, p.o.);
120 mg/kg (dog, i.v.)**hydrobromide**RN: 1041-90-3 MF: $C_{19}H_{21}NO_3 \cdot HBr$ MW: 392.29 EINECS: 213-868-2LD₅₀: 260 mg/kg (M, i.p.); 921 mg/kg (M, s.c.)**Reference(s):**

US 2 364 833 (Merck & Co.; 1944; prior. 1941).

US 2 891 954 (Merck & Co.; 1959; prior. 1951).

Formulation(s): amp. 1 mg, 5 mg, 10 mg (as hydrobromide)**Trade Name(s):**

D:	Lethidrone (Wellcome); wfm	GB:	Lethidrone (Burroughs Wellcome); wfm	USA:	Nalline (Merck Sharp & Dohme); wfm
F:	Nalorphine Serb (L'Arguenon)	I:	Norfin (Lusofarmaco); wfm		

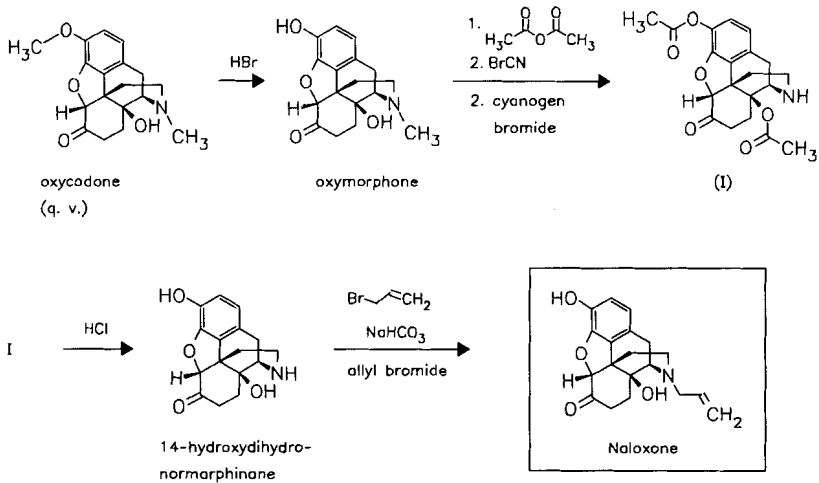
Naloxone

ATC: V03AB15

Use: narcotic antagonist

RN: 465-65-6 MF: $C_{19}H_{21}NO_4$ MW: 327.38 EINECS: 207-365-7LD₅₀: 260 mg/kg (M, s.c.)CN: (5 α)-4,5-epoxy-3,14-dihydroxy-17-(2-propenyl)morphinan-6-one**hydrochloride**RN: 357-08-4 MF: $C_{19}H_{21}NO_4 \cdot HCl$ MW: 363.84 EINECS: 206-611-0LD₅₀: 90 mg/kg (M, i.v.); >1 g/kg (M, p.o.);

107 mg/kg (R, i.v.); >1 g/kg (R, p.o.)

**Reference(s):**

US 3 254 088 (M. J. Lewenstein; 31.5.1966; appl. 14.3.1961).
 DE 1 183 508 (M. J. Lewenstein; appl. 7.3.1962; USA-prior. 14.3.1961).
 GB 929 287 (Sankyo; appl. 9.3.1962; J-prior. 14.3.1961).

Formulation(s): amp. 0.04 mg/2 ml, 0.4 mg/ml; cps. 4 mg in comb. with tilidine (as hydrochloride);
 tabl. 0.5 mg in comb. with pentazocine.HCl (as hydrochloride); vial 0.4 mg/ml, 1 mg/ml,
 10 mg/ml

Trade Name(s):

D:	Findol (Mundipharma)- comb. with tilidine	Valomerck (Merck)-comb. with tilidine	J:	generics Naloxone Hydrochloride (Sankyo)
	Gruntin (Grünenthal)- comb. with tilidine	Valoron (Gödecke)-comb. with tilidine	USA:	Narcan (Endo; as hydrochloride) Talwin Nx (Sanofi)
	Narcanti (Du Pont Pharma)	F:	Nalone (Serb)	
	Tilador (Hexal)-comb. with tilidine	GB:	Narcan (Du Pont; as hydrochloride)	generics and combination preparations
	Tilidin (Isis Puren; Heumann; Stada; BASF; ratiopharm; Saar)-comb.	I:	Narcan (Crinos) Narcan neonatal (Crinos)	

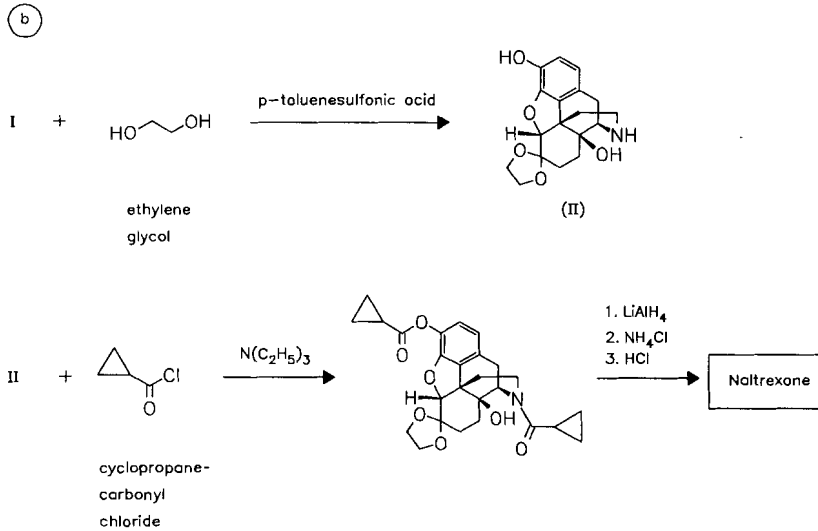
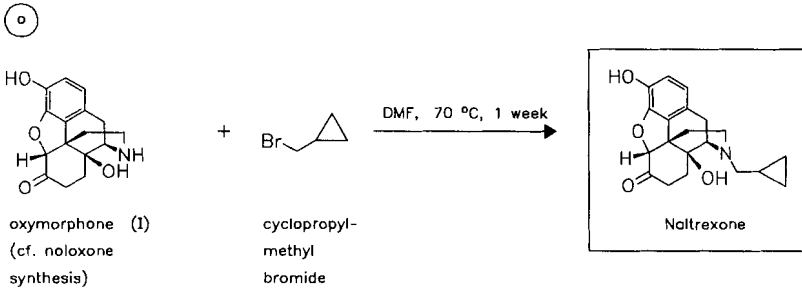
Naltrexone

ATC: V03AB30
 Use: narcotic antagonist

RN: 16590-41-3 MF: $\text{C}_{20}\text{H}_{23}\text{NO}_4$ MW: 341.41 EINECS: 240-649-9
 LD₅₀: 551 mg/kg (M, s.c.)
 CN: (5 α)-17-(cyclopropylmethyl)-4,5-epoxy-3,14-dihydroxymorphinan-6-one

hydrochloride

RN: 16676-29-2 MF: $\text{C}_{20}\text{H}_{23}\text{NO}_4 \cdot \text{HCl}$ MW: 377.87 EINECS: 240-723-0
 LD₅₀: 1100 mg/kg (M, p.o.);
 1450 mg/kg (R, p.o.)

**Reference(s):**

DAS 1 795 707 (Endo; appl. 19.12.1966; USA-prior. 19.1.1966).

FR-M 6 358 (Endo; appl. 24.2.1967).

US 3 332 950 (Endo; 25.7.1967; prior. 23.3.1963, 15.5.1963, 6.12.1966).

Formulation(s): tabl. 50 mg (as hydrochloride)**Trade Name(s):**

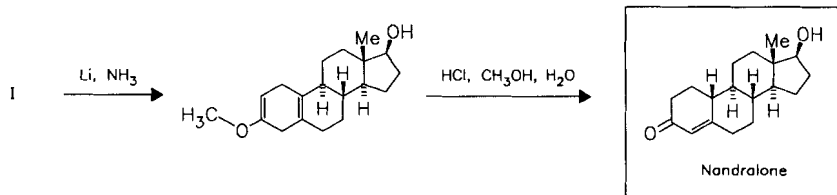
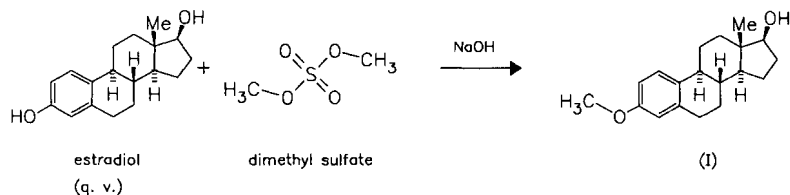
D:	Nemexin (Du Pont Pharma)	GB:	Nalorex (Du Pont)	Narcoral (Crinos)
F:	Nalorex (Du Pont)	I:	Antaxone (Zambon Italia)	USA: ReVia (Du Pont)
	Revia (Du Pont)		Nalorex (Du Pont Pharma)	

Nandrolone

ATC: A14AB01; S01XA11

Use: anabolic

RN: 434-22-0 MF: C₁₈H₂₆O₂ MW: 274.40 EINECS: 207-101-0CN: (17 β)-17-hydroxyestr-4-en-3-one

**Reference(s):**

US 2 698 855 (Organics; 1955; prior. 1953).

US 2 774 777 (Syntex; 1956; prior. 1952).

Wilds, A.L.; Nelson, N.A.: J. Am. Chem. Soc. (JACSAT) **75**, 5366 (1953).Djerassi, C. et al.: J. Am. Chem. Soc. (JACSAT) **76**, 4092 (1954).**Formulation(s):** eye drops 10 mg/ml (as monosodium sulfate) ***Trade Name(s):**

D: Keratyl (Chauvin ankerpharm)

I: Dynabolon (Crinos); wfm
J: Andol (Tokyo Tanabe; as cyclohexylpropionate)

USA: Nortestonate (Upjohn); wfm

F: Keratyl (Chauvin)

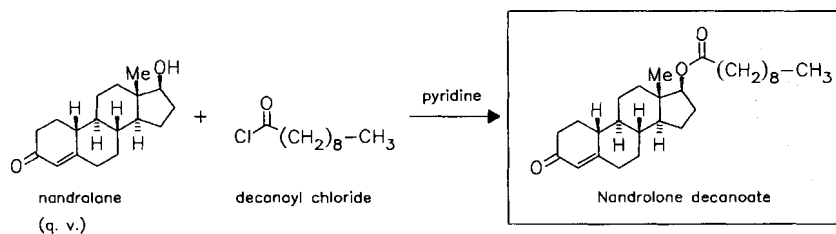
Nandrolone decanoate

ATC: A14AB01

Use: anabolic

RN: 360-70-3 MF: C₂₈H₄₄O₃ MW: 428.66 EINECS: 206-639-3LD₅₀: >566 mg/kg (M, i.p.)

CN: (17β)-17-[(1-oxodecyl)oxy]estr-4-en-3-one

**Reference(s):**

US 2 998 423 (Organon; 29.8.1961; appl. 2.2.1959; NL-prior. 25.2.1958).

Formulation(s): amp.. 25 mg/ml, 50 mg/ml**Trade Name(s):**D: Deca-Durabolin (Organon)
Keratyl (Chauvin ankerpharm)F: Deca-Durabolin (Organon); wfm
GB: Deca-Durabolin (Organon)

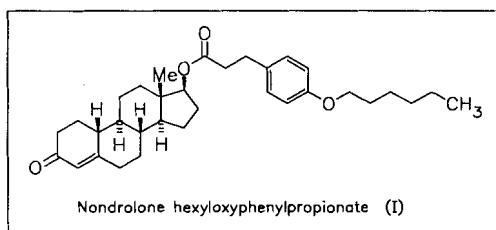
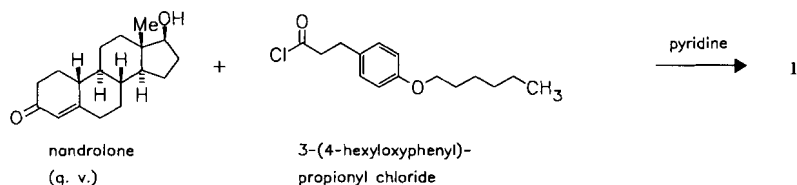
I: Deca-Durabolin (Organon Italia)

J: Deca-Durabolin (Organon- Sankyo) USA: Deca-Durabolin (Organon)

Nandrolone hexyloxyphenylpropionate

ATC: A14AB01
Use: anabolic

RN: 52279-57-9 MF: $C_{33}H_{46}O_4$ MW: 506.73 EINECS: 257-810-4
CN: (17 β)-17-[3-[4-(hexyloxy)phenyl]-1-oxopropoxy]estr-4-en-3-one

**Reference(s):**

US 2 904 562 (Leo; 15.9.1959; appl. 20.1.1958).

Formulation(s): amp. 50 mg; susp. 50 mg/2 ml

Trade Name(s):

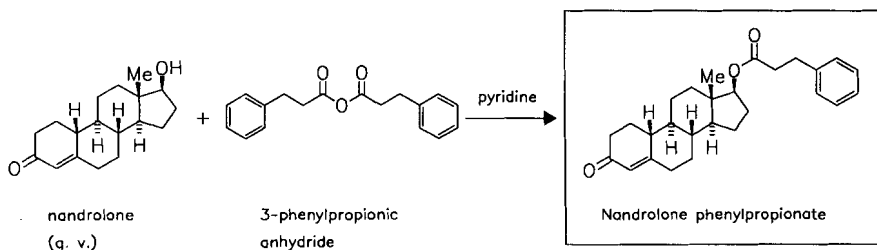
D: Anadur (Bastian-Werk); F: Anador (Logeais); wfm
wfm

Nandrolone phenylpropionate

(Nandrolone phenpropionate)

ATC: A14AB01
Use: anabolic

RN: 62-90-8 MF: $C_{27}H_{34}O_3$ MW: 406.57 EINECS: 200-551-9
LD₅₀: >1 g/kg (M, i.p.);
595 mg/kg (R, i.p.)
CN: (17 β)-17-(1-oxo-3-phenylpropoxy)estr-4-en-3-one



Reference(s):

GB 826 028 (Organon; appl. 1956; NL-prior. 1955).
 US 2 868 809 (Upjohn; 1959; prior. 1953).

Formulation(s): amp. 25 mg

Trade Name(s):

D:	Docabolin (Nourypharma)- comb.; wfm	I:	Anticatabolin (Falorni); wfm		Stenabolin (AFI); wfm
	Durabolin (Organon); wfm		Anticatabolin (Nativelle); wfm		Strabolene (Isola-Ibi); wfm
	Hepa-Obaton (Nourypharma)-comb.; wfm		Durabolin (Ravasini); wfm	J:	Durabolin (Organon- Sankyo)
F:	Durabolin (Organon); wfm		Norandrol (Panther-Osfa Chemie); wfm	USA:	Durabolin (Organon); wfm
GB:	Durabolin (Organon); wfm		Norbalin (Bieffe); wfm		Nandrolin (Tutag); wfm
			Sintabolin (AFI); wfm		generics; wfm

Nandrolone undecylate

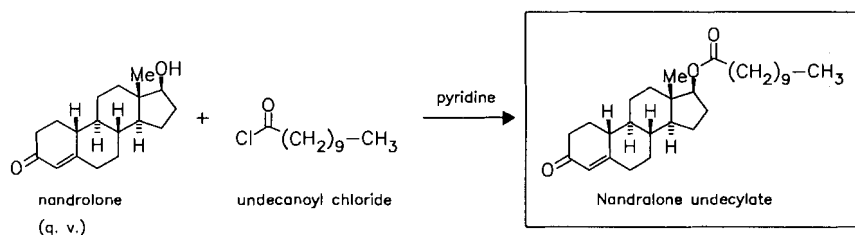
(Nandrolone undecanoate)

.ATC: A14AB01

Use: anabolic

RN: 862-89-5 MF: C₂₉H₄₆O₃ MW: 442.68 EINECS: 212-729-3

CN: (17β)-17-[(1-oxoundecyl)oxy]estr-4-en-3-one

*Reference(s):*

BE 659 440 (N. Gueritee; appl. 9.2.1965; GB-prior. 21.2.1964).

use as anabolic in combination with estradiol esters:

FR-M 3 424 (N. Gueritee; appl. 27.1.1964).

alternative synthesis and combination with mineral corticoids:

DOS 2 638 507 (Akzo; appl. 26.8.1976; NL-prior. 27.8.1975).

use in combination with vitamin E:

FR-M 7 284 (J. M. Gastand; appl. 7.3.1968).

Formulation(s): inj. sol. 80.5 mg/1 ml

Trade Name(s):

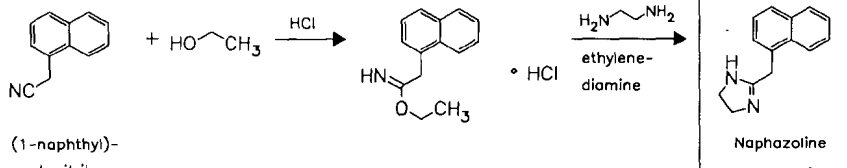
F:	Dynabolon (Théramex); wfm	Trophobolène (Théramex)- comb.; wfm	I:	Dynabolon (Fournier Pierrel)
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Naphazoline

ATC: R01AA08; R01AB02; S01GA01

Use: vasoconstrictor, rhinological
therapeuticRN: 835-31-4 MF: C₁₄H₁₄N₂ MW: 210.28 EINECS: 212-641-5LD₅₀: 170 mg/kg (M, i.v.); 270 mg/kg (M, p.o.)CN: 4,5-dihydro-2-(1-naphthalenylmethyl)-1*H*-imidazole**monohydrochloride**RN: 550-99-2 MF: C₁₄H₁₄N₂ · HCl MW: 246.74 EINECS: 208-989-2**mononitrate**RN: 5144-52-5 MF: C₁₄H₁₄N₂ · HNO₃ MW: 273.29 EINECS: 225-915-4LD₅₀: 13.2 mg/kg (M, i.v.); 265 mg/kg (M, p.o.);

1260 mg/kg (R, p.o.)

**Reference(s):**

US 2 161 938 (Ciba; 1939; D-prior. 1934).

Formulation(s): eye drops 0.3 mg/ml, 1 mg/ml; nasal spray**Trade Name(s):**

D:	Antistin-Privin (CIBA Vision)-comb. Piniol (Spitzner; as hydrochloride) Privin (Novartis Pharma; as nitrate) Proculin (Chauvin ankerpharm) Rhinex (Pharma Wernigerode) Vistalbalon (Pharm-Allergan) numerous generics and combination preparations	GB:	Frazoline (Bouchara)-comb. Soframycne (Roussel)-comb. Xylocaine naphthazoline (Astra)-comb. Antistin-Privinc (Ciba)-comb.; wfm Murine (Abbott); wfm Nomaze (Fisons); wfm Vasocon A (Cooper Vision)-comb.; wfm Vasocon A (Knox)-comb.; wfm	J:	Desamin Same (Savoma) Imidazyl (Recordati) Imizol (Farmigea) Naftazolina (Bruschettini) Pupilla (Alfa Wassermann) Rinazina (Maggioni) Rinazina Senza Sulfamide (Maggioni) Virginiana Gocce Verdi (Kelemata) numerous combination preparations
F:	Collyres bleus Laiter (Leurquin)-comb. Dérinox (Thérabel Lucien pharma)-comb.	I:	Citroftalmina (SIFI)-comb. Collirio Alfa (Bracco) Deltarinolo (Hoechst Marion Roussel)-comb.	USA:	Privina (Ciba-Geigy-Takeda; as nitrate) Naphcon (Alcon; as hydrochloride)

Naproxen

ATC: G02CC02; M01AE02; M02AA12

Use: anti-inflammatory, antirheumatic,
analgesicRN: 22204-53-1 MF: C₁₄H₁₄O₃ MW: 230.26 EINECS: 244-838-7LD₅₀: 435 mg/kg (M, i.v.); 360 mg/kg (M, p.o.);

248 mg/kg (R, p.o.);

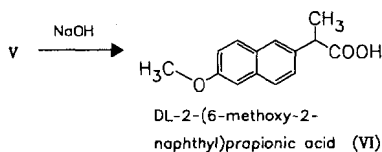
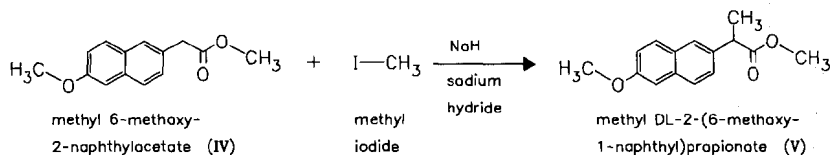
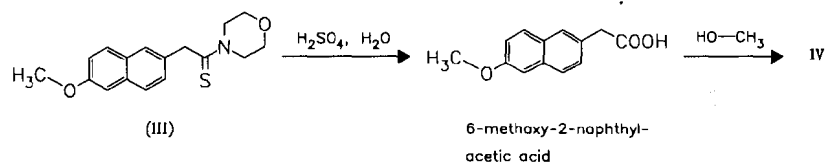
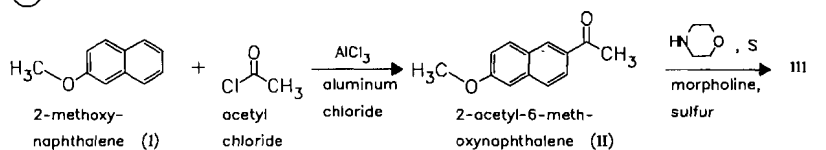
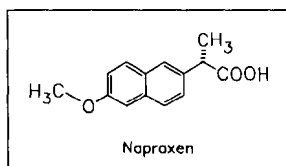
>1 g/kg (dog, p.o.)

CN: (S)-6-methoxy- α -methyl-2-naphthaleneacetic acid

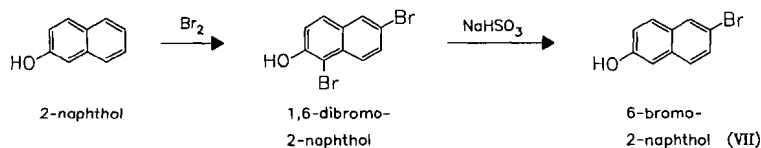
sodium salt

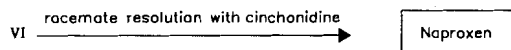
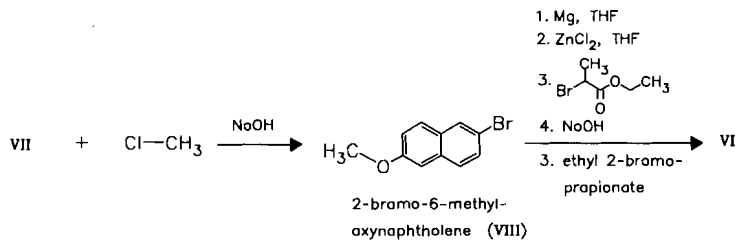
RN: 26159-34-2 MF: C₁₄H₁₃NaO₃ MW: 252.25

(a) Original process:

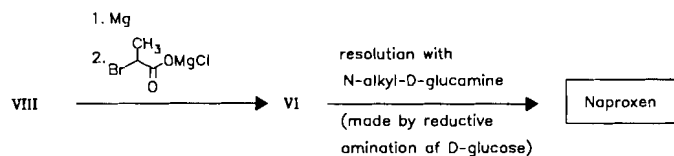
VI $\xrightarrow{\text{racemate resolution with cinchonidine}}$ 

(b) First large-scale manufacturing process of Syntex:

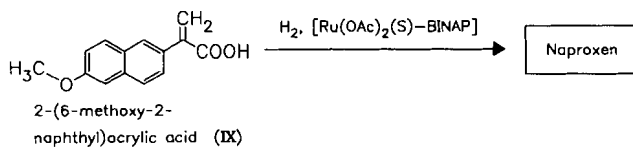
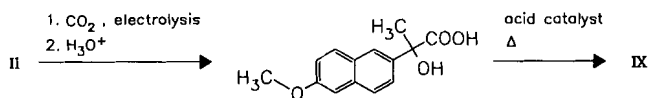




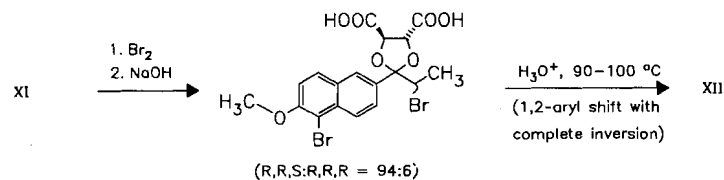
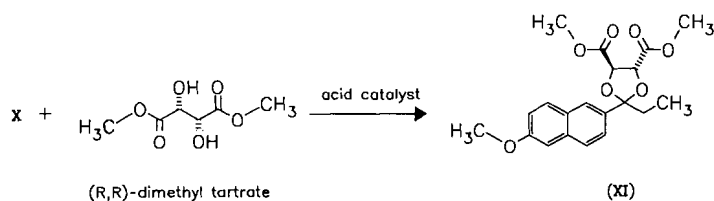
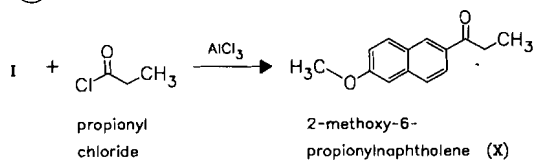
(c) Second large-scale manufacturing process of Syntex:

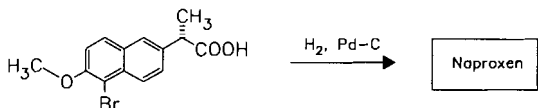


(d) Asymmetric hydrogenation:



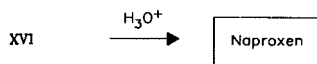
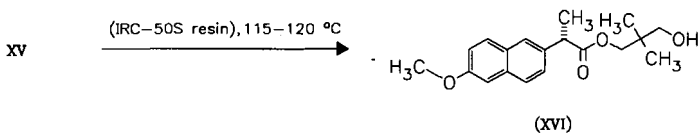
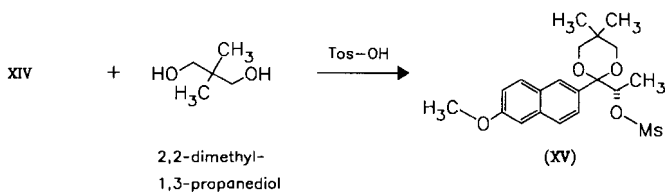
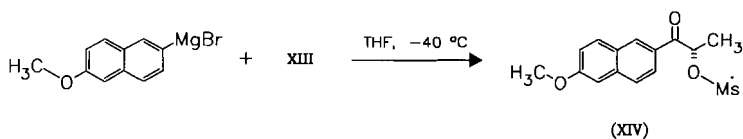
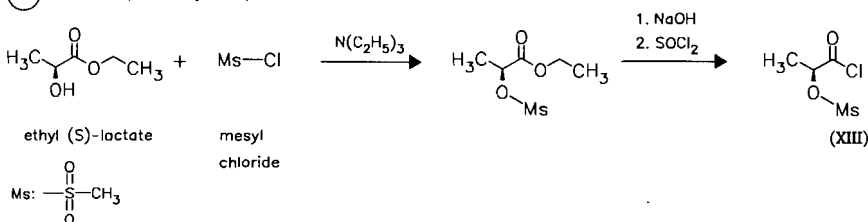
(e) Zambon process:





(S)-2-(5-bromo-6-methoxy-2-naphthyl)-propanoic acid (XII)

(f) Stereospecific Syntex process:



Reference(s):

process review:

Harrington, P.J.; Lodewijk, E.: *Organic Process Res. & Dev.* **1**, 72 (1997).

Harrison, J.T. et al.: *J. Med. Chem. (JMCMAR)* **13**, 203 (1970).

a US 3 896 157 (Syntex; 22.7.1975; prior. 13.1.1967, 7.12.1967, 4.11.1971).

US 3 904 682 (Syntex; 9.9.1975; prior. 13.1.1967, 7.12.1967, 24.3.1969, 31.8.1971, 21.6.1973).

US 3 978 116 (Syntex; 31.8.1976; prior. 13.1.1967, 7.12.1967, 4.11.1971).

US 3 978 124 (Syntex; 31.8.1976; prior. 13.1.1967, 7.12.1967, 4.11.1971).

US 3 998 966 (Syntex; prior. 4.11.1971).

US 4 001 301 (Syntex; 4.1.1977; prior. 4.11.1971).

US 4 009 197 (Syntex; 22.2.1977; prior. 13.1.1967).

DAS 1 668 654 (Syntex; appl. 8.1.1968; USA-prior. 13.1.1967; 7.12.1967).

improved racemate resolution with cinchonidine:

DAS 2 319 245 (Syntex; appl. 16.4.1973; USA-prior. 21.4.1972, 11.4.1973).

racemization:

DAS 2 008 272 (Syntex; appl. 23.2.1970; USA-prior. 24.3.1969).

- b US 3 663 584 (Syntex; 16.5.1972; appl. 4.12.1970).

similar process with Cu-compound:

US 3 658 863 (Syntex; 25.4.1972; appl. 30.9.1969).

similar process with Cd-compound:

US 3 694 476 (Syntex; 26.9.1972; appl. 4.12.1970).

- c DOS 2 805 488 (Syntex; appl. 9.2.1978; USA-prior. 16.2.1977, 19.12.1977).

resolution with N-alkyl-D-glucamines:

US 4 515 811 (Syntex; 7.5.1985; USA-prior. 6.7.1979, 26.11.1979).

EP 7 116 (Syntex; appl. 17.7.1979; CH-prior. 19.7.1978).

DOS 3 025 448 (Syntex; appl. 4.7.1980; USA-prior. 6.7.1979, 26.11.1979).

- d Ohta, T. et al.: J. Org. Chem. (JOCEAH) **52**, 3174 (1987).

DOS 2 919 919 (Montedison; appl. 17.5.1979; I-prior. 22.5.1978).

US 4 239 914 (Montedison; 16.12.1980; I-prior. 22.5.1978).

electrocarboxylation of 2-acetyl-6-methoxynaphthalene:

Chan, A.S. et al.: J. Org. Chem. (JOCEAH) **60**, 742 (1995).

naphthacrylic acid via corresponding cyanohydrins:

US 3 637 767 (Syntex; 25.1.1972; appl. 30.7.1968).

- e Giordano, C. et al.: Tetrahedron (TETRAB) **45**, 4243 (1989).

US 4 579 968 (Zambon; 1.4.1986; I-prior. 24.2.1984).

US 4 697 036 (Zambon; 29.9.1987; I-prior. 6.8.1984).

US 4 810 819 (Zambon; 7.3.1989; appl. 5.8.1987; USA-prior. 5.4.1985).

US 4 855 464 (Zambon; 29.9.1987; I-prior. 6.8.1984).

US 4 888 433 (Zambon; 29.9.1987; I-prior. 6.8.1984).

preparation of 2-propionynaphthalene:

EP 176 142 (Blaschim; appl. 16.9.1985; I-prior. 24.9.1984, 17.5.1985).

EP 301 311 (Zambon; appl. 12.7.1988; I-prior. 28.7.1987).

- f US 4 605 758 (Syntex; 12.8.1986; prior. 11.12.1981, 23.4.1984).

US 4 749 804 (Syntex; 7.6.1988; prior. 11.12.1981, 23.4.1984, 10.6.1986).

US 4 912 254 (Syntex; 27.3.1990; prior. 11.12.1981, 23.4.1984, 10.6.1986, 6.5.1988).

alternative syntheses:

DAS 1 934 460 (Syntex; appl. 8.7.1969; USA-prior. 30.7.1968).

US 3 637 767 (Syntex; 25.1.1972; appl. 30.7.1968).

DAS 1 793 825 (Syntex; appl. 8.1.1968; USA-prior. 13.1.1967, 7.12.1967).

resolution with dehydroabietylamine:

DAS 2 339 765 (Syntex; appl. 6.8.1973; USA-prior. 10.8.1972).

resolution with (S)- α -phenylethylamine:

US 4 546 201 (Blaschim; 8.10.1985; I-prior. 27.7.1983).

enzymatic cleavage of esters of racemic naproxen:

US 4 857 462 (Boehringer Mannh.; 15.8.1989; D-prior. 16.12.1983).

EP 195 717 (Montedison; appl. 17.3.1986; I-prior. 22.3.1985).

EP 233 656 (Gist-Brocades; appl. 6.1.1987; GB-prior. 7.1.1986).

EP 330 217 (Ist. Guido Donegani; appl. 24.2.1989; I-prior. 25.2.1988, 29.7.1988).

Formulation(s): f. c. tabl. 250 mg, 500 mg, 1000 mg; suppos. 250 mg, 500 mg; susp. 125 mg/5 ml, 250 mg/5 ml; tabl. 250 mg, 375 mg, 500 mg, 750 mg (as acid); f. c. tabl. 550 mg; tabl. 275 mg, 550 mg, 375 mg, 500 mg (as sodium salt)

Trade Name(s):

D:	Apranax (Roche; Syntex)	Naprosyne (Cipharm; 1975)	I:	Aperdan (ABC Farmaceutici)-comb.
	Dysmenalgit (Krewel Meuselbach)	GB: Napratec (Searle)		Artroxen (Errekappa Euroter.)
	Proxen (Roche; Syntex; 1975)	Naprosyn (Roche; 1973)		
		Nycopren (Ardern)		
F:	Apranax (Roche)	Synflex (Roche)		

Axer Alfa (Alfa Wassermann; as sodium salt)
 Floginax (Teofarma)
 Flogogin (Angelini; as sodium salt)
 Floxalin (Salus Research; as sodium salt)
 Gibinap (Metafarm)
 Gibixen (Metafarm)
 Laser (Tosi-Novara)
 Leniartril (Sancarlo)

Naprius (Aesculapius-Bs)
 Naprorex (Lampugnani)
 Naprosyn (Recordati)
 Neoblimon (Guidotti)
 Nitens (Pulitzer)-comb.
 Numidan (Therabel Pharma)-comb.
 Piproxen (Nuovo ISM)-comb.
 Prexan (Lafare)
 Primeral (Master Pharma; as sodium salt)

Proxine (Del Saz & Filippini)
 Synalgo (Geymonat)
 Synflex (Recordati; as sodium salt)
 Ticoflex (Farma Uno)
 Xenar (Alfa Wassermann)
 J: Naixan (Tanabe)
 USA: Anaprox (Roche)
 Naprosyn (Roche; 1976) generics

Naratriptan (GR-85548)

ATC: N02CC02

Use: antimigraine agent, 5-HT₁-agonist

RN: 121679-13-8 MF: C₁₇H₂₅N₃O₂S MW: 335.47

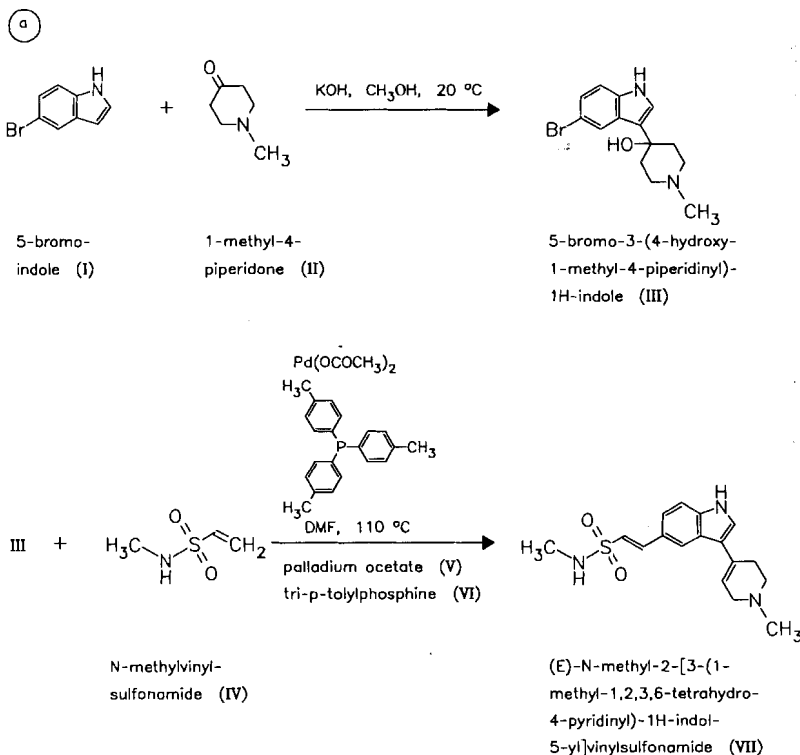
CN: *N*-methyl-3-(1-methyl-4-piperidinyl)-1*H*-indole-5-ethanesulfonamide

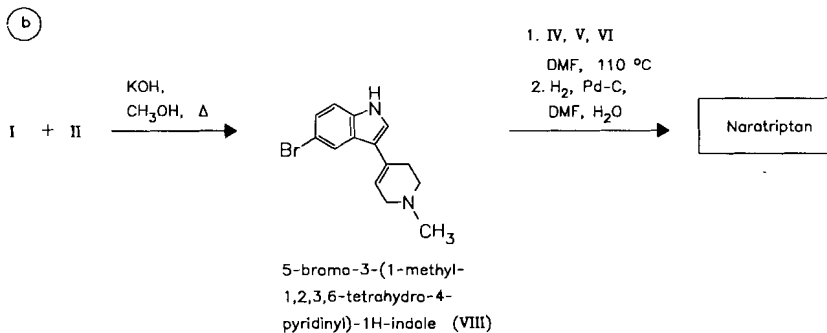
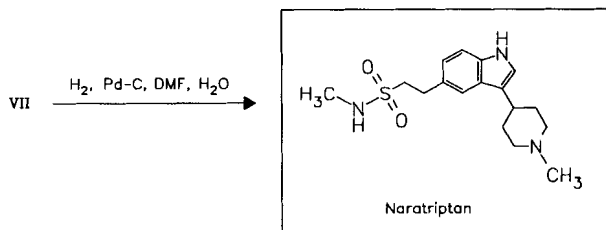
hydrochloride

RN: 121679-19-4 MF: C₁₇H₂₅N₃O₂S · xHCl MW: unspecified

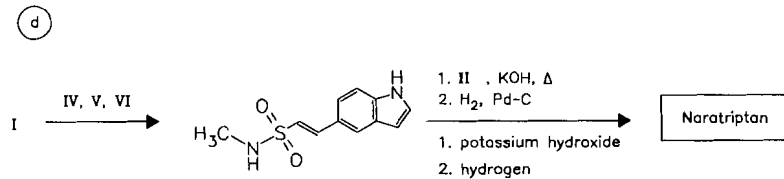
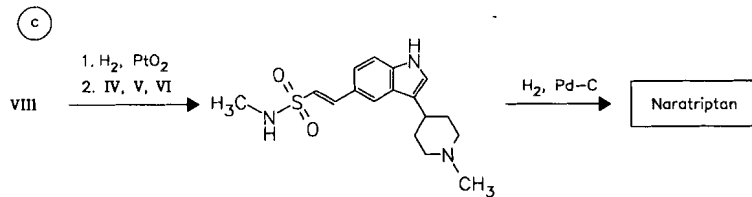
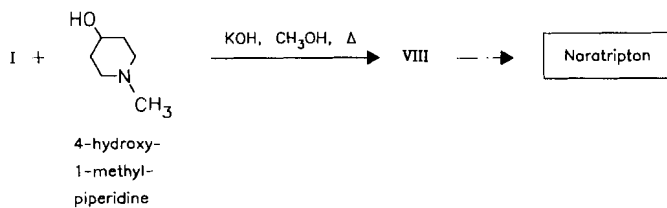
monohydrochloride

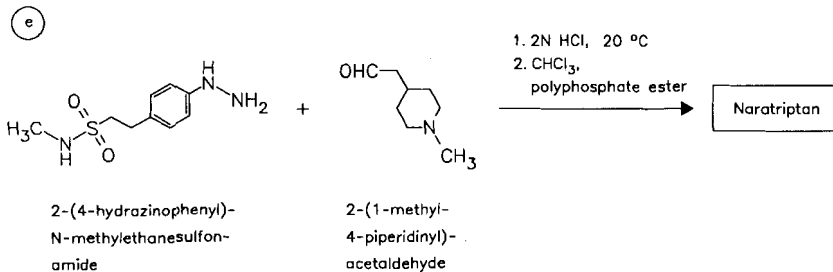
RN: 143388-64-1 MF: C₁₇H₂₅N₃O₂S · HCl MW: 371.93





or:





Reference(s):

WO 9 509 166 (Glaxo; appl. 6.4.1995; GB-prior. 29.9.1993).
 EP 303 507 (Glaxo; appl. 15.2.1989; GB-prior. 13.8.1987, 14.6.1988, 17.6.1988).

Formulation(s): tabl. 2.5 mg (as monohydrochloride)

Trade Name(s):

D: Naramig (Glaxo Wellcome/
 Cascan)

Natamycin

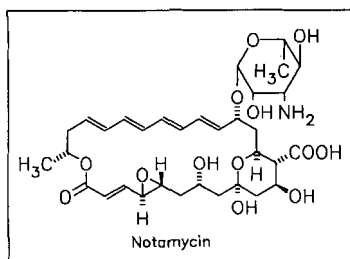
(Pimaricin)

ATC: A01AB10; A07AA03; D01AA02;
 G01AA02; S01AA10
 Use: fungicidal antibiotic

RN: 7681-93-8 MF: C₃₃H₄₇NO₁₃ MW: 665.73 EINECS: 231-683-5

LD₅₀: >5 g/kg (M, i.v.); 1500 mg/kg (M, p.o.);
 36 mg/kg (R, i.v.); 2730 mg/kg (R, p.o.);
 18 mg/kg (dog, i.v.); >300 mg/kg (dog, p.o.)

CN: [1R-(1R*,3S*,5R*,7R*,8E,12R*,14E,16E,18E,20E,22R*,24S*,25R*,26S*)]-22-[(3-amino-3,6-dideoxy-β-D-mannopyranosyl)oxy]-1,3,26-trihydroxy-12-methyl-10-oxo-6,11,28-trioxatricyclo[22.3.1.0^{5,7}]octacosah,14,16,18,20-pentaene-25-carboxylic acid



From fermentation solutions of *Streptomyces natalensis*.

Reference(s):

GB 844 289 (Königl. Niederl. Gist- & Spiritusfabr.; appl. 1957; NL-prior. 1956).
 GB 846 933 (American Cyanamid; appl. 1957; USA-prior. 1956).

Formulation(s): cream 2 g/100 g; drg. 100 mg; ointment 10 mg/g; tabl. 10 mg

Trade Name(s):

D:	Deronga (Galderma)	Pimafucin (Galderma)	F:	Pimafucine (Beytout); wfm
	Pima Biciron (S & K Pharma)	Pimafucort (Yamanouchi)-comb.		Pimafucine (Duphar); wfm
				Pimafucort (Beytout); wfm

GB: Pimafucin (Brocades); wfm I:

Natafucin (Yamanouchi
Pharma)

J: Pimafucin (Torii)-comb.

USA: Myprozine (Lederle); wfm

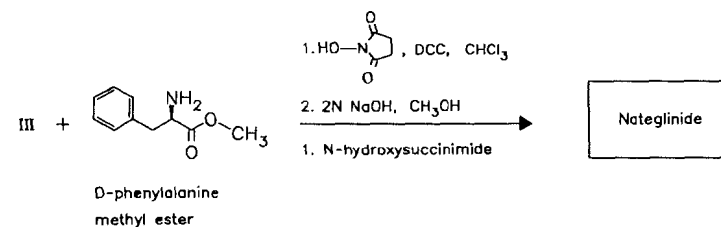
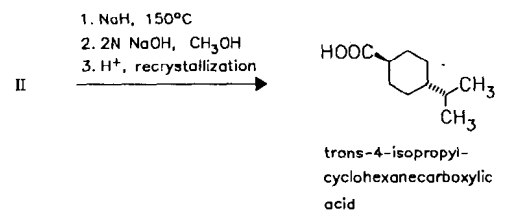
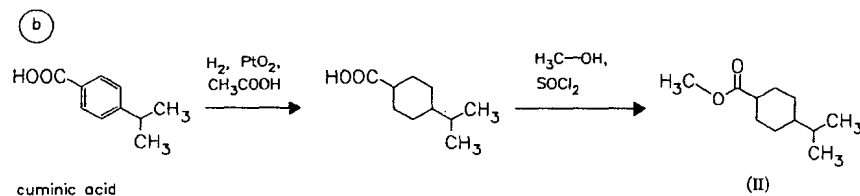
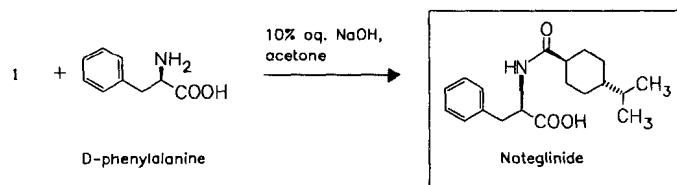
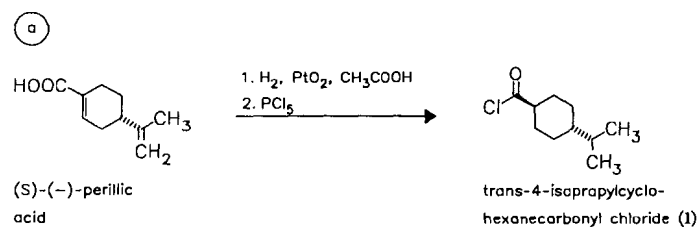
Nateglinide

Use: hypoglycemic agent

(A 4166; Ay 416; SDT-DJN 608)

RN: 105816-04-4 MF: C₁₉H₂₇NO₃ MW: 317.43

CN: trans-N-[[4-(1-Methylethyl)cyclohexyl]-carbonyl]-D-phenylalanine

**Reference(s):**

EP 196 222 (Ajinomoto; appl. 26.3.1986; J-prior. 27.3.1985).

preparation of I:

JP 7 017 899 (Ajinomoto; appl. 1.7.1993).

stable crystals:

US 5 463 116 (Ajinomoto; 31.10.1999; J-prior. 30.7.1991).

tablet formulation:

WO 9 822 105 (Ajinomoto; appl. 14.11.1997; J-prior. 15.11.1996).

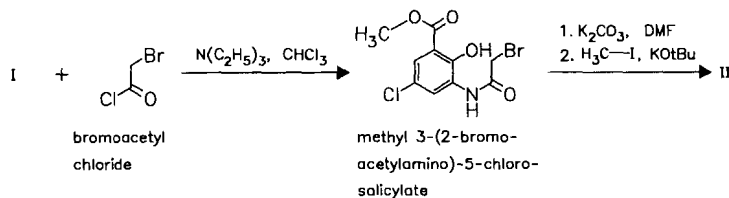
Formulation(s): tabl. 30 mg*Trade Name(s):*

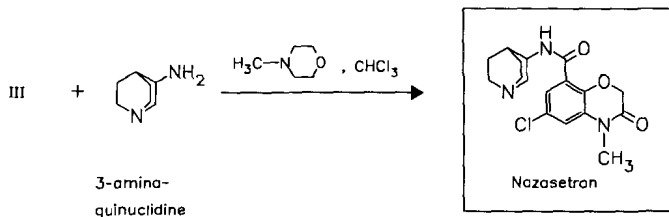
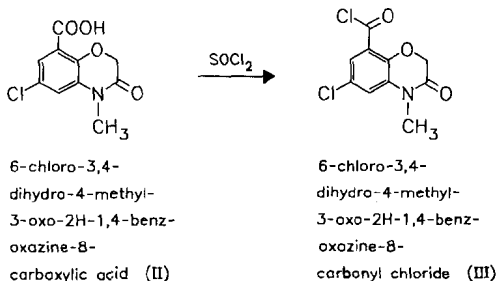
J: Starlix (Ajinomoto, 1999)

Nazasetron

(Y-25130)

ATC: A04AA

Use: anti-emetic, 5-HT₃-antagonistRN: 123040-69-7 MF: C₁₇H₂₀ClN₃O₃ MW: 349.82CN: (±)-*N*-1-azabicyclo[2.2.2]oct-3-yl-6-chloro-3,4-dihydro-4-methyl-3-oxo-2*H*-1,4-benzoxazine-8-carboxamide**monohydrochloride**RN: 141922-90-9 MF: C₁₇H₂₀ClN₃O₃ · HCl MW: 386.28**(-)-enantiomer**RN: 123040-95-9 MF: C₁₇H₂₀ClN₃O₃ MW: 349.82**(-)-enantiomer monohydrochloride**RN: 123040-96-0 MF: C₁₇H₂₀ClN₃O₃ · HCl MW: 386.28**(+)-enantiomer**RN: 123040-93-7 MF: C₁₇H₂₀ClN₃O₃ MW: 349.82**(+)-enantiomer hydrochloride**RN: 123040-94-8 MF: C₁₇H₂₀ClN₃O₃ · HCl MW: 386.28

**Reference(s):**

EP 313 393 (Yoshitomi; appl. 21.10.1988; J-prior. 22.10.1987, 25.12.1987, 13.1.1988).

stable crystalline structure of (+)-enantiomer:

JP 07 070 120 (Yoshitomi; appl. 5.7.1994; J-prior. 5.7.1993).

medical use:

JP 08 027 001 (Yoshitomi; J-prior. 13.7.1994).

JP 08 027 000 (Yoshitomi; J-prior. 13.7.1994).

JP 08 026 999 (Yoshitomi; J-prior. 12.7.1994).

WO 9 601 630 (Yoshitomi; appl. 7.7.1995; J-prior. 12.7.1994).

suppository formulation:

JP 06 305 969 (Yoshitomi; appl. 27.4.1993; J-prior. 27.4.1993).

light-stabilized injection solution:

WO 9 425 032 (Yoshitomi; appl. 25.4.1995; J-prior. 28.4.1994).

Formulation(s): amp. for injection 10 mg/2 ml

Trade Name(s):

J: Serotone (Yoshitomi;
Tobacco/Green Cross)

Nebivolol

(ME-3255; R-65824; R-67555 as hydrochloride)

ATC: C07AB12

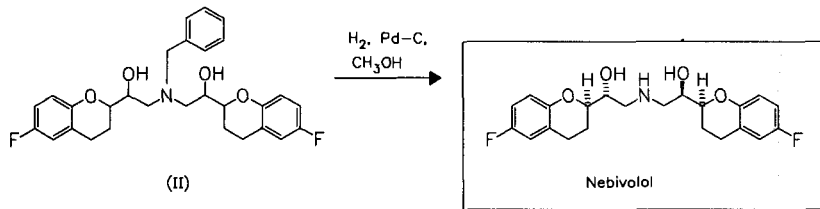
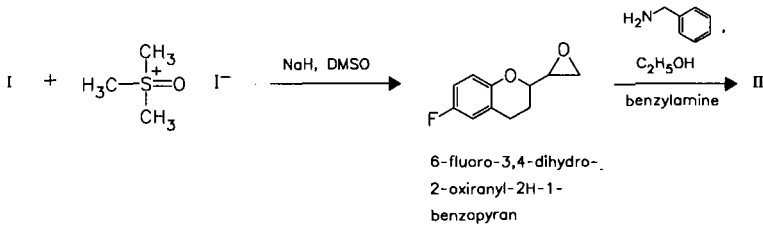
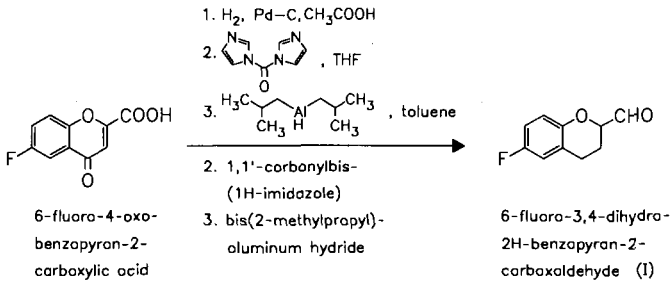
Use: antihypertensive, β_1 -adrenergic blocker

RN: 118457-14-0 MF: $C_{22}H_{25}F_2NO_4$ MW: 405.44

CN: [2R*[R*[R*(S*)]]]- α,α' -[iminobis(methylene)]bis[6-fluoro-3,4-dihydro-2H-1-benzopyran-2-methanol]

hydrochloride

RN: 152520-56-4 MF: $C_{22}H_{25}F_2NO_4 \cdot HCl$ MW: 441.90

**Reference(s):**

EP 145 067 (Janssen Pharm.; appl. 22.11.1984; USA-prior. 5.12.1983).

Formulation(s): tabl. 5 mg (as hydrochloride)**Trade Name(s):**

D: Nebilet (Berlin-Chemie)

Nedaplatin

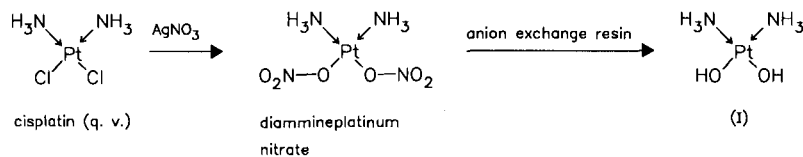
(S 254)

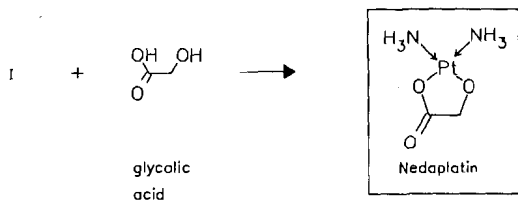
Use: antineoplastic platinum complex

RN: 95734-82-0 MF: $C_2H_8N_2O_3Pt$ MW: 303.18LD₅₀: 20 mg/kg (R, i. v.);

44.1 mg/kg (M, i. v.);

4 mg/kg (dog, i. v.)

CN: (SP-4-3)-Diammine[hydroxyacetato(2-)-O¹,O²]platinum

**Reference(s):**

JP 59 222 497 (Shionogi & Co.; appl. 1.6.1983).

US 4 575 550 (Shionogi & Co.; J-prior. 11.3.1986; appl. 14.4.1983; J-prior. 23.10.1981; USA-prior. 6.1.1982).

Totani, T.; Aono, K.; Komura, M.; Adachi, Y.: Chem. Lett. (CMLTAG) **1986** (3), 429.**Formulation(s):** powder 10 mg, 50 mg, 100 mg; vials 10 mg, 50 mg, 100 mg**Trade Name(s):**

J: Aqupla (Shionogi)

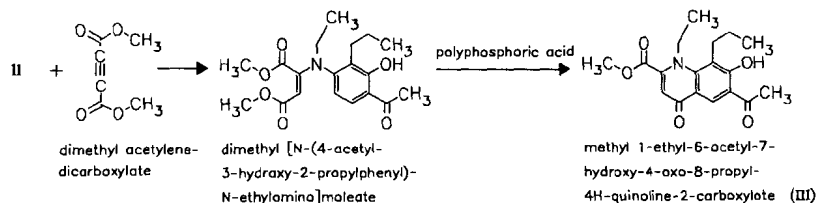
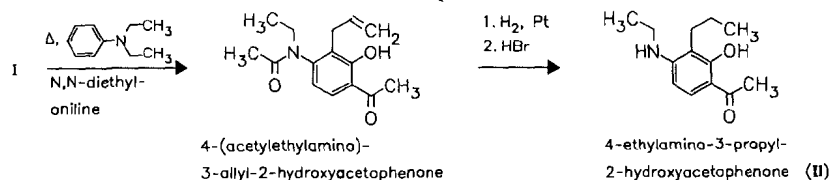
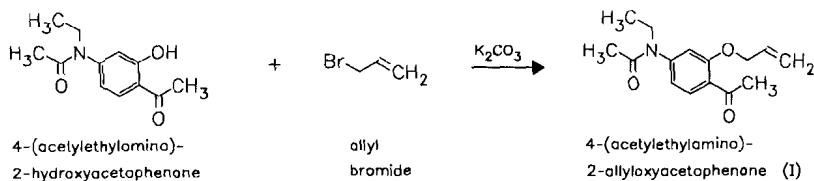
Nedocromil

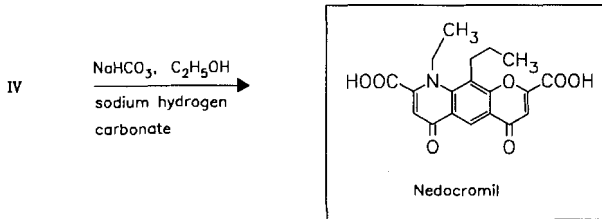
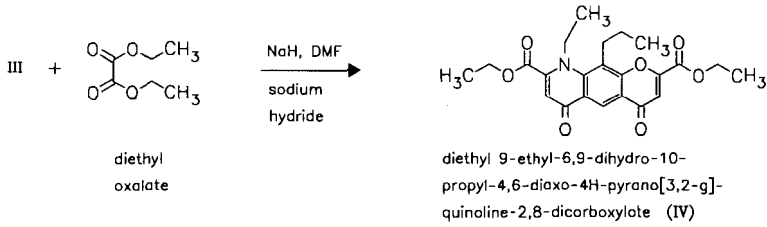
ATC: R01AC07; R03BC03; S01GX04

Use: antiallergic, antiasthmatic

RN: 69049-73-6 MF: C₁₉H₁₇NO₇ MW: 371.35

CN: 9-ethyl-6,9-dihydro-4,6-dioxo-10-propyl-4H-pyran[3,2-g]quinoline-2,8-dicarboxylic acid

disodium saltRN: 69049-74-7 MF: C₁₉H₁₅NNa₂O₇ MW: 415.31LD₅₀: 2000-4000 mg/kg (R, dog, i.v.); >5000 mg/kg (R, dog, p.o., s.c.)

**Reference(s):**

- US 4 474 787 (Fisons, 2.10.1984; GB-prior. 4.11.1977).
 DE 2 819 215 (Fisons; appl. 2.5.1978; GB-prior. 4.5.1977, 4.11.1977).
 GB 2 022 078 (Fisons; appl. 6.6.1978; prior. 4.5.1977).
 Cairns, H. et al.: J. Med. Chem. (JMCMAR) **28**, 1832 (1985).

synthesis of ^2H , ^3H , ^{14}C -labelled nedocromil sodium:

Wilkinson, D.J.; Lockley, W.J.S.: J. Labelled Compd. Radiopharm. (JLCRD4) **22**, 883 (1985).

combination with anticholinergics:

GB 2 204 790 (Fisons; appl. 23.5.1987).

Formulation(s): aerosol 2 mg/puff; eye drops 20 mg/ml (as sodium salt); spray 1.3 mg/0.13 ml

Trade Name(s):

D:	Halamid (ASTA Medica AWD)		Tilade Synchroner (Spécia)		Tilarin (Rhône-Poulenc Rorer)
	Irtan (Fisons; Rhône-Poulenc Rorer)	GB:	Rapitil (Rhône-Poulenc Rorer)	I:	Kovilen (Mediolanum)
	Tilade (Fisons; Rhône-Poulenc Rorer; 1988)		Tilade Synchroner (Rhône-Poulenc Rorer; 1986)	USA:	Tilade (Rhône-Poulenc Rorer)
F:	Tilade (Spécia; 1988)				

Nefazodone hydrochloride

(BMY-13754; MJ-13754-1)

ATC: N06AX06

Use: antidepressant, 5-HT_{2A}-antagonist

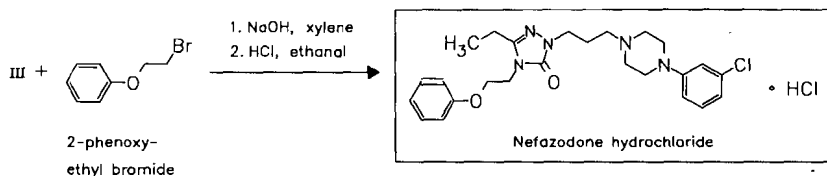
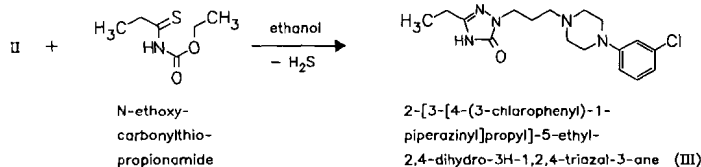
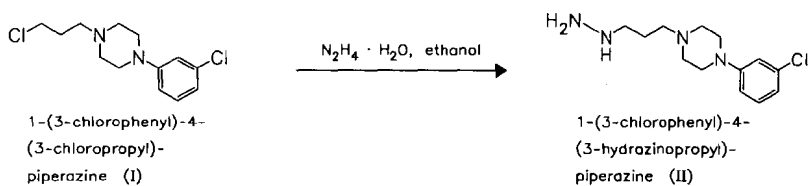
RN: 82752-99-6 MF: C₂₅H₃₂ClN₅O₂ · HCl MW: 506.48

CN: 2-[3-[4-(3-chlorophenyl)-1-piperazinyl]propyl]-5-ethyl-2,4-dihydro-4-(2-phenoxyethyl)-3H-1,2,4-triazol-3-one hydrochloride

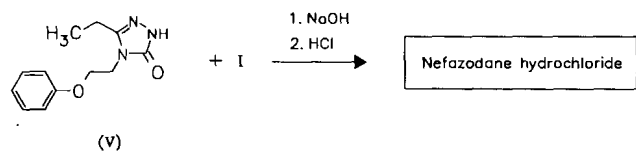
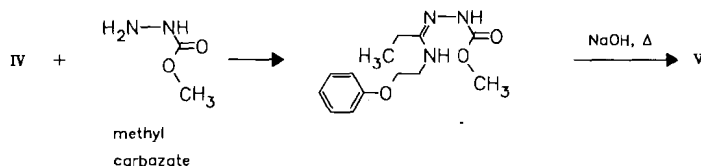
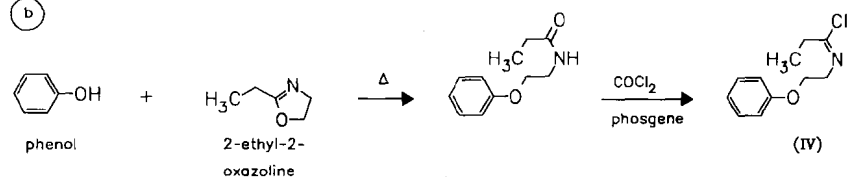
base

RN: 83366-66-9 MF: C₂₅H₃₂ClN₅O₂ MW: 470.02

a



b

*Reference(s):*

- a US 4 338 317 (Bristol-Myers Squibb; appl. 16.3.1981; USA-prior. 16.3.1981).
 b Madding, G.D. et al.: J. Heterocycl. Chem. (JHTCAD) **22**, 1121 (1985).

use for treatment of sleep disorders:

US 5 116 852 (Bristol-Myers Squibb; appl. 3.12.1990; USA-prior. 3.12.1990).

improved administration:

EP 428 272 (Ellinwood; appl. 17.10.1990; USA-prior. 17.10.1989).

controlled release preparation:

US 5 169 638 (Squibb & Sous; appl. 23.10.1991; USA-prior. 23.10.1991).

Formulation(s): tabl. 100 mg, 150 mg, 200 mg, 250 mg, 300 mg (as hydrochloride)

Trade Name(s):

D: Nefadar (Bristol-Myers Squibb)

GB: Dutonin (Bristol-Myers Squibb)

USA: Serzone (Bristol-Myers Squibb)

Nefopam

ATC: N02BG06

Use: analgesic, muscle relaxant

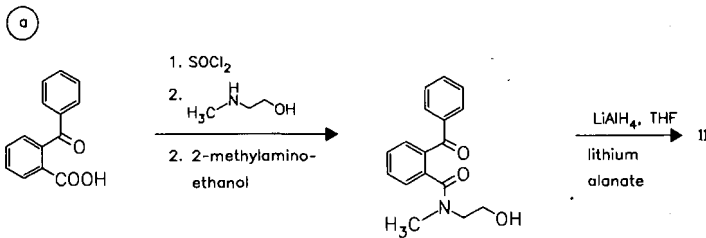
RN: 13669-70-0 MF: C₁₇H₁₉NO MW: 253.35 EINECS: 237-148-2

LD₅₀: 180 mg/kg (M, p.o.)

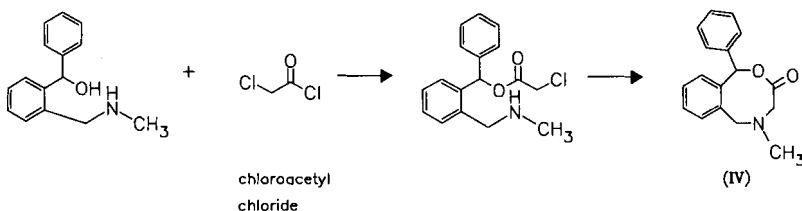
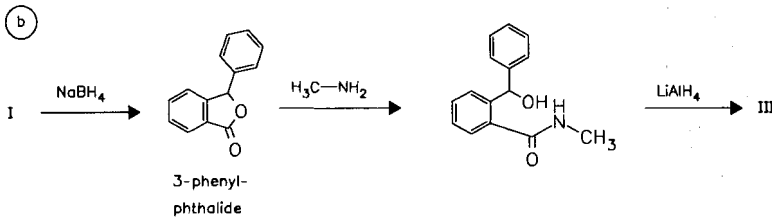
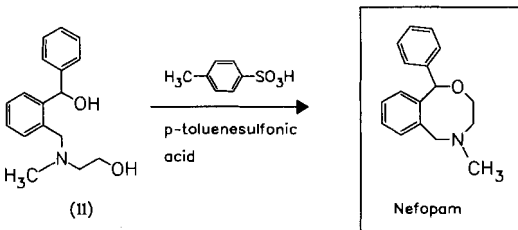
CN: 3,4,5,6-tetrahydro-5-methyl-1-phenyl-1*H*-2,5-benzoxazocine

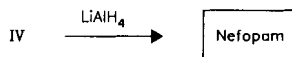
hydrochloride

RN: 23327-57-3 MF: C₁₇H₁₉NO · HCl MW: 289.81



2-benzoylbenzoic acid (I)





Reference(s):

- a US 3 487 153 (Rexall; 30.12.1969; appl. 19.1.1968).
 b US 3 830 803 (Riker; 20.8.1974; appl. 10.5.1965).
 DAS 1 620 198 (Riker; appl. 5.5.1966; USA-prior. 10.5.1965).

Formulation(s): amp. 20 mg; f. c. tabl. 30 mg; tabl. 30 mg (as hydrochloride)

Trade Name(s):

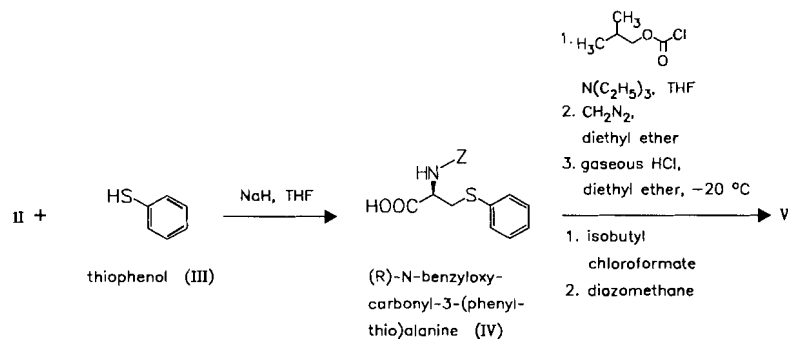
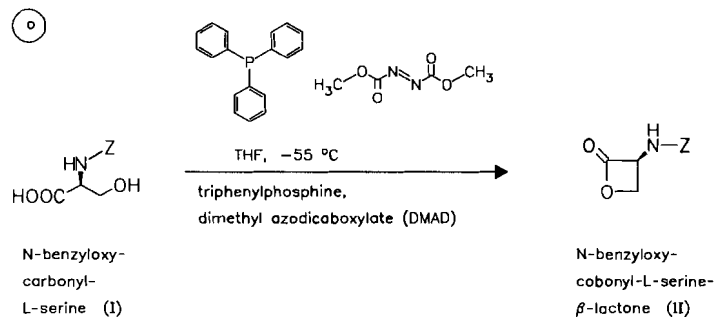
D:	Ajan (3M Medica)	GB:	Acupan (3M Health Care;	Oxadol (ISI)
	Silentan (Krewel		as hydrochloride)	USA: Acupan (Riker); wfm
	Meuselbach)	I:	Nefadol (Zilliken)	
F:	Acupan (Biocodex)		Nefam (Farma-Biagini)	

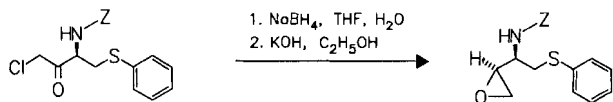
Nelfinavir mesylate

(AG-1343; LY-312857)

ATC: J05AE04

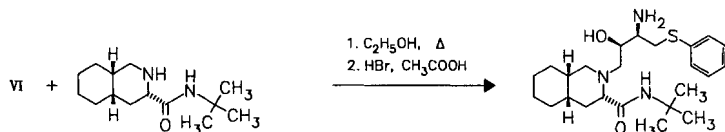
Use: antiviral, HIV-protease inhibitor

RN: 159989-65-8 MF: $\text{C}_{32}\text{H}_{45}\text{N}_3\text{O}_4\text{S} \cdot \text{CH}_4\text{O}_3\text{S}$ MW: 663.90CN: [3S-[2(2S*,3S*),3 α ,4 α β ,8 α β]]-N-(1,1-dimethylethyl)decahydro-2-[2-hydroxy-3-[(3-hydroxy-2-methylbenzoyl)amino]-4-(phenylthio)butyl]-3-isoquinolinecarboxamide monomethanesulfonate (salt)



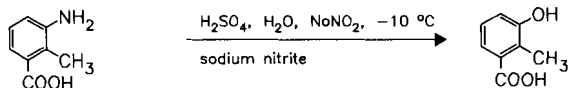
(R)-phenylmethyl
[3-chloro-2-oxo-1-
[(phenylthio)methyl]-
propyl]carbamate (V)

[S-(R*,S*)]-phenyl-
methyl [1-oxiranyl-
2-(phenylthio)ethyl]-
carbamate (VI)



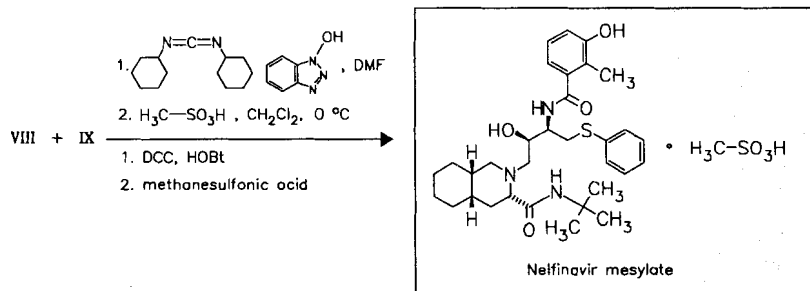
[3S-(3 α ,4 $\alpha\beta$,8 $\alpha\beta$)]-N-(1,1-
dimethylethyl)decahydro-
3-isoquinolinecarboxamide (VII)
(cf. saquinavir synthesis)

[3S-[2(2S*,3S*),3 α ,4 $\alpha\beta$,8 $\alpha\beta$]]-2-
[3-amino-2-hydroxy-4-(phenylthio)-
butyl]-N-(1,1-dimethylethyl)deca-
hydro-3-isoquinolinecarboxamide (VIII)

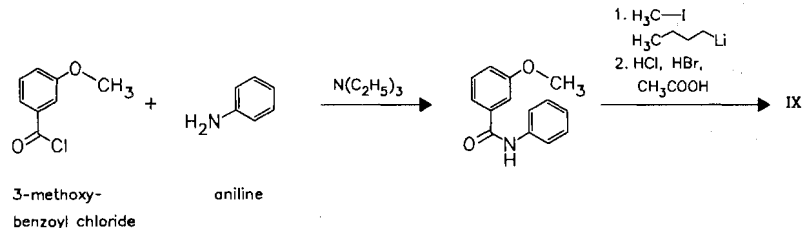


3-amino-2-methyl-
benzoic acid

3-hydroxy-2-methyl-
benzoic acid (IX)

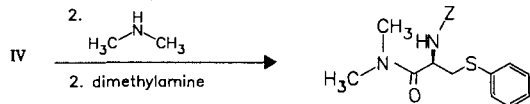


alternative synthesis of intermediate IX:

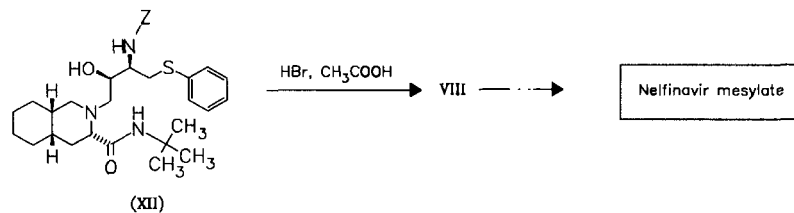
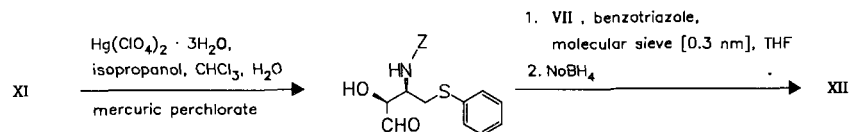
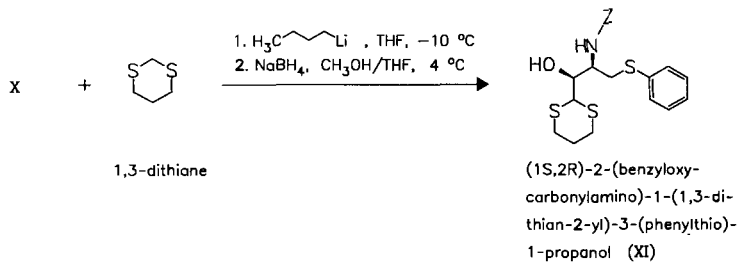


(b)

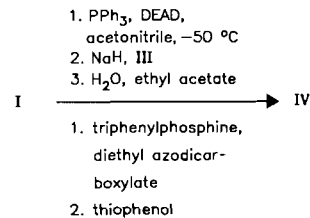
1. pivaloyl chloride,
N-methylmorpholine,
-15 °C, acetonitrile

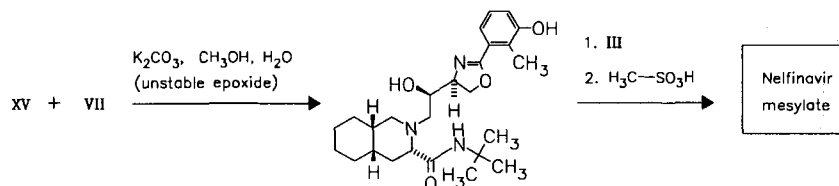
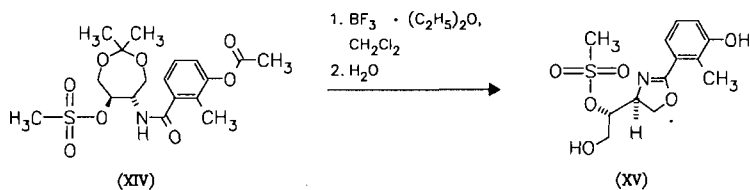
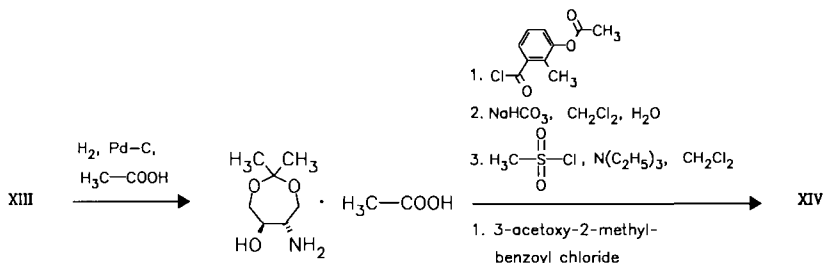
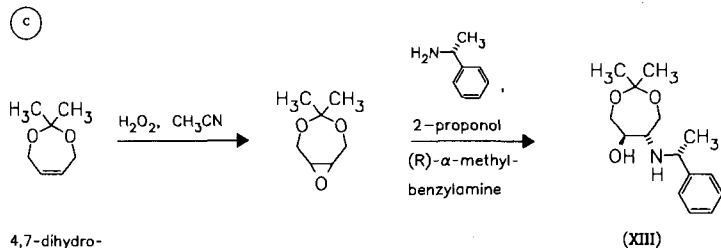


(X)



(ba) synthesis of the starting material IV:





Reference(s):

- Kaldar, S.W. et al.: J. Med. Chem. (JMCMAR) **40**, 3979-3985 (1997).
 WO 9 509 843 (Agouron Pharm.; appl. 7.10.1994; USA-prior. 7.10.1993, 2.2.1994).
 WO 9 521 164 (Eli Lilly; prior. 2.2.1994).
 Inaba, T. et al.: J. Org. Chem. (JOCEAH) **63**, 7582-7583 (1998).
 b Rieger, D.L.: J. Org. Chem. (JOCEAH) **62**, 8546-8548 (1997).
 ba Marzoni, G. et al.: Synth. Commun. (SYNCAV) **25**, 2475 (1995).
 c Inaba, T. et al.: J. Org. Chem. (JOCEAH) **63**, 7582-7583 (1998).

alternative synthesis of VI:

Inaba, T. et al.: J. Org. Chem. (JOCEAH) **65**, 1623-1628 (2000).

Formulation(s): oral powder 50 mg/g; tabl. 250 mg

Trade Name(s):

D: Viracept (Roche)

GB: Viracept (Roche)

USA: Viracept (Agouron)

Nemonapride

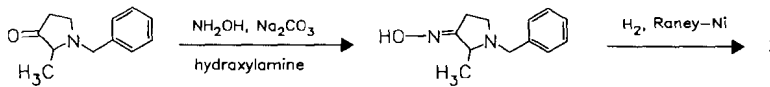
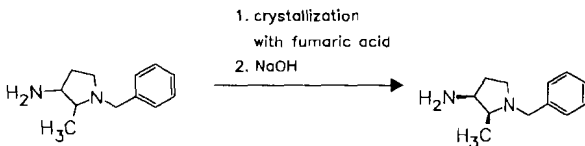
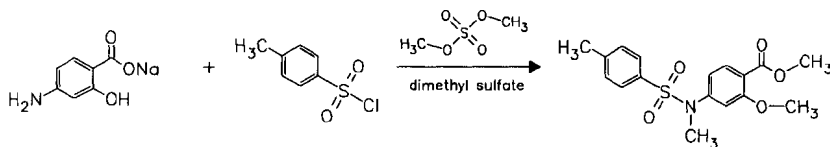
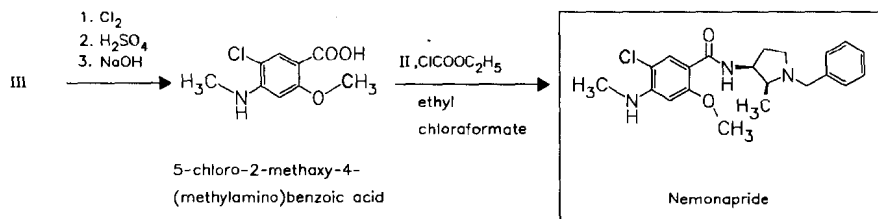
(Emonapride)

ATC: N05AH; N04B

Use: antipsychotic, selective D₂-antagonistRN: 75272-39-8 MF: C₂₁H₂₆ClN₃O₂ MW: 387.91LD₅₀: 24.5 mg/kg (M, i.v.); 604 mg/kg (M, p.o.); >320 mg/kg (M, s.c.);

17 mg/kg (R, i.v.); >367 mg/kg (R, p.o.); >320 mg/kg (R, s.c.)

>200 mg/kg (dog, p.o.)

CN: *cis*-5-chloro-2-methoxy-4-(methylamino)-*N*-[2-methyl-1-(phenylmethyl)-3-pyrrolidinyl]benzamide1-benzyl-2-methyl-
3-pyrrolidinone1-benzyl-3-hydroxy-
imino-2-methyl-
pyrrolidine3-amino-1-benzyl-
2-methylpyrrolidine (I)*cis*-3-amino-1-benzyl-
2-methylpyrrolidine (II)2-hydroxy-4-amino-
benzoic acid
sodium salttosyl
chloridemethyl 2-methoxy-4-(*N*-methyl-
N-tosylamino)benzoate (III)5-chloro-2-methoxy-4-
(methylamino)benzoic acid

Nemonapride

Reference(s):

DE 2 855 853 (Yamanouchi; appl. 22.12.1978; J-prior. 1.7.1977).

US 4 210 660 (Yamanouchi; appl. 20.12.1978; J-prior. 1.7.1977).

Iwanami, S. et al.: J. Med. Chem. (JMCMAR) **24**, 1224 (1981).

JP 54 014 965 (Yamanouchi Pharm. Co. Ltd; J-prior. 1.7.1977, 30.6.1978).

Formulation(s): tabl. 3 mg, 10 mg

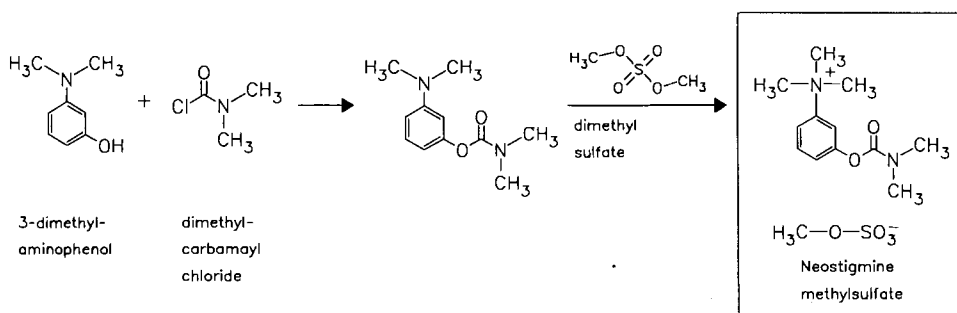
Trade Name(s):

J: Emiracc (Yamanouchi;
1991)

Neostigmine methylsulfate

ATC: N07AA01; S01EB06

Use: parasympathomimetic, vagotonic,
cholinesterase inhibitor

RN: 51-60-5 MF: $C_{12}H_{19}N_2O_2 \cdot CH_3O_4S$ MW: 334.39 EINECS: 200-109-5LD₅₀: 160 µg/kg (M, i.v.); 7500 µg/kg (M, p.o.)CN: 3-[[[(dimethylamino)carbonyl]oxy]-*N,N,N*-trimethylbenzenaminium methyl sulfate**bromide**RN: 114-80-7 MF: $C_{12}H_{19}BrN_2O_2$ MW: 303.20 EINECS: 204-054-8

Reference(s):

US 1 905 990 (Roche; 1933; prior. 1931).

Formulation(s): amp. 0.5 mg/ml (as methyl sulfate); eye drops 30 mg/ml; ointment 10 mg/g; tabl. 15 mg (as bromide)

Trade Name(s):

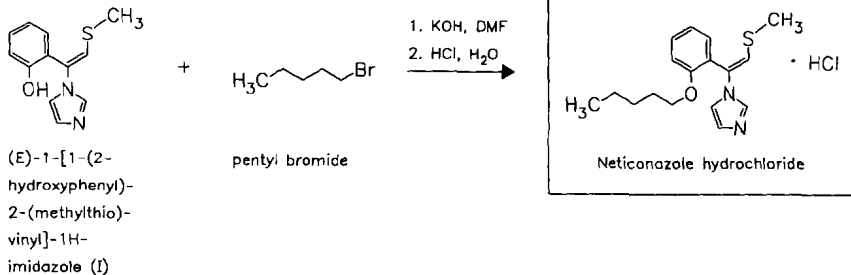
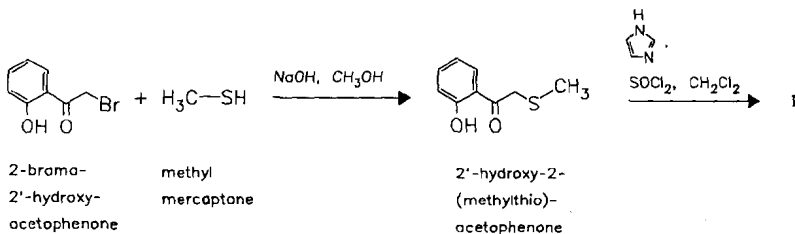
D:	Neostigmin-Stulln (Pharma Stulln)	GB:	Prostigmin (Roche); wfm Robinul Neostigmine (Anpharm)-comb.	J:	Prostigmina (Roche)
F:	Neostig-Reu (Reusch)	I:	Intrastigmina (Lusofarmaco)	USA:	Vagostigmin (Shionogi)
	Syncarpin (Winzei)-comb.				Prostigmin (Roche); wfm generics; wfm
	Prostigmine (Roche)				

Neticonazole hydrochloride

Use: antifungal

(SS-717)

RN: 130773-02-3 MF: $C_{17}H_{22}N_2OS \cdot HCl$ MW: 338.90CN: (*E*)-1-[2-(Methylthio)-1-[2-(pentyloxy)phenyl]ethenyl]-1*H*-imidazole monohydrochloride**base**RN: 130726-68-0 MF: $C_{17}H_{22}N_2OS$ MW: 302.44**undefined isomer**RN: 111788-99-9 MF: $C_{17}H_{22}N_2OS$ MW: 302.44

**Reference(s):**

Ogawa, M. et al.: Chem. Pharm. Bull. (CPBTAL) **39** (9), 2301 (1991).
EP 227 011 (SS Pharm.; appl. 16.12.1986; J-prior. 23.12.1983).

Formulation(s): cream 1%, sol. 1% (as hydrochloride)

Trade Name(s):

J: Atolant (Green Cross; SS Pharm.)

Netilmicin

ATC: J01GB07; S01AA23
Use: antibiotic

RN: 56391-56-1 MF: $\text{C}_{21}\text{H}_{41}\text{N}_5\text{O}_7$ MW: 475.59 EINECS: 260-146-8

LD_{50} : 40 mg/kg (M, i.v.);

25.2 mg/kg (R, i.v.)

CN: O-3-deoxy-4-C-methyl-3-(methylamino)- β -L-arabinopyranosyl-(1 \rightarrow 6)-O-[2,6-diamino-2,3,4,6-tetra-deoxy- α -D-glycero-hex-4-enopyranosyl-(1 \rightarrow 4)]-2-deoxy-N¹-ethyl-D-streptomine

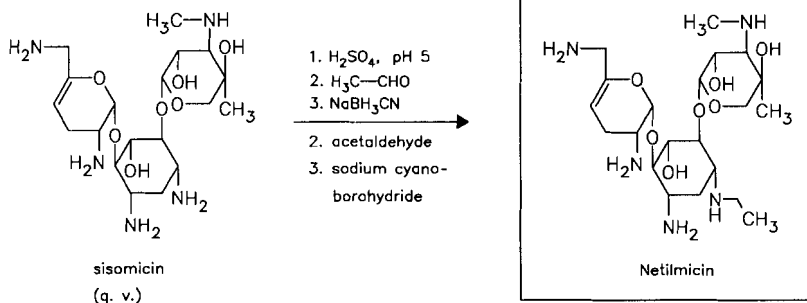
sulfate (2:5)

RN: 56391-57-2 MF: $\text{C}_{21}\text{H}_{41}\text{N}_5\text{O}_7 \cdot 5/2\text{H}_2\text{SO}_4$ MW: 1441.56 EINECS: 260-147-3

LD_{50} : 22 mg/kg (M, i.v.);

40.7 mg/kg (R, i.v.); >10 g/kg (R, p.o.)

a



b

from 1-N-ethyl- α -deoxy-D-streptomycin by fermentation with *Micromonospora inyoensis* 1550F-1G

Reference(s):

DOS 2 462 485 (Scherico; appl. 1.8.1974; USA-prior. 6.8.1973, 19.3.1974).
DOS 2 437 160 (Scherico; appl. 1.8.1974; USA-prior. 6.8.1973, 19.3.1974) - (also further methods).
US 4 002 742 (Scherico; 11.1.1977; prior. 19.3.1974).

Formulation(s): amp. 15 mg/1.5 ml, 50 mg/ml, 100 mg/ml, 150 mg/ml, 200 mg/2 ml (as sulfate)

Trade Name(s):

D:	Certomycin (Essex Pharma; 1980)	GB:	Netillin (Schering-Plough; 1981)	J:	Netilyn (Sankyo; 1985) Vectacin (Essex)
F:	Netromicine (Schering- Plough; 1983)	I:	Nettacin (Schering-Plough; 1982) Zetamicin (Menarini; 1982)	USA:	Netromycin (Schering; 1983)

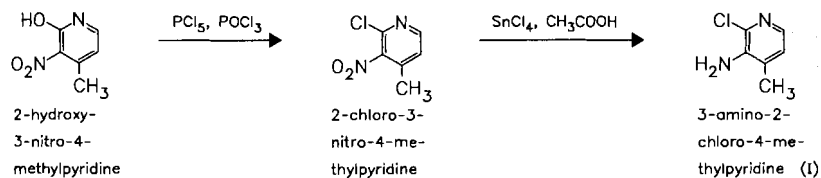
Nevirapine (BI-RG-587)

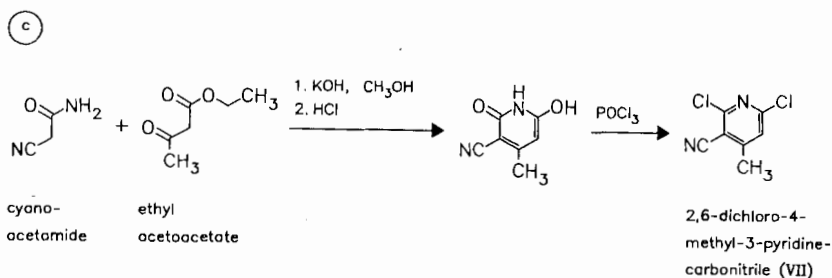
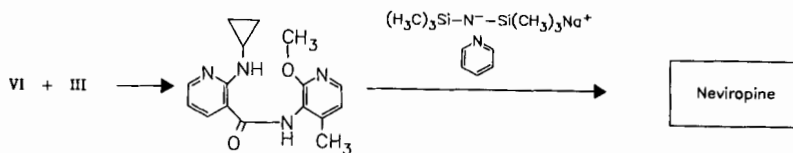
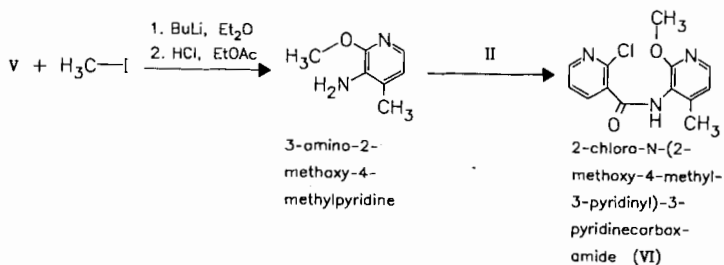
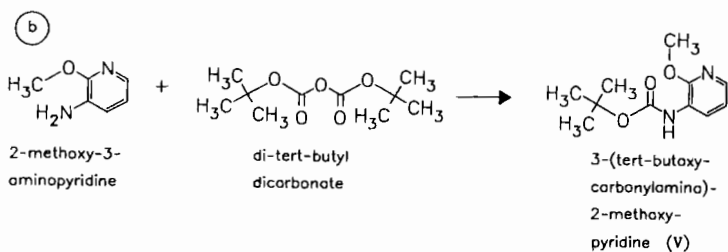
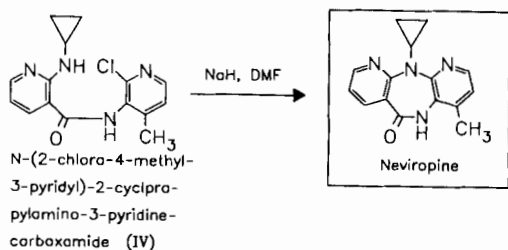
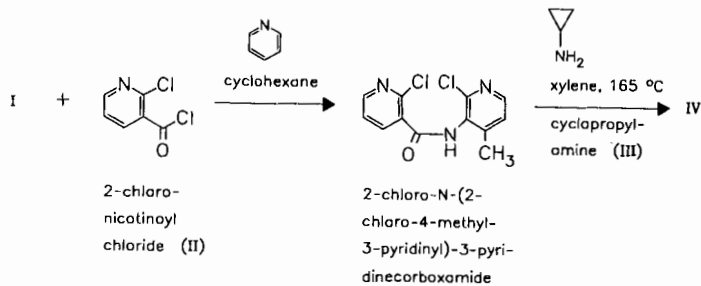
ATC: J05AG01
Use: antiviral, anti-AIDS therapeutic,
reverse transcriptase inhibitor

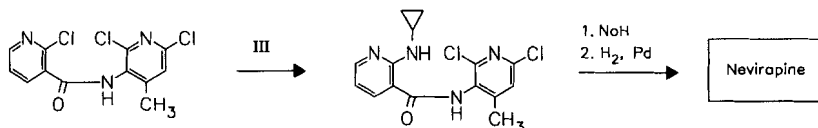
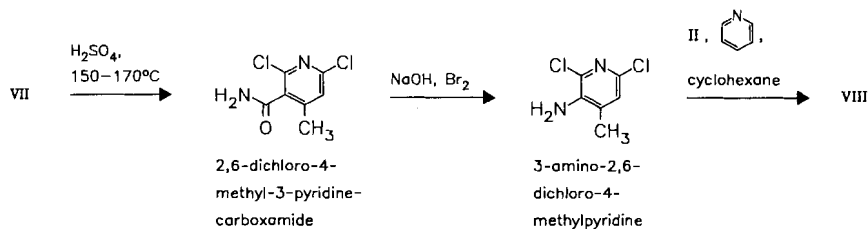
RN: 129618-40-2 MF: $\text{C}_{15}\text{H}_{14}\text{N}_4\text{O}$ MW: 266.30

CN: 11-cyclopropyl-5,11-dihydro-4-methyl-6H-dipyrido[3,2-b:2',3'-e][1,4]diazepin-6-one

a







2,6-dichloro-3-(2-chloronicotinoyl-amino)-4-methylpyridine (VIII)

Reference(s):

review:

Pedersen, O.S.; Pedersen, E.B.: Synthesis (SYNTBF) ,(4), 479.(2000).

a EP 429 987 (Boehringer Ing.; USA-prior. 19.10.1990).

b US 5 532 358 (Boehringer Ing.; 2.7.1996; USA-prior. 12.10.1994).

c EP 482 481 (Boehringer Ing.; appl. 16.10.1991; USA-prior. 19.10.1990).

process for IV avoiding excess of cyclopropylamine:

DE 4 403 311 (Boehringer Ing.; D-prior. 3.2.1994).

combination with HIV-protease inhibitors:

WO 9 600 068 (Merck & Co.; appl. 23.6.1995; USA-prior. 27.6.1994).

osmotic dosage forms:

US 5 358 721 (Alza Corp.; appl. 4.12.1992; USA-prior. 4.12.1994).

Formulation(s): tabl. 200 mg

Trade Name(s):

D: Viramone (Boehringer Ingelh.; 1998)

GB: Viramune (Boehringer Ingelh.; 1998)

USA: Viramune (Roxane; 1998)

Nialamide

ATC: N06AF02

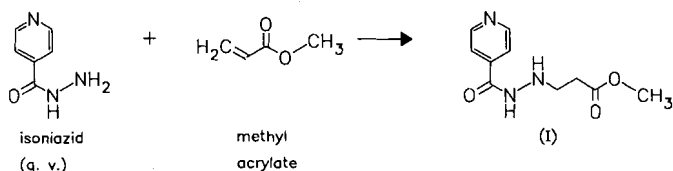
Use: psychoanaleptic, antidepressant

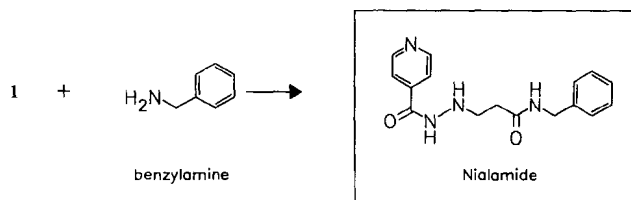
RN: 51-12-7 MF: C₁₆H₁₈N₄O₂ MW: 298.35 EINECS: 200-079-3

LD₅₀: 120 mg/kg (M, i.v.); 590 mg/kg (M, p.o.);

1700 mg/kg (R, p.o.)

CN: 4-pyridinecarboxylic acid 2-[3-oxo-3-[(phenylmethyl)amino]propyl]hydrazide



*Reference(s):*

US 2 894 972 (Pfizer; 14.7.1959; prior. 31.12.1958).

US 3 040 061 (Pfizer; 19.6.1962; prior. 27.4.1959, 1.6.1961).

Formulation(s): cps. 25 mg, 100 mg*Trade Name(s):*

F: Niamide (Pfizer); wfm

GB: Niamid (Pfizer); wfm

J: Niamid (Taito Pfizer)

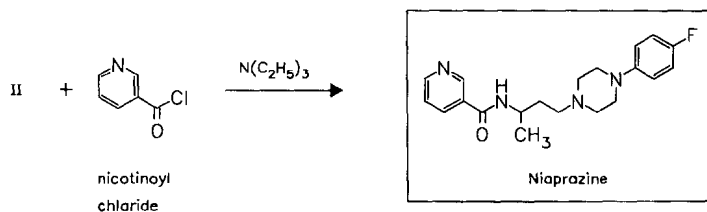
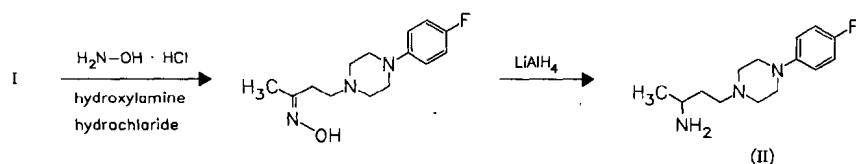
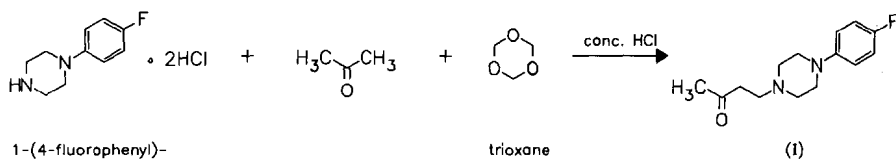
Niaprazine

ATC: N05CM16

Use: antiallergic, bronchodilator, sedative

RN: 27367-90-4 MF: C₂₀H₂₅FN₄O MW: 356.45 EINECS: 248-431-5LD₅₀: 145 mg/kg (M, i.v.); 890 mg/kg (M, p.o.)

CN: N-[3-[4-(4-fluorophenyl)-1-piperazinyl]-1-methylpropyl]-3-pyridinecarboxamide

*Reference(s):*

DOS 1 957 371 (Mauvernay; appl. 14.11.1969; F-prior. 14.11.1968).

US 3 712 893 (Mauvernay; 23.1.1973; F-prior. 14.11.1968).

Formulation(s): syrup 0.3 g/100 ml

Trade Name(s):

F: Nopron (Synthelabo) I: Nopron (Sanofi Winthrop)

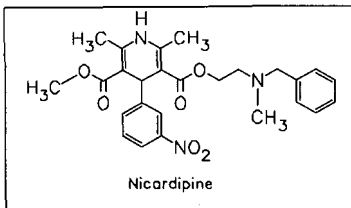
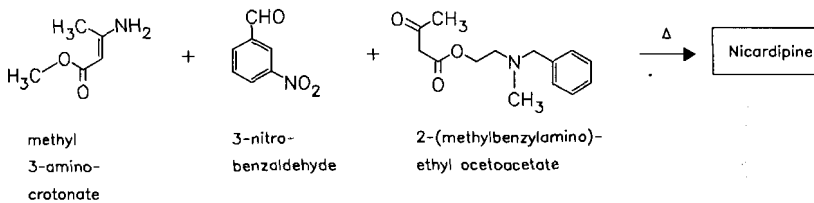
Nicardipine

ATC: C08CA04

Use: calcium antagonist

RN: 55985-32-5 MF: C₂₆H₂₉N₃O₆ MW: 479.53 EINECS: 259-932-3LD₅₀: 9.7 mg/kg (M, i.v.); 480 mg/kg (M, p.o.);
320 mg/kg (R, p.o.)

CN: 1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-3,5-pyridinedicarboxylic acid methyl 2-[methyl(phenylmethyl)amino]ethyl ester

monohydrochlorideRN: 54527-84-3 MF: C₂₆H₂₉N₃O₆ · HCl MW: 515.99 EINECS: 259-198-4LD₅₀: 19.9 mg/kg (M, i.v.); 322 mg/kg (M, p.o.);
15.5 mg/kg (R, i.v.); 184 mg/kg (R, p.o.);
5 mg/kg (dog, i.v.)*Reference(s):*

US 3 985 758 (Yamanouchi; 12.10.1976; J-prior. 20.2.1973).

DOS 2 407 115 (Yamanouchi; appl. 15.2.1974; J-prior. 20.2.1973, 3.3.1973, 20.4.1973, 11.5.1973, 17.5.1973, 24.7.1973, 29.11.1973).

Iwanami, M. et al.: Chem. Pharm. Bull. (CPBTAL) **27**, 1426 (1979).
(alternative syntheses are described).*synthesis of enantiomers:*Shibanuma, T. et al.: Chem. Pharm. Bull. (CPBTAL) **28**, 2809 (1980).*Formulation(s):* cps. 20 mg, 30 mg; s. r. cps. 30 mg, 45 mg, 60 mg (as hydrochloride)*Trade Name(s):*

D:	Antagonil (Novartis Pharma)	Cardipinen (Farmaceutica Pr.)	Niven (Pulitzer)
F:	Loxen (Novartis; 1986)	Lisanirc (Lisapharma)	Perdipina (Novartis Farma)
GB:	Cardene (Yamanouchi; 1986)	Neucor (CT)	Ranvil (Gentili)
		Nicapress (Benedetti)	Vasodin (Teofarma)
		Nicardal (Italfarmaco)	Vasonorm (NCSN)
I:	Bionicard (Bioindustria)	Nicarpin (Sancarlo)	J: Nicodel (Mitsui; 1981)
	Cardioten (OFF)	Nimicor (Formenti)	Perdipine (Yamanouchi; 1981)
	Cardip (Francia Farm.)		

USA: Cardene (Roche; Wyeth-Ayerst)

Nicergoline

ATC: C04AE02
Use: vasodilator

RN: 27848-84-6 MF: $C_{24}H_{26}BrN_3O_3$ MW: 484.39 EINECS: 248-694-6

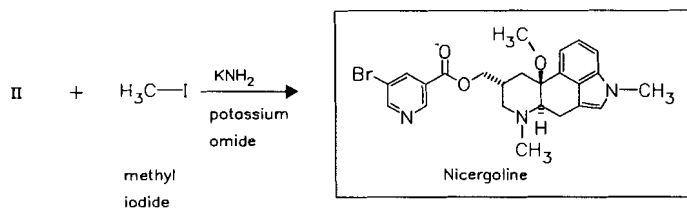
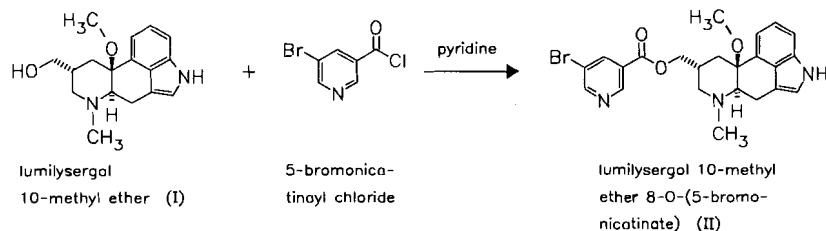
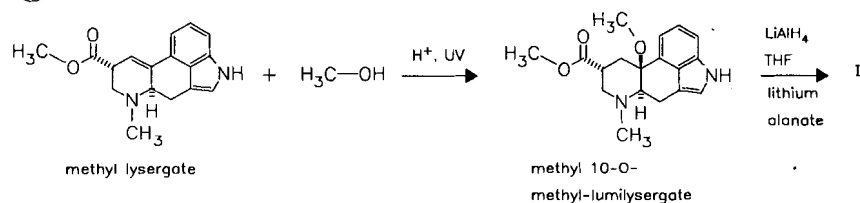
LD₅₀: 46 mg/kg (M, i.v.); 633 mg/kg (M, p.o.);
42 mg/kg (R, i.v.); 1193 mg/kg (R, p.o.);
20 mg/kg (dog, i.v.); 790 mg/kg (dog, p.o.)

CN: (8β)-10-methoxy-1,6-dimethylergoline-8-methanol 5-bromo-3-pyridinecarboxylate (ester)

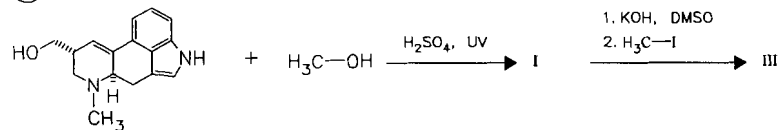
tartrate

RN: 32222-75-6 MF: $C_{24}H_{26}BrN_3O_3 \cdot xC_4H_6O_6$ MW: unspecified EINECS: 250-964-3

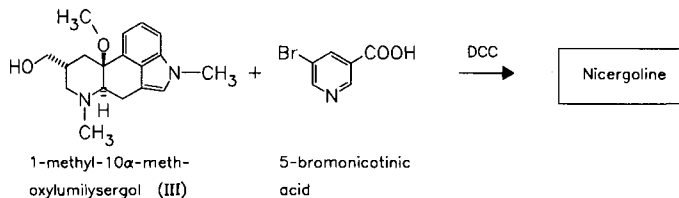
(a)



(b)



[by extraction from
Kaladano seeds
(Calonyction-*Ipomoea*
(Choisy) Hallier f.
nova species)]

**Reference(s):**

- US 3 879 554 (Soc. Farmaceutici Italia; 22.4.1975; I-prior. 20.3.1970).
- a** US 3 228 943 (Soc. Farmaceutici Italia; 11.1.1966; I-prior. 11.6.1962).
 DOS 2 022 926 (Soc. Farmaceutici Italia; appl. 11.5.1970; I-prior. 13.5.1969).
 DOS 2 112 273 (Soc. Farmaceutici Italia; appl. 15.3.1971; I-prior. 20.3.1970).
 Arcari, G. et al.: *Experientia (EXPEAM)* **28**, 819 (1972).
 Bernardi, L.: *Arzneim.-Forsch. (ARZNAD)* **29** (II), 1204 (1979).
alternative method for esterification with 5-bromonicotinic acid (imidazolidine method):
 DOS 2 752 533 (LEK; appl. 24.11.1977; YU-prior. 22.12.1976).
 GB 1 557 506 (LEK; appl. 6.12.1977; YU-prior. 22.12.1976).
- b a) isolation of lysergol from kaladana seeds:**
 Abou-Chaar, C.I.; Digenis, G. A.: *Nature (London) (NATUAS)* **212**, 618 (1966).
 DOS 2 240 266 (Simes; appl. 16.8.1972; B-prior. 17.8.1971, 14.1.1972).
 DOS 2 834 703 (Simes; appl. 8.8.1978; CH-prior. 12.8.1977).
- b b) method:**
 GB 2 018 245 (E. Corvi Mora; appl. 4.4.1979; I-prior. 5.4.1978).

Formulation(s): cps. 5 mg, 10 mg, 15 mg, 30 mg; f. c. tabl. 5 mg, 10 mg, 20 mg, 30 mg; drg. 5 mg, 10 mg; tabl. 10 mg, 20 mg; vial 4 mg/4 ml (as tartrate)

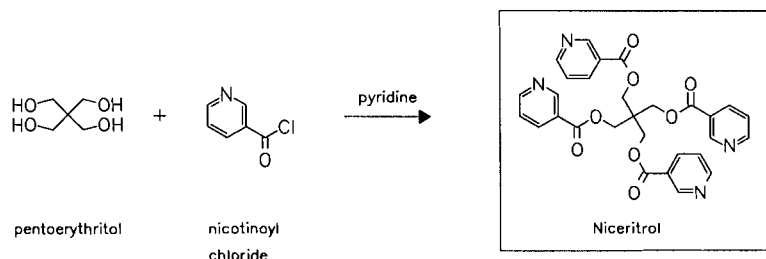
Trade Name(s):

D:	Circo-Maren (Krewel Meuselbach)	F:	Sermion (Specia; 1975)		Sermion (Pharmacia & Upjohn)
	ergobel (Hormosan)	I:	Cebran (Garant)	J:	Sermion (Farmitalia-Tanabe)
	Memoq (Parke Davis)		Ergolin (Boniscontro & Gazzone)		
	Nicerium (Neuro Hexal)		Nicer (Ist. Chim. Inter.)		
	Sermion (Pharmacia & Upjohn; 1978)		Sermidrina (Farmitalia-comb.		

Niceritrol

ATC: C10AD01
 Use: cholesterol depressant, antiarteriosclerotic

RN: 5868-05-3 MF: C₂₉H₂₄N₄O₈ MW: 556.53 EINECS: 227-519-7
 CN: 3-pyridinecarboxylic acid 2,2-bis[[3-(pyridinylcarbonyl)oxy]methyl]-1,3-propanediyl ester



Reference(s):

GB 1 022 880 (Bofors; appl. 18.11.1964; S-prior. 13.10.1964).

Formulation(s): tabl. 500 mg*Trade Name(s):*

I: Perycit (Tosi); wfm

J: Perycit (Sanwa Kagaku)

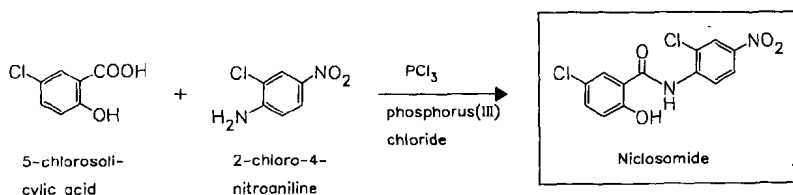
Niclosamide

ATC: P02DA01

Use: anthelmintic

RN: 50-65-7 MF: C₁₃H₈Cl₂N₂O₄ MW: 327.12 EINECS: 200-056-8LD₅₀: 7500 µg/kg (M, i.v.); 1 g/kg (M, p.o.);

2500 mg/kg (R, p.o.)

CN: 5-chloro-*N*-(2-chloro-4-nitrophenyl)-2-hydroxybenzamide*Reference(s):*

US 3 079 297 (Bayer; 26.2.1963; prior. 26.9.1956, 21.10.1959; 31.5.1960).

new formulations:

GB 1 527 638 (Bayer; appl. 14.12.1976; D-prior. 20.12.1975).

Formulation(s): tabl. 500 mg*Trade Name(s):*

D: Yomesan (Bayer Vital)

GB: Yomesan (Bayer)

USA: Niclocide (Miles Pharm.);

F: Trédémine (Roger Bellon)

I: Yomesan (Bayer Italia)

wfm

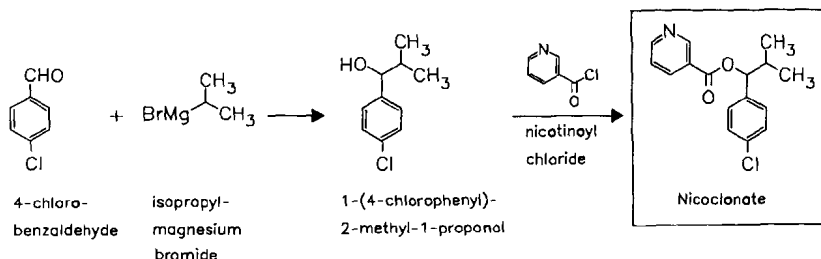
Nicoclonate

ATC: C10AD

Use: antiarteriosclerotic, hyperlipidemic

RN: 10571-59-2 MF: C₁₆H₁₆ClNO₂ MW: 289.76 EINECS: 234-156-8LD₅₀: 2.27 g/kg (M, i.p.)

CN: 3-pyridinecarboxylic acid 1-(4-chlorophenyl)-2-methylpropyl ester



Reference(s):

FR-M 3 454 (Établ. Kuhlmann; appl. 10.4.1964).

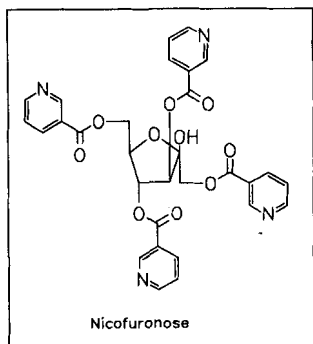
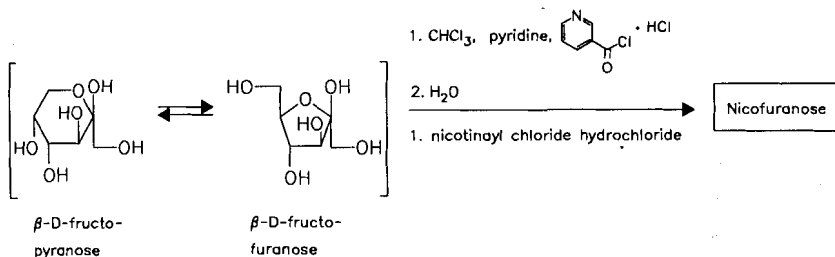
US 3 367 939 (Établ. Kuhlmann; 6.2.1968; F-prior. 10.4.1964).

Formulation(s): cps. 250 mg*Trade Name(s):*F: Lipidium-Sedaph
(Sedaph)-comb.; wfm

I: Lipidium (Rorer)

Nicofuranose
(Tetranicotinoylfructose)ATC: C10AD03
Use: vasodilatorRN: 15351-13-0 MF: C₃₀H₂₄N₄O₁₀ MW: 600.54 EINECS: 239-385-7

CN: β-D-fructofuranose 1,3,4,6-tetra-3-pyridinecarboxylate

*Reference(s):*

CH 366 523 (Eprova; appl. 1958).

Formulation(s): drg. 250 mg*Trade Name(s):*D: Bradilan (Mundipharma);
wfm

GB: Bradilan (Napp); wfm

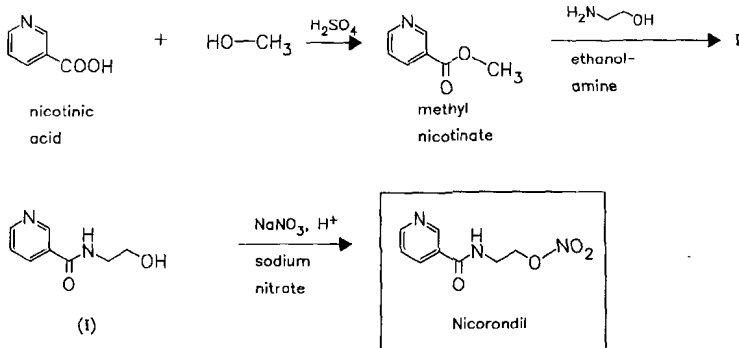
Nicorandil

ATC: C01DX16
Use: coronary vasodilator

RN: 65141-46-0 MF: C₈H₁₀N₂O₂ MW: 166.18

LD₅₀: 626 mg/kg (M, p.o.);
502 mg/kg (R, i.v.); 1220 mg/kg (R, p.o.);
62.5 mg/kg (dog, p.o.)

CN: N-[2-(nitrooxy)ethyl]-3-pyridinecarboxamide

*Reference(s):*

Masayoshi, S.: Yakugaku Zasshi (YKKZAJ) **80**, 1706 (1960).
DE 2 714 713 (Chugai; prior. 1.4.1977).

medical use:

US 4 200 640 (Chugai; 29.4.1980; J-prior. 2.4.1976).
JP-appl. 58/85 819 (Chugai; appl. 17.11.1981).

transdermal application system:

JP-appl. 59/10 513 (Nitto; appl. 12.7.1982).

Formulation(s): tabl. 2.5 mg, 5 mg, 10 mg, 20 mg

Trade Name(s):

F:	Adancor (Lipha Santé) Ikorel (Bellon)	GB:	Ikorel (Rhône-Poulenc Rorer)	J:	Perisalol (Mitsubishi; 1984) Sigmart (Chugai; 1984)
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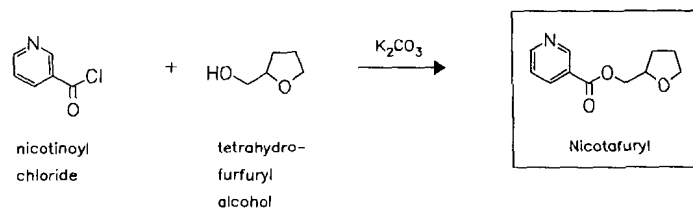
Nicotafuryl

(Thurfyl nicotinate)

ATC: M01
Use: antirheumatic (extern), rubefacient

RN: 70-19-9 MF: C₁₁H₁₃NO₃ MW: 207.23 EINECS: 200-727-5

CN: 3-pyridinecarboxylic acid (tetrahydro-2-furanyl)methyl ester



Reference(s):

DE 839 036 (Ciba; appl. 1948; CH-prior. 1947).
 US 2 485 152 (Ciba; 1949; CH-prior. 1947).

Formulation(s): tabl. 5 mg, 10 mg

Trade Name(s):

F: Trafuril (Ciba); wfm
 I: Balsamo Di Trasalen (Ciba)-comb.; wfm
 Trafuril (Ciba); wfm

Nicotinamide

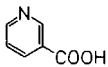
(Niacinamide)

ATC: A11HA01

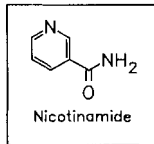
Use: vitamin B₃, antipellagra agentRN: 98-92-0 MF: C₆H₆N₂O MW: 122.13 EINECS: 202-713-4LD₅₀: 1.68 g/kg (R, s.c.)

CN: 3-pyridinecarboxamide

a



nicotinic acid

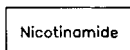
NH₃, >200 °C

Nicotinamide

b



nicotinonitrile

H₂O, NaOH or CaCO₃

Nicotinamide

Reference(s):

- a US 2 280 040 (SMA Corp.; 1942; appl. 1939).
 US 2 314 843 (American Cyanamid; 1943; appl. 1941).
 US 2 993 051 (Cowles Chem. Comp.; 18.7.1961; appl. 26.2.1958).
 b US 2 904 552 (Distillers; 15.9.1959; appl. 21.7.1958).
 DAS 2 539 435 (Showa Denko; appl. 4.9.1975; J-prior. 11.9.1974).

Formulation(s): amp. 100 mg; tabl. 200 mg

Trade Name(s):

D: Nicobion (Merck) numerous combination preparations
 I: Eparolo (Bonomelli)-comb. Farmobion Pp (Farmochimica Ital.)
 Vitabil composto (IBP)-comb.
 F: Nicobion 500 (Astra) further combination preparations
 Ietepar (Rottapharm)-comb.
 Vit. PP (Angelini) generic and polyvitaminous combination preparations
 GB: Papulex (Euroderma) generic and combination preparations
 Nicospasmolo (Italfarmaco)-comb.
 J: numerous generic and combination preparations
 Nicotinamide (Dynacren) USA: Mega-B (Arco)-comb.
 Nicotinamide (IDI)

Nicotinic acid

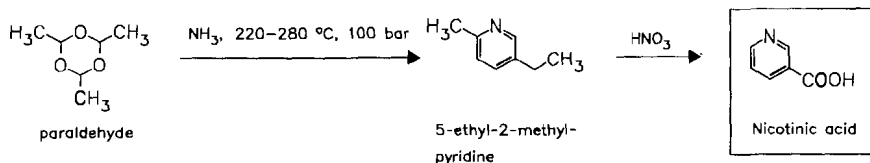
(Acide nicotinique; Acidum nicotinicum; Niacin)

ATC: A11HA01

Use: vasodilator (peripheral), antipellagra effect, antihyperlipidemic

RN: 59-67-6 MF: C₆H₅NO₂ MW: 123.11 EINECS: 200-441-0LD₅₀: 5 g/kg (M, i.v.); 3720 mg/kg (M, p.o.);
7 g/kg (R, p.o.)

CN: 3-pyridinecarboxylic acid

magnesium saltRN: 7069-06-9 MF: C₁₂H₈MgN₂O₄ MW: 268.51 EINECS: 230-361-1LD₅₀: 9 g/kg (M, p.o.)**sodium salt**RN: 54-86-4 MF: C₆H₄NNaO₂ MW: 145.09 EINECS: 200-215-1LD₅₀: 2900 mg/kg (M, i.v.)**Reference(s):**

DOS 2 046 556 (Lonza; appl. 22.9.1970; CH-prior. 24.9.1969).

US 2 905 688 (Abbott; 1959; appl. 1954).

continuous process:

DAS 2 256 508 (Nippon Soda; appl. 17.11.1972; J-prior. 17.11.1971).

5-ethyl-2-methylpyridine:

Nenz, A.; Pieroni, M.: Hydrocarbon Process. (HYPRAX) 47, (11), 139 (1968).

Formulation(s): s. r. tabl. 250 mg, 500 mg, 750 mg; tabl. 500 mg**Trade Name(s):**

D:	Antisklerosin (Medopharm)-comb. Merz Spezial Dragees (Merz & Co.)-comb. Niconacid (Wander); wfm	numerous combination preparations	I:	Enzimina (Menarini); wfm Enzycol (Ausonia); wfm Otophon (SIT); wfm
F:	Algipan (Darcy)-comb. Sedartryl (Oberlin)-comb.	GB: Equivert (Pfizer)-comb.; wfm Pernivit (Duncan, Flockhart)-comb.; wfm Tonivitan (Medo)-comb.; wfm	J:	generic
			USA:	Niacor (Upsher-Smith) Nicolar (Rhône-Poulenc Rorer)

Nicotinic acid benzyl ester

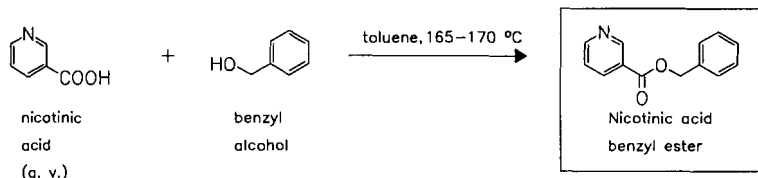
(Benzyl nicotinate)

ATC: C05

Use: rubefacient (for external use)

RN: 94-44-0 MF: C₁₃H₁₁NO₂ MW: 213.24 EINECS: 202-332-3LD₅₀: 100 mg/kg (M, i.v.); 2188 mg/kg (M, p.o.)

CN: 3-pyridinecarboxylic acid phenylmethyl ester

**Reference(s):**

GB 817 103 (Nordmark-Werke; appl. 1956; D-prior. 1955).

Formulation(s): gel 300 mg/100 g; ointment 40 mg/100 g

Trade Name(s):

D:	Lomazell (Lomapharm)-comb. Pernionin (Krewel Meuselbach)	F:	Pykaryl (Rodleben) further combination preparations Bayoline (Bayer)-comb.	J:	Lumbalgine (RPR Cooper)
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Nicotiny alcohol

(Pyridylcarbinol; Pyridylmethanol)

ATC: C04AC02; C10AD05
Use: vasodilator (peripheral)

RN: 100-55-0 MF: $\text{C}_6\text{H}_7\text{NO}$ MW: 109.13 EINECS: 202-864-6

LD₅₀: 1 g/kg (M, i.v.)

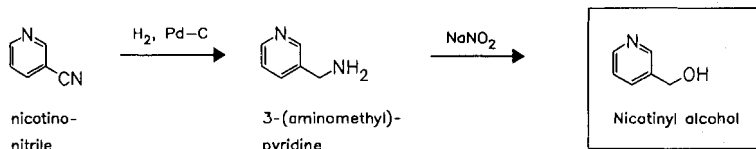
CN: 3-pyridinemethanol

tartrate (1:1)

RN: 6164-87-0 MF: $\text{C}_6\text{H}_7\text{NO} \cdot \text{C}_4\text{H}_6\text{O}_6$ MW: 259.21 EINECS: 228-199-1

LD₅₀: 1600 mg/kg (M, i.v.); 3300 mg/kg (M, p.o.);

1540 mg/kg (R, i.v.); 5790 mg/kg (R, p.o.)

**Reference(s):**

US 2 615 896 (Hoffmann-La Roche; 1952; prior. 1950).

US 2 547 048 (Hoffmann-La Roche; 1951; prior. 1946).

alternative syntheses:

US 2 509 171 (Ciba; 1950; CH-prior. 1946).

US 2 520 037 (Roche; 1950; GB-prior. 1947).

Formulation(s): amp. 100 mg/2 ml, 500 mg/10 ml; drg. 150 mg; tabl. 25 mg, 100 mg, 150 mg, 200 mg (as tartrate)

Trade Name(s):

D:	Radecol (ASTA Medica AWD)	GB:	Ronicol (Tillomed)	J:	Ronicol Timespan (Nippon Roche-Shionogi)
F:	Ronicol (Roche); wfm Ronicol-retard (Roche); wfm	I:	Ronicol retard (Roche); wfm Selcarbinol (Sella); wfm	USA:	Roniacol (Roche); wfm

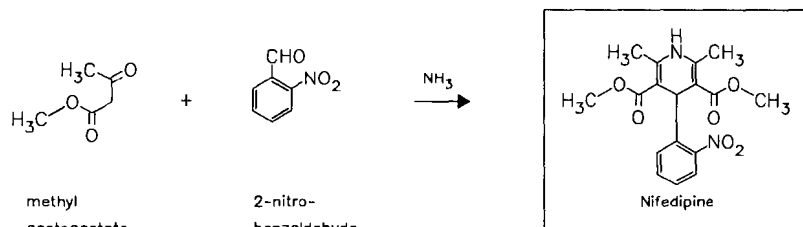
Nifedipine

ATC: C08CA05

Use: coronary vasodilator, calcium antagonist

RN: 21829-25-4 MF: C₁₇H₁₈N₂O₆ MW: 346.34 EINECS: 244-598-3

CN: 1,4-dihydro-2,6-dimethyl-4-(2-nitrophenyl)-3,5-pyridinedicarboxylic acid dimethyl ester

*Reference(s):*

- US 3 485 847 (Bayer; 23.12.1969; D-prior. 20.3.1967).
 US 3 488 359 (Bayer; 13.4.1971; D-prior. 20.3.1967).
 US 3 644 627 (Bayer; 22.2.1972; D-prior. 20.3.1967).
 GB 1 173 862 (Bayer; appl. 20.3.1968; D-prior. 20.3.1967).

formulation for perlingual application:

- US 3 784 684 (Bayer; 8.1.1974; D-prior. 24.8.1971, 29.2.1972).
 DOS 2 209 526 (Bayer; appl. 29.2.1972).
 DE 1 670 827 (Bayer; appl. 20.3.1967).

improved pharmaceutical formulation:

- DOS 2 822 882 (Yamanouchi; appl. 26.5.1978; J-prior. 7.6.1977, 14.7.1977).

Formulation(s): cps. 5 mg, 10 mg, 20 mg; inf. sol. 5 mg/50 ml; s. r. tabl. 10 mg, 20 mg, 40 mg;
 sol. 1 mg/0.4 ml; syringe 0.2 mg; tabl. 10 mg, 20 mg, 30 mg, 60 mg

Trade Name(s):

D:	Adalat (Bayer Vital; 1975)		I:	Adalat (Bayer Italia; 1976)
	Aprical (Rentschler)	F:	Adalate (Bayer-Pharma; 1979)	Anifed (Farmac. Formenti)
	Aprical long (Rentschler)-comb.		Beta-Adalate (Bayer-Pharma)-comb.	Citilat (CT)
	Cordicant (Mundipharma)		Chronadalate (Bayer-Pharma)	Coral (Drug Research)
	Corinfar (ASTA Medica AWD)		Tenordate (Zeneca)	Nifedidor (Monsanto)
	Corotrend (Kyttä-Siegfried)	GB:	Adalat (Bayer; 1977)	Nifedin (Benedetti)
	Dignokonstant (Sankyo)		Beta-Adalat (Bayer)-comb.	J: Adalat (Bayer; 1976)
	Duranifin (durachemie)		numerous generics and combination preparations	USA: Adalat (Bayer; 1986)
	Nifeclair (Hennig)			Procordia (Pfizer; 1982)
	Nifedipat (Azuchemie)			Procordia XL (Pfizer) generic

Nifenalol

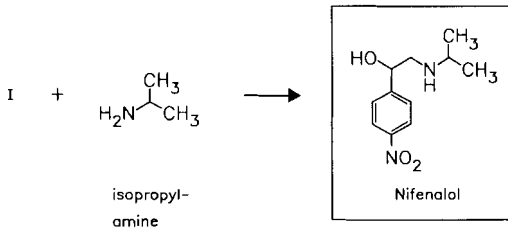
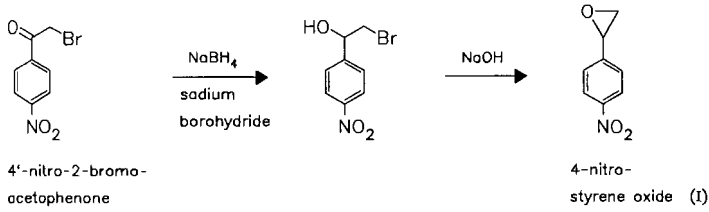
(INPEA)

ATC: C01B; C07A

Use: beta blocking agent, antianginal, antiarrhythmic

RN: 7413-36-7 MF: C₁₁H₁₆N₂O₃ MW: 224.26 EINECS: 231-023-6

CN: (±)-α-[[[1-(methylethyl)amino]methyl]-4-nitrobenzenemethanol

monohydrochlorideRN: 5704-60-9 MF: $C_{11}H_{16}N_2O_3 \cdot HCl$ MW: 260.72 EINECS: 227-194-1LD₅₀: 70 mg/kg (M, i.v.)**Reference(s):**

GB 950 682 (Lab. Bioterapico Milanese; appl. 30.6.1961).

Formulation(s): cps. 100 mg (as hydrochloride) in comb.**Trade Name(s):**

D: Beta-Intensain (Cassella-Riedel)-comb.; wfm	I: Inpea (Selvi); wfm Inpea (Selvi/3M); wfm	Nifepam (Selvi/3M)-comb.; wfm
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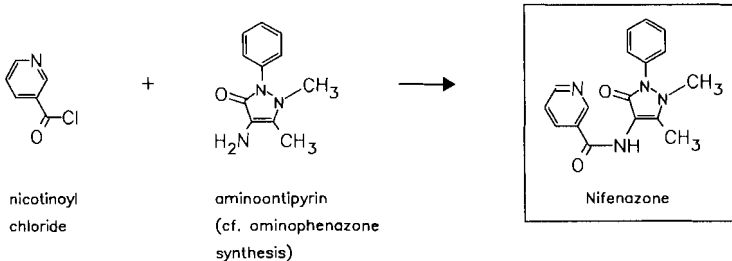
Nifenazone

ATC: N02BB05

Use: antirheumatic, analgesic, antipyretic

RN: 2139-47-1 MF: $C_{17}H_{16}N_4O_2$ MW: 308.34 EINECS: 218-387-1LD₅₀: 7890 mg/kg (M, p.o.)

CN: N-(2,3-dihydro-1,5-dimethyl-3-oxo-2-phenyl-1H-pyrazol-4-yl)-3-pyridinecarboxamide

**Reference(s):**

DE 897 407 (Dr. W. Heid; appl. 1951).

method:

DE 1 046 058 (P. Stoltenberg Chem. Fabr.; appl. 8.2.1957).

Formulation(s): drg. 250 mg, ointment 5 %; suppos. 200 mg, 400 mg; tabl. 200 mg

Trade Name(s):

D:	Nicopyron (Trommsdorff); wfm	I:	Neopiran (Panthox & Burck)	Nicazolidin (Kissei)
F:	Pro-Dol (Meram)-comb.; wfm	J:	Reumatosil (Saba)	Nicotinoyl (Nissin)
GB:	Thylin (Sinclair); wfm		Bontoram (Sanwa)	Rhyumapirine N (Nichiiko)
			Chillos-N (Kotani)	Sausal (Tokyo Hosei)
			Niapyrine (Iwaki)	Seberin (Mohan)
				Tromrheuman (Maruko)

Niflumic acid

(Nifluril)

ATC: M01AX02; M02AA17

Use: anti-inflammatory, antirheumatic

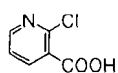
RN: 4394-00-7 MF: C₁₃H₉F₃N₂O₂ MW: 282.22 EINECS: 224-516-2

LD₅₀: 152 mg/kg (M, i.v.); 350 mg/kg (M, p.o.);

250 mg/kg (R, p.o.)

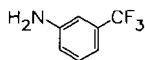
CN: 2-[[3-(trifluoromethyl)phenyl]amino]-3-pyridinecarboxylic acid

(a)

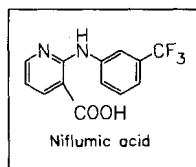


2-chloronicotinic acid

+

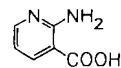


3-trifluoro-methylaniline



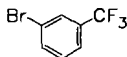
Niflumic acid

(b)

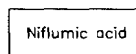
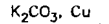


2-amino-nicotinic acid

+



1-bromo-3-trifluoromethyl-benzene



Niflumic acid

Reference(s):

a DE 1 470 014 (Labs. U.P.S.A.; appl. 10.12.1964; GB-prior. 19.12.1963, 25.3.1964).

BE 657 266 (Labs. U.P.S.A.; Am. 19.12.1964; GB-prior. 19.12.1963; 25.3.1964).

US 3 415 834 (U.P.S.A.; 10.12.1968; GB-prior. 19.12.1963, 25.3.1964).

b US 3 337 570 (Schering Corp.; 22.8.1967; prior. 23.10.1965).

Formulation(s): cps. 250 mg

Trade Name(s):

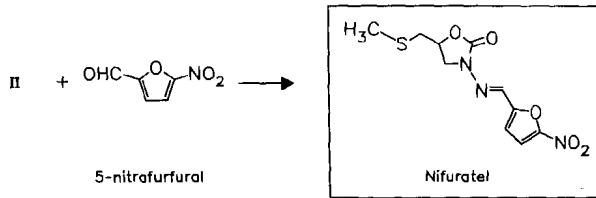
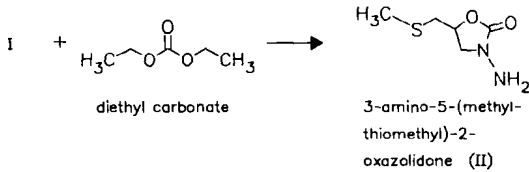
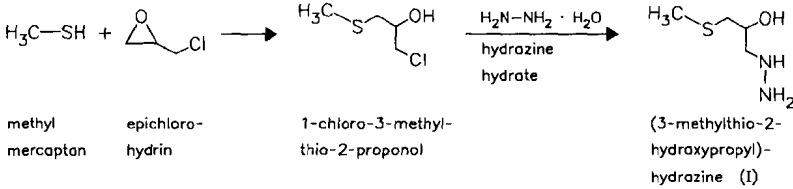
D:	Actol (Fournier Pharma)	Nifluril (UPSA)	I:	Niflam (Upsamedica)
F:	Flunir (Oberlin)	Nifluril gel gingival		
	Niflugel (UPSA)	(UPSA)-comb.		

Nifuratel

ATC: G01AX05

Use: chemotherapeutic (trichomonas),
antibacterial, antifungal,
antiprotozoalRN: 4936-47-4 MF: C₁₀H₁₁N₃O₅S MW: 285.28 EINECS: 225-576-2LD₅₀: >4.5 g/kg (M, p.o.)

CN: 5-[(methylthio)methyl]-3-[(5-nitro-2-furanyl)methylene]amino]-2-oxazolidinone

**Reference(s):**

BE 635 608 (Polichimica SAP; appl. 30.7.1963; I-prior. 1.8.1962).

GB 969 126 (Polichimica; appl. 25.10.1962; I-prior. 1.8.1962).

Formulation(s): drg. 200 mg; ointment 100 mg/g; pessaries 250 mg**Trade Name(s):**

D: Inimur (Taurus Pharma)

GB: Magmilor (Calmic); wfm

Macmiror Complex (Poli-)

F: Mycomnes (Fumouze)-
comb.

I: Emorril (Poli)-comb.

comb.

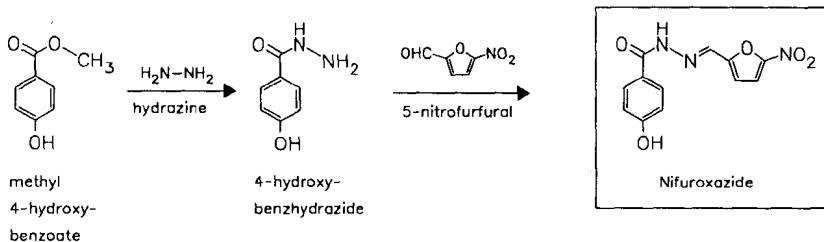
Macmiror (Poli)

Nifuroxazide

ATC: A07AX03

Use: chemotherapeutic, intestinal
antisepticRN: 965-52-6 MF: C₁₂H₉N₃O₅ MW: 275.22 EINECS: 213-521-5LD₅₀: 100 mg/kg (M, i.p.)

CN: 4-hydroxybenzoic acid [(5-nitro-2-furanyl)methylene]hydrazide

**Reference(s):**

FR 1 327 840 (Lab. Robert et Carrière; appl. 10.4.1962).

FR-M 1 427 (Lab. Robert et Carrière; appl. 12.7.1961).

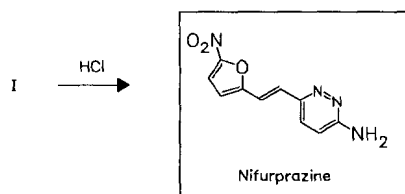
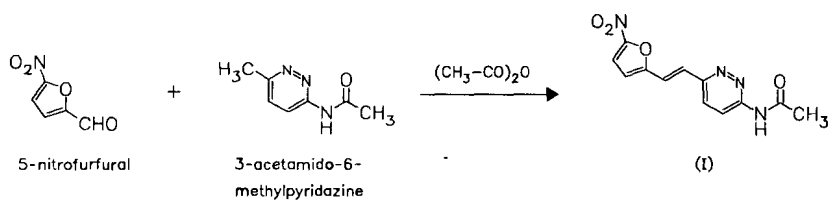
Formulation(s): cps. 200 mg; syrup 100 mg**Trade Name(s):**D: Pentofuryl (Karlspharma);
wfmF: Ambatrol (SmithKline
Beecham)Antinal (Roques)
Ercéfuryl (Synthélabo)
Lumifurex (Irex)
Panfurex (Bouchara)I: Diarret (Geymonat)
Ercéfuryl (Sanko Pharma)**Nifurprazine**

ATC: J01

Use: topical antibacterial

RN: 1614-20-6 MF: $C_{10}H_8N_4O_3$ MW: 232.20 EINECS: 216-563-2

CN: 6-[2-(5-nitro-2-furyl)ethenyl]-3-pyridazinamine

monohydrochlorideRN: 50832-74-1 MF: $C_{10}H_8N_4O_3 \cdot HCl$ MW: 268.66**Reference(s):**

DE 1 273 535 (Boehringer Mannh.; appl. 28.3.1962).

Formulation(s): ointment 0.1 % (as hydrochloride)

*Trade Name(s):*D: Carofur (Boehringer
Mannh.); wfm**Nifurtimox**

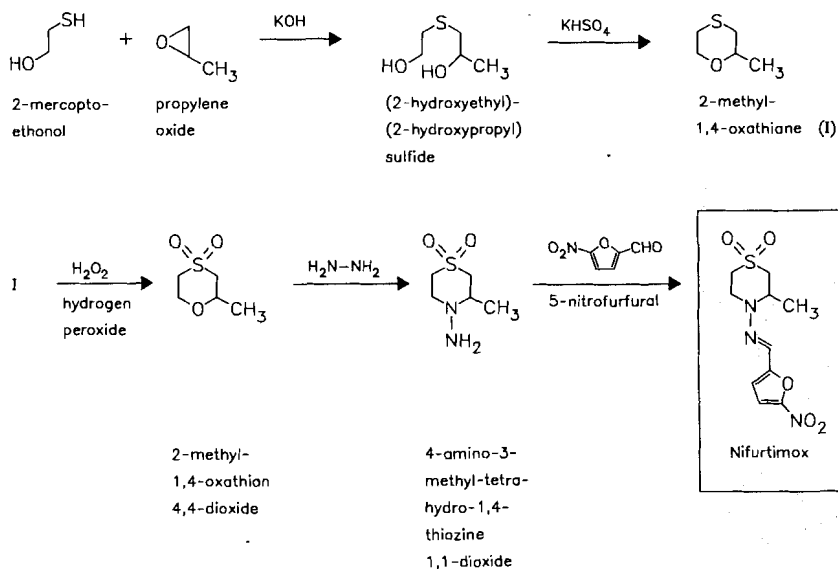
ATC: P01CC01

Use: chemotherapeutic (trypanosomiasis),
antiprotozoalRN: 23256-30-6 MF: C₁₀H₁₃N₃O₅S MW: 287.30 EINECS: 245-531-0LD₅₀: 2291 mg/kg (M, p.o.);

4050 mg/kg (R, p.o.);

>2 g/kg (dog, p.o.)

CN: 3-methyl-N-[(5-nitro-2-furanyl)methylene]-4-thiomorpholinamine 1,1-dioxide

*Reference(s):*

DE 1 170 957 (Bayer; appl. 23.11.1962).

Formulation(s): tabl. 30 mg, 120 mg*Trade Name(s):*

D: Lampit (Bayer); wfm

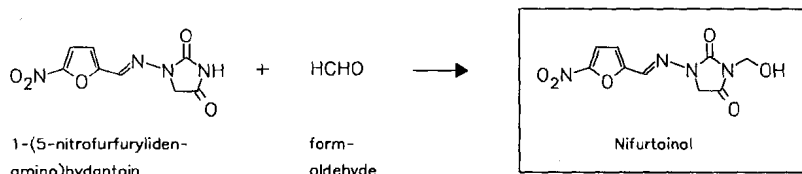
Nifurtoinol

ATC: G04AC02

Use: chemotherapeutic, antibacterial

RN: 1088-92-2 MF: C₉H₈N₄O₆ MW: 268.19 EINECS: 214-126-0

CN: 3-(hydroxymethyl)-1-[[[(5-nitro-2-furanyl)methylene]amino]-2,4-imidazolidinedione

*Reference(s):*

GB 988 374 (Norwich; appl. 6.12.1961; USA-prior. 27.12.1960).

Formulation(s): tabl. 40 mg*Trade Name(s):*

D: Urfadyne (Inpharzam); wfm

I: Fultrexin (Zambon Farm.)-
comb.; wfmUrfadyn (Zambon Farm.);
wfm

F: Urfadyn (Arsac); wfm

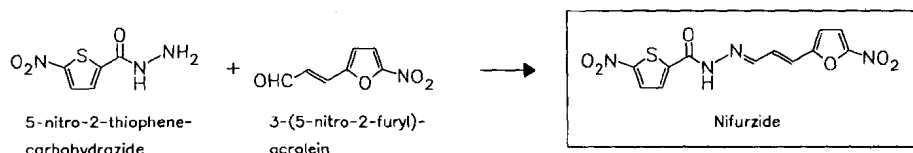
Nifurzide

ATC: A07AX04

Use: chemotherapeutic, antiinfective

RN: 39978-42-2 MF: C₁₂H₈N₄O₆S MW: 336.28 EINECS: 254-728-0LD₅₀: 3200 mg/kg (M, p.o.)

CN: 5-nitro-2-thiophenecarboxylic acid [3-(5-nitro-2-furanyl)-2-propylenidene]hydrazide

*Reference(s):*

DOS 2 200 375 (Lipha; appl. 5.1.1972; F-prior. 7.1.1971).

Szarvasi, E.; Fontaine, L.; Betbeder-Matibet, A.: J. Med. Chem. (JMCMAR) **16**, 281 (1973).*starting material:*Carrara, G.; Chiancone, F.M.; d'Amato, V.: Gazz. Chim. Ital. (GCITA9) **82**, 652 (1952).*Formulation(s):* cps. 150 mg; susp. 40 mg/ml*Trade Name(s):*

F: Ricridène (Lipha Santé)

Ricridène (Lipha)

Nikethamide

(Nicethamide)

ATC: R07AB02

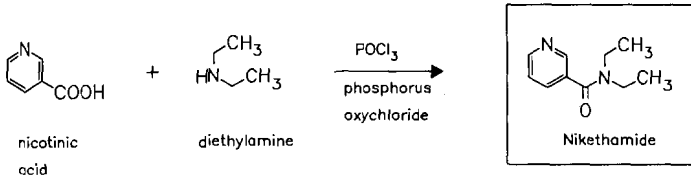
Use: respiratory analeptic

RN: 59-26-7 MF: C₁₀H₁₄N₂O MW: 178.24 EINECS: 200-418-5LD₅₀: 180 mg/kg (M, i.v.); 188 mg/kg (M, p.o.);

191 mg/kg (R, i.v.)

CN: N,N-diethyl-3-pyridinecarboxamide

calcium thiocyanateRN: 179799-22-5 MF: C₂₂H₂₈CaN₆O₂S₂ MW: 512.72



Reference(s):

DRP 351 085 (Ciba; 1920).
 DRP 441 707 (Ciba; 1924).

Formulation(s): drg. 50 mg in comb. (as calcium thiocyanate); powder 150 mg; sol. 250 mg/ml

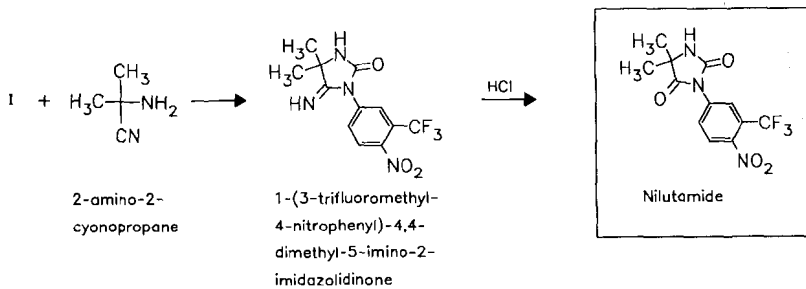
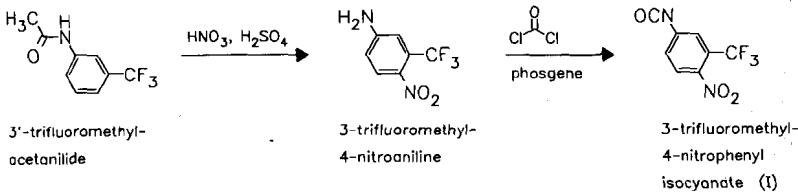
Trade Name(s):

D:	Felsol (Roland)-comb. Zellaforte Plus (Eurim Pharma)-comb.	GB:	Coramine (Ciba); wfm Miocardina (Croce Bianca); wfm	J:	Coramin (Ciba-Geigy- Takeda)
F:	Coramine (Ciba); wfm	USA:	Coramine (Ciba); wfm		

Nilutamide
 (RU-23908)

ATC: G03H; L02BB02
 Use: non-steroidal antiandrogen (for
 treatment of prostatic carcinoma)

RN: 63612-50-0 MF: C₁₂H₁₀F₃N₃O₄ MW: 317.22
 LD₅₀: 200 mg/kg (M, p.o.);
 195 mg/kg (R, p.o.)
 CN: 5,5-dimethyl-3-[4-nitro-3-(trifluoromethyl)phenyl]-2,4-imidazolidinedione



Reference(s):

DOS 2 649 925 (Roussel-Uclaf; appl. 29.10.1976; F-prior. 29.10.1975).
 US 4 097 578 (Roussel-Uclaf; 28.6.1978; F-prior. 29.10.1975).

synthesis of 3-trifluoromethyl-4-nitrophenyl isocyanate:

Rouche, H.: Bull. Cl. Sci., Acad. R. Belg. (BCSAAF) **13**, 346 (1927).
 JP 6 725 067 (Japan Bureau of Ind. Techn.; appl. 15.3.1966).

medical use for the treatment of hormone dependent cancer other than prostatic cancer:
 WO 8 803 404 (Roussel-Uclaf; appl. 3.11.1987; I-prior. 4.11.1986).

Formulation(s): tabl. 50 mg

Trade Name(s):

F: Anandron (Cassenne)

USA: Nilandron (Hoechst Marion
 Roussel)

Nilvadipine

(FR-34235; Niprodipine)

ATC: C08CA10

Use: calcium antagonist, antihypertensive,
 antianginal

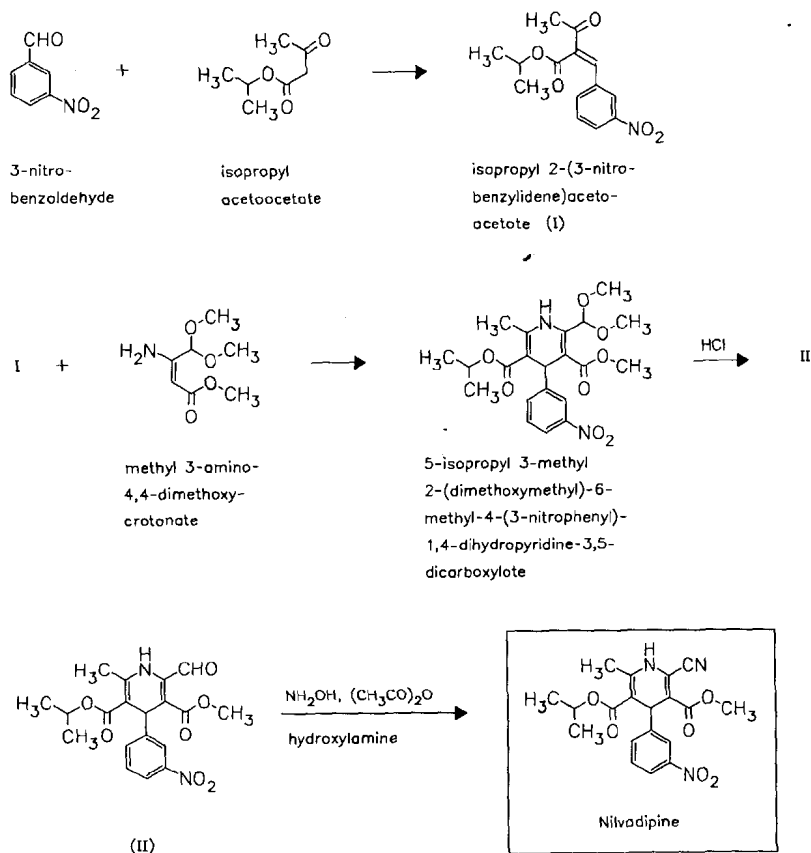
RN: 75530-68-6 MF: $C_{19}H_{19}N_3O_6$ MW: 385.38

LD₅₀: 9150 µg/kg (M, i.v.); 1300 mg/kg (M, p.o.);

9650 µg/kg (R, i.v.); 1560 mg/kg (R, p.o.);

3850 µg/kg (dog, i.v.); 510 mg/kg (dog, p.o.)

CN: 2-cyano-1,4-dihydro-6-methyl-4-(3-nitrophenyl)-3,5-pyridinedicarboxylic acid 3-methyl 5-(1-methylethyl) ester



Reference(s):

DE 2 940 833 (Fujisawa; appl. 9.10.1979; GB-prior. 10.10.1978).

US 4 338 322 (Fujisawa; 6.7.1982; GB-prior. 10.10.1978).

US 4 525 478 (Fujisawa; 25.6.1985; GB-prior. 10.10.1978).

Migamal, A. et al.: Chem. Pharm. Bull. (CPBTAL) **34**, 3071 (1986).

medical use for treatment of arteriosclerosis:

EP 185 283 (Fujisawa; appl. 7.12.1985; GB-prior. 10.12.1984).

medical use for treatment of cerebral dysfunction:

EP 253 173 (Fujisawa; appl. 26.6.1987; J-prior. 1.7.1986, 29.6.1987).

Formulation(s): s. r. cps. 8 mg, 16 mg

Trade Name(s):

D: Escor (Merck)

Nivadil (Klinge)

J: Nivadil (Fujisawa; 1989)

Nimesulide

ATC: M01AX17

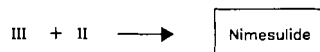
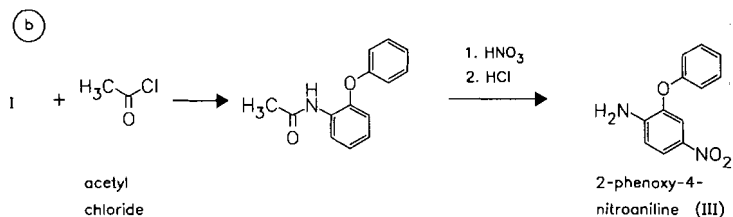
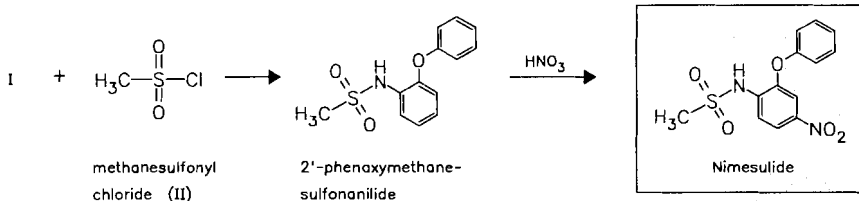
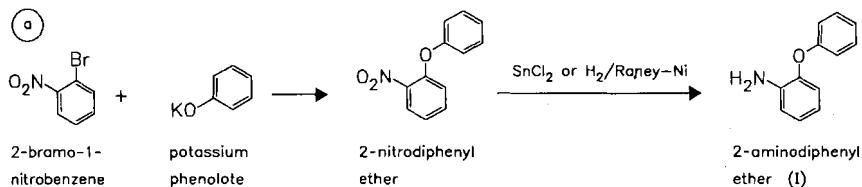
Use: anti-inflammatory

RN: 51803-78-2 MF: C₁₃H₁₂N₂O₅S MW: 308.31 EINECS: 257-431-4

LD₅₀: 392 mg/kg (M, p.o.);

200 mg/kg (R, p.o.)

CN: N-(4-nitro-2-phenoxyphenyl)methanesulfonamide



Reference(s):

US 3 840 597 (Riker; 8.10.1974; prior. 3.7.1972; 24.2.1971, 13.4.1970).

DOS 2 333 643 (Riker; appl. 2.7.1973; USA-prior. 3.7.1972).

synthesis of 2-phenoxy-4-nitroaniline:

DOS 2 842 186 (BASF; appl. 28.9.1978).

McCombie, H. et al.: J. Chem. Soc. (JCSOA9) **1931**, 529.

synthesis of 2-nitrodiphenyl ether:

Suter, C.M.: J. Am. Chem. Soc. (JACSAT) **51**, 2581 (1929).

Lock, G.: Monatsh. Chem. (MOCMB7) **55**, 167 (1930).

Formulation(s): gran. 100 mg; suppos. 200 mg; tabl. 100 mg, 200 mg

Trade Name(s):

I:	Algolide (Garant)	Folid (CT)	Nimesil (Lucofarmaco)
	Aulin (Boehringer Mannh.; 1985)	Laider (Esseti)	Remov (Piam)
	Eudolene (Savio IBN)	Mesid (Janssen-Cilag)	generics
	Fansidol (NCSN)	Mesulid (Novartis Farma; 1985)	

Nimetazepam

ATC: N05CD

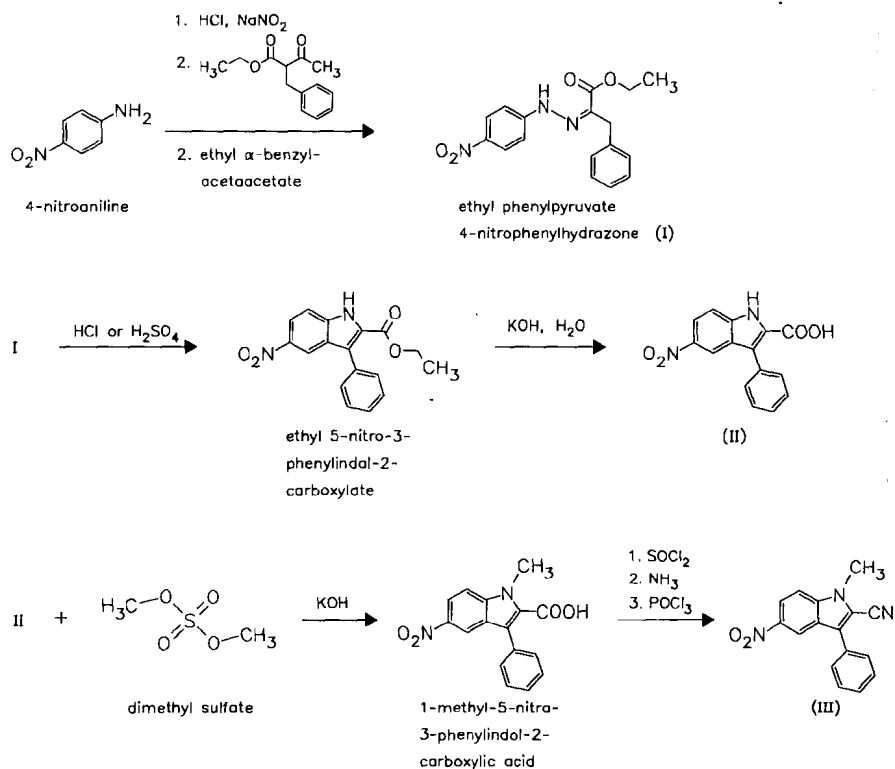
Use: hypnotic, tranquilizer, anticonvulsant, skeletal muscle relaxant

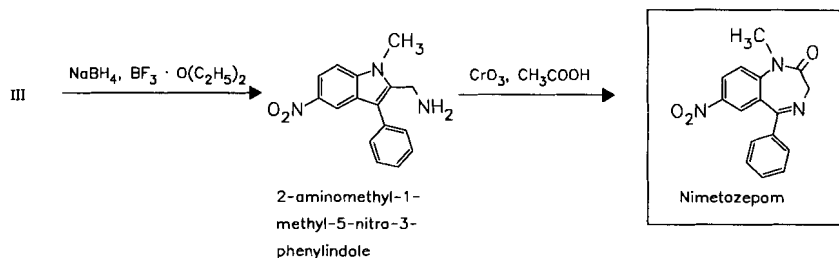
RN: 2011-67-8 MF: C₁₆H₁₃N₃O₃ MW: 295.30 EINECS: 217-931-5

LD₅₀: 750 mg/kg (M, p.o.);

970 mg/kg (R, p.o.)

CN: 1,3-dihydro-1-methyl-7-nitro-5-phenyl-2H-1,4-benzodiazepin-2-one





Reference(s):

- US 3 652 551 (Sumitomo; 28.3.1972; J-prior. 1.12.1967, 9.12.1967, 14.12.1967, 15.12.1967, 21.12.1967, 28.12.1967, 10.1.1968, 11.3.1968).
 DOS 1 811 830 (Sumitomo; appl. 29.11.1968; J-prior. 1.12.1967, 9.12.1967, 14.12.1967, 15.12.1967, 21.12.1967, 28.12.1967, 10.1.1968, 11.3.1968).
 DOS 1 816 046 (Sumitomo; appl. 20.12.1968; J-prior. 25.12.1967, 9.4.1968).
 DOS 1 817 761 (Sumitomo; appl. 29.11.1968; J-prior. 1.12.1967, 9.12.1967, 14.12.1967, 15.12.1967, 21.12.1967, 28.12.1967, 10.1.1968, 11.3.1968).
 DOS 1 817 794 (Sumitomo; appl. 20.12.1968; J-prior. 25.12.1967).
 Ihizumi, K. et al.: J. Org. Chem. (JOCEAH) **37**, 4111 (1972).

indole precursor:

- US 3 770 767 (Sumitomo; 6.11.1973; J-prior. 28.12.1967).

Formulation(s): tabl. 3 mg, 5 mg

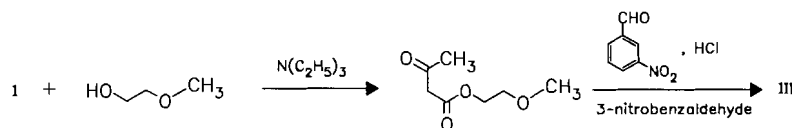
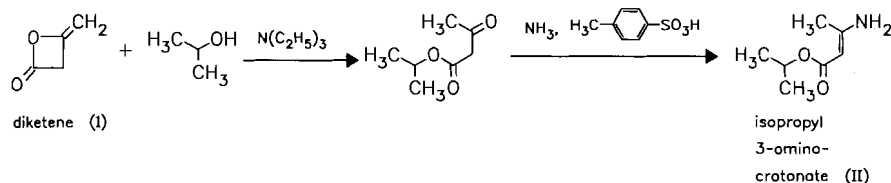
Trade Name(s):

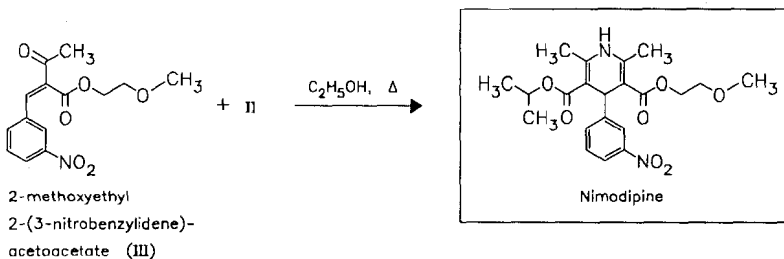
J: Erimin (Sumitomo)

Nimodipine

ATC: C08CA06
 Use: calcium antagonist, cerebral vasodilator

- RN: 66085-59-4 MF: $\text{C}_{21}\text{H}_{26}\text{N}_2\text{O}_7$ MW: 418.45 EINECS: 266-127-0
 LD₅₀: 26.2 mg/kg (M, i.v.); 940 mg/kg (M, p.o.);
 5 mg/kg (R, i.v.); 2738 mg/kg (R, p.o.);
 4 mg/kg (dog, i.v.); 1 g/kg (dog, p.o.)
 CN: 1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-3,5-pyridinedicarboxylic acid 2-methoxyethyl 1-methylethyl ester



**Reference(s):**

DOS 2 117 571 (Bayer; appl. 10.4.1971).

DE 2 117 573 (Bayer; prior. 10.4.1971).

US 3 799 934 (Bayer; 26.3.1974; D-prior. 10.4.1971).

US 3 932 645 (Bayer; 13.1.1976; D-prior. 10.4.1971).

Meyer, H. et al.: *Arzneim.-Forsch. (ARZNAD)* **31**, 407 (1981); **33**, 106 (1983).**Formulation(s):** cps. 30 mg; f. c. tabl. 30 mg; vial 10 mg/50 ml**Trade Name(s):**D: Nimotop (Bayer Vital;
1985)GB: Nimotop (Bayer; 1988)
I: Nimotop (Bayer Italia)

USA: Nimotop (Bayer)

F: Nimotop (Bayer)

Periplum (Italfarmaco)

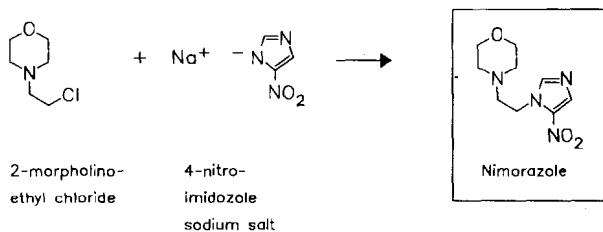
Nimorazole

(Nitrimidazine)

ATC: P01AB06

Use: chemotherapeutic (trichomonas),
antiprotozoalRN: 6506-37-2 MF: C₉H₁₄N₄O₃ MW: 226.24 EINECS: 229-394-4LD₅₀: 1530 mg/kg (M, p.o.);

1540 mg/kg (R, p.o.)

CN: 4-[2-(5-nitro-1*H*-imidazol-1-yl)ethyl]morpholine**Reference(s):**

US 3 399 193 (Carlo Erba; 27.8.1968; prior. 4.8.1965).

US 3 458 528 (Merck & Co.; 29.7.1969; prior. 7.7.1965, 18.5.1966).

US 3 646 027 (Merck & Co.; 29.2.1972; prior. 7.7.1965, 18.5.1966).

Formulation(s): tabl. 500 mg**Trade Name(s):**D: Esclama (Pharmacia &
Upjohn)F: Naxogyn (Pharmacia &
Upjohn)GB: Naxogin (Carlo Erba); wfm
Nulogyl (Bristol); wfm

I: Naxogin (Erba)

Sirledi (Cansyth)

Sirledi (Inverni della Beffa)

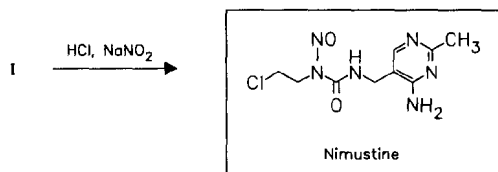
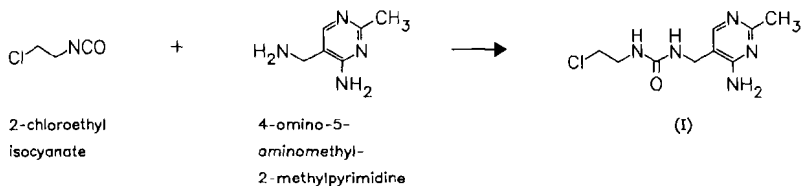
Nimustine
(ACNU)

ATC: L01AD06

Use: antineoplastic

RN: 42471-28-3 MF: C₉H₁₃ClN₆O₂ MW: 272.70 EINECS: 255-838-1

CN: N-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-N-(2-chloroethyl)-N-nitrosourea

**Reference(s):**

DOS 2 257 360 (Sankyo; appl. 20.11.1972; J-prior. 20.11.1971, 4.12.1971, 26.7.1972).

US 4 003 901 (Sankyo; 18.1.1977; J-prior. 20.11.1971, 4.12.1971, 26.7.1972).

Formulation(s): vial 25 mg, 50 mg**Trade Name(s):**D: ACNU 50 (ASTA Medica J: Nidran (Sankyo)
AWD)**Nipradilol**
(Nipradolol)

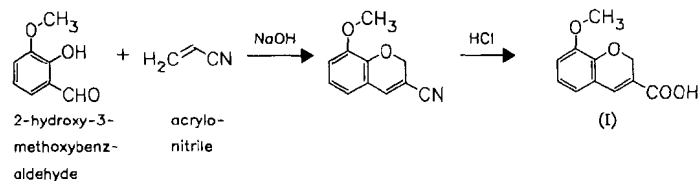
ATC: C07A; C04A

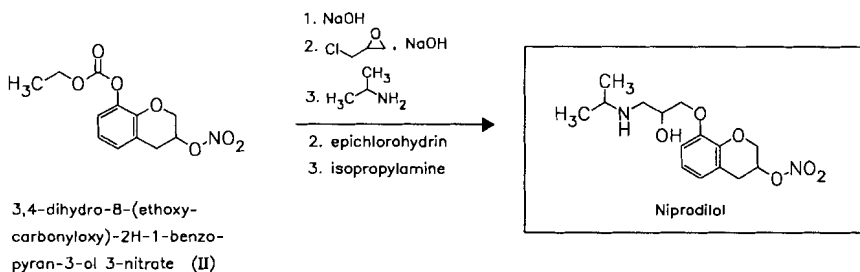
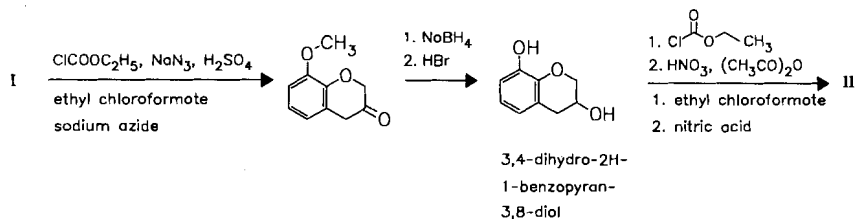
Use: β -antagonist with vasodilating activity, antihypertensive, antianginalRN: 81486-22-8 MF: C₁₅H₂₂N₂O₆ MW: 326.35LD₅₀: 68 mg/kg (M, i.v.); 461 mg/kg (M, p.o.);

144 mg/kg (R, i.p.); 78 mg/kg (R, i.v.); 1040 mg/kg (R, p.o.); 850 mg/kg (R, s.c.);

20 mg/kg (dog, i.v.); >400 mg/kg (dog, p.o.)

CN: 3,4-dihydro-8-[2-hydroxy-3-[(1-methylethyl)amino]propoxy]-2H-1-benzopyran-3-ol 3-nitrate



**Reference(s):**

EP 42 299 (Kowa; appl. 16.6.1981; J-prior. 25.12.1980, 17.6.1980).
 US 4 394 382 (Kowa; 19.7.1983; appl. 9.6.1981; J-prior. 25.12.1980, 17.6.1980).
 Shiratsuchi, M. et al.: Chem. Pharm. Bull. (CPBTAL) **35**, 632 (1987).

separation of diastereomeric racemates:

EP 154 511 (Kowa; appl. 27.2.1985; J-prior. 29.2.1984).
 US 4 727 085 (Kowa; 23.2.1988; appl. 28.8.1985; J-prior. 29.2.1984).

synthesis of enantiomers:

Shiratsuchi, M. et al.: Chem. Pharm. Bull. (CPBTAL), **33**, 2735 (1985); **35**, 3691 (1987).

synthesis of 3,4-dihydro-2H-1-benzopyran-3,8-diol:

JP 59 029 681 (Kowa; appl. 12.8.1982).
 Kawamura, K. et al.: Chem. Pharm. Bull. (CPBTAL) **38**, 2088 (1990).

Formulation(s): tabl. 3 mg, 6 mg

Trade Name(s):

J: Hypadil (Kowa; 1988)

Niridazole

ATC: P02BX02

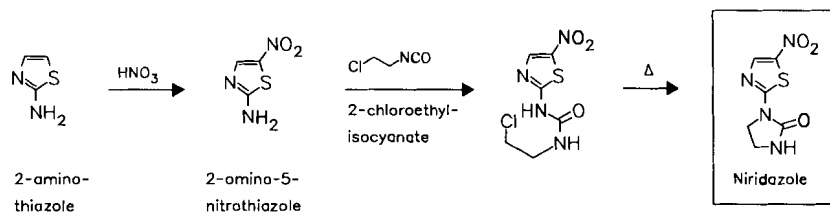
Use: chemotherapeutic (antischistosomal)

RN: 61-57-4 MF: $\text{C}_6\text{H}_6\text{N}_4\text{O}_3\text{S}$ MW: 214.21 EINECS: 200-512-6

LD_{50} : 2500 mg/kg (M, p.o.);

900 mg/kg (R, p.o.)

CN: 1-(5-nitro-2-thiazolyl)-2-imidazolidinone



Reference(s):

Lambert, C.R. et al.: *Experientia (EXPEAM)* **20**, 452 (1964).
 GB 986 562 (Ciba; appl. 22.5.1963; CH-prior. 30.5.1962, 23.4.1963).

alternative syntheses:

DAS 2 033 611 (Egyt; appl. 7.7.1970; H-prior. 7.7.1969).
 DAS 2 117 050 (Egyt; appl. 7.4.1971; H-prior. 16.4.1970).

Formulation(s): tabl. 100 mg, 500 mg

Trade Name(s):

F: Ambilhar (Ciba); wfm

Nisoldipine

(Bay-K 5552)

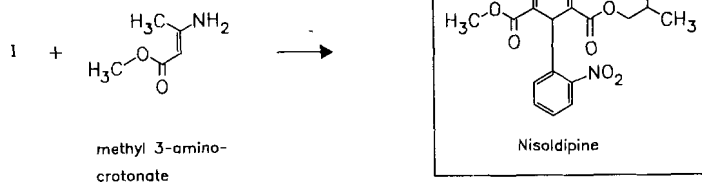
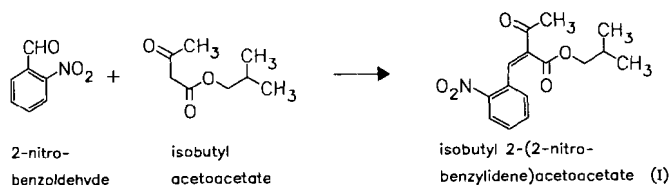
ATC: C02DE; C08CA07

Use: calcium antagonist, antihypertensive, antianginal

RN: 63675-72-9 MF: C₂₀H₂₄N₂O₆ MW: 388.42 EINECS: 264-407-7

LD₅₀: 360 µg/kg (M, i.v.); 411 mg/kg (M, p.o.); 384 mg/kg (M, s.c.);
 1120 µg/kg (R, i.v.); 1257 mg/kg (R, p.o.); 654 mg/kg (R, s.c.);
 2 mg/kg (dog, i.v.); 400 mg/kg (dog, p.o.)

CN: 1,4-dihydro-2,6-dimethyl-4-(2-nitrophenyl)-3,5-pyridinedicarboxylic acid methyl 2-methylpropyl ester

*Reference(s):*

DOS 2 549 568 (Bayer; appl. 5.11.1975).
 US 4 154 839 (Bayer; 15.5.1979; appl. 8.5.1978; D-prior. 5.11.1975).

additional synthesis:

ES 539 113 (Ind. y Comercial Quimica; appl. 27.12.1984).
 ES 549 302 (Mora Ruedas; appl. 26.11.1985).
 ES 546 423 (Inke; appl. 31.7.1985).
 ES 546 784 (Sune Coma; appl. 9.9.1985).
 CS 243 591 (P. Cupka et al.; appl. 25.1.1985).

medical use for treatment of alcoholism:

DOS 3 806 277 (Tropon; appl. 27.2.1988).

medical use for inhibition of opioid tolerance:

JP 61 260 025 (Miles; appl. 12.5.1986; USA-prior. 13.5.1985).

medical use as saluretic:

DOS 3 212 736 (Bayer; appl. 6.4.1982).

medical use as antiarteriosclerotic:

DOS 3 222 367 (Bayer; appl. 15.6.1982).

Formulation(s): f. c. tabl. 5 mg, 10 mg, 20 mg, 30 mg, 40 mg

Trade Name(s):

D: Baymycard (Bayer Vital/
Zeneca; 1990)

I: Sycor (Bayer Italia)
Zadipina (SmithKline
Beecham)

J: Baymycard (Bayer; 1990)
USA: Sular (Zeneca)

GB: Sycor MR (Bayer)

Nitrazepam

ATC: N05CD02

Use: hypnotic, anticonvulsant

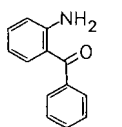
RN: 146-22-5 MF: C₁₅H₁₁N₃O₃ MW: 281.27 EINECS: 205-665-2

LD₅₀: 130 mg/kg (M, i.v.); 550 mg/kg (M, p.o.);

825 mg/kg (R, p.o.)

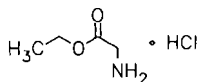
CN: 1,3-dihydro-7-nitro-5-phenyl-2H-1,4-benzodiazepin-2-one

(a)



2-amino-
benzophenone

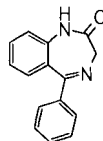
+



glycine ethyl
ester hydrochloride (I)

pyridine

→

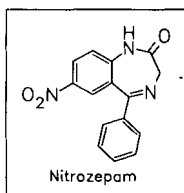


2-oxo-5-phenyl-
2,3-dihydro-1H-
1,4-benzodiazepine (II)

II

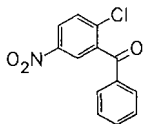
HNO₃, H₂SO₄

→



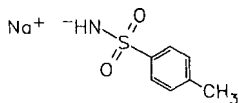
Nitrazepam

(b)



2-chloro-5-
nitrobenzo-
phenone

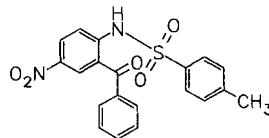
+



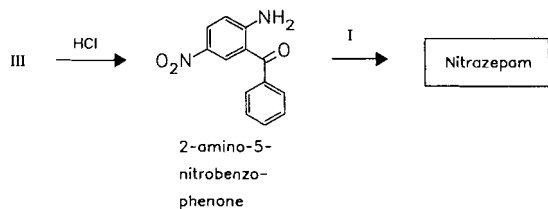
p-toluene-
sulfamide
sodium salt

DMF

→



(III)

**Reference(s):**

US 3 109 843 (Hoffmann-La Roche; 5.11.1963; appl. 21.6.1962; prior. 28.7.1961, 4.12.1961).
 US 3 116 203 (Hoffman-La Roche; 31.12.1963; prior. 14.3.1962).
 US 3 123 529 (Hoffman-La Roche; 3.3.1964; prior. 9.3.1962).
 DE 1 136 709 (Hoffman-La Roche; appl. 7.12.1960; USA-prior. 10.12.1959, 27.6.1960).
 DE 1 145 626 (Hoffman-La Roche; appl. 7.12.1960; USA-prior. 10.12.1959, 15.1.1960, 26.4.1960, 27.6.1960).
 Sternbach, L.H. et al.: J. Med. Chem. (JMCMAR) **6**, 261 (1963).
 DAS 1 811 785 (Delmar Chemicals; appl. 29.11.1968; CDN-prior. 29.11.1967).

condensation of 2-aminobenzophenone with glycine and POCl_3 /nitrobenzene and following nitration with $\text{KNO}_3/\text{H}_2\text{SO}_4$:

DOS 2 252 378 (Roche; appl. 25.10.1972; CH-prior. 18.11.1971).

Formulation(s): drops 0.5 g/100 g; tabl. 5 mg, 10 mg

Trade Name(s):

D:	Dormalon (Pharma Wernigerode)	Novanox/-forte (Pfleger)	generics
	Dormo-Puren (Isis Puren)	Radedorm (ASTA Medica)	I: Mogadon (Roche)
	Eatan N (Desitin)	AWD)	J: Benzalin (Shionogi)
	Imeson (Desitin)	F: Mogadon (Roche)	Nelbon (Sankyo)
	Mogadan Roche (Roche)	Rohypnol (Roche)	USA: Mogadon (Roche); wfm
		GB: Mogadon (Roche)	

Nitrefazole

ATC: V03AA

Use: alcohol deterrent

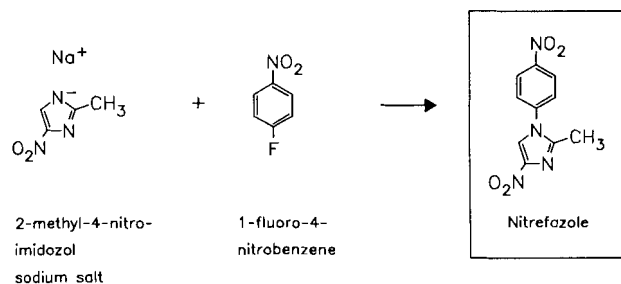
RN: 21721-92-6 MF: $\text{C}_{10}\text{H}_8\text{N}_4\text{O}_4$ MW: 248.20 EINECS: 244-542-8

LD_{50} : 5.501 g/kg (M, p.o.);

4.813 g/kg (R, p.o.);

>6.4 g/kg (dog, p.o.)

CN: 2-methyl-4-nitro-1-(4-nitrophenyl)-1H-imidazole

**Reference(s):**

DE 1 620 043 (Merck AG; appl. 15.10.1966).

DOS 2 145 651 (Merck AG; appl. 13.9.1971).

medical use:

DOS 2 645 709 (Merck AG; appl. 9.10.1976).

Formulation(s): cps. 0.2 g*Trade Name(s):*

D: Altimol (Merck); wfm

Nitrendipine

ATC: C08CA08

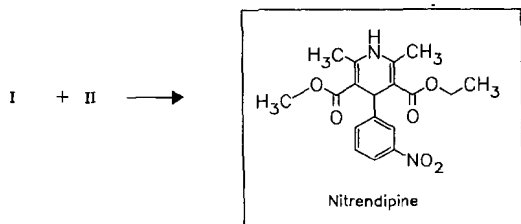
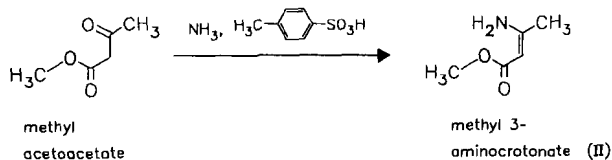
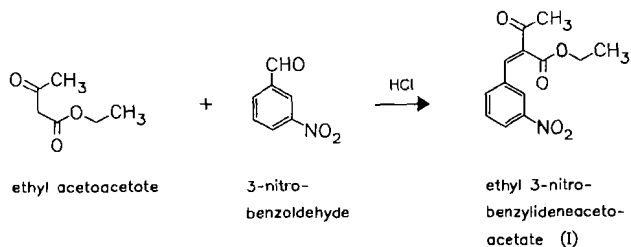
Use: calcium antagonist, antihypertensive

RN: 39562-70-4 MF: C₁₈H₂₀N₂O₆ MW: 360.37 EINECS: 254-513-1LD₅₀: 34.5 mg/kg (M, i.v.); 2540 mg/kg (M, p.o.);

12.6 mg/kg (R, i.v.); 15.37 g/kg (R, p.o.);

>2.5 mg/kg (dog, i.v.); >100 mg/kg (dog, p.o.)

CN: 1,4-dihydro-2,6-dimethyl-4-(3-nitrophenyl)-3,5-pyridinedicarboxylic acid ethyl methyl ester

*Reference(s):*

US 3 799 934 (Bayer; 26.3.1974; appl. 7.4.1972; D-prior. 10.4.1971).

US 3 932 645 (Bayer; 13.1.1976; D-prior. 10.4.1971).

DOS 2 117 571 (Bayer; appl. 10.4.1971).

Meyer, H. et al.: *Arzneim.-Forsch. (ARZNAD)* **31**, 407 (1981).*Formulation(s):* sol. 5 mg/ml; tabl. 10 mg, 20 mg

Trade Name(s):

D: Bayotensin (Bayer Vital; 1985)
 numerous generics

I: Baypress (Bayer Italia)
 Deiten (ABC Farmaceutici)

J: Baylotensin (Bayer-Yoshitomi)

Nitrofurantol
 (Nitrofurazone)

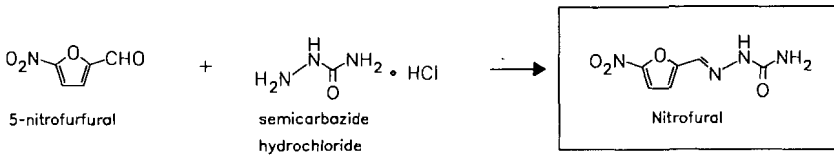
ATC: B05CA03; D08AF01; D09AA03;
 P01CC02; S01AX04; S02AA02

Use: antiseptic, topical antibacterial

RN: 59-87-0 MF: C₆H₆N₄O₄ MW: 198.14 EINECS: 200-443-1

LD₅₀: 249 mg/kg (M, p.o.);
 590 mg/kg (R, p.o.)

CN: 2-[(5-nitro-2-furanyl)methylene]hydrazinecarboxamide

*Reference(s):*

US 2 416 234 (Eaton Labs.; 1947; prior. 1945).
 US 2 927 110 (Norwich Pharmacal; 1.3.1960; appl. 23.1.1958).

Formulation(s): cream 0.2 g/100 g; ointment 0.2 g/100 g; sol. 0.2 g/100 g

Trade Name(s):

D: Furacin (Procter & Gamble)

I: Furanvit (SIFI)-comb.
 Furotricina (Biomedica)
 Foscamia)-comb.

J: Monafuracin (Dainippon)
 USA: Furacin (Eaton); wfm

GB: Furacin (Eaton); wfm

Nitrofurantoin

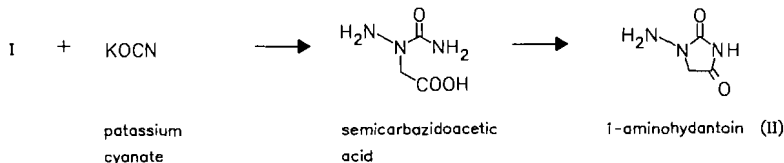
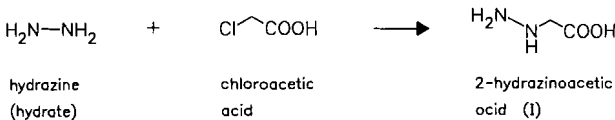
ATC: G04AC01

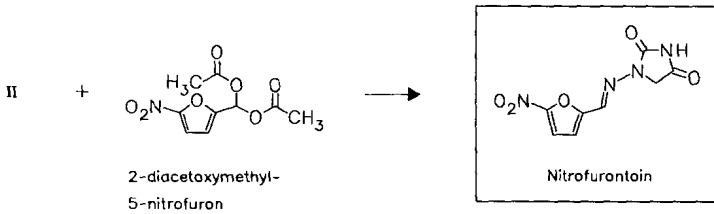
Use: chemotherapeutic (urinary tract infections)

RN: 67-20-9 MF: C₈H₆N₄O₅ MW: 238.16 EINECS: 200-646-5

LD₅₀: 360 mg/kg (M, p.o.);
 604 mg/kg (R, p.o.)

CN: 1-[(5-nitro-2-furanyl)methylene]amino]-2,4-imidazolidinedione



*Reference(s):*

US 2 610 181 (Eaton Labs.; 1950; prior. 1950).
 US 2 779 786 (Norwich; 29.1.1957; prior. 17.4.1953).
 US 2 898 335 (Norwich; 4.8.1959; prior. 28.2.1958).
 US 2 927 110 (Norwich; 1.3.1960; prior. 23.1.1958).

special pharmaceutical formulations:

US 3 401 221 (Norwich Pharmacal; 10.9.1968; prior. 25.8.1964).
 US 4 122 157 (Richardson-Merrell; 24.10.1978; appl. 4.3.1977).

sustained release formulation:

DOS 2 749 745 (Chem. Fabrik von Heyden; appl. 7.11.1977; F-prior. 15.9.1977).

Formulation(s): cps. 25 mg, 50 mg, 100 mg, 150 mg; drg. 20 mg, 100 mg; s. r. cps. 100 mg; susp. 25 mg/5 ml; tabl. 50 mg

Trade Name(s):

D:	Cystit (Bristol-Myers Squibb)	GB:	Furadantin (Procter & Gamble)	J:	Nitrofurin (IFI)
	Furadantin/retard (Procter & Gamble)		Macrobid (Procter & Gamble)		Furadantin (Yamanouchi)
	Uro-Tabliten (Sanorania)		Macrofantin (Procter & Gamble)		Parfuran (Parke Davis)
	numerous generics and combination preparations				Trantoin (McKesson)
F:	Furadantine (Lipha Santé)	I:	Cistofuran (Crosara)	USA:	Uretoin (Azusa-Tokyo Tanabe)
	Furadoïne (Lipha Santé)		Furadantin (Formenti)		Furadantin (Dura)
	Microdoïne (Gomenol)		Furedan (Scharper)		Macrofantin (Procter & Gamble)
			Furil (OFF)		

Nitroxoline

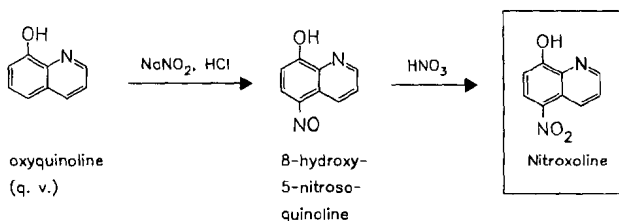
ATC: G04AG06

Use: urinary antiseptic, antifungal

RN: 4008-48-4 MF: C₉H₆N₂O₃ MW: 190.16 EINECS: 223-662-4LD₅₀: 8300 µg/kg (M, i.v.); 104 mg/kg (M, p.o.);

510 mg/kg (R, p.o.)

CN: 5-nitro-8-quinolinol



*Reference(s):*Kostanecki, St. v.: Ber. Dtsch. Chem. Ges. (BDCGAS) **24**, 150 (1891).Petrov, V.; Sturgeon, B.: J. Chem. Soc. (JCSOA9) **1954**, 570.*Formulation(s):* cps. 50 mg, 80 mg, 150 mg, 250 mg; susp. 1 %*Trade Name(s):*D: Nitroxolin (Cephasaar) I: Urocoli (Roussel-
F: Nibiol (Débat) Maestretti); wfm**Nizatidine**

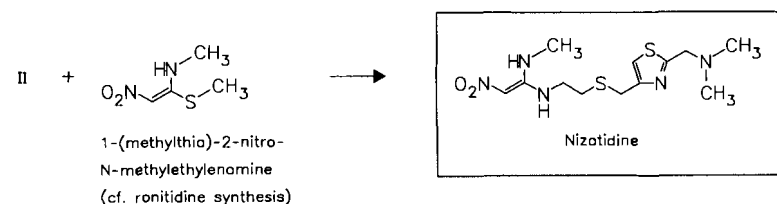
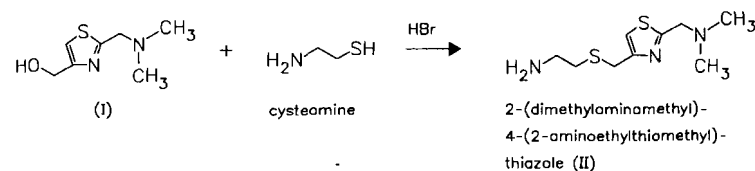
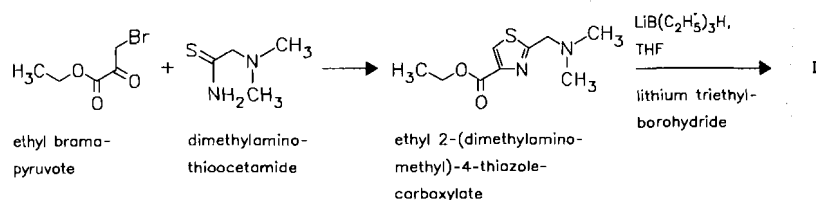
ATC: A02BA04

Use: ulcer therapeutic, H₂-receptor
antagonistRN: 76963-41-2 MF: C₁₂H₂₁N₅O₂S₂ MW: 331.47LD₅₀: 265 mg/kg (M, i.v.); 1685 mg/kg (M, p.o.);

301 mg/kg (R, i.v.); 1680 mg/kg (R, p.o.);

>75 mg/kg (dog, i.v.); >800 mg/kg (dog, p.o.)

CN: N-[2-[[[2-[(dimethylamino)methyl]-4-thiazolyl]methyl]thio]ethyl]-N'-methyl-2-nitro-1,1-ethenediamine

*Reference(s):*

EP 49 618 (Lilly; appl. 2.10.1981; USA-prior. 2.10.1980).

US 4 375 547 (Lilly; 1.3.1983; prior. 2.10.1980).

DE 3 171 819 (Lilly; appl. 14.4.1982; USA-prior. 2.10.1980).

US 4 382 090 (Lilly; 3.5.1983; prior. 2.10.1980).

*preparation of ethyl 2-(dimethylaminomethyl)-4-thiazolecarboxylate from ethyl bromopyruvate and dimethylaminothioacetamide:*Trumm, K.A. et al.: Arzneimittel.-Forsch. (ARZNAD) **35** (3), 573 (1985).*alternative synthesis:*

GB 2 134 521 (Lilly; appl. 6.2.1984; USA-prior. 7.2.1983).

Formulation(s): amp. 100 mg, 150 mg, 300 mg; cps. 150 mg, 300 mg

Trade Name(s):

D:	Gastrax (Asche; 1989)	F:	Nizaxid (Norgine Pharma)	Nizax (Lilly; 1988)
	Gastrax mite (Asche; 1989)	GB:	Axid (Lilly; 1987)	Zanizal (Italfarmaco; 1988)
	Nizax (Lilly; 1989)		Zinga (Ashbourne)	J: Acinon (Zeria; Lilly; 1990)
	Nizax mite (Lilly; 1989)	I:	Cronizat (Farmitalia; 1988)	USA: Axid (Lilly)

Nizofenone

(Y-9179)

ATC: N06BX10

Use: antianoxic, nootropic

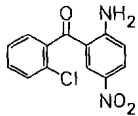
RN: 54533-85-6 MF: $C_{21}H_{21}ClN_4O_3$ MW: 412.88

CN: (2-chlorophenyl)[2-[2-[(diethylamino)methyl]-1H-imidazol-1-yl]-5-nitrophenyl]methanone

fumarate (1:1)

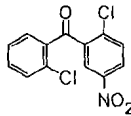
RN: 54533-86-7 MF: $C_{21}H_{21}ClN_4O_3 \cdot C_4H_4O_4$ MW: 528.95

LD₅₀: 70 mg/kg (M, i.v.); 495 mg/kg (Mm, p.o.); 504 mg/kg (Mf, p.o.); 270 mg/kg (M, s.c.);
65 mg/kg (R, i.v.); 1711 mg/kg (Rm, p.o.); 1580 mg/kg (Rf, p.o.); 1830 mg/kg (R, s.c.)

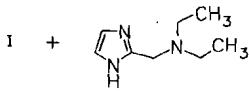


2-amino-5-nitro-
2'-chlorobenzophenone

1. HCl, NaNO₂
2. CuCl

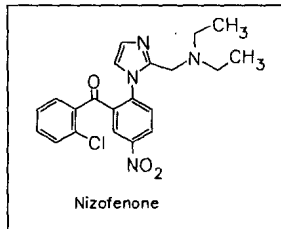


2,2'-dichloro-5-nitro-
benzophenone (I)



2-(diethylamino-
methyl)imidazole

NaOH



Nizofenone

Reference(s):

US 3 915 981 (Yoshitomi; 28.10.1975; J-prior. 16.3.1973, 20.3.1973).

DE 2 403 416 (Yoshitomi; appl. 24.1.1974; J-prior. 24.1.1973, 16.3.1973, 20.3.1973, 14.5.1973, 16.6.1973, 7.7.1973).

Formulation(s): amp. 5 mg/2 ml

Trade Name(s):

J: Ekonal (Yoshitomi; 1989)

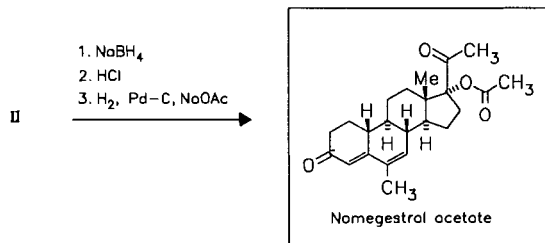
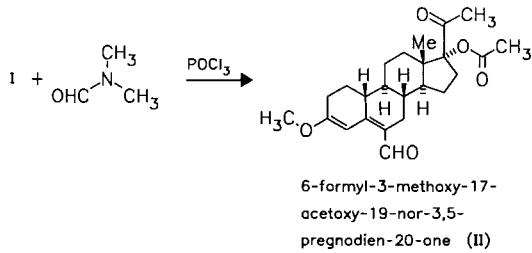
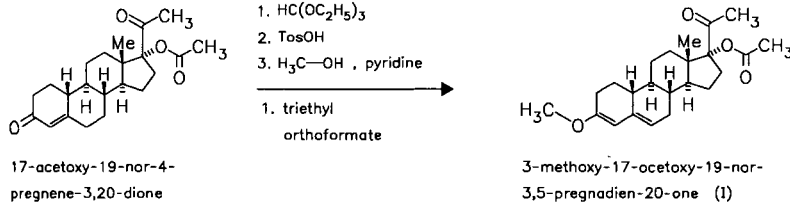
Nomegestrol acetate

ATC: G03DB04
 Use: synthetic progestogen for treatment of gynecological disturbances

RN: 58652-20-3 MF: C₂₃H₃₀O₄ MW: 370.49 EINECS: 261-379-8
 LD₅₀: >2 g/kg (M, p.o.); >2 g/kg (R, p.o.)
 CN: 17-(acetyloxy)-6-methyl-19-norpregna-4,6-diene-3,20-dione

nomegestrol

RN: 58691-88-6 MF: C₂₁H₂₈O₃ MW: 328.45



Reference(s):
 DOS 2 522 533 (J. M. Gastaud; 21.5.1975; GB-prior. 21.5.1974).

alternative synthesis:
 EP 157 842 (Théramex; appl. 4.10.1984; F-prior. 4.10.1983).

medical use for i.m. treatment of luteal deficiency:
 US 4 544 555 (J. M. Gastaud; 1.10.1985; appl. 27.9.1982; prior. 28.4.1980, 13.5.1975).

Formulation(s): tabl. 5 mg

Trade Name(s):

F: Lutenyl (Théramex; 1985) I: Lutenyl (Schering)

Nomifensine

ATC: N06AX04

Use: antidepressant

RN: 24526-64-5 MF: C₁₆H₁₈N₂ MW: 238.33LD₅₀: 260 mg/kg (M, p.o.)

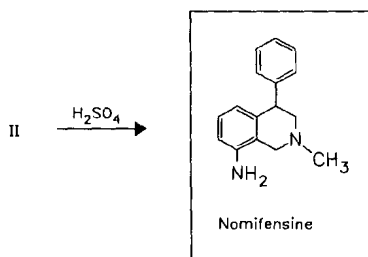
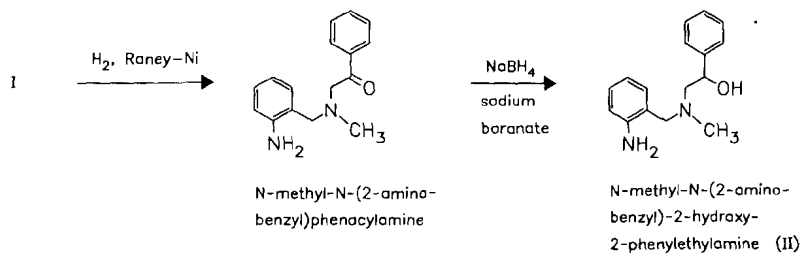
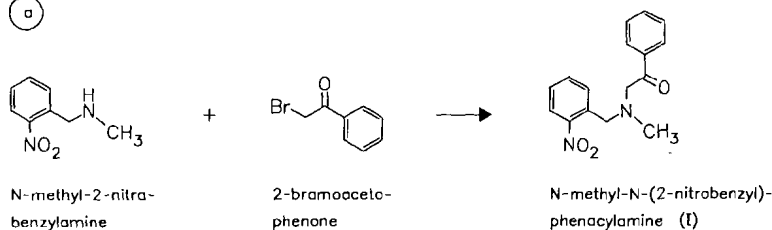
CN: 1,2,3,4-tetrahydro-2-methyl-4-phenyl-8-isoquinolinamine

maleate (1:1)

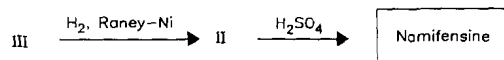
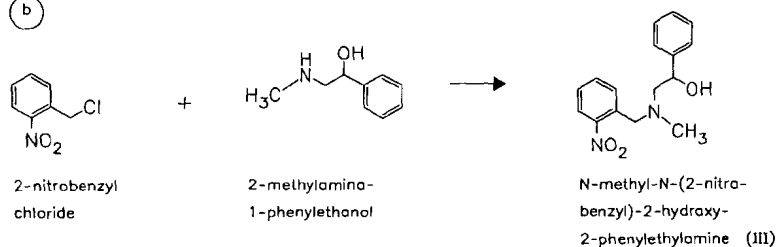
RN: 32795-47-4 MF: C₁₆H₁₈N₂ · C₄H₄O₄ MW: 354.41 EINECS: 251-223-7LD₅₀: 68 mg/kg (M, i.v.); 300 mg/kg (M, p.o.);

66 mg/kg (R, i.v.); 430 mg/kg (R, p.o.)

a



b



Reference(s):

DE 1 670 694 (Hoechst; appl. 5.5.1966).
 DAS 1 795 830 (Hoechst; appl. 12.8.1966).
 US 3 577 424 (Hoechst; 4.5.1971; D-prior. 5.5.1966, 12.8.1966, 15.4.1967).
 GB 1 164 192 (Hoechst; appl. 5.5.1967; D-prior. 5.5.1966, 12.8.1966, 14.4.1967).
 Hoffmann, J. et al.: *Arzneim.-Forsch. (ARZNAD)* **21**, 1045 A (1971).

Formulation(s): cps. 25 mg, 50 mg (as hydrogen maleate)

Trade Name(s):

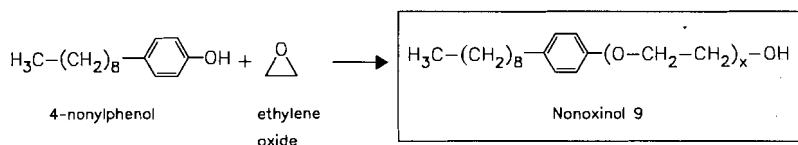
D: Alival (Hoechst); wfm GB: Merital 25 (Hoechst); wfm I: Psicronizer (Albert-Farma); wfm
 F: Alival (Hoechst); wfm

Nonoxinol 9

ATC: G02BB
 Use: spermicide

(Nonoxynol 9)

RN: 26027-38-3 MF: [C₂H₄O]_xC₁₅H₂₄O MW: unspecified
 CN: α-(4-nonylphenyl)-ω-hydroxypoly(oxy-1,2-ethanediyl)



Reference(s):

US 2 313 477 (GAF; 1940).

Formulation(s): foam 12.5 %; suppos. 0.075 g; vaginal gel 2 g/100 g

Trade Name(s):

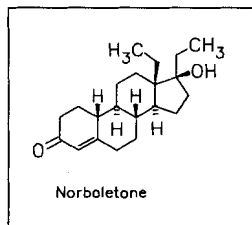
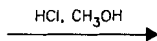
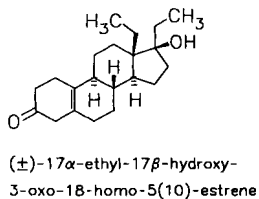
D: Ortho-Creme (Janssen-Cilag) Double Check (Family Planning Sales) Staycept (Syntex)
 Patentex Oral (Patentex) Gynol II (Janssen-Cilag) Florigen (Schering)-comb.
 F: Patentex (Lab. C.C.D.) Ortho-Creme (Janssen-Cilag) Koromex (Sanico)
 Semicid (Théraplax) Ortho-Forms (Janssen-Cilag) USA: Ramses (Schmid Prod.); wfm
 GB: Delfen (Janssen-Cilag) Semicid (Whitehall); wfm

Norboletone

ATC: A14AB
 Use: anabolic

(Norbolethone)

RN: 1235-15-0 MF: C₂₁H₃₂O₂ MW: 316.49
 LD₅₀: >5010 mg/kg (M, p.o.)
 CN: (17α)-(±)-13-ethyl-17-hydroxy-18,19-dinorpregn-4-en-3-one



Reference(s):

GB 1 041 280 (G. A. Hughes, H. Smith; valid from 8.10.1962; prior. 19.10.1961).

total synthesis and synthesis of enantiomers:

GB 1 096 761 (Roussel-Uclaf; valid from 17.12.1964; F-prior. 20.2.1964, 14.1.1964, 17.12.1963);

US 3 959 322 (H. Smith; 25.5.1976; prior. 15.1.1964, 4.10.1962, 16.5.1962, 15.5.1962, 12.9.1961, 24.2.1961, 23.9.1960).

US 3 850 911 (G. A. Hughes, H. Smith; 26.11.1974; GB-prior. 22.9.1960).

US 3 519 714 (G. A. Hughes; H. Smith; 7.7.1970; prior. 15.3.1966, 16.5.1962, 15.5.1962, 4.10.1962, 12.9.1961, 24.2.1961, 23.9.1960).

Smith, H. et al.: J. Chem. Soc. (JCSOA9) **1964**, 4472.

Trade Name(s):

USA: Genabol (Wyeth); wfm

Nordazepam

(Nordiazepam)

ATC: N05BA16

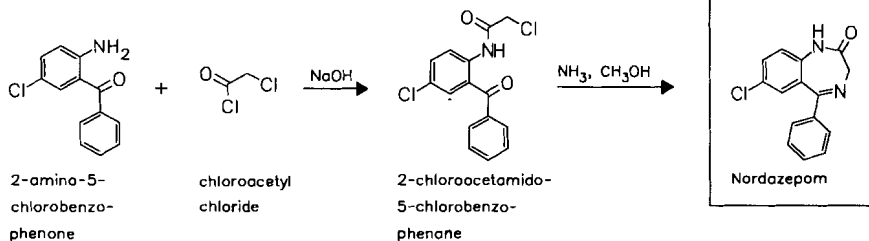
Use: anxiolytic, benzodiazepine

RN: 1088-11-5 MF: C₁₅H₁₁ClN₂O MW: 270.72 EINECS: 214-123-4

LD₅₀: >400 mg/kg (M, i.p.); 670 mg/kg (M, p.o.);

>5200 mg/kg (R, p.o.)

CN: 7-chloro-1,3-dihydro-5-phenyl-2H-1,4-benzodiazepin-2-one



Reference(s):

DE 1 136 709 (Hoffmann-La Roche; appl. 1960).

Sternbach, L.H.; Reeder, E.: J. Org. Chem. (JOCEAH) **26**, 4936 (1961).

Bell, S.C. et al.: J. Org. Chem. (JOCEAH) **27**, 562 (1962).

Formulation(s): drops 5 mg/g; tabl. 7.5 mg, 10 mg, 15 mg

Trade Name(s):

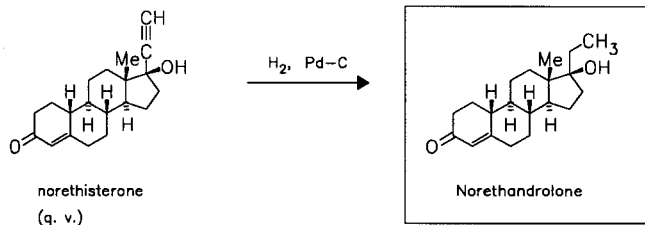
D: Tranxilium N (Sanofi
Winthrop)

F: Nordaz (Bouchara)
I: Madar Notte (Ravizza)

Norethandrolone

ATC: A14AA09

Use: anabolic

RN: 52-78-8 MF: C₂₀H₃₀O₂ MW: 302.46 EINECS: 200-153-5CN: (17 α)-17-hydroxy-19-norpregn-4-en-3-one*Reference(s):*

US 2 721 871 (Searle; 1955; appl. 1954).

alternative synthesis:

US 2 691 028 (Searle; 1954; prior. 1952).

Colton, F.B. et al.: J. Am. Chem. Soc. (JACSAT) **79**, 1123 (1957).*Formulation(s):* tabl. 10 mg*Trade Name(s):*

F: Nilevar (Laphal)

GB: Nilevar (Searle); wfm

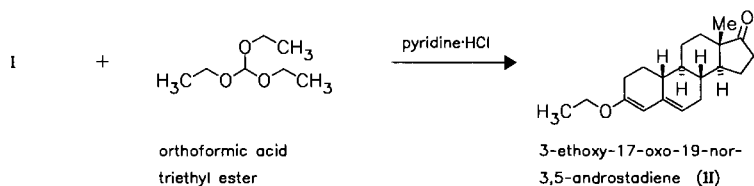
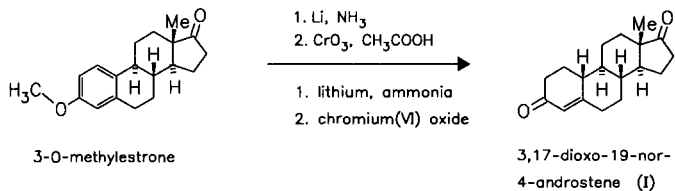
USA: Nilevar (Coastal); wfm

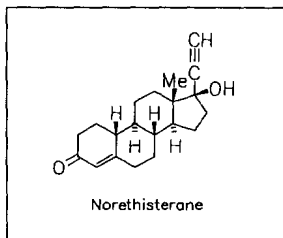
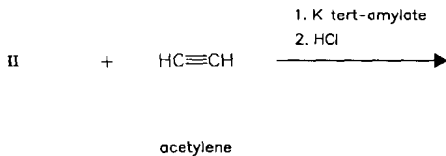
Norethisterone

(Norethindrone)

ATC: G03AC01; G03DC02

Use: progestogen

RN: 68-22-4 MF: C₂₀H₂₆O₂ MW: 298.43 EINECS: 200-681-6LD₅₀: 6 g/kg (M, p.o.)CN: (17 α)-17-hydroxy-19-norpregn-4-en-20-yn-3-one

*Reference(s):*

- US 2 774 122 (Syntex; 1956; MEX-prior. 1951).
 US 2 774 777 (Syntex; 1956; prior. 1952).
 Djcrassi, C. et al.: J. Am. Chem. Soc. (JACSAT) **76**, 4092 (1954).

alternative syntheses:

- US 2 849 462 (P. de Ruggieri; 1958; appl. 1957).
 Ringold, H.J. et al.: J. Am. Chem. Soc. (JACSAT) **78**, 2477 (1956).
 Ringold, H.J. et al.: Ann. N. Y. Acad. Sci. (ANYAA9) **71**, 500 (1958).
 Ueberwasser, H. et al.: Helv. Chim. Acta (HCACAV) **34**, 344 (1963).
 Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. **13**, 31.
 Onken, D.; Meublein, D.: Pharmazie (PHARAT) **25**, 3 (1970).

total synthesis of 3,17-dioxo-19-nor-4-androstene:

- DE 1 958 600 (Hoffmann-La Roche; appl. 21.11.1969; USA-prior. 22.11.1968).

Formulation(s): tabl. 0.35 mg, 0.5 mg (also in comb.)

Trade Name(s):

D:	Conceplan (Grünenthal)- comb. Micronovum (Janssen- Cilag) TriNovum (Janssen-Cilag)- comb. numerous generics	I:	Noriday (Searle) Primolut N (Schering) Utoflan (Searle) numerous combination preparations Trinovum (Janssen-Cilag)- comb.		Micronor (Ortho-McNeil) Modicon (Ortho-McNeil)- comb. Nclova (Warner Chilcott)- comb. Norinyl (Searle)-comb. Ortho-Novum (Ortho- McNeil)-comb.
F:	Norluten (SmithKline Beecham) Ortho-Novum 1/35 (Janssen-Cilag)-comb. Triella (Cilag)-comb.	J:	Norluten D (Shionogi) Primosiston Tab. (Nihon Schering)-comb. Sophia-A, C (Teikoku Zoki)-comb.		generic and combination preparations
GB:	Micronor (Janssen-Cilag)	USA:	Brevicon (Searle)-comb.		

Norethisterone acetate

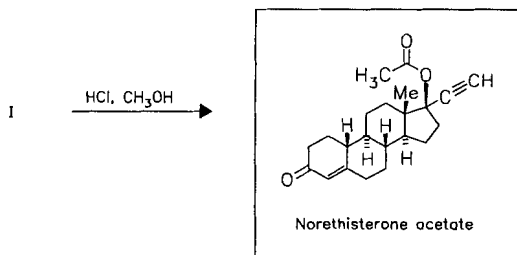
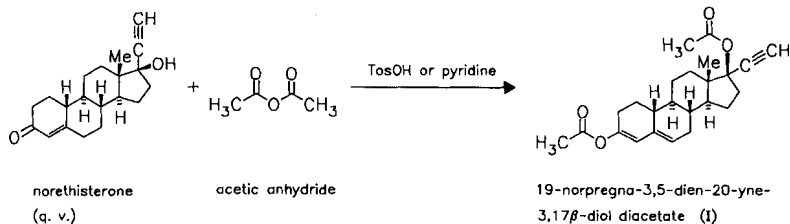
(Norethindrone acetate)

ATC: G03D

Use: progestogen

RN: 51-98-9 MF: C₂₂H₂₈O₃ MW: 340.46 EINECS: 200-132-0

CN: (17 α)-17-(acetyloxy)-19-norpregn-4-en-20-yn-3-one

**Reference(s):**

US 2 964 437 (Schering AG; 13.12.1960; appl. 11.6.1957; D-prior. 16.6.1956).
 Djerassi, C. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 436 (1959).
 DE 1 017 166 (Schering AG; appl. 16.6.1956).

alternative synthesis:

DD 136 502 (VEB Jenapharm; appl. 11.5.1978).

Formulation(s): f. c. tabl. 1 mg; tabl. 1 mg, 5 mg, 10 mg

Trade Name(s):

D:	Gestakadin (Kade)	Milli-Anovlar (Schering)-comb.	Loestrin (Parke Davis)-comb.
	Neorlest 21 (Parke Davis)-comb.	Milligynon (Schering)	S.H. 420 (Schering Chemicals)
	Norethisteron (Jenapharm)	Miniphase (Schering)-comb.	Trisequens (Novo Nordisk)-comb.
	Primolut-Nor (Schering)	Primolut-Nor (Schering)-comb.	I: Primolut-Nor (Schering)
	Primosiston (Schering)-comb.	GB: Elleste Deret (Searle)-comb.	J: Anovlar (Nihon Schering)-comb.
	Prosiston (Schering)-comb.	Estra combi (Novartis)-comb.	Norluten A (Shionogi)
	Sinovula (Asche)-comb.	Evorel combi (Janssen-Cilag)-comb.	USA: Aygestin (ESI Lederle)
	Sovel (Novartis Pharma)-comb.	Klimofem (Novo Nordisk)-comb.	Estrostep (Parke Davis)-comb.
	Trisequens (Novo Nordisk; Rhône-Poulenc Rorer)-comb.		
F:	Kliogest (Specia)-comb.		

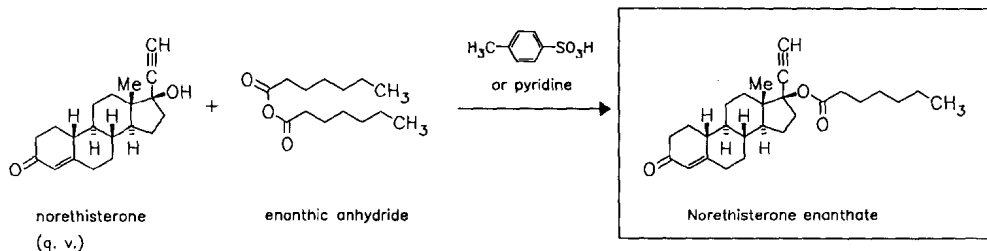
Norethisterone enanthate

ATC: G03DB

Use: progestogen

RN: 3836-23-5 MF: C₂₇H₃₈O₃ MW: 410.60 EINECS: 223-326-7

CN: (17 α)-17-[(1-oxoheptyl)oxy]-19-norpregn-4-en-20-yn-3-one

**Reference(s):**

DE 1 017 166 (Schering AG; appl. 16.6.1956).

alternative synthesis:

FR 1 349 991 (Parke Davis; appl. 29.11.1962; GB-prior. 1.12.1961).

use as progestogen depot preparation:

DOS 2 548 413 (Schering AG; appl. 27.10.1975).

Formulation(s): amp. 200 mg/ml**Trade Name(s):**

D: Noristerat (Schering)

F: Noristerat (Schering)

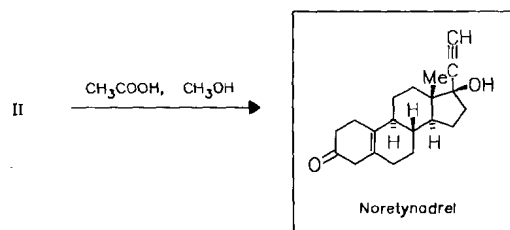
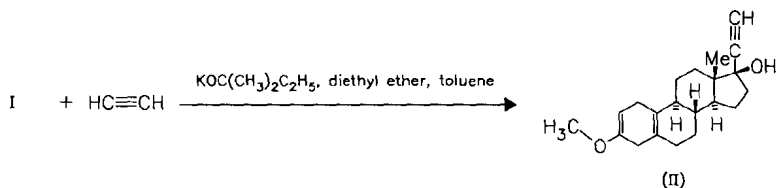
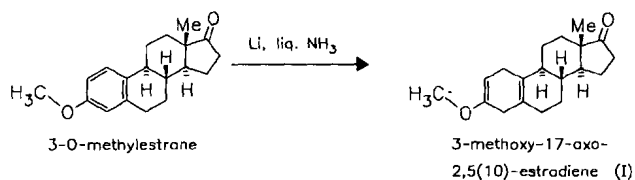
GB: Noristerat (Schering)

Noretynodrel

(Norethynodrel)

ATC: G03D

Use: progestogen

RN: 68-23-5 MF: C₂₀H₂₆O₂ MW: 298.43 EINECS: 200-682-1CN: (17 α)-17-hydroxy-19-norpregn-5(10)-en-20-yn-3-one

Reference(s):

US 2 691 028 (Searle; 1954; prior. 1953, 1952).

US 2 725 389 (Searle; 1955; prior. 1953).

starting material:

US 2 655 518 (Searle; 1953; appl. 1952).

alternative synthesis:

FR 1 421 476 (Roussel-Uclaf; appl. 2.11.1964).

Formulation(s): tabl. 2.5 mg, 5 mg, 9.85 mg in comb. with metranol*Trade Name(s):*

D:	Kontrazeptivum 63 (ratiopharm)-comb.; wfm Zyklustabletten IB 2 (Ce- Ka-Ce)-comb.; wfm	I:	Ebionel (Panther-Osfa Chemie)-comb.; wfm Elan (Valeas)-comb.; wfm Singestol (Caber)-comb.;	USA:	Enovid (Searle)-comb.; wfm Enovid E (Searle)-comb.; wfm
GB:	Enavid (Searle)-comb.; wfm	J:	Enavid (Dainippon)-comb.		

Norfenefrine

ATC: C01CA05

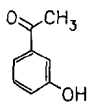
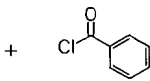
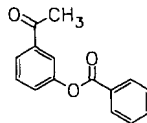
Use: sympathomimetic, circulatory
analeptic, adrenergicRN: 536-21-0 MF: C₈H₁₁NO₂ MW: 153.18 EINECS: 208-626-8LD₅₀: 4.9 mg/kg (M, i.v.); 263 mg/kg (M, p.o.);

17.4 mg/kg (R, i.v.); 390 mg/kg (R, p.o.)

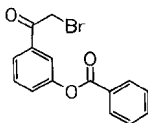
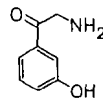
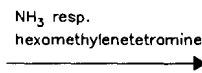
CN: α -(aminomethyl)-3-hydroxybenzenemethanol**hydrochloride**RN: 4779-94-6 MF: C₈H₁₁NO₂ · HCl MW: 189.64 EINECS: 225-323-6LD₅₀: 113 mg/kg (M, i.v.); 3300 mg/kg (M, p.o.);

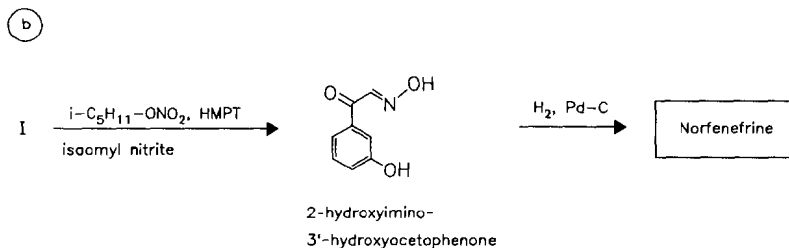
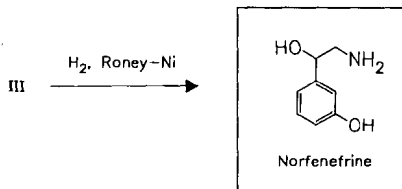
17.4 mg/kg (R, i.v.); 390 mg/kg (R, p.o.)

a

3'-hydroxyaceto-
phenone (I)benzoyl
chloride3'-benzoyloxy-
acetophenone (II)

II

2-bromo-3'-benzoyloxy-
acetophenone2-amino-3'-hydroxy-
acetophenone (III)

*Reference(s):*

- a FR 851 296 (R. Sachs; 1938).
FR 866 569 (R. Sachs; 1939).
b DE 2 130 710 (Gödecke; appl. 21.6.1971).

Formulation(s): amp. 50 mg/5 ml; cps. 6 mg; drg. 15 mg, 45 mg; drops 6 mg/ml; sol. 6 mg/ml; s. r. tabl. 50 mg; tabl. 45 mg (as hydrochloride)

Trade Name(s):

D:	Energona (Maurer) Esbuphon (Schaper & Brümmer) Norfenefrin retard forte-ratiopharm (ratiopharm)	Norfenefrin Ziethen (Ziethen) Novadral (Gödecke) generic and numerous combination preparations	J:	Normetolo (Selvi); wfm Coritat (Green Cross) Tonolift (Teisan) Zondel (Grelan; as hydrochloride)
I:	Euro-Cir (Virgiliano); wfm			

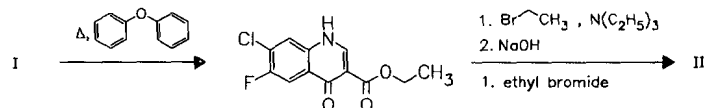
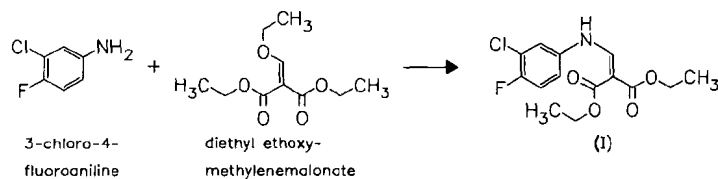
Norfloxacin

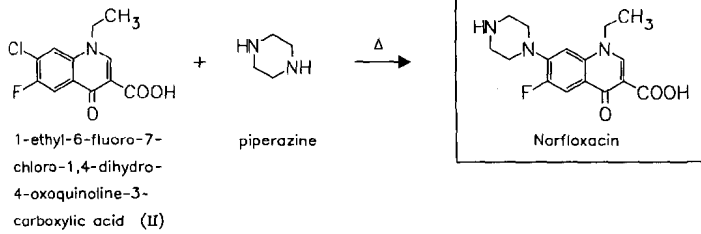
ATC: J01MA06; S01AX12
Use: antibiotic (gyrase inhibitor)

RN: 70458-96-7 MF: $\text{C}_{16}\text{H}_{18}\text{FN}_3\text{O}_3$ MW: 319.34 EINECS: 274-614-4

LD_{50} : 220 mg/kg (M, i.v.); 4 g/kg (M, p.o.);
245 mg/kg (R, i.v.); >4 g/kg (R, p.o.)

CN: 1-ethyl-6-fluoro-1,4-dihydro-4-oxo-7-(1-piperazinyl)-3-quinolinecarboxylic acid



**Reference(s):**

DE 2 804 097 (Kyorin; appl. 31.1.1978; J-prior. 16.5.1977).
 US 4 146 719 (Kyorin; 27.3.1979; J-prior. 16.2.1977).

synthesis of 1-ethyl-6-fluoro-7-chloro-1,4-dihydro-4-oxoquinoline-3-carboxylic acid:
 Koga, H. et al.: J. Med. Chem. (JMCMAR) **23**, 1358 (1980).

Formulation(s): eye drops 3 mg/ml; f. c. tabl. 400 mg

Trade Name(s):

D:	Barazan (Dieckmann; 1984)	Noroxine (MSD-Chibret; 1986)	Sebercim (ISF)
F:	Chibroxin (Chibret)	GB: Utinor (Merck Sharp & Dohme)	J: Baccidal (Kyorin)
	Chibroxine (Merck Sharp & Dohme-Chibret)	I: Fulgram (ABC)	USA: Chibroxin (Merck)
		Noroxin (MSD)	Noroxin (Merck; 1986)
			Noroxin (Roberts)

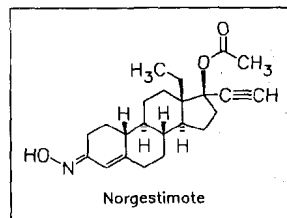
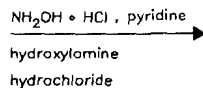
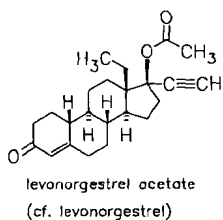
Norgestimate

ATC: G03AA

Use: progestogen, oral contraceptive

RN: 35189-28-7 MF: $C_{23}H_{31}NO_3$ MW: 369.51

CN: (17 α)-17-(acetyloxy)-13-ethyl-18,19-dinorpregn-4-en-20-yn-3-one oxime

**Reference(s):**

GB 1 123 104 (Ortho; appl. 2.9.1966; USA-prior. 22.10.1965).
 DE 1 620 102 (Ortho; appl. 9.9.1966; USA-prior. 22.10.1965).

medical use for suppression of fertility:

US 4 027 019 (Ortho; 31.5.1977; appl. 23.1.1976; prior. 24.7.1975).

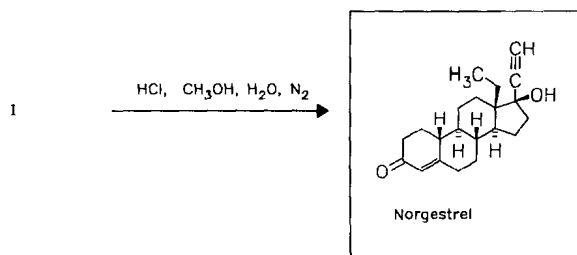
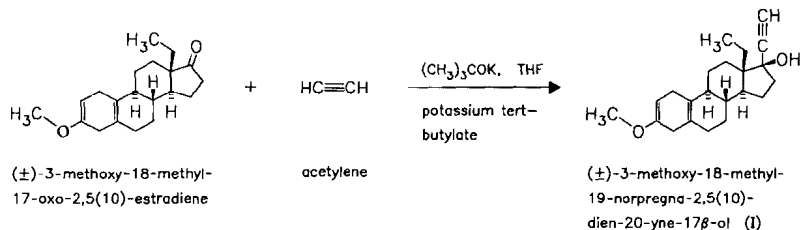
Formulation(s): tabl. 0.25 mg in comb. with ethinylestradiole

Trade Name(s):

D:	Cilest (Janssen-Cilag)-comb.	F:	Cilest (Janssen-Cilag)-comb.	GB:	Cilest (Janssen-Cilag)-comb.
	Pramino (Janssen-Cilag)-comb.		Effiprev (Effik)-comb.	I:	Cilest (Cilag)-comb.

USA: Ortho-Cyclen (Ortho-McNeil)

Ortho-Tri-Cyclen (Ortho-McNeil)

NorgestrelATC: G03AA06; G03FA10; G03FB01
Use: progestogenRN: 6533-00-2 MF: C₂₁H₂₈O₂ MW: 312.45 EINECS: 229-433-5LD₅₀: 5010 mg/kg (M, p.o.);
5010 mg/kg (R, p.o.)CN: (17 α)-(±)-13-ethyl-17-hydroxy-18,19-dinorpregn-4-en-20-yn-3-one*Reference(s):*

- GB 1 041 279 (H. Smith; appl. 19.10.1961).
 GB 1 041 280 (H. Smith; appl. 19.10.1961).
 DOS 2 030 056 (Schering AG; appl. 13.6.1970).
 Buzby, G.C. et al.: J. Med. Chem. (JMCMAR) **9**, 782 (1966).

*starting material:*Smith, H. et al.: J. Chem. Soc. (JCSOA9) **1964**, 4472.*total synthesis:*

- NL-appl. 6 414 702 (Roussel-Uclaf; appl. 17.12.1964; F-prior. 17.12.1963).
 Smith, H. et al.: Experientia (EXPEAM) **19**, 394 (1963).
 Smith, H. et al.: J. Chem. Soc. (JCSOA9) **1963**, 5072.
 Blickenstaff, R.T.; Ghosh, A.C.; Wolf, G.C.: Total Synthesis of Steroids (Organic Chemistry Vol. **30**) p. 270, Academic Press, New York, London 1974.

Formulation(s): drg. 0.5 mg in comb. with ethinylestradiol*Trade Name(s):*

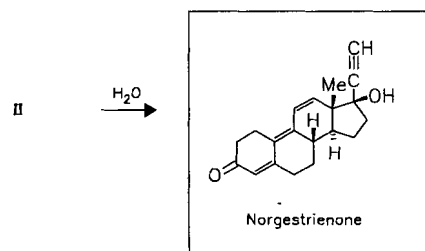
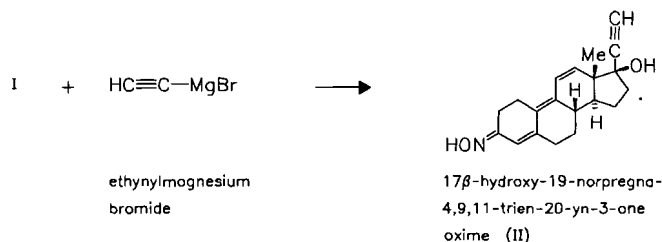
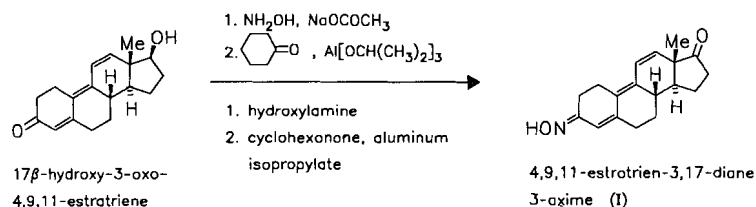
- | | | | | |
|----|---|--|-----|--|
| D: | Cyclo-Progynova
(Schering)-comb.
Stediril (Wyeth)-comb. | Minidril (Wyeth-Lederle)-
comb.
Stédiril (Wyeth-Lederle)-
comb.
Trinordiol (Wyeth-
Lederle)-comb. | GB: | Cyclo Progynova (ASTA
Medica)-comb.
Eugynon (Schering)-comb.
Neogest (Schering)
Prempak C (Wyeth)
Schering PC4 (Schering)-
comb. |
| F: | Adepal (Wyeth-Lederle)-
comb.
Microval (Wyeth-Lederle) | | | |

I:	Eugynon (Schering)-comb.	USA:	Lo/Ovral (Wyeth-Ayerst)-comb.	Ovral (Wyeth-Ayerst)-comb.
J:	Duoluton (Schering)			Ovrette (Wyeth-Ayerst)

Norgestrienone

ATC: G03AC07

Use: progestogen

RN: 848-21-5 MF: C₂₀H₂₂O₂ MW: 294.39 EINECS: 212-698-6CN: (17 α)-17-hydroxy-19-norpregna-4,9,11-trien-20-yn-3-one

Reference(s):

- US 3 257 278 (Roussel-Uclaf; 21.6.1966; F-prior. 5.7.1963, 4.10.1963, 15.5.1964, 14.8.1964, 1.6.1965).
FR-M 3 060 (Roussel-Uclaf; appl. 4.10.1963).
NL 6 401 555 (Roussel-Uclaf; appl. 20.2.1964; F-prior. 20.2.1963, 5.7.1963, 4.10.1963).
Nominé, G. et al.: C. R. Hebd. Seances Acad. Sci. (COREAF) **260**, 4545 (1965).

starting material:

- BE 631 298 (Roussel-Uclaf; appl. 19.4.1963; F-prior. 20.4.1962).
NL 6 414 702 (Roussel-Uclaf; appl. 17.12.1964; F-prior. 17.12.1963, 14.1.1964, 20.2.1964).
NL 6 517 141 (Roussel-Uclaf; appl. 30.12.1965; F-prior. 31.12.1964, 26.2.1965, 24.3.1965, 14.6.1965, 3.9.1965, 17.9.1965).
Velluz, L. et al.: C. R. Hebd. Seances Acad. Sci. (COREAF) **257**, 569 (1963).

total synthesis:

- Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. **13**, 34.
Velluz, L. et al.: C. R. Hebd. Seances Acad. Sci. (COREAF) **257**, 3086 (1963).

Formulation(s): tabl. 0.35 mg

Trade Name(s):

F: Oglyline (Roussel)

Planor (Roussel)-comb.

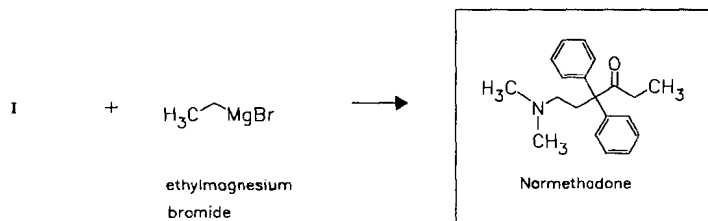
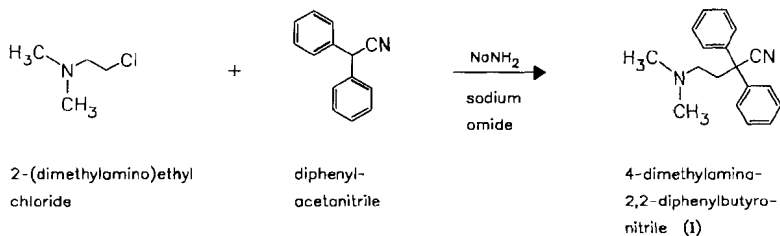
Normethadone

ATC: R05DA06

Use: antitussive, analgesic

RN: 467-85-6 MF: C₂₀H₂₅NO MW: 295.43 EINECS: 207-401-1LD₅₀: 31 mg/kg (M, i.v.)

CN: 6-(dimethylamino)-4,4-diphenyl-3-hexanone

hydrochlorideRN: 847-84-7 MF: C₂₀H₂₅NO · HCl MW: 331.89 EINECS: 212-694-4LD₅₀: 45 mg/kg (M, i.v.)**Reference(s):**

DE 865 314 (Hoechst; appl. 1941).

DE 870 700 (Hoechst; appl. 1942).

Bockmühl, M.; Ehrhart, G.: Justus Liebigs Ann. Chem. (JLACBF) **561**, 52 (1948).**Formulation(s):** drops 10 mg/ml**Trade Name(s):**

D: Ticarda (Hoechst); wfm

Normolaxol

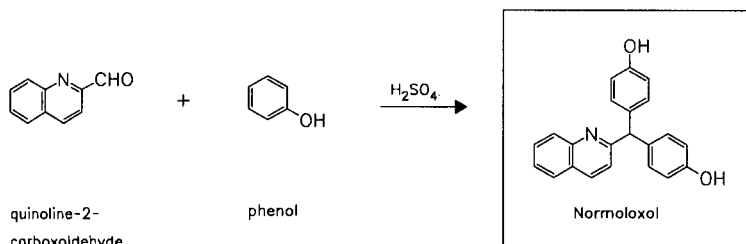
ATC: A06A

Use: laxative

RN: 18831-34-0 MF: C₂₂H₁₇NO₂ MW: 327.38

CN: 4,4'-(2-quinolinylmethylene)bis[phenol]

hydrochlorideRN: 19035-45-1 MF: C₂₂H₁₇NO₂ · HCl MW: 363.84

**Reference(s):**

US 2 753 351 (Dr. K. Thomae; 1956; D-prior. 1952).
 US 3 627 893 (Boehringer Ing.; 14.12.1971; prior. 11.1.1967, 2.1.1970).

Trade Name(s):

D: Normolaxol (Boehringer Ing.); wfm

D-Norpseudoephedrine

(D-Pseudonorephedrine; Norisoephedrine)

ATC: N06B

Use: appetite depressant

RN: 492-39-7 MF: $\text{C}_9\text{H}_{13}\text{NO}$ MW: 151.21 EINECS: 207-754-1

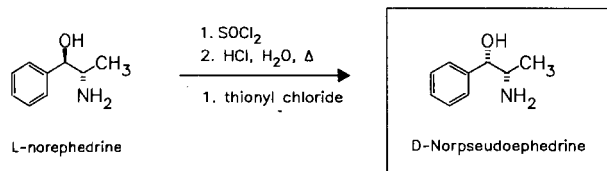
LD₅₀: 275 mg/kg (M, s.c.)

CN: [S-(R*,R*)]- α -(1-aminoethyl)benzenemethanol

hydrochloride

RN: 2153-98-2 MF: $\text{C}_9\text{H}_{13}\text{NO} \cdot \text{HCl}$ MW: 187.67 EINECS: 218-446-1

LD₅₀: 161 mg/kg (M, i.p.)

**Reference(s):**

DD 13 785 (H. Pfanz, H. Wieduwilt; appl. 1956).

starting material:

DE 1 014 553 (Knoll; appl. 1954).

alternative syntheses:

DD 43 989 (H. Müller, H. Baborowski; appl. 30.1.1965).
 Rebstock, M.C. et al.: J. Am. Chem. Soc. (JACSAT) **73**, 3668 (1951).
 DOS 3 408 850 (Knoll; appl. 10.3.1984; D-prior. 12.3.1983).

review:

Heacock, R.A.; Forrest, J.E.: Can. J. Pharm. Sci. (JPMSAE) **9**, 64 (1974).
 Pfanz, H.; Wieduwilt, H.: Arch. Pharm. Ber. Dtsch. Pharm. Ges. (APBDAJ) **288**, 563 (1955).

Formulation(s): cps. 20 mg (as base); drg. 15 mg; drops 4 g/100 ml; sol. 3.5 g/100 ml (as hydrochloride)

Trade Name(s):

D: Antiadiposikum (Hänseler)
 Fasupond (Eu Rho Arznei)

Mirapront N (Mack)-on
 ion-exchanger

Vita Schlanktropfen
 (Schuck)

USA: Atrohist (Medeva)-comb.
Codimal (Schwarz)-comb.

Rondec (Dura)-comb.
Tussend (Monarch)-comb.

numerous combination
preparations

Nortriptyline

(Desitriptyline)

ATC: N06AA10

Use: antidepressant

RN: 72-69-5 MF: C₁₉H₂₁N MW: 263.38 EINECS: 200-788-8

LD₅₀: 17 mg/kg (M, i.v.); 370 mg/kg (M, p.o.);
22 mg/kg (R, i.v.); 502 mg/kg (R, p.o.)

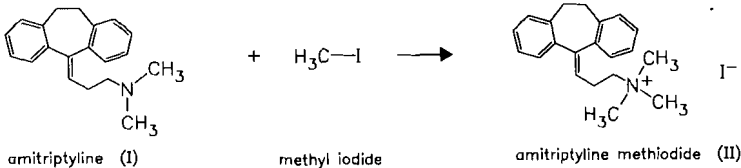
CN: 3-(10,11-dihydro-5H-dibenzo[a,d]cyclohepten-5-ylidene)-N-methyl-1-propanamine

hydrochloride

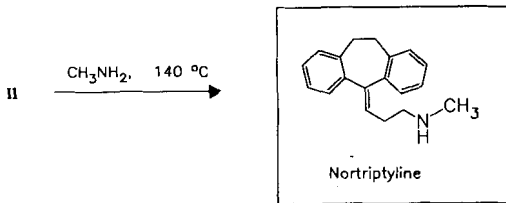
RN: 894-71-3 MF: C₁₉H₂₁N · HCl MW: 299.85 EINECS: 212-973-0

LD₅₀: 18.7 mg/kg (M, i.v.); 260 mg/kg (M, p.o.);
13 mg/kg (R, i.v.); 405 mg/kg (R, p.o.)

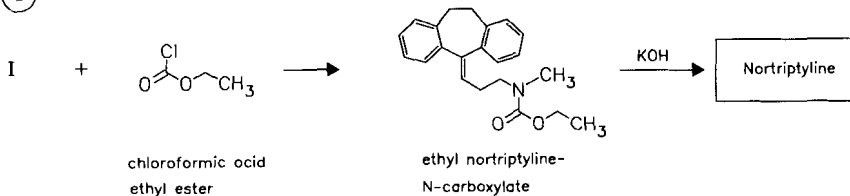
(a)



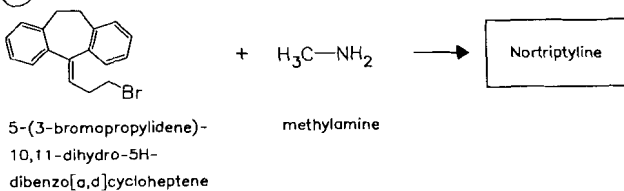
(q. v.)



(b)



(c)



Reference(s):

- a FR 1 345 936 (Kefalas; appl. 21.1.1963; GB-prior. 26.1.1962).
 b DE 1 288 599 (Geigy; appl. 13.3.1962; CH-prior. 14.3.1961, 30.3.1961).
 c Hoffsommer, R.D. et al.: J. Org. Chem. (JOCEAH) **27**, 4134 (1962).

alternative syntheses:

- DE 1 266 755 (Kefalas; appl. 6.10.1961).
 BE 628 904 (Eli Lilly; appl. 26.2.1963; USA-prior. 26.2.1963).
 DE 1 269 614 (Hoffman-La Roche; appl. 15.1.1962).
 CH 407 990 (Hoffman-La Roche; appl. 1.2.1962).
 CH 407 993 (Hoffman-La Roche; appl. 1.2.1962).
 US 3 281 469 (Eli Lilly; appl. 10.8.1962; prior. 26.2.1962).
 DAS 1 468 138 (Kefalas; appl. 12.3.1963; GB-prior. 23.3.1962, 9.11.1962).
 DOS 1 918 739 (Egyesült; appl. 12.4.1969; H-prior. 12.4.1968).
 US 3 215 739 (Kefalas; 2.11.1965; appl. 10.10.1961; DK-prior. 12.10.1960).
 US 3 372 196 (Merck & Co.; 5.3.1968; prior. 25.7.1963, 25.11.1966).

Formulation(s): drg. 10 mg, 25 mg, 50 mg, 75 mg (as hydrochloride)

Trade Name(s):

D:	Nortrilen (Promonta Lundbeck)	Motipress (Sanofi Winthrop)-comb.	Noritren (Lundbeck) Vividyl (Lilly)
F:	Motival (Norgine Pharma)- comb.	Motival (Sanofi Winthrop)- comb.	J: Noritren (Dainippon) USA: Aventyl (Lilly)
GB:	Allegron (King; as hydrochloride)	I: Dominans (Recordati)- comb. Nodal (Squibb)-comb.	Pamelor (Novartis) generics

Novobiocin

ATC: J01
 Use: antibiotic

RN: 303-81-1 MF: $C_{31}H_{36}N_2O_{11}$ MW: 612.63 EINECS: 206-146-3

LD₅₀: 407 mg/kg (M, i.v.); 1500 mg/kg (M, p.o.)

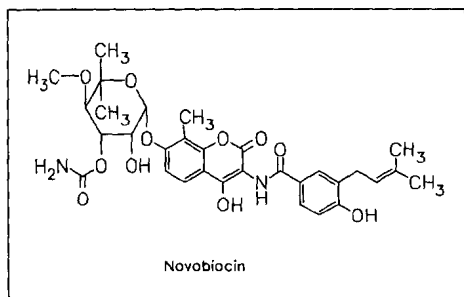
CN: *N*-[7-[[3-*O*-(aminocarbonyl)-6-deoxy-5-*C*-methyl-4-*O*-methyl-β-*L*-lyxo-hexopyranosyl]oxy]-4-hydroxy-8-methyl-2-oxo-2*H*-1-benzopyran-3-yl]-4-hydroxy-3-(3-methyl-2-butenyl)benzamide

monosodium salt

RN: 1476-53-5 MF: $C_{31}H_{35}N_2NaO_{11}$ MW: 634.61 EINECS: 216-023-6

LD₅₀: 407 mg/kg (M, i.v.); 962 mg/kg (M, p.o.);

385 mg/kg (R, i.v.); 3500 mg/kg (R, p.o.)



From cultures of *Streptomyces niveus* or *Streptomyces spheroides*.

Reference(s):

- US 2 925 411 (C. H. Stammer; 16.2.1960; prior. 29.4.1958).
 US 2 966 484 (Merck & Co.; 27.12.1960; appl. 26.12.1957; prior. 19.4.1956).
 US 2 983 723 (Upjohn; 9.5.1961; prior. 17.7.1957).
 US 3 000 873 (Merck & Co.; 19.9.1961; prior. 21.5.1957).
 US 3 049 475 (Merck & Co.; 14.8.1962; prior. 19.4.1956).
 US 3 049 476 (Merck & Co.; 14.8.1962; prior. 19.4.1956).
 US 3 049 534 (Merck & Co.; 14.8.1962; appl. 7.3.1956; prior. 21.4.1955).
 US 3 068 221 (Upjohn; 11.12.1962; prior. 18.3.1960).
 Kaczka, E.A. et al.: J. Am. Chem. Soc. (JACSAT) **77**, 6404 (1955).
 Hoeksema, H. et al.: J. Am. Chem. Soc. (JACSAT) **77**, 6711 (1955).

Formulation(s): cps. 250 mg (as sodium salt); vial 500 mg

Trade Name(s):

D:	Inamycin (Hoechst); wfm	GB:	Albamycin (Upjohn); wfm	J:	Albiocin (Upjohn)
F:	Albacycline (Upjohn)- comb.; wfm	I:	Robiocina (San Carlo); wfm	USA:	Cathomycin (Meiji)
	Cathomycine (Théraplax); wfm		Stilbiocina (Donatello); wfm		Albacycline (Upjohn)- comb.; wfm
					Albamycin (Upjohn); wfm

Noxiptiline

ATC: N06A

Use: antidepressant

RN: 3362-45-6 MF: $C_{19}H_{22}N_2O$ MW: 294.40

CN: 10,11-dihydro-5H-dibenzo[*a,d*]cyclohepten-5-one *O*-[2-(dimethylamino)ethyl]oxime

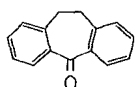
monohydrochloride

RN: 4985-15-3 MF: $C_{19}H_{22}N_2O \cdot HCl$ MW: 330.86 EINECS: 225-638-9

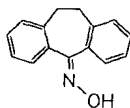
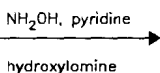
LD₅₀: 21.3 mg/kg (M, i.v.); 275 mg/kg (M, p.o.);

12 mg/kg (R, i.v.); 607 mg/kg (R, p.o.);

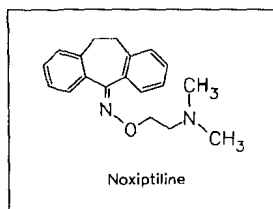
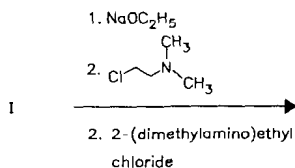
800 mg/kg (dog, p.o.)



dibenzosuberone



dibenzosuberone
oxime (I)

*Reference(s):*

- DE 1 198 353 (H. Engelhard; appl. 29.7.1964).
 DE 1 225 169 (Bayer; appl. 26.11.1964).
 US 3 963 778 (Bayer; 15.6.1976; appl. 14.7.1969; D-prior. 10.11.1965).
 GB 1 045 911 (Pfizer; appl. 22.2.1963; valid from 6.2.1964).

Formulation(s): tabl. 25 mg (as monohydrochloride)

Trade Name(s):

D: Agedal (Bayer); wfm F: Nogédal (ThérapiX); wfm I: Agedal (Bayer); wfm

Noxytiolin

(Noxitiolinum; Noxythiolin)

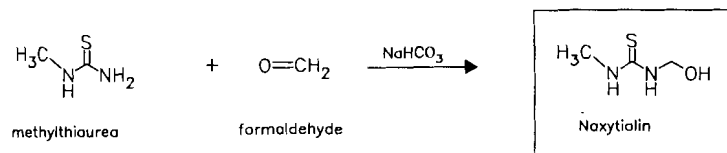
ATC: B05CA07

Use: bactericide (external)

RN: 15599-39-0 MF: $C_3H_8N_2OS$ MW: 120.18 EINECS: 239-679-5

LD₅₀: >3 g/kg (M, p.o.)

CN: N-(hydroxymethyl)-N'-methylthiourea



Reference(s):

GB 970 414 (Ed. Geistlich Söhne; appl. 12.1.1960; valid from 4.1.1961).

Formulation(s): powder 2.5 g

Trade Name(s):

F: Noxyflex (Innothéra) GB: Noxyflex (Geistlich)

Nystatin

ATC: A07AA02; D01AA01; G01AA01

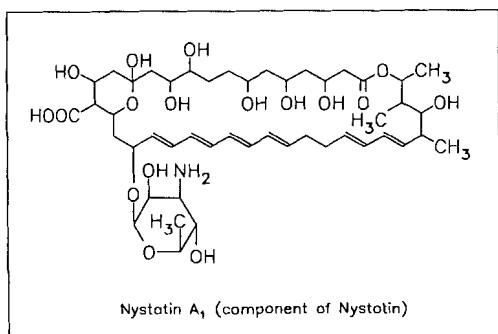
Use: fungicidal antibiotic, antimycotic

RN: 1400-61-9 MF: unspecified MW: unspecified EINECS: 215-749-0

LD₅₀: 3 mg/kg (M, i.v.); 8 g/kg (M, p.o.);

10 g/kg (R, p.o.)

CN: nystatin



From fermentation solutions of *Streptomyces noursei*.

Reference(s):

- US 2 786 781 (Olin Mathieson; 1957; prior. 1954).
 US 2 797 183 (Research Corp. 1957; prior. 1952).
 US 2 832 719 (Olin Mathieson; 1958; prior. 1956).
 US 3 517 100 (American Cyanamid; 23.6.1970; appl. 2.7.1968).

preliposomal powder:

EP 567 582 (Argus Pharmac.; appl. 10.1.1992; USA-prior. 14.1.1991).

Formulation(s): cream 100000 iu/g; drg. 500000 iu; f. c. tabl. 500000 iu/g; gel 100000 iu/g;
 ointment 100000 iu; pessaries 100000 iu; susp. 100000 iu/ml

Trade Name(s):

D:	Adiclair (Ardeypharm)	Penanyst (Johnson & Johnson)-comb.	Flagyl Compak (Rhône-Poulenc Rorer)-comb.
	Aureomycin (Lederle)-comb. with chlortetracycline	Polygynax (UCB)-comb.	Gregoderm (Unigreg)-comb.
	Biofanal (Pfleger)	Topsym (Grünenthal)-comb.	I: Fasigin (Pfizer)-comb.
	Candio-Hermal (Hermal)	Volonimat (Bristol-Myers Squibb)-comb.	Halciderm Combi (Squibb; as sulfate)-comb.
	Candio-Hermal (Hermal)-comb. with chlortetracycline	generic and numerous combination preparations	Macmiror Complex (Poli)-comb.
	Fungireduct (Azupharma) F:	Auricularum (Sérolam)-comb.	Mycocur (Schering)-comb.
	Halog (Bristol-Myers Squibb)-comb.	Mycolog (Bristol-Myers Squibb)-comb.	Mycostatin (Bristol-Myers Squibb)
	Jellin (Grünenthal)-comb.	Mycomnès (Fumouze)-comb.	J: Mycostatin (Squibb-Sankyo)
	Lokalisation (Dermapharm)-comb.	Mycostatine (Bristol-Myers Squibb)	USA: Mycostatin (Westwood-Squibb)
	Moronal (Bristol-Myers Squibb)	Mycu-ultralan (Schering)-comb.	Myco-Triacet II (Teva)
	Moronal (Bristol-Myers Squibb)-comb.	Polygynax /-virgo (Innothéra)-comb.	Mytrex (Savage)
	Mykoderm (Engelhard)	Tergynan (Bouchara)-comb.	Nystop (Paddock)
	Mykoproct (Bristol-Myers Squibb)-comb.		Pedi-Dri (Pedinol)
	Mykundex (Biocur)-comb.		generics
	Nystaderm (Dermapharm)-comb. GB:	Dermovate (Glaxo Wellcome)-comb.	

Obidoxime chloride

ATC: V03AB13

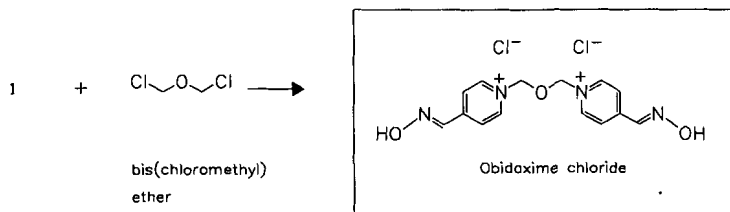
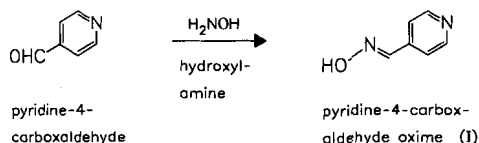
Use: antidote (poisoning with phosphoric acid esters (e. g. E 605))

RN: 114-90-9 MF: C₁₄H₁₆Cl₂N₄O₃ MW: 359.21 EINECS: 204-059-5LD₅₀: 70 mg/kg (M, i.v.); >2.24 g/kg (M, p.o.);

133 mg/kg (R, i.v.); >4 g/kg (R, p.o.);

>70 mg/kg (dog, i.v.)

CN: 1,1'-[oxybis(methylene)]bis[4-[(hydroxyimino)methyl]pyridinium] dichloride

**Reference(s):**

US 3 137 702 (E. Merck AG; 16.6.1964; D-prior. 13.8.1960).

Lüttringhaus, A.; Hagedorn, I.: *Arzneim.-Forsch. (ARZNAD)* **14**, 1 (1964).**Formulation(s):** amp. 250 mg/ml**Trade Name(s):**

D: Toxogonin (Merck)

Octatropine methylbromide

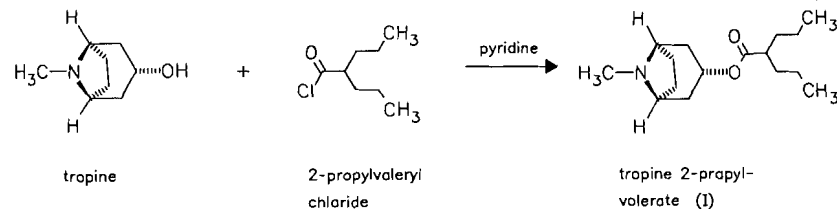
(Anisotropine methylbromide)

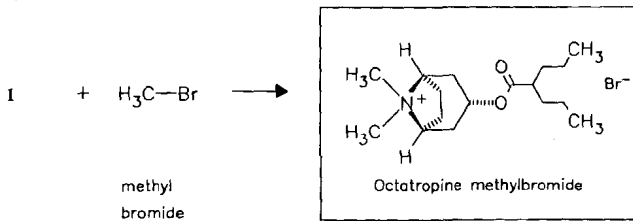
ATC: A03AB

Use: anticholinergic, gastric and intestinal antispasmodic

RN: 80-50-2 MF: C₁₇H₃₂BrNO₂ MW: 362.35 EINECS: 201-285-6LD₅₀: 6300 µg/kg (M, i.v.); 850 mg/kg (M, p.o.);

705 mg/kg (R, p.o.)

CN: *endo*-8,8-dimethyl-3-[(1-oxo-2-propylpentyl)oxy]-8-azoniabicyclo[3.2.1]octane bromide

*Reference(s):*

US 2 962 499 (Endo Labs.; 29.11.1960; prior. 3.7.1957).

Formulation(s): amp. 1 %; gran. 10 %; tabl. 10 mg*Trade Name(s):*

I: Valpinax (Crinos)-comb. USA: Valpin (Du Pont); wfm
 J: Valpin (Sankyo) Valpin (Endo); wfm

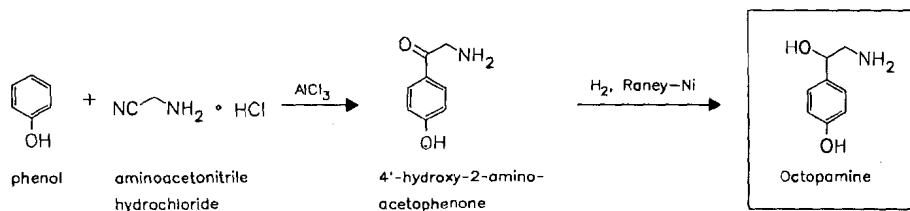
Octopamine*(p-Norsynephrine)*

ATC: C01CA18

Use: sympathomimetic, circulatory stimulant

RN: 104-14-3 MF: C₈H₁₁NO₂ MW: 153.18 EINECS: 203-179-5LD₅₀: 75 mg/kg (M, i.v.); 4200 mg/kg (M, p.o.);
1240 mg/kg (R, p.o.)

CN: α-(aminomethyl)-4-hydroxybenzenemethanol

hydrochlorideRN: 770-05-8 MF: C₈H₁₁NO₂ · HCl MW: 189.64 EINECS: 212-216-4*Reference(s):*

US 2 585 988 (Hartford National Bank; 1952; NL-prior. 1948).

Formulation(s): cps. 60 mg (as hydrogen tartrate); drg. 150 mg (as hydrochloride); sol. 150 mg/ml (as hydrochloride)*Trade Name(s):*

D: Depot-Norphen (Byk Gulden); wfm Norphen (Byk Gulden); wfm I: Norden (Byk Gulden); wfm
 J: Norfen (Morishita)

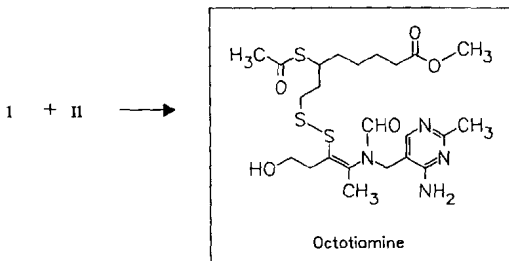
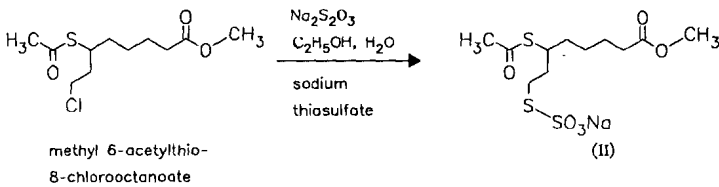
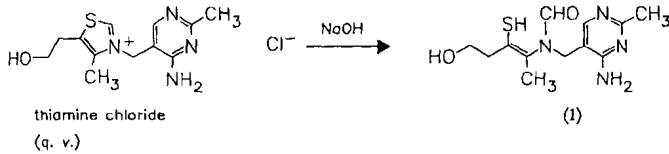
Octotiamine

ATC: A11

Use: neurotropic analgesic (thiamine derivative)

RN: 137-86-0 MF: $C_{23}H_{36}N_4O_5S_3$ MW: 544.76LD₅₀: 399 mg/kg (M, i.v.); 2590 mg/kg (M, p.o.)

CN: 6-(acetylthio)-8-[[2-[[[4-amino-2-methyl-5-pyrimidinyl)methyl]formylamino]-1-(2-hydroxyethyl)-1-propenyl]dithio]octanoic acid methyl ester

**Reference(s):**

US 3 098 856 (Fujisawa; 1963; J-prior. 1960).

Formulation(s): tabl. 5 mg, 25 mg, 50 mg**Trade Name(s):**D: Clinit-N (Hormosan)-
comb.; wfm
Jasivita (Bolder)-comb.;
wfmNeuro-Elmedal
(Thiemann)-comb.; wfm
Neuro-Europian
(Hormosan)-comb.; wfmJ: Neurovitan (Fujisawa)-
comb.
Neuvita (Fujisawa)**Ofloxacin**

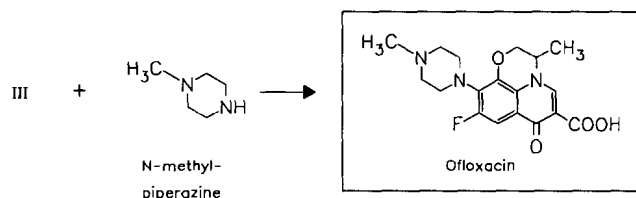
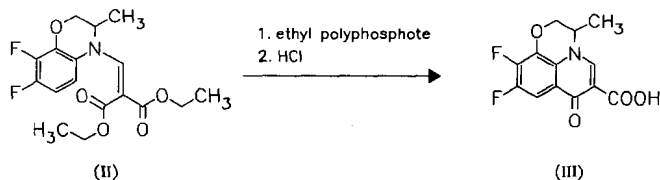
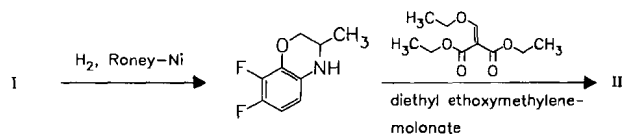
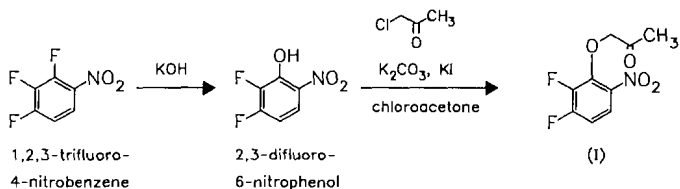
ATC: J01MA01; S01AX11

Use: antibiotic (gyrase inhibitor)

RN: 82419-36-1 MF: $C_{18}H_{20}FN_3O_4$ MW: 361.37

CN: (±)-9-fluoro-2,3-dihydro-3-methyl-10-(4-methyl-1-piperazinyl)-7-oxo-7H-pyrido[1,2,3-de]-1,4-benzoxazine-6-carboxylic acid

hydrochlorideRN: 118120-51-7 MF: $C_{18}H_{20}FN_3O_4 \cdot HCl$ MW: 397.83

**Reference(s):**

EP 47 005 (Daiichi Seiyaku; appl. 28.8.1981; J-prior. 2.9.1980).

US 4 382 892 (Daiichi Seiyaku; 10.5.1983, appl. 2.9.1981; J-prior. 2.9.1980).

preparation of 1,2,3-trifluoro-4-nitrobenzene:Finger et al.: J. Am. Chem. Soc. (JACSAT) **81**, 94, 99 (1959).Yoshida, Y.; Kimura, Y.; Tomoi, M.: Tetrahedron Lett. (TELEAY) **30** (51), 7199 (1989).

Formulation(s): cream 3 mg/g; eye drops 3 mg/ml; f. c. tabl. 100 mg, 200 mg, 400 mg; tabl. 200 mg, 400 mg; vial 100 mg/50 ml, 200 mg/100 ml, 400 mg/200 ml (as hydrochloride)

Trade Name(s):

D:	Floxal (Mann)	Oflocet (Roussel)	Oflocin (Glaxo Wellcome; 1987)
	Tarivid (Hoechst; 1985)	GB: Exocin (Allergan)	
	Uro-Tarivid (Hoechst)	Tarivid (Hoechst)	J: Tarivid (Daiichi Seiyaku)
F:	Exocine (Allergan)	I: Exocin (Allergan)	USA: Floxin (Ortho-McNeil)
	Monoflocet (Roussel)	Flobacin (Sigma-Tau)	Ocuflox (Allergan)

Olanzapine

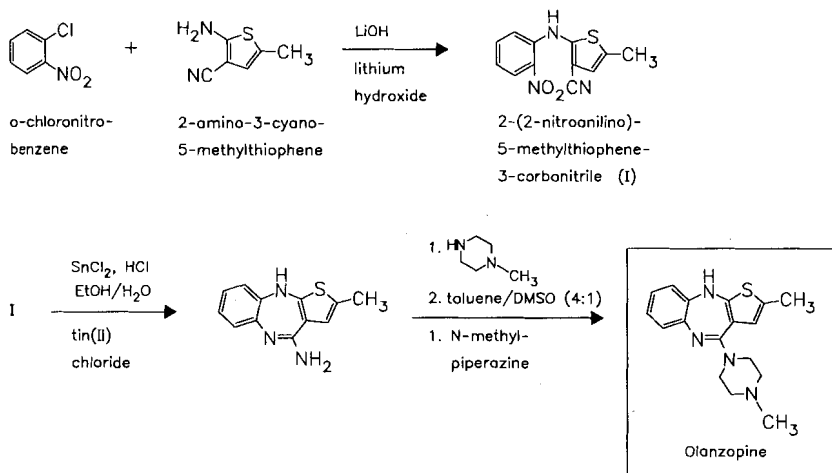
(LY-170053)

ATC: N05AH03

Use: antipsychotic

RN: 132539-06-1 MF: C₁₇H₂₀N₄S MW: 312.44

CN: 2-methyl-4-(4-methyl-1-piperazinyl)-10H-thieno[2,3-b][1,5]benzodiazepine

**Reference(s):**

- EP 454 436 (Lilly; appl. 30.10.1991; GB-prior. 25.4.1990).
 EP 733 634 (Lilly; appl. 25.9.1996; USA-prior. 24.3.1995).
 US 5 229 382 (Lilly; 20.7.1993; GB-prior. 25.4.1990).
 EP 733 367 (Lilly & Co.; appl. 25.9.1996).
 Chakrabati, J.K. et al.: J. Med. Chem. (JMCMAR) **23**, 878, 884 (1980).
 Hagopian, G.S.; Meyers, D.B.; Markham, J.K.: Teratology (TJADAB) **35**(2), Abst. P65 (1987).

intermediates and process for preparing olanzapine:

EP 831 098 (Eli Lilly; appl. 22.9.1997; USA-prior. 23.9.1996).

pharmaceutical compositions:

US 5 919 485 (Eli Lilly; 6.7.1999; appl. 20.9.1996; USA-prior. 24.3.1995).
 EP 830 864 (Eli Lilly; appl. 22.9.1997; USA-prior. 23.9.1996).

crystalline olanzapine:

EP 733 635 (Eli Lilly; appl. 22.3.1996; USA-prior. 24.3.1995).

Formulation(s): f. c. tabl. 2.5 mg, 5 mg, 7.5 mg, 10 mg

Trade Name(s):

D: ZYPREXA (Lilly) I: Zyprexa (Lilly)
 GB: Zyprexa (Lilly; 1996) USA: Zyprexa (Lilly)

Oleandomycin

(Troleandomycin)

ATC: J01FA05

Use: antibiotic

RN: 3922-90-5 MF: C₃₅H₆₁NO₁₂ MW: 687.87 EINECS: 223-495-7

LD₅₀: 460 mg/kg (M, i.v.); 8200 mg/kg (M, p.o.);

440 mg/kg (R, i.v.); 6700 mg/kg (R, p.o.)

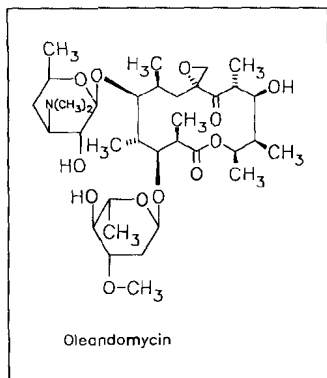
CN: [3R-(3R*,5R*,6S*,7R*,8R*,11R*,12R*,13R*,14S*,15S*)]-12-[(2,6-dideoxy-3-O-methyl-α-L-arabino-hexopyranosyl)oxy]-6-hydroxy-5,7,8,11,13,15-hexamethyl-14-[[3,4,6-trideoxy-3-(dimethylamino)-β-D-xylo-hexopyranosyl]oxy]-1,9-dioxaspiro[2.13]hexadecane-4,10-dione

phosphate (1:1)

RN: 7060-74-4 MF: C₃₅H₆₁NO₁₂·H₃PO₄ MW: 785.86 EINECS: 230-351-7

LD₅₀: 400 mg/kg (M, i.v.); 4 g/kg (M, p.o.);

480 mg/kg (R, i.v.)



From fermentation solutions of *Streptomyces antibioticus*.

Reference(s):

US 2 757 123 (Pfizer; 31.7.1956; prior. 1.6.1953, 29.6.1955).

US 2 842 481 (Pfizer; 8.7.1958; prior. 12.3.1957).

Formulation(s): cps. 250 mg; tabl. 100 mg; vial 500 mg (as phosphate)

Trade Name(s):

D:	Oleandocyn (Pfizer); wfm	I:	Boramycina (Benvegna)- comb.; wfm	J:	Matromycin (Taito Pfizer) Sigmamycin (Pfizer)-comb.
F:	Sigmamycine (Rosa- Phytopharma)-comb.; wfm generic; wfm		Olmicina (Morgan); wfm Triolmicina (Ripari-Gero); wfm	USA:	TAO (Pfizer)

Olprinone hydrochloride

(E-1020; Loprinone)

ATC: C01D

Use: cardiotonic, vasodilator, PDE III-
inhibitor

RN: 119615-63-3 MF: $C_{14}H_{10}N_4O \cdot HCl$ MW: 286.72

LD₅₀: 242 mg/kg (M, i.v.); >10 g/kg (M, p.o.);

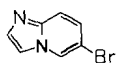
176 mg/kg (R, i.v.); 7804 mg/kg (R, p.o.);

>100 mg/kg (dog, i.v.)

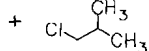
CN: 1,2-dihydro-5-imidazo[1,2-a]pyridin-6-yl-6-methyl-2-oxo-3-pyridinecarbonitrile monohydrochloride

olprinone

RN: 106730-54-5 MF: $C_{14}H_{10}N_4O$ MW: 250.26



6-bromo-imidazo-
[1,2-a]pyridine

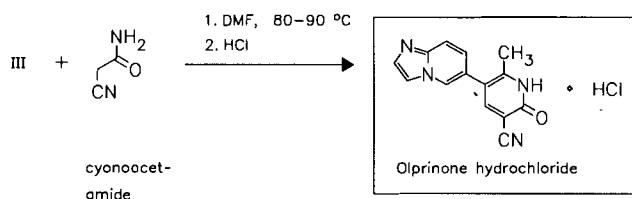
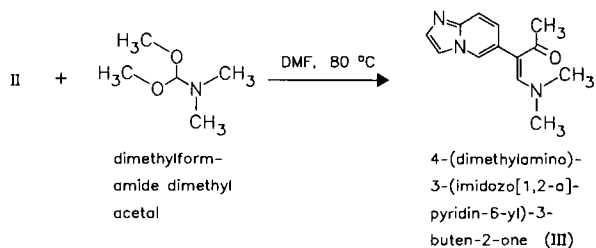
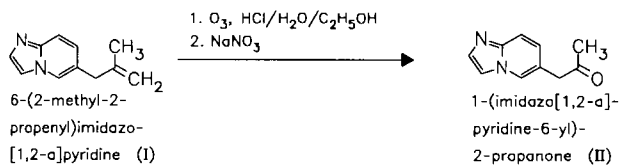


1-chloro-
2-methyl-
propane

1. $H_3C-MgBr$, THF, 0-10 °C

2. NH_4Cl

I

**Reference(s):****preparation of intermediate II:**

JP 63 077 879 (Eisai; appl. 22.9.1986; J-prior. 22.9.1986).

Yamanaka, M. et al.: Chem. Pharm. Bull. (CPBTAL) **40** (6), 1486 (1992).**preparation of olprinone from II:**

EP 199 127 (Eisai; appl. 25.3.1986; J-prior. 26.3.1985).

Yamanaka, M. et al.: Chem. Pharm. Bull. (CPBTAL) **39** (6), 1556 (1991).**Formulation(s):** vial 5 mg/5 ml**Trade Name(s):**

J: Coretec (Eisai)

Olsalazine sodium

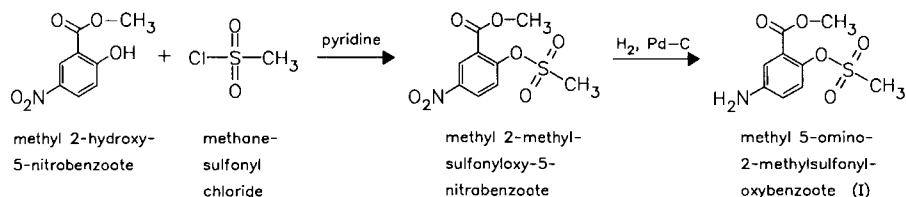
(Di-5-ASA)

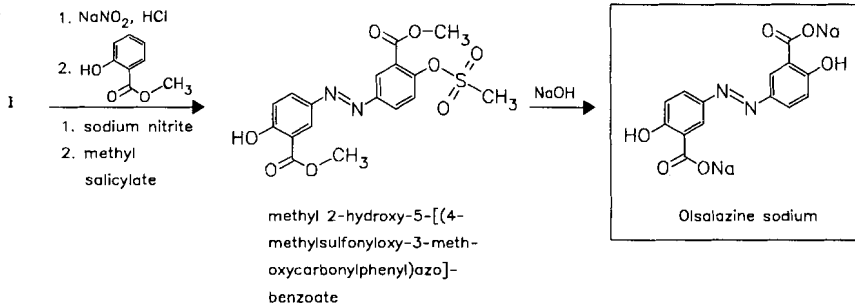
ATC: A07EC03

Use: therapeutic (ulcerative colitis)

RN: 6054-98-4 MF: C₁₄H₈N₂Na₂O₆ MW: 346.21

CN: 3,3'-azobis[6-hydroxybenzoic acid] disodium salt

free acidRN: 15722-48-2 MF: C₁₄H₁₀N₂O₆ MW: 302.24 EINECS: 227-975-7

**Reference(s):**

EP 36 636 (Pharmacia; appl. 19.3.1981; S-prior. 26.3.1980).

US 4 528 367 (Pharmacia; 9.7.1985; S-prior. 26.3.1980).

preparation of methyl 2-hydroxy-5-nitrobenzoate:Kakigami, T.; Baba, K.; Usui, T.: *Heterocycles (HTCYAM)* **48** (12), 2611 (1998).Baker et al.: *J. Chem. Soc. (JCSOA9)* **1950**, 170.Barany; Pianka: *J. Chem. Soc. (JCSOA9)* **1946**, 965.**Formulation(s):** cps. 250 mg; tabl. 500 mg**Trade Name(s):**

D: Dipentum (Pharmacia & Upjohn; 1989)

GB: Dipentum (Pharmacia & Upjohn; 1989)

USA: Dipentum (Pharmacia & Upjohn)

F: Dipentum (Pharmacia & Upjohn)

I: Dipentum (Pharmacia & Upjohn; 1991)

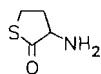
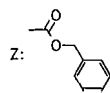
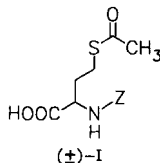
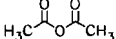
Omapatrilat

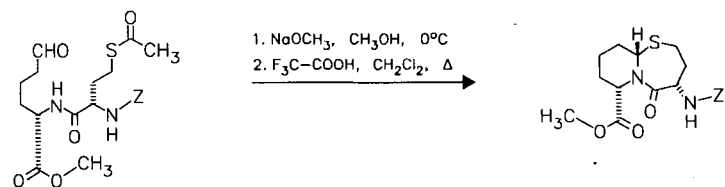
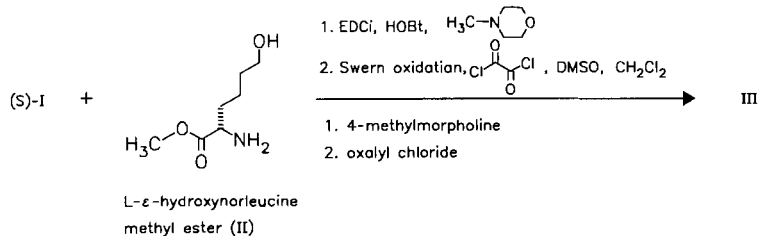
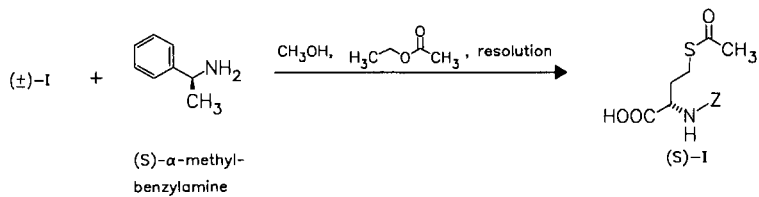
(BMS-186716)

Use: antihypertensive, dual ACE and NEP (neutral endopeptidase) inhibitor

RN: 167305-00-2 MF: $\text{C}_{19}\text{H}_{24}\text{N}_2\text{O}_4\text{S}_2$ MW: 408.54CN: (4*S*,7*S*,10*aS*)-Octahydro-4-[[[(2*S*)-2-mercapto-1-oxo-3-phenylpropyl]amino]-5-oxo-7*H*-pyrido[2,1-*b*][1,3]thiazepine-7-carboxylic acid

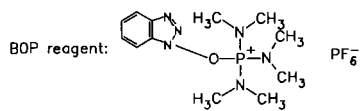
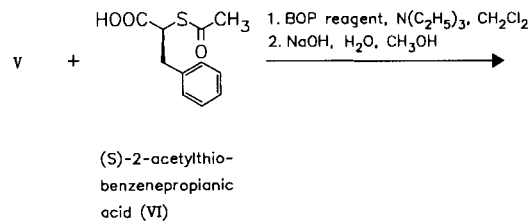
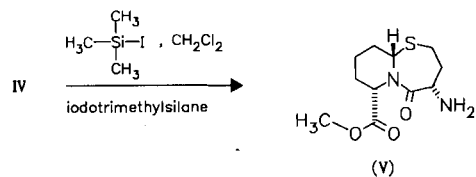
a

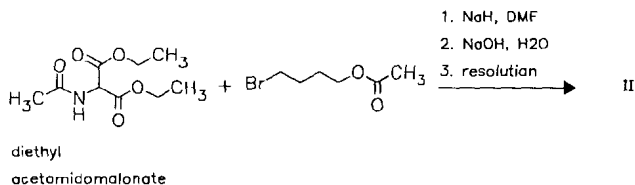
homocysteine
thiolactone1. Z-O-Su, NaHCO_3 , H_2O , acetone2. KOH, H_2O , 



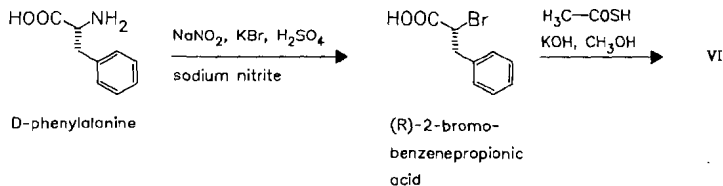
[S-(R*,R*)]-2-[[4-(acetylthio)-1-oxo-2-[[[(phenylmethoxy)-carbonyl]amino]butyl]-amino]-6-oxohexanoic acid methyl ester (III)]

[4S-(4a,7a,10a β)]-octahydro-4-[[[(phenylmethoxy)-carbonyl]amino]-5-oxo-7H-pyrido[2,1-b][1,3]thiazepine-7-carboxylic acid methyl ester (IV)]



(aa) synthesis of L- ϵ -hydroxynorleucine methyl ester (II)

(ab) synthesis of (S)-2-(acetylthio)benzenepropionic acid (VI)

*Reference(s):*

EP 629 627 (Bristol-Myers Squibb; appl. 13.6.1994; USA-prior. 15.6.1993).

US 5 508 272 (Bristol-Myers Squibb; 16.4.1996; USA-prior. 15.6.1993).

Robl, J.A. et al.: J. Med. Chem. (JMCMAR) **40**, 1570-1577 (1997).

WO 9 935 145 (Bristol-Myers Squibb; appl. 11.12.1998; USA-prior. 6.1.1998).

*Trade Name(s):*D: Vanlev (Bristol-Myers
Squibb)**Omeprazole**

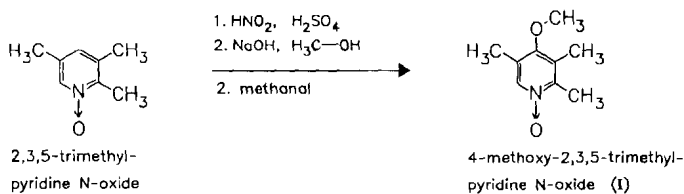
(H-168/68)

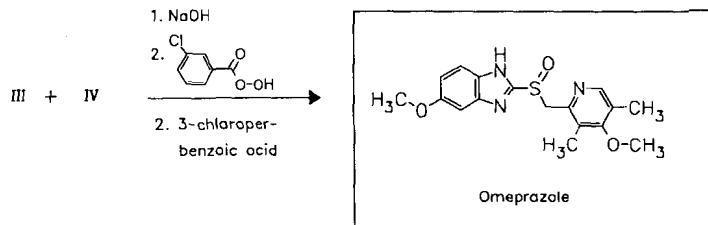
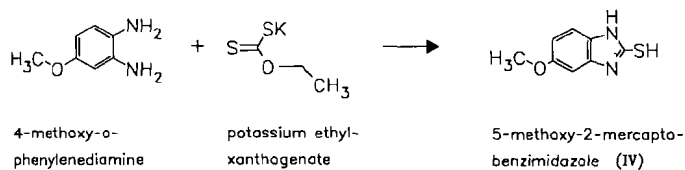
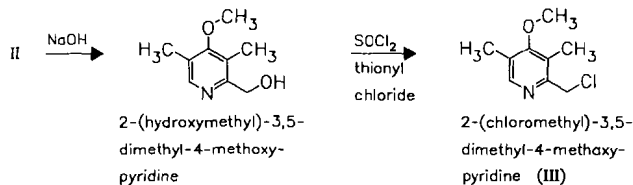
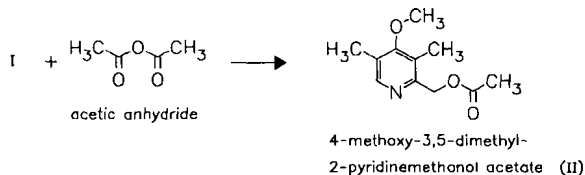
ATC: A02BD01

Use: H⁺/K⁺-ATPase-inhibitory ulcer
therapeutic (Zollinger-Ellison
Syndrom, reflux oesophagitis)RN: 73590-58-6 MF: C₁₇H₁₉N₃O₃S MW: 345.42LD₅₀: 82.8 mg/kg (M, i.v.); >4 g/kg (M, p.o.);

>50 mg/kg (R, i.v.); 2210 mg/kg (R, p.o.)

CN: 5-methoxy-2-[[[(4-methoxy-3,5-dimethyl-2-pyridinyl)methyl]sulfinyl]-1H-benzimidazole

monosodium saltRN: 95510-70-6 MF: C₁₇H₁₈N₃NaO₃S MW: 367.41LD₅₀: 278 mg/kg (R, i.v.)



Reference(s):

EP 5 129 (Hässle; appl. 3.4.1979; S-prior. 14.4.1978).
US 4 255 431 (Hässle; 10.3.1981; S-prior. 14.4.1978).

alternative synthesis of III:

EP 103 553 (Hässle; appl. 30.6.1983; S-prior. 26.8.1982).

alternative synthesis of omeprazole:

WO 9 809 962 (Slovakofarma 13.3.1998; appl. 8.9.1997; SK-prior. 9.9.1996).
WO 9 729 103 (PDI Res.; 14.8.1994; appl. 5.2.1997; CA-prior. 6.2.1996, 10.4.1996).
WO 9 722 603 (Astra; 26.6.1997; appl. 5.12.1996; S-prior. 15.12.1995).
US 5 374 730 (Torcan; 20.12.1994; appl. 4.11.1993).
EP 533 264 (Merck & Co.; 24.3.1993; appl. 12.9.1992; USA-prior. 20.9.1991, 15.10.1991).
WO 9 118 895 (Astra; 12.12.1991; appl. 5.6.1991; S-prior. 7.6.1990).
EP 484 265 (Centro Genesis para la Inv.; appl. 24.10.1991; E-prior. 31.10.1990).
WO 9 850 361 (PDI Research; appl. 21.4.1998; CA-prior. 6.5.1997).
WO 9 840 378 (Bristol-Myers Squibb; appl. 16.2.1998; DK-prior. 7.3.1997).
WO 9 947 514 (Knoll AG; appl. 11.3.1999; GB-prior. 17.3.1998).
EP 302 720 (Takeda Chem. Ind.; appl. 3.8.1988; J-prior. 4.8.1987).

synthesis of intermediates:

EP 226 558 (Hässle; appl. 8.9.1986; S-prior. 24.9.1985).
ES 2 035 767 (Centro Genesis; 16.4.1993; appl. 5.4.1991)

alkaline salts:

EP 124 495 (Hässle; appl. 28.2.1984; S-prior. 4.3.1983).

ES 2 023 778 (Centro Genesis; 1.2.1992).

WO 9 900 380 (Astra; appl. 11.6.1998; S-prior. 27.6.1997).

cyclodextrin complexes:

EP 190 239 (Byk Gulden Lomberg; appl. 24.7.1985; D-prior. 27.7.1984).

oral composition:

EP 247 983 (Yoshitomi; appl. 16.4.1987; GB-prior. 30.4.1986).

WO 9 601 623 (Astra; 25.1.1996; appl. 7.6.1995; S-prior. 8.7.1994).

US 5 232 706 (Esteve; 3.8.1993; E-prior. 31.12.1990, 24.6.1991).

WO 9 850 019 (Sage Pharm; appl. 8.5.1998; USA-prior. 9.5.1997; 15.10.1997).

new crystalline form of omeprazole:

WO 9 908 500 (Astra; appl. 10.11.1998).

transdermal application:

WO 9 000 054 (Upjohn; appl. 1.5.1989; USA-prior. 30.6.1988).

treatment of osteoporosis:

EP 338 066 (Hässle; appl. 27.10.1988; S-prior. 30.10.1987).

Formulation(s): cps. 10 mg, 20 mg, 40 mg; vial 40 mg (as sodium salt)*Trade Name(s):*

D:	Antra (Astra; 1989) Gastroloc (pharma-stern; 1989)	I:	Anthra (Astra Farmaceutici) Losec (Plough; 1990)	J:	Omepral (Fujisawa-Astra; 1991) Omeprazon (Yoshitomi)
F:	Mopral (Astra; 1989)		Mepreal (Bracco; 1990)	USA:	Prilosec (Astra Merck)
GB:	Losec (Astra; 1989)		Omeprazen (Malesci; 1990)		

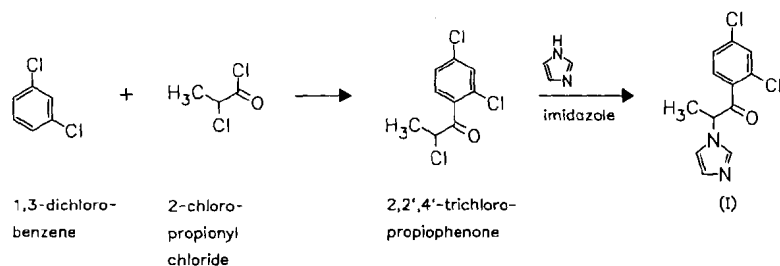
Omoconazole nitrate

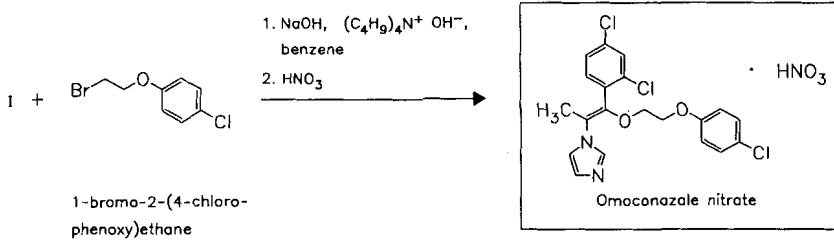
ATC: D01AC13; G01AF16

Use: topical antifungal, antimycotic

RN: 83621-06-1 MF: $C_{20}H_{17}Cl_3N_2O_2 \cdot HNO_3$ MW: 486.74

CN: (Z)-1-[2-[2-(4-chlorophenoxy)ethoxy]-2-(2,4-dichlorophenyl)-1-methylethenyl]-1H-imidazole mononitrate

omoconazoleRN: 74512-12-2 MF: $C_{20}H_{17}Cl_3N_2O_2$ MW: 423.73

**Reference(s):**

US 4 210 657 (Siegfried AG; 1.7.1980; D-prior. 11.9.1978).
 US 4 554 356 (Siegfried AG; 19.11.1985; CH-prior. 23.1.1981).
 EP 8 804 (Siegfried AG; appl. 7.9.1979; D-prior. 11.9.1978).
 EP 69 754 (Siegfried AG; appl. 21.1.1982; CH-prior. 23.1.1981).
 Thiele, K. et al.: Helv. Chim. Acta (HCACAV) **70**, 441 (1987).

preparation of 2,2',4'-trichloropropiophenone:

Konosu, T. et al.: Chem. Pharm. Bull. (CPBTAL) **38** (5), 1258 (1990).

Formulation(s): cream 10 mg/1 g

Trade Name(s):

D:	Fungisan (Galderma)	Fongarex (Besins-Iscovesco)	I:	Afongan (Galderma)
F:	Fongamil (Biorga)			

Ondansetron

ATC: A04AA01

Use: 5-HT₃-antagonist, anti-emetic

RN: 99614-02-5 MF: C₁₈H₁₉N₃O MW: 293.37

CN: 1,2,3,9-tetrahydro-9-methyl-3-[(2-methyl-1*H*-imidazol-1-yl)methyl]-4*H*-carbazol-4-one

monohydrochloride

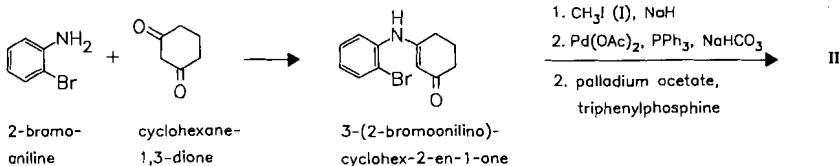
RN: 99614-01-4 MF: C₁₈H₁₉N₃O · HCl MW: 329.83

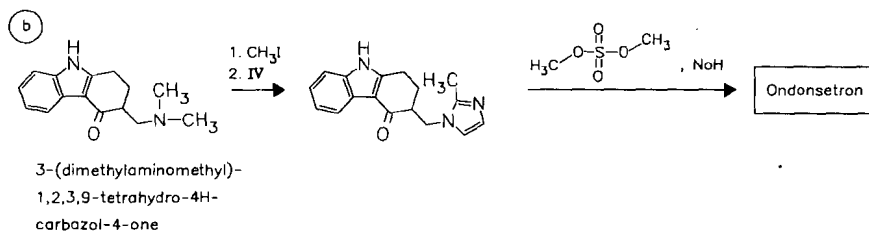
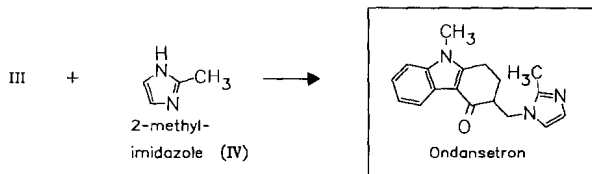
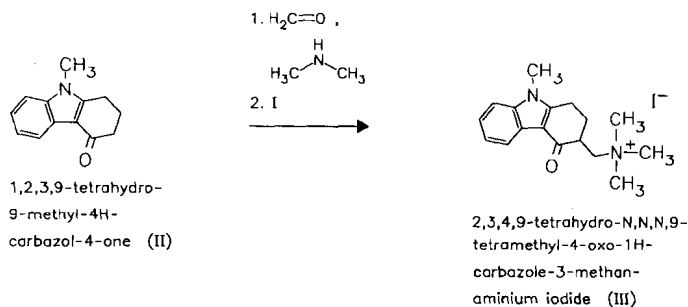
LD₅₀: 20.2 mg/kg (R, i.v.); 94.897 mg/kg (R, p.o.);

>15 mg/kg (dog, i.v.); >45 mg/kg (dog, p.o.)

monohydrochloride dihydrate

RN: 103639-04-9 MF: C₁₈H₁₉N₃O · HCl · 2H₂O MW: 365.86



**Reference(s):**

DOS 3 502 508 (Glaxo; appl. 25.1.1985; GB-prior. 25.1.1984, 15.10.1984).
 US 4 695 578 (Glaxo; 22.9.1987; appl. 17.11.1986; prior. 22.1.1986; GB-prior. 25.1.1984).

(R)-(+)-enantiomer:

US 5 470 868 (Sepracor; 28.11.1995; prior. 26.6.1991; 27.8.1991)

synthesis of intermediate II:

Iida, H. et al.: J. Org. Chem. (JOCEAH) **45**, 2938 (1980).

alternative syntheses:

US 4 739 072 (Glaxo; appl. 23.7.1986; GB-prior. 24.7.1985).
 US 4 957 609 (Glaxo; 18.9.1990; GB-prior. 24.7.1985).
 US 4 725 615 (Glaxo; appl. 23.7.1986; GB-prior. 24.7.1985).
 Kim, M.Y. et al.: Heterocycles (HTCYAM) **45** (10), 2041 (1997).

antiemetic compositions:

DOS 3 906 883 (Glaxo; appl. 3.3.1989; GB-prior. 4.3.1988).
 US 4 983 621 (Glaxo; 8.1.1991; appl. 6.7.1989; GB-prior. 7.7.1988).

medical use for treating panic disorders:

WO 9 012 569 (Sandoz; appl. 1.11.1990).

medical use for treating dementia:

EP 275 668 (Glaxo; appl. 16.12.1987; GB-prior. 17.12.1986).

medical use for treatment of withdrawal syndrome:

WO 8 803 801 (Glaxo; appl. 20.11.1987; GB-prior. 21.11.1986).

Formulation(s): amp. 4 mg/2 ml, 8 mg/4 ml; f. c. tabl. 4 mg, 8 mg; sol. (inj.) 4 mg/ml (as hydrochloride dihydrate)

Trade Name(s):

D: Zofran (Glaxo Wellcome) GB: Zofran (Glaxo Wellcome; 1991) J: Zofran (Glaxo-Sankyo, Sankyo)
 F: Zophren (Glaxo Wellcome) I: Zofran (Glaxo Wellcome) USA: Zofran (Glaxo Wellcome)

Opipramol

ATC: N06AA05

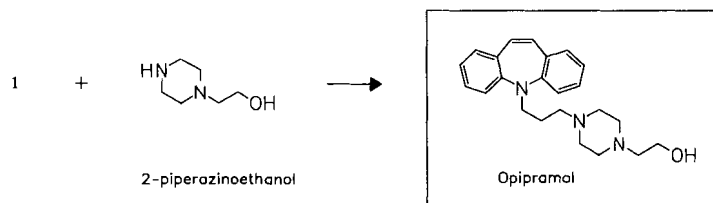
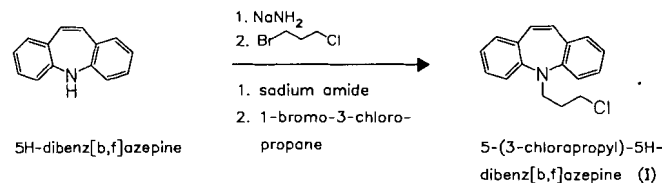
Use: thymoleptic, antidepressant

RN: 315-72-0 MF: C₂₃H₂₉N₃O MW: 363.51 EINECS: 206-254-0LD₅₀: 45 mg/kg (M, i.v.); 400 mg/kg (M, p.o.);

32 mg/kg (R, i.v.); 1110 mg/kg (R, p.o.)

CN: 4-[3-(5*H*-dibenz[*b,f*]azepin-5-yl)propyl]-1-piperazineethanol**dihydrochloride**RN: 909-39-7 MF: C₂₃H₂₉N₃O · 2HCl MW: 436.43 EINECS: 213-000-2LD₅₀: 45 mg/kg (M, i.v.); 443 mg/kg (M, p.o.);

32 mg/kg (R, i.v.); 900 mg/kg (R, p.o.)

**Reference(s):**

GB 862 297 (Geigy; appl. 8.5.1958; CH-prior. 9.5.1957).
 FR 1 271 971 (Geigy; appl. 12.8.1959; CH-prior. 13.8.1958).
 GB 881 398 (Rhône-Poulenc, appl. 29.9.1958; valid from 7.9.1959).
 DE 1 132 556 (Geigy; appl. 12.8.1959; CH-prior. 13.8.1958).
 DE 1 133 729 (Geigy; appl. 8.5.1958; CH-prior. 9.5.1957).

Formulation(s): drg. 50 mg (as dihydrochloride)**Trade Name(s):**

D: Insidon (Novartis Pharma) I: Insidon (Novartis Farma) USA: Ensidon (Ciba-Geigy); wfm
 F: Insidon (Novartis) J: Insidon (Geigy-Fujisawa)
 GB: Insidon (Geigy); wfm

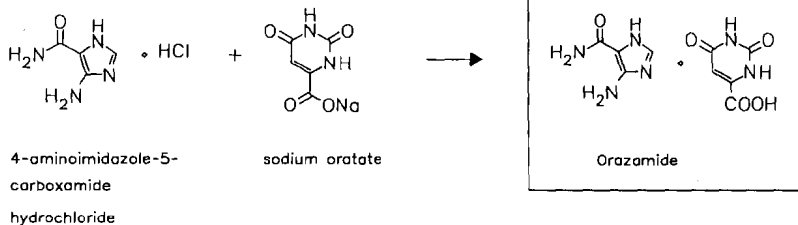
Orazamide

ATC: A05B

(AICA-Orotate)

Use: liver therapeutic

RN: 2574-78-9 MF: C₅H₄N₂O₄ · C₄H₆N₄O MW: 282.22 EINECS: 219-923-7LD₅₀: 600 mg/kg (M, i.p.)CN: 5-amino-1*H*-imidazole-4-carboxamide orotate (1:1)

**Reference(s):**

GB 1 018 117 (Fujisawa; appl. 13.3.1963; J-prior. 15.3.1962).

US 3 271 398 (Fujisawa; 6.9.1966; J-prior. 15.3.1962).

newer method for AICA:

DE 2 160 674 (Sagami; appl. 29.12.1971; J-prior. 9.12.1970).

Formulation(s): tabl. 100 mg**Trade Name(s):**D: Aicorat (Mack, Illert.);
wfmF: Aicamine (Labaz); wfm
I: Aicamin (Crinos); wfm

J: Aicamin (Fujisawa)

Orciprenaline
(Metaproterenol)

ATC: R03AB03; R03CB03

Use: bronchodilator, antiasthmatic

RN: 586-06-1 MF: C₁₁H₁₇NO₃ MW: 211.26 EINECS: 209-569-1LD₅₀: 86 mg/kg (M, i.v.); >8130 mg/kg (M, p.o.);

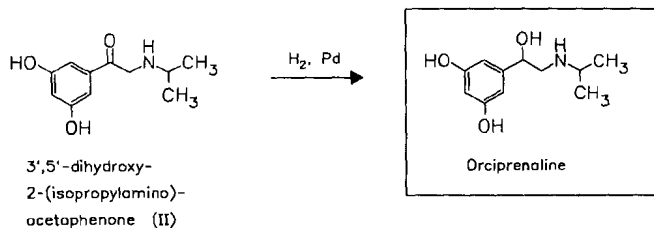
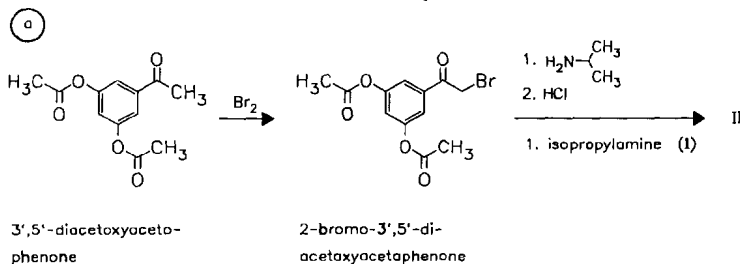
67.2 mg/kg (R, i.v.); 3370 mg/kg (R, p.o.);

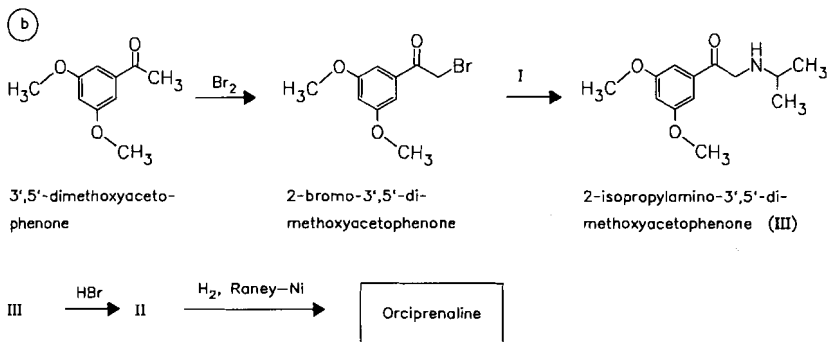
30 mg/kg (dog, i.v.); 125 mg/kg (dog, p.o.)

CN: 5-[1-hydroxy-2-[(1-methylethyl)amino]ethyl]-1,3-benzenediol

sulfate (2:1)RN: 5874-97-5 MF: C₁₁H₁₇NO₃ · 1/2H₂SO₄ MW: 520.60 EINECS: 227-539-6LD₅₀: 114 mg/kg (M, i.v.); 4800 mg/kg (M, p.o.);

5538 mg/kg (R, p.o.)



*Reference(s):*

DE 1 275 069 (Boehringer Ing.; appl. 15.2.1960).
 US 3 341 594 (Boehringer Ing.; 12.9.1967; D-prior. 15.2.1960).

Formulation(s): amp. 0.5 mg; doses aerosol 1.5 mg, 0.75 mg; drops 2 %; inhalation aerosol 750 µg/metered inhalation; syrup 10 mg/5 ml; sol. 15 mg; tabl. 20 mg (as sulfate)

Trade Name(s):

D:	Alupent (Boehringer Ing.)	I:	Alupent (Boehringer Ing.)	USA:	Alupent (Boehringer Ing.)
F:	Alupent (Boehringer Ing.)	J:	Alotec (Boehringer-Tanabe)		generics
GB:	Alupent (Boehringer Ing.)				

Orgotein

ATC: M01AX14

Use: anti-inflammatory

RN: 9054-89-1 MF: unspecified MW: unspecified EINECS: 232-771-6
 CN: dismutase superoxide

Water soluble protein with a relative molecular mass of ca. 32600, which particularly contains copper and zinc bound like chelate (ca. 4 gram atoms) and has superoxide-dismutase-activity. It is isolated from bovine liver or from hemolyzed, plasma free erythrocytes obtained from bovine blood. Purification by manifold fractionated precipitation and solvolysis methods and definitive separation of the residual foreign proteins by denaturing heating of the orgotein concentrate in buffer solution to ca. 65-70 °C and gel filtration and/or dialysis.

Reference(s):

DE 2 101 866 (Diagnostic Data; appl. 15.1.1971; USA-prior. 16.1.1970).
 US 3 579 495 (Diagnostic Data; 18.5.1971; prior. 13.5.1968, 10.4.1969, 24.4.1970).
 US 3 624 251 (Diagnostic Data; 30.11.1971; appl. 16.1.1970).
 US 3 687 927 (Diagnostic Data; 29.8.1972; prior. 31.8.1966, 2.8.1967, 7.6.1971).

Formulation(s): vial 4 mg, 8 mg

Trade Name(s):

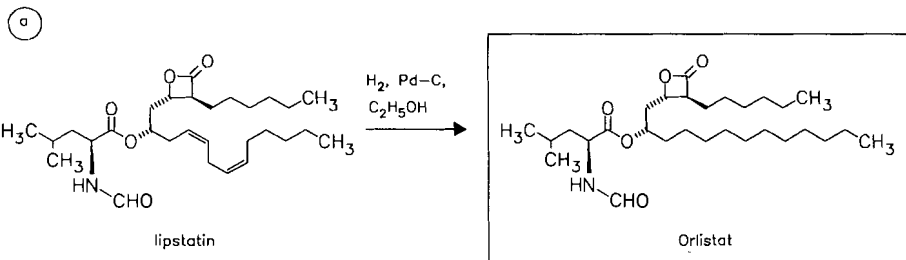
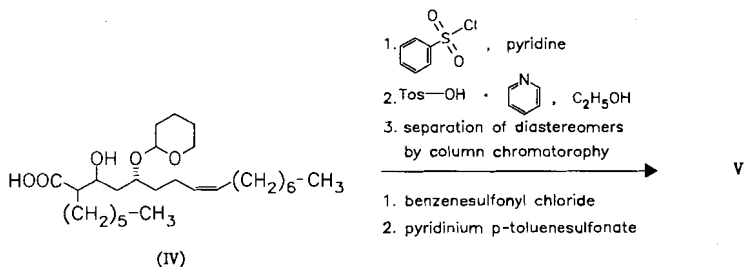
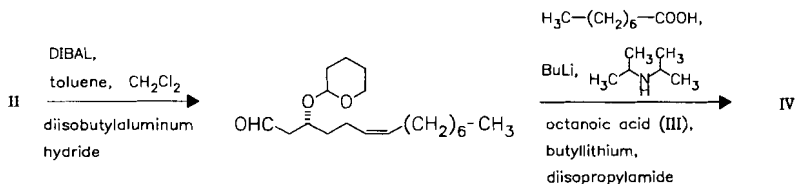
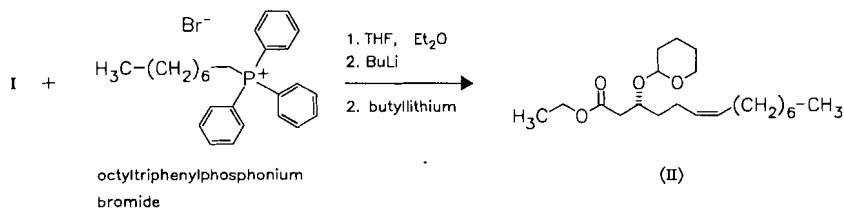
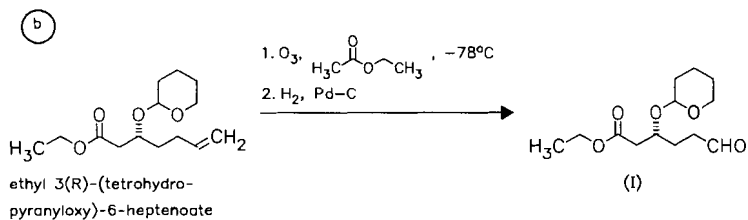
D:	Peroxinorm (Grünenthal); wfm	Interceptor (Isnardi); wfm Orgo-M (Max Farma); wfm	Oxinorm (Zambeletti); wfm
I:	Artrolasi (Ausonias); wfm	Orgoten (Serono); wfm	

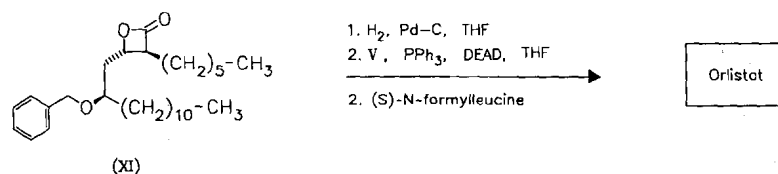
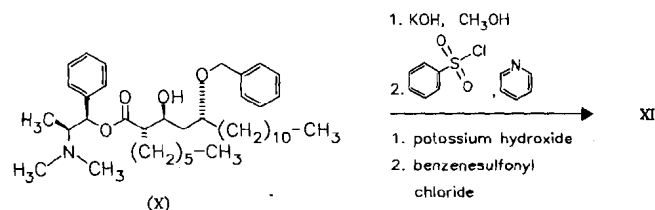
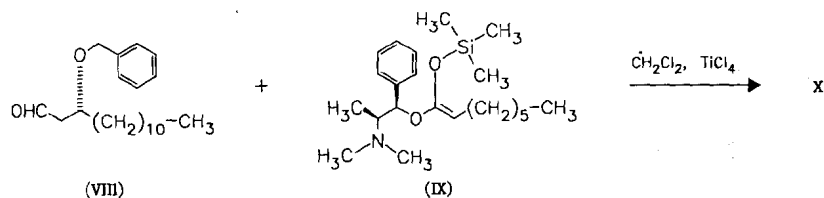
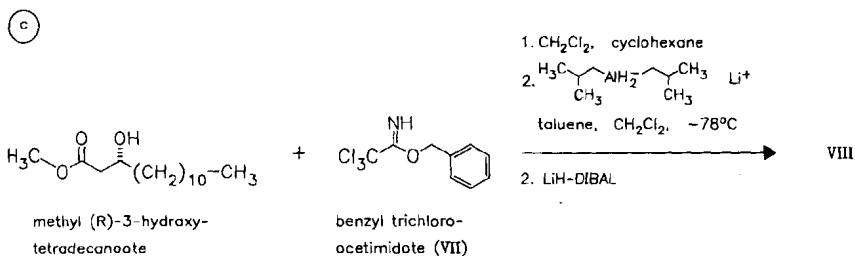
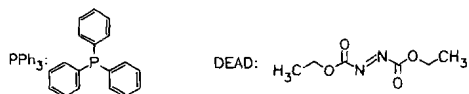
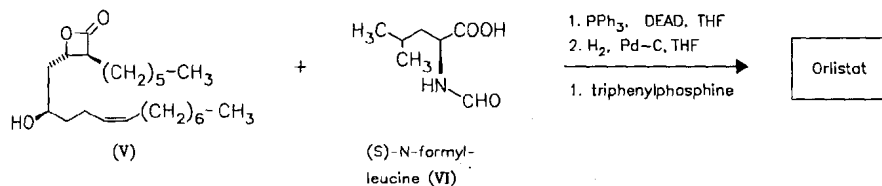
Orlistat

(Tetrahydrolipstatin; Orlipastat; Ro-18-0647)

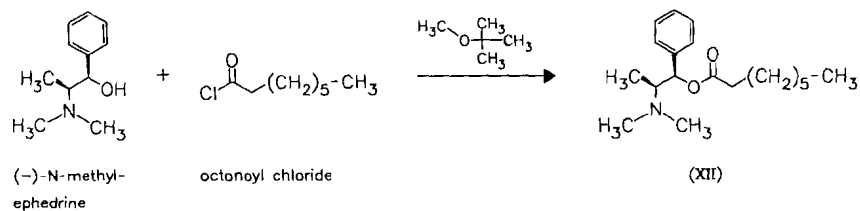
ATC: A08AB01

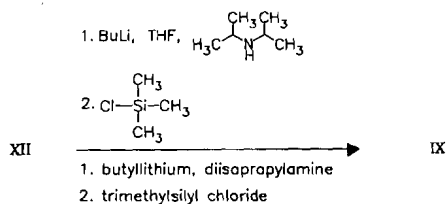
Use: antiobesity, pancreatic lipase inhibitor

RN: 96829-58-2 MF: $C_{29}H_{53}NO_5$ MW: 495.75CN: *N*-Formyl-L-leucine [2*S*-[2 α (*R**),3. β .]-1-[3-hexyl-4-oxo-2-oxetanyl]methyl]dodecyl esterlipstatin is produced by fermentation of *Streptomyces toxytricini*.

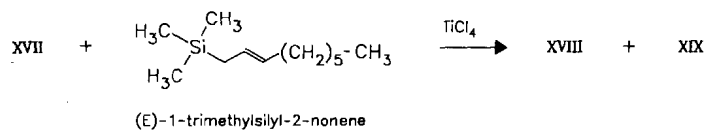
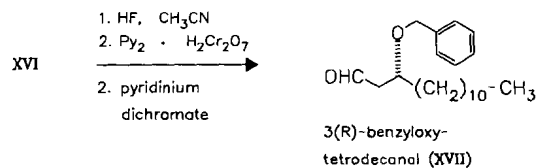
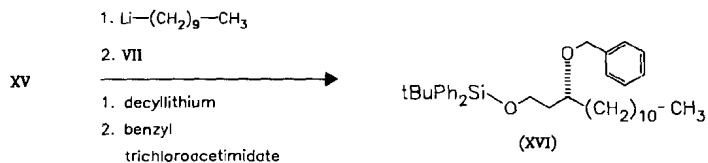
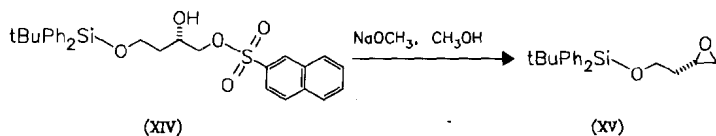
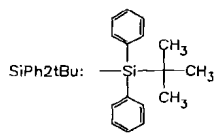
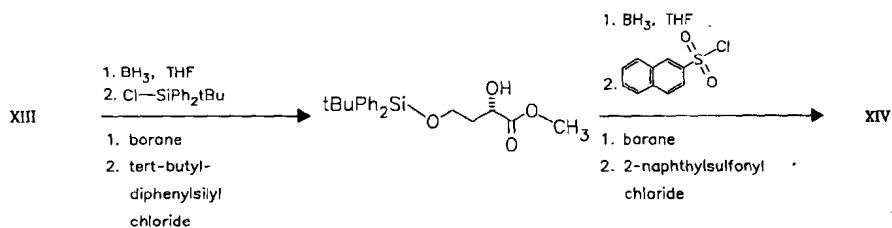
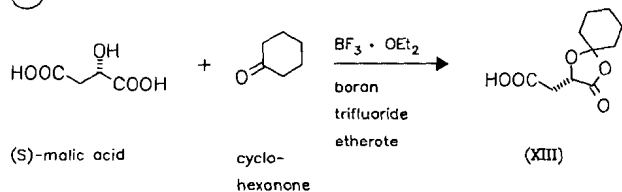


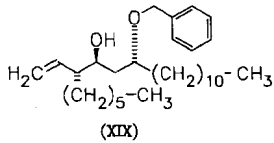
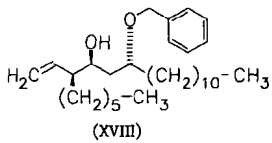
preparation of intermediate IX



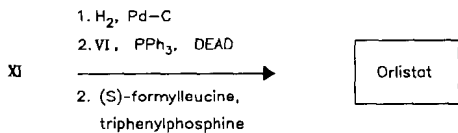
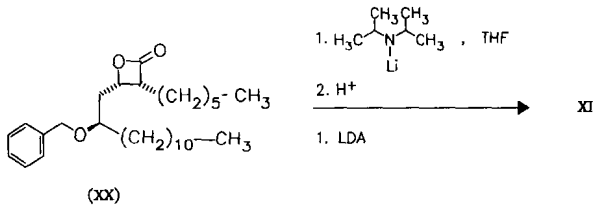
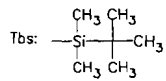
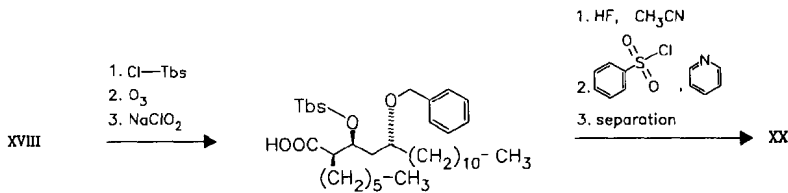


d

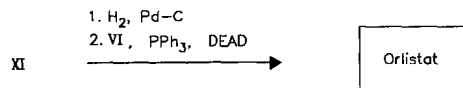
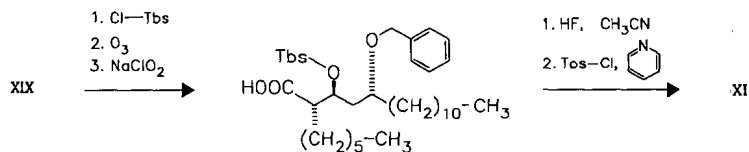




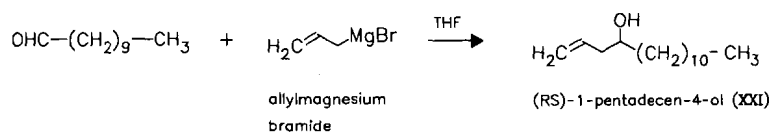
the diastereomers are separated by column chromatography

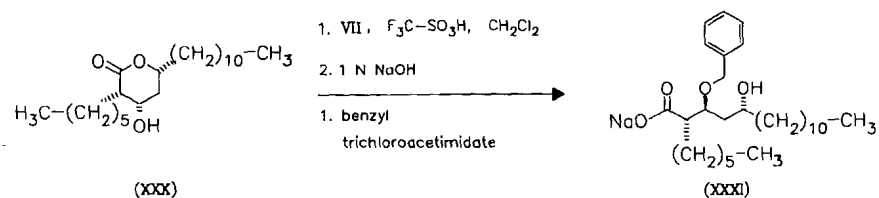
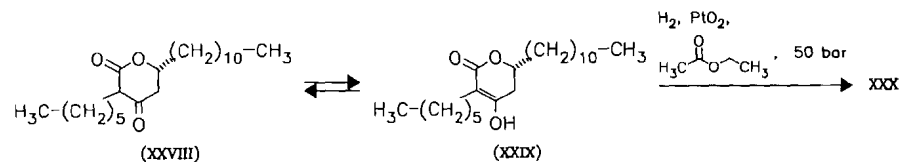
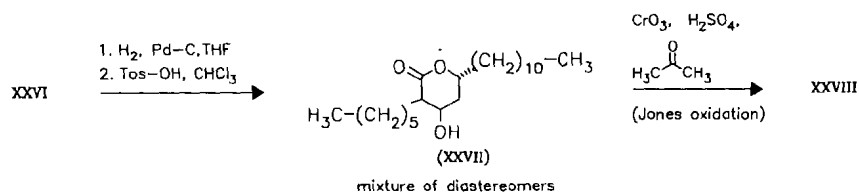
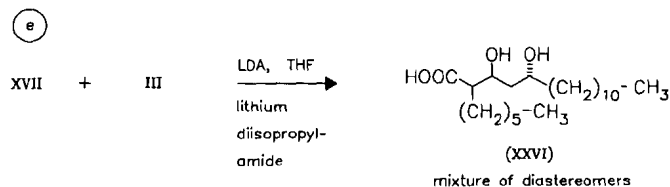
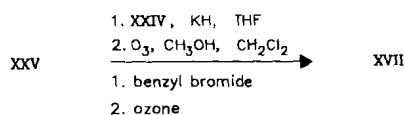
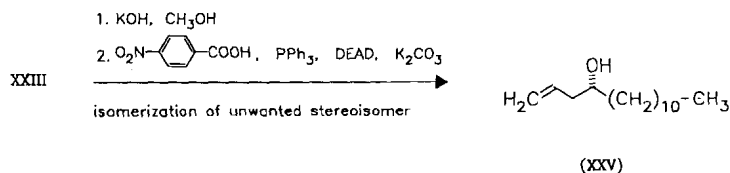
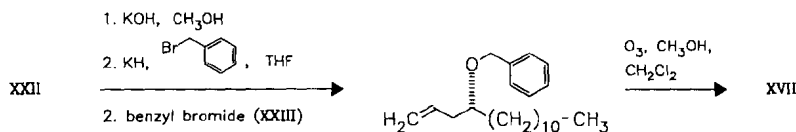
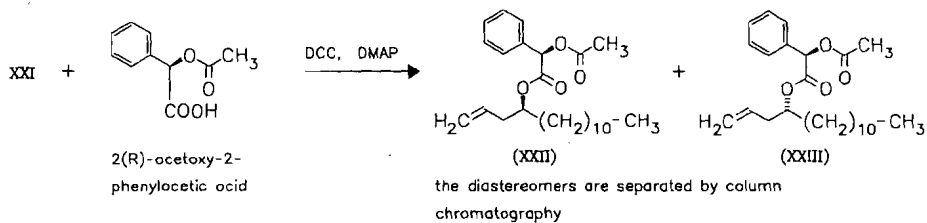


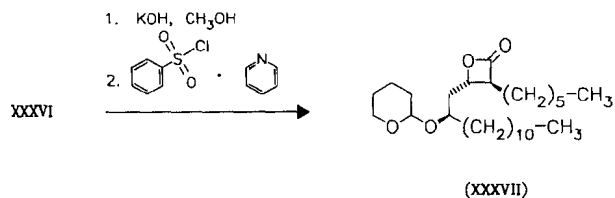
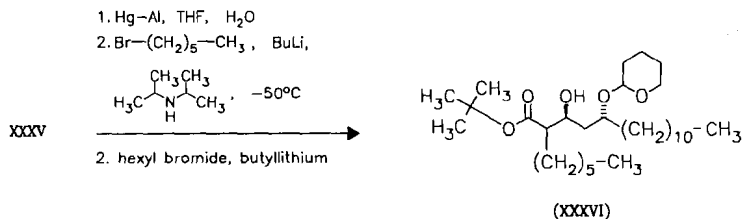
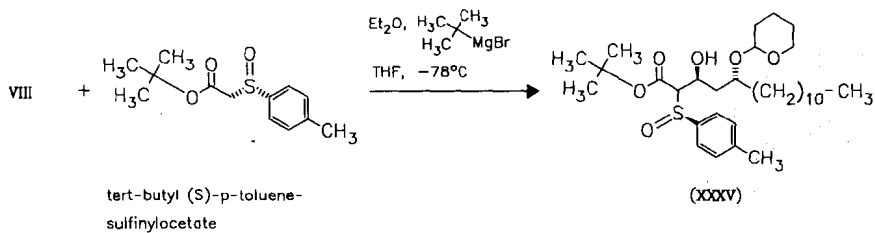
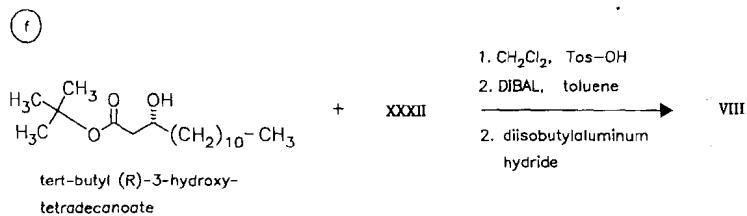
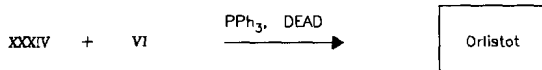
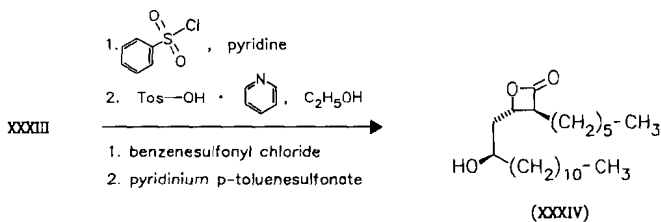
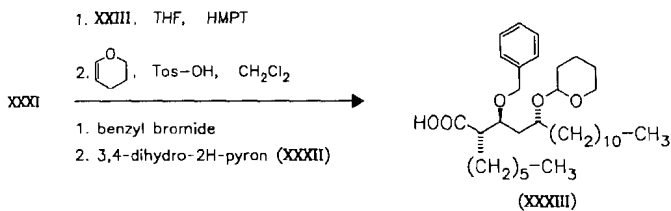
finalization of synthesis from the stereoisomer XIX

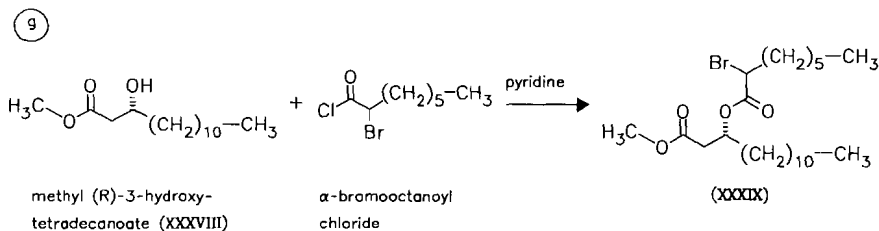
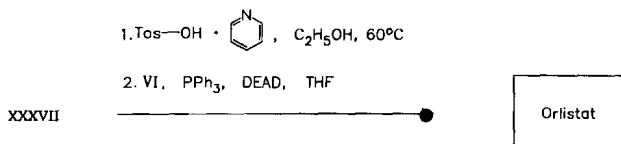


alternative synthesis of 3(R)-benzyloxytetradecanal XVII

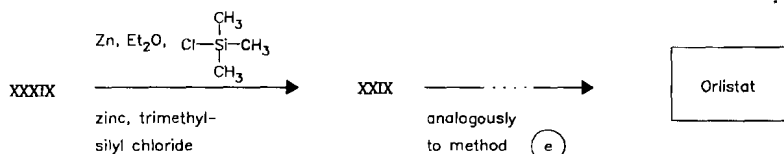
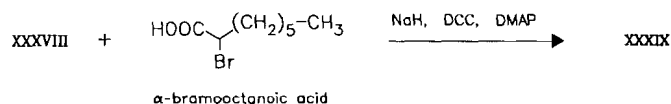








or

*Reference(s):*

- a EP 129 748 (Hoffmann-La Roche & Co. AG; appl. 2.1.1985; CH-prior. 22.6.1983).
 b Schneider, F.; Barbier, P.: *Helv. Chim. Acta (HCACAV)* **70**,196 (1987).
synthesis of 3(R)-(tetrahydropyranyloxy)-6-heptenoic acid ethyl ester:
 Hirama, M.; Nei, M.: *J. Am. Chem. Soc. (JACSAT)* **104**, 4251 (1982).
 c Widmer, U.; Schneider, F.; Barbier, P.: *Helv. Chim. Acta (HCACAV)* **70**,1412 (1987).
 d Hanessian, S.; Tehim, A.; Chen., P.: *J. Org. Chem. (JOCEAH)* **58** (27), 7768 (1993).
 e Barbier, P.; Schneider, F.: *J. Org. Chem. (JOCEAH)* **53**, 1218 (1988).
 f EP 189 577 (Hoffmann-La Roche & Co. AG; appl. 6.8.1986; CH-prior. 21.12.1984).
 g EP 524 495 (Hoffmann-La Roche & Co. AG; appl. 27.1.1993; USA-prior. 23.7.1991; 12.3.1992).

further syntheses of orlistat:

- Kocieski, P.; Pons, J.M.: *Tetrahedron Lett. (TELEAY)* **30**, 1833 (1989).
 Fleming, I.; Lawrence, N.J.: *Tetrahedron Lett. (TELEAY)* **31** (25), 3645 (1990).
 Casc-Green, S.C.; Davies, S.G.; Hedgecock, C.J.R.: *Synlett (SYNLES)* **1991**, 781
 Uskovic, M.R.; Chadka, N.K.; Batcho, A.D.; Tang P.C.; Courtney, L.F.; Cook C.M.; Wovliulich, P.M.: *J. Org. Chem. (JOCEAH)* **56**, 4714 (1991).

Formulation(s): cps. 120 mg*Trade Name(s):*

- D: Xenical (Roche; 1999) GB: Xenical (Roche; 1998)
 F: Xenical (Roche; 1998) USA: Xenical (Roche; 1998)

Ornipressin

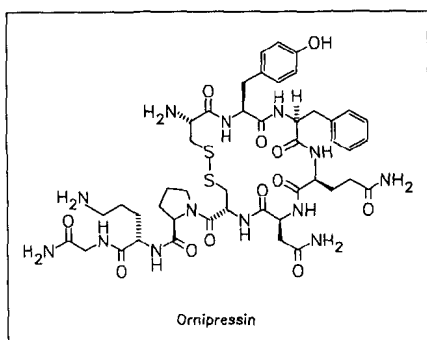
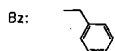
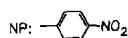
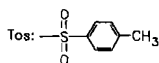
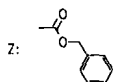
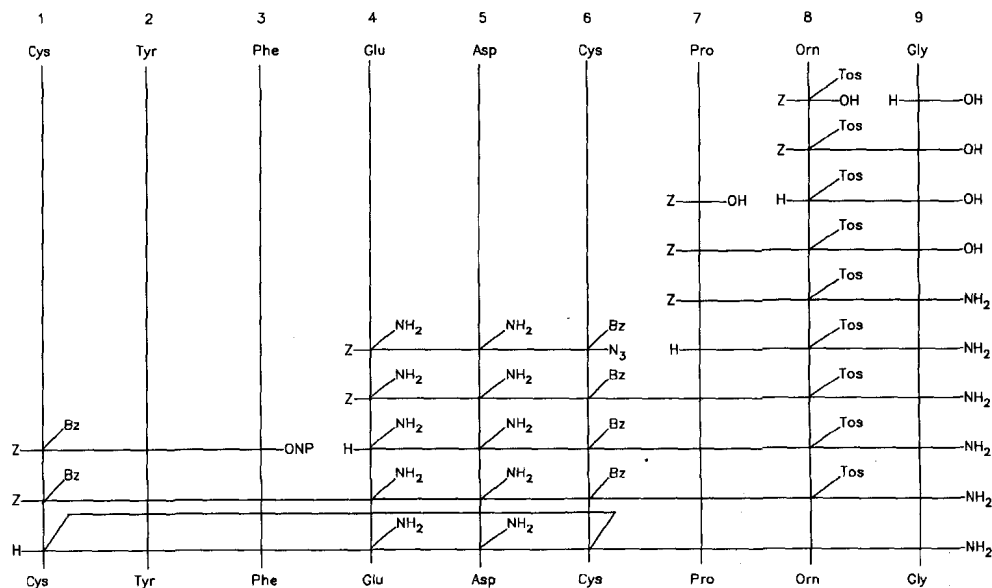
(Ornipesina; Orpressin)

ATC: H01BA05

Use: vasoconstrictor

RN: 3397-23-7 MF: C₄₅H₆₃N₁₃O₁₂S₂ MW: 1042.21 EINECS: 222-253-8

CN: 8-L-ornithinevasopressin

**Reference(s):**

FR 1 396 607 (Sandoz; appl. 3.4.1964; CH-prior. 5.4.1963).

Huguenin, R.L.; Boissonnas, R.A.: *Helv. Chim. Acta (HCACAV)* **46**, 1669 (1963).Bodanszky, M. et al.: *J. Am. Chem. Soc. (JACSAT)* **86**, 4452 (1964).

Formulation(s): amp. 2.5 iu/0.5 ml, 2.5 iu/5 ml

Trade Name(s):

D: Por 8 Sandoz (Novartis
Pharma)

Orotic acid

(Acide orotique)

ATC: A14B

Use: metabolic therapeutic, electrolyte
carrier

RN: 65-86-1 MF: $C_5H_4N_2O_4$ MW: 156.10 EINECS: 200-619-8

LD₅₀: 770 mg/kg (M, i.v.); 2 g/kg (M, p.o.)

CN: 1,2,3,6-tetrahydro-2,6-dioxo-4-pyrimidinecarboxylic acid

potassium salt

RN: 24598-73-0 MF: $C_5H_3KN_2O_4$ MW: 194.19 EINECS: 246-341-0

LD₅₀: 10.9 g/kg (R, p.o.)

magnesium salt

RN: 34717-03-8 MF: $C_{10}H_6MgN_4O_8$ MW: 334.48

zinc salt

RN: 60388-02-5 MF: $C_{10}H_6N_4O_8Zn$ MW: 375.57 EINECS: 262-207-4

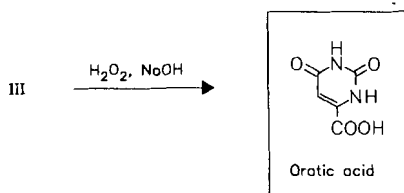
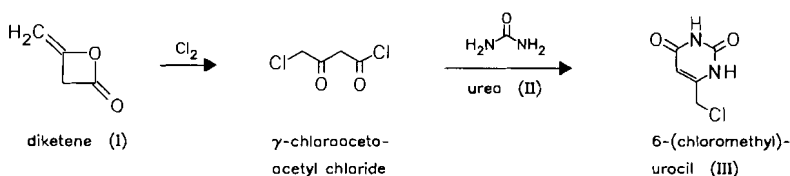
choline orotate

RN: 24381-49-5 MF: $C_5H_{14}NO \cdot C_5H_3N_2O_4$ MW: 259.26 EINECS: 246-213-4

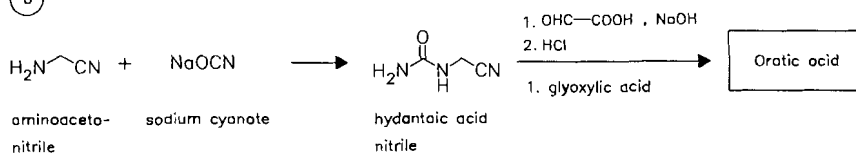
L-lysine orotate

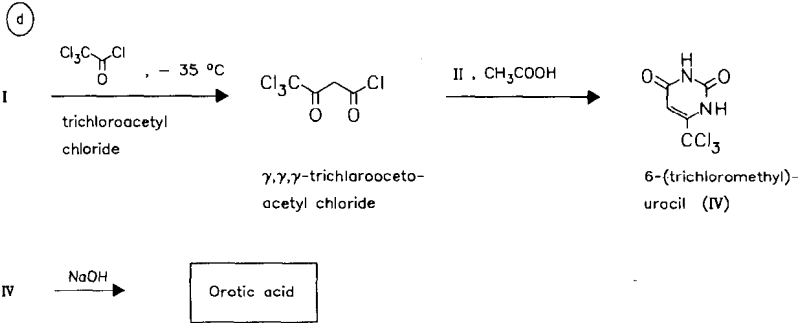
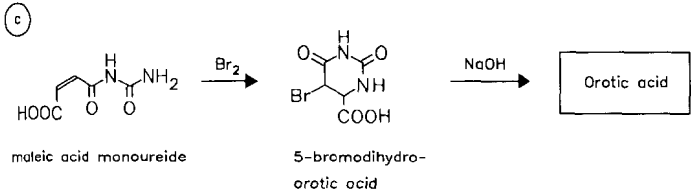
RN: 28003-86-3 MF: $C_6H_{14}N_2O_2 \cdot C_5H_3N_2O_4$ MW: 302.29 EINECS: 248-771-4

(a)



(b)



**Reference(s):**

- a DAS 1 770 117 (Diamalt; appl. 2.4.1968).
 DAS 2 025 247 (Lonza; appl. 23.5.1970; CH-prior. 28.5.1969).
 b DAS 2 502 951 (Diamalt; appl. 24.1.1975).
 US 4 113 950 (Diamalt; 12.9.1978; D-prior. 24.1.1975).
 c CH 595 351 (Lonza; appl. 7.5.1975).
 d US 4 064 126 (Lonza; 20.12.1977; CH-prior. 11.8.1975).
 DOS 2 540 275 (Lonza; appl. 24.2.1977; CH-prior. 11.8.1975).

alternative syntheses:**from oxalacetic acid ester and urea:**

- Müller: J. Prakt. Chem. (JPCEAO) **56**, 488 (1897).
 Behrend: Justus Liebigs Ann. Chem. (JLACBF) **378**, 165 (1910).
 US 2 937 175 (Rhône-Poulenc; 17.5.1960; F-prior. 18.1.1956).
 DE 1 034 640 (Rhône-Poulenc; appl. 1956).

from aspartic acid:

- Nye, F. et al.: J. Am. Chem. Soc. (JACSAT) **69**, 1382 (1947).

from glyoxylic acid and hydantoin:

- US 4 062 847 (Diamalt; 13.12.1977; D-prior. 24.1.1975).

fermentatively:

- US 3 086 917 (Kyowa Hakko; 23.4.1963; J-prior. 15.6.1960).

lithium orotate:

- DOS 2 410 181 (Nadrol-Chemie; appl. 4.3.1974).

Formulation(s): cps. 250 mg (as hydrochloride); cps. 60 mg in comb. with α -tocopherol acetate; tabl. 20 mg (as zinc salt), 40 mg (as zinc salt), 500 mg (as choline orotate)

Trade Name(s):

- | | | | | | |
|----|---|----|---|----|--|
| D: | Vigodana N (Loges)-comb.
Zinkorotat (Nadrol; as zinc salt)
Zinkorotat (Ursapharm; as zinc salt) | F: | numerous combination preparations
Lysortine (Théraplix; as lysine orotate); wfm
Oroturic (Grémy-Longuet); wfm | I: | Oro B ₁₂ (Ripari-Gero)-comb.
Orodine (Takeda)
Orosan (Maruishi) |
|----|---|----|---|----|--|

Orotics (Nippon Shinyaku)
Orotosan (Ono)

Orotopin (Fuso)
Urabon (Nissin)

Vita-thirteen (Sumitomo)
generic

Orphenadrine

ATC: M03BC01; N04AB02

Use: antiparkinsonian, muscle relaxant

RN: 83-98-7 MF: $C_{18}H_{23}NO$ MW: 269.39 EINECS: 201-509-2

LD₅₀: 33 mg/kg (M, i.v.); 125 mg/kg (M, p.o.)

CN: *N,N*-dimethyl-2-[(2-methylphenyl)phenylmethoxy]ethanamine

hydrochloride

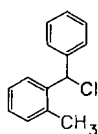
RN: 341-69-5 MF: $C_{18}H_{23}NO \cdot HCl$ MW: 305.85 EINECS: 206-435-4

LD₅₀: 20 mg/kg (M, i.v.); 100 mg/kg (M, p.o.);

27.5 mg/kg (R, i.v.); 255 mg/kg (R, p.o.)

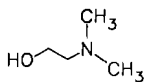
citrate (1:1)

RN: 4682-36-4 MF: $C_{18}H_{23}NO \cdot C_6H_8O_7$ MW: 461.51 EINECS: 225-137-5

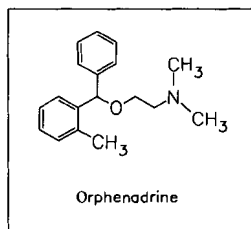


2-methylbenzhydriyl
chloride

+



2-dimethylamino-
ethanol



Orphenadrine

Reference(s):

US 2 567 351 (Parke Davis; 1951; prior. 1946).

US 2 991 225 (Brocades-Stheeman; 4.7.1961; NL-prior. 1952).

Bijlsma, U.G. et al.: *Arzneim.-Forsch. (ARZNAD)* **5**, 72 (1955).

Formulation(s): amp. 60 mg/2 ml; s. r. tabl. 100 mg; tabl. 100 mg (as citrate)

Trade Name(s):

D: Norflex (3M Medica)
Norgestic (3M Medica)-
comb.

F: Disipal (Beytout); wfm
Estomul (Jean Roy-
Freysingue)-comb.; wfm

GB: Biorphen (Bioglan; as
hydrochloride)
Disipal (Yamanouchi; as
hydrochloride)

I: Disipal (Yamanouchi)

J: Delenar (Schering-
Shionogi)-comb.
USA: Norflex (3M; as citrate)
Norgestic (3M; as citrate)

Oseltamivir

(GS 4104)

ATC: J01AH02

Use: antiviral, anti-influenza, neuramidase
inhibitor

RN: 196618-13-0 MF: $C_{16}H_{28}N_2O_4$ MW: 312.41

CN: (3*R*,4*R*,5*S*)-4-(Acetylamino)-5-amino-3-(1-ethylpropoxy)-1-cyclohexene-1-carboxylic acid ethyl ester

phosphate

RN: 204255-11-8 MF: $C_{16}H_{28}N_2O_4 \cdot H_3O_4P$ MW: 410.40

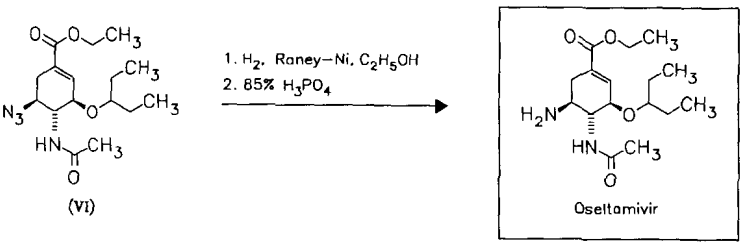
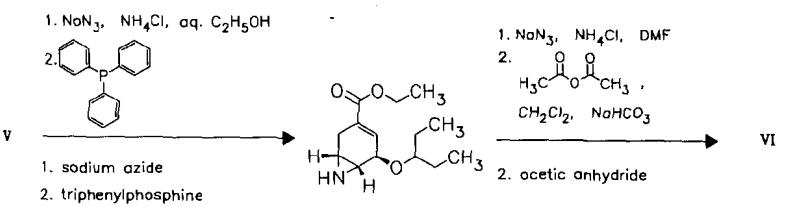
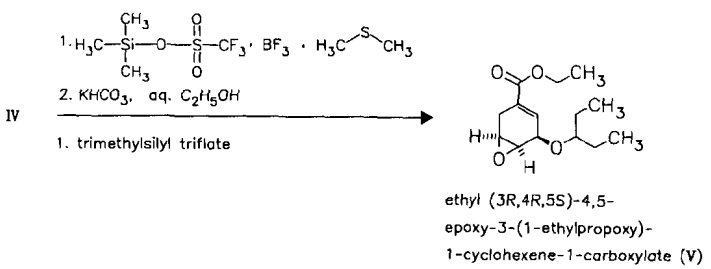
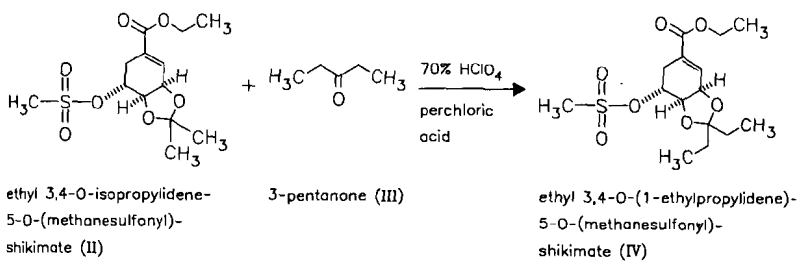
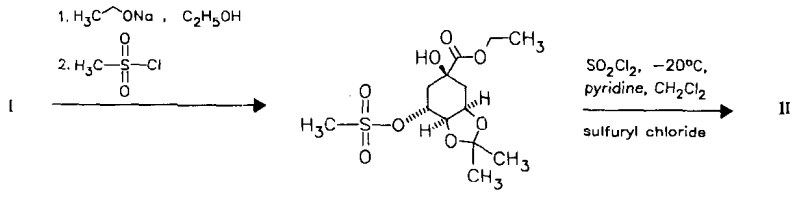
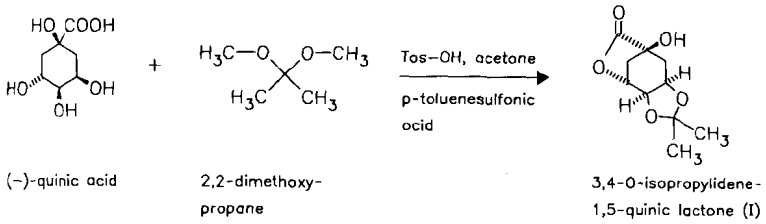
hydrochloride

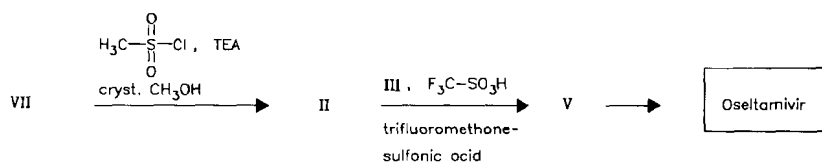
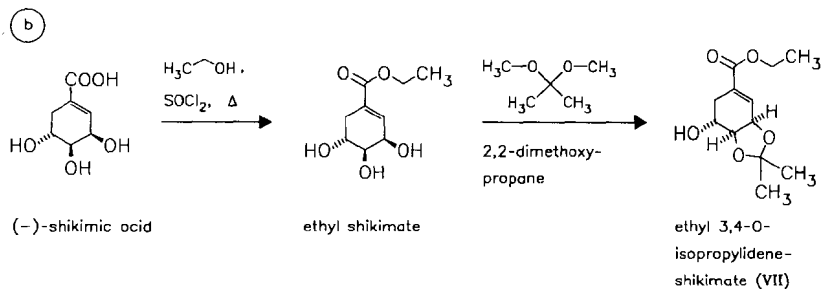
RN: 204255-09-4 MF: $C_{16}H_{28}N_2O_4 \cdot HCl$ MW: 348.87

citrate

RN: 209965-30-0 MF: $C_{16}H_{28}N_2O_4 \cdot C_6H_8O_7$ MW: 504.53

(a)



**Reference(s):**

- a Rohloff, J.C. et al.: J. Org. Chem. (JOCEAH) **63**, 4545-4550 (1998)
 WO 9 626 933 (Gilead Sciences; appl. 26.2.1996; USA-prior. 27.2.1995)
 US 5 886 213 (Gilead Sciences; 23.3.1999; USA-prior. 22.8.1997)
 US 5 859 284 (Gilead Sciences; 12.1.1999; USA-prior. 23.8.1996)
- b Federspiel, M. et al.: Org. Process Res. Dev. (OPRDFK) **3** (4), 266-274 (1999)

Trade Name(s):

CH: Tamiflu (Roche; 1999)

Otilonium bromide

ATC: A03AB06

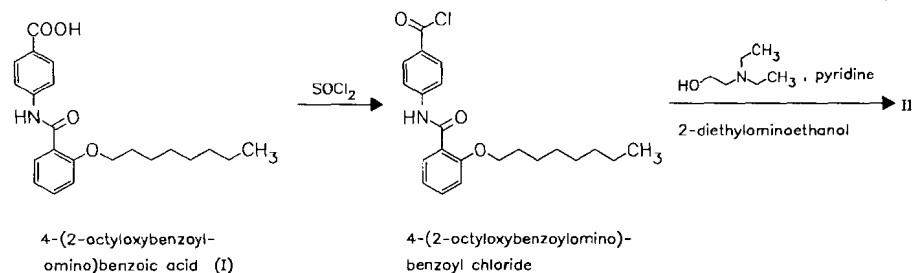
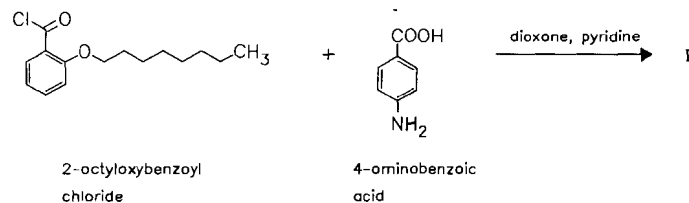
Use: antispasmodic

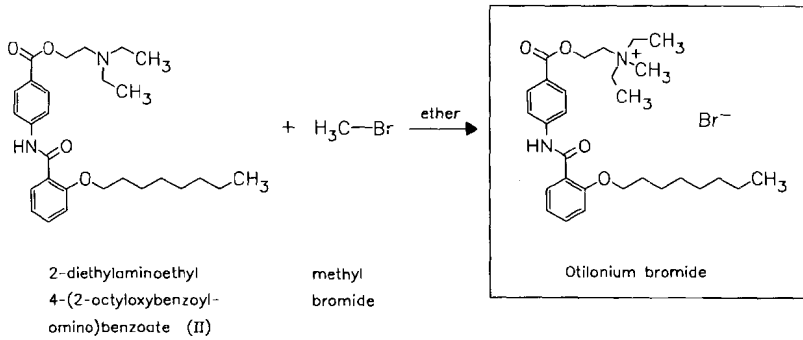
RN: 26095-59-0 MF: $\text{C}_{29}\text{H}_{43}\text{BrN}_2\text{O}_4$ MW: 563.58 EINECS: 247-457-4

LD₅₀: 46.5 mg/kg (M, i.v.); >1500 mg/kg (M, p.o.);

14.1 mg/kg (R, i.v.); >1650 mg/kg (R, p.o.)

CN: *N,N*-diethyl-*N*-methyl-2-[[4-[[2-(octyloxy)benzoyl]amino]benzoyl]oxy]ethanaminium bromide



**Reference(s):**

DOS 1 643 458 (Menarini; appl. 15.9.1967; I-prior. 17.9.1966).

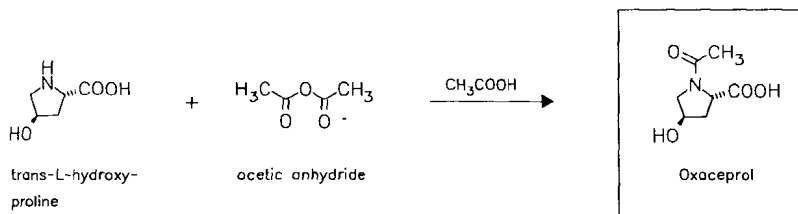
US 3 536 723 (Menarini; 27.10.1970; I-prior. 27.9.1966).

Ghelardoni, M. et al.: J. Med. Chem. (JMCMAR) **16**, 1063 (1973).**Formulation(s):** amp. 150 mg; drg. 40 mg; suppos. 20 mg; tabl. 40 mg**Trade Name(s):**

I: Spasen (Firma)	Spasmomen (Menarini)
Spasen Somatico (Firma)- comb.	Spasmomen Somatico (Menarini)-comb.

Oxaceprol(Aceprolinum; *N*-Acetyl-4-hydroxy-L-proline)

ATC: D11AX09; M01AX24

Use: connective tissue therapeutic,
antirheumaticRN: 33996-33-7 MF: C₇H₁₁NO₄ MW: 173.17 EINECS: 251-780-6CN: *trans*-1-acetyl-4-hydroxy-L-proline**Reference(s):**

GB 1 246 141 (P. and B. Coirre; appl. 30.8.1968; F-prior. 14.9.1967, 16.5.1968).

DAS 1 795 327 (S.A.R.L. Franco-Chimie; appl. 13.9.1968; F-prior. 14.9.1967, 16.5.1968).

DOS 2 139 476 (P. and B. Coirre; appl. 6.8.1971).

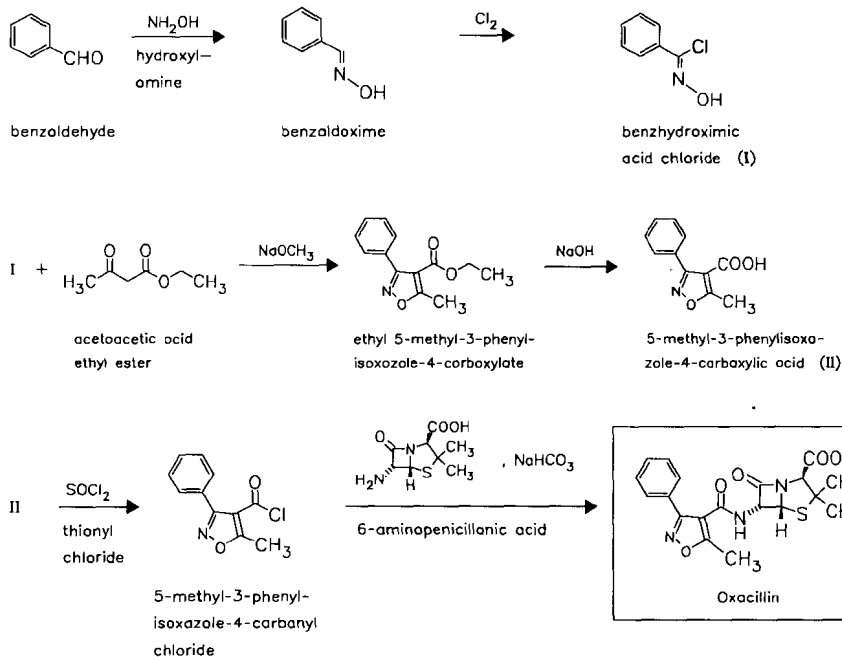
Formulation(s): f. c. tabl. 200 mg**Trade Name(s):**

D: AHP 200 (Chephasaar) F: Jonctum (Marion Merrell)

Oxacillin

ATC: J01CF04

Use: antibiotic

RN: 66-79-5 MF: $C_{19}H_{19}N_3O_5S$ MW: 401.44 EINECS: 200-635-5LD₅₀: 1490 mg/kg (M, i.v.); 6500 mg/kg (M, p.o.)CN: [2*S*-(2 α ,5 α ,6 β)]-3,3-dimethyl-6-[[5-methyl-3-phenyl-4-isoxazolyl)carbonyl]amino]-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid**monosodium salt monohydrate**RN: 7240-38-2 MF: $C_{19}H_{18}N_3NaO_5S \cdot H_2O$ MW: 441.44**Reference(s):**

US 2 996 501 (Beecham; 15.8.1961; GB-prior. 31.3.1960).

GB 905 778 (Beecham; appl. 31.3.1960; valid from 14.3.1961).

GB 958 478 (Beecham; appl. 28.2.1963; USA-prior. 13.3.1962).

Formulation(s): cps. 250 mg, 500 mg; vial 0.5 g, 1 g (as sodium salt)**Trade Name(s):**

D: Optocillin (Bayer Vital)-comb.

I: Penstapho (Bristol-Myers Squibb)

Oxacillin (Teva)

Stapenor (Bayer Vital)

J: Staphcillin V (Banyu)

Prostaphlin (Bristol); wfm

F: Bristopen (Bristol-Myers Squibb)

USA: Bactocill (Beecham-Massengill); wfm

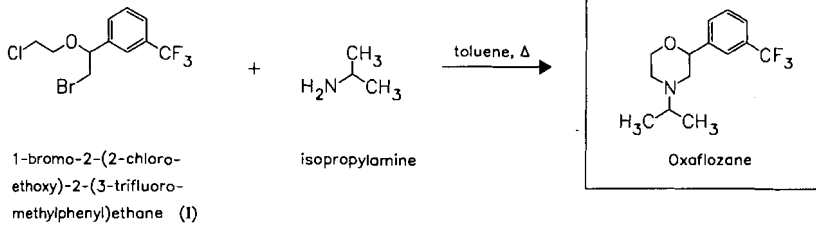
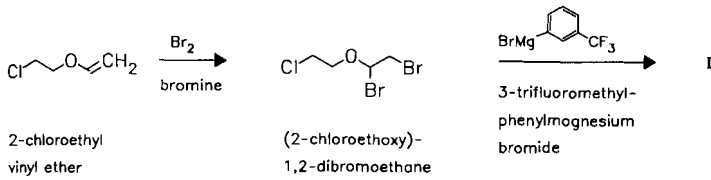
Oxaflozane

ATC: N06AX10

Use: antidepressant

RN: 26629-87-8 MF: $C_{14}H_{18}F_3NO$ MW: 273.30 EINECS: 247-855-8

CN: 4-(1-methylethyl)-2-[3-(trifluoromethyl)phenyl]morpholine

hydrochlorideRN: 26629-86-7 MF: $C_{14}H_{18}F_3NO \cdot HCl$ MW: 309.76 EINECS: 247-854-2LD₅₀: 80 mg/kg (M, i.v.); 365 mg/kg (M, p.o.)**Reference(s):**

DOS I 910 477 (CERM; appl. I.3.1969; F-prior. 4.3.1968, 29.5.1968 18.6.1968, 27.8.1968, 15.11.1968, 19.2.1969).

US 3 637 680 (CERM; 25.1.1972; F-prior. 4.3.1968, 29.5.1968, 18.6.1968, 27.8.1968, 15.11.1968, 19.2.1969).

Busch, N. et al.: Eur. J. Med. Chem.-Chim. Ther. (EJMCA5) **11**, 201 (1976).**Formulation(s):** drops 2 %**Trade Name(s):**

F: Conflictan (Solvay Pharma) I: Conflictan (Riom); wfm

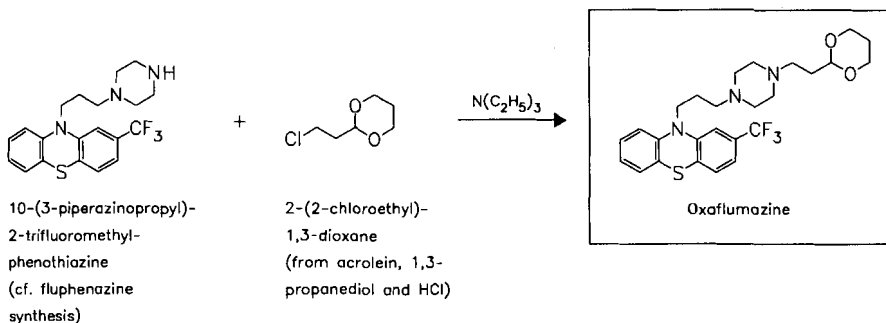
Oxaflumazine

ATC: N05AB

Use: psychosedative

RN: 16498-21-8 MF: $C_{26}H_{32}F_3N_3O_2S$ MW: 507.62

CN: 10-[3-[4-[2-(1,3-dioxan-2-yl)ethyl]-1-piperazinyl]propyl]-2-(trifluoromethyl)-10H-phenothiazine

hydrogen succinate (1:1)RN: 41761-40-4 MF: $C_{26}H_{32}F_3N_3O_2S \cdot C_4H_6O_4$ MW: 625.71

Reference(s):

DAS 1 620 281 (Roussel-Uclaf; appl. 28.6.1965; F-prior. 29.6.1964, 28.9.1964).
 Ratouis, R.; Boissier, J.R.: Bull. Soc. Chim. Fr. (BSCFAS) **1966**, 2963.

alternative synthesis:

DOS 1 911 719 (S.I.F.A.; appl. 7.3.1969; F-prior. 8.3.1968).

Trade Name(s):

F: Oxalflumine (Diamant);
 wfm

Oxaliplatin

(1-OHP; NSC-266046; RP-54780)

ATC: L01XA03

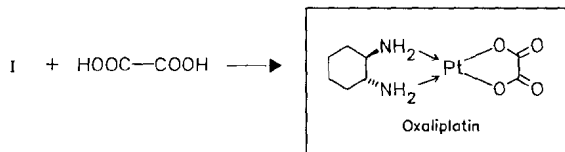
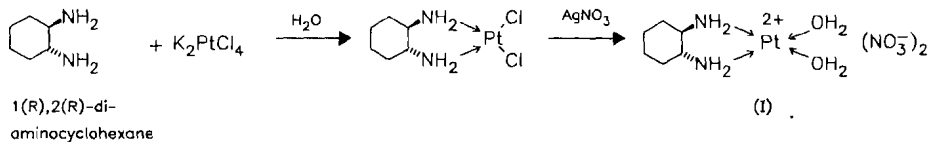
Use: antitumor

RN: 61825-94-3 MF: C₈H₁₄N₂O₄Pt MW: 397.29

LD₅₀: 19.8 mg/kg (M, i.p.);

14.3-15.6 mg/kg (R, i.p.)

CN: [SP-4-2-(1R-trans)](1,2-cyclohexanediamine-N,N')[ethanedioato(2-)-O,O']platinum

*Reference(s):*

Kidani, Y. et al.: J. Clin. Hematol. Oncol. (JCHODP) **7**, 197 (1977).
 JP 53 031 648 (Kidani; appl. 25.3.1978; J-prior. 6.9.1976).
 JP 09 132 583 (Tanaku Kihinzo Kogyo; appl. 20.5.1997; J-prior. 10.11.1995).

as stable aqueous formulation:

WO 9 604 904 (Debiopharm SA; appl. 22.2.1996; CH-prior. 8.8.1994).

in combination with cisplatin:

WO 9 412 193 (Debiopharm SA; appl. 9.6.1994; CH-prior. 24.11.1992).

Formulation(s): vial 50 mg, 100 mg

Trade Name(s):

F: Eloxatin (Sanofi Winthrop) Transplatin (Debiopharm)

Oxametacin

ATC: M01AB13

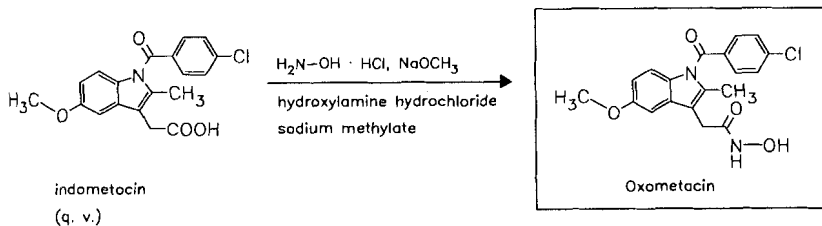
Use: anti-inflammatory, analgesic

RN: 27035-30-9 MF: C₁₉H₁₇ClN₂O₄ MW: 372.81 EINECS: 248-179-6

LD₅₀: 92 mg/kg (M, p.o.);

78 mg/kg (R, p.o.)

CN: 1-(4-chlorobenzoyl)-N-hydroxy-5-methoxy-2-methyl-1H-indole-3-acetamide

**Reference(s):**

FR 1 579 495 (R. Aries; appl. 22.1.1968).

Formulation(s): tabl. 100 mg**Trade Name(s):**

F:	Dinulcid (Lab. Pharmascience); wfm	I:	Flogan (ABC); wfm Restid (UCB); wfm
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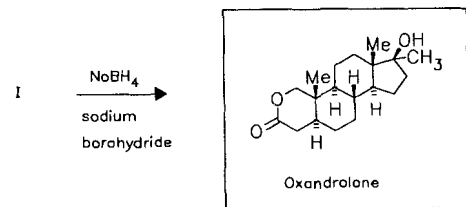
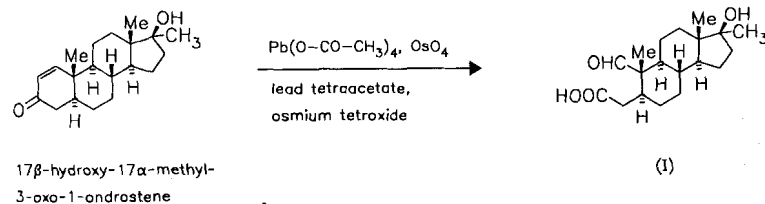
Oxandrolone

ATC: A14AA08

Use: anabolic

RN: 53-39-4 MF: C₁₉H₃₀O₃ MW: 306.45 EINECS: 200-172-9LD₅₀: 1832 mg/kg (M, p.o.);

>10 g/kg (R, p.o.)

CN: (5 α ,17 β)-17-hydroxy-17-methyl-2-oxaandrostan-3-one**Reference(s):**

US 3 128 283 (Searle; 7.4.1964; MEX-prior. 10.5.1961).

Pappo, R.; Jung, C.J.: Tetrahedron Lett. (TELEAY) **1962**, 365.**starting material:**Counsell, R.E. et al.: J. Org. Chem. (JOCEAH) **27**, 248 (1962).**Formulation(s):** tabl. 2.5 mg

Trade Name(s):

J: Vasorome (Kowa)

USA: Oxandrin (Bio-Technology)

Oxaprozin

ATC: M01AE12

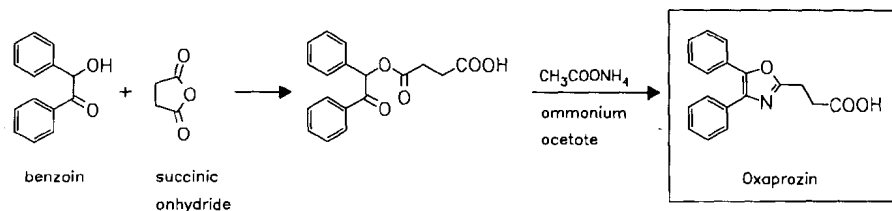
Use: anti-inflammatory

RN: 21256-18-8 MF: C₁₈H₁₅NO₃ MW: 293.32 EINECS: 244-296-1LD₅₀: 93 mg/kg (M, i.v.); 1210 mg/kg (M, p.o.);

82 mg/kg (R, i.v.); 4470 mg/kg (R, p.o.);

124 mg/kg (dog, i.v.); >2 g/kg (dog, p.o.)

CN: 4,5-diphenyl-2-oxazolepropanoic acid



Reference(s):

DE 1 670 005 (Wyeth; prior. 17.11.1967).

US 3 578 671 (Wyeth; 11.5.1971; prior. 6.11.1967).

Brown, K. et al.: Nature (London) (NATUAS) **219**, 164 (1968).

Formulation(s): f. c. tabl. 600 mg

Trade Name(s):

J: Actirin (Wyeth; 1986)

Alvo (Taisho Seiyaku; 1985)

USA: Daypro (Searle 1985)

Oxatomide

ATC: R06AE06

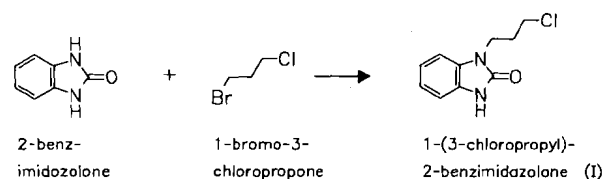
Use: antiallergic

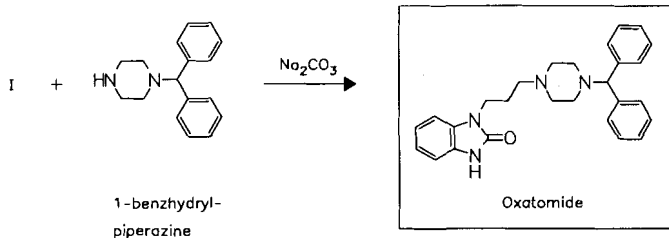
RN: 60607-34-3 MF: C₂₇H₃₀N₄O MW: 426.56 EINECS: 262-320-9LD₅₀: 25 mg/kg (M, i.v.); 9596 mg/kg (M, p.o.);

29 mg/kg (R, i.v.); 1410 mg/kg (R, p.o.);

>2 g/kg (dog, p.o.)

CN: 1-[3-[4-(diphenylmethyl)-1-piperazinyl]propyl]-1,3-dihydro-2H-benzimidazol-2-one



**Reference(s):**

BE 852 405 (Janssen; appl. 14.3.1977; USA-prior. 21.12.1976, 2.4.1976).

US 4 250 176 (Janssen; 10.2.1981; prior. 6.2.1978).

Formulation(s): susp. 2.6 mg/ml; tabl. 30 mg**Trade Name(s):**D: Tinsset (Janssen-Cilag;
1982)GB: Tinsset (Janssen; 1982)
I: Tinsset (Formenti; 1985)J: Celect (Kyowa Hakko;
1987)

F: Tinsset (Janssen-Cilag)

Oxazepam

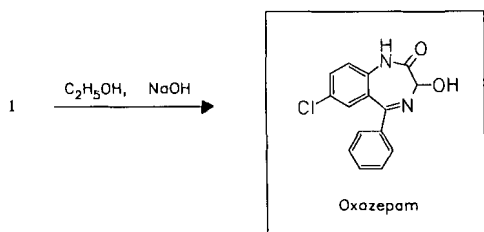
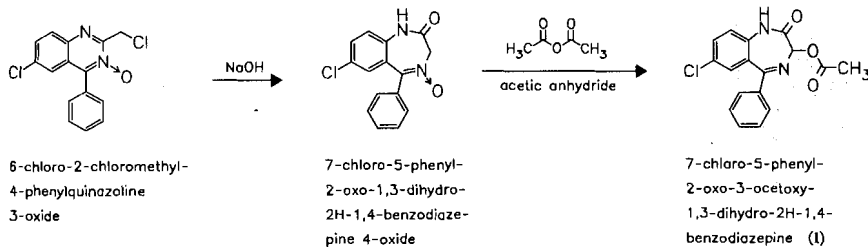
ATC: N05BA04

Use: tranquilizer

RN: 604-75-1 MF: $\text{C}_{15}\text{H}_{11}\text{ClN}_2\text{O}_2$ MW: 286.72 EINECS: 210-076-9LD₅₀: 3700 mg/kg (M, p.o.);

>8 g/kg (R, p.o.)

CN: 7-chloro-1,3-dihydro-3-hydroxy-5-phenyl-2H-1,4-benzodiazepin-2-one



Reference(s):

- DE 1 645 904 (American Home Products; prior. 17.8.1962).
 US 3 176 009 (American Home Products; 30.3.1965; prior. 5.3.1962).
 US 3 296 249 (American Home Products; 3.1.1967; appl. 4.6.1963; prior. 29.8.1961, 5.3.1962).
 DE 1 445 412 (American Home Products; appl. 17.8.1962; USA-prior. 29.8.1961, 5.3.1962).
 DE 1 795 509 (American Home Products; appl. 17.8.1962; USA-prior. 29.8.1961, 5.3.1962).
 Bell, S.C. et al.: *J. Org. Chem. (JOCEAH)* **27**, 562 (1962).
 Bell, S.C.; Childress, S.J.: *J. Org. Chem. (JOCEAH)* **27**, 1691 (1962).

alternative synthesis:

- DE 1 295 563 (American Home Products; appl. 21.5.1964; USA-prior. 29.5.1963, 13.8.1963).
 DE 1 300 114 (American Home Products; appl. 21.5.1964; USA-prior. 29.5.1963, 13.8.1963, 3.12.1963, 7.5.1964).
 DE 1 543 325 (American Home Products; appl. 21.5.1964; USA-prior. 29.5.1963, 31.8.1963, 3.12.1963, 7.5.1964).
 DAS 1 795 231 (American Home Products; appl. 21.5.1964; USA-prior. 29.5.1963, 13.8.1963, 3.12.1963, 7.5.1964).
 Bell, S.C. et al.: *J. Org. Chem. (JOCEAH)* **33**, 216 (1968).

Formulation(s): s. r. cps. 30 mg; tabl. 10 mg, 50 mg

Trade Name(s):

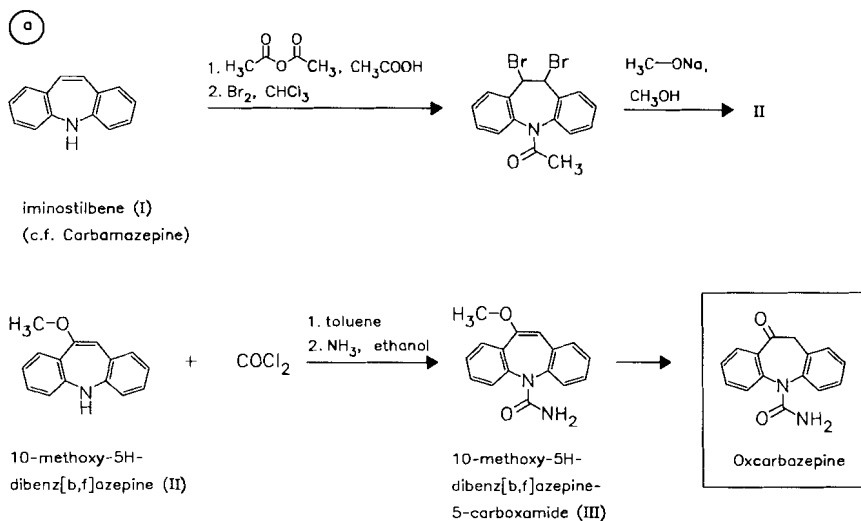
D:	Adumbran (Boehringer Ing.; 1965)	Praxiten (Wyeth; 1965)	I:	Limbial (Chiesi)	
	Azutanquil (Azuchemie)	Sigacalm (Kyttta-Siegfried)		Persumbrax (Boehringer Ing.)-comb.	
	Durazepam /-forte (durachemie)	Uskan (Desitin) generics		Serpax (Wyeth-Lederle)	
	Milfidorm (Merckle)	F:	Seresta (Wyeth-Lederle; 1966)	J:	Hilong (Banyu)
	Noctazepam (Brenner-Efeka)	GB:	Oxamid (Steinhard); wfm	USA:	Serax (Wyeth-Ayerst) generics
	Oxahexal (Neuro-Hexal)		Serenid-D (Wyeth); wfm generics		

Oxcarbazepine

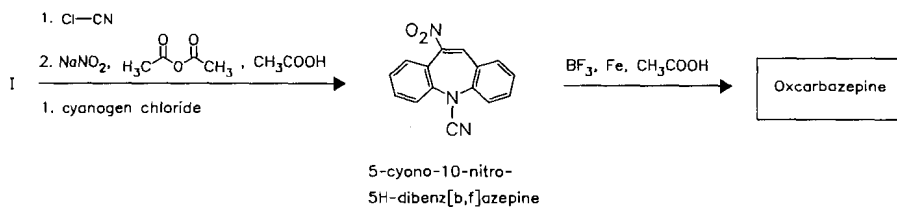
(GP-47680)

ATC: N03AF02

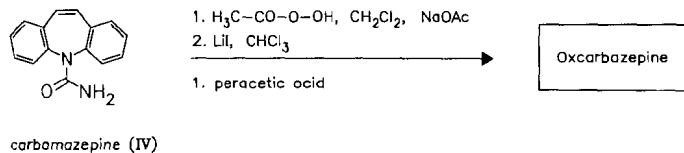
Use: anticonvulsant

RN: 28721-07-5 MF: C₁₅H₁₂N₂O₂ MW: 252.27 EINECS: 249-188-8CN: 10,11-Dihydro-10-oxo-5H-dibenz[*b,f*]azepine-5-carboxamide

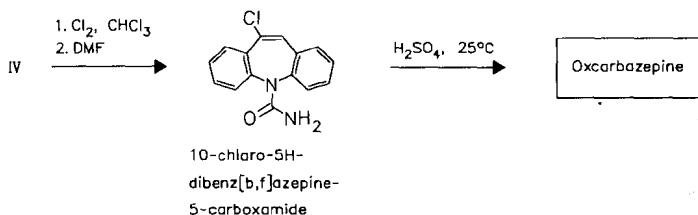
(b)



(c)



(d)

*Reference(s):*

- a DE 2 011 087 (Geigy AG; appl. 4.3.1970; CH-prior. 10.3.1969).
 HU 63 389 (Alkaloida; appl. 27.12.1991).
 WO 9 621 649 (Trifarma; appl. 3.1.1996; I-prior. 13.1.1995).
 b EP 29 409 (Ciba-Geigy AG; appl. 24.10.1980; CH-prior. 30.10.1979).
 EP 28 028 (Ciba-Geigy AG; appl. 27.10.1980; CH-prior. 30.10.1979).
 c CH 633 271 (Ciba-Geigy AG; appl. 18.4.1978; CH-prior. 18.4.1978).
 d CH 642 950 (Ciba-Geigy AG; appl. 30.10.1979; CH-prior. 30.10.1979).

Formulation(s): tabl. 300 mg, 600 mg*Trade Name(s):*

A: Trileptal (Novartis)

CH: Trileptal (Novartis)

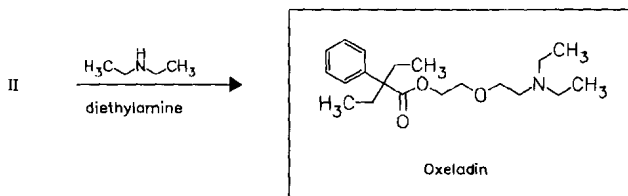
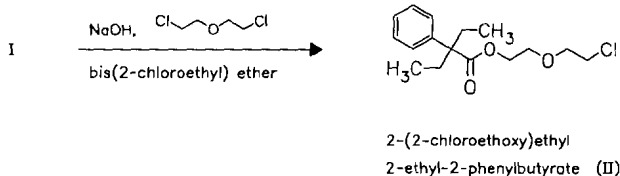
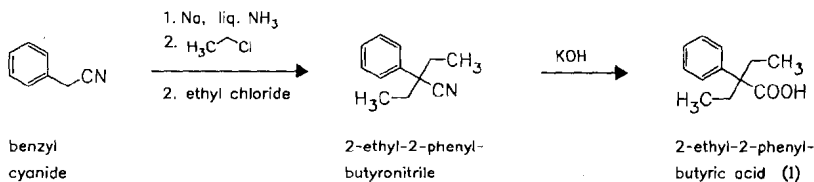
NL: Trileptal (Novartis)

Oxeladin

ATC: R05DB09

Use: antitussive

RN: 468-61-1 MF: $\text{C}_{20}\text{H}_{33}\text{NO}_3$ MW: 335.49 EINECS: 207-418-4LD₅₀: 13 mg/kg (M, i.v.); 130 mg/kg (M, p.o.);
183 mg/kg (R, p.o.)CN: α,α -diethylbenzeneacetic acid 2-[2-(diethylamino)ethoxy]ethyl ester**citrate (1:1)**RN: 52432-72-1 MF: $\text{C}_{20}\text{H}_{33}\text{NO}_3 \cdot \text{C}_6\text{H}_8\text{O}_7$ MW: 527.61 EINECS: 257-910-8LD₅₀: 13 mg/kg (M, i.v.); 130 mg/kg (M, p.o.);
183 mg/kg (R, p.o.)

**Reference(s):**

US 2 885 404 (British Drug Houses; 5.5.1959; GB-prior. 4.1.1956).
 Petrow, V. et al.: J. Pharm. Pharmacol. (JPPMAB) **10**, 40 (1958).

Formulation(s): cps. 40 mg (as hydrogen citrate)

Trade Name(s):

D:	Bronchisan (Atmos)-comb.; wfm	Silopentol (Hormosan); wfm	Pectamol (Malesci); wfm
	dorex-retard (ICN); wfm	Stas (Stada)-comb.; wfm	Tussiflex (Italsuisse)-comb.; wfm
	dorex-retard (Woelm); wfm	Toramim (Athenstaedt)-comb.	Tussilisin (Ibirm); wfm
	Kontagripp (Azuchemie)-comb.; wfm	F:	J: Ethochlon (Hokuriku)
	Mirfusot (Merckle)-comb.; wfm	Paxéladine (Beaufour)	Hustopan (Ohta)
	Pectischöll (Hestia)-comb.; wfm	Paxéladine noctée (Beaufour)	Neoadrin (Toa)
	Piniol (Spitzner)-comb.; wfm	I: Neobex (Lampugnani); wfm	Neusedan (Nichizo)
		Notox (Medici)-comb.; wfm	Tarmina (Mochida)

Oxetacaine

(Oxethazaine)

ATC: C05AD06

Use: gastric mucous membrane anesthetic

RN: 126-27-2 MF: C₂₈H₄₁N₃O₃ MW: 467.65 EINECS: 204-780-5

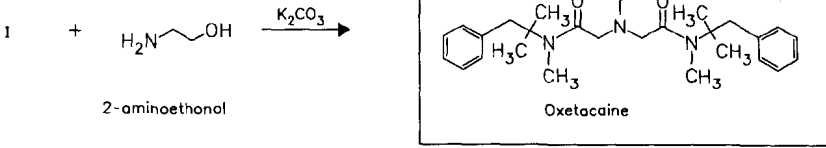
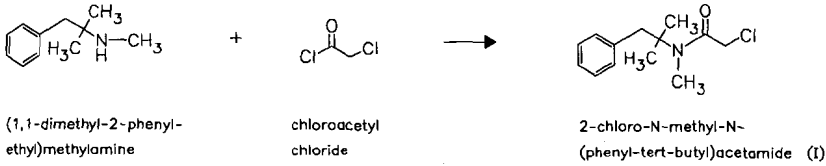
LD₅₀: 27 mg/kg (M, i.p.); 58 mg/kg (M, s.c.);
 30 mg/kg (R, i.p.)

CN: 2,2'-[(2-hydroxyethyl)imino]-bis[N-(1,1-dimethyl-2-phenylethyl)-N-methylacetamide]

monohydrochloride

RN: 13930-31-9 MF: C₂₈H₄₁N₃O₃ · HCl MW: 504.12 EINECS: 237-698-3

LD₅₀: 3881 µg/kg (M, i.v.); 431 mg/kg (M, p.o.);
 1400 µg/kg (R, i.v.); 675 mg/kg (R, p.o.)

**Reference(s):**

US 2 780 646 (American Home Products; 1957; prior. 1955).
 Freed, M.E. et al.: J. Org. Chem. (JOCEAH) **26**, 2378 (1961).

Formulation(s): susp. (in comb.) 10 mg/5 ml; tabl. 5 mg

Trade Name(s):

D:	Tepilta (Wyeth)-comb.	Mucosin (Wyeth-Lederle)-comb.	Strocain (Eisai)
F:	Mutésa (Wyeth-Lederle)-comb.	Mucosin os susp. (Wyeth-Lederle)-comb.	Topicain (Chugai)
GB:	Mucaine (Wyeth)-comb.		USA: Oxaine (Wyeth)-comb.; wfm
I:	Emoren (IFI)	J: Stomacain (Teisan-Pfizer)	

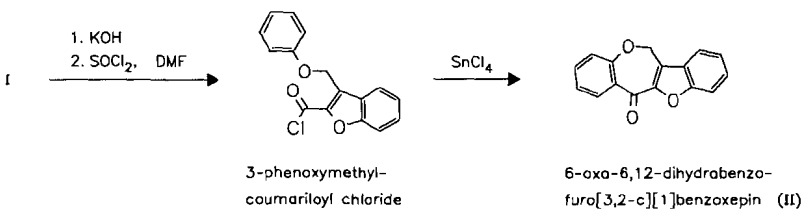
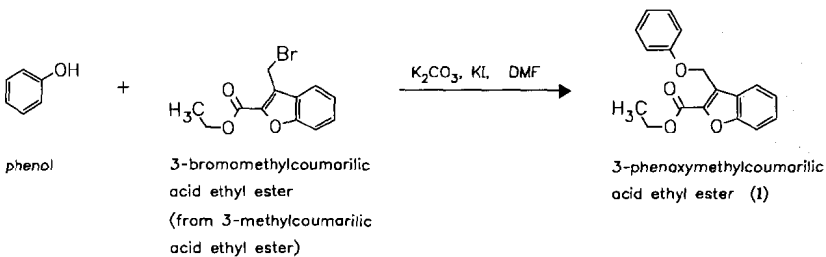
Oxetorone

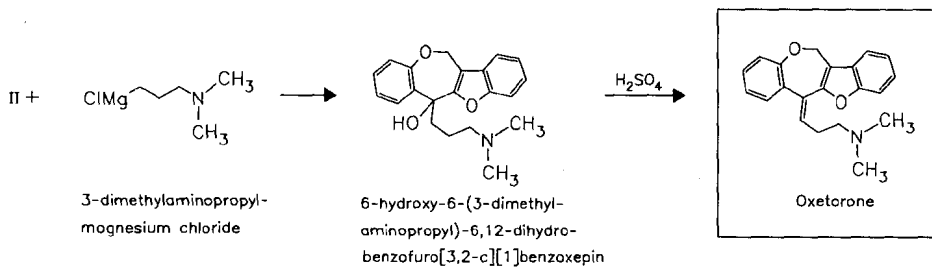
ATC: N02CX06
 Use: antimigraine agent

RN: 26020-55-3 MF: $C_{21}H_{21}NO_2$ MW: 319.40 EINECS: 247-411-3
 CN: 3-benzofuro[3,2-c][1]benzoxepin-6-(12*H*)-ylidene-*N,N*-dimethyl-1-propanamine

hydrogen fumarate (1:1)

RN: 34522-46-8 MF: $C_{21}H_{21}NO_2 \cdot C_4H_4O_4$ MW: 435.48



*Reference(s):*

DOS 1 963 205 (Labaz; appl. 17.12.1969; GB-prior. 20.12.1968).

FR-appl. 2 026 686 (Labaz; appl. 19.12.1969; GB-prior. 20.12.1968).

Formulation(s): tabl. 60 mg (as hydrogen fumarate)*Trade Name(s):*

D: Nocertone (Labaz); wfm F: Nocertone (Sanofi Winthrop)

Oxfendazole

ATC: P02CA

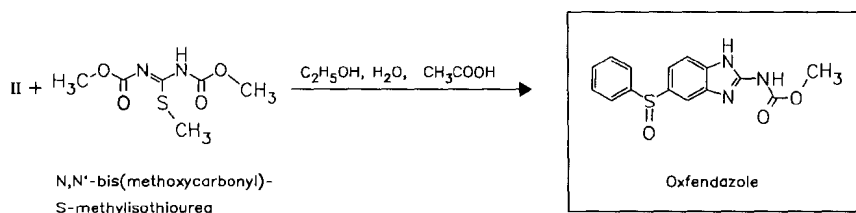
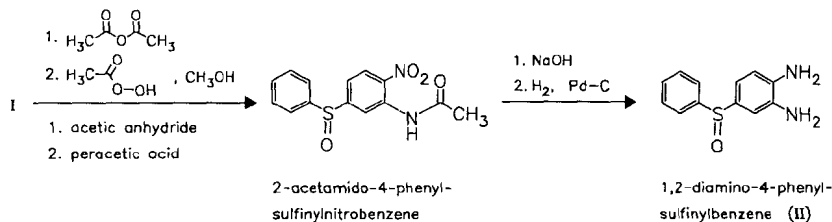
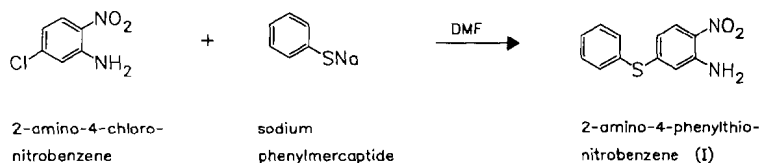
Use: anthelmintic

RN: 53716-50-0 MF: $\text{C}_{15}\text{H}_{13}\text{N}_3\text{O}_3\text{S}$ MW: 315.35 EINECS: 258-714-5 LD_{50} : >6.4 g/kg (M, route unreported);

>6.4 g/kg (R, route unreported);

>1.6 g/kg (dog, route unreported)

CN: [5-(phenylsulfinyl)-1H-benzimidazol-2-yl]carbamic acid methyl ester



Reference(s):

DOS 2 363 351 (Syntex; appl. 21.11.1973; USA-prior. 29.12.1972).
 Averkin, G.A. et al.: J. Med. Chem. (JMCMAR) **18**, 1164 (1975).

Trade Name(s):

GB: Synanthic (Syntex); wfm Systamex (Wellcome); wfm

Oxiconazole

ATC: D01AC11; G01AF17

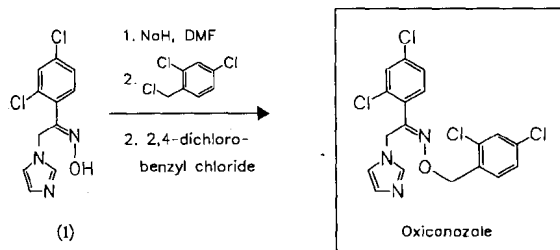
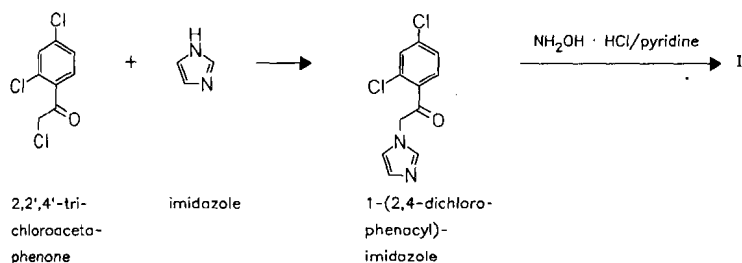
Use: antifungal

RN: 64211-45-6 MF: C₁₈H₁₃Cl₄N₃O MW: 429.13

CN: (Z)-1-(2,4-dichlorophenyl)-2-(1H-imidazol-1-yl)ethanone O-[(2,4-dichlorophenyl)methyl]oxime

mononitrateRN: 64211-46-7 MF: C₁₈H₁₃Cl₄N₃O · HNO₃ MW: 492.15 EINECS: 264-730-3

LD₅₀: 2.63 g/kg (M, p.o.);
 >2.458 g/kg (R, p.o.)

**Reference(s):**

DOS 2 657 578 (Siegfried AG; appl. 18.12.1976; CH-prior. 24.12.1975).
 US 4 124 767 (Siegfried AG; 7.11.1978; CH-prior. 24.12.1975).
 GB 1 514 870 (Siegfried AG; appl. 23.12.1976; CH-prior. 24.12.1975).
 FR 2 336 129 (Siegfried AG; appl. 23.12.1976; CH-prior. 24.12.1975).

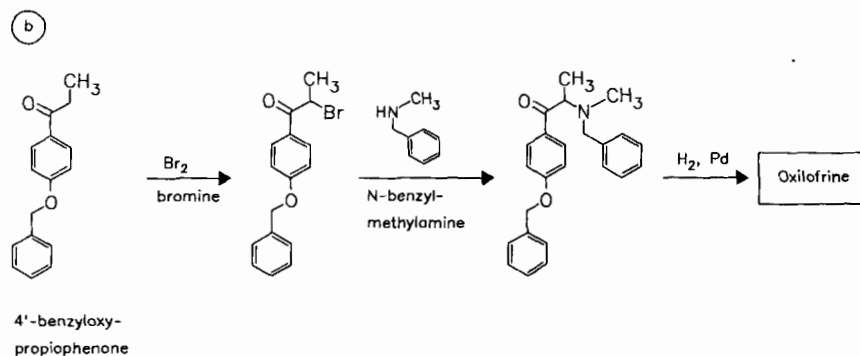
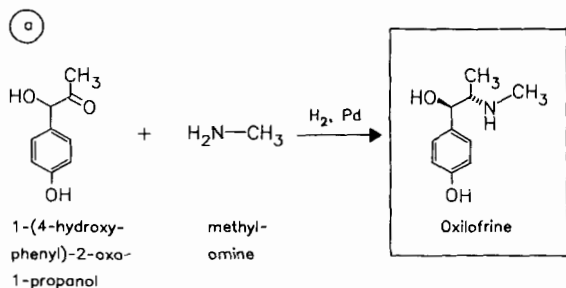
Formulation(s): cream 10 mg/g; pessaries 600 mg (as mononitrate); powder 10 mg/g; sol. 10 mg/ml

Trade Name(s):

D:	Myfungar (Brenner-Efeka; 1984)	F:	Fonx (Yamanouchi Pharma)	USA:	Okinazole (Tokyo Tanabe)
	Oceral (Yamanouchi; 1984)	J:	Derimine (Kaken)		Oxistat (Glaxo Wellcome; as nitrate)

Oxilofrine*(p*-Hydroxyephedrine; Methysynephrine; Oxyephedrine)

ATC: N07A

Use: circulatory analeptic,
sympathomimeticRN: 365-26-4 MF: C₁₀H₁₅NO₂ MW: 181.24 EINECS: 206-672-3CN: (R*,S*)-4-hydroxy- α -[1-(methylamino)ethyl]benzenemethanol**hydrochloride**RN: 942-51-8 MF: C₁₀H₁₅NO₂·HCl MW: 217.70 EINECS: 213-392-5**Reference(s):**

a DRP 571 229 (I. G. Farben; appl. 1930).

starting material:

DRP 555 404 (I. G. Farben; appl. 1930).

b US 1 877 756 (M. Bockmühl et al.; 1932; D-prior. 1929).

US 1 878 021 (Winthrop; 1932; D-prior. 1928).

alternative syntheses:

DRP 526 393 (I. G. Farben; appl. 1928).

DRP 597 123 (I. G. Farben; appl. 1928).

review:

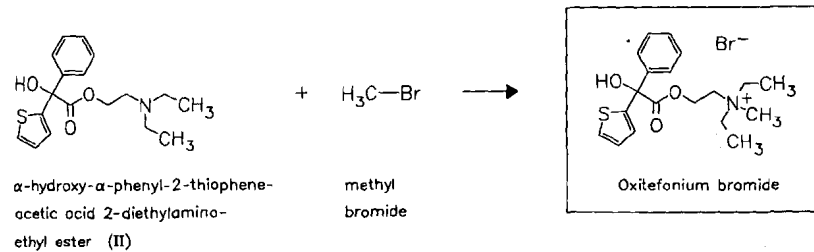
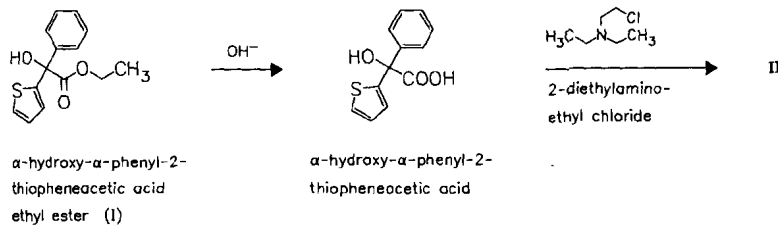
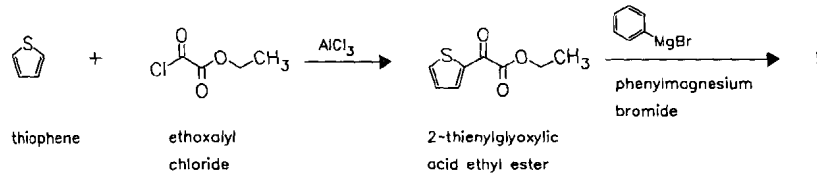
Ehrhart, Ruschig, Vol. 2, 154.

Formulation(s): drg. 16 mg, 32 mg; drops 20 mg/ml, 40 mg/ml (as hydrochloride)**Trade Name(s):**D: Carnigen (Albert-Roussel,
Hoechst)

Oxitefonium bromide

ATC: A03AB

Use: anticholinergic, antispasmodic

RN: 17692-63-6 MF: $C_{19}H_{26}BrNO_3S$ MW: 428.39 EINECS: 241-688-4LD₅₀: 27.5 mg/kg (M, i.v.); 1050 mg/kg (M, p.o.)CN: *N,N*-diethyl-2-[(hydroxyphenyl-2-thienylacetyl)oxy]-*N*-methylethanaminium bromide**Reference(s):**

US 2 541 024 (F. F. Blicke; 1951; prior. 1946).

Blicke, F.F.; Tsao, M.U.: J. Am. Chem. Soc. (JACSAT) **66**, 1645 (1944).**Trade Name(s):**F: Bismutran (ISH)-comb.;
wfm

Nibitor (ISH); wfm

Védrénan (ISH)-comb.;
wfm**Oxitriptan**

(5-Hydroxy-L-tryptophan; Oxitriptanum)

ATC: N06AB

Use: antidepressant (physiological serotonin precursor)

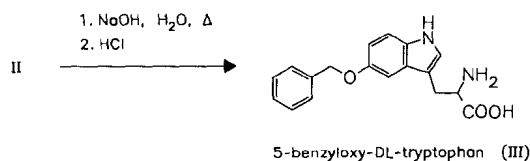
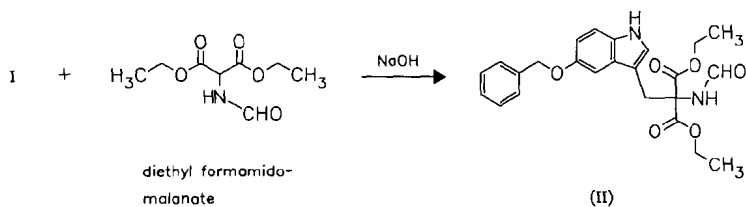
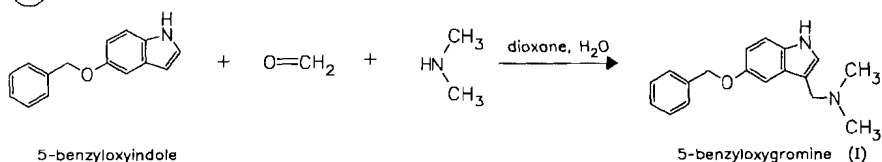
RN: 4350-09-8 MF: $C_{11}H_{12}N_2O_3$ MW: 220.23 EINECS: 224-411-1LD₅₀: 375 mg/kg (M, i.v.); 1708 mg/kg (M, p.o.);

27 mg/kg (R, i.v.); 243 mg/kg (R, p.o.)

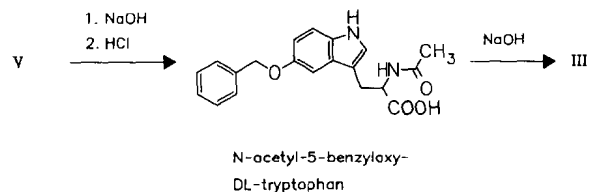
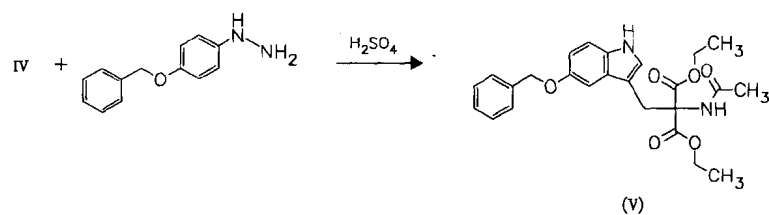
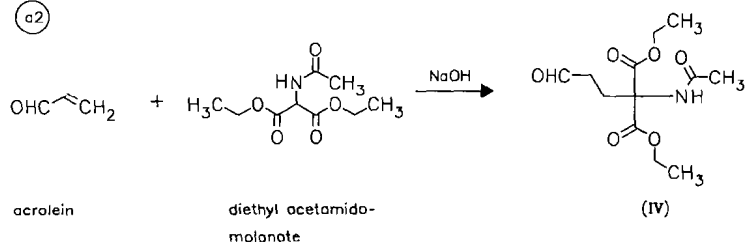
CN: 5-hydroxy-L-tryptophan

a) 5-benzyloxy-DL-tryptophan

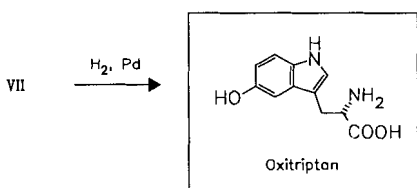
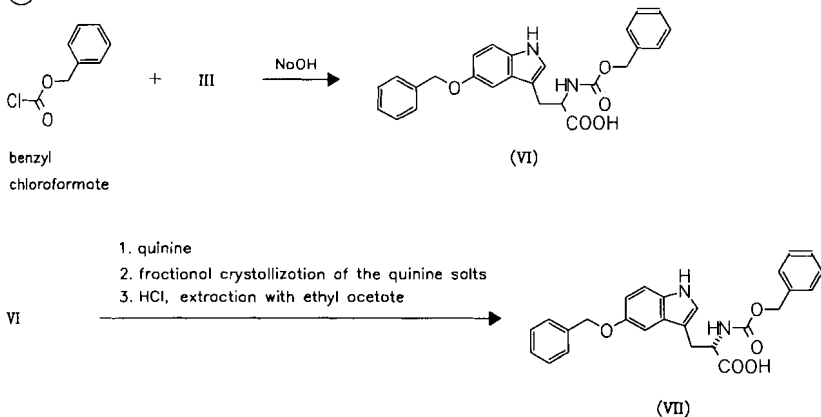
a1)



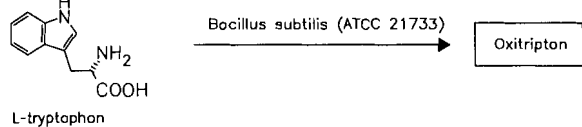
a2)



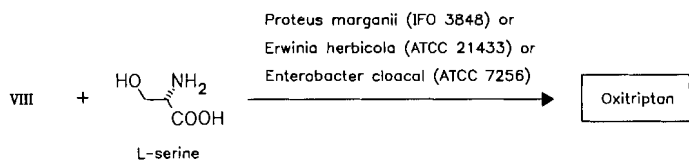
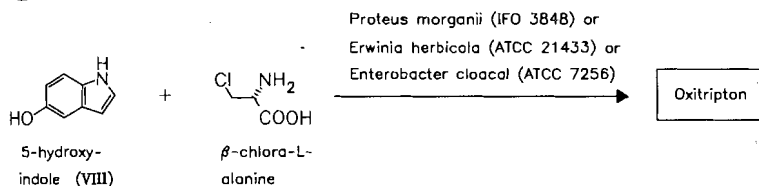
(b) optical resolution



(c) microbiological oxidation of L-tryptophan



(d) microbiological coupling with tryptophanase producing strains



Reference(s):

a1 Ek, A.; Witkop, B.: J. Am. Chem. Soc. (JACSAT) **76**, 5579 (1954).

preparation of 5-benzoyloxyindole:

Shaw, N.F. et al.: Biochem. Prep. (BIPRAP) **9**, 12 (1962).

a2 GB 845 034 (May & Baker; appl. 1957).

b Morris, A.J.; Armstrong, M.D.: J. Org. Chem. (JOCEAH) **22**, 306 (1957).

c DOS 2 150 535 (Schering AG; appl. 6.10.1971).

d DE 2 461 188 (Ajinomoto; appl. 23.12.1974; J-prior. 29.12.1973).

alternative syntheses:

DOS 2 151 088 (Kyowa Hakko; appl. 19.10.1971; J-prior. 26.10.1970).

DAS 2 409 675 (Sagami; appl. 28.2.1974; J-prior. 1.3.1973).

combination with benserazide:

DOS 2 327 636 (Hoffmann-La Roche; appl. 30.5.1973; CH-prior. 30.6.1972).

Formulation(s): cps. 100 mg*Trade Name(s):*D: Levothym (Promonta
Lundbeck)F: Lévonine (Panpharma)
I: Oxyfan (Coli)

Tript-OH (Sigma-Tau)

Oxitropium bromide

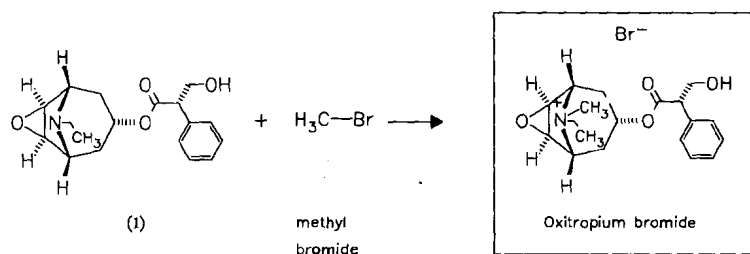
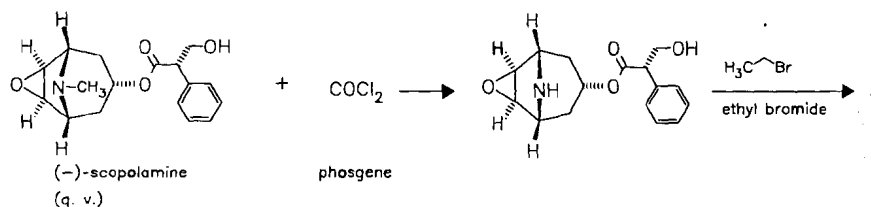
ATC: R03BB02

Use: anticholinergic, antiasthmatic

RN: 30286-75-0 MF: C₁₉H₂₆BrNO₄ MW: 412.32 EINECS: 250-113-6LD₅₀: 25.7 mg/kg (M, i.v.); 1.6 g/kg (M, p.o.);

19 mg/kg (R, i.v.); 2.25 g/kg (R, p.o.);

40 mg/kg (dog, i.v.); 3 g/kg (dog, p.o.)

CN: [7(S)-(1 α ,2 β ,4 β ,5 α ,7 β)]-9-ethyl-7-(3-hydroxy-1-oxo-2-phenylpropoxy)-9-methyl-3-oxa-9-azoniatricyclo[3.3.1.0^{2,4}]nonane bromide*Reference(s):*

US 3 472 861 (Boehringer Ing.; 19.1.1971; D-prior. 26.1.1966).

DOS 1 670 048 (Boehringer Ing.; appl. 26.1.1966).

DE 1 795 818 (Boehringer Ing.; prior. 26.1.1966).

Formulation(s): doses aerosol 0.1 mg; cps. 0.1 mg; inhalation sol. 1.5 mg; powder cps.0.1 mg/5 mg; sol. 1.5 mg/ml*Trade Name(s):*

D: Ventilate (Boehringer Ing.; 1983) F: Tersigat (3M Santé; 1984)

Oxolamine

ATC: R05DB07

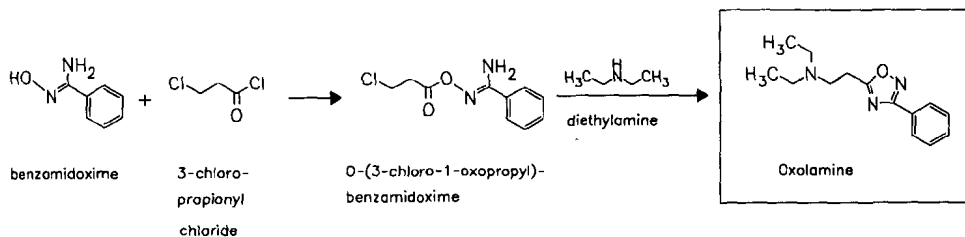
Use: antitussive

RN: 959-14-8 MF: $C_{14}H_{19}N_3O$ MW: 245.33 EINECS: 213-493-4LD₅₀: 679 mg/kg (M, p.o.);

>2 g/kg (R, p.o.)

CN: *N,N*-diethyl-3-phenyl-1,2,4-oxadiazole-5-ethanamine**citrate (1:1)**RN: 1949-20-8 MF: $C_{14}H_{19}N_3O \cdot C_6H_8O_7$ MW: 437.45 EINECS: 217-760-6LD₅₀: 650 mg/kg (M, p.o.);

1650 mg/kg (R, p.o.)

**Reference(s):**

DE 1 097 998 (Angelini Francesco; appl. 30.9.1959).

Formulation(s): syrup 1 %; tabl. 100 mg**Trade Name(s):**F: Prilon (Cassenne); wfm
Proxybron (Cassenne)-
comb.; wfmI: Gantrimex (Geymonat)-
comb.
Gantrimex ad scir
(Angelini; as phosphate)Perebron /-Ciclina
(Angelini)Tussibron (Sella)
J: Flogobron (Intersint)
Oxamin (Violani-
Farmavigor)
Oxarmin (Daiichi)Oxolev (Barlocco)
Perebron (Angelini)
Tussibron (Sella)
numerous combination
preparations**Oxolinic acid**

(Acide oxolinique)

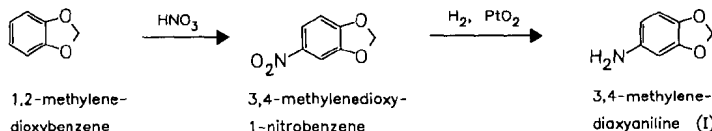
ATC: G04AB04

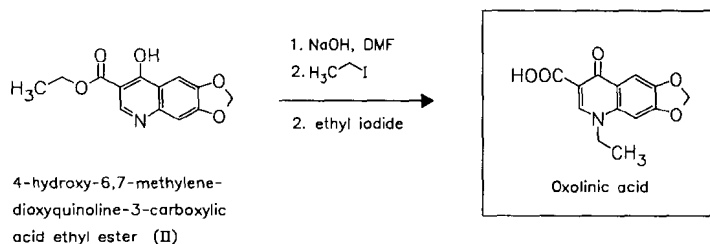
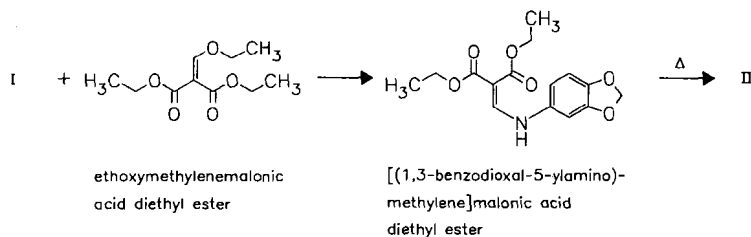
Use: chemotherapeutic (Proteus bacteria
infections, gyrase inhibitor)RN: 14698-29-4 MF: $C_{13}H_{11}NO_5$ MW: 261.23 EINECS: 238-750-8LD₅₀: 1890 mg/kg (M, p.o.);

525 mg/kg (R, p.o.);

>1 g/kg (dog, p.o.)

CN: 5-ethyl-5,8-dihydro-8-oxo-1,3-dioxolo[4,5-g]quinoline-7-carboxylic acid



**Reference(s):**

US 3 287 458 (Warner-Lambert; 22.11.1966; appl. 27.4.1966; prior. 12.12.1963).

alternative synthesis:

DAS 2 103 805 (Sumitomo; appl. 27.1.1971; J-prior. 28.1.1970, 18.2.1970, 23.2.1970, 24.2.1970).

Formulation(s): tabl. 0.75 g

Trade Name(s):

D:	Nidantin (Gödecke/Sasse); wfm	Oxolina (Rorer); wfm	Uroxol (Ausonia); wfm
F:	Urotrate (Parke Davis)	Pelvis (Coli); wfm	Uroxol mite (Ausonia); wfm
GB:	Prodoxol (Warner); wfm	Tilvis (Scharper); wfm	USA: Utibid (Warner); wfm
I:	Decme (Poli); wfm	Tiurasin (Bouty)	
	Ossian (Bioindustria); wfm	Uritrate (Parke Davis); wfm	
		Uroxin (Von Boch); wfm	

Oxomemazine

ATC: R06AD08

Use: antiallergic, antipruritic, sedative

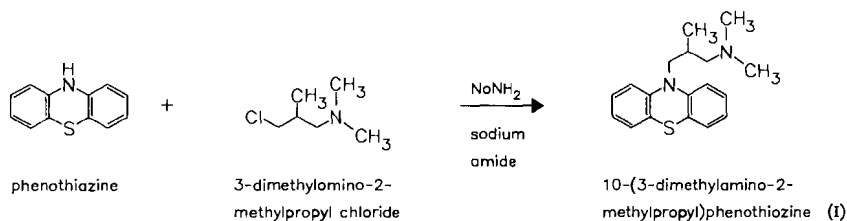
RN: 3689-50-7 MF: $C_{18}H_{22}N_2O_2S$ MW: 330.45 EINECS: 222-996-8

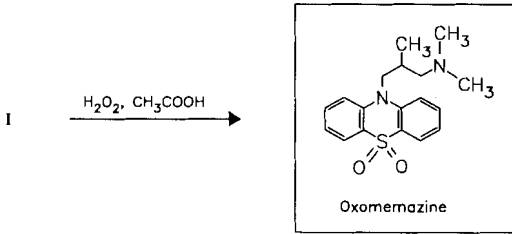
LD₅₀: 35 mg/kg (M, i. v.); 140 mg/kg (M, p. o.)

CN: *N,N*, β -trimethyl-10*H*-phenothiazine-10-propanamine 5,5-dioxide

monohydrochloride

RN: 4784-40-1 MF: $C_{18}H_{22}N_2O_2S \cdot HCl$ MW: 366.91 EINECS: 225-330-4



**Reference(s):**

US 2 972 612 (Rhône-Poulenc; 21.2.1961; GB-prior. 13.5.1955).

Formulation(s): syrup 150 mg/150 ml; tabl. 10 mg

Trade Name(s):

D:	Aplexil (Rhône-Poulenc)- comb.; wfm	Imakol (Rhône-Poulenc); wfm	J:	Toplexil (Théraplax)-comb. Dysedon (Meiji)
	Imakol (Rhodia Pharma); wfm	F:	Rectoplexil (Théraplax)- comb.	

Oxprenolol

ATC: C07AA02

Use: beta blocking agent

RN: 6452-71-7 MF: $\text{C}_{15}\text{H}_{23}\text{NO}_3$ MW: 265.35 EINECS: 229-257-9

LD₅₀: 20 mg/kg (M, i.v.); 375 mg/kg (M, p.o.)

CN: 1-[(1-methylethyl)amino]-3-[2-(2-propenyloxy)phenoxy]-2-propanol

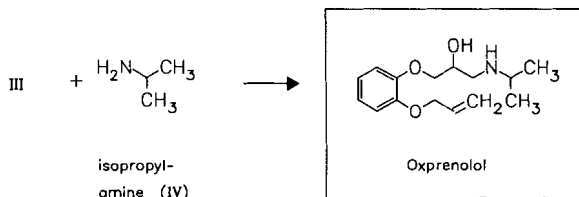
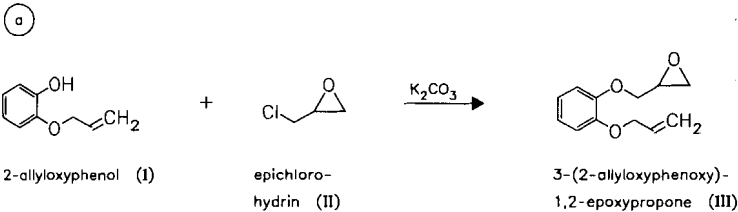
hydrochloride

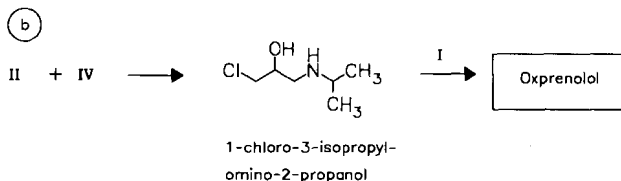
RN: 6452-73-9 MF: $\text{C}_{15}\text{H}_{23}\text{NO}_3 \cdot \text{HCl}$ MW: 301.81 EINECS: 229-260-5

LD₅₀: 20 mg/kg (M, i.v.);

33 mg/kg (R, i.v.); 214 mg/kg (R, p.o.);

15 mg/kg (dog, i.v.)



**Reference(s):**

- DE 1 242 596 (Ciba; prior. 19.8.1965).
 US 3 483 221 (Ciba; 9.12.1969; CH-prior. 10.9.1964).
 CH 451 144 (Ciba; appl. 10.9.1964).
 CH 451 115 (Ciba; appl. 10.9.1964).
 CH 451 915 (Ciba; appl. 10.9.1964).
 GB 1 077 603 (Ciba; appl. 23.8.1965; CH-prior. 10.9.1964).

Formulation(s): f. c. tabl. 20 mg, 40 mg, 80 mg, 160 mg (as hydrochloride)

Trade Name(s):

D:	Trasicor (Novartis) numerous generics and combination preparations	GB:	Trasitensine (Novartis; as hydrochloride)-comb. Slow Trasicor (Novartis) Trasicor (Novartis; 1970) Trasidrex (Novartis Farma; 1978)-comb.	J:	Trasacor (Ciba) Trasitensin Retard (Ciba)- comb. Trasacor (Ciba-Geigy- Takeda)
F:	Trasicor (Novartis; 1975) Trasipressol (Novartis; 1977)-comb.	I:	Tensilene (Caber)-comb.	USA:	Trasicor (Ciba-Geigy); wfm

Oxybuprocaine

(Benoxinate)

ATC: D04AB03; S01HA02

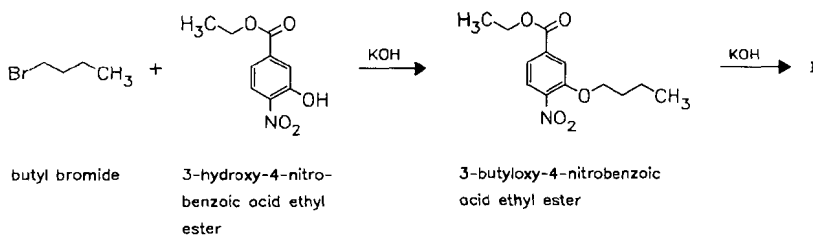
Use: local anesthetic

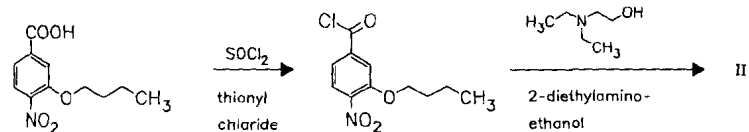
RN: 99-43-4 MF: $C_{17}H_{28}N_2O_3$ MW: 308.42LD₅₀: 7800 $\mu\text{g}/\text{kg}$ (M, i.v.)

CN: 4-amino-3-butoxybenzoic acid 2-(diethylamino)ethyl ester

monohydrochlorideRN: 5987-82-6 MF: $C_{17}H_{28}N_2O_3 \cdot \text{HCl}$ MW: 344.88 EINECS: 227-808-8LD₅₀: >6.8 mg/kg (M, i.v.);

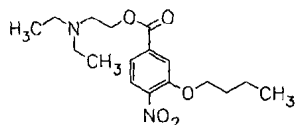
>5.6 mg/kg (R, i.v.)



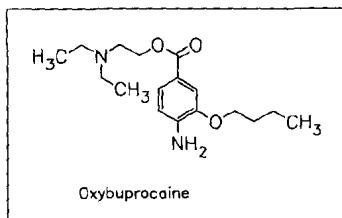
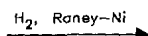


3-butyloxy-4-nitrobenzoic acid (I)

3-butyloxy-4-nitrobenzoyl chloride



3-butyloxy-4-nitrobenzoic acid 2-diethylaminoethyl ester (II)



Reference(s):

GB 654 484 (Dr. A. Wander AG; appl. 1948; CH-prior. 1947).

Formulation(s): eye drops 2 mg, 4 mg/ml; sol. 10 mg/ml (as hydrochloride)

Trade Name(s):

D:	Benoxinat 0,4 % Thilo (Alcon)	F:	Thilorbin (Thilo)-comb. Cébésine (Chauvin-Blache)	I:	Opulets Benoxinate (Alcon)
	Conjuncaïn EDO (Mann)		Novésine (Merck Sharp & Dohme-Chibret)	J:	Novesina (Novartis Farma)
	Novesine (CIBA Vision)	GB:	Minims Benoxinate (Chauvin; as hydrochloride)		Benoxil (Santen)
	Novesine Wander (Novartis Pharma)				Lacrimin (Santen)
	Oxbarukain (Chauvin ankerpharm)			USA:	Primacaine (Hori-Morita)
					Dorsacaine (Dorsey); wfm

Oxybutynin

ATC: G04BD04

Use: anticholinergic, antispasmodic

RN: 5633-20-5 MF: $\text{C}_{22}\text{H}_{31}\text{NO}_3$ MW: 357.49

CN: α -cyclohexyl- α -hydroxybenzeneacetic acid 4-(diethylamino)-2-butyryl ester

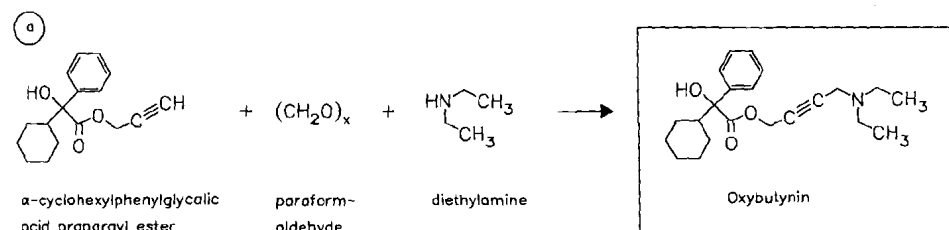
hydrochloride

RN: 1508-65-2 MF: $\text{C}_{22}\text{H}_{31}\text{NO}_3 \cdot \text{HCl}$ MW: 393.96 EINECS: 216-139-7

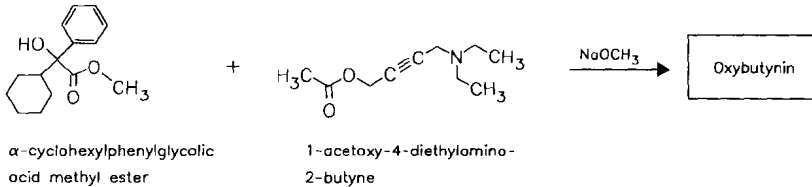
LD₅₀: 42 mg/kg (M, i.v.); 725 mg/kg (M, p.o.);

61 mg/kg (R, i.v.); 460 mg/kg (R, p.o.);

>400 mg/kg (dog, p.o.)



b

**Reference(s):**

GB 940 540 (Mead Johnson; appl. 25.7.1961; USA-prior. 26.7.1960, 20.6.1961).

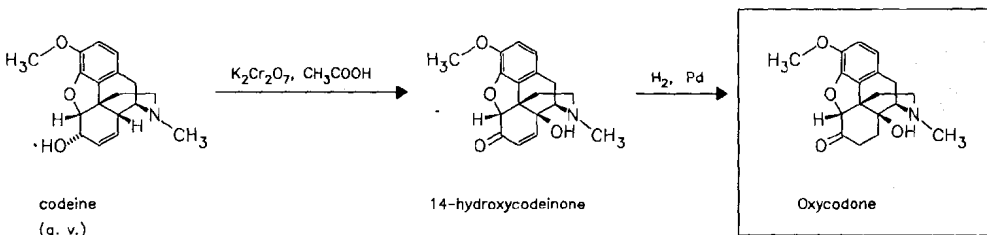
Formulation(s): syrup 2.5 mg/5 ml; tabl. 2.5 mg, 5 mg (as hydrochloride)**Trade Name(s):**

F:	Ditropan (Synthelabo)	Ditropan (Lorex)	USA: Ditropan (Hoechst Marion Roussel)
	Dxiptane (Débat)	I: Ditropan (Synthelabo)	
GB:	Cystrin (Pharmacia & Upjohn)	J: Pollakisu (Kodama)	

Oxycodone

ATC: N02AA05

Use: analgesic

RN: 76-42-6 MF: $\text{C}_{18}\text{H}_{21}\text{NO}_4$ MW: 315.37 EINECS: 200-960-2LD₅₀: 320 mg/kg (M, i.p.); 426 mg/kg (M, s.c.)CN: (5 α)-4,5-epoxy-14-hydroxy-3-methoxy-17-methylmorphinan-6-one**hydrochloride**RN: 124-90-3 MF: $\text{C}_{18}\text{H}_{21}\text{NO}_4 \cdot \text{HCl}$ MW: 351.83 EINECS: 204-717-1**Reference(s):**

Ehrhart-Ruschig I, 118.

DRP 411 530 (E. Merck AG; 1925).

controlled release composition:

US 5 266 331 (Euroceltique; 30.11.1993; appl. 27.11.1991).

Formulation(s): cps. 5 mg; s. r. tabl. 10 mg, 20 mg, 40 mg, 80 mg**Trade Name(s):**

D:	Eubine (Chemipharm); wfm	Scophedal (Merck)-comb.; wfm	GB: Proladone (Boots); wfm
	Eukodal (Merck); wfm	F: Eubine (Promedica)	

USA: OxyContin (Purdue
Pharma)
Percocet-5 (Endo)

Percodan (Endo)-comb.
Roxicodone (Roxane)
Tylox (Ortho-McNeil)

generics and combination
preparations

Oxyfedrine

ATC: C01DX03

Use: coronary therapeutic

RN: 15687-41-9 MF: $C_{19}H_{23}NO_3$ MW: 313.40

CN: $[R-(R^*,S^*)]$ -3-[(2-hydroxy-1-methyl-2-phenylethyl)amino]-1-(3-methoxyphenyl)-1-propanone

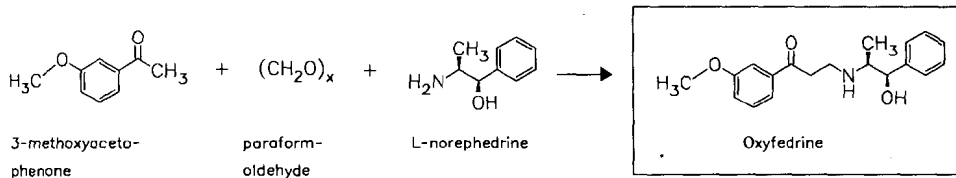
hydrochloride

RN: 16777-42-7 MF: $C_{19}H_{23}NO_3 \cdot HCl$ MW: 349.86 EINECS: 240-828-1

LD₅₀: 23 mg/kg (M, i.v.); 510 mg/kg (M, p.o.);

46 mg/kg (R, i.v.); 500 mg/kg (R, p.o.);

50 mg/kg (dog, i.v.); 200 mg/kg (dog, p.o.)



Reference(s):

DE 1 493 574 (Degussa; appl. 31.3.1962).

US 3 225 095 (Degussa; 21.12.1965; D-prior. 31.3.1962).

Formulation(s): amp. 4 mg/2 ml; f. c. tabl. 8 mg, 24 mg (as hydrochloride)

Trade Name(s):

D: Ildamen (ASTA Medica
AWD)

F: Modacor (I.S.H.); wfm

Ildamen (Sir); wfm

I: Ildamen (Farmades); wfm

J: Ildamen (Chugai)

Oxymesterone

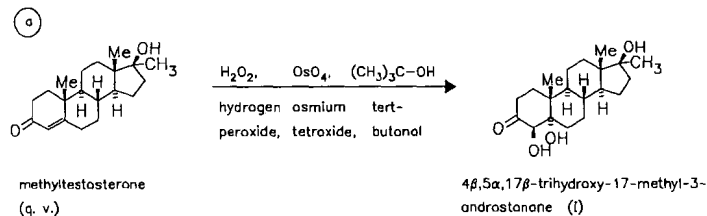
(Oxymestron; Methandrostenediolone)

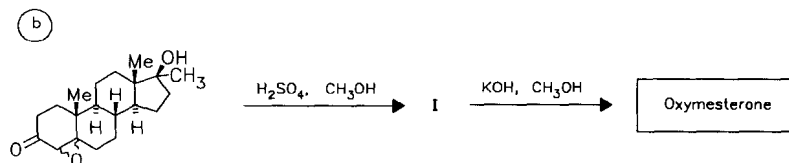
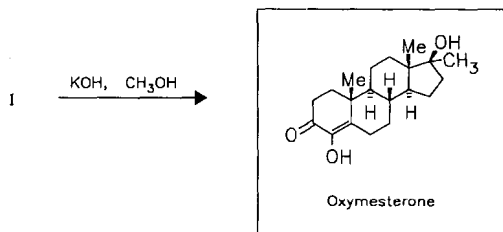
ATC: G03B

Use: anabolic

RN: 145-12-0 MF: $C_{20}H_{30}O_3$ MW: 318.46 EINECS: 205-646-9

CN: (17 β)-4,17-dihydroxy-17-methylandro-4-en-3-one





17 α -methyltestosterone
4,5-epoxide

Reference(s):

US 3 060 201 (Farmitalia; 23.10.1962; GB-prior. 6.6.1958).

Formulation(s): tabl. 5 mg

Trade Name(s):

D: Olocortina (Montedison
Farma)-comb.; wfm

Oranabol (Montedison
Farma); wfm
I: Anamidol (Iwaki); wfm

J: Anamidol (Iwaki)
Oranabol (Sumitomo)

Oxymetazoline

ATC: R01AA05; R01AB07; S01GA04
Use: rhinological therapeutic
(vasoconstrictor)

RN: 1491-59-4 MF: C₁₆H₂₄N₂O MW: 260.38 EINECS: 216-079-1

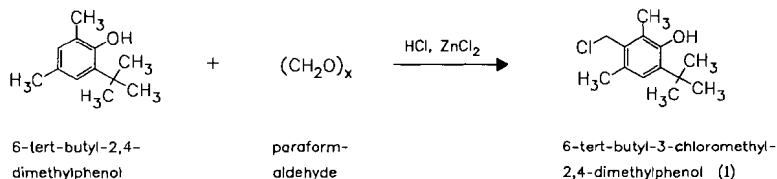
LD₅₀: 2700 $\mu\text{g}/\text{kg}$ (M, i.v.);
800 $\mu\text{g}/\text{kg}$ (R, p.o.)

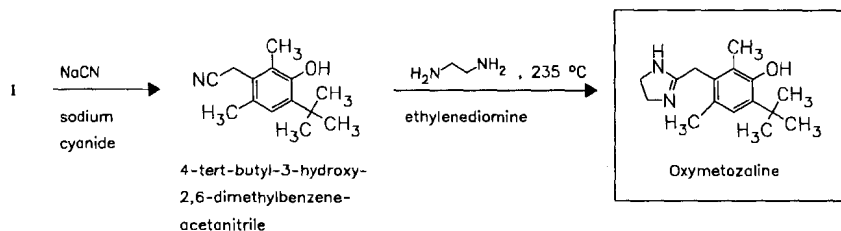
CN: 3-[(4,5-dihydro-1H-imidazol-2-yl)methyl]-6-(1,1-dimethylethyl)-2,4-dimethylphenol

monohydrochloride

RN: 2315-02-8 MF: C₁₆H₂₄N₂O · HCl MW: 296.84 EINECS: 219-015-0

LD₅₀: 4700 $\mu\text{g}/\text{kg}$ (M, p.o.);
1070 $\mu\text{g}/\text{kg}$ (R, i.v.); 680 $\mu\text{g}/\text{kg}$ (R, p.o.)



**Reference(s):**

US 3 147 275 (E. Merck AG; 1.9.1964; D-prior. 30.9.1960).

Formulation(s): doses spray 0.5 mg; drops 10 mg/100 ml; gel 0.5 mg; nasal drops 10mg/100 ml, 25 mg/100 ml, 50 mg/100 ml; spray 50 mg/100 ml (as hydrochloride)

Trade Name(s):

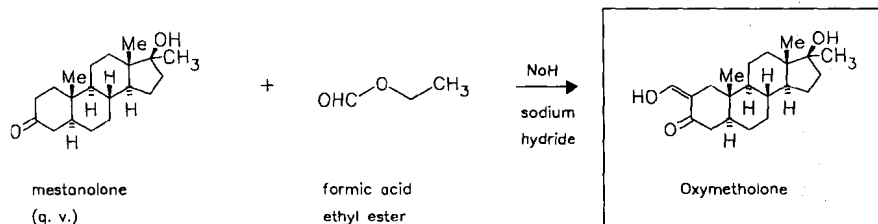
D:	Nasivin (Merck)	Atomol (Allen & Hanburys); wfm	J:	Nasivin (Merck-Chugai)
	Nasivinetten (Merck)	Iliadin-Mini (Merck); wfm	USA:	4-Way Long Acting Nasal Spray (Bristol-Myers); wfm
	Vistoxyn (Pharm-Allergan)	Oxilin (Allergan)		Afrin (Schering); wfm
F:	Aturgyl (Synthelabo)	Rino Calyptol (Rhône-Poulenc Rorer)		Dristan Long Lasting Nasal Spray (Whitchall); wfm
	Sinex Lachartre (Lachartre)	I:		Neo-Synephrine (Winthrop); wfm
GB:	Actifed Nasale (Warner-Lambert)	Nasivin (Bracco)		
	Afazine (Kirby-Warrick); wfm	Triaminic Nasale (Novartis Consumer Health)		
		Vicks Simex Spray (Procter & Gamble)-comb.		

Oxymetholone

(Hydroxymetholone)

ATC: A14AA05

Use: anabolic

RN: 434-07-1 MF: $\text{C}_{21}\text{H}_{32}\text{O}_3$ MW: 332.48 EINECS: 207-098-6LD₅₀: >1 g/kg (R, i.p.)CN: (5 α ,17 β)-17-hydroxy-2-(hydroxymethylene)-17-methylandrostan-3-one**Reference(s):**

DE 1 070 632 (Syntex; appl. 30.1.1957; MEX-prior. 7.2.1956).

Ringold, H.J. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 427 (1959).

Formulation(s): tabl. 50 mg

Trade Name(s):

D:	Pardroyd (Parke Davis); wfm	Plenastril (Grünenthal); wfm	F:	Nastenon (Syntex-Daltan); wfm
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GB: Anapolon (Syntex)

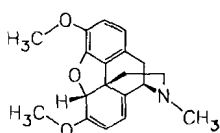
J: Adroyd (Parke Davis-Sankyo)

USA: Anadrol (Shionogi)
USA: Anadrol (Unimed)**Oxymorphone**

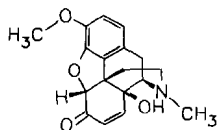
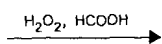
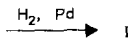
(Oxydimorphone)

ATC: A14AA05

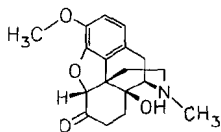
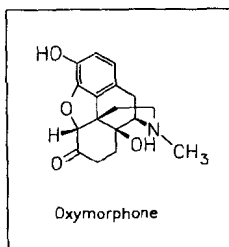
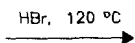
Use: analgesic

RN: 76-41-5 MF: C₁₇H₁₉NO₄ MW: 301.34 EINECS: 200-959-7LD₅₀: 172 mg/kg (M, i.v.)CN: (5 α)-4,5-epoxy-3,14-dihydroxy-17-methylmorphinan-6-one**hydrochloride**RN: 357-07-3 MF: C₁₇H₁₉NO₄ · HCl MW: 337.80

thebaine

14-hydroxycodeinone
(cf. oxycodone synthesis)

I

oxycodone (I)
(alternative synthesis,
cf. oxycodone synthesis)

Oxymorphone

Reference(s):

US 2 806 033 (M. J. Lewenstein and U. Weiss; 1957; appl. 1955).

Formulation(s): amp. 1 mg/ml, 1.5 mg/ml; suppos. 5 mg (as hydrochloride)**Trade Name(s):**

USA: Numorphan (Endo)

Oxypendyl

ATC: A04

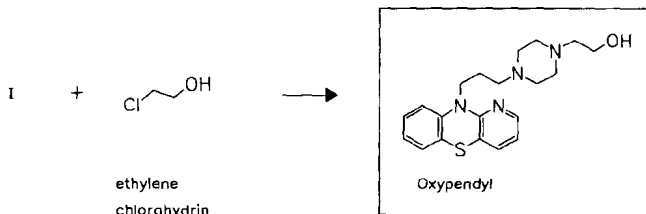
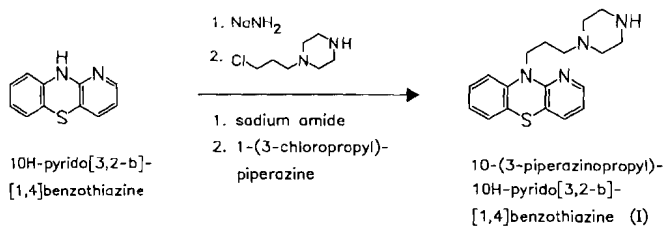
Use: anti-emetic

RN: 5585-93-3 MF: C₂₀H₂₆N₄OS MW: 370.52

CN: 4-[3-(10H-pyrido[3,2-b][1,4]benzothiazin-10-yl)propyl]-1-piperazineethanol

dihydrochlorideRN: 17297-82-4 MF: C₂₀H₂₆N₄OS · 2HCl MW: 443.44 EINECS: 241-326-5LD₅₀: 75 mg/kg (M, i.v.); 735 mg/kg (M, p.o.);

1610 mg/kg (R, p.o.)

**Reference(s):**

DE 1 063 603 (Degussa; appl. 3.12.1957).

Formulation(s): vial 25 mg**Trade Name(s):**

D: Pervetral (Homburg); wfm

Oxypertine

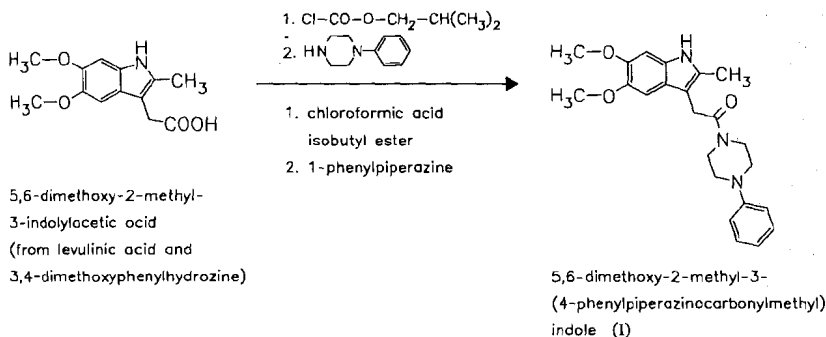
ATC: N05AE01

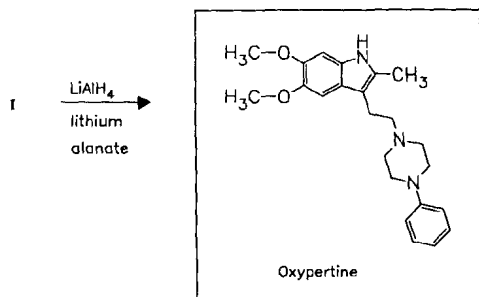
Use: neuroleptic, antipsychotic

RN: 153-87-7 MF: $\text{C}_{23}\text{H}_{29}\text{N}_3\text{O}_2$ MW: 379.50 EINECS: 205-818-3LD₅₀: 2300 mg/kg (M, p.o.);

1 g/kg (R, p.o.)

CN: 5,6-dimethoxy-2-methyl-3-[2-(4-phenyl-1-piperazinyl)ethyl]-1H-indole



**Reference(s):**

DE 1 445 151 (Sterling Drug; appl. 23.9.1960; USA-prior. 25.9.1959).

BE 595 341 (Sterling Drug; appl. 23.9.1960; USA-prior. 25.9.1959).

Formulation(s): tabl. 40 mg**Trade Name(s):**

D: Forit (Winthrop); wfm

GB: Integrin (Winthrop); wfm

USA: Forit (Sterling Winthrop);

F: Equipertine (Winthrop);

J: Forit (Daiichi)

wfm

wfm

Oxyphenbutazone

ATC: M01AA03; M02AA04; S01BC02

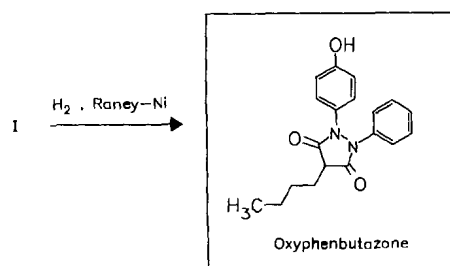
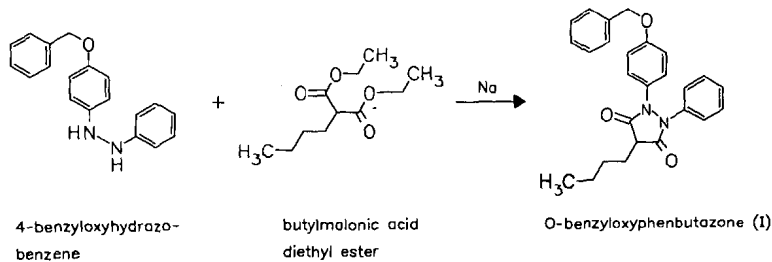
Use: anti-inflammatory

RN: 129-20-4 MF: C₁₉H₂₀N₂O₃ MW: 324.38 EINECS: 204-936-2LD₅₀: 52 mg/kg (M, i.v.); 330 mg/kg (M, p.o.);

68 mg/kg (R, i.v.); 329 mg/kg (R, p.o.);

178 mg/kg (dog, i.v.)

CN: 4-butyl-1-(4-hydroxyphenyl)-2-phenyl-3,5-pyrazolidinedione

monohydrateRN: 7081-38-1 MF: C₁₉H₂₀N₂O₃ · H₂O MW: 342.40

Reference(s):

US 2 745 783 (Geigy; 1956; CH-prior. 1950).

Formulation(s): suppos. 250 mg, 500 mg

Trade Name(s):

D:	Californit (Merckle); wfm Dolo-Phlogase (Adenylchemie)-comb.; wfm Imbun (Merckle); wfm Oxyphenbutazon- ratiopharm (ratiopharm); wfm Oxyphenbutazon Stada (Stada Chemie); wfm Phlogase (Adenylchemie)- comb.; wfm Phlogistol (Helopharm); wfm Phlogont (Azuchemie); wfm Tanderil (Geigy); wfm	GB:	Tandacote (Geigy); wfm Tanderil (Geigy); wfm Tanderil (Zyma); wfm Tanderil Chloramphenicol (Zyma); wfm		Isobutil (Panther-Osfa Chemie); wfm Neo-Farmadol (Ottolenghi); wfm Pirabutina (Ellea); wfm Piraflogin (Jamco); wfm Poliflogil (Farmacobiologico); wfm Tanderil (Geigy); wfm Validil (Von Boch); wfm
F:	Tandéril (Geigy); wfm	I:	Artroflog (Magis); wfm Butaflogin (Chimipharma); wfm Butaspiron (Broccieri); wfm Butilene (Francia Farm.); wfm Difmedol Gel (UCM- Difme)-comb.; wfm Flogistin (Scharper); wfm Flogitolo (Isnardi); wfm Flogodin (Firma); wfm Iridil (Farmila); wfm	J:	Tanderil (Ciba-Geigy- Fujisawa) Tantal (Sawai)
				USA:	Oxalid (USV); wfm Oxyphenbutazone Tablets (Bolar; Bioline); wfm Tandearil (Geigy); wfm

Oxyphencyclimine

ATC: A03AA01

Use: anticholinergic

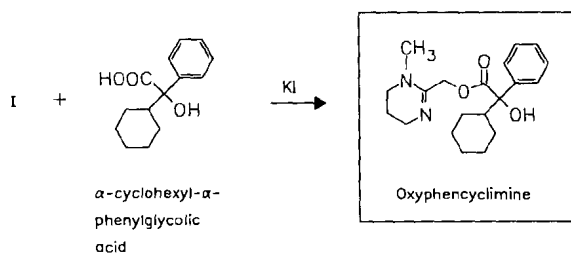
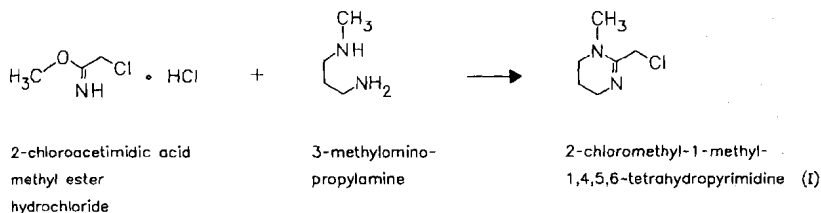
RN: 125-53-1 MF: C₂₀H₂₈N₂O₃ MW: 344.46 EINECS: 204-743-3CN: α -cyclohexyl- α -hydroxybenzeneacetic acid (1,4,5,6-tetrahydro-1-methyl-2-pyrimidinyl)methyl ester

monohydrochloride

RN: 125-52-0 MF: C₂₀H₂₈N₂O₃ · HCl MW: 380.92 EINECS: 204-742-8LD₅₀: 80 mg/kg (M, i.v.); 860 mg/kg (M, p.o.);

88 mg/kg (R, i.v.); 1370 mg/kg (R, p.o.);

47 mg/kg (dog, i.v.); 1 g/kg (dog, p.o.)



Reference(s):

GB 795 758 (Pfizer; appl. 1956; USA-prior. 1955).
DE 1 058 515 (Pfizer; appl. 1956; USA-prior. 1955).

Formulation(s): drg. 5 mg (as hydrochloride)

Trade Name(s):

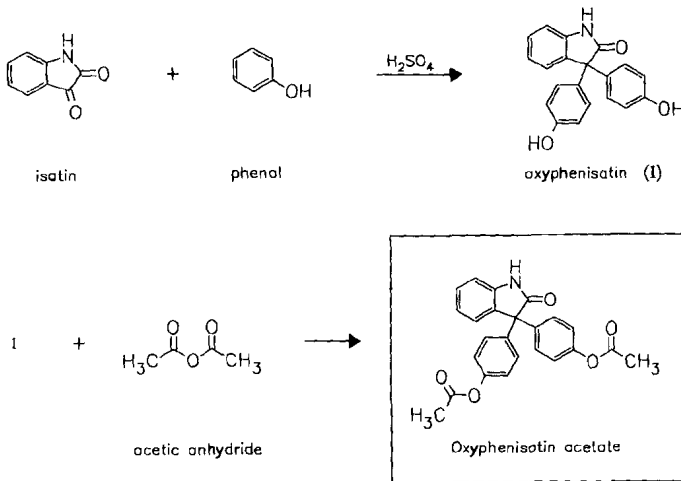
D:	Orbigastril (Roerig); wfm Orbigastril (Roerig)-comb. with meprobamate	Vagogastrin (Benvegna); wfm combination preparations; wfm	Daricon PB (Beecham- Massengill)-comb. with phenobarbital; wfm
F:	Daritrax (Opodex)-comb.; wfm Manir (Valpan); wfm	J:	Daricon (Taito Pfizer) Inomaru-S (Sawai) Norma (Sankyo)
GB:	Daricon (Pfizer); wfm	USA:	Daricon (Beecham- Massengill); wfm Daricon (SmithKline Beecham; as hydrochloride); wfm
I:	Gastrised (Benvegna)- comb.; wfm Madil (Beolet); wfm Ulcelac (Sigurtà)-comb.; wfm		Enarax (Roerig)-comb. with hydroxyzine; wfm Gastrix (Rowell); wfm Gastrix W/Phenobarbital (Rowell)-comb. with phenobarbital; wfm Vistrax (Pfizer)-comb. with hydroxyzine

Oxyphenisatin acetate

(Diphesatine; Acetphenolisatin)

ATC: A06A
Use: laxative

RN: 115-33-3 MF: C₂₄H₁₉NO₅ MW: 401.42 EINECS: 204-083-6
CN: 3,3-bis[4-(acetyloxy)phenyl]-1,3-dihydro-2H-indol-2-one

*Reference(s):*

DRP 406 210 (Hoffmann-La Roche; appl. 1923; CH-prior. 1922).
DRP 447 539 (Hoffmann-La Roche; appl. 1924; CH-prior. 1924).
DRP 482 435 (Hoffmann-La Roche; appl. 1928).

Formulation(s): tabl. 5 mg

Trade Name(s):

D:	Bisco-Zitron (Biscova); wfm	Darmoletten (Omegin); wfm	Laxatan forte (Divapharma); wfm Obstilax (Zirkulin); wfm
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Schokolax (Dallmann); wfm		numerous combination preparations; wfm	Veripaque (Winthrop); wfm
Vinco-Abführperlen (Krehayn); wfm	F:	Laxénia (Dumesny)-comb.; wfm	USA: Isocrin (Warner Chilcott); wfm
	GB:	Bydolax (Moore); wfm	Lavema (Winthrop); wfm

Oxyphenonium bromide

ATC: A03AB03

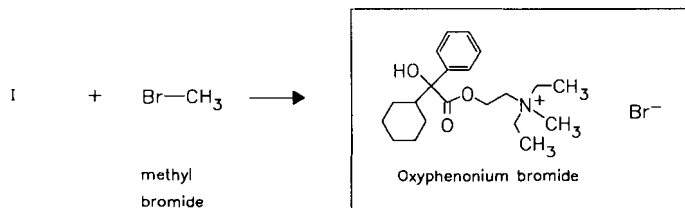
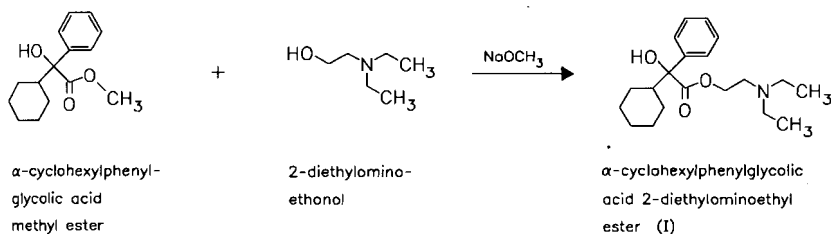
Use: anticholinergic, antispasmodic

RN: 50-10-2 MF: C₂₁H₃₄BrNO₃ MW: 428.41 EINECS: 200-010-7

LD₅₀: 30 mg/kg (M, i.v.); 400 mg/kg (M, p.o.);

13.2 mg/kg (R, i.v.); 995 mg/kg (R, p.o.)

CN: 2-[(cyclohexylhydroxyphenylacetyl)oxy]-N,N-diethyl-N-methylethanaminium bromide



Reference(s):

CH 259 958 (Ciba; appl. 1944).

Formulation(s): drg. 10 mg; tabl. 5 mg

Trade Name(s):

D:	Antrenyl (Ciba); wfm	Ossitetra Sciropo
GB:	Antrenyl (Ciba); wfm	(Pierrel); wfm
I:	Antrenil (Ciba); wfm	USA: Antrenyl (Ciba); wfm

Oxypyrronium bromide

ATC: A03AB

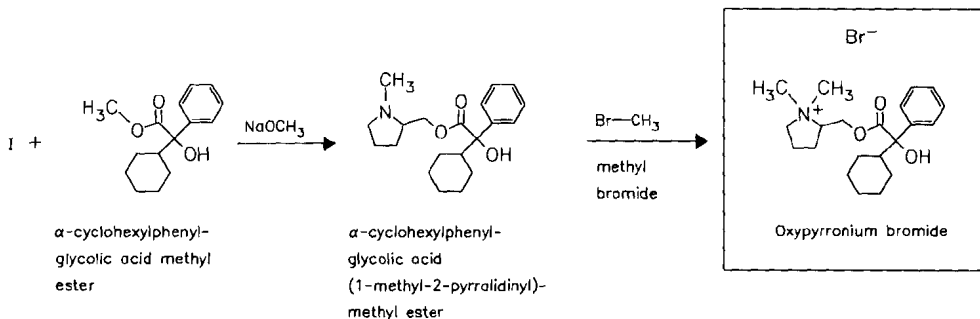
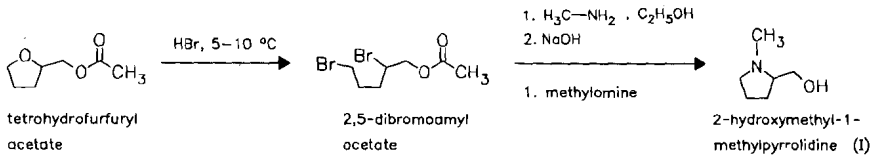
Use: anticholinergic, antispasmodic

RN: 561-43-3 MF: C₂₁H₃₂BrNO₃ MW: 426.40 EINECS: 209-219-8

LD₅₀: 18 mg/kg (M, i.v.); 1040 mg/kg (M, p.o.);

27.5 mg/kg (R, i.v.); 780 mg/kg (R, p.o.)

CN: 2-[[[(cyclohexylhydroxyphenylacetyl)oxy]methyl]-1,1-dimethylpyrrolidinium bromide

**Reference(s):**

GB 859 260 (Beecham; appl. 1957; valid from 1958).

2-hydroxymethyl-1-methylpyrrolidine:

GB 820 503 (Beecham; appl. 1956; valid from 1957).

Formulation(s): 3 mg, 6 mg

Trade Name(s):

F: Immetropan (Dausse); wfm J: Immetro (Fujisawa)

Oxyquinoline

(Oxine)

ATC: A01AB07; D08AH03; G01AC30; R02AA14

Use: antiseptic, disinfectant

RN: 148-24-3 MF: $\text{C}_9\text{H}_7\text{NO}$ MW: 145.16 EINECS: 205-711-1

LD₅₀: 20 g/kg (M, p.o.);
1200 mg/kg (R, p.o.)

CN: 8-quinolinol

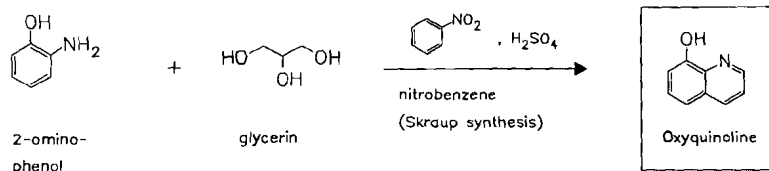
hydrochloride

RN: 16862-11-6 MF: $\text{C}_9\text{H}_7\text{NO} \cdot \text{HCl}$ MW: 181.62 EINECS: 240-884-7

sulfate (2:1)

RN: 134-31-6 MF: $\text{C}_9\text{H}_7\text{NO} \cdot 1/2\text{H}_2\text{SO}_4$ MW: 388.40 EINECS: 205-137-1

LD₅₀: 280 mg/kg (M, p.o.);
1200 mg/kg (R, p.o.)

**Reference(s):**

DRP 14 976 (Z. H. Skraup; 1881).

Formulation(s): vaginal jelly 0.025 % (as sulfate)

Trade Name(s):

D:	Antimycoticum Stulln (Stulln)-comb.; wfm	Nasalgon (Labopharma)- comb.; wfm	Quinocarbine (GNR- pharma)-comb.
	Aperisan Gel (Dentinox)- comb.; wfm	Onychofissan (Fink)- comb.; wfm	Uvéline (Crinex)
	Brand-u. Wundgel Herit (Engelhard)-comb.; wfm	Ovis (Warner)-comb.; wfm	GB: Aci-jel (Ortho-Cilag)- comb.; wfm
	Chinomint Plus (Chinosolfabrik)-comb.; wfm	Robumycon (Robugen)- comb.; wfm	I: Anticolitico Roberts (Manetti Roberts); wfm
	Chinosol (Chinosolfabrik)- comb.; wfm	Semori (Luitpold); wfm	Cortanol (Schiapparelli Farm.)-comb.; wfm
	Fungiderm (Terra-Bio)- comb.; wfm	Trachiform-V (Starke)- comb.; wfm	Foille (Isnardi)-comb.; wfm
		F: Chromargon (Richard)- comb.	Leucorsan (Zilliken)-comb.
		Dermacide (Labs. CS)- comb.	Viderm (Gerassini)-comb.
			USA: Aci-jel (Ortho-McNeil)- comb.

Oxytetracycline

ATC: D06AA03; G01AA07; J01AA06;
S01AA04

Use: antibiotic

RN: 79-57-2 MF: $C_{22}H_{24}N_2O_9$ MW: 460.44 EINECS: 201-212-8

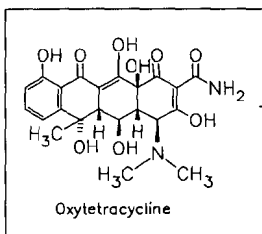
LD₅₀: 140 mg/kg (M, i.v.); 2240 mg/kg (M, p.o.);
260 mg/kg (R, i.v.); 4800 mg/kg (R, p.o.)

CN: [4S-(4 α ,4 α ,5 α ,5 α ,6 β ,12 α)]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,5,6,10,12,12a-hexahydroxy-6-methyl-1,11-dioxo-2-naphthacenecarboxamide

monohydrochloride

RN: 2058-46-0 MF: $C_{22}H_{24}N_2O_9 \cdot HCl$ MW: 496.90 EINECS: 218-161-2

LD₅₀: 100 mg/kg (M, i.v.); 6696 mg/kg (M, p.o.);
302 mg/kg (R, i.v.)



From fermentation solutions of *Streptomyces rimosus*.

Reference(s):

US 2 516 080 (Pfizer; 1950; prior. 1949).

Finlay, A.C. et al.: Science (Washington, D.C.) (SCIEAS) **111**, 85 (1950).

stabilized formulations:

US 3 017 323 (Pfizer; 16.1.1962; prior. 1952).

US 3 026 248 (Pfizer; 20.3.1962; prior. 11.9.1959).

BE 861 855 (Philips; appl. 14.12.1977; GB-prior. 16.12.1976).

Formulation(s): cps. 250 mg, 500 mg; eye ointment 10 mg/g; ointment 10 mg/g; vial 5 ml (as hydrochloride)

Trade Name(s):

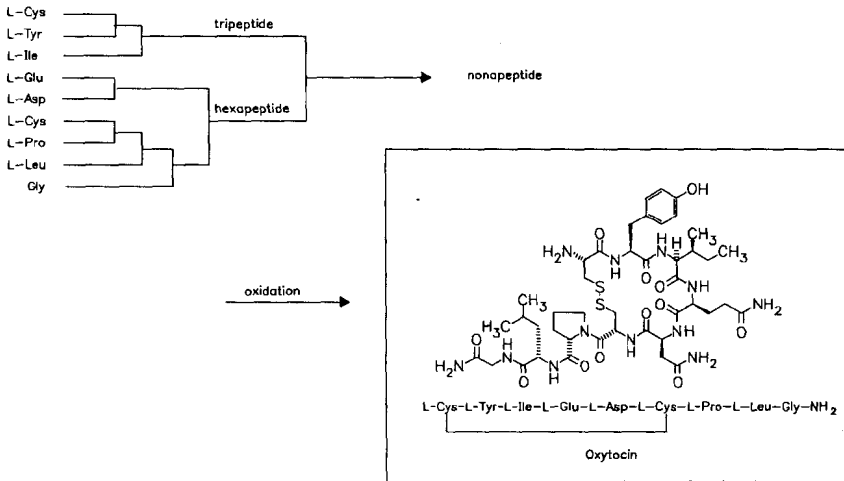
<p>D: Bisolvomycin (Boehringer Ing.)-comb. with bromhexine Corti Biciron (S & K Pharma)-comb. with tramazoline Corti Biciron Augensalbe (S & K Pharma)-comb. with dexamethasone 21-isonicotinate Dura Tetracyclin (durachemie) Macocyn (Mack) Oxytetracyclin Augensalbe Jenapharm (Alcon; Jenapharm) Oxytetracyclinsalbe (Leyh) Terracortil (Pfizer)-comb. with hydrocortisone</p>	<p>F: Auricularum (Sérolam)-comb. Posicycline (Alcon) Primyxine (Thera France)-comb. Ster-Dex (CIBA Vision Ophthalmics)-comb.</p>	<p>Terramycin (Pfizer)-comb. Terramycin/Depot (Pfizer) Terravenös (Pfizer) Tetracycletten (Voigt) Tetra-Gelomyrtol (Pohl)-comb. Tetra-Tablinen (Beiersdorf-Tablinen) Tetra-Tablinen (Sanorania) Vendarcin (Schering) numerous combination preparations USA: Terra-Cortril (Pfizer) Terramycin (Pfizer) Urobiotic-250 (Pfizer)</p>	<p>GB: Stecsolin (Squibb) Terra-cortril (Pfizer)-comb. Terramycin (Pfizer)-comb. Trimovate (Glaxo Wellcome)-comb. I: Cosmicialina (Alfa Intes)-comb. J: Geomycin (Otsuka) Oxeten (Mochida) Terramycin (Taito Pfizer) I: Cosmicialina (Alfa Intes)-comb. J: Geomycin (Otsuka) Oxeten (Mochida) Terramycin (Taito Pfizer) USA: Terra-Cortril (Pfizer) Terramycin (Pfizer) Urobiotic-250 (Pfizer)</p>
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Oxytocin

ATC: H01BB02
Use: posterior lobe of pituitary gland hormone

RN: 50-56-6 MF: C₄₃H₆₆N₁₂O₁₂S₂ MW: 1007.21 EINECS: 200-048-4
LD₅₀: 5800 µg/kg (M, i.v.); >514 mg/kg (M, p.o.);
2275 µg/kg (R, i.v.); >20.52 mg/kg (R, p.o.)

CN: L-cysteinyl-L-tyrosyl-L-isoleucyl-L-glutaminyl-L-asparaginyl-L-cysteinyl-L-prolyl-L-leucylglycinamide cyclic (1→6)-disulfide



(only schematic)
In each case by use of S- and N-trityl groups.

Reference(s):

US 2 938 891 (Roussel-Uclaf; 31.5.1960; F-prior. 30.3.1956).

US 3 076 797 (Roussel-Uclaf; 5.2.1963; F-prior. 22.7.1957).

Formulation(s): amp. 3 iu/ml, 5 iu/ml, 10 iu/ml; spray 40 iu/ml*Trade Name(s):*

D: Orasthin (Hoechst)	F: Synthocinon (Novartis)	Pitocin (Sankyo)
Oxytocin Hexal (Hexal)	GB: Syntocinon (Novartis)	Pituitan (Nippon Zoki)
Oxytocin-Noury (Nourypharma)	Syntometrine (Novartis)- comb.	Syntocinon (Sandoz- Sankyo)
Syntocinon (Novartis Pharma)	I: Syntocinon (Novartis Farma)	USA: Pitocin (Parke Davis)
Syntometrin (Novartis Pharma)-comb.	J: Atonin-O (Teikoku Zoki) Orasthin (Hoechst)	

Ozagrel

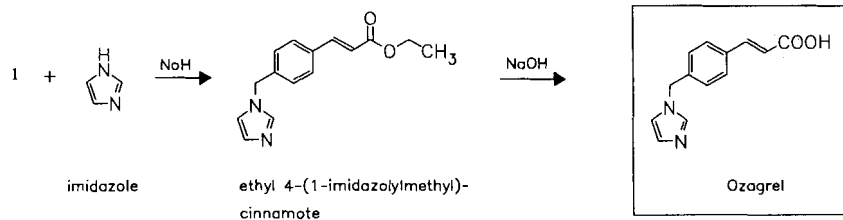
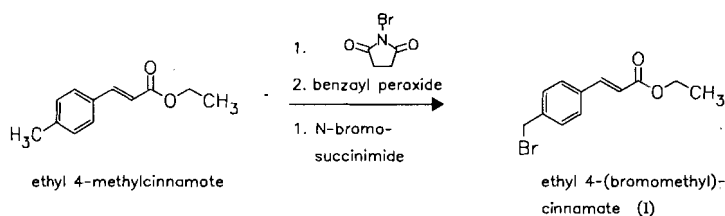
(OKY-046)

ATC: B01AC

Use: thromboxane synthetase inhibitor,
platelet aggregation inhibitorRN: 82571-53-7 MF: $C_{13}H_{12}N_2O_2$ MW: 228.25LD₅₀: 1940 mg/kg (Mm, i.v.); 1580 mg/kg (Mf, i.v.); 3800 mg/kg (M, p.o.);

1150 mg/kg (Rm, i.v.); 1300 mg/kg (Rf, i.v.); 5900 mg/kg (R, p.o.)

CN: (E)-3-[4-(1H-imidazol-1-ylmethyl)phenyl]-2-propenoic acid

monohydrochloride monohydrateRN: 83993-01-5 MF: $C_{13}H_{12}N_2O_2 \cdot HCl \cdot H_2O$ MW: 282.73**monohydrochloride**RN: 78712-43-3 MF: $C_{13}H_{12}N_2O_2 \cdot HCl$ MW: 264.71*Reference(s):*

US 4 226 878 (Kissei, Ono; 7.10.1980; J-prior. 13.6.1978).

DOS 2 923 815 (Ono; appl. 12.6.1979; J-prior. 13.6.1978).

Iizuka, K. et al.: J. Med. Chem. (JMCMAR) **24**, 1139 (1981).

synthesis of ethyl 4-(bromomethyl)cinnamate:

DOS 2 755 759 (Merck & Co.; appl. 14.12.1977; USA-prior. 17.12.1976).

Formulation(s): amp. 20 mg

Trade Name(s):

J: Cataclot (Ono; 1988)

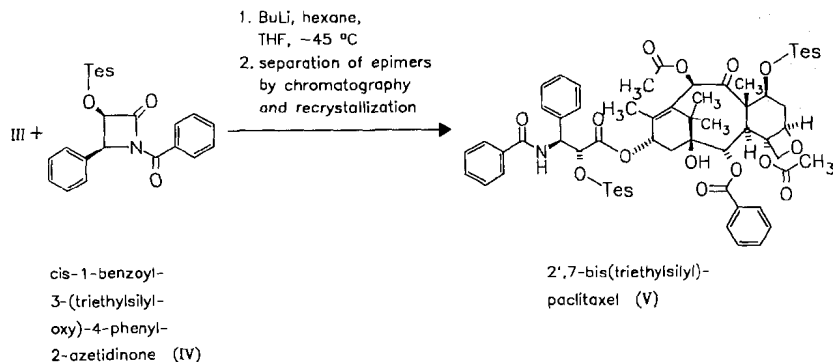
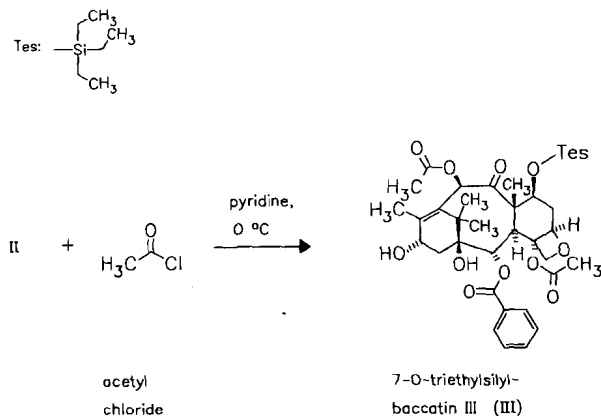
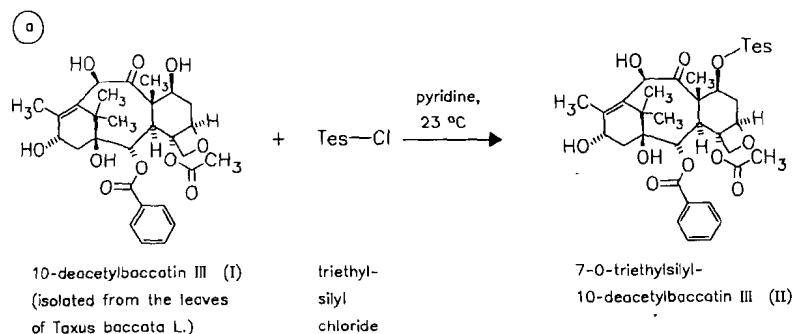
Xanbon (Kissei; 1988)

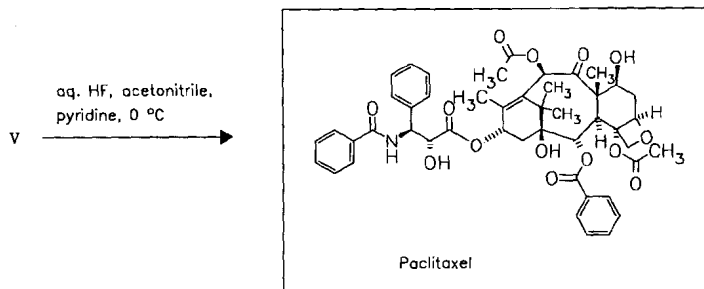
Paclitaxel

(BMS-181339; NSC-125973)

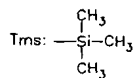
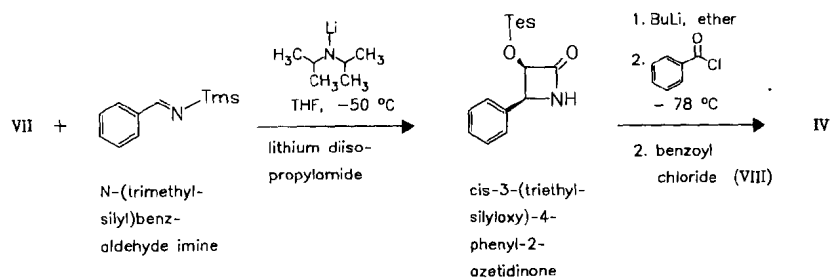
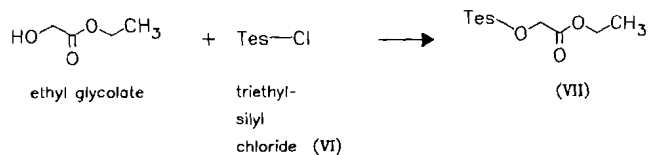
ATC: L01CD01

Use: antineoplastic

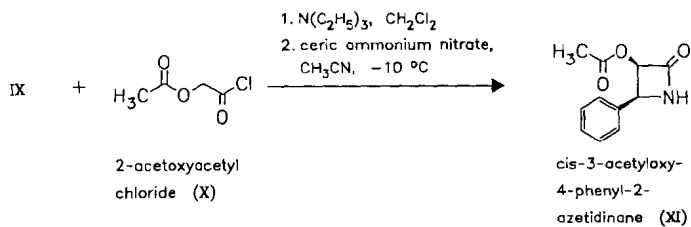
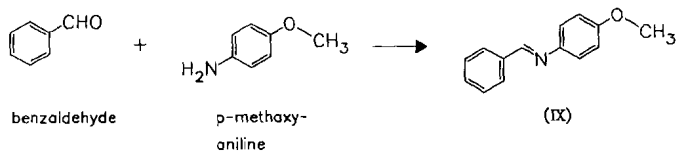
RN: 33069-62-4 MF: $C_{47}H_{51}NO_{14}$ MW: 853.92CN: [2aR-[2a α ,4 β ,4a β ,6 β ,9 α (αR^* , βS^*),11 α ,12 α ,12a α ,12b α]]- β -(benzoylamino)- α -hydroxybenzenepropanoic acid 6,12b-bis(acetyloxy)-12-(benzyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-4,11-dihydroxy-4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1*H*-cyclodeca[3,4]benz[1,2-c]oxet-9-yl ester

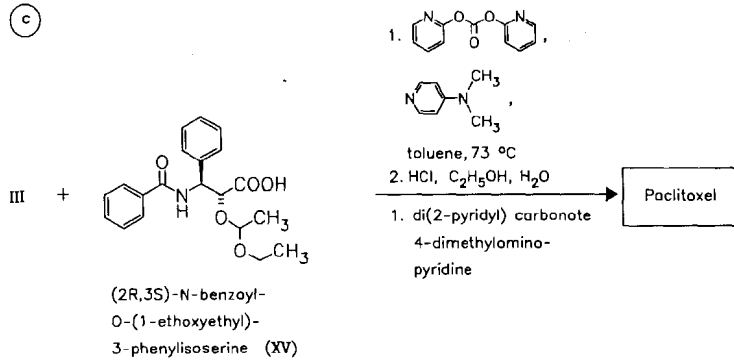
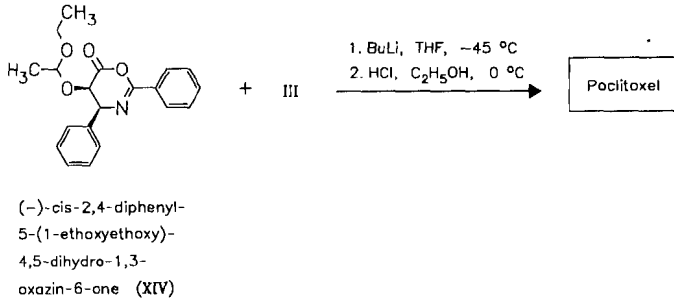
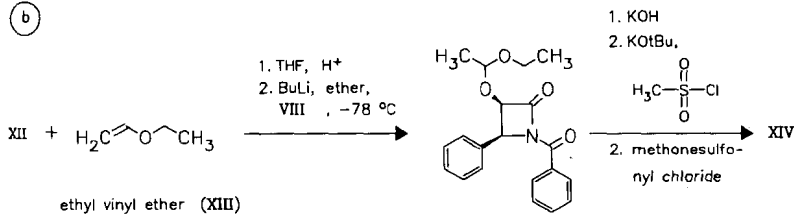
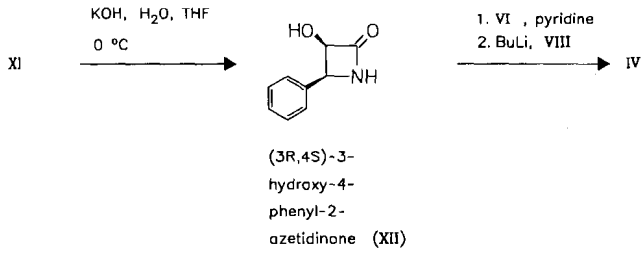


(aa) synthesis of IV:

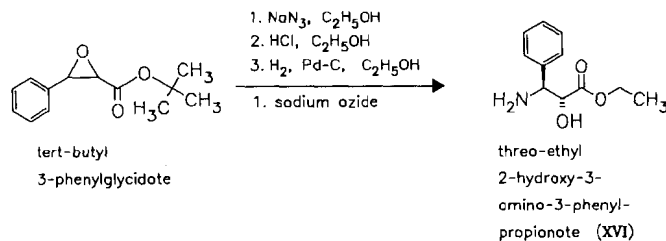


(ab)

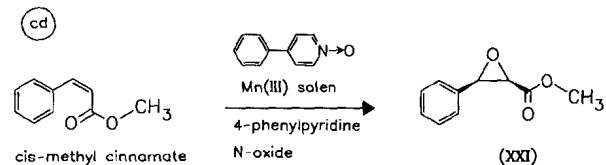
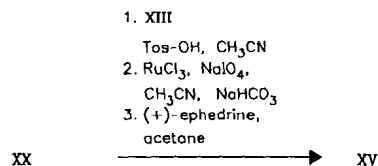
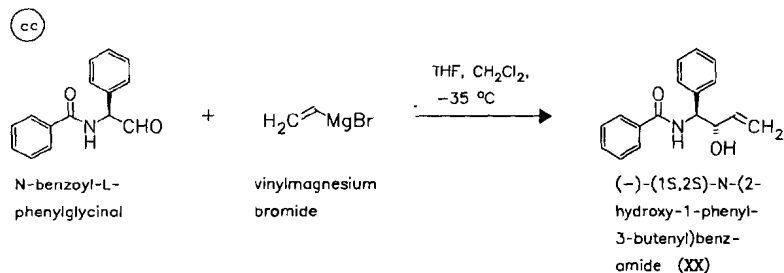
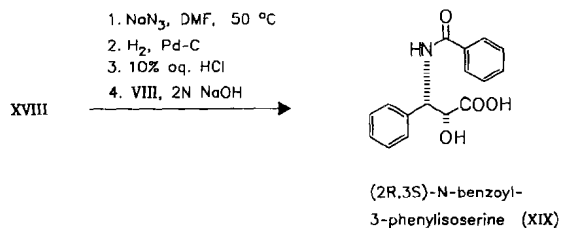
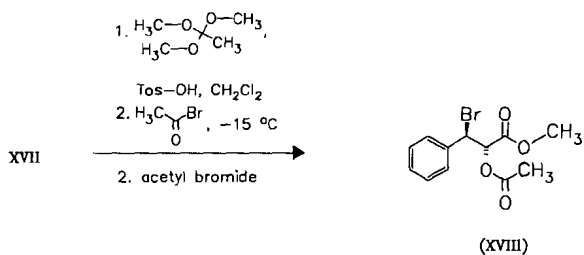
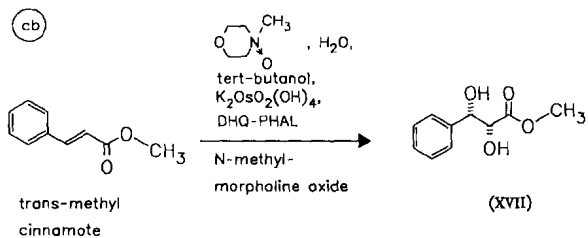
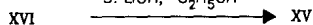


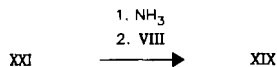


(ca) synthesis of intermediate XV (or unprotected analogues)
(for more 3-phenylisoserine syntheses see Docetaxel)

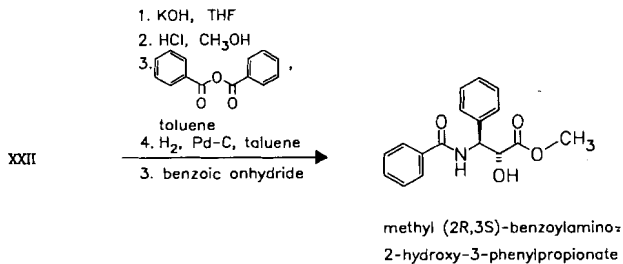
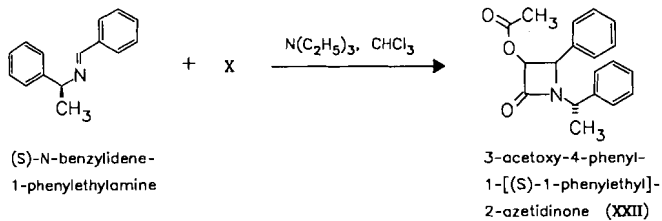


- VIII
- XIII
- LiOH, C₂H₅OH

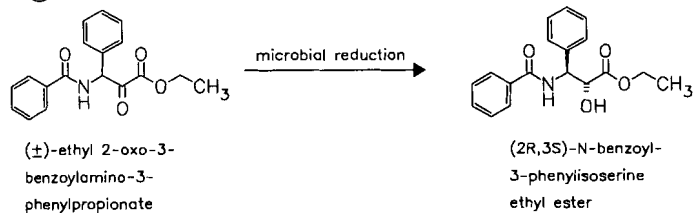




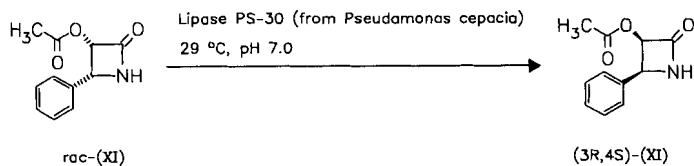
(ce)



(cf)



(cg)



Reference(s):

- a** Denis, J.N. et al.: J. Am. Chem. Soc. (JACSAT) **110**, 5917-5919 (1988).
WO 9 306 094 (Florida State Univ.; appl. 22.9.1992; USA-prior. 3.4.1992, 23.9.1991).
George, G.I. et al.: J. Med. Chem. (JMCMAR) **35**, 4230-4237 (1992).
- aa** US 5 015 744 (Florida State Univ.; appl. 14.11.1989).
Georg, G.I. et al.: Bioorg. Med. Chem. Lett. (BMCLE8) **3**, 2467-2470 (1993).
- ab** WO 9 418 164 (Univ. New York State; appl. 28.1.1994; USA-prior. 1.2.1993).
Ojima, I. et al.: J. Org. Chem. (JOCEAH) **56**, 1681-1683 (1991).
Holton, R.A. et al.: Bioorg. Med. Chem. Lett. (BMCLE8) **3**, 2475 (1993).
- b** US 5 254 703 (Florida State Univ.; appl. 6.4.1992; USA-prior. 6.4.1992).
EP 428 376 (Florida State Univ.; appl. 13.11.1990; USA-prior. 14.11.1989).
- c** Denis, J.N. et al.: J. Am. Chem. Soc. (JACSAT) **110**, 5917-5919 (1988).
- ca** Denis, J.N. et al.: J. Org. Chem. (JOCEAH) **51**, 46-50 (1986).
- cb** Sharpless, B. et al.: J. Org. Chem. (JOCEAH) **59**, 5104 (1994).
- cc** Denis, J.N. et al.: J. Org. Chem. (JOCEAH) **56**, 6939 (1991).
EP 528 729 (Rhône-Poulenc Rorer; appl. 17.8.1992; F-prior. 19.8.1991).
- cd** Deng, L. et al.: J. Org. Chem. (JOCEAH) **57**, 4320-4323 (1992).
Denis, J.N. et al.: J. Org. Chem. (JOCEAH) **55**, 1957 (1990).
- ce** WO 9 317 997 (Rhône-Poulenc Rorer; appl. 16.9.1993; F-prior. 10.3.1992).
WO 9 422 813 (Rhône-Poulenc Rorer; appl. 25.3.1994; F-prior. 29.3.1993).
- cf** Pabel, R.N. et al.: Tetrahedron: Asymmetry (TASYE3) **33**, 5185-5188 (1993).
- cg** Pabel, R.N. et al.: Biotechnol. Appl. Biochem. (BABIEC) **20**, 23-33 (1994).

further chemoenzymatic resolutions:

- Hoening, H. et al.: Tetrahedron (TETRAB) **46**, 3841-50 (1990).
Gonet, D.-M. et al.: J. Org. Chem. (JOCEAH) **58**, 1287-1289 (1993).
Brieva, R. et al.: J. Org. Chem. (JOCEAH) **58**, 1068 (1993).

esterification:

- Commercon, A. et al.: Tetrahedron Lett. (TELEAY) **33**, 5185 (1992).

reviews:

- Hepperle, M.; Georg, G.I.: Drugs Future (DRFUD4) **19**, 573-584 (1994).
Georg, G.I. et al.: Expert Opin. Ther. Pat. (EOTPEG) **4**, 109-120 (1994).
Nicolaou, K.C. et al.: Angew. Chem. (ANCEAD) **107**, 2247-2259 (1995).

total synthesis of taxanes:

- Holton, R.A. et al.: J. Am. Chem. Soc. (JACSAT) **116**, 1599-1600 (1994).
Masters, J.J. et al.: Angew. Chem. (ANCEAD) **107**, 1883 (1995).
Nicolaou, K.C. et al.: Nature (London) (NATUAS) **367**, 630-634 (1994).
US 5 274 137 (K. C. Nicolaou et al.; appl. 23.6.1992; USA-prior. 23.6.1992).
Wessjohann, L.: Angew. Chem. (ANCEAD) **106**, 1011 (1994).

purification of 10-deacetylbaaccatin III:

- WO 9 421 622 (Rhône-Poulenc Rorer; appl. 18.3.1994; F-prior. 22.3.1993).

production of taxanes from explant tissue:

- EP 568 821 (Squibb; appl. 6.4.1993; USA-prior. 7.4.1992).

liposome formulation:

- US 5 415 869 (Univ. New York State; appl. 12.11.1993; USA-prior. 12.11.1993).

cyclodextrine complexes:

- WO 9 426 728 (Chinoïn; appl. 9.5.1994; HU-prior. 12.5.1993).

use against protozoa:

- WO 9 412 172 (Th. Jefferson Univ.; appl. 2.12.1993; USA-prior. 2.12.1992, 26.1.1993).

Formulation(s): vial 30 mg/5 ml

Trade Name(s):

D:	Taxol (Bristol-Myers Squibb)	GB:	Taxol (Bristol-Myers Squibb)	J:	Taxol (Bristol-Myers Squibb)
F:	Taxol (Bristol-Myers Squibb)	I:	Taxol (Bristol-Myers Squibb)	USA:	Taxol (Bristol-Myers Squibb)

Pamidronic acid

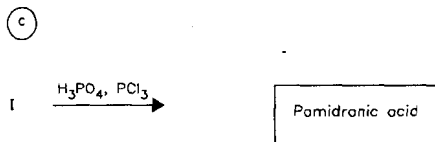
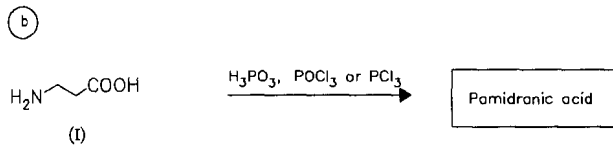
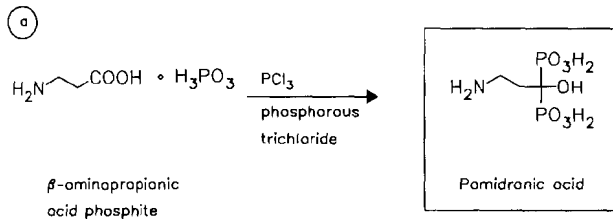
(APD)

ATC: M05BA03

Use: calcium metabolism regulator (treatment of Paget's disease, hypercalcemia of malignancy)

RN: 40391-99-9 MF: C₃H₁₁NO₇P₂ MW: 235.07 EINECS: 254-905-2

CN: (3-amino-1-hydroxypropylidene)bis(phosphonic acid)

disodium saltRN: 57248-88-1 MF: C₃H₉NNa₂O₇P₂ MW: 279.03 EINECS: 260-647-1*Reference(s):*

- a DOS 2 130 794 (Benckiser; appl. 22.6.1971).
 b DOS 2 658 961 (Benckiser; appl. 24.12.1976).
 DOS 2 943 498 (Henkel; appl. 27.10.1981).
 c EP 82 472 (Henkel; appl. 15.12.1982; D-prior. 23.12.1981).

crystalline disodium salt:

JP 61 043 196 (Ciba-Geigy; appl. 6.8.1984).

controlled-release granule:

CA 2 024 631 (Ciba-Geigy; appl. 7.9.1989).

pharmaceutical formulation of disodium pamidronate for controlling calcium deposition and treatment of calcium metabolism disorders:

- DOS 2 405 254 (Henkel; appl. 4.2.1974).
 DOS 2 553 963 (Henkel; appl. 1.12.1975).
 AT 538 311 (Henkel; appl. 2.1.1981).

topical pharmaceutical formulation:

EP 407 345 (Ciba-Geigy, Henkel; appl. 28.6.1990; CH-prior. 7.7.1989).

synergistic combination with cytostatics:

DOS 3 804 686 (Henkel, DKFZ; appl. 15.2.1988).

Formulation(s): amp. 15 mg/5 ml, 30 mg/5 ml, 60 mg/5 ml, 90 mg/5 ml, 15 mg/10 ml, 30 mg/10 ml, 60 mg/10 ml, 90 mg/10 ml (as disodium salt)

Trade Name(s):

GB: Aredia (Novartis; 1989) J: Aredia (Ciba-Geigy)

I: Aredia (Novartis Farma) USA: Aredia (Novartis)

Pancuronium bromide

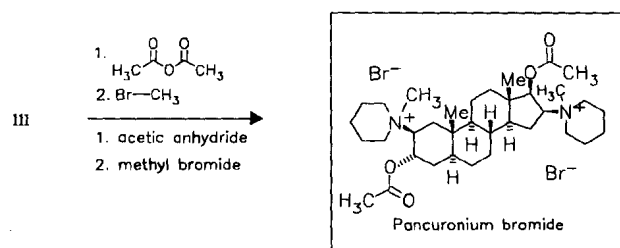
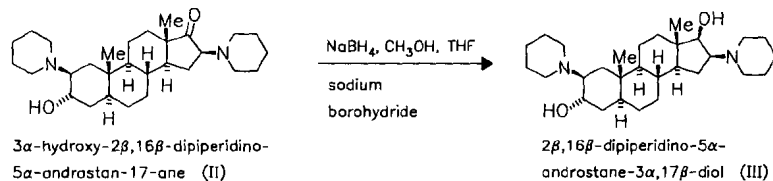
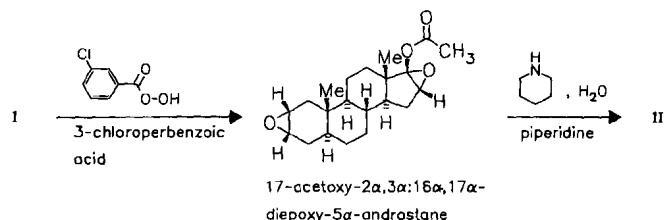
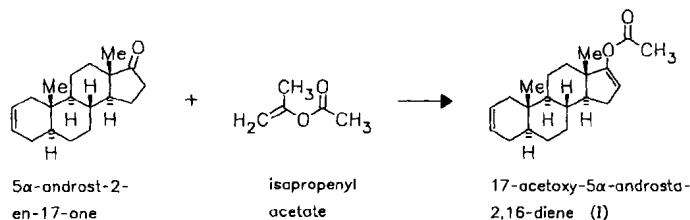
ATC: M03AC01

Use: ganglionic blocker, anticonvulsant

RN: 15500-66-0 MF: $C_{35}H_{60}Br_2N_2O_4$ MW: 732.68 EINECS: 239-532-5LD₅₀: 13 µg/kg (M, i.v.); 21.2 mg/kg (M, p.o.);

153 µg/kg (R, i.v.); 202 mg/kg (R, p.o.)

CN: 1,1'-[(2β,3α,5α,16β,17β)-3,17-bis(acetyloxy)androstane-2,16-diyl]bis[1-methylpiperidinium] dibromide



Reference(s):

NL-appl. 6 602 098 (Organon; appl. 17.2.1966; GB-prior. 19.2.1965).
 US 4 177 190 (Richter Gedeon; 4.12.1979; H-prior. 1.8.1975).

Formulation(s): amp. 1 mg/ml, 4 mg/2 ml, 8 mg/4 ml; vial 10 mg

Trade Name(s):

D:	Pancuronium Curamed (Schwabe-Curamed)	Pancuronium ratiopharm (ratiopharm)	GB:	Pavulon (Organon Teknika)	
	Pancuronium "Organon" Amp. (Organon Teknika)	F:	Pavulon (Organon Teknika); wfm	I:	Pavulon (Organon Teknika)
				J:	Myoblock (Sankyo)
				USA:	Pavulon (Organon)

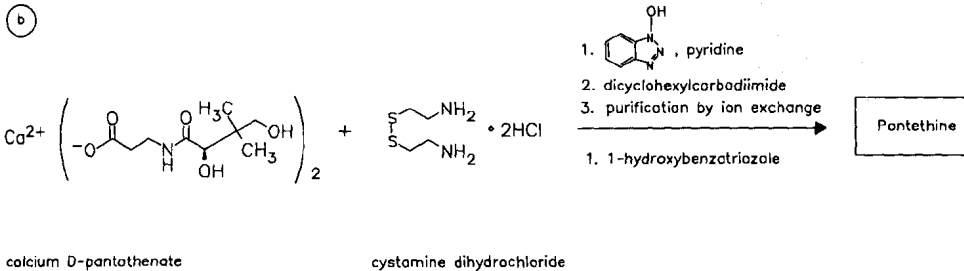
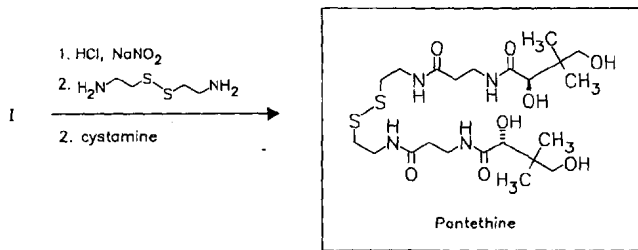
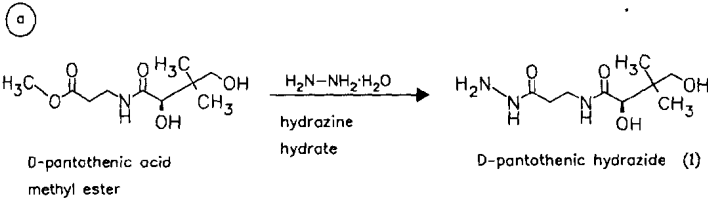
Pantethine

ATC: A11HA32
 Use: growth factor

RN: 16816-67-4 MF: C₂₂H₄₂N₄O₈S₂ MW: 554.73 EINECS: 240-842-8

LD₅₀: 3400 mg/kg (M, i.v.); >10 g/kg (M, p.o.);
 3410 mg/kg (R, i.v.); >10 g/kg (R, p.o.)

CN: [R-(R*,R*)]-N,N'-[dithiobis[2,1-ethanediyylimino(3-oxo-3,1-propanediyl)]]bis[2,4-dihydroxy-3,3-dimethylbutanamide]



Reference(s):

a US 2 625 565 (Parke Davis; 1953; appl. 1951).
 b DAS 2 638 555 (Sago Pharmaceutical; appl. 26.8.1976; J-prior. 25.5.1976).

*alternative syntheses:*Wieland; Bokelmann: *Naturwissenschaften (NATWAY)* **38**, 384 (1950).Wittle et al.: *J. Am. Chem. Soc. (JACSAT)* **75**, 1694 (1953).Viscontini et al.: *Helv. Chim. Acta (HCACAV)* **37**, 375 (1954).Bowman; Cavalla: *J. Chem. Soc. (JCSOA9)* **1954**, 1171.Shimizu et al.: *Chem. Pharm. Bull. (CPBTAL)* **13**, 180 (1965).*Formulation(s):* cps. 300 mg; tabl. 60 mg*Trade Name(s):*

I:	Analip (Iketon)	Pantetina (Sanofi)
	Carpantin (Sanofi)	Winthrop)
	Winthrop)-comb.	J: Pantosin (Daiichi)

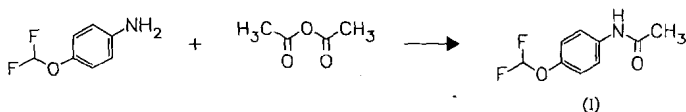
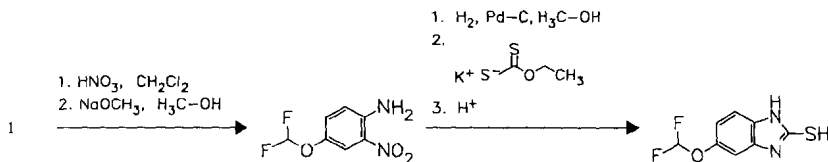
Pantoprazole sodium

(BY-1023; B 8510-29; SK & F-96022)

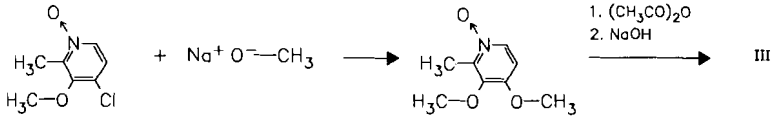
ATC: A02BC02; A02BD04

Use: antisecretory, gastric H⁺/K⁺-ATPase inhibitorRN: 138786-67-1 MF: C₁₆H₁₄F₂N₃NaO₄S MW: 405.36LD₅₀: 1000 mg/kg (M, p.o.)

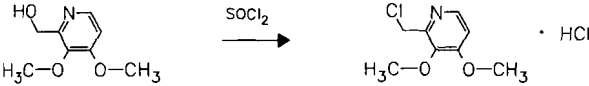
CN: 5-(difluoromethoxy)-2-[[[(3,4-dimethoxy-2-pyridinyl)methyl]sulfinyl]-1H-benzimidazole sodium salt

hydrateRN: 164579-32-2 MF: C₁₆H₁₄F₂N₃NaO₄S · 3/2H₂O MW: 864.76**(+)-isomer**RN: 160098-11-3 MF: C₁₆H₁₄F₂N₃NaO₄S MW: 405.36**(-)-isomer**RN: 160488-53-9 MF: C₁₆H₁₄F₂N₃NaO₄S MW: 405.36**racemate**RN: 142678-34-0 MF: C₁₆H₁₄F₂N₃NaO₄S MW: 405.36**intermediate II**4-(difluoromethoxy)-
aniline

intermediate IV



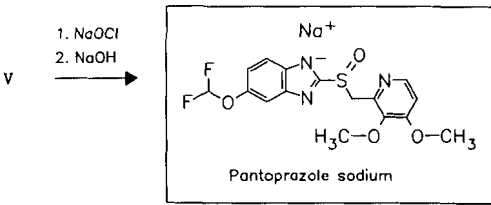
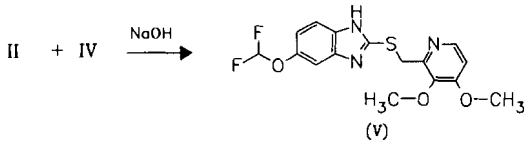
4-chloro-3-methoxy-
2-methylpyridine
N-oxide



2-hydroxymethyl-
3,4-dimethoxy-5-methyl-
pyridine (III)

2-chloromethyl-
3,4-dimethoxy-
5-methyl-
pyridinium chloride (IV)

Pantoprazole sodium



Reference(s):

preparation of pantoprazole:

EP 134 400 (Byk Gulden Lomberg; appl. 1.5.1984; CH-prior. 3.5.1983).

inhibitors of gastric acid secretion useful for treating and preventing ulcers:

EP 166 287 (Byk Gulden Lomberg; CH-prior. 16.6.1984).

US 4 758 579 (Byk Gulden Lomberg; 19.7.1988; CH-prior. 16.6.1984).

nonhygroscopic monohydrate salt:

DE 4 018 642 (Byk Gulden Lomberg; appl. 12.12.1991; D-prior. 11.6.1990).

pantoprazole sodium sesquihydrate lyophilisates:

DE 4 324 014 (Byk Gulden Lomberg; D-prior. 17.7.1993).

oral multiple-unit tablet for treatment of gastrointestinal inflammation:

WO 9 601 624 (Astra; appl. 25.1.1996; S-prior. 8.7.1994).

pharmaceutical compositions for inhibition of gastric acid secretion in animals:

WO 9 425 070 (Astra; appl. 10.11.1994; S-prior. 30.4.1993).

new pantoprazole tablets and pellets:

EP 519 365 (Byk Gulden Lomberg; appl. 23.12.1992; CH-prior. 17.6.1991; HU-prior. 13.6.1992).

treating viral infections such as herpes infections by H⁺/K⁺- or ATPase-inhibitors:

WO 9 529 897 (Searle & Co.; appl. 9.11.1995; USA-prior. 29.4.1994).

use of (-)-pantoprazole for treating gastric disorders:
 WO 9 424 867 (Sepracor Inc.; appl. 10.11.1994; USA-prior. 27.4.1993).

use of (+)-pantoprazole for treating gastric disorders:
 WO 9 425 028 (Sepracor Inc.; appl. 10.11.1994; prior. 27.4.1993).

rectal antiulcer composition containing benzimidazole derivatives:
 EP 645 140 (Takeda Chem. Ind.; appl. 29.3.1995; J-prior. 30.3.1994, 31.8.1995).

synthesis of 3,4-dialkoxy pyridines:
 AT 394 368 (Byk Gulden Lomberg; appl. 25.3.1992; A-prior. 4.8.1990).

Formulation(s): amp. 40 mg; tabl. 40 mg

Trade Name(s):

D:	Pantozol (Byk Gulden)	F:	Inipaup (Synthélabo)
	Rifun (Sanol, Schwarz Pharma)	USA:	Protonix (American Home Products)

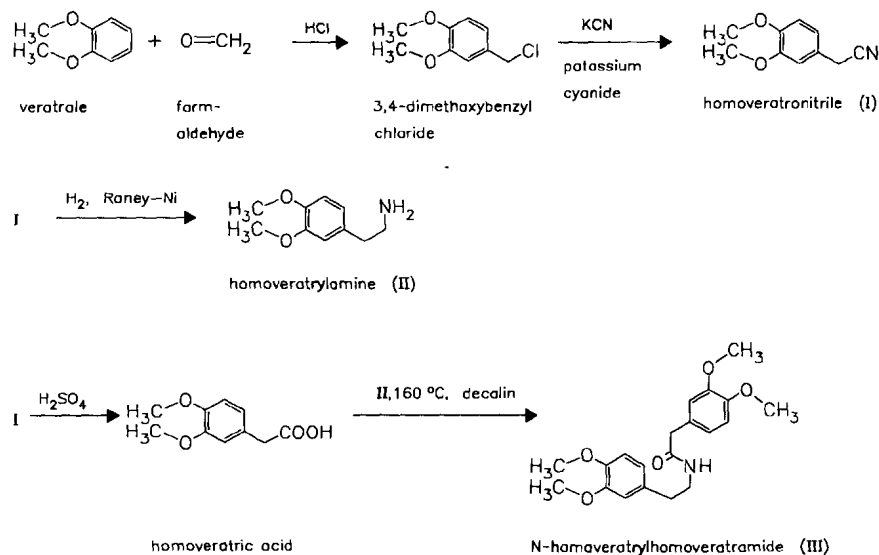
Papaverine

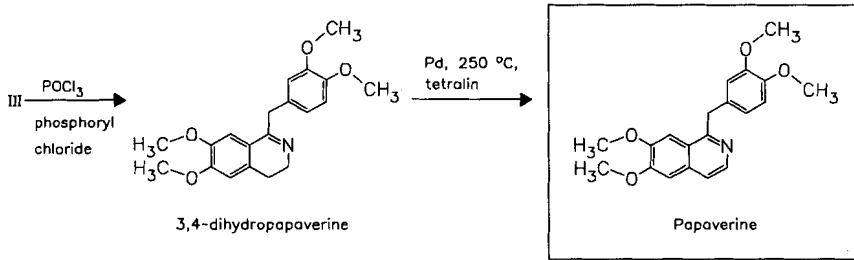
ATC: G04BE02; G04BE52
 Use: antispasmodic, vasodilator

RN: 58-74-2 MF: C₂₀H₂₁NO₄ MW: 339.39 EINECS: 200-397-2
 LD₅₀: 25 mg/kg (M, i.v.); 162 mg/kg (M, p.o.);
 13.3 mg/kg (R, i.v.); 325 mg/kg (R, p.o.)
 CN: 1-[(3,4-dimethoxyphenyl)methyl]-6,7-dimethoxyisoquinoline

hydrochloride

RN: 61-25-6 MF: C₂₀H₂₁NO₄ · HCl MW: 375.85 EINECS: 200-502-1
 LD₅₀: 14.4 mg/kg (M, i.v.); 130 mg/kg (M, p.o.);
 20 mg/kg (R, i.v.); 68.8 mg/kg (R, p.o.)



**Reference(s):**

Budesinsky-Protiva, 87.

combination with adenosin monophosphate:

US 3 823 234 (C.E.R.M.; 9.7.1974; F-prior. 16.5.1971).

Formulation(s): amp. 60 mg/2 ml; multiple-dose vial 30 mg/ml**Trade Name(s):**

D:	Artegodan (Artesan); wfm	Vascleran (Klinge)-comb.;	I:	Antispasmina (Recordati)-
	Atropaverin (Saemann);	wfm		comb.
	wfm	numerous combination		Monotran (Sankyo
	Nyxanthan (Abbott)-comb.;	preparations		Pharma)-comb.
	wfm	F: Acticarbine (Warner-	J:	Papermin Inj. (Sanwa)-
	Optenyl (Stroschein); wfm	Lambert)-comb.		comb.
	Panergon (Mack); wfm	Albatran (Beaufour)		numerous generic
	Papaverin Hameln	Oxadilène (Evans		preparations
	(Hameln); wfm	Medical)-comb.	USA:	Papaverine Hydrochloride
	Paveron (Karlspharma);	Papavérine Aguettant		(Lilly; as hydrochloride)
	wfm	(Aguettant)		
	Spastretten (Tropon); wfm	GB: Aspace (Hoechst)-comb.		

Paracetamol

(Acetaminophenol)

ATC: N02BE01

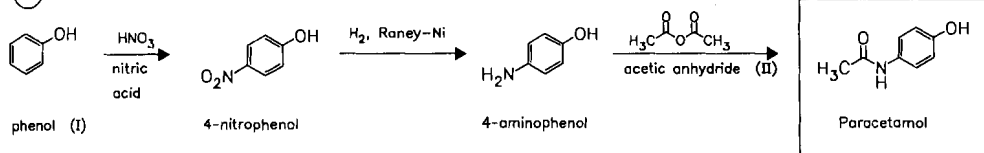
Use: analgesic, antipyretic

RN: 103-90-2 MF: C₈H₉NO₂ MW: 151.17 EINECS: 203-157-5LD₅₀: 338 mg/kg (M, p.o.);

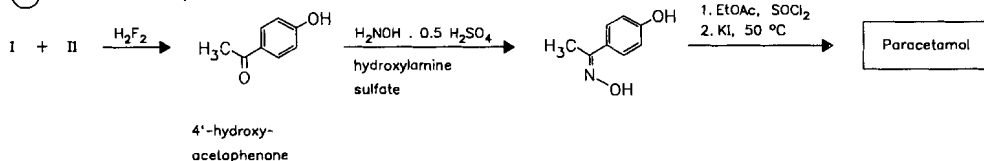
2404 mg/kg (R, p.o.)

CN: N-(4-hydroxyphenyl)acetamide

(a) classical route:



(b) Hoechst-Celanese process:



Reference(s):

Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. 13, 297.
 Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 7, 543.
 US 2 998 450 (Warner-Lambert; 1961; appl. 1958).
 DAS 2 121 164 (Howard Hall; appl. 29.4.1971; USA-prior. 29.4.1970).

acetylation with ketene:

DRP 453 577 (M. Bergmann; appl. 1925).

pharmaceutical formulations:

US 4 097 606 (Bristol-Myers; 27.6.1978; appl. 8.10.1975).

combination with phenyltoloxamine:

US 3 173 835 (Endo; 16.3.1965; appl. 19.3.1963).

Formulation(s): cps. 500 mg; powder 500 mg, 600 mg; sol. 200 mg/5 ml; suppos. 125 mg, 250 mg, 500 mg, 1 g; susp. 125 mg, 250 mg, 500 mg, 1000 mg; syrup 120 mg/5 ml, 200 mg/5 ml, 2 g/100 ml; tabl. 200 mg, 270 mg, 350 mg, 500 mg

Trade Name(s):

D:	Ben-u-ron (bene-Arznemittel)		Paracétamol SmithKline Beecham (SmithKline Beecham)		Fluental (Camillo Corvi)-comb.
	Captin (Krewel Meuselbach)		combination preparations		Fluvaleas (Valeas)-comb.
	Doregrippin (Rentschler)-comb.	GB:	Alvedon (Novex)		Lonarid (Boehringer Ing.)-comb.
	Enelfa (Dolorgiet)		Calpol (Warner-Lambert)		Migranet (Ogna)
	Mono Praecimed (Molimin)		Disprol (Reckitt & Colman)		Neofepamol (Istoria)
	nilnOcen (Zeppenfeldt)		Medinol (Seton)		Neouniplus (Angelini)-comb.
	Paedialgon (Cephasaar)		Panaleve (Pinewood)		Neoneoral (Hoechst Marion Roussel)-comb.
	Paracetamol (Hexal; Heumann; Stada)		Salzone (Wallace)		Omniadol (Montefarmaco)-comb.
	Paracetamol-ratiopharm (ratiopharm)	I:	further combination preparations		Panadol (Maggioni)
	Pyromed (Sanofi Winthrop)		Acetamol (Abiogen Pharma)		Saridon (Roche)-comb.
	RubieMol (RubiePharm)		Alsogil (Also)-comb.		Tachipirina (Angelini)
	Togal (Togal)		Antiflu (Byk Gulden)-comb.		Verdal (Falqui)-comb.
	Treupel P (ASTA Medica AWD)		Antinevralgico Penegal (Fama)-comb.		Zerinol (Fher)-comb.
	numerous combination preparations		Baby Rinolo (Lepetit)-comb.	J:	numerous generics and combination preparations
F:	Aféradol Oberlin (Oberlin)		Doloflex (Byk Gulden)-comb.	USA:	Pyrinazin (Yamanouchi)
	Dafalgan (UPSA)		Efferalgan (Ursamedica)		Phrenilin (Carrick)-comb.
	Doliprane (Théraplix)		Fluciwas (IFI)-comb.		Tylenol with Codeine (Ortho-McNeil)-comb.
	Efferalgan 500 /-pédiatrique (UPSA)				numerous combination preparations and generics

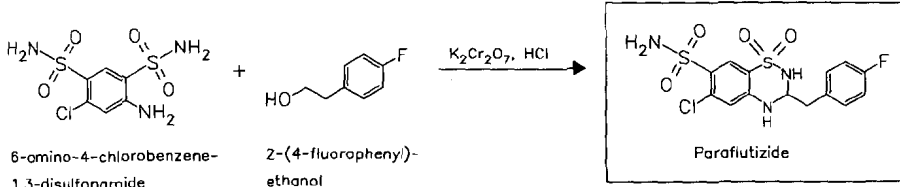
Paraflutizide

ATC: C03

Use: diuretic

RN: 1580-83-2 MF: C₁₄H₁₃ClFN₃O₄S₂ MW: 405.86 EINECS: 216-426-7

CN: 6-chloro-3-[(4-fluorophenyl)methyl]-3,4-dihydro-2H-1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide



Reference(s):
 GB 961 641 (Lab. Dausse; appl. 31.7.1962; F-prior. 31.7.1961).

Formulation(s): drg. 2.5 mg

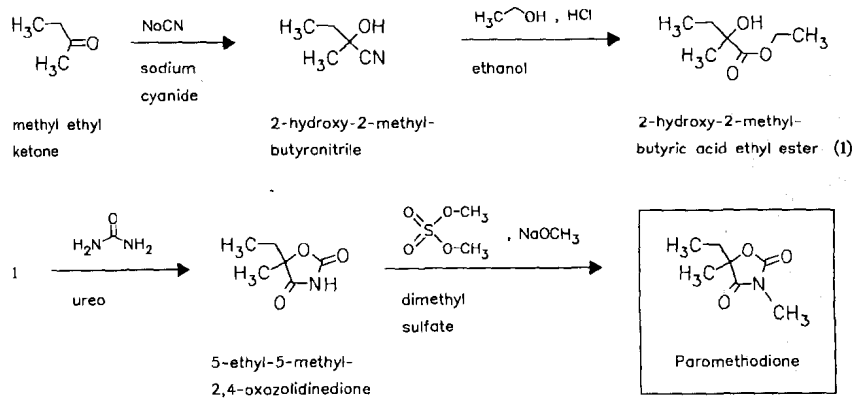
Trade Name(s):

D:	Detensitral (Karlspharma)- comb.; wfm	F:	Divimax (Dausse)-comb.; wfm	Tensitral (Dausse)-comb.; wfm
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Paramethadione
 (Isoethadione)

ATC: N03AC01
 Use: antiepileptic

RN: 115-67-3 MF: C₇H₁₁NO₃ MW: 157.17 EINECS: 204-098-8
 LD₅₀: 1 g/kg (M, p.o.)
 CN: 5-ethyl-3,5-dimethyl-2,4-oxazolinedione



Reference(s):
 US 2 575 693 (Abbott; 1951; appl. 1949).

Formulation(s): cps. 150 mg, 300 mg; drops 300 mg

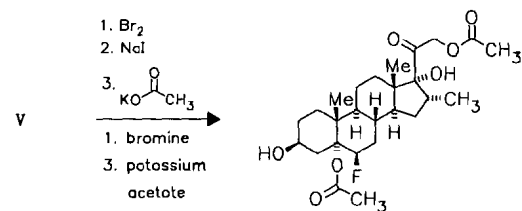
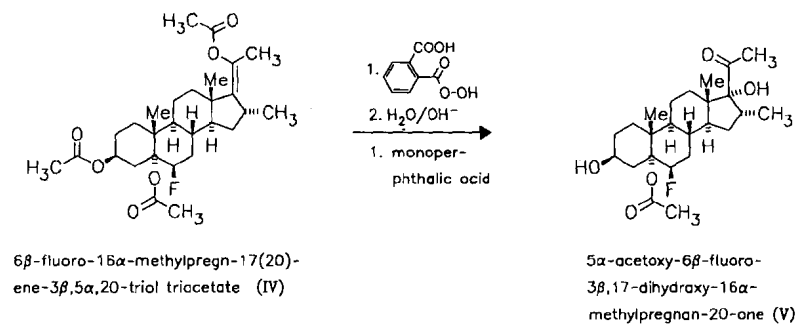
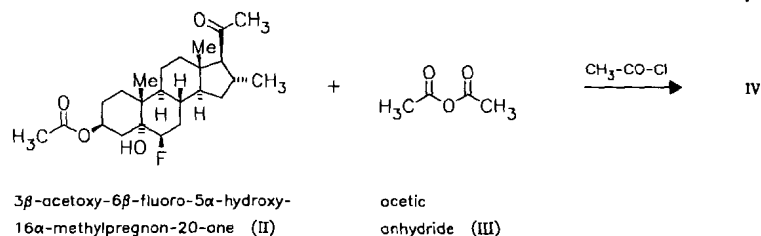
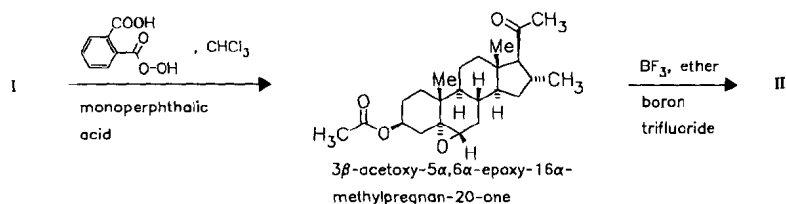
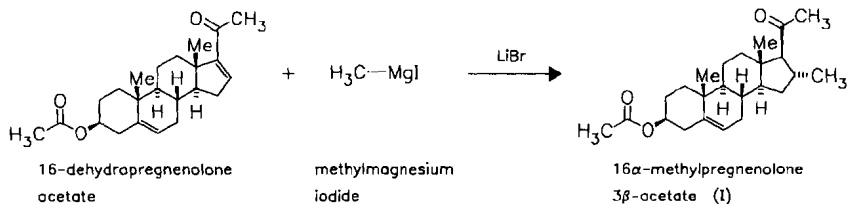
Trade Name(s):

F:	Paradione (Abbott); wfm	GB:	Paradione (Abbott); wfm	USA:	Paradione (Abbott); wfm
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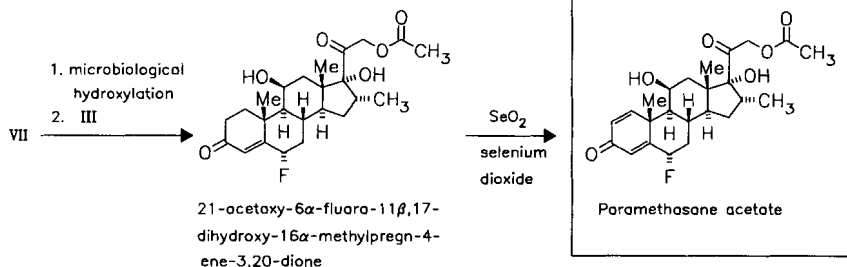
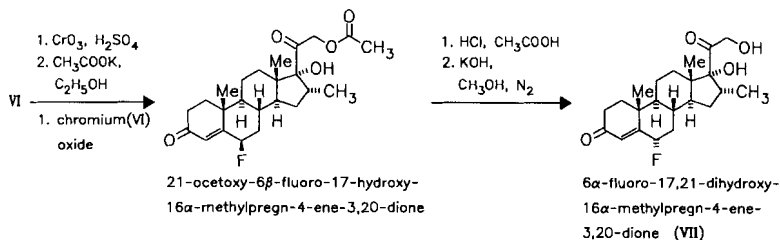
Paramethasone

ATC: H02AB05
 Use: glucocorticoid

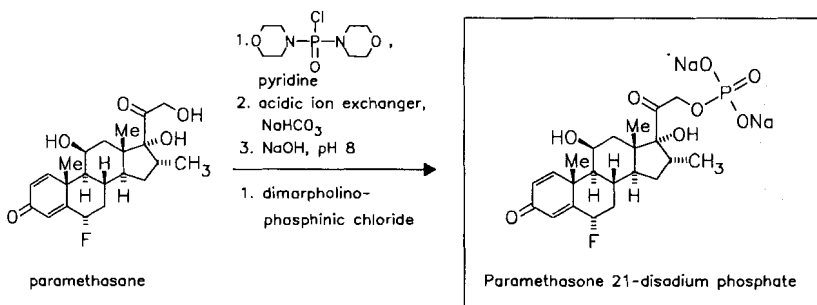
RN: 53-33-8 MF: C₂₂H₂₉FO₃ MW: 392.47 EINECS: 200-169-2
 CN: (6α,11β,16α)-6-fluoro-11,17,21-trihydroxy-16-methylpregna-1,4-diene-3,20-dione

disodium phosphateRN: 2145-14-4 MF: C₂₂H₂₈FN₂O₈P MW: 516.41 EINECS: 218-410-5**acetate**RN: 1597-82-6 MF: C₂₄H₃₁FO₆ MW: 434.50 EINECS: 216-486-4LD₅₀: >1 g/kg (M, p.o.)

5 α ,21-diacetoxy-6 β -fluoro-3 β ,17-dihydroxy-16 α -methylpregnan-20-one (VI)



disodium phosphate:



Reference(s):

US 2 671 752 (Syntex; 1954; appl. 1951).
 Djerassi, C. et al.: J. Am. Chem. Soc. (JACSAT) **82**, 2318 (1960).

starting material:

Marker, R.E.; Crooks, H.M.: J. Am. Chem. Soc. (JACSAT) **64**, 1280 (1942).

alternative syntheses:

US 3 557 158 (Upjohn; 19.1.1971; appl. 22.1.1962; prior. 4.8.1958).
 Schneider, P. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 3167 (1959).
 GB 850 263 (Organon; appl. 30.4.1959; NL-prior. 12.5.1958).
 US 4 041 055 (Upjohn; 9.8.1977; appl. 17.11.1975).

disodium phosphate:

DE 1 134 075 (Merck AG; appl. 26.11.1959).

Formulation(s): amp., 20 mg/ml (as acetate); tabl. 2 mg, 6 mg (as acetate)

Trade Name(s):

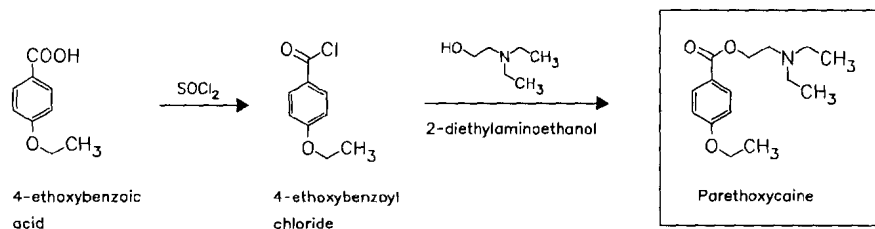
D:	Monocortin (Grünenthal); wfm	GB:	Haldrate (Lilly); wfm Metilar (Syntex); wfm	J:	Paramezone (Recordati) Haldron (Dainippon)
F:	Dilar (Cassenne); wfm	I:	Alfa-6 (Sam) Luxazone XP (Allergan)- comb.		Parame A (Syntex-Tanabe)- comb.

Paramesone (Syntex-Tanabe)

USA: Haldrone (Lilly); wfm
Stemex (Syntex); wfmStero-Darvon (Lilly)-
comb.; wfm**Parethoxycaine**

ATC: N01BC

Use: local anesthetic

RN: 94-23-5 MF: $C_{15}H_{23}NO_3$ MW: 265.35
CN: 4-ethoxybenzoic acid 2-(diethylamino)ethyl ester**hydrochloride**RN: 136-46-9 MF: $C_{15}H_{23}NO_3 \cdot HCl$ MW: 301.81 EINECS: 205-246-4
LD₅₀: 300 mg/kg (M, i.p.); 430 mg/kg (M, s.c.)**Reference(s):**

US 2 404 691 (Squibb; 1946; prior. 1937, 1944).

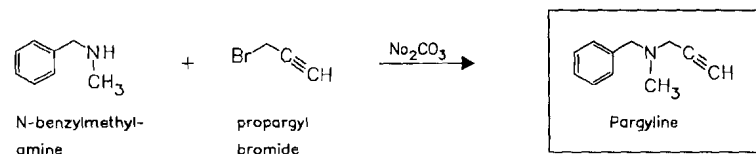
Formulation(s): tabl. 0.75 mg (as hydrochloride)**Trade Name(s):**

F: Maxicaine (Synthélabo)

Pargyline

ATC: C02KC01

Use: MAO-inhibitor, antihypertensive

RN: 555-57-7 MF: $C_{11}H_{13}N$ MW: 159.23 EINECS: 209-101-6
LD₅₀: 56 mg/kg (M, i.v.); 680 mg/kg (M, p.o.);
300 mg/kg (R, p.o.)
CN: *N*-methyl-*N*-2-propynylbenzenemethanamine**hydrochloride**RN: 306-07-0 MF: $C_{11}H_{13}N \cdot HCl$ MW: 195.69 EINECS: 206-175-1
LD₅₀: 99 mg/kg (M, i.v.); 680 mg/kg (M, p.o.);
175 mg/kg (R, i.v.); 250 mg/kg (R, p.o.);
175 mg/kg (dog, p.o.)**Reference(s):**

US 3 155 584 (Abbott; 3.11.1964; prior. 3.12.1962).

Formulation(s): tabl. 10 mg, 25 mg (as hydrochloride)

Trade Name(s):

F: Euditron (Abbott)-comb.; wfm
 GB: Eutonyl (Abbott); wfm
 USA: Eutonyl (Abbott)

Eutron (Abbott)-comb.; wfm

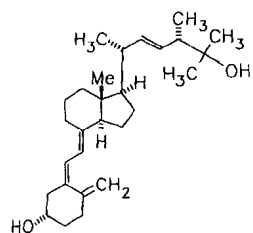
Paricalcitol

(Paracalcin)

Use: vitamin D-analog, treatment for hyperparathyroidism

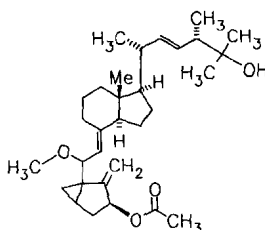
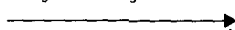
RN: 131918-61-1 MF: C₂₇H₄₄O₃ MW: 416.65

CN: (1 α ,3 β ,7E,22E)-19-Nor-9,10-secoergosta-5,7,22-triene-1,3,25-triol

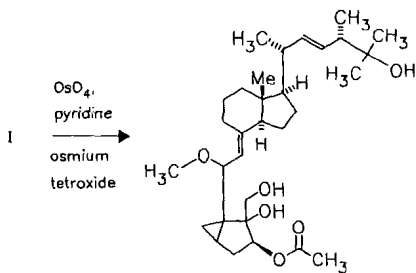


25-hydroxyvitamin D₂
 (isolation from pig blood)

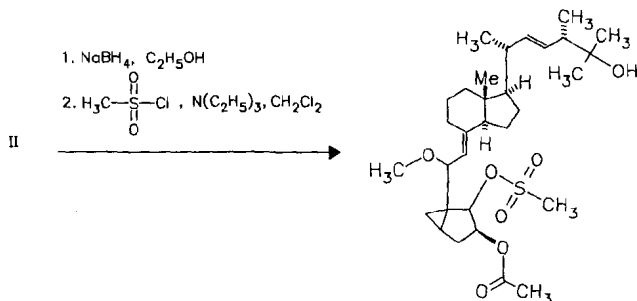
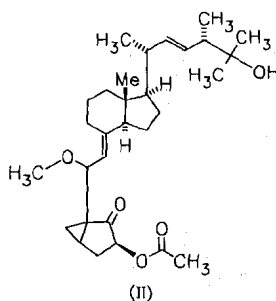
1. Tos-Cl
2. H₃C-OH
3. H₃C-C(=O)-O-C(=O)-CH₃, pyridine



1 α ,25-dihydroxy-3,5-cyclo-
 vitamin D₂ 1-acetate
 6-methyl ether (I)

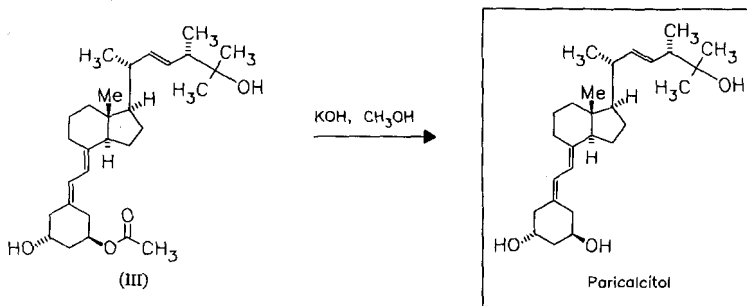


- OsO₄,
pyridine
 - osmium
tetroxide
- NaIO₄
 - sodium
metaperiodate



1. NaBH₄, C₂H₅OH
 2. H₃C-SO₂-Cl, N(C₂H₅)₃, CH₂Cl₂
1. LiAlH₄, THF, 0°C
 2. CH₃COOH

III
 + isomer

**Reference(s):**

EP 387 077 (Wisconsin Alumni Res. Found.; 12.9.1990; appl. 9.3.1990; USA-prior. 16.2.1990).

WO 9 729 740 (Wisconsin Alumni Res. Found.; appl. 5.9.1996; USA-prior. 13.2.1996).

Paaren, H.E. et al.: J. Org. Chem. (JOCEAH) **45**, 3253-3258 (1980).

Paaren, H.E. et al.: J. Org. Chem. (JOCEAH) **48**, 3819-3820 (1983).

treatment of osteoporosis in comb. with growth hormone secretagogue:

WO 9 853 827 (Ramos Univ.; appl. 22.5.1998; IL-prior. 30.5.1997)..

Formulation(s): amp. 5 µg/ml; 1 ml, 2 ml, 5 ml

Trade Name(s):

USA: Zemplar (Abbott; 1998)

Paromomycin

(Aminosidine)

ATC: A07AA06

Use: antibiotic

RN: 7542-37-2 MF: $\text{C}_{23}\text{H}_{45}\text{N}_5\text{O}_{14}$ MW: 615.63 EINECS: 231-423-0

LD₅₀: 2.275 g/kg (M, p.o.);

21.62 g/kg (R, p.o.)

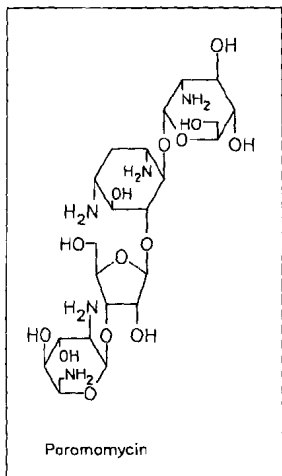
CN: O-2-amino-2-deoxy- α -D-glucopyranosyl-(1 \rightarrow 4)-O-[O-2,6-diamino-2,6-dideoxy- β -l-idopyranosyl(1 \rightarrow 3)- β -D-ribofuranosyl-(1 \rightarrow 5)]-2-deoxy-D-streptomine

sulfate

RN: 1263-89-4 MF: $\text{C}_{23}\text{H}_{45}\text{N}_5\text{O}_{14} \cdot x\text{H}_2\text{SO}_4$ MW: unspecified EINECS: 215-031-7

LD₅₀: 90 mg/kg (M, i.v.); 23.5 g/kg (M, p.o.);

181 mg/kg (R, i.v.); 21.62 g/kg (R, p.o.)



From fermentation solutions of *Streptomyces rimosus* forma *paromomycinus* or *Streptomyces krestomyceticus* N.C.I.B. 8995.

Reference(s):

US 2 916 485 (Parke Davis; 8.12.1959; prior. 12.1.1959).

GB 880 035 (Soc. Farmaceutici Italia; appl. 31.3.1959; valid from 18.2.1960).

Formulation(s): cps. 250 mg; powder 1 g; syrup 125 mg/5 ml

Trade Name(s):

D: Humatin (Parke Davis)	GB: Humatin (Parke Davis); wfm	Paramicina (Ragionieri)
F: Humagel (Parke Davis); wfm	I: Aminoxidin (Farmalabor)	Sinosid (SIFI)
Humatin (Parke Davis); wfm	Gabbroral (Carlo Erba)	J: Humatin (Parke Davis-Sankyo)
	Gabbroral (Farmalabor)	USA: Humatin (Parke Davis); wfm
	Humatin (Parke Davis)	

Paroxetine

(BRL 29060; FG 7051)

ATC: N06AB05; N06AE

Use: antidepressant, selective 5-HT-uptake inhibitor

RN: 61869-08-7 MF: $C_{19}H_{20}FNO_3$ MW: 329.37

LD₅₀: 374 mg/kg (R, p.o.)

CN: (3*S-trans*)-(-)-3-[(1,3-benzodioxol-5-yloxy)methyl]-4-(4-fluorophenyl)piperidine

hydrochloride

RN: 78246-49-8 MF: $C_{19}H_{20}FNO_3 \cdot HCl$ MW: 365.83

LD₅₀: 42 mg/kg (M, i.v.); 378 mg/kg (M, p.o.);

30 mg/kg (R, i.v.); 415 mg/kg (R, p.o.)

hydrochloride hydrate (2:1)

RN: 110429-35-1 MF: $C_{19}H_{20}FNO_3 \cdot HCl \cdot 1/2H_2O$ MW: 749.68

maleate

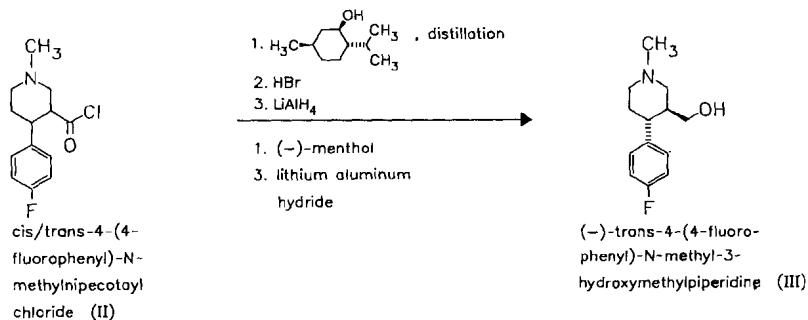
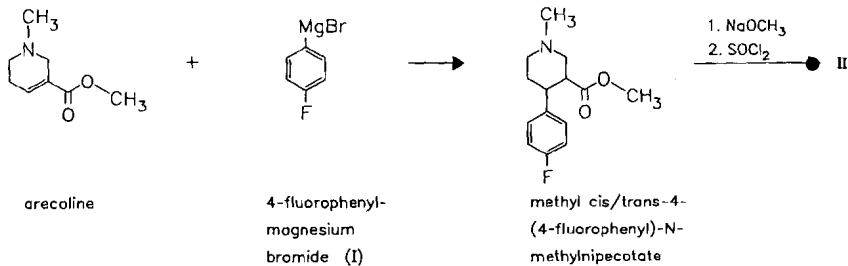
RN: 64006-44-6 MF: $C_{19}H_{20}FNO_3 \cdot xC_4H_4O_4$ MW: unspecified

LD₅₀: 500 mg/kg (M, p.o.); 845 mg/kg (M, s.c.)

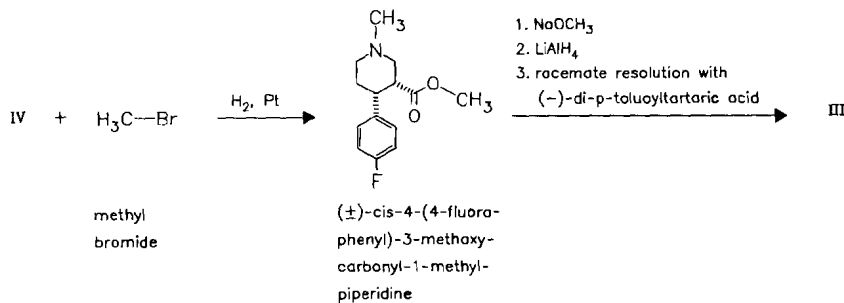
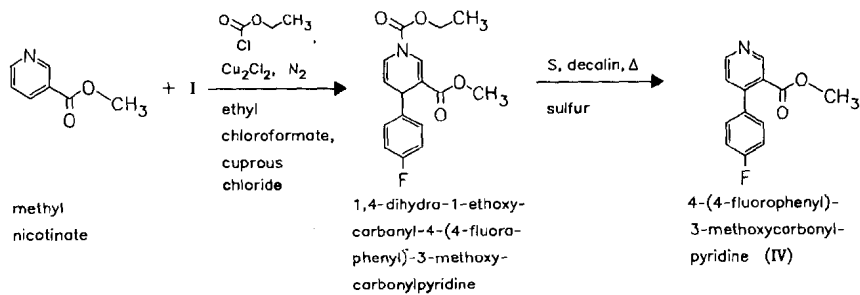
acetate

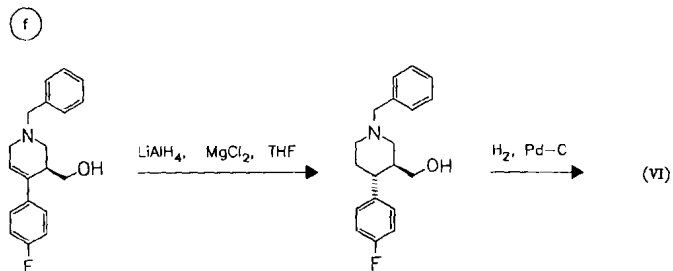
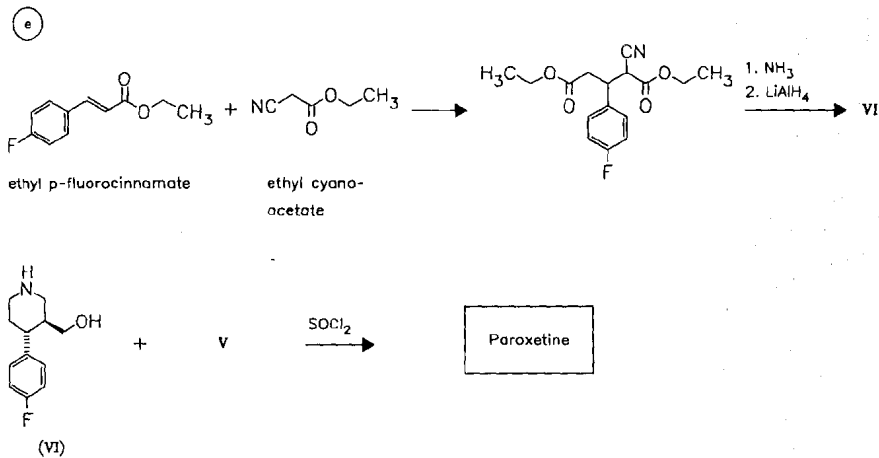
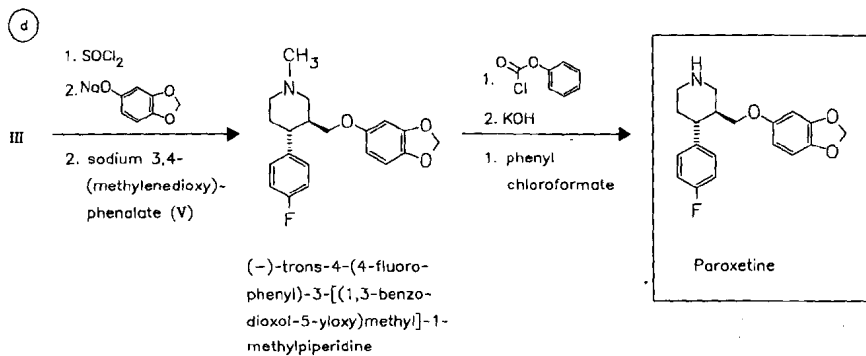
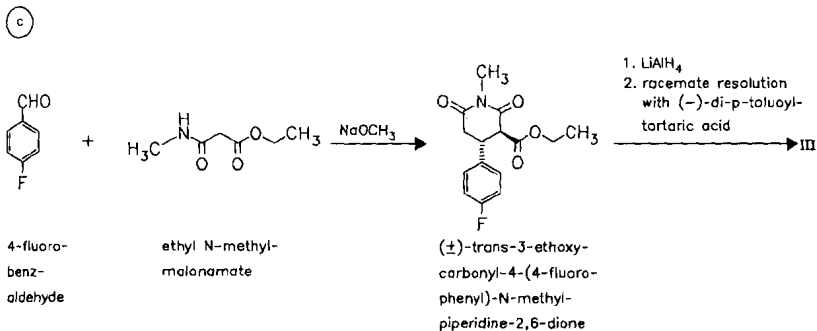
RN: 72471-80-8 MF: $C_{19}H_{20}FNO_3 \cdot C_2H_4O_2$ MW: 389.42

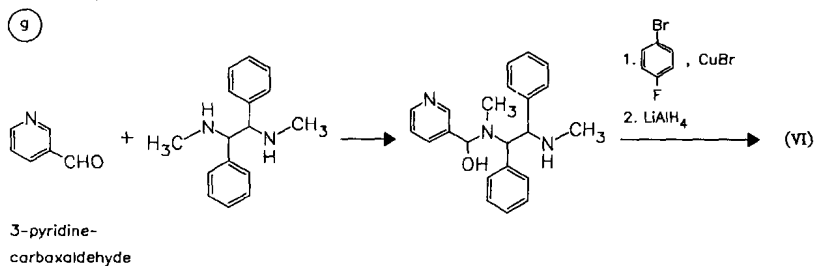
a



b





*Reference(s):*

- US 3 912 743 (Ferrosan, 14.10.1975; GB-prior. 30.1.1973).
a,d US 4 007 196 (AIS Ferrosan; 8.2.1977; appl. 23.7.1975; prior. 21.1.1974; GB-prior. 30.1.1973).
 DE 2 404 113 (AIS Ferrosan; appl. 29.1.1974; GB-prior. 30.1.1973).
 GB 1 422 263 (AIS Ferrosan; appl. 30.1.1973).
b EP 219 934 (Beecham; appl. 6.8.1986; GB-prior. 10.8.1985).
c EP 223 334 (Beecham; appl. 6.8.1986; GB-prior. 10.8.1985, 23.5.1986).
e WO 9 853 824 (SmithKline Beecham; appl. 29.5.1998; GB-prior. 29.5.1997).
f WO 9 852 920 (Knoll; appl. 13.5.1998; GB-prior. 17.5.1997).
g WO 9 724 323 (Chiroscience; appl. 30.12.1996; GB-prior. 29.12.1995).

alternative synthesis of III:

EP 300 617 (Beecham; appl. 17.6.1988; GB-prior. 23.6.1987).

synthesis of arecoline:

The Merck Index, 11th Ed., 803 (Rahway 1989).

optically pure precursors:

US 52 582 517 (Sepracor; 2.11.1993; appl. 6.8.1992).

crystalline hydrochloride hemihydrate:

EP 223 403 (Beecham; appl. 14.10.1986; GB-prior. 25.10.1985).

US 4 721 723 (Beecham; 26.1.1988; appl. 23.10.1986; GB-prior. 25.10.1985).

medical use for treatment of pain:

EP 269 303 (Beecham; appl. 9.11.1986; GB-prior. 11.11.1985).

medical use for treatment of obesity:

EP 188 081 (Ferrosan; appl. 2.12.1985; GB-prior. 4.12.1984).

preparation of easily soluble paroxetine:

WO 9 831 365 (SmithKline Beecham; appl. 12.1.1998; GB-prior. 15.1.1997).

new polymorph of anhydrous paroxetine:

CA 2 187 128 (Brabfort Chem.; appl. 4.10.1996).

method of producing amorphous paroxetine:

EP 810 224 (Asahi Glass; appl. 30.5.1997; J-prior. 30.5.1996).

US 5 672 612 (Pentech Pharm; USA-prior. 9.9.1996).

controlled-release pharmaceutical compositions:

WO 9 703 670 (SmithKline Beecham; appl. 19.7.1996; GB-prior. 20.7.1995).

Formulation(s): tabl., 20 mg, 30 mg (as hydrochloride)

Trade Name(s):

D:	Seroxat (SmithKline Beecham)	F:	Dexorat (SmithKline Beecham)	GB:	Seroxat (SmithKline Beecham; 1991)
	Tagonis (Janssen-Cilag)				

I: Sereupin (Ravizza)

Seroxat (SmithKline
Beecham)

USA: Paxil (SmithKline
Beecham)

Parsalimide

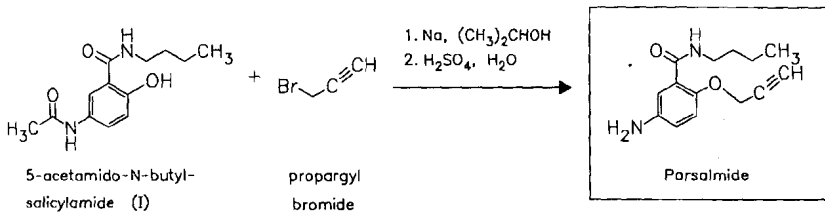
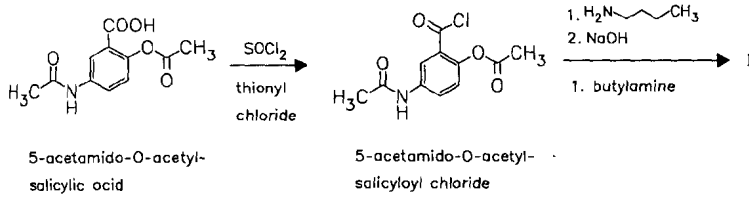
ATC: N02

Use: anti-inflammatory

RN: 30653-83-9 MF: C₁₄H₁₈N₂O₂ MW: 246.31 EINECS: 250-274-2

LD₅₀: 148 mg/kg (M, i.v.); 428 mg/kg (M, p.o.);
864 mg/kg (R, p.o.)

CN: 5-amino-N-butyl-2-(2-propynyloxy)benzamide



Reference(s):

DOS 2 029 991 (E.R.A.S.M.E.; appl. 18.6.1970; GB-prior. 20.6.1969).

US 3 739 030 (E.R.A.S.M.E.; 12.6.1973; GB-prior. 20.6.1969).

Pedrazzoli, A. et al.: Chim. Ther. (CHTPBA) 3, 200 (1968).

alternative synthesis:

GB 1 539 007 (C. M. Ind.; valid from 26.10.1977; F-prior. 8.11.1976).

Formulation(s): drg. 200 mg, 400 mg; f. c. tabl. 600 mg; s. r. tabl. 800 mg

Trade Name(s):

I: Parsal (Midy); wfm

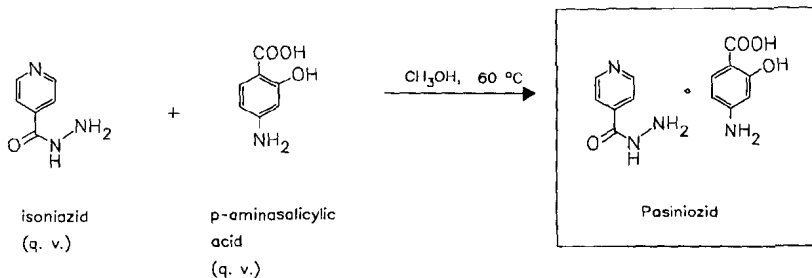
Pasinaizid

ATC: J04AA

Use: tuberculostatic, antibacterial

RN: 2066-89-9 MF: C₇H₇NO₃ · C₆H₇N₃O MW: 290.28 EINECS: 218-183-2

CN: 4-pyridinecarboxylic acid hydrazone mono(4-amino-2-hydroxybenzoate)

**Reference(s):**

CH 303 085 (Roche; appl. 1952).

Formulation(s): tabl. 100 mg**Trade Name(s):**

D: Dipasic (Gewo); wfm

F: Paraniazide (L'Hépatrol); wfm

wfm

I:

Pasiniazide Rolland

(L'Hépatrol); wfm

Dipasic (Farmerid); wfm

Pecazine

(Mepazine)

ATC: .N05A

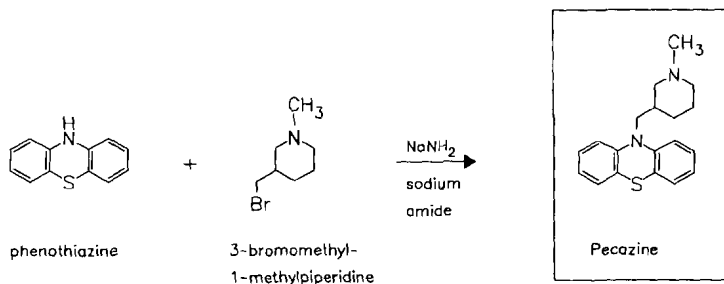
Use: neuroleptic

RN: 60-89-9 MF: $\text{C}_{19}\text{H}_{22}\text{N}_2\text{S}$ MW: 310.47 EINECS: 200-490-8LD₅₀: 70 mg/kg (M, i.v.)

CN: 10-[(1-methyl-3-piperidinyl)methyl]-10H-phenothiazine

monoacetateRN: 24360-97-2 MF: $\text{C}_{19}\text{H}_{22}\text{N}_2\text{S} \cdot \text{C}_2\text{H}_4\text{O}_2$ MW: 370.52 EINECS: 246-207-1**monohydrochloride**RN: 2975-36-2 MF: $\text{C}_{19}\text{H}_{22}\text{N}_2\text{S} \cdot \text{HCl}$ MW: 346.93 EINECS: 221-020-8LD₅₀: 62 mg/kg (M, i.v.); 155 mg/kg (M, p.o.);

20 mg/kg (R, i.v.); 1 g/kg (R, p.o.)

**Reference(s):**

US 2 784 185 (Promonta; 1957; D-prior. 1953).

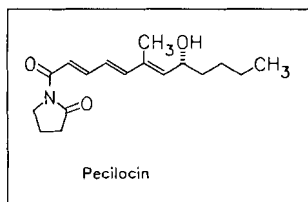
Formulation(s): tabl. 50 mg, 400 mg (as hydrochloride)**Trade Name(s):**

D: Pacatal (Promonta); wfm

Pecilocin

ATC: D01AA04

Use: fungicidal antibiotic

RN: 19504-77-9 MF: C₁₇H₂₅NO₃ MW: 291.39 EINECS: 243-116-9LD₅₀: 320 mg/kg (M, i.p.)CN: [*R*-(*E,E,E*)]-1-(8-hydroxy-6-methyl-1-oxo-2,4,6-dodecatrienyl)-2-pyrrolidinoneFrom culture of *Paecilomyces varioti* Bainier var. *antibioticus*.**Reference(s):**

GB 866 425 (Japan Antibiotics Research Assoc.; appl. 7.4.1959).

Formulation(s): ointment 3000 iu/g; topical sol. 1500 iu/ml**Trade Name(s):**

D: Supral (Basotherm); wfm

GB: Variotin (Leo); wfm

F: Leofungine (Leo); wfm

J: Variotin (Nippon Kayaku)

Pefloxacin

ATC: J01MA03

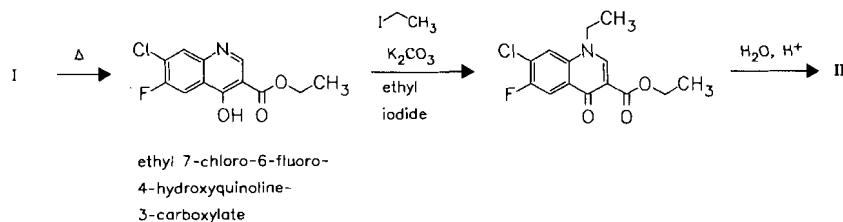
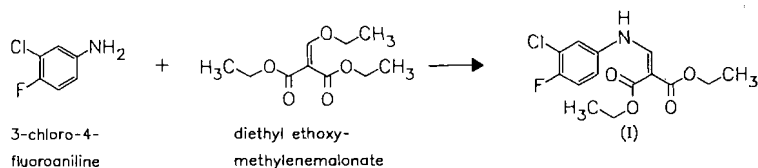
Use: antibiotic (gyrase inhibitor)

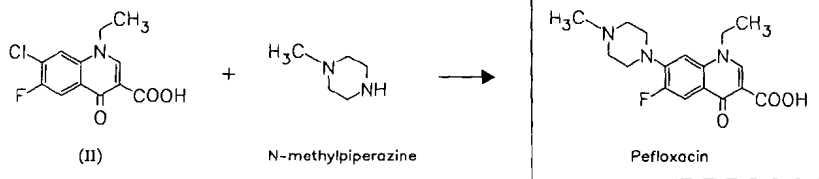
RN: 70458-92-3 MF: C₁₇H₂₀FN₃O₃ MW: 333.36 EINECS: 274-611-8LD₅₀: 225 mg/kg (M, i.v.); >4 g/kg (M, p.o.)

CN: 1-ethyl-6-fluoro-1,4-dihydro-7-(4-methyl-1-piperazinyl)-4-oxo-3-quinolinecarboxylic acid

monomesylateRN: 70458-95-6 MF: C₁₇H₂₀FN₃O₃ · CH₄O₃S MW: 429.47 EINECS: 274-613-9LD₅₀: 225 mg/kg (M, i.v.); 1 g/kg (M, p.o.);

2500 mg/kg (R, p.o.)



**Reference(s):**

US 4 292 317 (Roger Bellon; 29.9.1981; appl. 15.9.1978; GB-prior. 20.9.1977).
 DOS 2 840 910 (Lab. Roger Bellon; appl. 20.9.1978; GB-prior. 20.9.1977).
 Gouffon, G. et al.: C. R. Hebd. Seances Acad. Sci. (COREAF) 292 (1981).

Formulation(s): f. c. tabl. 400 mg; inj. sol. 400 mg/125 ml, 400 mg/5 ml (as mesylate)

Trade Name(s):

D:	Peflacin (Rhône-Poulenc Rorer)	F:	Peflazine (Bellon; Rhône-Poulenc; 1985)	I:	Peflacin (Rhône-Poulenc Pharma) Peflox (Formenti)
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Pemirolast

ATC: R03
 Use: antiallergic

RN: 69372-19-6 MF: C₁₀H₈N₆O MW: 228.22

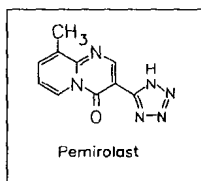
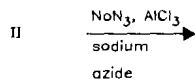
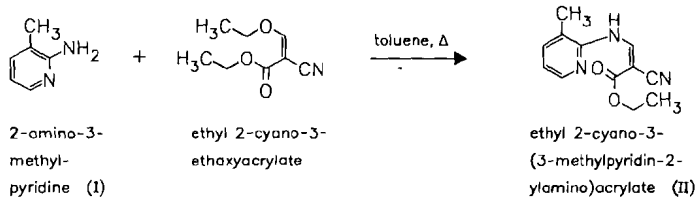
CN: 9-methyl-3-(1H-tetrazol-5-yl)-4H-pyrido[1,2-a]pyrimidin-4-one

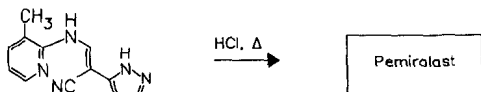
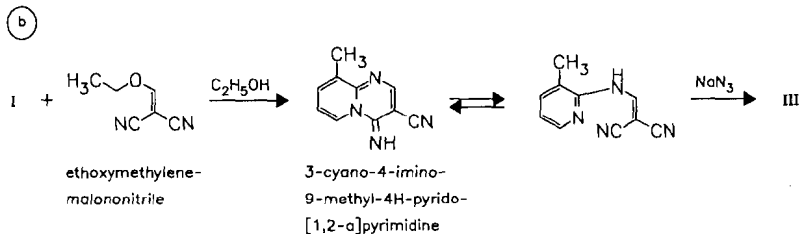
potassium salt

RN: 100299-08-9 MF: C₁₀H₇KN₆O MW: 266.31

LD₅₀: 220 mg/kg (M, i.v.); 1185 mg/kg (M, p.o.);
 372 mg/kg (R, i.v.); 687 mg/kg (R, p.o.)

○





3-(3-methylpyridin-2-ylamino)-2-(1H-tetrazol-5-yl)-acrylonitrile (III)

Reference(s):

- a DE 2 822 544 (Bristol-Myers; appl. 23.5.1978; USA-prior. 25.5.1977).
US 4 122 274 (Bristol-Myers; 24.10.1978; appl. 25.5.1977).
- b EP 385 634 (Wako, Tokyo Tanabe; appl. 20.2.1990; J-prior. 27.2.1989).

medical use for treatment of gastrointestinal diseases:

- US 4 457 932 (Bristol-Myers; 3.7.1984; appl. 22.7.1983).
- DOS 3 424 324 (Bristol-Myers; appl. 2.7.1984; USA-prior. 22.7.1983).

Formulation(s): tabl. 10 mg (as potassium salt); ophth. sol. 0.1%

Trade Name(s):

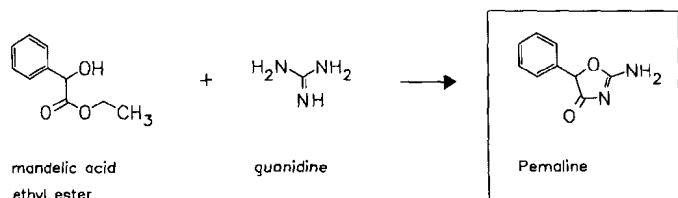
J:	Alegysal (Santen; Tokyo Tanabe; 1991)	Pemilaston (Bristol-Myers Squibb; 1991)	USA: Alamast (Santen)
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Pemoline

(Phenoxazole)

ATC: N06BA05
Use: psychoenergetic

RN: 2152-34-3 MF: $C_9H_8N_2O_2$ MW: 176.18 EINECS: 218-438-8
LD₅₀: 365 mg/kg (M, p.o.);
436 mg/kg (R, p.o.)
CN: 2-amino-5-phenyl-4(5H)-oxazolone



Reference(s):

- US 2 892 753 (Boehringer Ing.; 30.6.1959; prior. 26.2.1957).

Formulation(s): tabl. (USA) 18.75 mg, 20 mg, 37.5 mg, 70 mg

Trade Name(s):

D: Senior (Strathmann) Tradon (Beiersdorf-Lilly)	Ronyl (Rona); wfm Volital (L.A.B.); wfm	Sigmadyne (Spemsa); wfm Antimeran (Nichiiko)
F: Deltamine (Aron); wfm	I: Deadyn (De Angeli)- comb.; wfm	USA: Cylert (Abbott)
GB: Cylert (Abbott); wfm Kethamed (Medo); wfm	Psicodelta (Chiesi); wfm	

Penbutolol

ATC: C07AA23

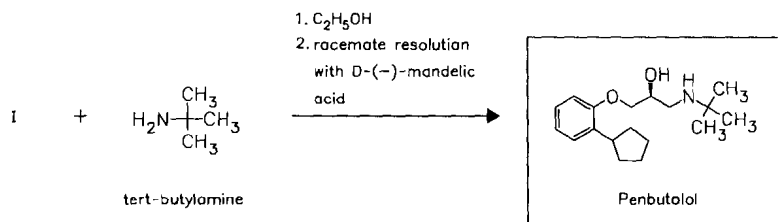
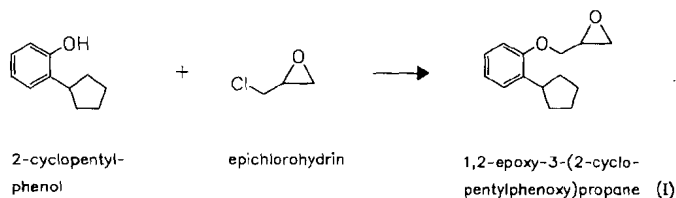
Use: beta blocking agent

RN: 38363-40-5 MF: C₁₈H₂₉NO₂ MW: 291.44LD₅₀: 18 mg/kg (M, i.v.); 1230 mg/kg (M, p.o.);

22 mg/kg (R, i.v.); 1265 mg/kg (R, p.o.);

>20 mg/kg (dog, i.v.)

CN: (S)-1-(2-cyclopentylphenoxy)-3-[(1,1-dimethylethyl)amino]-2-propanol



Reference(s):

DE 1 668 055 (Hoechst; prior. 8.12.1967).

US 3 551 493 (Hoechst; 29.12.1970; appl. 7.3.1968; D-prior. 10.3.1967).

ZA 687 915 (Hoechst; appl. 15.11.1968; D-prior. 8.12.1967).

preparation of 2-cyclopentylphenol:

DE 615 448 (Hoffmann La Roche; 1932).

Pajeau, B.: Bull. Soc. Chim. Fr. (BSCFAS) **1962**, 1923, 1926.Bader: J. Am. Chem. Soc. (JACSAT) **75**, 5967 (1953)

alternative synthesis:

DOS 2 503 222 (Boehringer Mannh.; appl. 27.1.1975).

Formulation(s): f. c. tabl. 20 mg, 40 mg (as sulfate)

Trade Name(s):

D: Betapressin (Hoechst; 1981)	F: Betapressine (Roussel; 1984)	Betasemid (Hoechst Italia Sud)-comb.; wfm
Betarelix (Hoechst; 1985)-comb.	GB: Lasipressin (Hoechst)-comb.; wfm	Ipoabar (Mida); wfm
Betasemid (Hoechst; 1982)-comb.	I: Betapressin (Hoechst Italia Sud); wfm	J: Betapressin (Hoechst; 1985)
		USA: Levatol (Schwarz)

Penciclovir

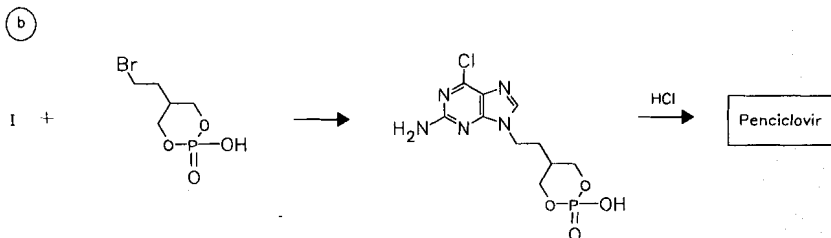
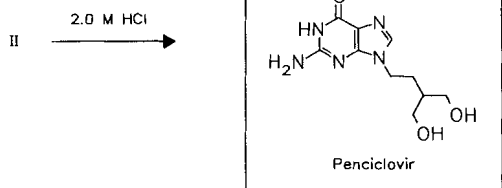
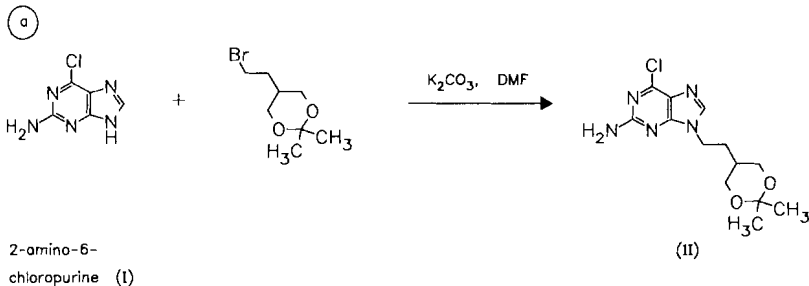
(BRL-39123)

ATC: J05AB13

Use: topical antiviral

RN: 39809-25-1 MF: C₁₀H₁₅N₅O₃ MW: 253.26

CN: 2-amino-1,9-dihydro-9-[4-hydroxy-3-(hydroxymethyl)butyl]-6H-purin-6-one

*Reference(s):*

- a EP 141 927 (Beecham; appl. 22.5.1985; GB-prior. 18.8.1983).
 b EP 152 316 (Merck & Co.; appl. 21.8.1985; USA-prior. 26.1.1984).

synthesis of 2-amino-6-chloropurine:

WO 9 407 892 (SmithKline Beecham; appl. 28.9.1993; GB-prior. 30.9.1992).

synergistic combination with interferon:

EP 271 270 (Beecham Group; appl. 15.6.1988; GB-prior. 2.12.1986).
 WO 9 513 074 (SmithKline Beecham; appl. 18.5.1995; GB-prior. 12.11.1993).

combination with anti-inflammatory glucocorticoids:

WO 9 624 355 (Astra; appl. 15.8.1996; WO-prior. 6.2.1995).

topical formulations:

WO 9 624 354 (Astra; appl. 15.8.1996; WO-prior. 6.2.1995).
 WO 9 300 905 (SmithKline Beecham; appl. 21.1.1993; GB-prior. 11.7.1991).

stable crystalline monohydrate:

EP 216 459 (Beecham Group; appl. 1.4.1987; GB-prior. 27.7.1985).

Formulation(s): cream 10 mg/g (1 %)

Trade Name(s):

D:	Vectavir (SmithKline Beecham)	I:	Vectavir (SmithKline Beecham)
GB:	Vectavir (SmithKline Beecham)	USA:	Denavir (SmithKline Beecham)

Penfluridol

ATC: N05AG03

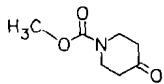
Use: neuroleptic

RN: 26864-56-2 MF: C₂₈H₂₇ClF₅NO MW: 523.97 EINECS: 248-074-5

LD₅₀: 87 mg/kg (M, p.o.);

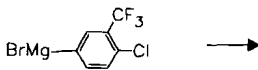
160 mg/kg (R, p.o.)

CN: 1-[4,4-bis(4-fluorophenyl)butyl]-4-[4-chloro-3-(trifluoromethyl)phenyl]-4-piperidinol



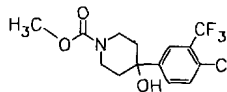
4-oxopiperidine-1-
carboxylic acid
methyl ester

+



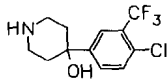
4-chloro-3-trifluoro-
methylphenylmagnesium
bromide

→

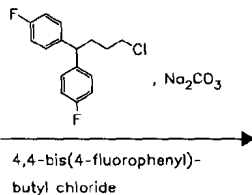


4-(4-chloro-3-trifluoromethyl-
phenyl)-4-hydroxypiperidine-1-
carboxylic acid methyl ester (I)

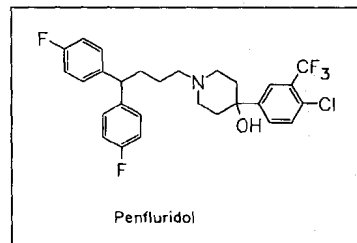
I →



4-(4-chloro-3-trifluoro-
methylphenyl)-4-
hydroxypiperidine



4,4-bis(4-fluorophenyl)-
butyl chloride



Penfluridol

Reference(s):

US 3 575 990 (Janssen; 20.4.1971; appl. 3.9.1969).

DOS 2 040 231 (Janssen; appl. 13.8.1970; USA-prior. 3.9.1969).

alternative synthesis:

FR-appl. 2 161 007 (Janssen; appl. 23.11.1972; J-prior. 25.11.1971).

Formulation(s): tabl. 20 mg

Trade Name(s):

D:	Semap (Janssen); wfm	F:	Semap (Janssen-Cilag)
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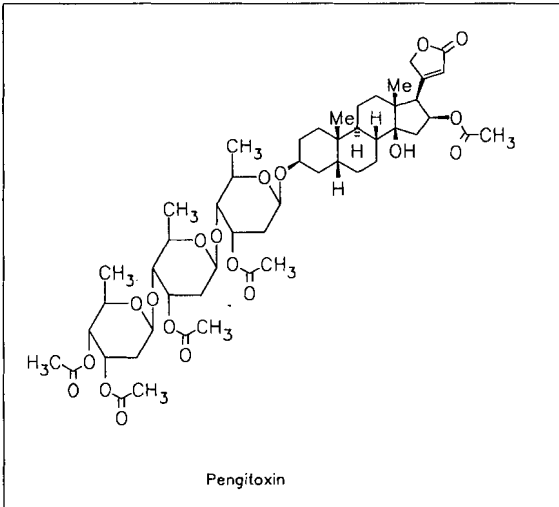
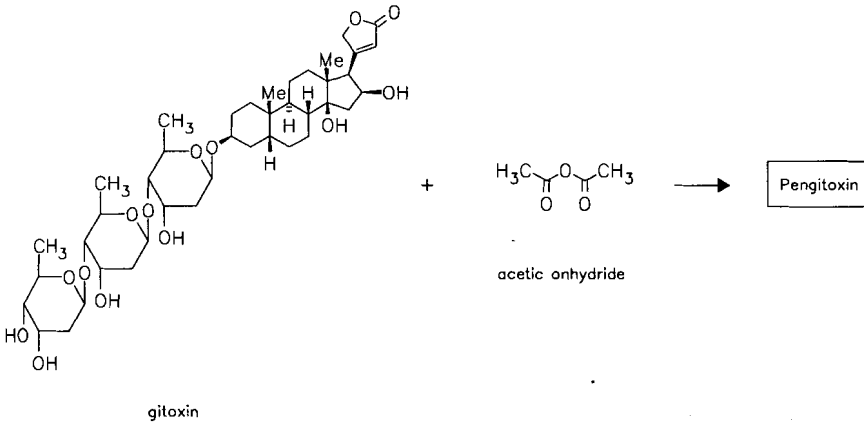
Pengitoxin

ATC: C01AA

Use: cardiac glycoside

RN: 7242-04-8 MF: C₅₁H₇₄O₁₉ MW: 991.13 EINECS: 230-645-5LD₅₀: 21 mg/kg (R, i.v.)

CN: (3β,5β,16β)-16-(acetyloxy)-3-[(O-3,4-di-O-acetyl-2,6-dideoxy-β-D-ribo-hexopyranosyl-(1→4)-O-3-O-acetyl-2,6-dideoxy-β-D-ribo-hexopyranosyl-(1→4)-3-O-acetyl-2,6-dideoxy-β-D-ribo-hexopyranosyl)oxy]-14-hydroxycard-20(22)-enolide

*Reference(s):*

DE 1 252 202 (Deutsche Akad. der Wissenschaften; appl. 4.11.1963).

GB 1 043 029 (Arzneimittelwerk Dresden; appl. 15.6.1965).

JP-appl. 6 982 ('60) (Shionogi; appl. 15.6.1960).

Formulation(s): tabl. 0.4 mg*Trade Name(s):*

D: Carnacid-Cor (TAD); wfm

D-Penicillamine

ATC: M01CC01

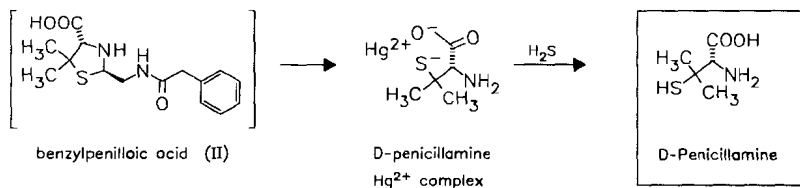
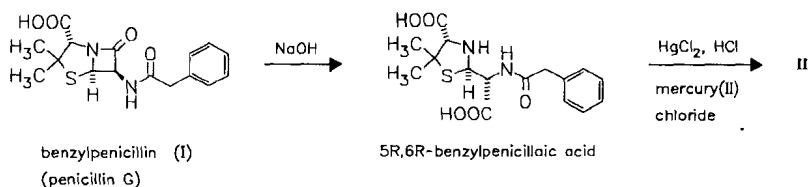
Use: antidote (heavy metal poisonings),
antirheumatic (PCA and Morbus
Wilson)RN: 52-67-5 MF: $C_5H_{11}NO_2S$ MW: 149.21 EINECS: 200-148-8LD₅₀: 3840 mg/kg (M, i.v.); 720 mg/kg (M, p.o.);
2 g/kg (R, i.v.); 6170 mg/kg (R, p.o.)

CN: 3-mercapto-D-valine

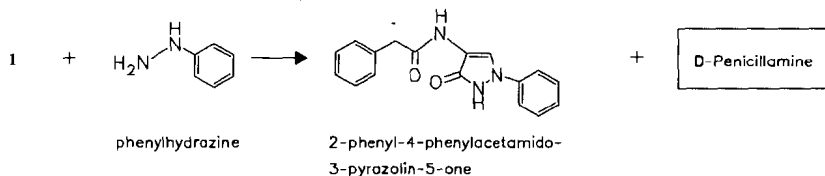
hydrochlorideRN: 2219-30-9 MF: $C_5H_{11}NO_2S \cdot HCl$ MW: 185.68 EINECS: 218-727-9LD₅₀: 2170 mg/kg (M, i.v.); 3670 mg/kg (M, p.o.)

from penicillin G

(a)

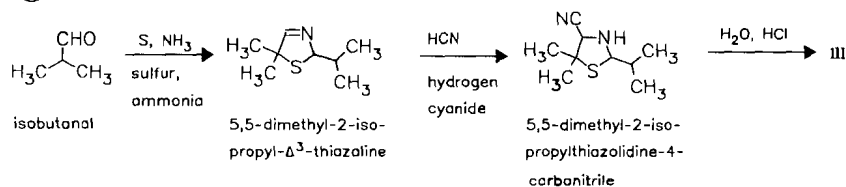


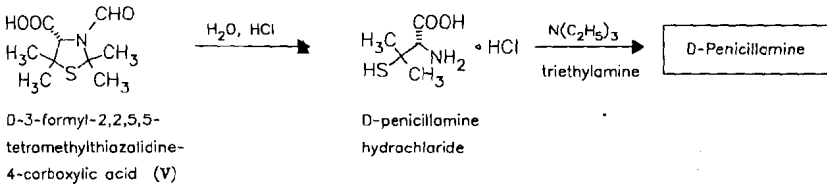
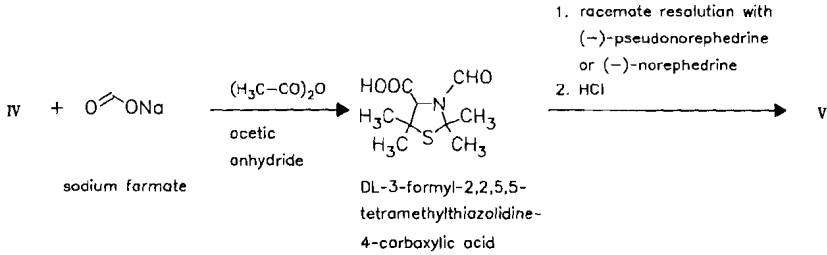
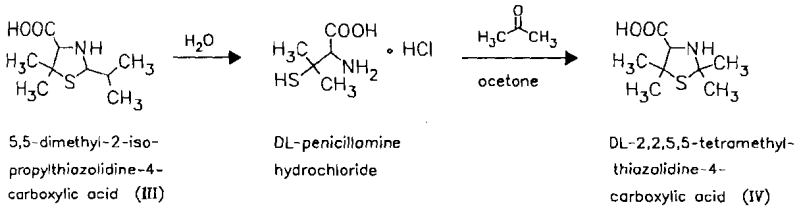
(b)



total synthetic

(c)





Reference(s):

- a GB 854 339 (Distillers Co.; appl. 22.8.1957; valid from 23.7.1958).
 US 3 281 461 (Squibb; 25.10.1966; appl. 7.11.1963).
 DAS 2 114 329 (Heyl & Co., appl. 24.3.1971).
 DOS 2 413 185 (Heyl & Co., appl. 19.3.1974).
similar process (with N,N'-diphenylethylenediamine):
 DOS 2 728 870 (Taisho; appl. 27.6.1977; J-prior. 10.7.1976, 30.12.1976).
 US 4 150 240 (Taisho; 17.4.1979; J-prior. 10.7.1976).
- b DOS 2 512 608 (Pliva; appl. 21.3.1975; YU-prior. 8.4.1974).
 DOS 2 605 563 (Pliva; appl. 12.2.1976; YU-prior. 14.2.1975).
- c DOS 1 795 299 (Degussa; appl. 6.9.1968).
 DOS 1 795 297 (Degussa; appl. 6.9.1968).
 DOS 2 032 952 (Degussa; appl. 3.7.1970).
 DOS 2 123 232 (Degussa; appl. 11.5.1971).
 DOS 2 156 601 (Degussa; appl. 15.11.1971).
 DOS 2 335 990 (Degussa; appl. 14.7.1973).
 DOS 2 138 122 (Degussa; appl. 30.7.1971).
 DOS 2 258 411 (Degussa; appl. 29.11.1972).
 DOS 2 304 055 (Degussa; appl. 27.1.1973).

Formulation(s): cps. 300 mg; f. c. tabl. 150 mg, 300 mg

Trade Name(s):

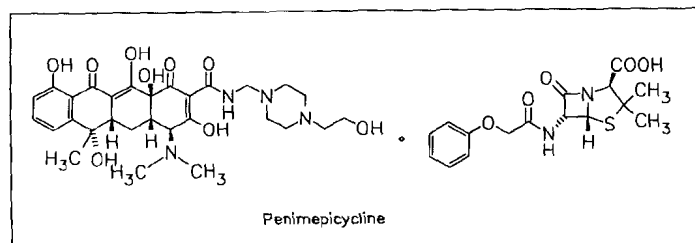
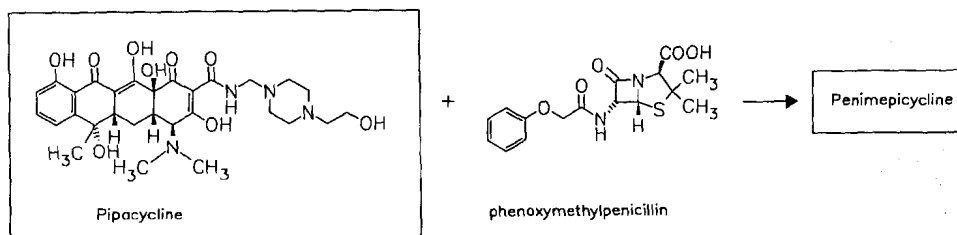
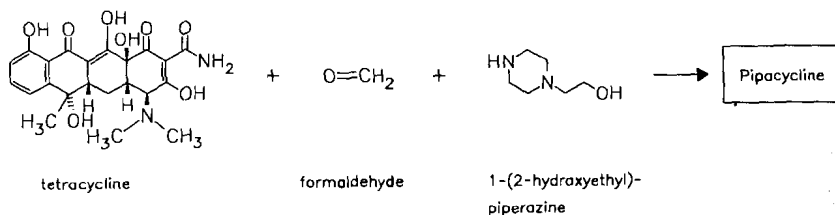
D:	Metalcaptase (Heyl) Trisorcin (Merckle) Trolovol (ASTA Medica AWD)	GB:	Distamine (Dista) Pendramine (ASTA Medica)	USA:	Cuprimine (Merck Sharp & Dohme) Depen (Wallace)
F:	Trolovol (Bayer-Pharma)	I:	Pemine (Lilly)		
		J:	D-Penicillamine (Takeda)		

Penimepicycline

(Mepenicycline)

ATC: J01AA10

Use: antibiotic

RN: 4599-60-4 MF: $C_{29}H_{38}N_4O_9 \cdot C_{16}H_{18}N_2O_5S$ MW: 937.04 EINECS: 225-002-0LD₅₀: 342 mg/kg (M, i.v.); 3 g/kg (M, p.o.);
345 mg/kg (R, i.v.); 3990 mg/kg (R, p.o.)CN: [2*S*-(2 α ,5 α ,6 β)]-3,3-dimethyl-7-oxo-6-[(phenoxyacetyl)amino]-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid comp. with [4*S*-(4 α ,4 α ,5 α ,6 β ,12 α)]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,6,10,12,12a-pentahydroxy-*N*-[[4-(2-hydroxyethyl)-1-piperazinyl]methyl]-6-methyl-1,11-dioxo-2-naphthacencarboxamide (1:1)**Pipacycline**RN: 1110-80-1 MF: $C_{29}H_{38}N_4O_9$ MW: 586.64 EINECS: 214-176-3LD₅₀: 188 mg/kg (M, i.v.)CN: [4*S*-(4 α ,4 α ,5 α ,6 β ,12 α)]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,6,10,12,12a-pentahydroxy-*N*-[[4-(2-hydroxyethyl)-1-piperazinyl]methyl]-6-methyl-1,11-dioxo-2-naphthacencarboxamide**Reference(s):**

pipacycline:

GB 888 968 (E.R.A.S.M.E.; appl. 31.3.1959)

penimepicycline:

GB 891 004 (E.R.A.S.M.E.; appl. 31.3.1959)

GB 897 826 (Soc. d'Etudes de Recherches et d'Applications Scientifiques et Medicales E.R.A.S.M.E.; appl. 17.3.1960).

Trade Name(s):

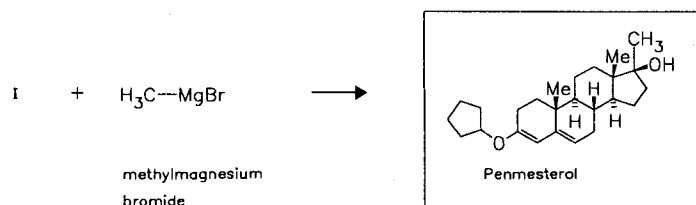
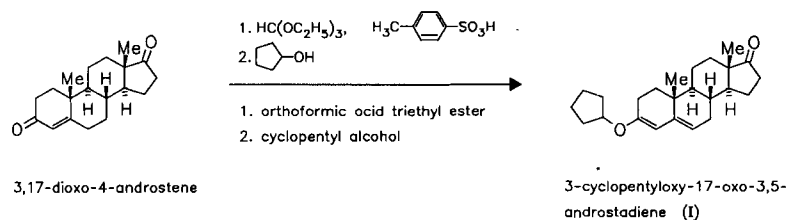
F: Penetracyne Midy (Clin-Midy); wfm	Peniltetra 500 (Panther-Osfa Chemie); wfm	Sieromicin (Sierochemica); wfm
I: Idrociclin (Biagini); wfm	Prestociclina (Chemil); wfm	Tetrasolvina (Nouvo Cons. Sanit. Naz.); wfm
Lisomicina (Borromeo); wfm	Singramicina (Mitim); wfm	Valtomicina (Midy; as guajacol glycolate)
Nikeciclina (Panther-Osfa Chemie); wfm	<i>pipacycline</i>	
Penetracyn (Midy); wfm	Boniciclina (Boniscontro & Gazzone); wfm	

Penmesterol

(Penmestrol)

ATC: G03B
Use: androgen

RN: 67-81-2 MF: C₂₅H₃₈O₂ MW: 370.58 EINECS: 200-670-6
CN: (17β)-3-(cyclopentyloxy)-17-methylandrosta-3,5-dien-17-ol



Reference(s):

FR-M 568 (Francesco Vismara; appl. 31.8.1960; D-prior. 4.5.1959; GB-prior. 15.10.1959).
US 3 019 241 (A. Ercoli; 30.1.1962; D-prior. 4.5.1959).

alternative synthesis:

DAS 1 159 940 (Francesco Vismara; appl. 10.7.1961; I-prior. 9.5.1961) addition to DE 1 119 264.

Trade Name(s):

F: Pandrocine (Spécia); wfm

Pentaerythrityl tetranitrate

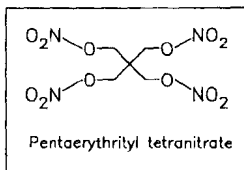
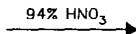
(Pentanitrolum)

ATC: A06AD14
Use: coronary vasodilator

RN: 78-11-5 MF: C₅H₈N₄O₁₂ MW: 316.14 EINECS: 201-084-3
LD₅₀: >5 g/kg (M, i.p.)
CN: 2,2-bis[(nitrooxy)methyl]-1,3-propanediol dinitrate (ester)



pentaerythritol

*Reference(s):*

US 2 370 437 (Du Pont; 1945; prior. 1943).

Formulation(s): drg. 40 mg; s. r. tabl. 80 mg; tabl. 50 mg, 80 mg*Trade Name(s):*

D:	Dilcoran 80 (Gödecke); wfm and following combination preparations: Adenolanat (Herbrand); wfm Adenopurin Herbrand (Herbrand); wfm Dilcoran 80 S Retard (Gödecke); wfm Gilucor (Giulini); wfm Govil (Stada); wfm Klimax-H Taeschner, -N Taeschner (Taeschner); wfm Nirason (Ravensberg); wfm Nitro-Crataegut (Schwabe); wfm	F:	Nitro-Novodigal (Beiersdorf); wfm Nitro-Sandolanid (Sandoz); wfm Opticardon (UCB); wfm Pentaneural (Wyeth); wfm Pentium (Hoffmann-La Roche); wfm Pheracor (Kanoldt); wfm Stenopressin (Efeka); wfm VisanoCor (Kadc); wfm	J:	Hasethrol (Shionogi) Hypothurol (Nissin) Pectolex (Shionogi)
		GB:	Nitrodex (Dexo) Myocardol (Sanofi Winthrop)	USA:	Duotrate (Marion); wfm Metranil Duracap (Meyer); wfm Neo-Corovas (Amfre- Grant); wfm Pentaerythritol Tetranitrate (Philips Roxane); wfm Pentritol (Armour); wfm Perispan (USV); wfm Peritrate (Parke Davis; Warner Chilcott); wfm SK-PETN (Smith Kline & French); wfm Vasitol (Rowell); wfm
		I:	Ajmetril (Inverni della Beffa)-comb. Peritrate Sincron. (Teofarma)		

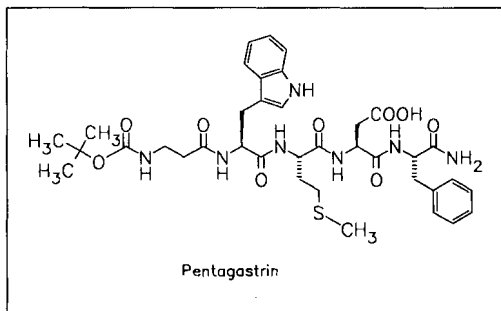
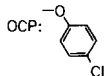
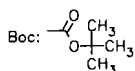
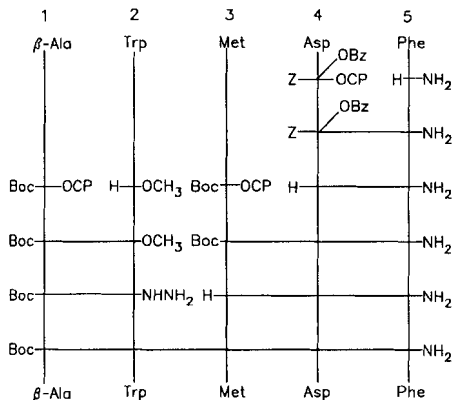
Pentagastrin

ATC: V04CG04

Use: gastric secretion diagnostic

RN: 5534-95-2 MF: C₃₇H₄₉N₇O₉S MW: 767.91 EINECS: 226-889-7

CN: N-[(1,1-dimethylethoxy)carbonyl]-β-alanyl-L-tryptophyl-L-methionyl-L-α-aspartyl-L-phenylalaninamide



Reference(s):

Davey, J.M. et al.: J. Chem. Soc. C (JSOOAX) **1966**, 555.
 US 3 896 103 (ICI; 22.7.1975; GB-prior. 25.6.1964, 9.3.1965).

Formulation(s): amp. 0.25 mg/2 ml

Trade Name(s):

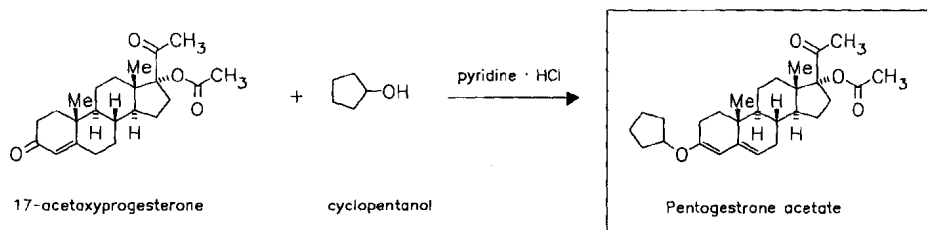
D:	Gastrodiagnost (Merck); wfm	GB:	Peptavlon (ICI); wfm	USA:	Peptavlon (Wyeth-Ayerst)
F:	Peptavlon (Zeneca)	J:	Pentagastrin (Sumitomo Chem.)		

Pentagestrone acetate

(Pentagestroni acetas)

ATC: G03
 Use: progestogen

RN: 1178-60-5 MF: C₂₈H₄₀O₄ MW: 440.62
 CN: 17-(acetyloxy)-3-(cyclopentyloxy)pregna-3,5-dien-20-one

*Reference(s):*

DAS 1 167 830 (Francesco Vismara; appl. 18.1.1961; I-prior. 6.2.1960).

alternative syntheses:

US 3 019 241 (A. Ercoli; 30.1.1962; D-prior. 4.5.1959).

DAS 1 159 940 (Francesco Vismara; appl. 10.7.1961; I-prior. 9.5.1961) addition to DE 1 119 264.

Trade Name(s):

I: Gestovis (Vister); wfm

Pentamidine

ATC: P01CX01

Use: chemotherapeutic (protozoal infections)

RN: 100-33-4 MF: $\text{C}_{19}\text{H}_{24}\text{N}_4\text{O}_2$ MW: 340.43 EINECS: 202-841-0

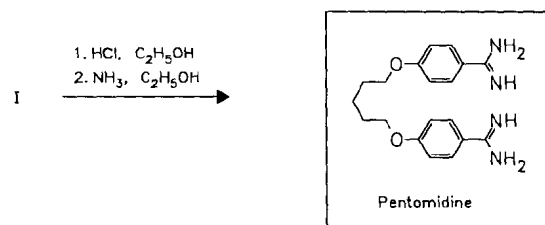
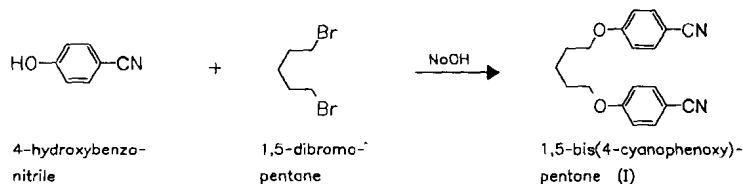
LD_{50} : 50 mg/kg (M, i.p.)

CN: 4,4'-[1,5-pentanedylbis(oxy)]bis[benzenecarboximidamide]

diisethionate

RN: 140-64-7 MF: $\text{C}_{19}\text{H}_{24}\text{N}_4\text{O}_2 \cdot 2\text{C}_2\text{H}_6\text{O}_4\text{S}$ MW: 592.69 EINECS: 205-424-1

LD_{50} : 15.1 mg/kg (M, i.v.)

*Reference(s):*

GB 507 565 (May & Baker; appl. 1938).

Ashley, J.N. et al.: J. Chem. Soc. (JCSOA9) **1942**, 103.

Formulation(s): vial 120 mg, 300 mg

Trade Name(s):

D:	Pentacarinat (Glaxo Wellcome; Rhône-Poulenc Rorer)	Pneumopent aerosol (Italchimici)	Pentam 300 (Lyphomed); wfm
F:	Pentacarinat (Bellon)	J: Benambax (Rhône-Poulenc-Chugai)	Pneumopent (Rhône-Poulenc Rorer); wfm
GB:	Pentacarinat (GHC)	USA: Pentacarinat (Rhône-Poulenc Rorer); wfm	
I:	Pentacarinat (Rhône-Poulenc Rorer)	Pentam (Fujisawa); wfm	

Pentapiperide

ATC: N04A
Use: antispasmodic, anticholinergic

RN: 7009-54-3 MF: C₁₈H₂₇NO₂ MW: 289.42 EINECS: 230-286-4
CN: α-(1-methylpropyl)benzeneacetic acid 1-methyl-4-piperidinyl ester

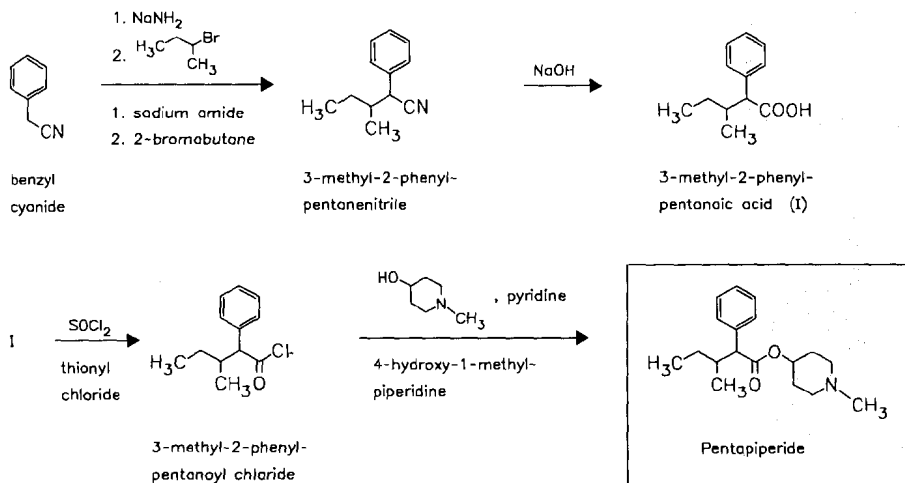
hydrogen fumarate (1:1)

RN: 635-32-5 MF: C₁₈H₂₇NO₂ · C₄H₄O₄ MW: 405.49 EINECS: 211-233-4

methyl sulfate

RN: 7681-80-3 MF: C₁₉H₃₀NO₂ · CH₃O₄S MW: 415.55 EINECS: 231-678-8

LD₅₀: 7500 µg/kg (M, i.v.); 435 mg/kg (M, p.o.);
720 mg/kg (R, p.o.)



Reference(s):

US 2 987 517 (Cilag-Chemie AG; 6.6.1961; D-prior. 20.4.1954).

Trade Name(s):

F:	Cryléne (Auclair); wfm	Togestal (Biosedra)-comb.; wfm	I: Crilin (Ayerst); wfm
			USA: Perium (Rover); wfm

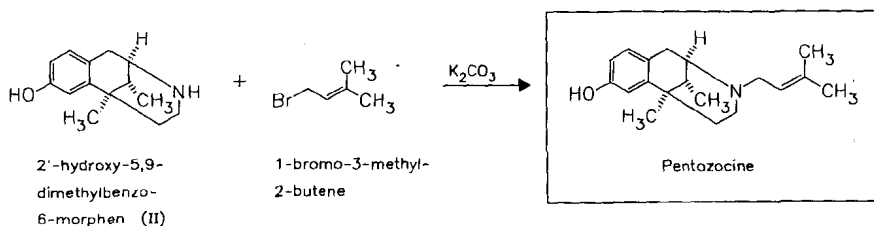
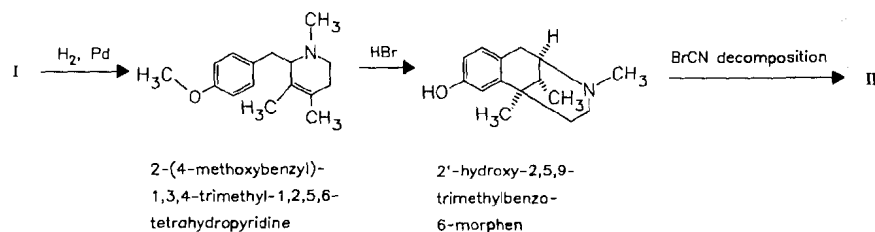
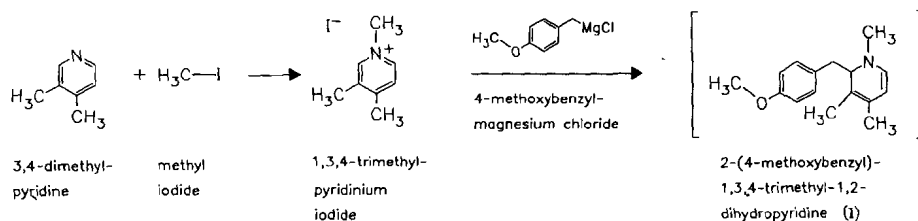
Pentazocine

ATC: N02AD01

Use: analgesic

RN: 359-83-1 MF: C₁₉H₂₇NO MW: 285.43 EINECS: 206-634-6LD₅₀: 19.8 mg/kg (M, i.v.); 205 mg/kg (M, p.o.);

21 mg/kg (R, i.v.); 1110 mg/kg (R, p.o.)

CN: (2 α ,6 α ,11R*)-1,2,3,4,5,6-hexahydro-6,11-dimethyl-3-(3-methyl-2-butenyl)-2,6-methano-3-benzazocin-8-ol**hydrochloride**RN: 2276-52-0 MF: C₁₉H₂₇NO · HCl MW: 321.89 EINECS: 218-896-9LD₅₀: 126 mg/kg (M, s.c.)**lactate (1:1)**RN: 17146-95-1 MF: C₁₉H₂₇NO · C₃H₆O₃ MW: 375.51 EINECS: 241-209-9LD₅₀: 103 mg/kg (M, i.p.)**Reference(s):**

BE 611 000 (Sterling Drug; appl. 30.11.1961; USA-prior. 1.12.1960).

Archer, S. et al.: J. Med. Chem. (JMCMAR) 7, 123 (1964).

Formulation(s): amp. 30 mg/ml; cps. 50 mg, 56.4 mg; suppos. 50 mg; tabl. 25 mg**Trade Name(s):**

D: Fortral (Winthrop)

GB: Fortagesic (Sanofi

Fortral (Sterwin; as

F: Fortal (Sanofi Winthrop)

Winthrop; as hydrochloride)

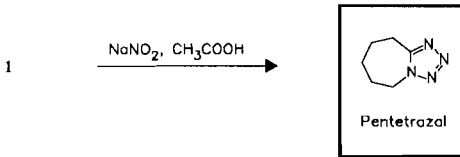
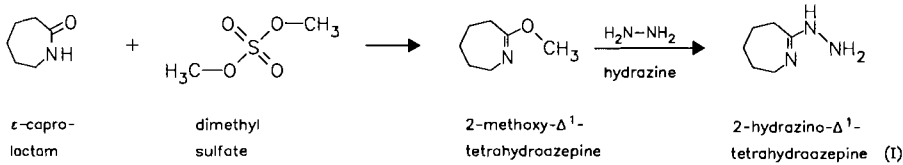
hydrochloride)

I: Pentalgina (Pierrel)	Talwintab (Sanofi Winthrop)	Pentagin (Sankyo)
Talwin (Pierrel)	J: Peltazon (Grelan)	USA: Talacen (Sanofi)
Talwin (Sanofi Winthrop)		Talwin (Sanofi)

Pentetrazol
(Pentylenetetrazol)

ATC: R07AB03
Use: analgesic, circulatory stimulant

RN: 54-95-5 MF: C₆H₁₀N₄ MW: 138.17 EINECS: 200-219-3
LD₅₀: 31.4 mg/kg (M, i.v.); 88 mg/kg (M, p.o.);
45 mg/kg (R, i.v.); 140 mg/kg (R, p.o.)
CN: 6,7,8,9-tetrahydro-5H-tetrazolo[1,5-a]azepine



Reference(s):

Schmidt, K.F.: Ber. Dtsch. Chem. Ges. (BDCGAS) **57**, 704 (1924).
Stolle, R.: Ber. Dtsch. Chem. Ges. (BDCGAS) **63**, 1032 (1930).

alternative syntheses (azide method):

DRP 427 858 (Knoll; appl. 1923).
DRP 439 041 (Knoll; appl. 1924).
DRP 455 585 (Knoll; appl. 1925).
DRP 521 870 (Knoll; appl. 1929).
DRP 537 739 (Knoll; appl. 1928).
DRP 538 981 (Knoll; appl. 1926).
DRP 543 025 (Knoll; appl. 1927).
DRP 545 850 (Knoll; appl. 1927).
DRP 574 943 (Knoll; appl. 1932).
DRP 576 327 (Knoll; appl. 1930).
DRP 611 692 (Chinoïn; appl. 1934).

Formulation(s): drops 100 mg/g

Trade Name(s):

D: Afpred (Hefa-Frenon)-comb.; wfm	Poikiloton (Lomapharm)-comb.; wfm	Tetracor (Chinoïn); wfm
Cardaminol (Reinecke)-comb.; wfm	Sympatocard (Boehringer Ing.)-comb.; wfm	Tetrazol (Lisapharma); wfm
Cardiazol (Knoll); wfm	J: Cardiazol (Sankyo)	
Indovert (Dolorgiet)-comb.; wfm	F: Désintex-Pentazol (M. Richard); wfm	USA: Analeptone (Reed & Carnrick); wfm
Jasivita (Bolder)-comb.; wfm	I: Cardiazol (Knoll); wfm	Benizol (ICI)-comb. with nicotinic acid; wfm
	Cardiazol Paracodina (Knoll)-comb.; wfm	

Geroniazol (Philips
Roxane)-comb. with
nicotinic acid; wfm
Metrazol (Knoll); wfm

Nico-Metrazol (Knoll)-
comb. with nicotinic acid;
wfm
Rovite Tonic (Rotex); wfm

Vita-Metrazol (Knoll)-
comb. with vitamin B
complex; wfm

Penthienate methobromide

(Penthienate bromide)

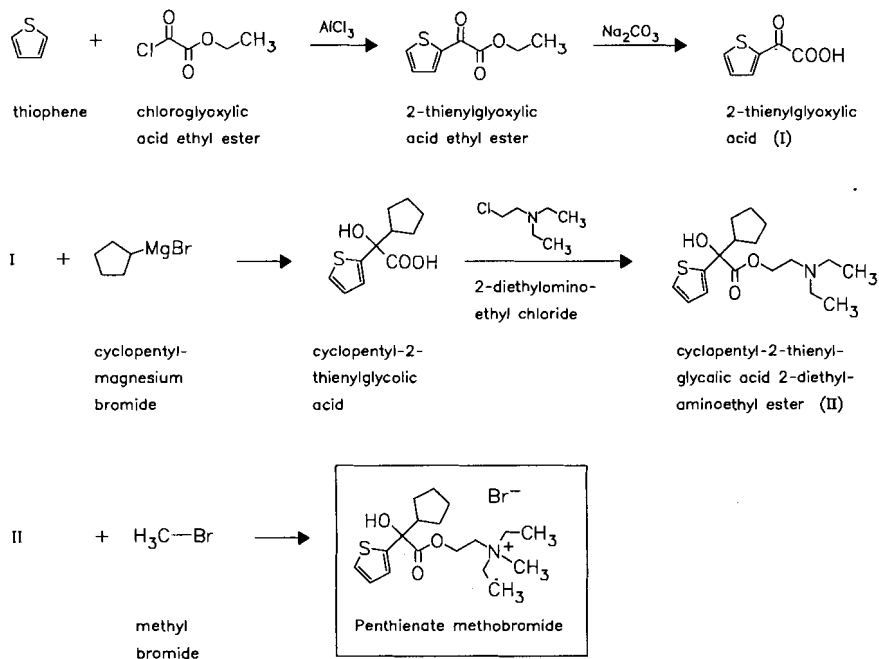
ATC: A03AB

Use: antispasmodic

RN: 60-44-6 MF: $C_{18}H_{30}BrNO_3S$ MW: 420.41 EINECS: 200-478-2

LD₅₀: 16 mg/kg (M, i.v.); 2080 mg/kg (M, p.o.)

CN: 2-[(cyclopentylhydroxy-2-thienylacetyl)oxy]-*N,N*-diethyl-*N*-methylethanaminium bromide



Reference(s):

US 2 541 634 (Univ. of Michigan; 1951; prior. 1946).

Formulation(s): tabl. 5 mg

Trade Name(s):

GB: Monodral (Winthrop); wfm

J: Monodral (Nakataki)

USA: Monodral (Winthrop); wfm

Pentifylline

(Hexyltheobromine)

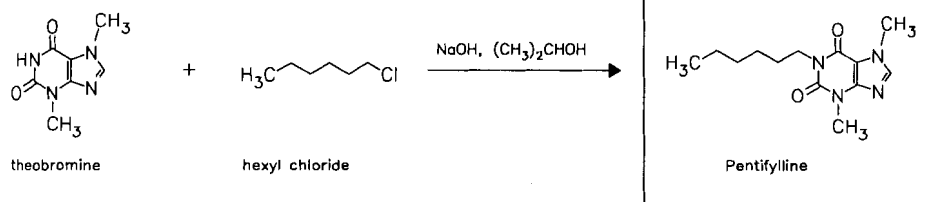
ATC: C04AD01

Use: vasodilator

RN: 1028-33-7 MF: $C_{13}H_{20}N_4O_2$ MW: 264.33 EINECS: 213-842-0

LD₅₀: 1040 mg/kg (M, p.o.)

CN: 1-hexyl-3,7-dihydro-3,7-dimethyl-1*H*-purine-2,6-dione

**Reference(s):**

DE 860 217 (Chemische Werke Albert; appl. 1950).

alternative synthesis:

SU 202 152 (K. Chkhikoadze et al.; appl. 17.9.1966).

combination with inositol hexanicotinate:

GB 1 129 134 (Sterling Winthrop; valid from 3.11.1965; prior. 4.11.1964).

combination with nicotinic acid:

GB 815 969 (Chemische Werke Albert; valid from 1958; USA-prior. 1957).

use for stabilization of vitamins:

DOS 1 810 705 (Chemische Werke Albert; appl. 25.11.1968).

retard form:

DE 1 617 418 (Chemische Werke Albert; appl. 16.12.1967).

oral pharmaceutical formulation:

DOS 2 520 978 (Hoechst; appl. 10.5.1975).

Formulation(s): s. r. drg. 400 mg**Trade Name(s):**D: Cosaldon (Albert-Roussel,
Hoechst)-comb. with
retinol palmitateCosaldon (Albert-Roussel,
Hoechst)F: Cosadon (Hoechst)-comb.
with nicotinic acid; wfmJ: Tonostan (Tokyo Tanabe)-
comb. with nicotinic acid**Pentobarbital**

(Mebumalum; Pentobarbitone)

ATC: N05CA01

Use: hypnotic

RN: 76-74-4 MF: C₁₁H₁₈N₂O₃ MW: 226.28 EINECS: 200-983-8LD₅₀: 65 mg/kg (M, i.v.); 170 mg/kg (M, p.o.);

125 mg/kg (R, p.o.);

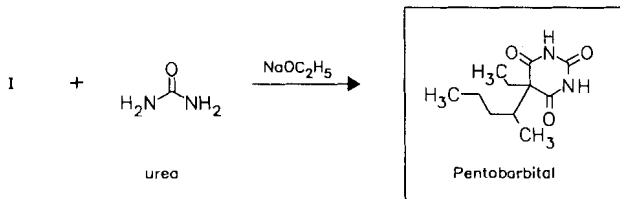
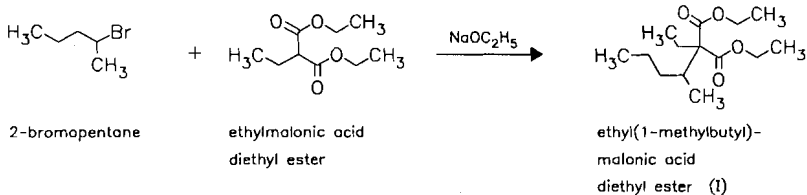
50 mg/kg (dog, i.v.)

CN: 5-ethyl-5-(1-methylbutyl)-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione**monosodium salt**RN: 57-33-0 MF: C₁₁H₁₇N₂NaO₃ MW: 248.26 EINECS: 200-323-9LD₅₀: 81 mg/kg (M, i.v.); 239 mg/kg (M, p.o.);

65 mg/kg (R, i.v.); 118 mg/kg (R, p.o.);

65 mg/kg (dog, p.o.)

calcium saltRN: 7563-42-0 MF: C₁₁H₁₈N₂O₃ · xCa MW: unspecified EINECS: 231-460-2



Reference(s):

DRP 293 163 (Bayer; 1915).
 GB 650 354 (Geigy; appl. 1948) - method.

Formulation(s): cps. 50 mg, 100 mg; sol. 50 mg/ml; suppos. 60 mg, 120 mg (as sodium salt)

Trade Name(s):

D:	Isoptin S (Knoll)-comb.; wfm Migrexa (Sanorania)-comb.; wfm Nembutal (Abbott); wfm Neodorm (Minden); wfm Norkotral (Desitin)-comb.; wfm	Omka-Nacht Tabletten (Heyden)-comb.; wfm Praecicalm (Molimin); wfm Priatan (Minden)-comb.; wfm Repocal (Desitin); wfm	I:	Isoptin S (Knoll)-comb.; wfm Nembutal (Abbott); wfm	
F:	Nembutal (Abbott); wfm	GB:	Nembutal (Abbott); wfm	J:	Mintal (Tanabe) Nembutal (Dainippon)
				USA:	Nembutal (Abbott) Pentobarbital Sodium (Wyeth-Ayerst)

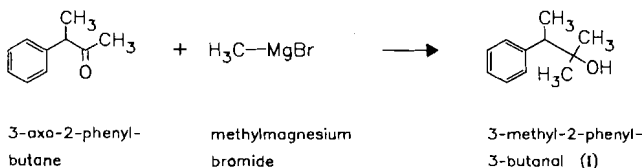
Pentorex
 (Phenpentermine)

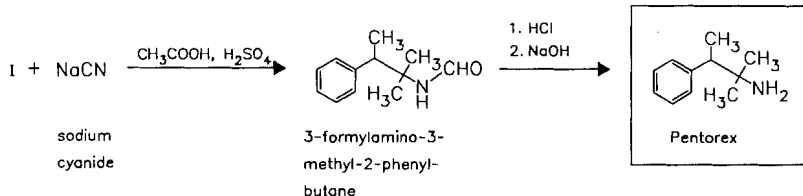
ATC: A08A
 Use: appetite depressant

RN: 434-43-5 MF: C₁₁H₁₇N MW: 163.26 EINECS: 207-102-6
 CN: α,α,β-trimethylbenzeneethanamine

hydrogen tartrate (2:1)

RN: 22876-60-4 MF: C₁₁H₁₇N · 1/2C₄H₆O₆ MW: 476.61





Reference(s):

FR-M 2 594 (Nordmark-Werke; appl. 17.4.1963; D-prior. 13.11.1962).

Trade Name(s):

D: Modatrop (Nordmark); F: Liprodéne (Anphar); wfm wfm

Pentostatin

(Deoxycofornycin; Co-vidarabine)

ATC: L01XX08

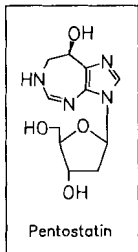
Use: adenosine deaminase inhibitor (for hairy cell leucemia treatment)

RN: 53910-25-1 MF: C₁₁H₁₆N₄O₄ MW: 268.27

LD₅₀: 122 mg/kg (M, i.v.); 227 mg/kg (M, p.o.)

CN: (R)-3-(2-deoxy-β-D-erythro-pentofuranosyl)-3,6,7,8-tetrahydroimidazo[4,5-d][1,3]diazepin-8-ol

Fermentation of *streptomyces antibioticus* MRRL.



Reference(s):

US 3 923 785 (Parke Davis; 2.12.1975; appl. 22.4.1974).

DE 2 517 596 (Parke Davis; appl. 30.10.1975; USA-prior. 22.4.1974).

Formulation(s): vial 10 mg

Trade Name(s):

D: Nipent (Lederle) J: Coforin (Kaketsuken)
 F: Nipent (Wyeth-Lederle) Nippon Kayaku
 GB: Nipent (Wyeth) USA: Nipent (SuperGen)

Pentoxifylline

ATC: C04AD03

Use: vasodilator

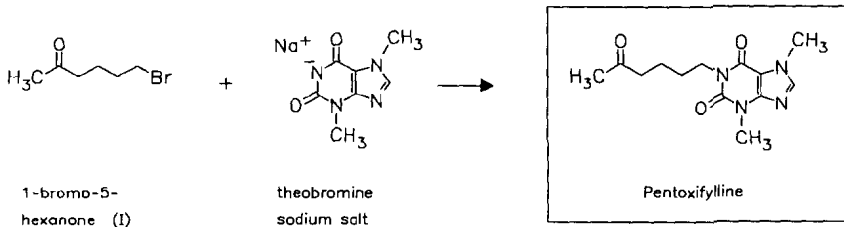
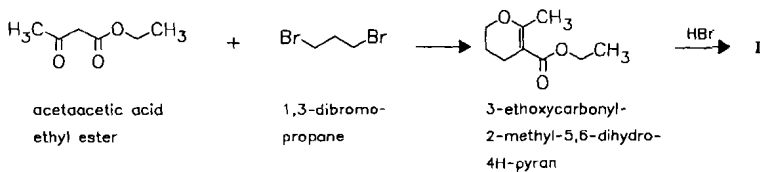
RN: 6493-05-6 MF: C₁₃H₁₈N₄O₃ MW: 278.31 EINECS: 229-374-5

LD₅₀: 108 mg/kg (M, i.v.); 1225 mg/kg (M, p.o.);

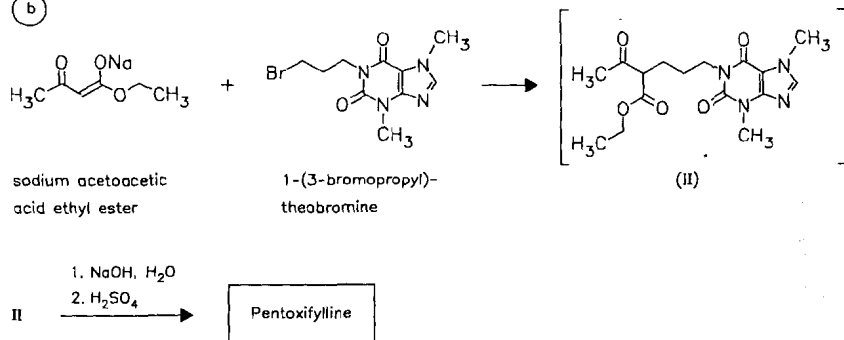
231 mg/kg (R, i.v.); 1170 mg/kg (R, p.o.)

CN: 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)-1H-purine-2,6-dione

a



b

*Reference(s):*

DE 1 235 320 (Chemische Werke Albert; appl. 5.9.1964).

US 3 422 107 (Chemische Werke Albert; 14.1.1969; D-prior. 30.8.1965, 24.7.1965, 10.7.1965, 2.7.1965, 5.9.1964).

US 3 737 433 (Chemische Werke Albert; 5.6.1973; D-prior. 5.9.1964, 2.7.1965, 10.7.1965, 24.7.1965).

Mohler, W.; Söder, A.: *Arzneim.-Forsch. (ARZNAD)* **21**, 1159 (1971).Mohler, W. et al.: *Arch. Pharm. (Weinheim, Ger.) (ARPMAS)* **299**, 448 (1966).*alternative syntheses:*

DOS 2 330 741 (Chemische Werke Albert; appl. 16.6.1973).

DOS 2 302 772 (Chemische Werke Albert; appl. 20.1.1973).

DOS 2 234 202 (Chemische Werke Albert; appl. 12.7.1972).

JP-appl. 54 112 893 (Kohjin; appl. 21.2.1978).

pharmaceutical formulation:

DE 1 617 418 (Chemische Werke Albert; appl. 16.12.1967).

DOS 2 520 978 (Hoechst AG; appl. 10.5.1975).

use as dissolving intermediary:

DE 1 250 968 (Chemische Werke Albert; appl. 24.7.1965).

Formulation(s): amp. 100 mg/5 ml, 300 mg/15 ml; drg. 100 mg; f. c. tabl. 400 mg; s. r. cps. 400 mg, 600 mg; s. r. drg. 400 mg; s. r. tabl. 400 mg, 600 mg

Trade Name(s):

D:	Claudicat retard (Promonta Lundbeck) Durapental 400 (durachemie) Pento AbZ (AbZ-Pharma) Pentohehexal (Hexal) pentox (ct-Arzneimittel)	F:	Pentoxifyllin-ratiopharm 400 (ratiopharm) Ralofekt (ASTA Medica AWD) Rentylin (Rentschler) Trental (Albert-Roussel, Hoechst) Hatial (Wyeth-Lederle)	GB:	Pentoflux (Bouchara) Torental (Hoechst) Trental (Hoechst)	I:	Trental (Hoechst Marion)	J:	Trental (Hoechst)	USA:	Trental (Hoechst Marion Roussel)
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Pentoxyverine

(Carbetapentane)

ATC: R05DB05

Use: antitussive

RN: 77-23-6 MF: C₂₀H₃₁NO₃ MW: 333.47 EINECS: 201-014-1

LD₅₀: 13 mg/kg (M, i.v.); 130 mg/kg (M, p.o.);
150 mg/kg (R, p.o.)

CN: 1-phenylcyclopentanecarboxylic acid 2-[2-(diethylamino)ethoxy]ethyl ester

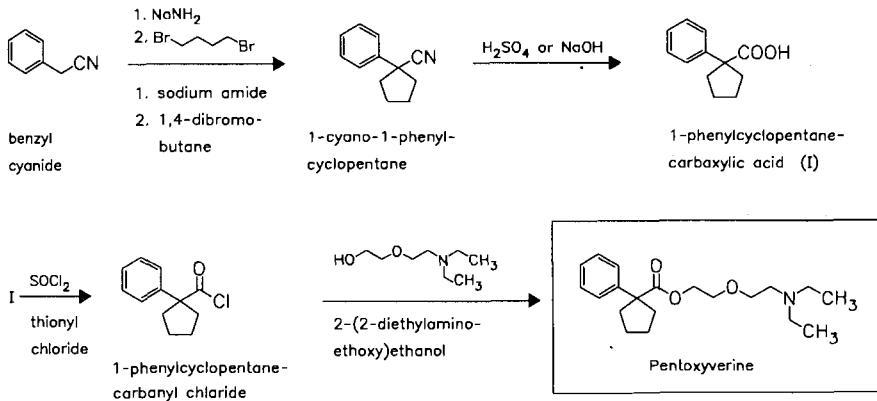
citrate (1:1)

RN: 23142-01-0 MF: C₂₀H₃₁NO₃ · C₆H₈O₇ MW: 525.60 EINECS: 245-449-5

LD₅₀: 38 mg/kg (M, i.v.); 230 mg/kg (M, p.o.);
34 mg/kg (R, i.v.); 810 mg/kg (R, p.o.)

hydrochloride

RN: 1045-21-2 MF: C₂₀H₃₁NO₃ · HCl MW: 369.93



Reference(s):

GB 753 779 (H. Morren; appl. 1954; B-prior. 1953).

Formulation(s): f. c. tabl. 50 mg; cps. 75 mg; drops 30 mg/ml; suppos. 8 mg, 20 mg; syrup 213 mg/100 ml (as citrate); suppos. 8 mg, 20 mg (as base); syrup 150 mg/100 ml (as hydrochloride)

Trade Name(s):

D:	Pertix (Hommel) Sedotussin (Rudleben); UCB; Vedim)-comb. with chlorphenamine hydrogen maleate Sedotussin (Rudleben); UCB; Vedim)	F:	Pectosan Toux Séche (RPR Cooper)	Milysted (Nissin Yakuhin) Takabetane (Takata)
I:	Tuclase (UCB)	J:	Aslos (Kotani) Carbeten (Showa Yakuhin) Culten (Towa) Kaibohl (Sawai)	Toclase (Sumitomo)
USA:	Rynatuss (Wallace)-comb.			

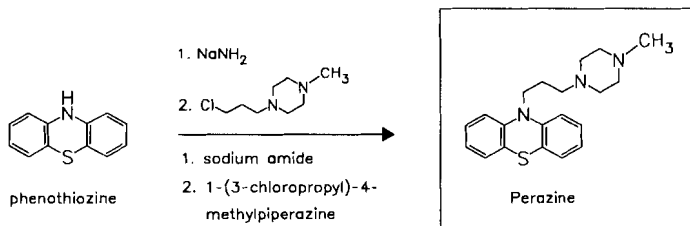
Perazine

ATC: N05AB10

Use: psychosedative

RN: 84-97-9 MF: C₂₀H₂₅N₃S MW: 339.51 EINECS: 201-578-9LD₅₀: 75 mg/kg (M, i.v.); 640 mg/kg (M, p.o.);

80 mg/kg (R, i.v.); 500 mg/kg (R, p.o.)

CN: 10-[3-(4-methyl-1-piperazinyl)propyl]-10*H*-phenothiazine**dimalonate**RN: 14777-25-4 MF: C₂₀H₂₅N₃S · 2C₃H₄O₄ MW: 547.63 EINECS: 238-842-8**Reference(s):**

DE 1 037 461 (Rhône-Poulenc; appl. 1955; GB-prior. 1954).

Hromatka, O.: Monatsh. Chem. (MOCMB7) **88**, 56 (1957).

Formulation(s): amp. 50 mg/2 ml; drg. 25 mg, 100 mg; f. c. tabl. 25 mg, 100 mg, 200 mg; sol. 44 mg/ml; tabl. 100 mg (as dimalonate)

Trade Name(s):D: Taxilan (Promonta
Lundbeck)

J: Taxilan (Morishita)

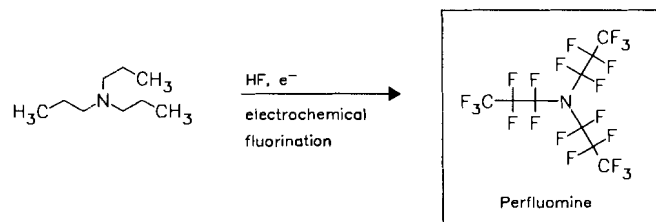
Perfluamine

ATC: B05A

Use: blood substitute in combination with perflunafene

RN: 338-83-0 MF: C₉F₂₁N MW: 521.06 EINECS: 206-420-2CN: 1,1,2,2,3,3,3-heptafluoro-*N,N*-bis(heptafluoropropyl)-1-propanamine**mixture with perflunafene**

RN: 75216-20-5 MF: unspecified MW: unspecified

**Reference(s):**

US 2 616 927 (3M; 1952)

medical use as blood substitute:

DOS 2 630 586 (Green Cross; appl. 7.7.1976; USA-prior. 3.2.1976).

US 4 252 827 (Green Cross; 24.2.1981; appl. 3.2.1976).

reduction of tumor metastasis:

EP 201 275 (Alpha Therap. Corp.; appl. 30.4.1986; USA-prior. 9.5.1985).

WO 8 908 459 (Alpha Therap. Corp.; appl. 21.9.1989; USA-prior. 11.3.1988).

Formulation(s): mixture of perfluamine, perflunafene (3:7), pluronic F-68, yolk phospholipids, glycerol (20 % emulsion)*Trade Name(s):*GB: Fluosol (Alpha Therap.)-
comb. with perflunafene;
wfmUSA: Fluosol (Alpha Therap.;
1990)-comb. with
perflunafene; wfm**Perflunafene**

(Perfluorodecaline)

ATC: B05A

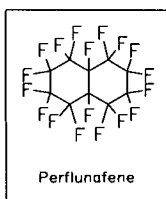
Use: blood substitute in combination with
perfluamineRN: 306-94-5 MF: C₁₀F₁₈ MW: 462.07 EINECS: 206-192-4LD₅₀: 50 mg/kg (M, i.v.)

CN: octadecafluorodecahydronaphthalene

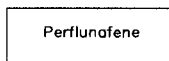
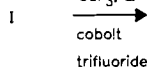
a



naphthalene (I)



b

*Reference(s):*a McBee, E.T.; Bechtol, L.D.: Ind. Eng. Chem. (IECHAD) **39**, 380 (1947).

US 2 459 780 (Purdue Research Found.; 1949).

b JP 1 186 828 (Tokuyama; appl. 16.1.1988).

Sokolov, S.V. et al.: Zh. Prikl. Khim. (Leningrad) (ZPKHAB) **39**, 362 (1966) [CA (CHABA8) **64**, 19443 (1966)].*additional synthesis:*

US 2 487 820 (Purdue Research Found.; 1949).

Sander, M.; Bloche, W.: Chem.-Ing.-Tech. (CITEAH) **37**, 7 (1965).*Formulation(s):* cf. perfluamine

Trade Name(s):

GB: Fluosol (Alpha Therap.)-
comb. with perflumamine;
wfm

USA: Fluosol (Alpha Therap.;
1990)-comb. with
perflumamine; wfm

Pergolide
(LY-127809)

ATC: N04BC02

Use: long acting dopamine D₁ and D₂-
agonist, antiparkinsonian, prolactin
release inhibitor

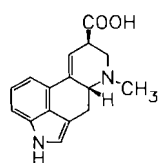
RN: 66104-22-1 MF: C₁₉H₂₆N₂S MW: 314.50

CN: (8β)-8-[(methylthio)methyl]-6-propylergoline

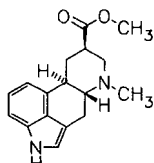
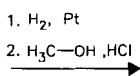
mesylate

RN: 66104-23-2 MF: C₁₉H₂₆N₂S · CH₄O₃S MW: 410.60

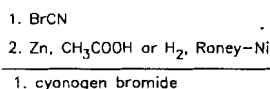
LD₅₀: 100 mg/kg (M, i.p.); 54 mg/kg (M, p.o.);
15 mg/kg (R, p.o.)



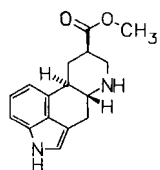
lysergic acid



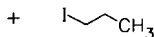
methyl dihydro-
lysergate



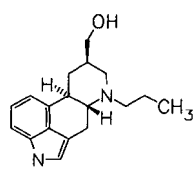
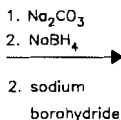
I



D-8β-methoxycarbo-
nyl-ergoline (I)

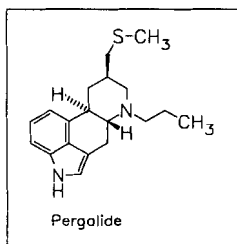
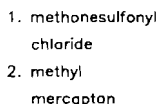
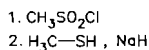


propyl
iodide



D-6-propyl-8β-hydroxy-
methyl-ergoline (II)

II



Reference(s):

US 4 166 182 (Lilly; 28.8.1979; appl. 8.2.1978).

US 4 180 582 (Lilly; 25.12.1979; appl. 11.1.1979; prior. 8.2.1978).

US 4 202 979 (Lilly; 13.5.1980; appl. 11.1.1979; prior. 8.2.1978).

EP 3 667 (Lilly; appl. 5.2.1979; USA-prior. 8.2.1978).

synthesis of intermediates:

EP 213 850 (Lilly; appl. 14.8.1986; USA-prior. 16.8.1985).

light stabilised pergolide formulation:

US 4 797 405 (Lilly; 10.1.1989; appl. 26.10.1987).

Formulation(s): tabl. 0.05 mg, 0.25 mg, 1 mg (as mesylate)

Trade Name(s):

D: Parkotil (Lilly)

I: Nopar (Lilly)

USA: Permax (Athera)

GB: Celance (Lilly)

J: Permax (Lilly)

Perhexiline

ATC: C08EX02

Use: coronary vasodilator

RN: 6621-47-2 MF: $C_{19}H_{35}N$ MW: 277.50 EINECS: 229-569-5

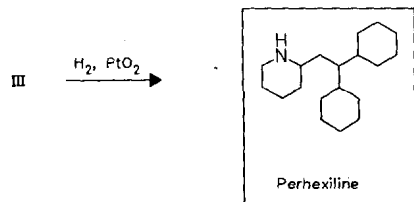
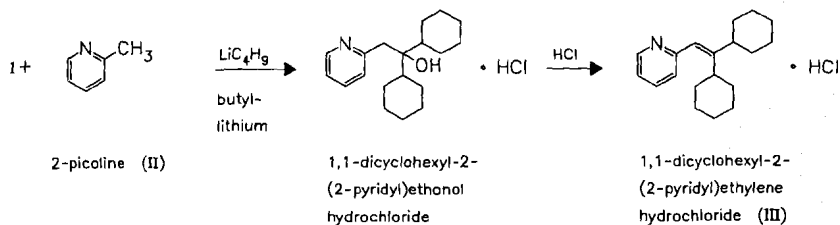
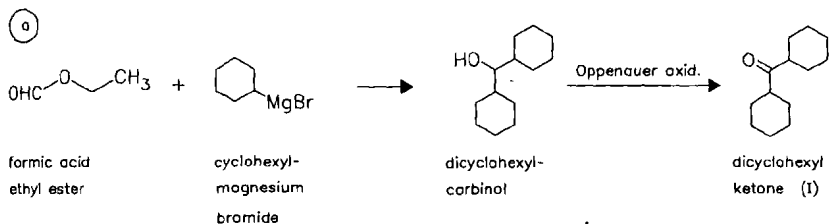
CN: 2-(2,2-dicyclohexylethyl)piperidine

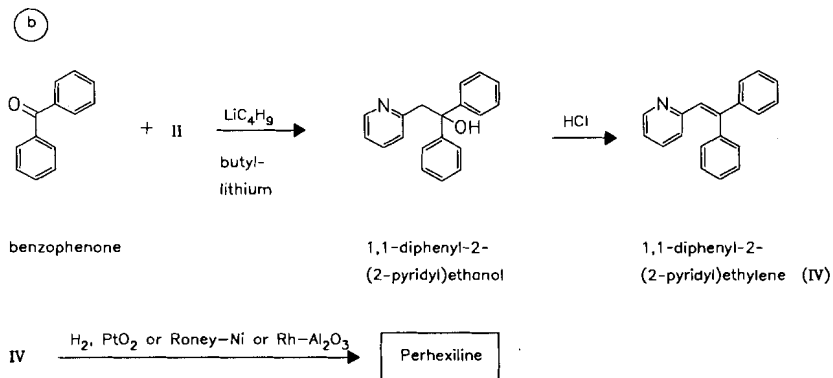
maleate (1:1)

RN: 6724-53-4 MF: $C_{19}H_{35}N \cdot C_4H_4O_4$ MW: 393.57 EINECS: 229-775-5

LD₅₀: 2641 mg/kg (M, p.o.);

2150 mg/kg (R, p.o.)



**Reference(s):**

- a US 3 038 905 (Richardson-Merrell; 12.6.1962; prior. 24.5.1960).
FR-M 4 474 (Richardson-Merrell; appl. 20.11.1964; USA-prior. 26.11.1963).
precursor:
GB 912 830 (Richardson-Merrell; appl. 16.5.1961; USA-prior. 24.5.1960).
- b DOS 2 643 473 (B.T.B. Industria Chimica S.p.A.; appl. 27.9.1976; I-prior. 29.9.1975, 7.11.1975).
DOS 2 713 500 (Richardson-Merrell; appl. 26.3.1977; USA-prior. 14.4.1976).
DOS 2 714 081 (Richardson-Merrell; appl. 30.3.1977; USA-prior. 14.4.1976).
US 4 069 222 (Richardson-Merrell; 17.1.1978; appl. 14.4.1976).

Formulation(s): tabl. 100 mg

Trade Name(s):

D:	Pexid (Merrell); wfm	GB:	Pexid (Merrell); wfm	USA:	Pexid (Merrell-National); wfm
F:	Pexid (Merrell-Torade); wfm	I:	Pexid (Merrell); wfm		

Periciazine

(Pericyazine; Propericiazine)

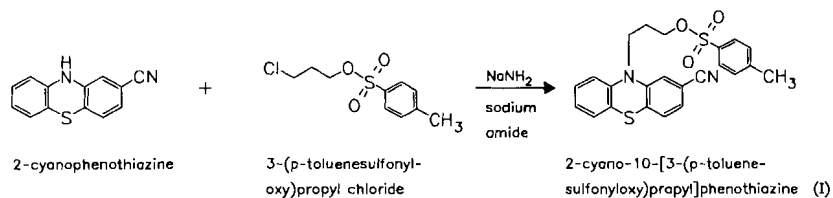
ATC: N05AC01

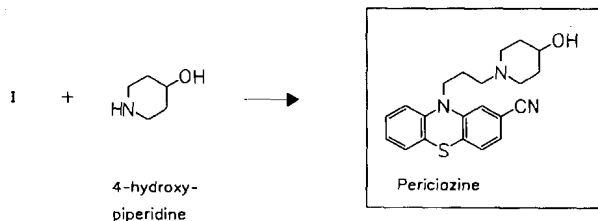
Use: antipsychotic, neuroleptic

RN: 2622-26-6 MF: $\text{C}_{21}\text{H}_{23}\text{N}_3\text{OS}$ MW: 365.50 EINECS: 220-071-3

LD₅₀: 27.7 mg/kg (M, i.v.); 530 mg/kg (M, p.o.);
35 mg/kg (R, i.v.); 395 mg/kg (R, p.o.)

CN: 10-[3-(4-hydroxy-1-piperidinyl)propyl]-10H-phenothiazine-2-carbonitrile



**Reference(s):**

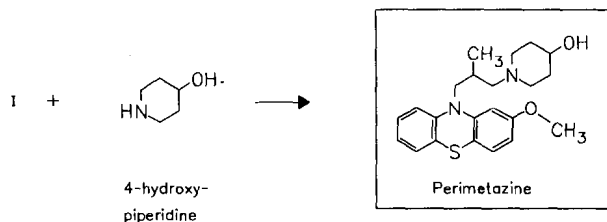
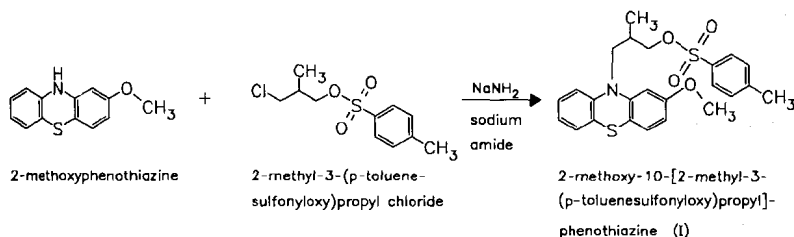
FR 1 212 031 (Rhône-Poulenc; appl. 21.10.1957).

Formulation(s): drops 1 mg/drop; tabl. 5 mg, 10 mg, 25 mg**Trade Name(s):**

D: Aolept (Bayer); wfm	I: Neuleptil (Rhône-Poulenc Rorer)
F: Neuleptil (Specia)	
GB: Neulactil (May & Baker); wfm	J: Apamin (Yoshitomi) Neuleptil (Shionogi)

Perimetazine
(Perimethazin)ATC: N05A
Use: neurolepticRN: 13093-88-4 MF: C₂₂H₂₈N₂O₂S MW: 384.54 EINECS: 236-009-3

CN: 1-[3-(2-methoxy-10H-phenothiazin-10-yl)-2-methylpropyl]-4-piperidinol

**Reference(s):**

US 3 075 976 (Rhône-Poulenc; 29.1.1963; F-prior. 21.10.1957).

Trade Name(s):

F: Leptryl (Roger Bellon); wfm

Perindopril

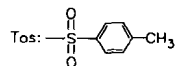
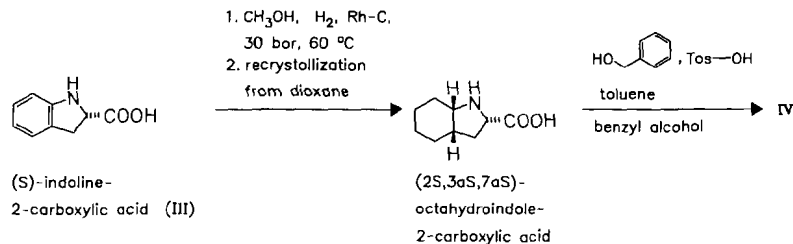
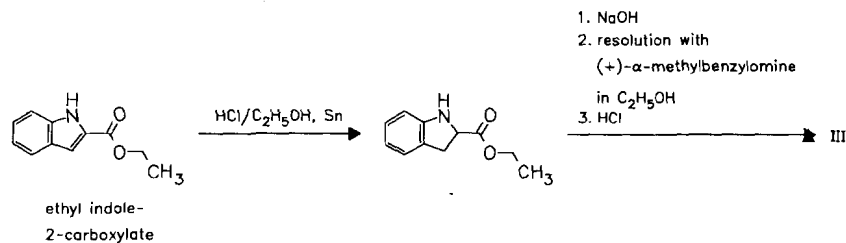
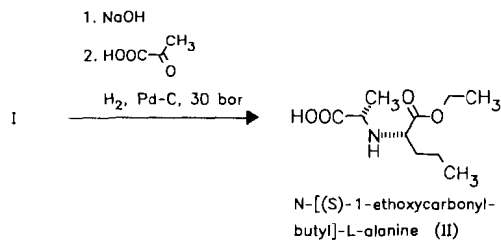
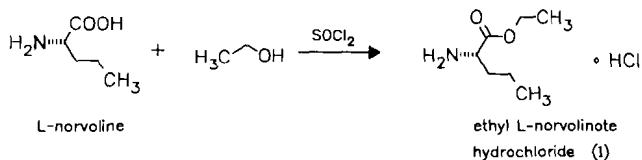
(S-9490; McN-A-2833; SED-9490 (as erbumine); DW-7950 (as erbumine))

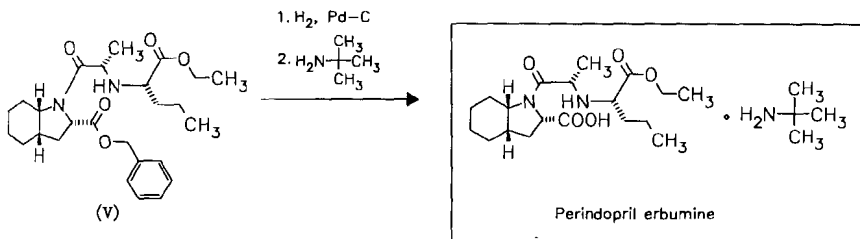
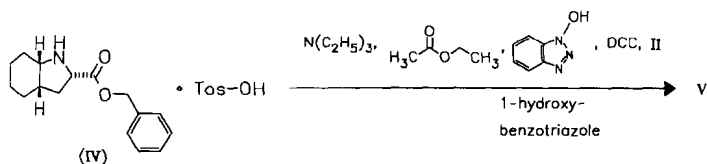
ATC: C09AA04

Use: antihypertensive (ACE inhibitor),
cardiotonic

RN: 82834-16-0 MF: C₁₉H₃₂N₂O₅ MW: 368.47

CN: [2S-[1[R*(R*)],2α,3aβ,7aβ]]-1-[2-[[1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-1*H*-indole-2-carboxylic acid

erbumine (compd. with tert-butylamine 1:1)RN: 107133-36-8 MF: C₁₉H₃₂N₂O₅ · C₄H₁₁N MW: 441.61



Reference(s):

Vincent, M. et al.: Tetrahedron Lett. (TELEAY) **23**, 1677 (1982).
 US 4 508 729 (ADIR).
 EP 49 658 (ADIR; appl. 29.9.1981; F-prior. 2.10.1980, 7.4.1981).

industrial process:

US 4 914 214 (ADIR; 3.4.1990; F-prior. 17.9.1987).

Formulation(s): tabl. 2 mg, 4 mg, 8 mg

Trade Name(s):

D: Coversum Cor (Servier)	I: Coversyl (Servier)	USA: Accon (Rhône-Poulenc Rorer)
F: Coversyl (Servier)	Procaptan (Stroder)	
GB: Coversyl (Servier)		

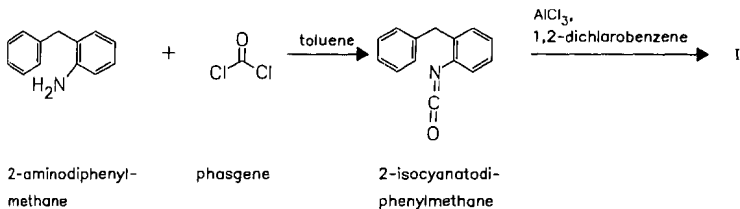
Perlapine

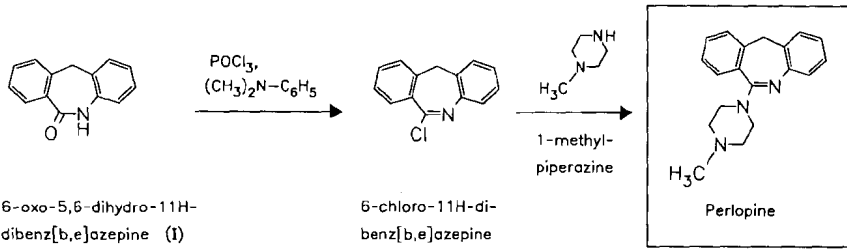
ATC: N05C
 Use: hypnotic

RN: 1977-11-3 MF: C₁₉H₂₁N₃ MW: 291.40

LD₅₀: 61 mg/kg (M, i.v.); 270 mg/kg (M, p.o.);
 60 mg/kg (R, i.v.); 660 mg/kg (R, p.o.)

CN: 6-(4-methyl-1-piperaziny)-11H-dibenz[b,e]azepine



*Reference(s):*

US 3 389 139 (Dr. A. Wander; 18.6.1968; prior. 10.6.1964; 2.6.1966).

Formulation(s): tabl. 2.5 mg

Trade Name(s):

J: Hypnodin (Takeda)

Perphenazine

ATC: N05AB03

Use: neuroleptic, anti-emetic

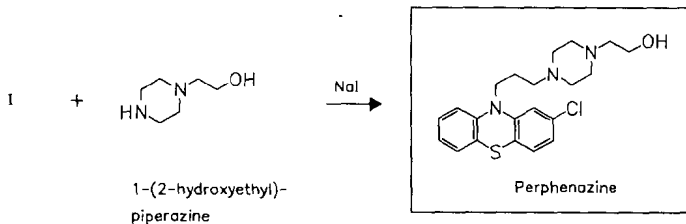
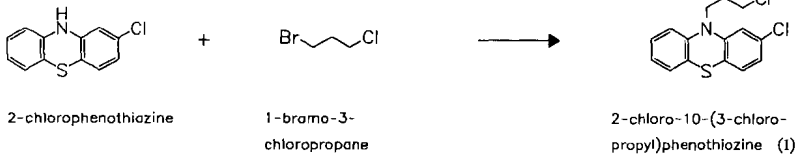
RN: 58-39-9 MF: $\text{C}_{21}\text{H}_{26}\text{ClN}_3\text{OS}$ MW: 403.98 EINECS: 200-381-5

LD_{50} : 19 mg/kg (M, i.v.); 120 mg/kg (M, p.o.);

34 mg/kg (R, i.v.); 318 mg/kg (R, p.o.);

51 mg/kg (dog, i.v.)

CN: 4-[3-(2-chloro-10H-phenothiazin-10-yl)propyl]-1-piperazineethanol

*Reference(s):*

US 2 838 507 (Searle; 1958; appl. 1957; prior. 1955).

carbamate derivatives:

US 2 860 138 (Schering Corp.; 1958; appl. 1956).

acetate:

US 2 766 235 (J. W. Cusic; 1956; appl. 1956).

Formulation(s): amp. 76 mg/ml; drops 4 mg/ml; inj. flask 1000 mg; tabl. 2 mg, 4 mg, 8mg, 16 mg

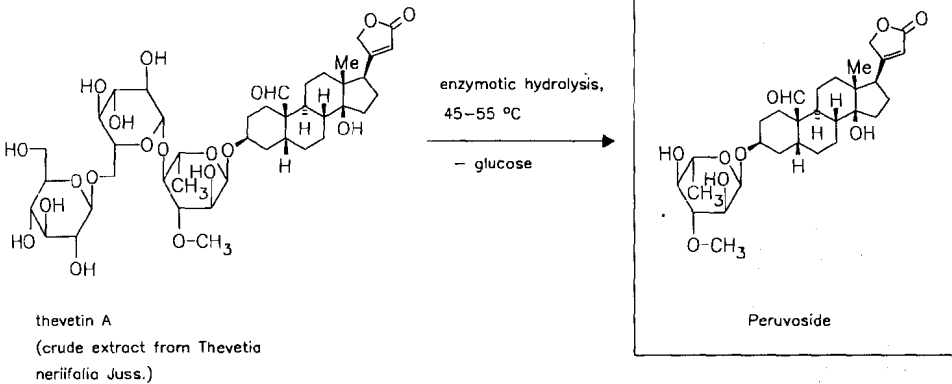
Trade Name(s):

D:	Decentan (Merck)	I:	Mutabon (Schering-Plough)	USA:	Etrafon (Schering)-comb. with amitryptiline
F:	Trilifan Retard (Schering-Plough)		Trilafon (Schering-Plough)		Triavil (Merck Sharp & Dohme)-comb. with amitryptiline
GB:	Fentazin (Goldshield)	J:	Trilafon (Schering-Shionogi)		Trilafon (Schering)
	Triptafen (Goldshield)-comb.		Triomin (Yamanouchi)		

Peruvoside

ATC: C01AX02
Use: cardiac glycoside

RN: 1182-87-2 MF: C₃₀H₄₄O₉ MW: 548.67 EINECS: 214-659-9
LD₅₀: 145 µg/kg (cat, i.v.)
CN: (3β,5β)-3-[(6-deoxy-3-O-methyl-α-L-glucopyranosyl)oxy]-14-hydroxy-19-oxocard-20(22)-enolide



From the seeds of *Thevetia peruviana*.

Reference(s):

DE 1 959 039 (Merck Patent GmbH; appl. 25.11.1969).
Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. 8, 239.
Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 12, 617.

starting material:

Bloch et al.: *Helv. Chim. Acta (HCACAV)* 43, 652 (1960).

Formulation(s): drg. 0.3 mg; drops 0.3 mg/ml

Trade Name(s):

D:	Encordin (Merck); wfm	Nerial (Simes); wfm	Perusid (Malesci); wfm
I:	Largitor (Inverni della Beffa); wfm	Perusid (Dietopharma); wfm	

Pethidine

(Meperidine)

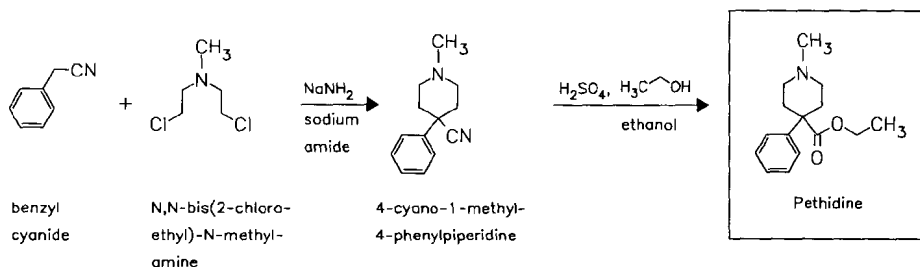
ATC: N02AB02
Use: analgesic, antispasmodic

RN: 57-42-1 MF: C₁₅H₂₁NO₂ MW: 247.34 EINECS: 200-329-1
LD₅₀: 34.7 mg/kg (M, i.v.); 200 mg/kg (M, p.o.);
22.5 mg/kg (R, i.v.); 162 mg/kg (R, p.o.)
CN: 1-methyl-4-phenyl-4-piperidinecarboxylic acid ethyl ester

hydrochlorideRN: 50-13-5 MF: $C_{15}H_{21}NO_2 \cdot HCl$ MW: 283.80 EINECS: 200-013-3LD₅₀: 32 mg/kg (M, i.v.); 178 mg/kg (M, p.o.);

30 mg/kg (R, i.v.); 170 mg/kg (R, p.o.);

68 mg/kg (dog, i.v.)

**Reference(s):**

US 2 167 351 (Winthrop; 1939; D-prior. 1937).

DE 679 281 (I. G. Farben; appl. 1937).

Formulation(s): drops 50 mg/ml; suppos. 100 mg; syrup 50 mg/5 ml; tabl. 50 mg, 100 mg; vial 20 ml (100 mg/ml), 30 ml (50 mg/ml) (as hydrochloride)

Trade Name(s):

D: Dolantin (Hoechst)

F: Dolosal (Specia)

GB: Pamergan P100

(Martindale)-comb.

J: Neomochin (Sumitomo)

USA: Demerol (Sanofi)

Mepergan (Wyeth-Ayerst)-comb.

Phanquinone

(Phanchinonum; Phanquone)

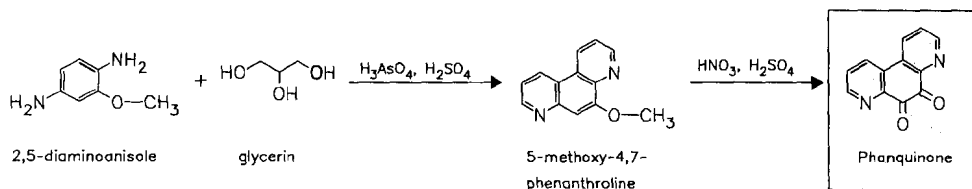
ATC: P01AX04

Use: amoebicide, bactericide

RN: 84-12-8 MF: $C_{12}H_6N_2O_2$ MW: 210.19 EINECS: 201-516-0LD₅₀: 4 mg/kg (M, p.o.);

5 mg/kg (R, p.o.)

CN: 4,7-phenanthroline-5,6-dione

**Reference(s):**

GB 688 802 (Ciba; appl. 1951; CH-prior. 1950).

Druey, J. et al.: Helv. Chim. Acta (HCACAV) **33**, 1080 (1950).Druey, J.: Angew. Chem. (ANCEAD) **72**, 677 (1960).

Formulation(s): drg. 10 mg, 20 mg; drops 0.3 mg/ml

Trade Name(s):

D: Mexaform plus/S (Ciba)-

comb.; wfm

Mexase (Ciba)-comb.; wfm

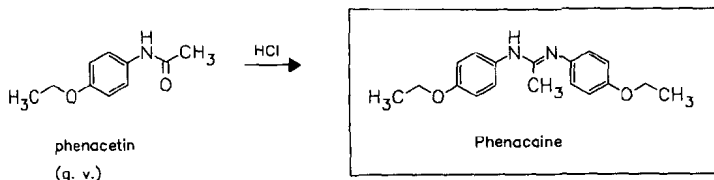
F: Entobex (Ciba); wfm Mexaform (Ciba)-comb.; wfm	I: Mexase (Ciba)-comb.; wfm Entobex (Ciba); wfm Mexase (Ciba)-comb.; wfm	J: Mexaform forte (Ciba- Geigy-Takeda)-comb.
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Phenacaine

(Fenacaine)

ATC: N01B

Use: local anesthetic

RN: 101-93-9 MF: C₁₈H₂₂N₂O₂ MW: 298.39CN: *N,N'*-bis(4-ethoxyphenyl)ethanimidamide*Reference(s):*

DRP 79 868 (E. Täuber, appl. 1894); also further methods.

Trade Name(s):

USA: Holocaine (Lilly); wfm

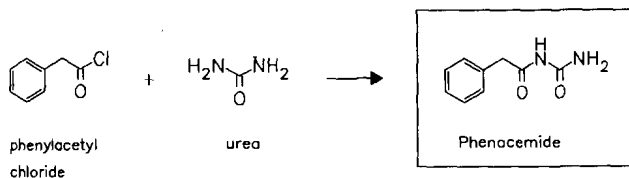
Phenacemide

ATC: N03AX07

Use: antiepileptic

RN: 63-98-9 MF: C₉H₁₀N₂O₂ MW: 178.19 EINECS: 200-570-2LD₅₀: 987 mg/kg (M, p.o.);

1600 mg/kg (R, p.o.)

CN: *N*-(aminocarbonyl)benzeneacetamide*Reference(s):*Spielman, M.A. et al.: J. Am. Chem. Soc. (JACSAT) **70**, 4189 (1948).*Formulation(s):* tabl. 500 mg*Trade Name(s):*F: Epiclase (Roger Bellon);
wfm

USA: Phenurone (Abbott); wfm

Phenacetin

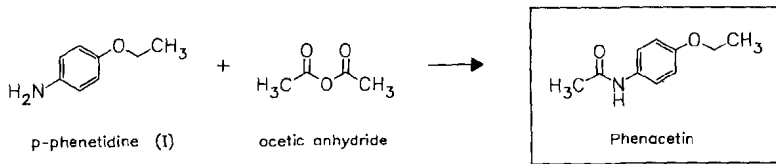
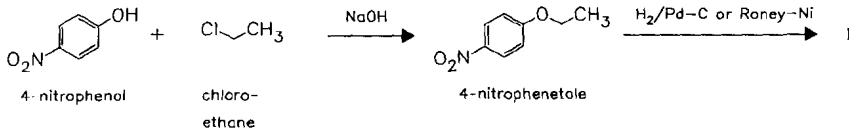
(Acetophenetidin)

ATC: N02BE03

Use: analgesic, antipyretic

RN: 62-44-2 MF: C₁₀H₁₃NO₂ MW: 179.22 EINECS: 200-533-0LD₅₀: 866 mg/kg (M, p.o.);

3600 mg/kg (R, p.o.)

CN: *N*-(4-ethoxyphenyl)acetamide*Reference(s):*

Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. 13, 296.

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 7, 543.

Formulation(s): f. c. tabl. 50 mg*Trade Name(s):*

D: numerous combination preparations; wfm

F: Polipirine (Lehning)

I: Cachets Lia (Arnaldi)-comb.; wfm

Ciclegot (ITA)-comb.; wfm

Neuroxin (Edmond)-comb.;

wfm

Novamon (Farge)-comb.;

wfm

Thomapirina N (Fher)-comb.; wfm

J: numerous generic

preparations

USA: numerous combination

preparations; wfm

Phenaglycodol

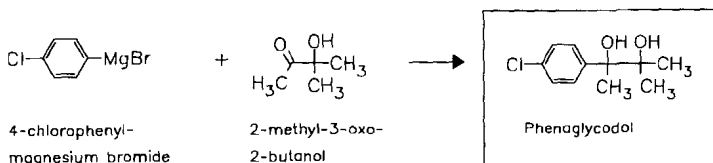
ATC: N05C

Use: psychosedative, tranquilizer

RN: 79-93-6 MF: C₁₁H₁₅ClO₂ MW: 214.69 EINECS: 201-235-3LD₅₀: 254 mg/kg (M, i.v.); 514 mg/kg (M, p.o.);

832 mg/kg (R, p.o.)

CN: 2-(4-chlorophenyl)-3-methyl-2,3-butanediol

*Reference(s):*

US 2 812 363 (Eli Lilly; 1957; prior. 1953).

DE 1 038 024 (Eli Lilly; appl. 1956).

Trade Name(s):

I: Felixyn (Radiumfarma); USA: Ultran (Lilly); wfm
wfm

Phenazocine

ATC: N02AD02

Use: analgesic

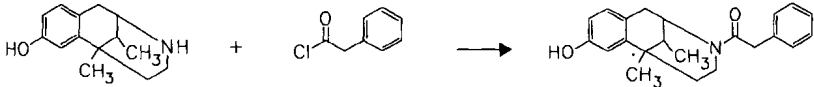
RN: 127-35-5 MF: $C_{22}H_{27}NO$ MW: 321.46 EINECS: 204-835-3LD₅₀: 20 mg/kg (M, i.v.);

90 mg/kg (R, p.o.)

CN: 1,2,3,4,5,6-hexahydro-6,11-dimethyl-3-(2-phenylethyl)-2,6-methano-3-benzazocin-8-ol

hydrobromideRN: 1239-04-9 MF: $C_{22}H_{27}NO \cdot HBr$ MW: 402.38 EINECS: 214-982-5LD₅₀: 11 mg/kg (M, i.v.)

a

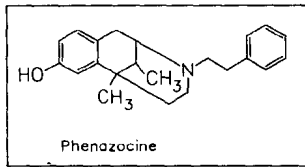
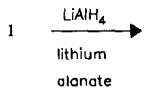


5,9-dimethyl-2'-
hydroxybenzo-6-
morphen

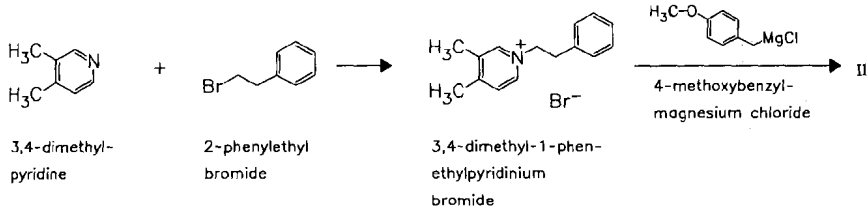
phenylacetyl
chloride

5,9-dimethyl-2'-hydroxy-2-
phenylacetylbenzo-6-morphen (I)

(cf. pentazocine
synthesis)



b

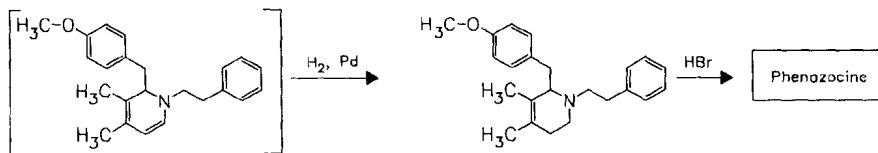


3,4-dimethyl-
pyridine

2-phenylethyl
bromide

3,4-dimethyl-1-phen-
ethylpyridinium
bromide

$\text{H}_3\text{C}-\text{O}-\text{C}_6\text{H}_4-\text{CH}_2-\text{MgCl}$
4-methoxybenzyl-
magnesium chloride



2-(4-methoxybenzyl)-3,4-
dimethyl-1-phenethyl-
1,2-dihydropyridine (II)

2-(4-methoxybenzyl)-3,4-
dimethyl-1-phenethyl-
1,2,5,6-tetrahydropyridine

Phenazocine

Reference(s):

US 2 959 594 (Smith Kline & French; 8.11.1960; prior. 22.9.1958).
 May, E.L. et al.: J. Org. Chem. (JOCEAH) **22**, 1366, 1369 (1957); **24**, 294, 1435 (1959); **25**, 984 (1960).

Formulation(s): tabl. 5 mg (as hydrobromide)

Trade Name(s):

GB: Narphen (Napp)

USA: Primadol (Smith Kline & French); wfm

Phenazopyridine

ATC: G04BX06

Use: chemotherapeutic, antiseptic

RN: 94-78-0 MF: C₁₁H₁₁N₅ MW: 213.24 EINECS: 202-363-2

LD₅₀: 580 mg/kg (M, p.o.)

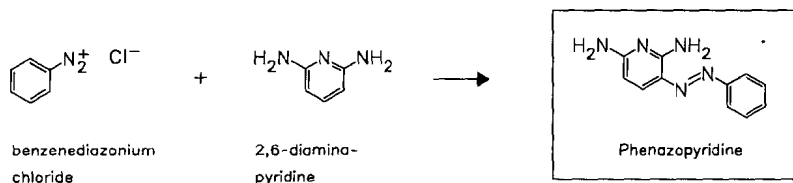
CN: 3-(phenylazo)-2,6-pyridinediamine

monohydrochloride

RN: 136-40-3 MF: C₁₁H₁₁N₅ · HCl MW: 249.71 EINECS: 205-243-8

LD₅₀: 180 mg/kg (M, i.v.);

472 mg/kg (R, p.o.)

*Reference(s):*

DRP 515 781 (Boehringer; 1927).

US 1 680 108, US 1 680 109, US 1 680 110, US 1 680 111 (Pyridium Corp.; 1928).

Chichibabin, A.F.; Zeide, O.A.: Zh. Russ. Fiz.-Khim. O-va (ZRKOAC) **46**, 1216 (1914).

Shreve, R.N. et al.: J. Am. Chem. Soc. (JACSAT) **65**, 2241 (1943).

Formulation(s): cps. 50 mg (as hydrochloride) in comb.; f. c. tabl. 50 mg; tabl. 100 mg, 200 mg (as hydrochloride)

Trade Name(s):

D: Urospasmon (Heumann)-comb.

F: Azocline (Bristol)-comb.; wfm

Pyridium (Servier); wfm

GB: Pyridium (Parke Davis); wfm

Pyridium (Warner); wfm
 Uromide (Consolidated)-comb.; wfm

J: Fenason (Kanto)
 Uriseptin (Nissin)
 Uropyridin (Eisai)

USA: Pyridium (Warner Chilcott)
 Urobiotic (Pfizer)-comb.

Phendimetrazine

ATC: A08AA49

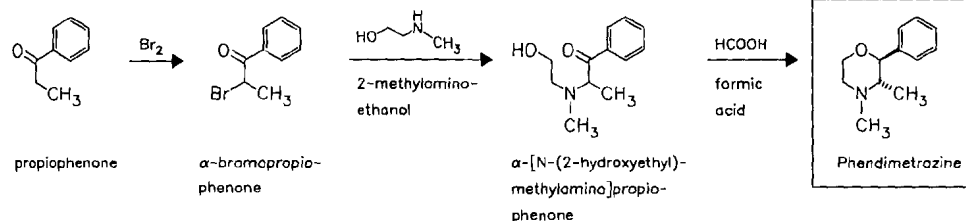
Use: appetite depressant, psychostimulant

RN: 634-03-7 MF: C₁₂H₁₇NO MW: 191.27 EINECS: 211-204-6

CN: (2S-trans)-3,4-dimethyl-2-phenylmorpholine

hydrochlorideRN: 7635-51-0 MF: $C_{12}H_{17}NO \cdot HCl$ MW: 227.74 EINECS: 231-566-9LD₅₀: 92 mg/kg (M, i.v.); 340 mg/kg (M, p.o.);

455 mg/kg (R, p.o.)

tartrate (1:1)RN: 50-58-8 MF: $C_{12}H_{17}NO \cdot C_4H_6O_6$ MW: 341.36 EINECS: 200-051-0LD₅₀: 210 mg/kg (M, i.p.)**Reference(s):**

US 2 997 469 (Boehringer Ing.; 22.8.1961; D-prior. 13.3.1958).

pamoate:

FR 1 461 407 (Sobio; appl. 9.6.1965).

Formulation(s): cps. 105 mg; tabl. 35 mg (as tartrate)**Trade Name(s):**

F: Fringanor (Sobio); wfm

USA: Bontril (Carrick)

Prelu-2 (Roxane)

I: Plegine (Wyeth-Lederle)

Plegine (Wyeth-Ayerst)

Phenelzine

ATC: N06AF03

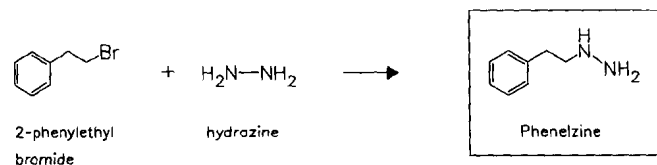
Use: antidepressant, MAO-inhibitor

RN: 51-71-8 MF: $C_8H_{12}N_2$ MW: 136.20 EINECS: 200-117-9LD₅₀: 130 mg/kg (M, p.o.)

CN: (2-phenylethyl)hydrazine

dihydrogen sulfateRN: 156-51-4 MF: $C_8H_{12}N_2 \cdot H_2SO_4$ MW: 234.28 EINECS: 205-856-0LD₅₀: 157 mg/kg (M, i.v.); 156 mg/kg (M, p.o.);

210 mg/kg (R, p.o.)

dihydrochlorideRN: 16904-30-6 MF: $C_8H_{12}N_2 \cdot 2HCl$ MW: 209.12LD₅₀: 100 mg/kg (M, i.p.)**Reference(s):**

US 3 000 903 (Lakeside Labs.; 19.9.1961; appl. 15.9.1959; prior. 23.8.1956).

Formulation(s): tabl. 15 mg (as dihydrogen sulfate)

Trade Name(s):

F: Nardelzine (Substantia); wfm
 GB: Nardil (Parke Davis)
 I: Nardil (Vister); wfm
 USA: Nardil (Parke Davis)

Pheneticillin

(Phenethicillin)

ATC: J01CE05

Use: antibiotic

RN: 147-55-7 MF: $C_{17}H_{20}N_2O_5S$ MW: 364.42 EINECS: 205-691-4

LD₅₀: 52.25 mg/kg (M, intracerebral)

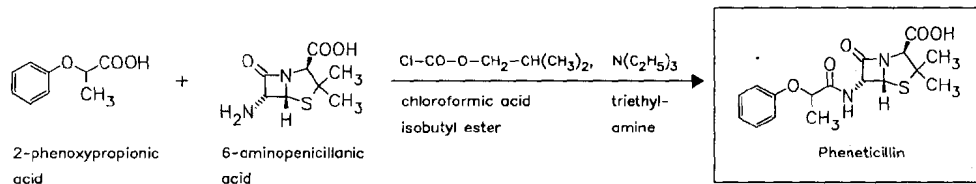
CN: [2*S*-(2 α ,5 α ,6 β)]-3,3-dimethyl-7-oxo-6-[(1-oxo-2-phenoxypropyl)amino]-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

monopotassium salt

RN: 132-93-4 MF: $C_{17}H_{19}KN_2O_5S$ MW: 402.51 EINECS: 205-084-4

LD₅₀: 312 mg/kg (M, i.v.); >2 g/kg (M, p.o.);

>103 mg/kg (dog, i.v.)



Reference(s):

GB 877 120 (Beecham; appl. 10.5.1960; USA-prior. 25.5.1959, 22.10.1959).

GB 958 478 (Beecham; appl. 28.2.1963; USA-prior. 13.3.1962).

GB 899 199 (Pfizer; appl. 7.1.1960; USA-prior. 28.9.1959).

GB 904 576 (Bayer; appl. 24.11.1960; D-prior. 4.12.1959).

DE 1 143 817 (Beecham; appl. 25.5.1960; USA-prior. 25.5.1959).

DE 1 159 449 (Grünenthal; appl. 22.3.1961).

DE 1 159 454 (Pfizer; appl. 18.3.1961; USA-prior. 24.6.1960).

Formulation(s): tabl. 135 mg (as monopotassium salt)

Trade Name(s):

D: Palliopen (Merck)-comb.; wfm
 Pen-200 (Pfizer); wfm
 F: Péniplus (Fumouze); wfm
 Synthécilline (Bristol); wfm
 GB: Broxil (Beecham); wfm
 I: Altocillin (Caber); wfm
 Metilpen (Boniscontro & Gazzone); wfm
 Penicilloral (Terapeutico M.R.); wfm
 Penorale (Lusofarmaco); wfm
 J: Maxipen (Taito Pfizer)
 Syncillin (Banyu)
 Synthepen (Mciji)
 USA: Maxipen (Pfizer); wfm
 Syncillin (Bristol); wfm

Pheneturide

ATC: N03AX13

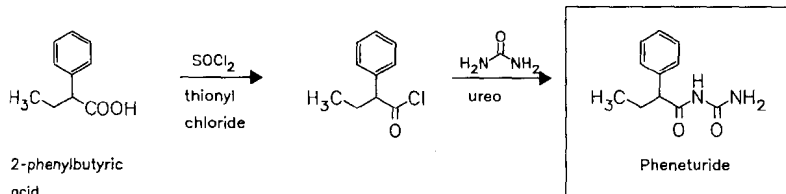
Use: antiepileptic

RN: 90-49-3 MF: $C_{11}H_{14}N_2O_2$ MW: 206.25 EINECS: 201-998-2

LD₅₀: 910 mg/kg (M, p.o.);

>2063 mg/kg (R, p.o.)

CN: *N*-(aminocarbonyl)- α -ethylbenzeneacetamide

**Reference(s):**

DRP 249 241 (Bayer; 1910).

Kushner, S. et al.: J. Org. Chem. (JOCEAH) **16**, 1283 (1951).**optical active isomers:**

CH 374 644 (Lab. Sapos; appl. 30.10.1958).

Trade Name(s):

F:	Trinuride (Robert et Carrière)-comb.; wfm	I:	Lircapil (Lirca)-comb.; wfm	generic
GB:	Benuride (Bengue); wfm	J:	Septence Pulv. (Kanto)	

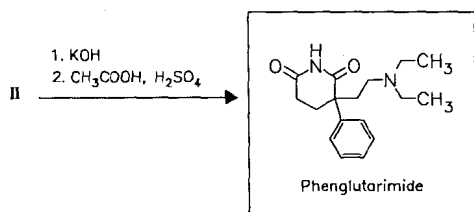
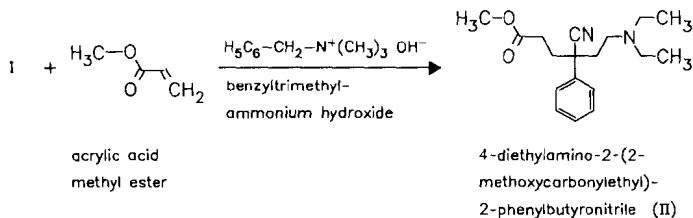
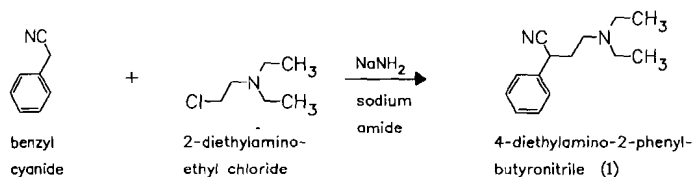
Phenglutarimide

ATC: N04AA09

Use: antiparkinsonian

RN: 1156-05-4 MF: $\text{C}_{17}\text{H}_{24}\text{N}_2\text{O}_2$ MW: 288.39 EINECS: 214-587-8LD₅₀: 1200 mg/kg (M, p.o.)

CN: 3-[2-(diethylamino)ethyl]-3-phenyl-2,6-piperidinedione

monohydrochlorideRN: 1674-96-0 MF: $\text{C}_{17}\text{H}_{24}\text{N}_2\text{O}_2 \cdot \text{HCl}$ MW: 324.85 EINECS: 216-819-3LD₅₀: 1200 mg/kg (M, p.o.)

Reference(s):

US 2 664 424 (Ciba; 1953; CH-prior. 1950).

Trade Name(s):

D: Aturbal (Ciba); wfm

GB: Aturbane (Ciba); wfm

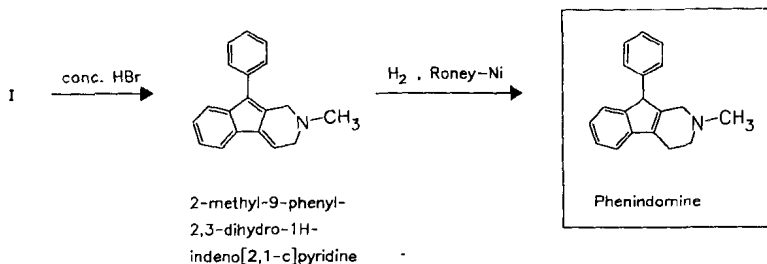
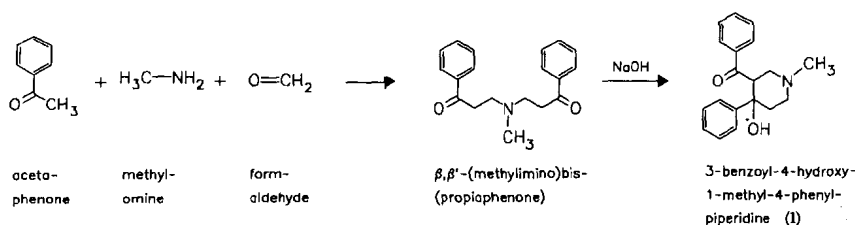
Phenindamine

ATC: R06AX04

Use: antiallergic, antihistaminic

RN: 82-88-2 MF: C₁₉H₁₉N MW: 261.37 EINECS: 201-443-4LD₅₀: 265 mg/kg (M, p.o.)CN: 2,3,4,9-tetrahydro-2-methyl-9-phenyl-1*H*-indeno[2,1-*c*]pyridine**tartrate (1:1)**RN: 569-59-5 MF: C₁₉H₁₉N · C₄H₆O₆ MW: 411.45 EINECS: 209-320-7LD₅₀: 18 mg/kg (M, i.v.); 265 mg/kg (M, p.o.);

280 mg/kg (R, p.o.)



Reference(s):

US 2 470 108 (Roche; 1949; appl. 1947).

Formulation(s): tabl. 25 mg (as tartrate)

Trade Name(s):

D: Fluprim (Roche)-comb.;
wfmGB: Thephorin (Sinclair)
USA: Nolahist (Carrick)

Nolamine (Carrick)

Pheniramine

ATC: R06AB05

Use: antihistaminic

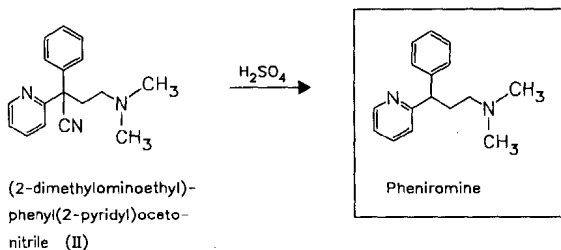
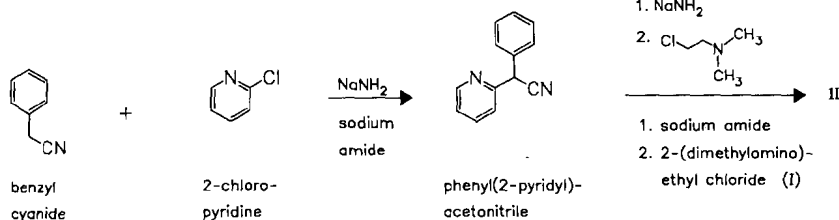
RN: 86-21-5 MF: C₁₆H₂₀N₂ MW: 240.35 EINECS: 201-656-2LD₅₀: 48 mg/kg (M, i.v.)CN: *N,N*-dimethyl-γ-phenyl-2-pyridinepropanamine

maleate (1:1)RN: 132-20-7 MF: $C_{16}H_{20}N_2 \cdot C_4H_4O_4$ MW: 356.42 EINECS: 205-051-4LD₅₀: 268 mg/kg (M, p.o.);

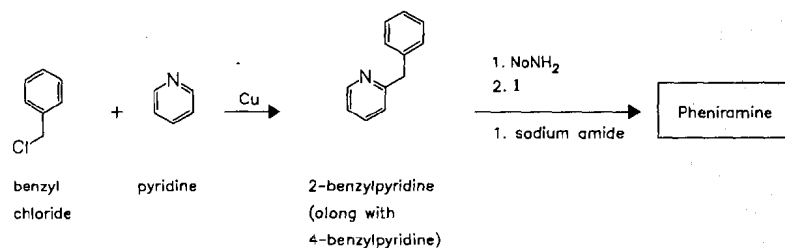
520 mg/kg (R, p.o.)

p-aminosalicylate (1:1)RN: 3269-83-8 MF: $C_{16}H_{20}N_2 \cdot C_7H_7NO_3$ MW: 393.49 EINECS: 221-888-8LD₅₀: 48 mg/kg (M, i.v.)

a



b

**Reference(s):**

US 2 567 245 (Schering Corp.; 1951; prior. 1948).

US 2 676 964 (Schering Corp.; 1954; prior. 1950).

DE 830 193 (Farbw. Hoechst; appl. 1948).

DE 832 153 (Farbw. Hoechst; appl. 1948).

Formulation(s): drg. 75 mg (as maleate)**Trade Name(s):**

D: Avil (Albert-Roussel, Hoechst)
Konjunktival Thilo Augentropfen (Alcon)-comb. with naphazoline hydrochloride

F:

Rhinosovil (Eu Rho Arznei)-comb. with naphazoline nitrate
Fervex Oberlin (Oberlin)-comb.
Triaminic (Novartis)-comb.

GB: Daneral (Hoechst; as maleate)

I: Inhiston (Biomedica Foscam)
Senodin-An (Bristol-Myers Squibb)-comb.

	Tetramil (Farmigea)-comb.	USA: Naphcon A (Alcon)-comb.	Triaminic (Novartis
	Triaminic (Novartis)-comb.	Poly-Histine D (Sanofi)-	Consumer)-comb.
J:	Chlor-Trimeton (Schering)	comb.	

Phenmetrazine

(Oxazimedrine)

ATC: N06B

Use: psychostimulant

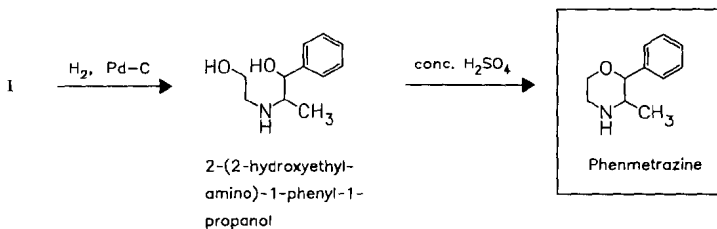
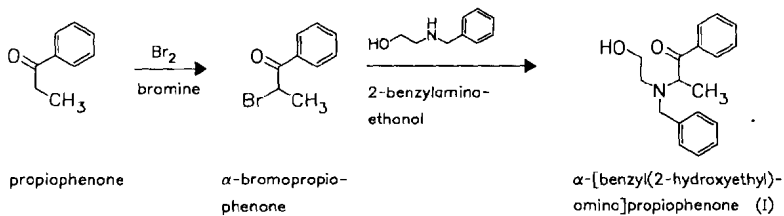
RN: 134-49-6 MF: C₁₁H₁₃NO MW: 177.25 EINECS: 205-143-4LD₅₀: 125 mg/kg (M, p.o.);

370 mg/kg (R, p.o.)

CN: 3-methyl-2-phenylmorpholine

hydrochlorideRN: 1707-14-8 MF: C₁₁H₁₃NO · HCl MW: 213.71 EINECS: 216-950-6LD₅₀: 71 mg/kg (M, i.v.); 165 mg/kg (M, p.o.);

165 mg/kg (R, p.o.)

**Reference(s):**

US 2 835 669 (Boehringer Ing.; 1958; D-prior. 1952).

Formulation(s): drg. 30 mg**Trade Name(s):**

D:	Cafilon (Ravensberg)-comb.; wfm	J:	Cafilon (Yamanouchi)-comb.
F:	Cafilon (Merck-Clévenot)-comb.; wfm	USA:	Preludin (Boehringer Ing.); wfm

Phenobarbital

(Phenemalum; Phenobarbitone)

ATC: N03AA02

Use: hypnotic, sedative, anticonvulsant

RN: 50-06-6 MF: C₁₂H₁₂N₂O₃ MW: 232.24 EINECS: 200-007-0LD₅₀: 218 mg/kg (M, i.v.); 137 mg/kg (M, p.o.);

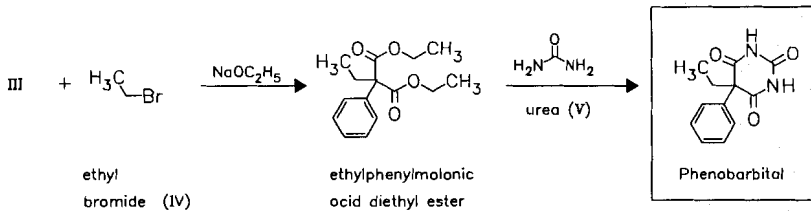
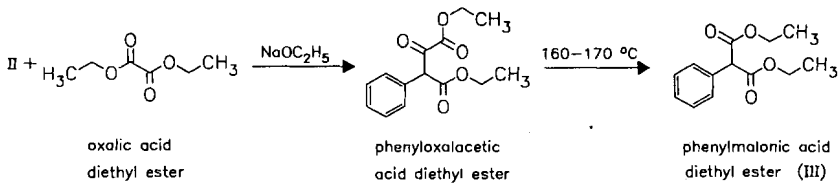
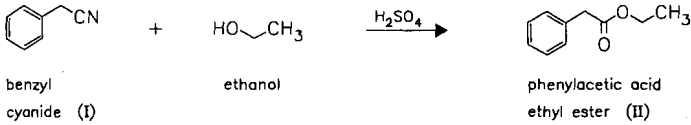
209 mg/kg (R, i.v.); 162 mg/kg (R, p.o.);

150 mg/kg (dog, p.o.)

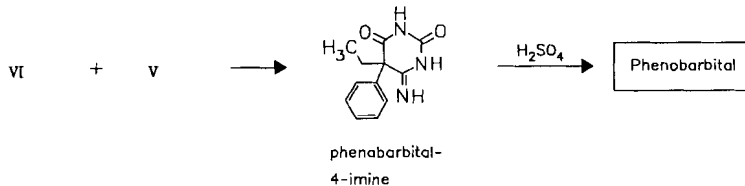
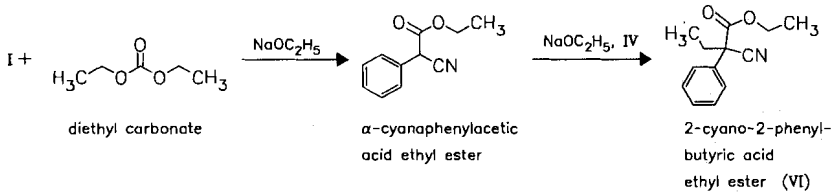
CN: 5-ethyl-5-phenyl-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione

monosodium saltRN: 57-30-7 MF: $C_{12}H_{11}N_2NaO_3$ MW: 254.22 EINECS: 200-322-3LD₅₀: 226 mg/kg (M, i.v.); 200 mg/kg (M, p.o.);
83 mg/kg (R, i.v.); 150 mg/kg (R, p.o.)**calcium salt**RN: 7645-06-9 MF: $C_{12}H_{12}N_2O_3 \cdot xCa$ MW: unspecified EINECS: 231-583-1**magnesium salt**RN: 7645-05-8 MF: $C_{12}H_{12}N_2O_3 \cdot xMg$ MW: unspecified

a



b

**Reference(s):**

DRP 247 952 (Bayer; 1911).

US 2 358 072 (Kay-Fries; 1944; appl. 1941).

Formulation(s): amp. 200 mg/ml (as monosodium salt); tabl. 15 mg, 100 mg

Trade Name(s):

D:	Lepinal (ASTA Medica AWD)	GB:	Cantil with phenobarbitone (M.C.P.)-comb.	Teofilcolina Sedativo (Salfa)-comb.
	Lepinaletten (ASTA Medica AWD)		Franol (Winthrop)-comb.	numerous combination preparations
	Luminal (Desitin)		Gardenal (May & Baker)	
	Luminaletten (Desitin)		Luminal (Winthrop)	J:
	Maliasin (Knoll; as salt with propylhexedrine (=barbexaclonum))		Parabal (Sinclair)	Phenobal (Fujinaga-Sankyo)
	Phenaemal (Desitin)	I:	Phenomet (Woodward)	USA:
	Phenaemaletten (Desitin)		Bellergil (Novartis)-comb.	Arco-Lase Plus (Arco)-comb.
F:	Aparoxal (Veyron et Froment)		Comizial (Ogna)	Bellatal (Richwood)-comb.
	Gardénal (Specia)		Gardenale (Rhône-Poulenc Rorer)	Donnatal (Robins)-comb.
			Luminale Bracco (Bracco)	Quadrinal (Knoll)-comb.
			Luminalette (Bracco)	further combination preparations
			Neurobiol (Teofarma)-comb.	

Phenolphthalein

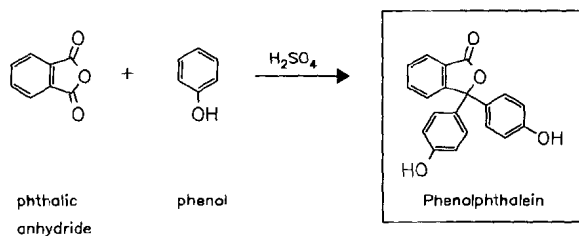
(Dihydroxyphthalophenone; Fenolftalein)

ATC: A06AB04

Use: laxative

RN: 77-09-8 MF: C₂₀H₁₄O₄ MW: 318.33 EINECS: 201-004-7

CN: 3,3-bis(4-hydroxyphenyl)-1(3H)-isobenzofuranone



Reference(s):

Bayer, A. v.: Justus Liebigs Ann. Chem. (JLACBF) **202**, 68 (1880).

Formulation(s): drg. 30 mg; emulsion 1.3 g/100 g

Trade Name(s):

D:	Agarol (Warner-Lambert)-comb.	I:	Agarbil (Ottolenghi)-comb.; wfm	Enteroton lass. (Panthox & Burck)-comb.; wfm
	Darmol (Omegin)		Agarol (Parke Davis)-comb.; wfm	Euchessina (Antonetto)-comb.; wfm
	Vencipon (Artesan)-comb.		Amaro lassat. Giuliani (Giuliani)-comb.; wfm	Flambax emuls. (AGIPS)-comb.; wfm
F:	Boldolaxine (Charpentier)-comb.; wfm		Bilagar (Schiapparelli Farm.)-comb.; wfm	Fructose Vichy (Lirca)-comb.; wfm
	Pluribiase (Bouchara)-comb.; wfm		Bom-bon (Montefarmaco)-comb.; wfm	Lilo 40 cioccolatini (Giuliani)-comb.; wfm
	Purganol Daguin (Saunier-Daguin); wfm		Cofetto Falqui (Falqui); wfm	Neopurges (IFCI)-comb.; wfm
GB:	Agarol (W. R. Warner)-comb.; wfm		Crisolax (Lifepharma); wfm	Ormobol (Ciba)-comb.; wfm
	Alophen (Parke Davis)-comb.; wfm		Emulsione lass. Fama (Fama)-comb.; wfm	Purgante Falqui (Falqui)-comb.; wfm
	Kest (Berk)-comb.; wfm			
	Veracolate (W. R. Warner)-comb.; wfm			

Purgestol (Zoja)-comb.;
wfmReolina (IFI)-comb.; wfm
Ricinagar (Ottolenghi)-
comb.; wfmJ: Eval (Nippon Shinyaku)-
comb.USA: Laxatol (Shionogi)-comb.
Agoral (Warner-Lambert)-
comb.Evac-Q-Kit (Savage)-comb.
Modane (Savage)**Phenoperidine**

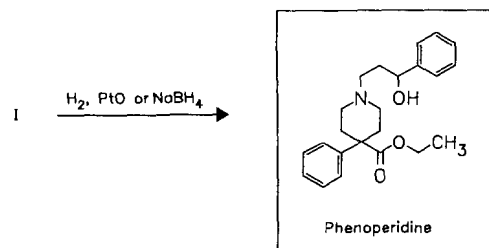
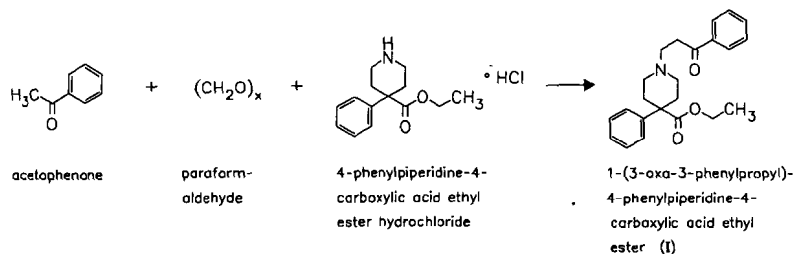
(Fenoperidine)

ATC: N01AH04

Use: analgesic

RN: 562-26-5 MF: C₂₃H₂₉NO₃ MW: 367.49 EINECS: 209-229-2

CN: 1-(3-hydroxy-3-phenylpropyl)-4-phenyl-4-piperidinecarboxylic acid ethyl ester

hydrochlorideRN: 3627-49-4 MF: C₂₃H₂₉NO₃ · HCl MW: 403.95 EINECS: 222-846-1LD₅₀: 64 mg/kg (M, i.p.)**Reference(s):**

US 2 951 080 (Eli Lilly; 30.8.1960; prior. 5.8.1957).

US 2 962 501 (Merck & Co.; 29.11.1960; prior. 19.9.1956).

Formulation(s): amp. 10 mg/10 ml, 2 mg/2 ml**Trade Name(s):**

F: R. 1406 (Janssen); wfm

R. 1406 (LeBrun); wfm

GB: Operidine (Janssen); wfm

Phenoxybenzamine

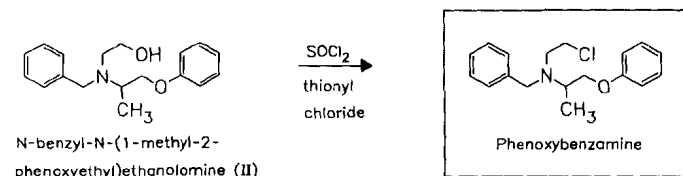
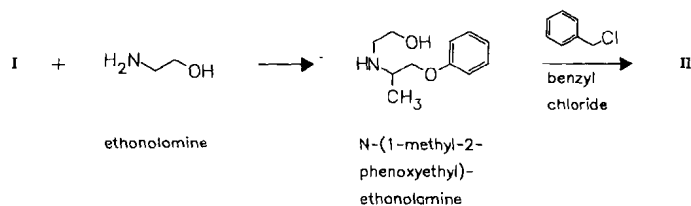
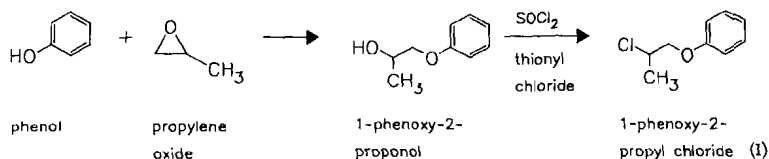
ATC: C04AX02

Use: vasodilator, antihypertensive

RN: 59-96-1 MF: C₁₈H₂₂ClNO MW: 303.83 EINECS: 200-446-8LD₅₀: 1535 mg/kg (M, p.o.);

2500 mg/kg (R, p.o.)

CN: N-(2-chloroethyl)-N-(1-methyl-2-phenoxyethyl)benzenemethanamine

hydrochlorideRN: 63-92-3 MF: C₁₈H₂₂ClNO · HCl MW: 340.29 EINECS: 200-569-7LD₅₀: 63.75 mg/kg (M, i.v.); 900 mg/kg (M, p.o.)**Reference(s):**

US 2 599 000 (Smith Kline & French; 1952; prior. 1950).

Formulation(s): cps. 1 mg, 5 mg, 10 mg (as hydrochloride)**Trade Name(s):**

D: Dibenzyran (Procter & Gamble)

GB: Dibenyline (Smith Kline & French); wfm

USA: Dibenyline (SmithKline Beecham)

Phenoxyethylpenicillin

(Penicillin V)

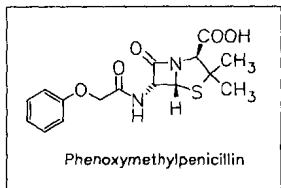
ATC: J01CE02

Use: antibiotic

RN: 87-08-1 MF: C₁₆H₁₈N₂O₅S MW: 350.40 EINECS: 201-722-0LD₅₀: 6.578 g/kg (M, p.o.);
>1.775 g/kg (R, i.v.); >2.22 g/kg (R, p.o.)

CN: [2S-(2α,5α,6β)]-3,3-dimethyl-7-oxo-6-[(phenoxyacetyl)amino]-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

monopotassium saltRN: 132-98-9 MF: C₁₆H₁₇KN₂O₅S MW: 388.49 EINECS: 205-086-5LD₅₀: 1 g/kg (M, i.v.); >4 g/kg (M, p.o.);
>1.04 g/kg (R, p.o.)**calcium salt (2:1)**RN: 147-48-8 MF: C₃₂H₃₄CaN₄O₁₀S₂ MW: 738.85 EINECS: 205-689-3



From fermentation solutions of *Penicillium notatum* Westling or *Penicillium chrysogenum* Thom by addition of phenoxyacetic acid as precursor substance.

Reference(s):

- US 2 479 295 (Lilly; 1949; prior. 1946).
 US 2 479 296 (Lilly; 1949; prior. 1946).
 US 2 562 410 (Lilly; 1951; prior. 1946).
 US 2 941 995 (Beecham; 1960; GB-prior. 1957).

partial synthesis:

- US 3 159 617 (A. D. Little; 1.12.1964; prior. 1.3.1957, 1.5.1959).

Formulation(s): f. c. tabl. 1000000 iu 1500000 iu; susp. 300000 iu/5 ml; syrup 250000 iu, 500000 iu; tabl. 664 mg (as potassium salt)

Trade Name(s):

D:	Arcasin (Engelhard)	F:	Oracillin (Schwarz)		Penagen (Genethic); wfm
	Isocillin (Hoechst)		Ospen (Novartis)		Stabilin V-K (Boots); wfm
	Ispenoral (Rosen Pharma)	GB:	Apsin VK (A.P.S.); wfm		Ticillin V-K (Ticen); wfm
	Megacillin oral (Grünenthal)		Bicillin (Yamanouchi)-comb.	I:	V-Cil-K (Lilly); wfm
	P-Mega-Tablinden (Sanorania)		Crystapen V (Britannia)		Fenospen (Pharmacia & Upjohn)
	V-Tablophen (ASTA Medica AWD)		Distaquaine V-K (Dista); wfm	J:	Newcillin (Takeda)
	numerous generics		Econopen V (Berk); wfm	USA:	Pen Vee (Wyeth-Ayerst)
			Icipen (ICI); wfm		Pfizerpen (Pfizer)

Phenprobamate

ATC: M03BA01

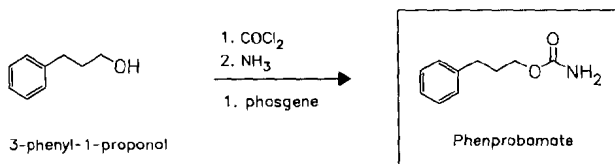
Use: muscle relaxant, tranquilizer

RN: 673-31-4 MF: C₁₀H₁₃NO₂ MW: 179.22 EINECS: 211-606-1

LD₅₀: 320 mg/kg (M, i.v.); 840 mg/kg (M, p.o.);

1110 mg/kg (R, p.o.)

CN: benzenepropanol carbamate



Reference(s):

- GB 837 718 (Siegfried AG; appl. 6.5.1958; D-prior. 9.5.1957).

Formulation(s): tabl. 200 mg

Trade Name(s):

D:	Dolo Prolixan (Siegfried)- comb.; wfm	J:	Actiphan (Teisan) Ansepron (Fuso) Neurosedan (Sato)	Spalpane (Sawai) Spantol (Nippon Chemiphar)
F:	Gamaquil (Siegfried); wfm Diaflexol (Paillusseau)- comb.; wfm		Paraquick (Ohta) Phencol (Towa)	Tatartan (Nissin)

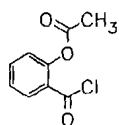
Phenprocoumon

ATC: B01AA04

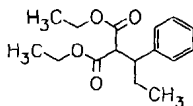
Use: anticoagulant

RN: 435-97-2 MF: C₁₈H₁₆O₃ MW: 280.32 EINECS: 207-108-9LD₅₀: 32 mg/kg (M, i.v.); 190 mg/kg (M, p.o.);
200 mg/kg (R, p.o.)

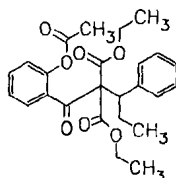
CN: 4-hydroxy-3-(1-phenylpropyl)-2H-1-benzopyran-2-one

2-acetoxybenzoyl
chloride

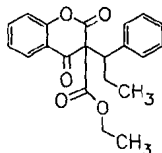
+

(1-phenylpropyl)malonic
acid diethyl ester
(sodium salt)

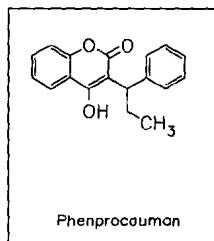
→

(2-acetoxybenzoyl)(1-phenyl-
propyl)malonic acid
diethyl ester (I)

1

NaOCH₃3,4-dihydro-2,4-dioxo-3-
(1-phenylpropyl)-2H-1-ben-
zopyran-3-carboxylic acid
ethyl ester

aq. NaOH



Phenprocoumon

Reference(s):

US 2 701 804 (Hoffmann-La Roche; 1955; CH-prior. 1952).

alternative synthesis:

US 2 872 457 (Wisconsin Alumni Research; 1959; appl. 1956).

resolution of racemate:

US 3 239 529 (Wisconsin Alumni Research; 8.3.1966; appl. 1.3.1962).

Formulation(s): f. c. tabl. 3 mg; tabl. 3 mg

Trade Name(s):

D: Falithrom (Hexal)

Marcumar (Roche)

USA: Liquamar (Organon); wfm

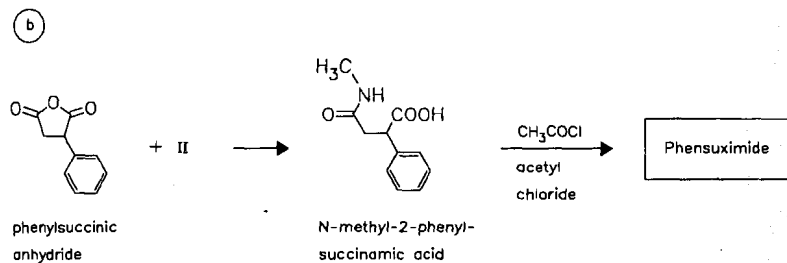
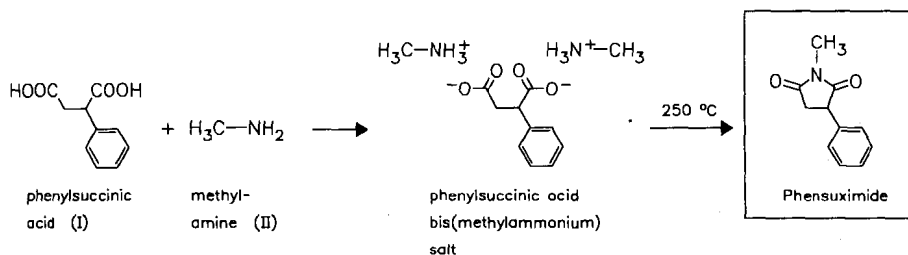
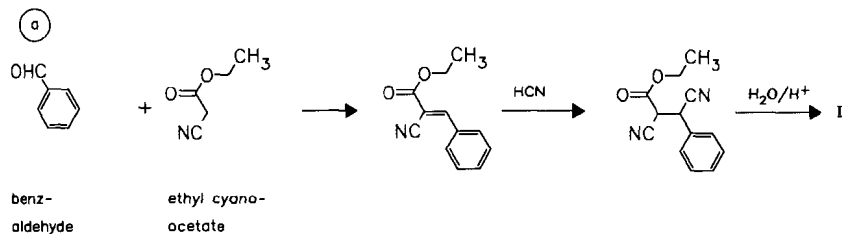
Phensuximide

ATC: N03AD02
Use: antiepileptic

RN: 86-34-0 MF: $C_{11}H_{11}NO_2$ MW: 189.21 EINECS: 201-664-6

LD₅₀: 700 mg/kg (M, p.o.)

CN: 1-methyl-3-phenyl-2,5-pyrrolidinedione

**Reference(s):**

US 2 643 258 (Parke Davis; 1953; prior. 1950).

Miller, C.A.; Long, L.M.: J. Am. Chem. Soc. (JACSAT) **73**, 4895 (1951); **75**, 373 (1953).

Formulation(s): cps. 0.5 g

Trade Name(s):

F: Lifène (Débat); wfm

GB: Milontin (Parke Davis);
wfm

USA: Milontin (Parke Davis);
wfm

Phentermine

ATC: A08AA01
Use: appetite depressant

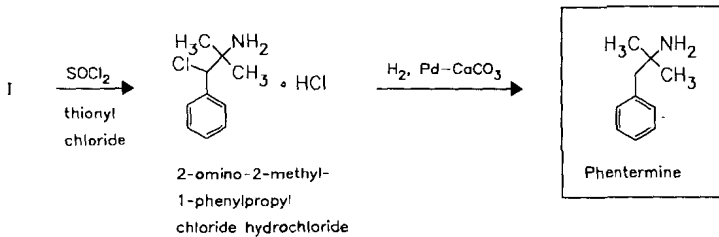
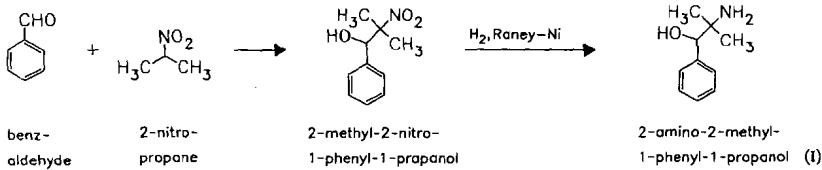
RN: 122-09-8 MF: $C_{10}H_{15}N$ MW: 149.24 EINECS: 204-522-1

LD₅₀: 14 mg/kg (M, i.v.); 105 mg/kg (M, p.o.)

CN: α,α -dimethylbenzeneethanamine

hydrochlorideRN: 1197-21-3 MF: C₁₀H₁₅N · HCl MW: 185.70 EINECS: 214-821-9LD₅₀: 154 mg/kg (M, p.o.);

188 mg/kg (R, p.o.)

**Reference(s):**

US 2 408 345 (Merrell; 1946; prior. 1942).

alternative syntheses:

US 2 590 079 (Wyeth; 1952; appl. 1947).

Formulation(s): cps. 30 mg; tabl. 30 mg (as hydrochloride)**Trade Name(s):**

D: Netto Longcaps (Neda);

wfm

F: Linyl (Roussel); wfm

GB: Duromine (3M Health Care)

I: Ionamin (Torbet)

Lipopill (Roussel-

Maestretti); wfm

Mirapront (Bracco); wfm

USA: Adipex-P (Gate)

Banobese (Seatrice)

Fastin (SmithKline

Beecham)

Oby-Cap (Richwood)

Zantryl (Ion)

Phentolamine

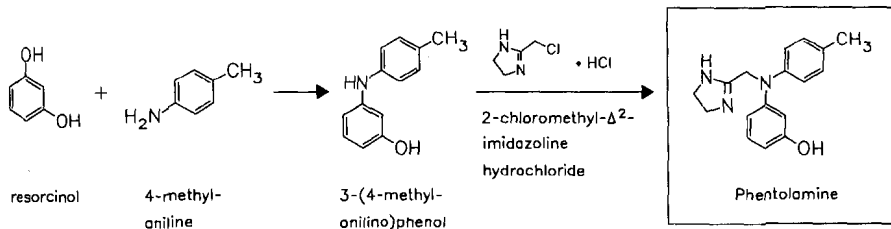
ATC: C04AB01

Use: sympatholytic, antihypertensive, peripheral vasodilator

RN: 50-60-2 MF: C₁₇H₁₉N₃O MW: 281.36 EINECS: 200-053-1LD₅₀: 35 mg/kg (M, i.v.); 1 g/kg (M, p.o.)

CN: 3-[[[4,5-dihydro-1H-imidazol-2-yl)methyl](4-methylphenyl)amino]phenol

monohydrochlorideRN: 73-05-2 MF: C₁₇H₁₉N₃O · HCl MW: 317.82 EINECS: 200-793-5LD₅₀: 75 mg/kg (R, i.v.); 1250 mg/kg (R, p.o.)**monomesylate**RN: 65-28-1 MF: C₁₇H₁₉N₃O · CH₄O₃S MW: 377.47 EINECS: 200-604-6LD₅₀: 75 mg/kg (M, i.v.)

**Reference(s):**

US 2 503 059 (Ciba; 1950; CH-prior. 1947).

Urech, E. et al.: *Helv. Chim. Acta (HCACAV)* **33**, 1386 (1950).**Formulation(s):** vial 5 mg (as mesylate)**Trade Name(s):**

D:	Regitin (Ciba); wfm	J:	Regitin (Ciba-Geigy-Takeda)
GB:	Rogitine (Novartis)	USA:	Regitine (Novartis)
I:	Regitine (Ciba); wfm		

Phenylbutazone

ATC: M01AA01; M02AA01
Use: anti-inflammatory

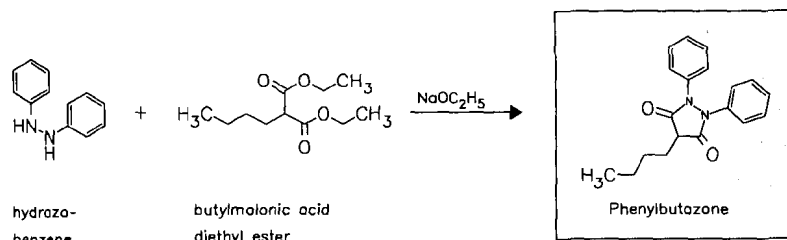
RN: 50-33-9 MF: $C_{19}H_{20}N_2O_2$ MW: 308.38 EINECS: 200-029-0

LD₅₀: 90 mg/kg (M, i.v.); 238 mg/kg (M, p.o.);
100 mg/kg (R, i.v.); 245 mg/kg (R, p.o.);
121 mg/kg (dog, i.v.); 332 mg/kg (dog, p.o.)

CN: 4-butyl-1,2-diphenyl-3,5-pyrazolidinedione

sodium saltRN: 129-18-0 MF: $C_{19}H_{18}N_2NaO_2$ MW: 329.36 EINECS: 204-935-7

LD₅₀: 94 mg/kg (M, i.v.); 476 mg/kg (M, p.o.);
113 mg/kg (R, i.v.); 855 mg/kg (R, p.o.)

**Reference(s):**

US 2 562 830 (Geigy; 1951; CH-prior. 1948).

salt with procaine:

DAS 2 055 853 (Dr. Voigt; appl. 13.11.1970).

Formulation(s): amp. 400 mg/2 ml (as sodium salt); drg. 200 mg; f. c. tabl. 200 mg; suppos. 300 mg (as acid)**Trade Name(s):**

D:	Ambene (Merckle)	Demoplas (Gödecke)-	F:	Butazolidine (Pierre Fabre)
	Butazolidin (Novartis	comb.		Carudol (Boehringer Ing.)
	Pharma)-comb.	Exrheudon N (Optimed)		

Dextrarine Phenylbutazone (Synthelabo)-comb. Traumalgy (Pharmadéveloppement)- comb.		numerous combination preparations Acrizal (S. S. Pharm.) Bulentan (Sanwa) Butazolodin (Ciba-Geigy- Fujisawa)	Reumazin (Mohan) Schemergen (Azusa) Sedazole (Toho) Tokugen (Sawai)
GB: Butacote (Novartis)	J:	Neuplus (Toyo Pharmar)	USA: Azolid (USV); wfm
I: Fenilbutazone (Ecobi; IFI) Kadol (Teofarma)		Pilazon (Kobayashi Kako)	Butazolodin (Geigy); wfm Sterazolodin (Geigy); wfm

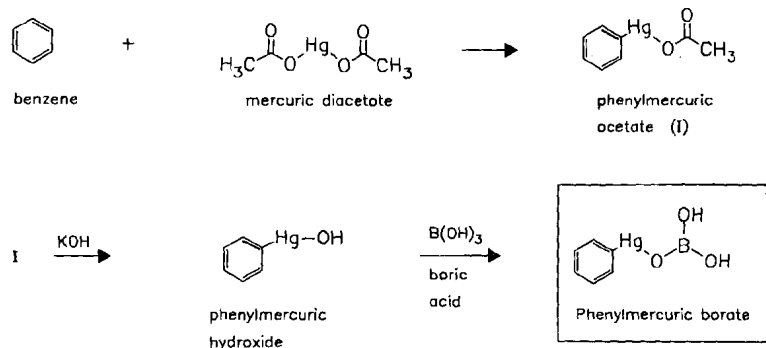
Phenylmercuric borate

ATC: D08AK02

Use: antiseptic, antifungal, disinfectant

RN: 102-98-7 MF: C₆H₇BHgO₃ MW: 338.52 EINECS: 203-068-1

CN: dihydrogen[orthoborato(3-)-κO]phenylmercurate(2-)

**Reference(s):**

US 2 196 384 (Lever Bros.; 1940; prior. 1937).

Formulation(s): sol. 0.066 %**Trade Name(s):**

D: Aderman (Schülke & Mayr); wfm Chibro S Lösung (Chibret)- comb.; wfm Exomycol (Zyma); wfm	Glycero-Merfen (Zyma); wfm Hydro-Merfen (Zyma); wfm	Merfen (Zyma)-comb.; wfm Merfen-Orange/-Tabl. (Zyma)
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Phenylpropanolamine

(DL-Norephedrine)

ATC: R01BA01

Use: sympathomimetic

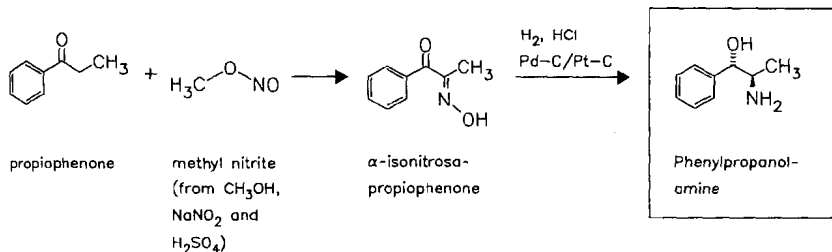
RN: 14838-15-4 MF: C₉H₁₃NO MW: 151.21 EINECS: 207-755-7LD₅₀: 1060 mg/kg (M, p.o.);

1538 mg/kg (R, p.o.)

CN: (R*,S*)-α-(1-aminoethyl)benzenemethanol

hydrochlorideRN: 154-41-6 MF: C₉H₁₃NO · HCl MW: 187.67 EINECS: 205-826-7LD₅₀: 150 mg/kg (M, p.o.);

1490 mg/kg (R, p.o.)

**Reference(s):**

Nagai, W.N.; Kanao, S.: *Justus Liebigs Ann. Chem. (JLACBF)* **470**, 157 (1929).
 US 3 028 429 (Nepera Chem. Co.; 3.4.1962; prior. 24.9.1959) – only hydrogenation process.
 Hartung et al.: *J. Am. Chem. Soc. (JACSAT)* **74**, 5927 (1952).
 Hartung et al.: *J. Am. Chem. Soc. (JACSAT)* **51**, 2262 (1929).

alternative synthesis (from benzaldehyde and nitroethane):

US 2 151 517 (J. Kamlet; 1939; prior. 1938).

resolution of racemate with pantothenic acid:

DAS 2 558 507 (Alps; appl. 24.12.1975; J-prior. 19.2.1975).

Formulation(s): tabl. 25 mg (as hydrochloride)**Trade Name(s):**

D:	Basoplex (RIAM)-comb. Contac (SmithKline Beecham OTC Medicines)- comb. Recatol (Woelm)-comb. Rhinopront (Mack, Illert.)- comb. Wick DayMed (Wick Pharma)-comb.	Dénoral (Pharmuka) Humex (Fournier) Rinurel (Substantia) Rinutan (Substantia) Rupton (Dexo) Triaminic (Sandoz) Triatussic (Sandoz)	Tempo Rinolo (Hoechst Marion)-comb. Triaminic (Novartis Consumer Health)-comb.
F:	only combination preparations:	GB: Rinurel (Parke Davis)- comb.; wfm I: Denoral (Rhône-Poulenc Rorer)-comb.	USA: Propagest (Carrick; as hydrochloride) numerous combination preparations

Phenyltoloxamine

ATC: R06AA
 Use: antihistaminic

RN: 92-12-6 MF: C₁₇H₂₁NO MW: 255.36 EINECS: 202-127-9

LD₅₀: 55 mg/kg (M, i.v.); 1127 mg/kg (M, p.o.);
 1400 mg/kg (R, p.o.)

CN: *N,N*-dimethyl-2-[2-(phenylmethyl)phenoxy]ethanamine

hydrochloride

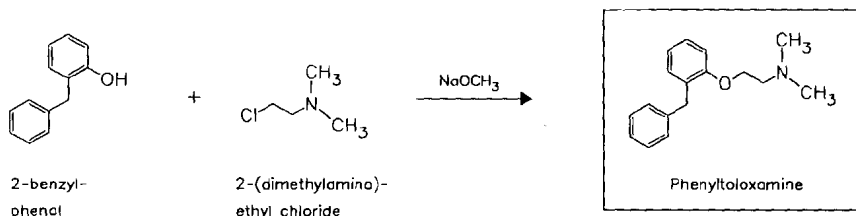
RN: 6152-43-8 MF: C₁₇H₂₁NO · HCl MW: 291.82

LD₅₀: 33 mg/kg (M, i.v.); 305 mg/kg (M, p.o.)

dihydrogen citrate (1:1)

RN: 1176-08-5 MF: C₁₇H₂₁NO · C₆H₈O₇ MW: 447.48 EINECS: 214-644-7

LD₅₀: 1472 mg/kg (R, p.o.)

**Reference(s):**

US 2 703 324 (Bristol; 1955; prior. 1947).

Cheney, L.C. et al.: J. Am. Chem. Soc. (JACSAT) **71**, 60 (1949).**Formulation(s):** drops 4 mg/g; s. r. cps. 10 mg; syrup 66 mg/90 ml**Trade Name(s):**

D:	Codipront (Mack, Illert.-comb.)	Rinurel (Parke Davis)-comb.; wfm	J:	Bristamine (Banyu) combination preparations
F:	Biocidan O.R.L. (Menarini) Nétux (Nicholas) Rinurel (Warner-Lambert) Rinutan (Warner-Lambert)	Rinurel (Warner)-comb.; wfm	USA:	only combination preparations: Kurtrase (Schwarz) Lobac (Seatrace) Nalex (Blansett) Poly-Histine-D (Sanofi)
GB:	Pholtex (Riker)-comb.; wfm	I: Codipront (Bracco)-comb.; wfm Neosyth (Inverni della Beffa)-comb.; wfm		

Phenytoin

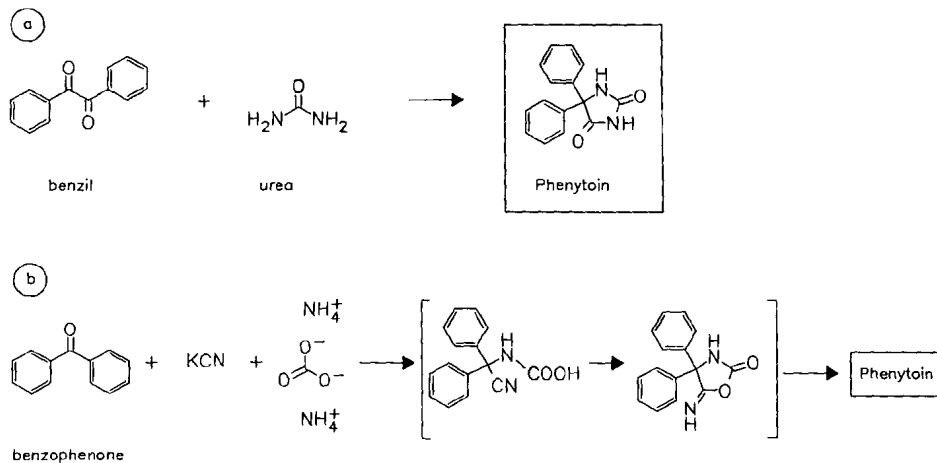
(Diphenylhydantoin)

ATC: N03AB02

Use: antiepileptic

RN: 57-41-0 MF: $\text{C}_{15}\text{H}_{12}\text{N}_2\text{O}_2$ MW: 252.27 EINECS: 200-328-6LD₅₀: 92 mg/kg (M, i.v.); 150 mg/kg (M, p.o.);
101 mg/kg (R, i.v.); 1635 mg/kg (R, p.o.);
90 mg/kg (dog, i.v.)

CN: 5,5-diphenyl-2,4-imidazolidinedione

monosodium saltRN: 630-93-3 MF: $\text{C}_{15}\text{H}_{11}\text{N}_2\text{NaO}_2$ MW: 274.26 EINECS: 211-148-2LD₅₀: 98 mg/kg (M, i.v.); 165 mg/kg (M, p.o.);
90 mg/kg (R, i.v.); 1530 mg/kg (R, p.o.)

Reference(s):

- a Biltz, H.: Ber. Dtsch. Chem. Ges. (BDCGAS) **41**, 1391 (1908).
 b US 2 409 754 (Parke Davis; 1946).

infusion concentrate:

DE 1 617 433 (Desitin; appl. 9.11.1966).
 DAS 2 213 275 (Desitin-Werk; appl. 18.3.1972).

Formulation(s): amp. 250 mg/5 ml; cps. 30 mg, 100 mg; susp. 30 mg/5 ml; tabl. 100 mg (as sodium salt)

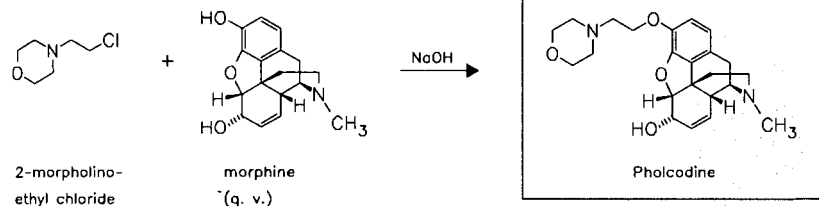
Trade Name(s):

D:	Epanutin (Parke Davis)	GB:	Epanutin (Parke Davis)	Metinal Idantoïna (Bayer Italia)-comb.	
	Phenhydantol (Desitin)	I:	Aurantin (Parke Davis)		
	Phenytoïn AWD (ASTA Medica AWD)-comb.		Dintoïna (Recordati)	J:	Aleviatin (Dainippon)
	Zentropil (Knoll)		Dintoïnale (Recordati)-comb.		Hydantol (Fujinaga)
F:	Dihydantol (Synthelabo)		Dintospina (Recordati)-comb.	USA:	Dilantin (Parke Davis; as sodium salt)
	Pyorédol (Roussel)				Dilantin (Parke Davis)

Pholcodine

ATC: R05DA08

Use: analgesic, tussive sedative

RN: 509-67-1 MF: C₂₃H₃₀N₂O₄ MW: 398.50 EINECS: 208-102-9LD₅₀: 230 mg/kg (M, i.v.); 1 g/kg (M, p.o.)CN: (5 α ,6 α)-7,8-didehydro-4,5-epoxy-17-methyl-3-[2-(4-morpholinyl)ethoxy]morphinan-6-ol*Reference(s):*

US 2 619 485 (Lab. Dausse; 1952; F-prior. 1949).

Formulation(s): syrup 5 mg/5 ml, 15 mg/15 ml

Trade Name(s):

D:	Contrapect (Krewel)-comb.; wfm	Eucalyptine pholcodine (Martin-Johnson & Johnson-MSD)-comb.	Copholcoïds (Radiol)-comb.; wfm
F:	Bicalyptol pholcodine (Laphal)-comb.	Hexapneumine (Doms-Adrian)-comb.	Galenphol (Galen)
	Bronchalène (Martin-Johnson & Johnson-MSD)-comb.	Isomyrtine (Schwarz)-comb.	Pavacol-D (Boehringer Ing.)
	Broncorinol (Roche; Nicholas)-comb.	Pholcones (RPR Cooper)-comb.	Pholtex (Riker)-comb.; wfm
	Dénoral (Thérapiex)-comb.	Trophirès (Sanofi)	Rinurel linctus (Parke Davis)-comb.; wfm
	Dimétane expectorant (Whitehall)-comb.	Winthrop)-comb.	USA: Ethnine (Purdue Frederick); wfm
		GB: Copholco (Radiol)-comb.; wfm	Simplex (Purdue Frederick); wfm

Pholedrine

ATC: N06
 Use: sympathomimetic, circulatory
 stimulant, mydriatic

RN: 370-14-9 MF: $C_{10}H_{15}NO$ MW: 165.24 EINECS: 206-725-0

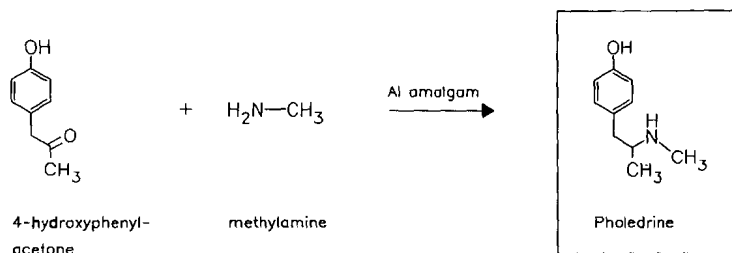
LD₅₀: 100 mg/kg (M, parenteral); 119 mg/kg (M, s.c.);
 400 mg/kg (R, s.c.)

CN: 4-[2-(methylamino)propyl]phenol

sulfate (2:1)

RN: 6114-26-7 MF: $C_{10}H_{15}NO \cdot 1/2H_2SO_4$ MW: 428.55 EINECS: 228-083-0

LD₅₀: 180 mg/kg (M, i.v.)

**Reference(s):**

Ehrhart-Ruschig, **II**, 155.
 DRP 665 793 (Knoll; 1936).
 DRP 674 753 (Knoll; 1936).
 DRP 672 372 (Knoll; 1936).
 DRP 675 361 (Knoll; 1936).

Formulation(s): drg. 40 mg; drops 20 mg/ml

Trade Name(s):

D:	Adyston (Krewel Meuselbach)-comb. Pholedrin liquidum (Krewel Meuselbach)	Pholedrin-longo-Isis (Isis Pharma) Zellaforte (Eurim Pharma)- comb.	I:	Veritol (Knoll); wfm
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Phthalylsulfathiazole

ATC: A07AB02
 Use: chemotherapeutic

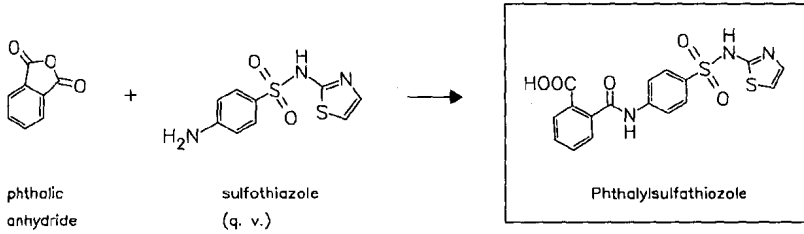
RN: 85-73-4 MF: $C_{17}H_{13}N_3O_5S_2$ MW: 403.44 EINECS: 201-627-4

LD₅₀: 920 mg/kg (M, i.p.)

CN: 2-[[[4-(2-thiazolylamino)sulfonyl]phenyl]amino]carbonyl]benzoic acid

8-hydroxyquinoline salt (1:1)

RN: 52310-12-0 MF: $C_{17}H_{13}N_3O_5S_2 \cdot C_9H_7NO$ MW: 548.60 EINECS: 257-837-1

**Reference(s):**

US 2 324 013 (Sharp & Dohme; 1943; prior. 1941).

US 2 324 015 (Sharp & Dohme; 1943; prior. 1941).

Formulation(s): tabl. 500 mg**Trade Name(s):**

D:	Diarönt (Chephasaar)-comb.; wfm Fluomycin (Fink)-comb.; wfm	GB:	Thalazole (May & Baker); wfm	Streptoguanidin (Lisapharma)-comb.; wfm
F:	Gélotamide (Choay)-comb.; wfm Lyantil (Syntex-Daltan)-comb.; wfm Talidine (Midy); wfm	I:	Colicitina (Panthox & Burck); wfm Enterosteril (Ripari-Gero); wfm Novosulfina (Medosan); wfm	USA: Neothalidine (Merck Sharp & Dohme)-comb.; wfm Sulfathalidine (Merck Sharp & Dohme); wfm

Phytomenadione(Phylloquinone; Phytonadione; Vitamin K₁)

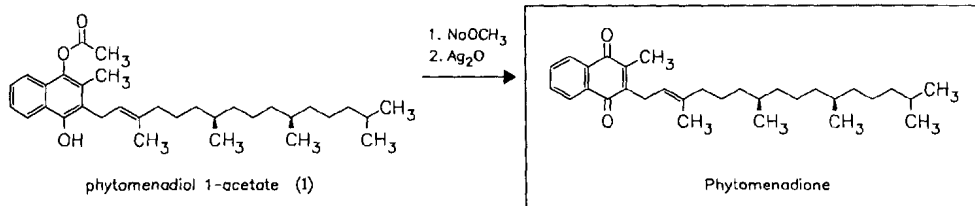
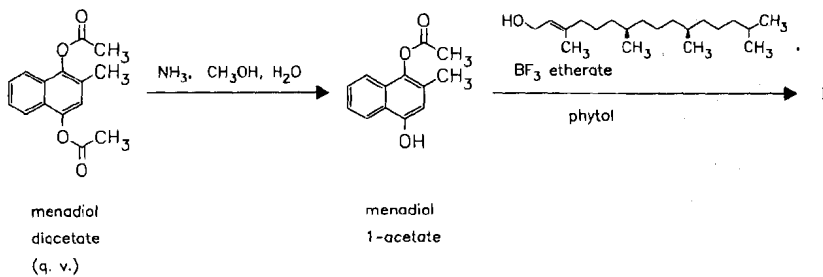
ATC: B02BA01

Use: antihemorrhagic vitamin

RN: 84-80-0 MF: C₃₁H₄₆O₂ MW: 450.71 EINECS: 201-564-2LD₅₀: >6.57 g/kg (M, i.v.); 25 g/kg (M, p.o.);

>33.487 g/kg (R, p.o.)

CN: [R-[R*,R*-(E)]]-2-methyl-3-(3,7,11,15-tetramethyl-2-hexadecenyl)-1,4-naphthalenedione



Reference(s):

Pieser, L.F.: J. Am. Chem. Soc. (JACSAT) **61**, 2559, 3467 (1939).
 Hirschmann, R. et al.: J. Am. Chem. Soc. (JACSAT) **76**, 4592 (1954).
 Isler, O.; Doebel, K.: Helv. Chim. Acta (HCACAV) **22**, 945 (1939); **37**, 225 (1954).
 US 2 325 681 (Roche; 1943; CH-prior. 1939).
 US 2 683 176 (Roche; 1954; CH-prior. 1951).

direct synthesis from menadiol:

DOS 2 907 864 (Wakunaga Yakuhin; appl. 1.3.1979; J-prior. 4.3.1978).

Formulation(s): amp. 1 mg/0.5 ml, 1 mg/ml, 10 mg/ml; chewing drg. 10 mg; sol. 2 mg/0.2 ml, 20 mg/ml; syrup 20 mg/ml; tabl. 5 mg

Trade Name(s):

D:	Konakion (Roche)	J:	Eleven K (Nippon Shinyaku)	Keipole (Kyowa)
	Konavit (mcdfphano)		Hymeron (Toa Eiyo-Yamanouchi)	Kinadione (Chugai)
	combination preparations		Kativ N (Takeda)	Kephton (Toyo Jozo)
F:	Lafenalac Mead Johnson (Bristol-Myers Squibb; Division Mead Johnson)-comb.		Kaycine (Kanto)	Mephyton (Merck-Banyu)
	Vitalipide (Pharmacia & Upjohn SA)-comb.		Kaywan (Eisai)	Monodion (Maruko)
	Vitamine K ₁ (Roche)		K-Eine (Hokuriku)	Nichivita K ₁ (Nichiko)
GB:	Konakion (Roche)		Kennegin (Kowa)	One Kay (Mohan)
I:	Konakion (Roche)		Kphy (Kobayashi)	Synthex P. (Tanabe)
			Kisikonon (Kyorin)	USA: Aqua Mephyton (Merck Sharp & Dohme)
			K-Top Wan (Sawai)	Mephyton (Merck Sharp & Dohme)

Picotamide

ATC: B01AC03
 Use: anticoagulant, fibrinolytic

RN: 32828-81-2 MF: C₂₁H₂₀N₄O₃ MW: 376.42 EINECS: 251-245-7

LD₅₀: 1205 mg/kg (Mm, i.p.);

3 g/kg (R, p.o.);

3 g/kg (dog, p.o.)

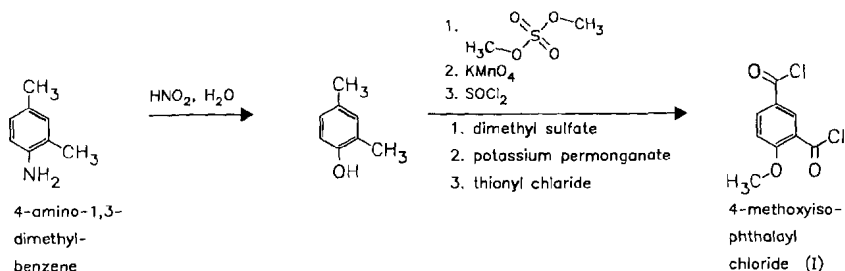
CN: 4-methoxy-*N,N'*-bis(3-pyridinylmethyl)-1,3-benzenedicarboxamide

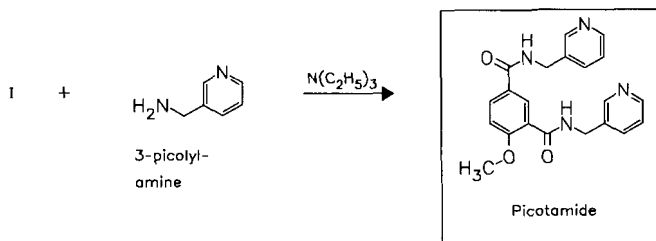
tartrate

RN: 86247-87-2 MF: C₂₁H₂₀N₄O₃ · xC₄H₆O₆ MW: unspecified

hydrate

RN: 80530-63-8 MF: C₂₁H₂₀N₄O₃ · H₂O MW: 394.43



**Reference(s):**

FR 2 100 850 (Manetti Roberts; appl. 30.6.1971; I-prior. 1.7.1970).

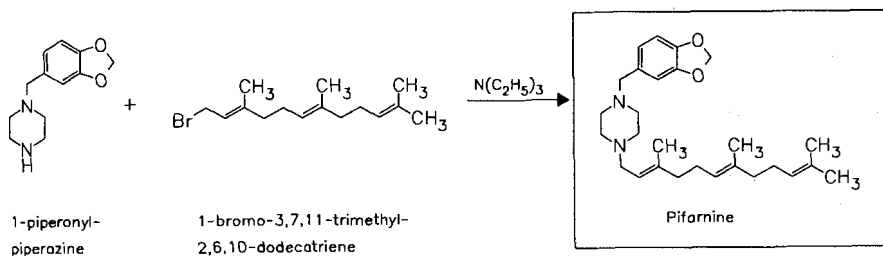
DE 2 506 209 (Manetti Roberts; appl. 14.2.1975).

US 3 973 026 (Manetti Roberts; 3.8.1976; prior. 5.2.1975).

BE 851 967 (Manetti Roberts; appl. 1.3.1977).

Selleri, R. et al.: Chim. Ther. (CHTPBA) **6**, 203 (1971).**Formulation(s):** tabl. 300 mg (as hydrate)**Trade Name(s):**

I: Plactidil (Samil)

Pifarnine**ATC:** A02B**Use:** peptic ulcer therapeutic, gastric acid secretion inhibitor**RN:** 56208-01-6 **MF:** C₂₇H₄₀N₂O₂ **MW:** 424.63**LD₅₀:** 500 mg/kg (M, i.p.)**CN:** 1-(1,3-benzodioxol-5-ylmethyl)-4-(3,7,11-trimethyl-2,6,10-dodecatrienyl)piperazine**Reference(s):**

ES 452 269 (Boehringer Mannh.; appl. 12.11.1976).

Bianchetti, A. et al.: Eur. J. Med. Chem. (EJMCA5) **9**, 555 (1974); **10**, 585 (1975).**Formulation(s):** 50 mg**Trade Name(s):**

I: Pifazin (Pierrel); wfm

Pifoxime

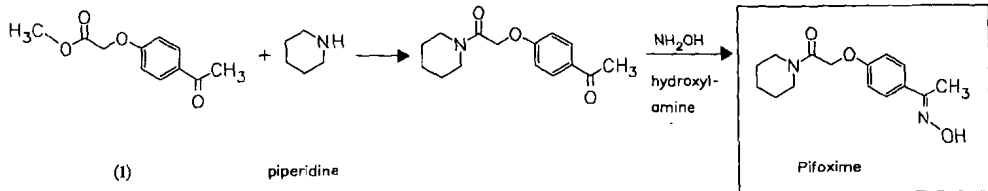
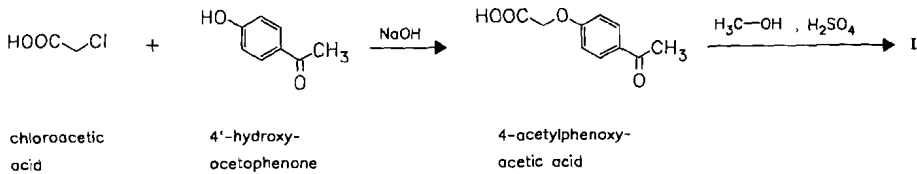
(Pixifenidum)

ATC: M01AB

Use: anti-inflammatory

RN: 31224-92-7 MF: C₁₅H₂₀N₂O₃ MW: 276.34LD₅₀: 1 g/kg (M, p.o.)

CN: 1-[4-[1-(hydroxyimino)ethyl]phenoxy]acetyl]piperidine

*Reference(s):*

US 3 907 792 (A. Mieville; 23.9.1975; CH-prior. 31.1.1969, 28.8.1969).

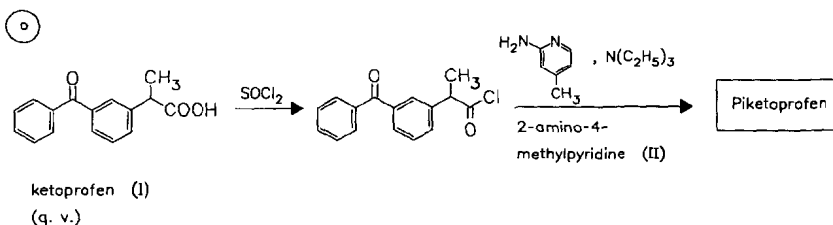
Trade Name(s):

F: Flamanil (Salvoxy-Wander); wfm

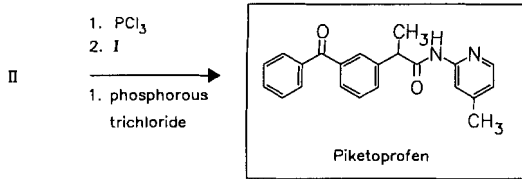
Piketopfen

ATC: M02AA

Use: topical non-steroidal anti-inflammatory and analgesic, ketoprofen derivative

RN: 60576-13-8 MF: C₂₂H₂₀N₂O₂ MW: 344.41CN: 3-benzoyl- α -methyl-N-(4-methyl-2-pyridinyl)benzeneacetamide**monohydrochloride**RN: 59512-37-7 MF: C₂₂H₂₀N₂O₂ · HCl MW: 380.88

b

*Reference(s):*

- a GB 1 436 502 (A. Gallardo SA; appl. 10.4.1974; E-prior. 10.4.1973).
b BE 882 711 (Fordonal SA; appl. 31.7.1980; E-prior. 25.2.1980).

Formulation(s): aerosol 20 mg/ml

Trade Name(s):

E: Calmatel (Almirall; 1985)

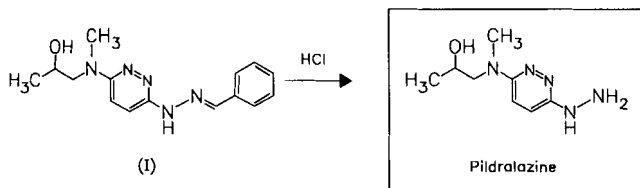
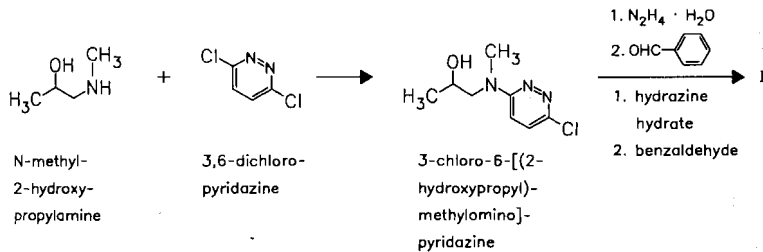
Pildralazine

ATC: C01D

Use: hypotensive, vasodilator

RN: 64000-73-3 MF: $\text{C}_8\text{H}_{15}\text{N}_5\text{O}$ MW: 197.24

CN: 6-[(2-hydroxypropyl)methylamino]-3(2H)-pyridazinone hydrazone

*Reference(s):*

- Pifferi, G.; Parravicini, F.; Carpi, C.; Dorigotti, L.: J. Med. Chem. (JMCMAR) **18**, 741 (1975).
DOS 2 154 245 (ISF; appl. 30.10.1971; I-prior. 15.12.1970).

Trade Name(s):

I: Atensil (ISF); wfm

Pilocarpine

ATC: N07AX01; S01EB01

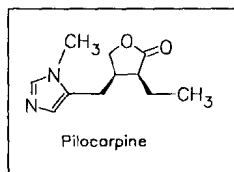
Use: parasympathomimetic, miotic

RN: 92-13-7 MF: C₁₁H₁₆N₂O₂ MW: 208.26 EINECS: 202-128-4LD₅₀: 61.9 mg/kg (M, i.v.); 119 mg/kg (M, p.o.);

88.5 mg/kg (R, i.v.); 402 mg/kg (R, p.o.)

CN: (3*S-cis*)-3-ethylidihydro-4-[(1-methyl-1*H*-imidazol-5-yl)methyl]-2(3*H*)-furanone**monohydrochloride**RN: 54-71-7 MF: C₁₁H₁₆N₂O₂ · HCl MW: 244.72 EINECS: 200-212-5LD₅₀: 150 mg/kg (M, i.v.); 200 mg/kg (M, p.o.)**borate**RN: 16509-56-1 MF: C₁₁H₁₆N₂O₂ · xBH₃O₃ MW: unspecified**mononitrate**RN: 148-72-1 MF: C₁₁H₁₆N₂O₂ · HNO₃ MW: 271.27 EINECS: 205-723-7LD₅₀: 345 mg/kg (M, i.v.);

911 mg/kg (R, p.o.)

By extraction of *Jaborandi* leaves (especially *Pilocarpus microphyllus* Stapf.) and isolation as hydrochloride.**Reference(s):**

Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. 3, 277.

BIOS Final Reports No. 766, 233.

pamoate:

DAS 2 462 081 (Merck & Co., appl. 16.12.1974; USA-prior. 17.12.1973, 31.10.1974).

Formulation(s): eye drops 0.5 %, 1 %, 2 %, 3 %, 4 %; eye ointment 10 mg/g, 20 mg/g, 30 mg/g; gel 40 mg/g (as hydrochloride)**Trade Name(s):**

D: Isopto-Pilocarpin (Alcon)

Pilocarpol (Winzer)

Pilomann (Mann)

Spersa carpin (CIBA

Vision)

Vistacarpin (Pharm-

Allergan)

numerous generics and

combination preparations

F: Chibro-Pilocarpine (Merck

Sharp & Dohme-Chibret)

Isopto-Pilocarpine (Alcon)

Pilo (Chauvin)

Pilocarpine Martinet (CIBA

Vision Ophthalmics)

GB: Isoptocarpin (Alcon)

Minims Pilocarpine

(Chauvin; as nitrate)

Ocusert Pilo (Dominion)

Pilogel (Alcon)

Salagen (Chiron)

Sno-Pilo (Chauvin)

I: Dropilton (Bruschettini)

Liocarpina (SIFI)

Pilocarpina Lux (Allergan)

Pilogel (Alcon)

Pilotonina (Farmila)

Salagen (Chiron Italia)

generics

J: generic preparations

USA: Salagen (MGI)

Pilsicainide

(SUN-1165)

ATC: C01BC

Use: class Ic antiarrhythmic

RN: 88069-67-4 MF: $C_{17}H_{24}N_2O$ MW: 272.39LD₅₀: 17 mg/kg (M, i.v.); 175 mg/kg (M, p.o.);

18 mg/kg (R, i.v.); 255 mg/kg (R, p.o.);

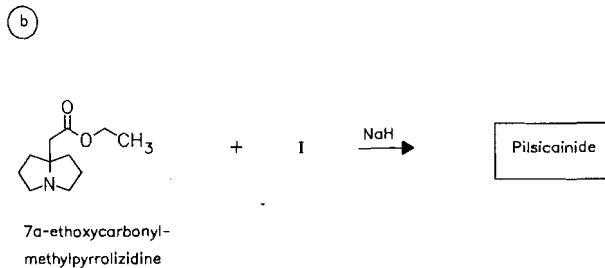
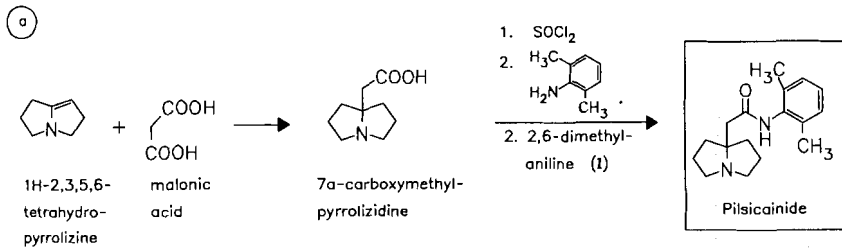
53 mg/kg (dog, p.o.)

CN: *N*-(2,6-dimethylphenyl)tetrahydro-1*H*-pyrrolizine-7*a*(5*H*)-acetamide**monohydrochloride**RN: 88069-49-2 MF: $C_{17}H_{24}N_2O \cdot HCl$ MW: 308.85LD₅₀: 222 mg/kg (M, p.o.); 410 mg/kg (M, s.c.);

260 mg/kg (R, p.o.);

87 mg/kg (rabbit, p.o.);

50 mg/kg (dog, p.o.)

**Reference(s):**

EP 89 061 (Suntory; appl. 15.3.1983; J-prior. 16.3.1982).

US 4 564 624 (Suntory; 14.1.1986; appl. 10.3.1983; J-prior. 16.3.1982).

JP 9 167 591 (Suntory; appl. 11.3.1983).

Formulation(s): cps. 25 mg, 50 mg (as hydrochloride)**Trade Name(s):**

J: Sunrythm (Suntory; Daiichi Seiyaku; 1991)

Pimefylline

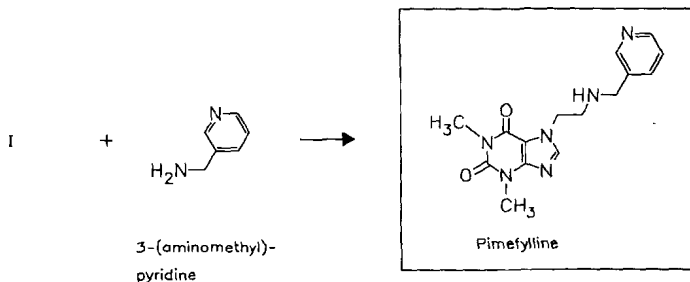
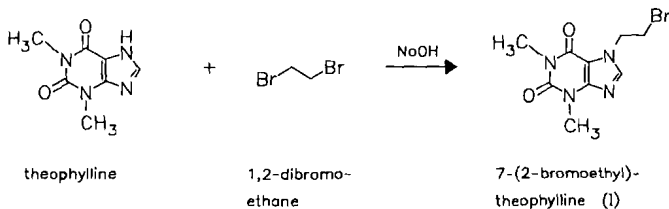
ATC: C01D

Use: vasodilator

RN: 10001-43-1 MF: $C_{15}H_{18}N_6O_2$ MW: 314.35LD₅₀: 402 mg/kg (M, i.v.); 1900 mg/kg (M, p.o.)CN: 3,7-dihydro-1,3-dimethyl-7-[2-[(3-pyridinylmethyl)amino]ethyl]-1*H*-purine-2,6-dione

nicotinate (1:1)RN: 10058-07-8 MF: C₁₅H₁₈N₆O₂ · C₆H₅NO₂ MW: 437.46 EINECS: 233-185-3LD₅₀: 470 mg/kg (M, i. v.); 2530 mg/kg (M, p. o.);

3700 mg/kg (R, p. o.)

**Reference(s):**

US 3 350 400 (Eprova; 31.10.1967; CH-prior. 12.1.1965).

Trade Name(s):I: Teonicon (Neopharmed); J: Teonicon (Neopharmed)
wfm**Pimeprofen**

(Ibuprofen piconol)

ATC: M01AE; M02AA

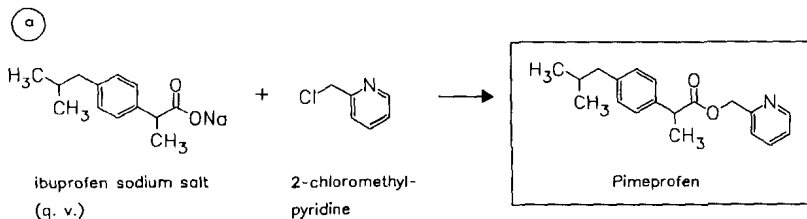
Use: anti-inflammatory

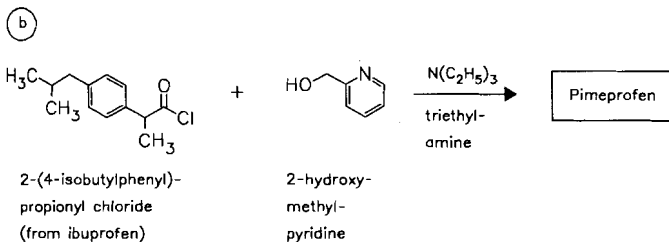
RN: 64622-45-3 MF: C₁₉H₂₃NO₂ · MW: 297.40 EINECS: 264-979-8LD₅₀: 1980 mg/kg (M, p. o.);

1440 mg/kg (R, p. o.);

>4 g/kg (dog, p. o.)

CN: α-methyl-4-(2-methylpropyl)benzeneacetic acid 2-pyridinylmethyl ester



**Reference(s):**

DOS 2 658 610 (Hisamitsu; appl. 23.12.1976; J-prior. 24.12.1975).

US 4 150 137 (Hisamitsu; 17.4.1979; J-prior. 24.12.1975).

Formulation(s): cream 5 %; ointment 5 %**Trade Name(s):**

J: Staderm (Torii)

Vesicum (Hisamitsu)

Pimobendan

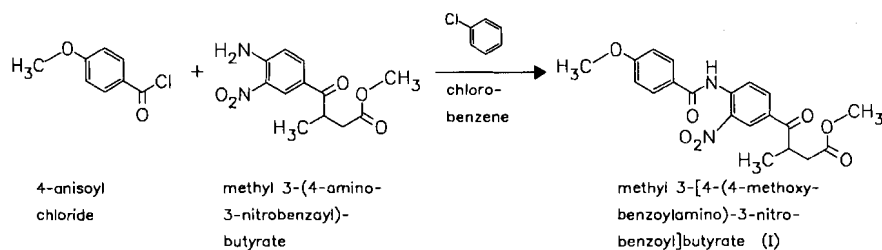
(UD-CG 115; UD-CG 115BS)

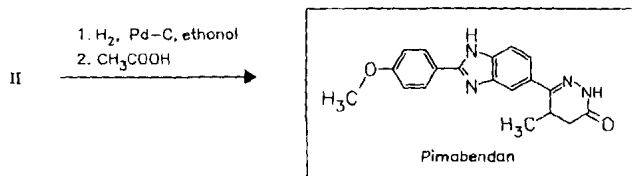
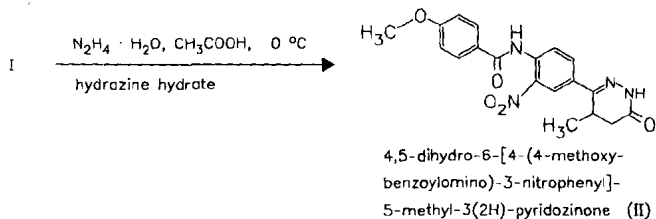
ATC: C01CE

Use: cardiotonic, PDE III-inhibitor, vasodilator

RN: 74150-27-9 MF: C₁₉H₁₈N₄O₂ MW: 334.38LD₅₀: >2 g/kg (M, p.o.);

72 mg/kg (R, i.v.); 950 mg/kg (R, p.o.)

CN: 4,5-dihydro-6-[2-(4-methoxyphenyl)-1*H*-benzimidazol-5-yl]-5-methyl-3(2*H*)-pyridazinone**hydrochloride**RN: 74149-75-0 MF: C₁₉H₁₈N₄O₂ · xHCl MW: unspecified**monohydrochloride**RN: 77469-98-8 MF: C₁₉H₁₈N₄O₂ · HCl MW: 370.84**racemate**RN: 118428-36-7 MF: C₁₉H₁₈N₄O₂ MW: 334.38LD₅₀: 75 mg/kg (R, i.v.)**(-)-enantiomer**RN: 118428-37-8 MF: C₁₉H₁₈N₄O₂ MW: 334.38LD₅₀: 100 mg/kg (R, i.v.)**(+)-enantiomer**RN: 118428-38-9 MF: C₁₉H₁₈N₄O₂ MW: 334.38LD₅₀: 75 mg/kg (R, i.v.)

**Reference(s):**

EP 8 391 (Thomae GmbH; appl. 3.2.1980; D-prior. 25.8.1978, 1.6.1979).

separation of enantiomers:

DE 3 728 244 (Thomae GmbH; appl. 25.8.1987; D-prior. 25.8.1987).

oral formulation:

DE 4 001 622 (Thomae GmbH; appl. 20.1.1990; D-prior. 20.1.1990).

use for treatment of asthma:

DE 4 001 623 (Thomae GmbH; appl. 20.1.1990; D-prior. 20.1.1990).

combination with β -blockers:

EP 387 762 (Thomae GmbH; appl. 12.3.1990; D-prior. 16.3.1989).

use for treating erectile dysfunction:

DE 4 338 948 (J. Carlen; appl. 15.11.1993; D-prior. 15.11.1993).

Formulation(s): cps. 1.25 mg, 2.5 mg

Trade Name(s):

J: Acardi (Nippon
Boehringer)

Pimozide

ATC: N05AG02

Use: neuroleptic

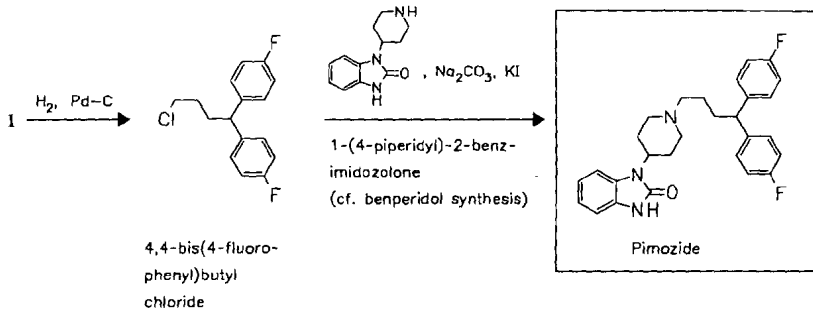
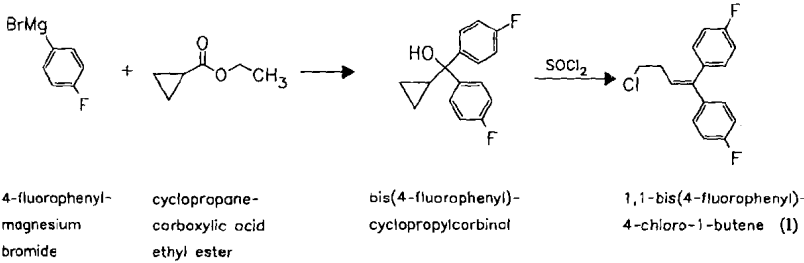
RN: 2062-78-4 MF: $\text{C}_{28}\text{H}_{29}\text{F}_2\text{N}_3\text{O}$ MW: 461.56 EINECS: 218-171-7

LD₅₀: 14 mg/kg (M, i.v.); 228 mg/kg (M, p.o.);

90 mg/kg (R, i.v.); 1100 mg/kg (R, p.o.);

32 mg/kg (dog, i.v.); 40 mg/kg (dog, p.o.)

CN: 1-[1-[4,4-bis(4-fluorophenyl)butyl]-4-piperidinyl]-1,3-dihydro-2H-benzimidazol-2-one

**Reference(s):**

DAS 1 470 124 (Janssen; appl. 12.6.1963; USA-prior. 13.6.1962, 11.6.1963).
 FR-M 3 695 (Janssen; appl. 12.9.1963; USA-prior. 11.6.1963).
 US 3 196 157 (Janssen; 20.7.1965; appl. 11.6.1963).
 DD 243 284 (VEB Arzneimittelwerk Dresden; appl. 13.12.1985).

Formulation(s): tabl. 1 mg, 2 mg, 4 mg

Trade Name(s):

D:	Antalon (ASTA Medica AWD)	F:	Orap (Janssen-Cilag)	J:	Orap (Fujisawa)
	Orap (Janssen-Cilag)	GB:	Orap (Janssen-Cilag)	USA:	Orap (Gate)
		I:	Orap (Janssen-Cilag)		

Pinacidil

(P-1134)

ATC: C02DG01

Use: antihypertensive, vasodilator, potassium channel activator

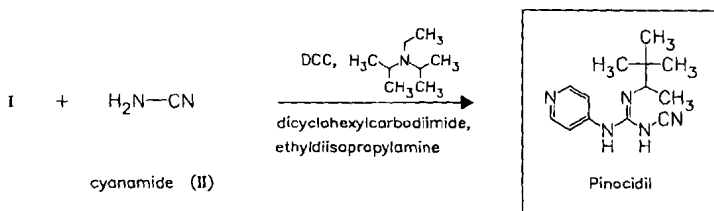
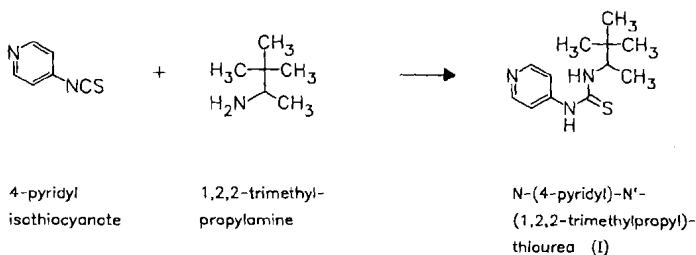
RN: 60560-33-0 MF: C₁₃H₁₉N₅ MW: 245.33 EINECS: 262-294-9LD₅₀: 177 mg/kg (M, i.v.); 412 mg/kg (M, p.o.);

155 mg/kg (R, i.v.); 210 mg/kg (R, p.o.)

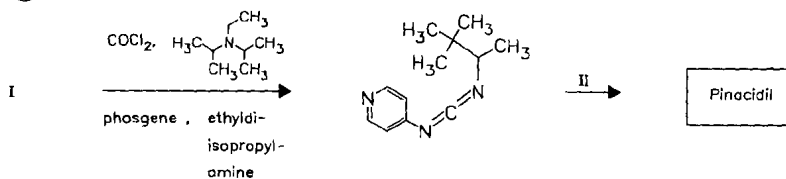
CN: *N*-cyano-*N'*-4-pyridinyl-*N''*-(1,2,2-trimethylpropyl)guanidine**monohydrate**RN: 85371-64-8 MF: C₁₃H₁₉N₅ · H₂O MW: 263.35LD₅₀: 600 mg/kg (M, p.o.);

570 mg/kg (R, p.o.)

a



b

**Reference(s):**

- DE 2 557 438 (Leo; appl. 19.12.1975; GB-prior. 20.12.1974).
 DE 2 560 633 (Leo; appl. 19.12.1975; GB-prior. 20.12.1974).
 GB 1 489 879 (Leo; appl. 20.12.1974).
 Petersen, H.J. et al.: J. Med. Chem. (JMCMAR) **21**, 773 (1978).
 Hansen, E.T.; Petersen, H.J.: Synth. Commun. (SYNCAV) **14**, 537 (1984).

medical use for treatment of asthma:

EP 207 606 (Lilly; appl. 15.5.1986; USA-prior. 17.5.1985).

medical use for treatment of peripheral vascular disease:

EP 223 811 (Beecham; appl. 20.5.1986; GB-prior. 29.5.1985, 22.5.1985).

combination with ACE inhibitors:

EP 271 271 (Beecham; appl. 30.11.1987; GB-prior. 24.12.1986, 6.12.1986).

combination with β -blocker:

EP 323 745 (Beecham; appl. 23.12.1988; GB-prior. 6.1.1988).

sustained release formulation:

DOS 3 404 595 (Leo; appl. 9.2.1984; DK-prior. 11.2.1983).

Formulation(s): cps. 12.5 mg, 25 mg

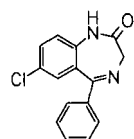
Trade Name(s):

DK: Pindac (Leo)

Pinazepam

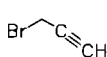
ATC: N05BA14
Use: tranquilizer

RN: 52463-83-9 MF: C₁₈H₁₃ClN₂O MW: 308.77 EINECS: 257-934-9
LD₅₀: 1302 mg/kg (M, p.o.);
5819 mg/kg (R, p.o.)
CN: 7-chloro-1,3-dihydro-5-phenyl-1-(2-propynyl)-2H-1,4-benzodiazepin-2-one



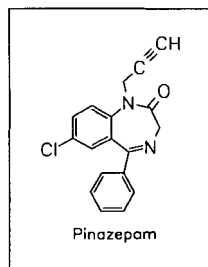
7-chloro-1,3-dihydro-
5-phenyl-2H-1,4-benzo-
diazepin-2-one
(cf. diazepam synthesis)

+



2-propynyl
bromide

NaOCH₃, CH₃OH



Pinazepam

Reference(s):

DOS 2 339 790 (Zambeletti; appl. 6.8.1973; I-prior. 9.8.1972).
GB 1 406 946 (Zambeletti; valid from 28.6.1973; I-prior. 9.8.1972).

alternative synthesis:

US 3 842 094 (Delmar Chem.; 15.10.1974; prior. 31.8.1972).

Formulation(s): cps. 2.5 mg, 5 mg, 10 mg

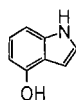
Trade Name(s):

I: Domar (Teofarma)

Pindolol

ATC: C07AA03
Use: beta blocking agent

RN: 13523-86-9 MF: C₁₄H₂₀N₂O₂ MW: 248.33 EINECS: 236-867-9
LD₅₀: 22.6 mg/kg (M, i.v.); 235 mg/kg (M, p.o.);
51 mg/kg (R, i.v.); 263 mg/kg (R, p.o.)
CN: 1-(1H-indol-4-yloxy)-3-[(1-methylethyl)amino]-2-propanol

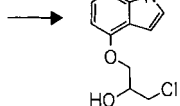


4-hydroxy-
indole

+



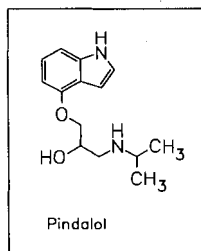
epichloro-
hydrin



3-chloro-1-
(4-indolyloxy)-
2-propanol



isopropyl-
amine



Pindolol

Reference(s):

DE 1 620 342 (Sandoz; prior. 26.1.1966).
 US 3 471 515 (Sandoz; 7.10.1967; CH-prior. 1.2.1965).
 CH 453 363 (Sandoz; appl. 1.2.1965).

Formulation(s): amp. 0.4 mg/2 ml; eye drops 5 mg/ml, 10 mg/5 ml; s. r. tabl. 20 mg; tabl. 2.5 mg, 5 mg, 10 mg, 15 mg

Trade Name(s):

D:	Durapindol (durachemie) Glauco-Stulln (Pharma Stulln)	Visken (Novartis Pharma; 1971)	I:	Visken (Novartis Farma; 1973)	
	Pindoptan (Kanoldt)	F:	Viskaldix (Novartis)-comb.	J:	Carvisken (Sankyo)
	Viskaldix (Novartis Pharma)-comb.	GB:	Viskaldix (Novartis)-comb. Visken (Novartis; 1974)	USA:	Visken (Sandoz; 1982); wfm generics

Pioglitazone

(AD-4833; U 72107)

ATC: A10BG03

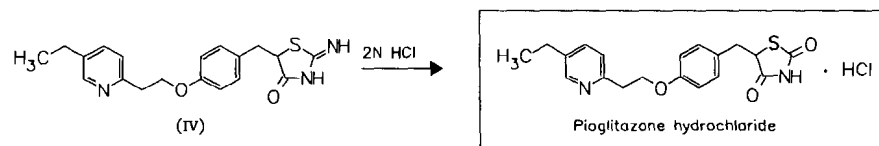
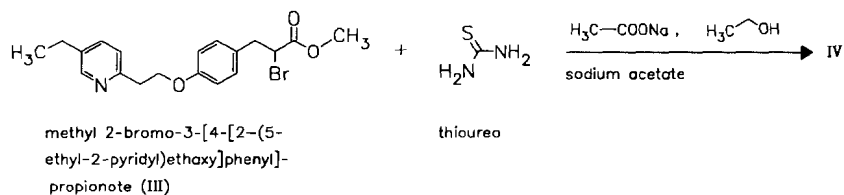
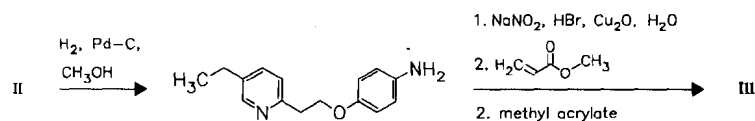
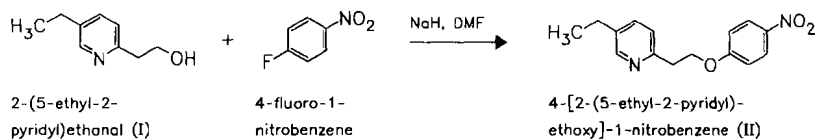
Use: antidiabetic, insulinenhancer

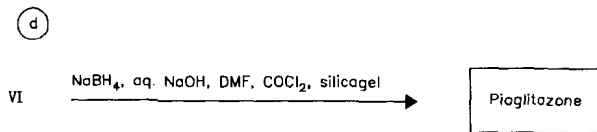
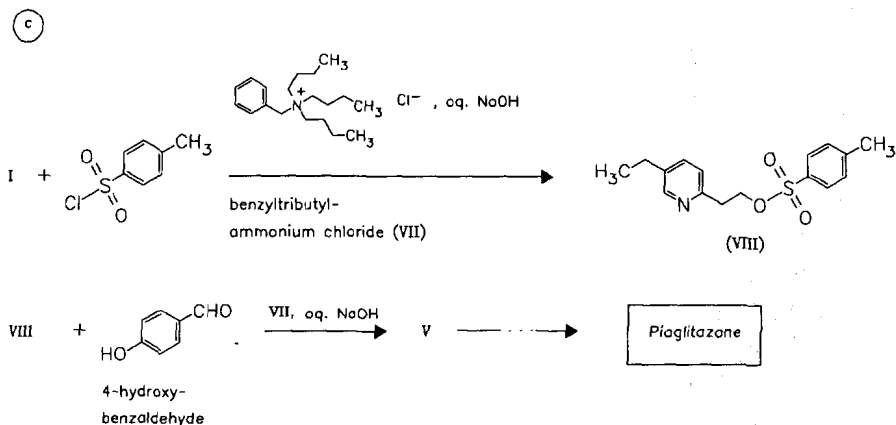
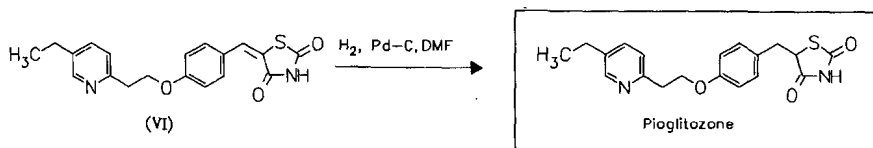
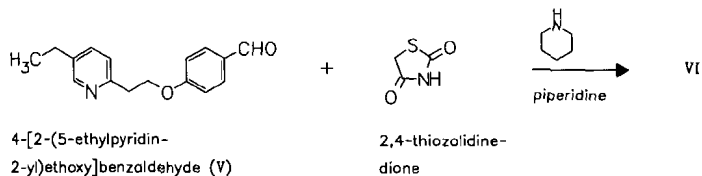
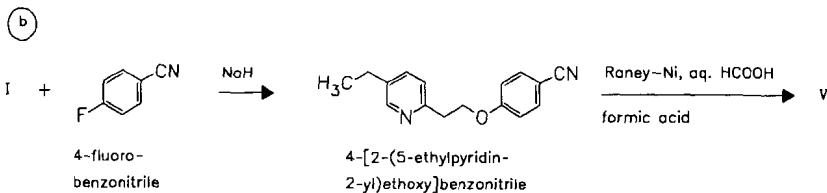
RN: 111025-46-8 MF: C₁₉H₂₀N₂O₃S MW: 356.45

CN: (±)-5-[[4-[2-(5-Ethyl-2-pyridinyl)ethoxy]phenyl]methyl]-2,4-thiazolidinedione

hydrochlorideRN: 112529-15-4 MF: C₁₉H₂₀N₂O₃S · HCl MW: 392.91

a





Reference(s):

- a Sohda, T. et al.: *Arzneim.-Forsch. (ARZNAD)* **40** (1), 37-42 (1990).
EP 193 256 (Takeda; appl. 15.1.1986; J-prior. 19.1.1985).
- b,c EP 506 273 (Takeda; appl. 16.3.1992; J-prior. 25.3.1991).
Momose, Y. et al.: *Chem. Pharm. Bull. (CPBTAL)* **39** (6), 1440-1445 (1991).
- c EP 186 340 (Takeda; appl. 26.6.1997; J-prior. 27.6.1996).
- d WO 9 313 095 (Upjohn; appl. 4.12.1992; USA-prior. 20.12.1991).

synthesis of metabolites:

- Tanis, S.P. et al.: *J. Med. Chem. (JMCMAR)* **39** (26), 5053-5063 (1996).
WO 9 322 445 (Upjohn; appl. 21.4.1993; USA-prior. 5.5.1992).

Trade Name(s):

USA: Actos (Takeda/Lilly; 1999)

Pipamazine

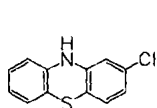
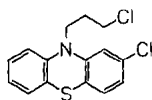
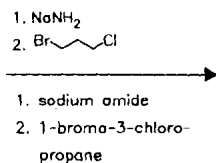
ATC: A04

Use: anti-emetic

RN: 84-04-8 MF: C₂₁H₂₄ClN₃OS MW: 401.96 EINECS: 201-512-9LD₅₀: 370 mg/kg (M, p.o.);

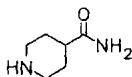
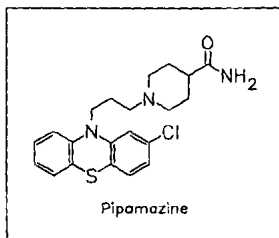
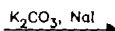
620 mg/kg (R, p.o.)

CN: 1-[3-(2-chloro-10H-phenothiazin-10-yl)propyl]-4-piperidinecarboxamide

2-chloro-
phenothiazine2-chloro-10-(3-chloro-
propyl)phenothiazine (I)

I

+

piperidine-4-
carboxamide

Reference(s):

US 2 957 870 (Searle; 25.10.1960; prior. 5.11.1957).

DE 1 089 386 (Searle; appl. 8.11.1957; USA-prior. 15.11.1956).

Formulation(s): 5 mg

Trade Name(s):

F: Nausidol (Grémy-
Longuet); wfm

USA: Mornidine (Searle); wfm

Pipamperone
(Floropipamide)

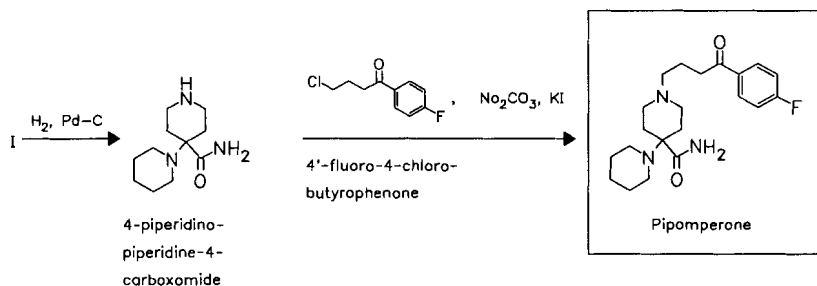
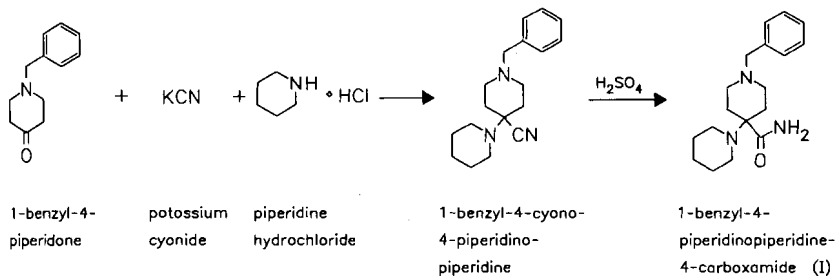
ATC: N05AD05

Use: neuroleptic

RN: 1893-33-0 MF: C₂₁H₃₀FN₃O₂ MW: 375.49LD₅₀: 66 mg/kg (M, i.v.); 490 mg/kg (M, p.o.);

48 mg/kg (R, i.v.); 160 mg/kg (R, p.o.)

CN: 1'-[4-(4-fluorophenyl)-4-oxobutyl][1,4'-bipiperidine]-4'-carboxamide

**Reference(s):**

US 3 041 344 (Janssen; 26.6.1962; prior. 1.12.1960).

DE 1 235 319 (Janssen; appl. 28.11.1961; USA-prior. 1.12.1960).

Westeringh, C. van de et al.: J. Med. Chem. (JMCMAR) 7, 619 (1964).

Formulation(s): syrup 20 mg/5 ml; tabl. 40 mg (as dihydrochloride)**Trade Name(s):**

D: Dipiperon (Janssen-Cilag)

F: Dipiperon (Janssen-Cilag; as dihydrochloride)

I: Piperonil (Lusofarmaco)
J: Propitan (Eisai)**Pipazetate**

(Pipazetate)

ATC: R05DB11

Use: antitussive

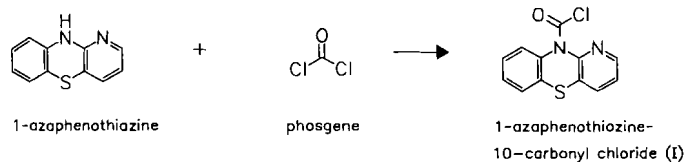
RN: 2167-85-3 MF: $\text{C}_{21}\text{H}_{25}\text{N}_3\text{O}_3\text{S}$ MW: 399.52 EINECS: 218-508-8LD₅₀: 13.14 mg/kg (M, i.v.)

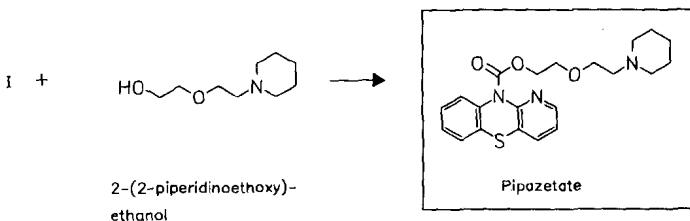
CN: 10H-pyrido[3,2-b][1,4]benzothiazine-10-carboxylic acid 2-[2-(1-piperidinyl)ethoxy]ethyl ester

monohydrochlorideRN: 6056-11-7 MF: $\text{C}_{21}\text{H}_{25}\text{N}_3\text{O}_3\text{S} \cdot \text{HCl}$ MW: 435.98 EINECS: 227-980-4LD₅₀: 16 mg/kg (M, i.v.); 214 mg/kg (M, p.o.);

17 mg/kg (R, i.v.); 530 mg/kg (R, p.o.);

8 mg/kg (dog, i.v.); 80 mg/kg (dog, p.o.)



*Reference(s):*

DE 1 055 538 (Degussa; appl. 15.6.1957).

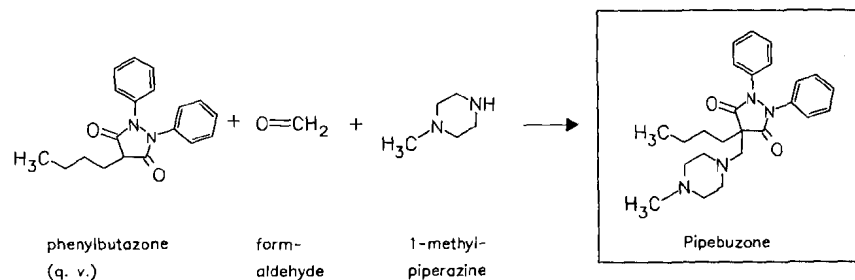
US 2 989 529 (Degussa; 20.6.1961; D-prior. 15.6.1957).

Formulation(s): drops 40 mg; suppos. 10 mg; syrup 10 mg/5 ml (as hydrochloride)*Trade Name(s):*D: Selvigon (ASTA Medica
AWD)GB: Selvigon (Smith Kline &
French); wfmI: Selvigon (Rhône-Poulenc
Rorer)**Pipebuzone**

ATC: M01AA; S01BC

Use: anti-inflammatory, antipyretic,
analgesicRN: 27315-91-9 MF: C₂₅H₃₂N₄O₂ MW: 420.56 EINECS: 248-398-7

CN: 4-butyl-4-[(4-methyl-1-piperazinyl)methyl]-1,2-diphenyl-3,5-pyrazolidinedione

*Reference(s):*

DE 1 958 722 (Lab. Dausse; appl. 22.11.1969; F-prior. 25.11.1968, 19.2.1969).

Formulation(s): cps. 150 mg; suppos. 300 mg*Trade Name(s):*F: Élarzone-Dausse (Dausse);
wfm

Pipecuronium bromide

ATC: M03AC06

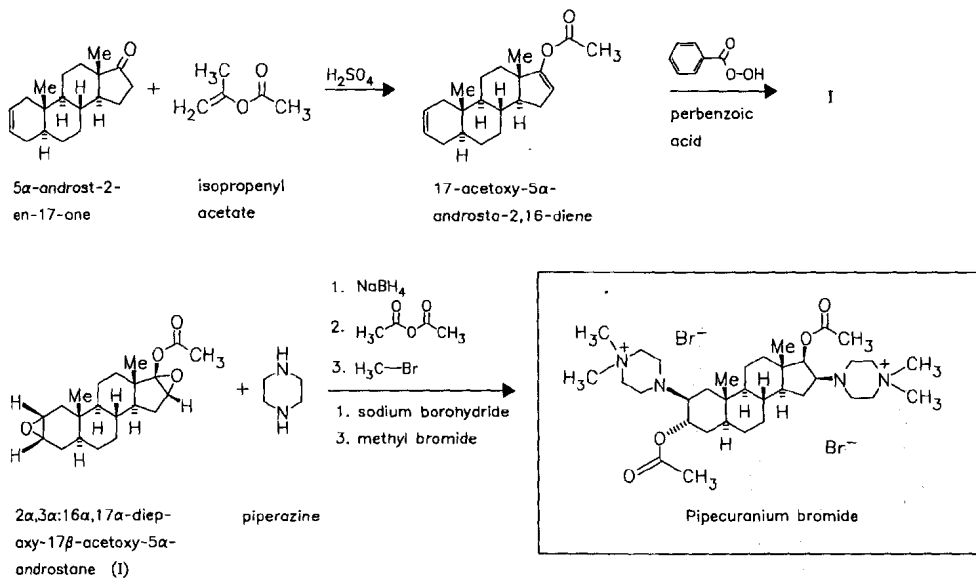
Use: muscle relaxant, non-depolarizing neuromuscular blocker

RN: 52212-02-9 MF: C₃₅H₆₂Br₂N₄O₄ MW: 762.71 EINECS: 257-740-4

LD₅₀: 55300 ng/kg (M, i.m.); 70600 ng/kg (M, i.p.); 29700 ng/kg (M, i.v.); 22 mg/kg (M, p.o.); 60500 ng/kg (M, s.c.);

450 µg/kg (R, i.p.); 173 µg (R, i.p.); 173 µg (R, i.v.)

CN: 4,4'-[(2β,3α,5α,16β,17β)-3,17-bis(acetyloxy)androstane-2,16-diyl]bis[1,1-dimethylpiperazinium] dibromide



Reference(s):

DE 2 337 882 (Richter Gedeon; appl. 26.7.1973; H-prior. 27.7.1972).

NL 7 310 389 (Richter Gedeon; appl. 26.7.1973; H-prior. 27.7.1972).

Tuba, Z.: *Arzneim.-Forsch. (ARZNAD)* **30**, 342 (1980).

Formulation(s): vial 10 mg/10 ml

Trade Name(s):

USA: Arduan (Organon; 1990)

Pipemidic acid

(Acide pipemidique; Piperamic acid)

ATC: G04AB03

Use: chemotherapeutic (urinary tract infections), antibacterial

RN: 51940-44-4 MF: C₁₄H₁₇N₅O₃ MW: 303.32 EINECS: 257-530-2

LD₅₀: 300 mg/kg (M, i.v.); 5 g/kg (M, p.o.);

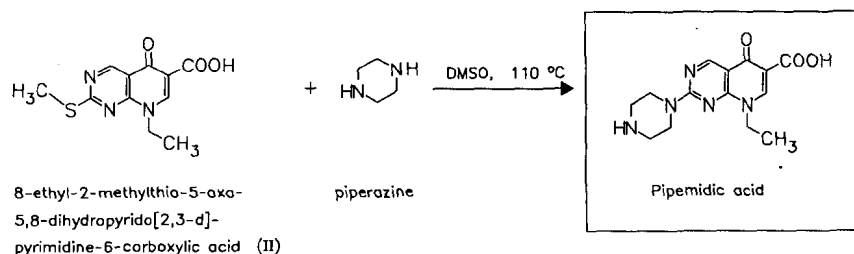
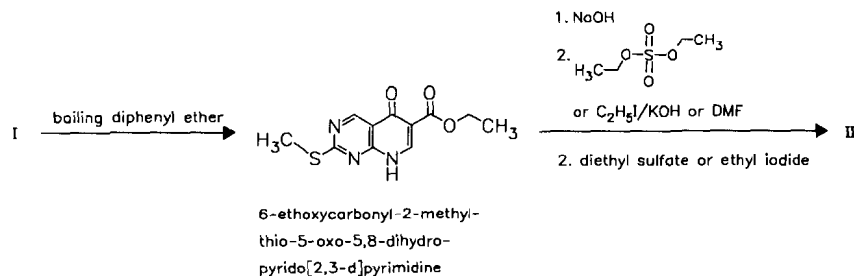
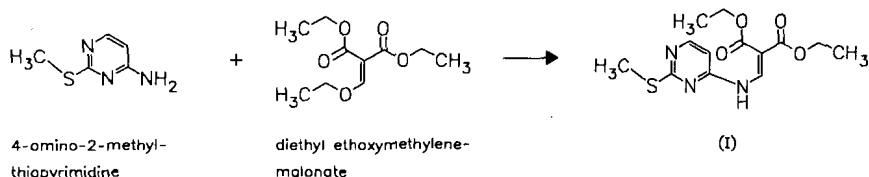
529 mg/kg (R, i.v.); 16 g/kg (R, p.o.);

>2 g/kg (dog, p.o.)

CN: 8-ethyl-5,8-dihydro-5-oxo-2-(1-piperazinyl)pyrido[2,3-d]pyrimidine-6-carboxylic acid

trihydrate

RN: 72571-82-5 MF: C₁₄H₁₇N₅O₃ · 3H₂O MW: 357.37

**Reference(s):**

- US 3 950 338 (Roger Bellon; 13.4.1976; appl. 31.7.1973; F-prior. 2.8.1972).
 DE 2 338 325 (Roger Bellon; prior. 1.8.1973).
 DOS 2 341 146 (Dainippon; appl. 14.8.1973; J-prior. 14.8.1972, 19.12.1972, 22.12.1972, 26.12.1972, 27.12.1972, 25.5.1973, 19.6.1973).
 US 3 887 557 (Dainippon; 3.6.1975; J-prior. 14.8.1972).
 US 3 962 443 (Dainippon; 8.6.1976; J-prior. 14.8.1972, 19.12.1972, 22.12.1972, 26.12.1972, 27.12.1972, 25.5.1973, 19.6.1973).
 Matsumoto, J.; Minami, S.: J. Med. Chem. (JMCMAR) **18**, 74 (1975).

precursor (8-ethyl-2-methylthio-5-oxo-5,8-dihydropyrido[2,3-d]pyrimidine-6-carboxylic acid):

- DOS 2 143 369 (Dainippon; appl. 30.8.1971; J-prior. 29.8.1970)
 GB 1 129 358 (Dainippon; appl. 8.9.1966; J-prior. 8.9.1965, 10.9.1965).

alternative synthesis:

- DOS 2 338 325 (Roger Bellon; appl. 1.8.1973; F-prior. 2.8.1972).

Formulation(s): cps. 200 mg, 400 mg (as trihydrate)

Trade Name(s):

- | | | | |
|----|---|--|---|
| D: | Deblaston (Madaus; 1978) | Pipefort (Lampugnani) | Urosan (AGIPS) |
| F: | Pipram (Rhône-Poulenc
Rorer Bellon; 1975) | Pipemid (Gentili)
Pipram (Rhône-Poulenc
Rorer; 1979) | Urosetic (Finmedical)
Urotractin (SmithKline
Beecham) |
| I: | Acipem (Caber)
Diperpen (Francia Farm.)
Filtrax (Ipso-Pharma)
Pipeacid (Tosi-Novara)
Pipedac (Teofarma) | Pipurin (NCSN)
Tractor (Damor)
Urodene (O.F.F.)
Uropimid (CT) | Uroval (Firma) |
| | | | J: Dolcol (Dainippon; 1979) |

Pipenzolate bromide

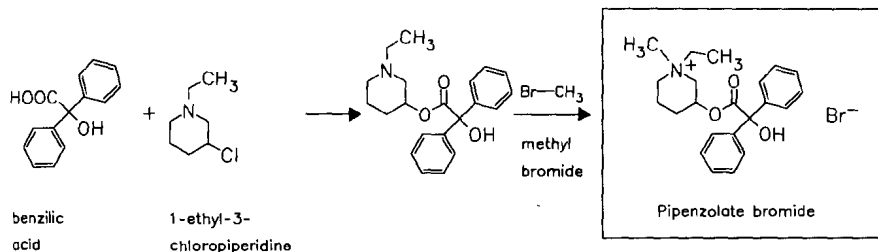
ATC: A03AB14

Use: anticholinergic, antispasmodic

RN: 125-51-9 MF: C₂₂H₂₈BrNO₃ MW: 434.37 EINECS: 204-741-2LD₅₀: 18 mg/kg (M, i.v.); 1140 mg/kg (M, p.o.);

18 mg/kg (R, i.v.); 916 mg/kg (R, p.o.)

CN: 1-ethyl-3-[(hydroxydiphenylacetyl)oxy]-1-methylpiperidinium bromide

*Reference(s):*

US 2 918 406 (Lakeside Labs.; 22.12.1959; appl. 8.4.1957; prior. 18.8.1950).

Formulation(s): tabl. 5 mg*Trade Name(s):*

F:	Piptal (Roger Bellon); wfm	I:	Piper (Panthox & Burck); wfm	USA:	Piptal (Hoechst Marion Roussel; Merrell-National); wfm
GB:	Piptal (M.C.P. Pharmaceuticals); wfm		Piptal (RBS Pharma); wfm		
	Piptalin (M.C.P. Pharmaceuticals)-comb.; wfm	J:	Piptal (Chugai)		

Piperacetazine

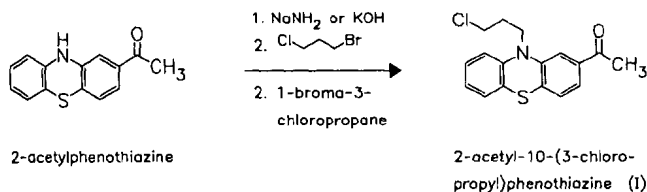
ATC: N05AC

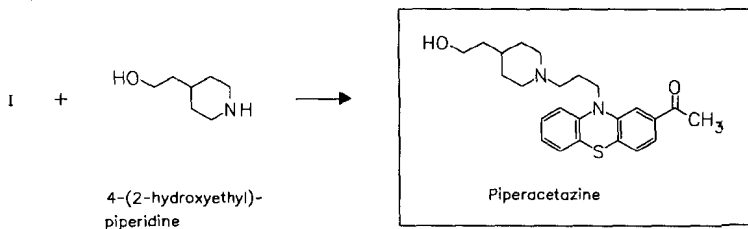
Use: neuroleptic, antihistaminic

RN: 3819-00-9 MF: C₂₄H₃₀N₂O₂S MW: 410.58 EINECS: 223-312-0LD₅₀: 575 mg/kg (M, p.o.);

390 mg/kg (R, p.o.)

CN: 1-[10-[3-[4-(2-hydroxyethyl)-1-piperidiny]propyl]-10H-phenothiazin-2-yl]ethanone



*Reference(s):*

GB 861 807 (Searle; appl. 6.8.1959; USA-prior. 7.8.1958).

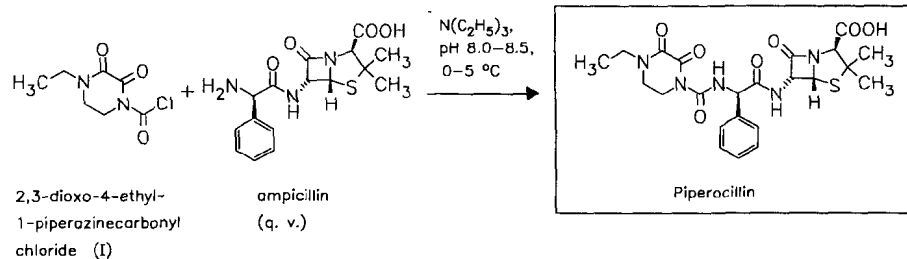
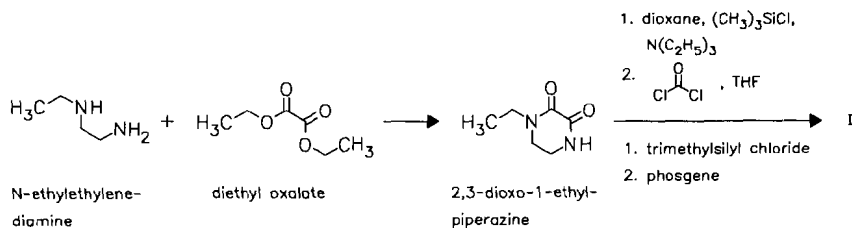
Formulation(s): tabl. 10 mg*Trade Name(s):*

USA: Quide (Dow); wfm

Piperacillin

ATC: J01CA12

Use: antibiotic

RN: 61477-96-1 MF: $C_{23}H_{27}N_5O_7S$ MW: 517.56 EINECS: 262-811-8LD₅₀: 5 g/kg (M, i.v.)CN: [2S-[2 α ,5 α ,6 β (S*)]]-6-[[[(4-ethyl-2,3-dioxo-1-piperazinyl)carbonyl]amino]phenylacetyl]amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid*Reference(s):*

DOS 2 519 400 (Toyama; appl. 30.4.1975; J-prior. 9.5.1974, 13.5.1974, 31.5.1974, 13.8.1974, 26.9.1974, 13.12.1974, 27.3.1975).

DOS 2 824 610 (Toyama; appl. 5.6.1978; J-prior. 8.6.1977).

GB 1 508 062 (Toyama; appl. 28.4.1975; J-prior. 9.5.1974, 13.5.1974, 31.5.1974, 24.7.1974, 7.8.1974, 13.8.1974, 26.9.1974, 12.10.1974, 28.10.1974, 6.12.1974, 13.12.1974, 17.2.1975, 26.3.1975, 27.3.1975).

US 4 112 090 (Toyama; 5.9.1978; J-prior. 13.12.1974).

precursors:

US 4 087 424 (Toyama; 2.5.1978; J-prior. 9.5.1974).

Formulation(s): amp. 1 g/10 ml, 2 g/20 ml; vial 1 g, 1.5 g, 2 g, 3 g, 4 g (as sodium salt)

Trade Name(s):

D:	Pipril (Lederle; 1980)	Tazocin (Wyeth)-comb.	J:	Pentacillin (Sankyo; 1980)
F:	Pipérilline (Wyeth-Lederle)	I: Avocin (Wyeth-Lederle; 1982)	USA:	Pipracil (Lederle; 1982)
	Tazocilline (Wyeth-Lederle)	Eril (Savio IBN)		Zasyn (Lederle)
GB:	Pipril (Wyeth-Lederle; 1982)	Tazocil (Wyeth-Lederle)-comb.		

Piperazine

ATC: P02CB01
Use: anthelmintic

RN: 110-85-0 MF: $C_4H_{10}N_2$ MW: 86.14 EINECS: 203-808-3

LD₅₀: 1180 mg/kg (M, i.v.); 600 mg/kg (M, p.o.);
1340 mg/kg (R, i.v.); 1900 mg/kg (R, p.o.)

CN: piperazine

hexahydrate

RN: 142-63-2 MF: $C_4H_{10}N_2 \cdot 6H_2O$ MW: 194.23

LD₅₀: 11.2 g/kg (M, p.o.)

dihydrochloride

RN: 142-64-3 MF: $C_4H_{10}N_2 \cdot 2HCl$ MW: 159.06 EINECS: 205-551-2

LD₅₀: 4900 mg/kg (R, p.o.)

phosphate

RN: 1951-97-9 MF: $C_4H_{10}N_2 \cdot xH_3O_4P$ MW: unspecified EINECS: 217-775-8

LD₅₀: 20 g/kg (M, p.o.)

tartrate (1:1)

RN: 133-36-8 MF: $C_4H_{10}N_2 \cdot C_4H_6O_6$ MW: 236.22 EINECS: 205-104-1

citrate (3:2)

RN: 144-29-6 MF: $C_6H_8O_7 \cdot 3/2C_4H_{10}N_2$ MW: 642.66 EINECS: 205-622-8

LD₅₀: 8500 mg/kg (M, p.o.);

11200 mg/kg (R, p.o.)

citrate (3:2) hydrate

RN: 41372-10-5 MF: $C_6H_8O_7 \cdot 3/2C_4H_{10}N_2 \cdot xH_2O$ MW: unspecified

edetate calcium (1:1)

RN: 12002-30-1 MF: $C_{10}H_{14}CaN_2O_8 \cdot C_4H_{10}N_2$ MW: 416.44

edetate calcium (1:1) dihydrate

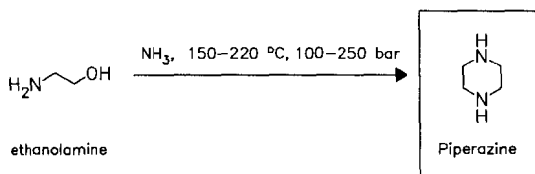
RN: 50322-15-1 MF: $C_{10}H_{14}CaN_2O_8 \cdot C_4H_{10}N_2 \cdot 2H_2O$ MW: 452.47

adipate (1:1)

RN: 142-88-1 MF: $C_6H_{10}O_4 \cdot C_4H_{10}N_2$ MW: 232.28 EINECS: 205-569-0

LD₅₀: 8 g/kg (M, p.o.);

7900 mg/kg (R, p.o.)



Reference(s):

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 7, 385.

Formulation(s): tabl. 10 mg

Trade Name(s):

D:	Girheulit (Pflüger)-comb.	GB:	Pripsen (Seton)-comb.	USA:	Antepar (Burroughs Wellcome); wfm
F:	Carudol (Boehringer Ing.) Vermifuge Sorin (Sorin-Maxim)	I:	Citropiperazina (Rhône-Poulenc Pharma)		
		J:	Bexin (Tanabe)		

Piperidolate

ATC: A03AA30

Use: anticholinergic, antispasmodic

RN: 82-98-4 MF: C₂₁H₂₅NO₂ MW: 323.44 EINECS: 201-449-7LD₅₀: 75 mg/kg (M, i.v.);

100 mg/kg (R, i.v.)

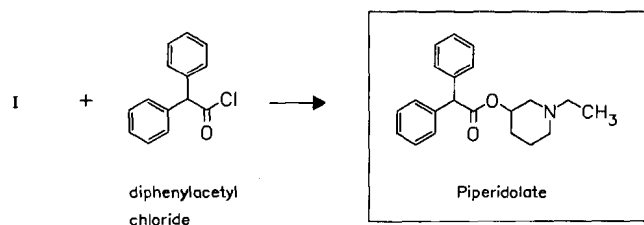
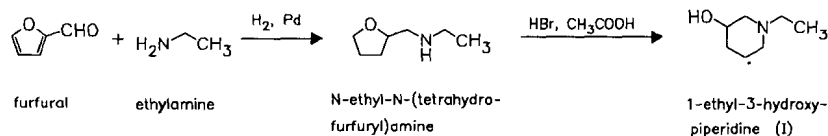
CN: α-phenylbenzeneacetic acid 1-ethyl-3-piperidinyl ester

hydrochloride

RN: 129-77-1 MF: C₂₁H₂₅NO₂ · HCl MW: 359.90 EINECS: 204-964-5LD₅₀: 26 mg/kg (M, i.v.); 1040 mg/kg (M, p.o.);

19 mg/kg (R, i.v.);

35 mg/kg (dog, i.v.)



Reference(s):

US 2 918 407 (Lakeside Labs.; 22.12.1959; appl. 8.4.1957; prior. 18.8.1950).

Biel, J.H. et al.: J. Am. Chem. Soc. (JACSAT) **74**, 1485 (1952).

Formulation(s): tabl. 50 mg (as hydrochloride)

Trade Name(s):

D:	Dactil (Med-Fabrik); wfm	I:	Dactil (Roger Bellon); wfm	USA:	Dactil (Merrell-National); wfm
F:	Dactil (Roger Bellon); wfm Dactilase (Roger Bellon)-comb.; wfm	J:	Dactilase (RBS Pharma)-comb.; wfm Cactiran (Kyorin) Dactil OB (Kissei) Edelel (Mochida)		Dactilase (Merrell-National); wfm
GB:	Dactil (M.C.P. Pharmaceuticals); wfm				

Piperocaine

ATC: N01BC

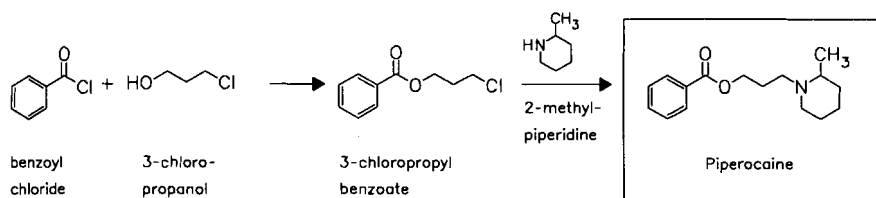
Use: local anesthetic

RN: 136-82-3 MF: C₁₆H₂₃NO₂ MW: 261.37 EINECS: 205-262-1

CN: (±)-2-methyl-1-piperidinepropanol benzoate (ester)

hydrochlorideRN: 24561-10-2 MF: C₁₆H₂₃NO₂ · HCl MW: 297.83LD₅₀: 18.2 mg/kg (M, i.v.);

20 mg/kg (R, i.v.)

**Reference(s):**

US 1 784 903 (S. M. McElvain; 1930; prior. 1927).

Trade Name(s):

USA: Metycaine (Lilly); wfm

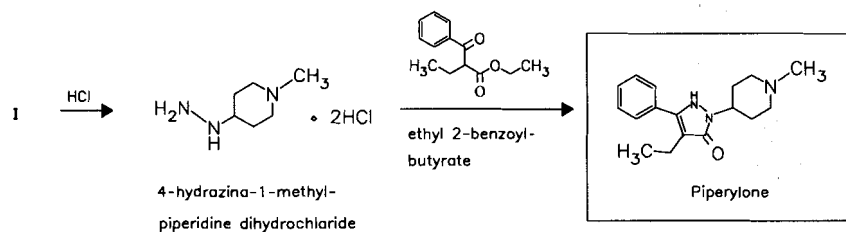
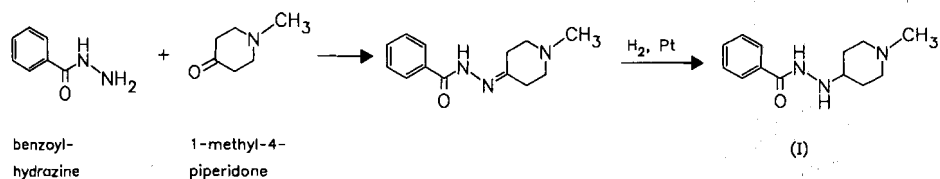
Piperylone

ATC: N02BB

Use: analgesic

RN: 2531-04-6 MF: C₁₇H₂₃N₃O MW: 285.39 EINECS: 219-788-4

CN: 4-ethyl-1,2-dihydro-2-(1-methyl-4-piperidinyl)-5-phenyl-3H-pyrazol-3-one

**Reference(s):**

US 2 903 460 (Sandoz; 8.9.1959; CH-prior. 7.4.1956).

Ebnöther, A. et al.: Helv. Chim. Acta (HCACAV) **42**, 1201 (1959).**Trade Name(s):**D: Pelerol (Sandoz)-comb;
wfm

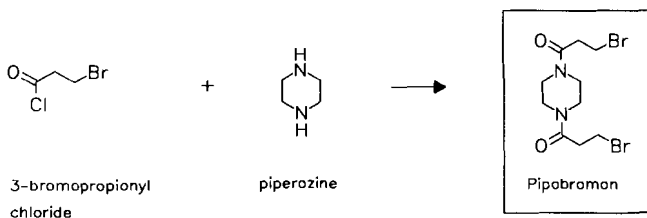
Pipobroman

ATC: L01AX02
Use: antineoplastic

RN: 54-91-1 MF: C₁₀H₁₆Br₂N₂O₂ MW: 356.06

LD₅₀: 382 mg/kg (M, p.o.);
220 mg/kg (R, p.o.)

CN: 1,4-bis(3-bromo-1-oxopropyl)piperazine

**Reference(s):**

DE 1 138 781 (Abbott; appl. 10.10.1960; USA-prior. 11.7.1960).

Formulation(s): tabl. 10 mg, 25 mg

Trade Name(s):

D: Vercyte (Abbott); wfm

I: Vercite 25 (Abbott)

USA: Vercyte (Abbott); wfm

F: Vercyte (Abbott)

J: Amedel (Marupi)

Pipotiazine

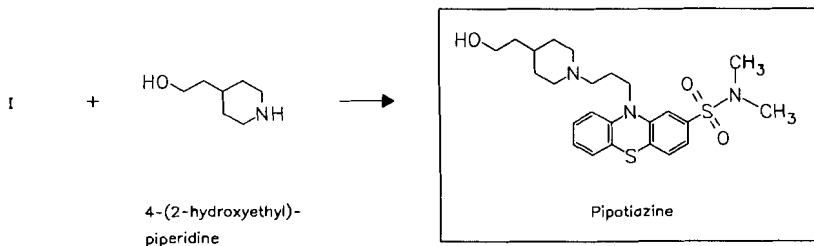
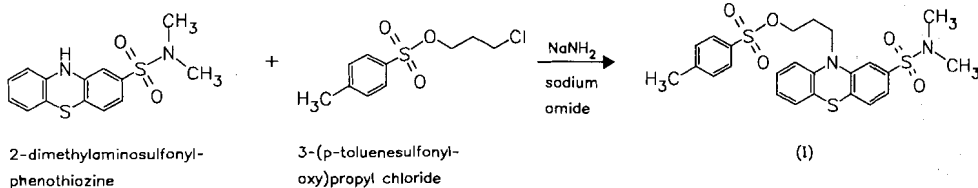
ATC: N05AC04
Use: neuroleptic

RN: 39860-99-6 MF: C₂₄H₃₃N₃O₃S₂ MW: 475.68 EINECS: 254-659-6

CN: 10-[3-[4-(2-hydroxyethyl)-1-piperidinyl]propyl]-N,N-dimethyl-10H-phenothiazine-2-sulfonamide

palmitate

RN: 37517-26-3 MF: C₄₀H₆₃N₃O₄S₂ MW: 714.09



Reference(s):

DE 1 117 584 (Rhône-Poulenc; appl. 1958; F-prior. 1957).

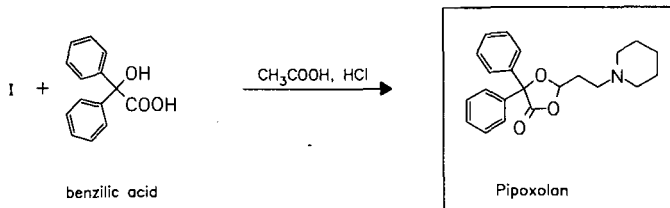
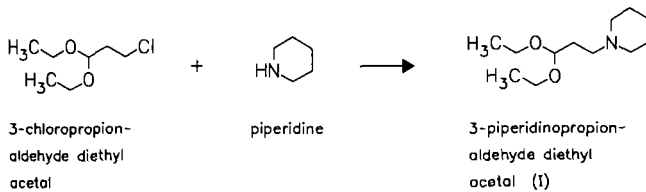
Formulation(s): amp. 10 mg/2 ml, 100 mg/4 ml, 25 mg/1 ml; drops 4 % (as palmitate); tabl. 10 mg**Trade Name(s):**F: Piportil (Rhône-Poulenc
Rorer Specia)Piportil L4 (Rhône-Poulenc
Rorer Specia; as palmitate)GB: Piportil Depot (IHC; as
palmitate)**Pipoxolan**

ATC: A03AA

Use: antispasmodic

RN: 23744-24-3 MF: C₂₂H₂₅NO₃ MW: 351.45

CN: 5,5-diphenyl-2-[2-(1-piperidinyl)ethyl]-1,3-dioxolan-4-one

hydrochlorideRN: 18174-58-8 MF: C₂₂H₂₅NO₃ · HCl MW: 387.91LD₅₀: 35 mg/kg (M, i.v.); 700 mg/kg (M, p.o.);
60 mg/kg (R, i.v.); 1500 mg/kg (R, p.o.)**Reference(s):**

GB 1 109 959 (Rowa-Wagner; appl. 3.10.1966; A-prior. 5.10.1965).

Formulation(s): tabl. 10 mg**Trade Name(s):**D: Rowaprxin (Rowa-
Wagner)**Pipradrol**

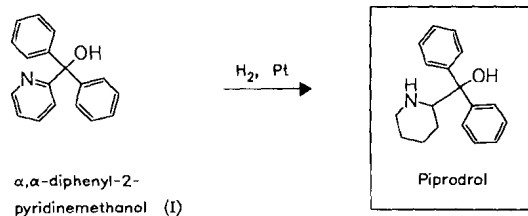
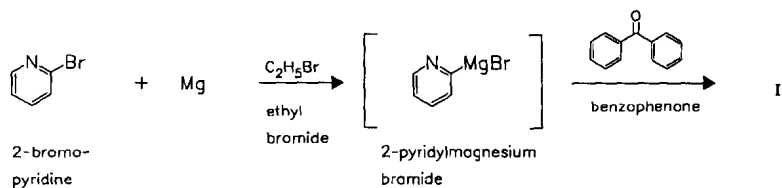
ATC: N06BX15

Use: central stimulant

RN: 467-60-7 MF: C₁₈H₂₁NO MW: 267.37 EINECS: 207-394-5LD₅₀: 74 mg/kg (M, p.o.);
30 mg/kg (R, i.v.); 180 mg/kg (R, p.o.)CN: α,α -diphenyl-2-piperidinemethanol

hydrochlorideRN: 71-78-3 MF: $C_{18}H_{21}NO \cdot HCl$ MW: 303.83 EINECS: 200-764-7LD₅₀: 20 mg/kg (M, i.v.); 120 mg/kg (M, p.o.);

30 mg/kg (R, i.v.); 180 mg/kg (R, p.o.)

**Reference(s):**Tilford, C.H. et al.: J. Am. Chem. Soc. (JACSAT) **70**, 4001 (1948).

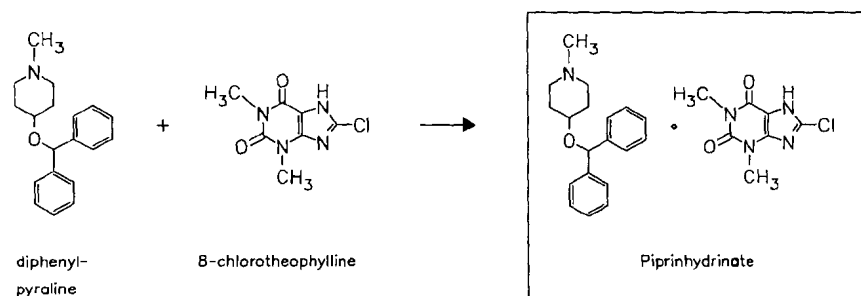
US 2 624 739 (Merrell; 1953; appl. 1949).

Formulation(s): drg. 1 mg (as hydrochloride)**Trade Name(s):**D: Vitazell G forte (Tosse)-
comb.; wfm

I: Detaril (Isom); wfm

Piprinhydrinate

ATC: R06

Use: antihistaminic, anti-emetic,
antirhiniticRN: 606-90-6 MF: $C_{19}H_{23}NO \cdot C_7H_7ClN_4O_2$ MW: 496.01 EINECS: 210-128-0LD₅₀: 75 mg/kg (M, i.v.); 275 mg/kg (M, p.o.)CN: 8-chloro-3,7-dihydro-1,3-dimethyl-1*H*-purine-2,6-dione compd. with 4-(diphenylmethoxy)-1-methylpiperidine (1:1)**Reference(s):**

DE 934 890 (Promonta; appl. 1951).

Formulation(s): drg. 1 mg; syrup 0.5 mg in comb. with paracetamol, ethezamide

Trade Name(s):

D: Kolton (Byk Gulden)-
comb.

J: Agiell (Sanwa)
Plokon (Nippon Shinyaku)

Piproxen

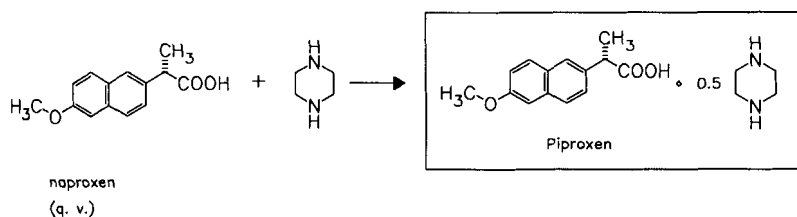
(Naproxen piperazine)

ATC: M01AE

Use: non-steroidal anti-inflammatory

RN: 70981-66-7 MF: $C_{14}H_{14}O_3 \cdot 1/2C_4H_{10}N_2$ MW: 546.66 EINECS: 275-083-1

CN: (S)-6-methoxy- α -methyl-2-naphthaleneacetic acid, compd. with piperazine (2:1)



Reference(s):

ES 474 535 (Centro Inv. Farm.; appl. 16.3.1979).

EP 308 739 (Coop. Farm. Soc.; appl. 9.9.1989; I-prior. 22.9.1987).

Formulation(s): suppos. 600 mg; tabl. 300 mg

Trade Name(s):

I: Alganil (Ibis); wfm

Piprozolin

ATC: A05AX01

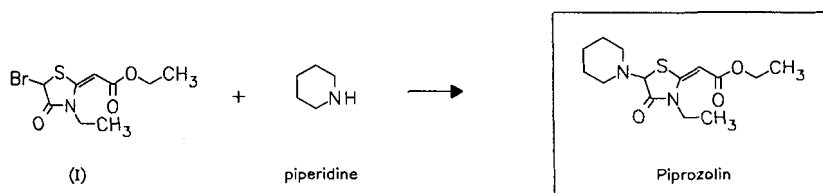
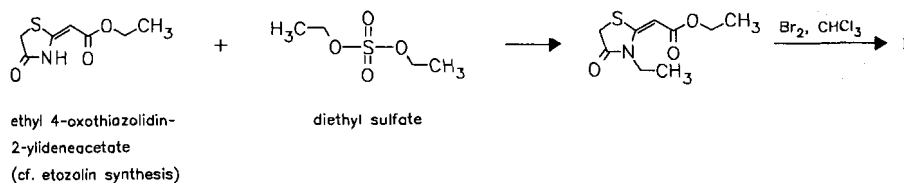
Use: choleric

RN: 17243-64-0 MF: $C_{14}H_{22}N_2O_3S$ MW: 298.41 EINECS: 241-280-6

LD₅₀: 1310 mg/kg (M, p.o.);

3256 mg/kg (R, p.o.)

CN: [3-ethyl-4-oxo-5-(1-piperidinyl)-2-thiazolidinylidene]acetic acid ethyl ester



Reference(s):

DOS 2 414 345 (Gödecke; appl. 25.3.1974).

Formulation(s): drg. 100 mg*Trade Name(s):*D: Probilin (Gödecke); wfm I: Probilin (Parke Davis); Secrebil (Isnardi); wfm
wfm**Piracetam**

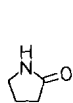
ATC: N06BX03

Use: cerebrostimulant

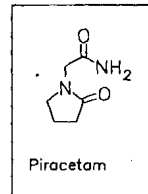
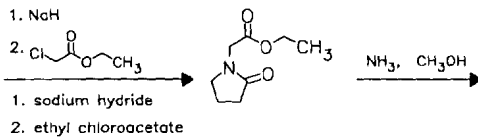
RN: 7491-74-9 MF: C₆H₁₀N₂O₂ MW: 142.16 EINECS: 231-312-7LD₅₀: 9200 mg/kg (M, i.v.); 2 g/kg (M, p.o.)

CN: 2-oxo-1-pyrrolidineacetamide

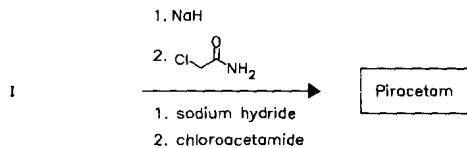
a



2-pyrrolidone (I)



b

*Reference(s):*

US 3 459 738 (UCB; 5.8.1969; GB-prior. 6.8.1964).

DAS 1 620 608 (UCB; appl. 4.8.1965; GB-prior. 6.8.1964).

alternative synthesis (from N-(4-chlorobutyl)glycinamide):

DAS 2 759 297 (Pliva; appl. 14.1.1977; YU-prior. 14.1.1976, 11.8.1976).

DOS 2 701 450 (Pliva; appl. 14.1.1977; YU-prior. 14.1.1976, 11.8.1976).

platelet aggregation inhibitory activity:

DOS 2 746 761 (UCB; appl. 18.10.1977; GB-prior. 19.10.1976).

US 4 115 579 (UCB; 19.9.1978; GB-prior. 19.10.1976).

Formulation(s): amp. 1 g/5 ml; sol. 333 mg, 416.25 mg; cps. 400 mg, 1200 mg; drinking amp. 1 g; f. c. tabl. 800 mg, 1200 mg; gran. 1200 mg, 1600 mg; tabl. 400 mg, 1200 mg*Trade Name(s):*

D:	Avigilen (Brenner-Efeka)	Normabrain (Hoechst; 1974)	F:	Axonyl (Parke Davis)
	Cerebroforte (Azuchemie)	Pinacetrop (Holsten)		Gabacet (Synthelabo)
	Cerepar (Merckle)	Sinapsan (Rodleben; Vedim)		Geram (Vedim)
	Cuxabrain (TAD)	generics	GB:	Nootropyl (UCB; 1972)
	Encetrop (Kyitta-Siegfried)		I:	Nootropil (UCB)
	Nootrop (UCB; 1974)			Cerebropan (Nuovo ISM)

Clevian (Aesculapius)
Flavis (Pulitzer)

Nootropil (UCB)
Norzetam (Vedim Pharma)

Psycoton (Esseti)

Pirarubicin

(Theprubicin; THP-ADM)

ATC: L01DB08

Use: antitumor anthracycline antibiotic

RN: 72496-41-4 MF: $C_{32}H_{37}NO_{12}$ MW: 627.64

LD₅₀: 27.8 mg/kg (M, i.v.)

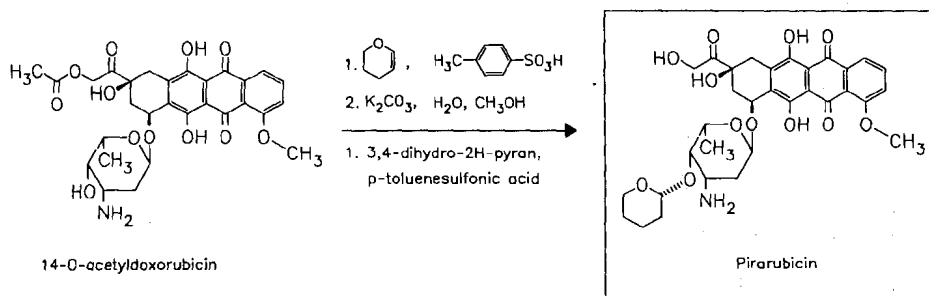
CN: [8S-[8 α ,10 α (S*)]]-10-[[3-amino-2,3,6-trideoxy-4-O-(tetrahydro-2H-pyran-2-yl)- α -L-lyxo-hexopyranosyl]oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(hydroxyacetyl)-1-methoxy-5,12-naphthacenedione

monohydrochloride

RN: 95343-20-7 MF: $C_{32}H_{37}NO_{12} \cdot HCl$ MW: 664.10

LD₅₀: 14 mg/kg (M, i.v.); 420 mg/kg (M, p.o.);

18.1 mg/kg (R, i.v.); >1.013 g/kg (R, p.o.)



Reference(s):

EP 14 853 (Zaidan Hojin Biseibutsu Kagaku; appl. 23.1.1980; J-prior. 3.2.1979, 31.8.1979).

US 4 303 785 (Zaidan Hojin Biseibutsu Kagaku; 1.12.1981; J-prior. 5.8.1978, 3.2.1979, 31.8.1979).

Umezawa, H. et al.: J. Antibiot. (JANTAJ) 32, 1082 (1979).

alternative synthesis:

EP 228 546 (Zaidan Hojin Biseibutsu Kagaku; appl. 14.11.1986; J-prior. 16.11.1985).

Formulation(s): amp. 10 mg, 20 mg, 50 mg (as hydrochloride)

Trade Name(s):

F: Théprubicine (Rhône-Poulenc Rorer; 1990)

J: Pinorubicin (Nippon Kayaku/Sanraku; 1988)

Therarubicin (Meiji Seika; 1988)

Pirbuterol

ATC: R03AC08; R03CC07

Use: bronchodilator

RN: 38677-81-5 MF: $C_{12}H_{20}N_2O_3$ MW: 240.30

CN: α^6 -[[[(1,1-dimethylethyl)amino]methyl]-3-hydroxy-2,6-pyridinedimethanol

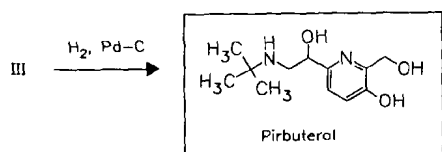
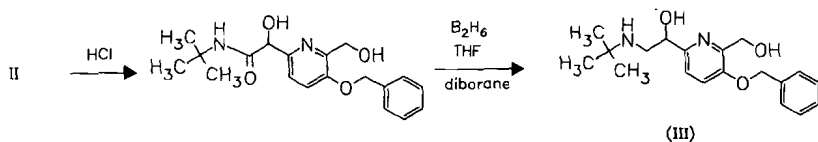
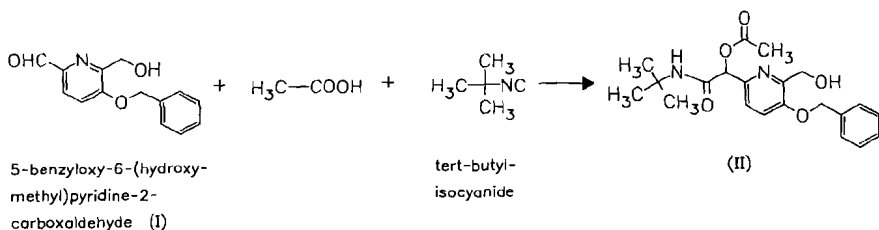
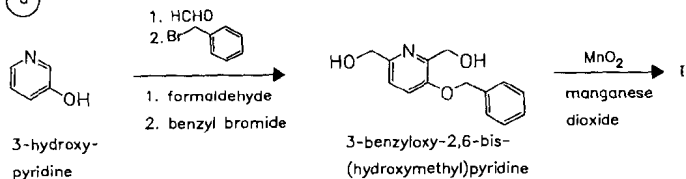
dihydrochloride

RN: 38029-10-6 MF: $C_{12}H_{20}N_2O_3 \cdot 2HCl$ MW: 313.23 EINECS: 253-751-3

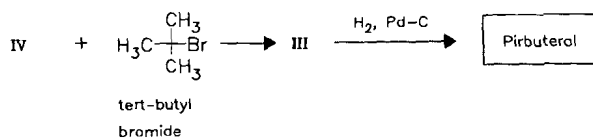
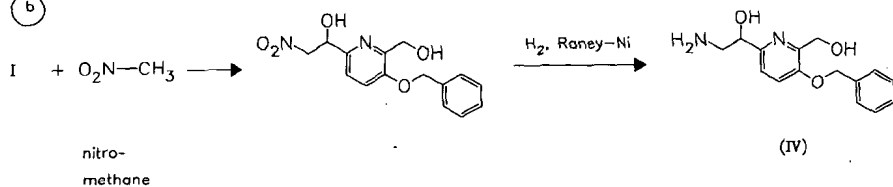
monoacetate

RN: 65652-44-0 MF: $C_{12}H_{20}N_2O_3 \cdot C_2H_4O_2$ MW: 300.36 EINECS: 265-862-4

a



b

*Reference(s):*

- US 3 700 681 (Pfizer; 24.10.1972; prior. 16.2.1971).
 US 3 763 173 (Pfizer; 2.10.1973; prior. 25.5.1972, 16.2.1971).
 US 3 772 314 (Pfizer; 13.11.1973; prior. 24.10.1972, 25.5.1972, 16.2.1971).
 US 3 786 160 (Pfizer; 15.1.1974; prior. 25.5.1972, 24.10.1972, 16.2.1971).
 DOS 2 204 195 (Pfizer; appl. 29.1.1972; USA-prior. 16.2.1971).

alternative syntheses:

- EP 58 069 (Pfizer; appl. 8.2.1982; USA-prior. 9.2.1981).
 US 3 948 919 (Pfizer; 6.4.1976; prior. 9.10.1974; 26.12.1973).
 US 4 031 108 (Pfizer; 21.6.1977; prior. 14.7.1976, 22.9.1975, 9.10.1974, 26.12.1973).

Formulation(s): cps. 10 mg, 15 mg (as dihydrochloride); doses aerosol 0.2 mg (as acetate)

Trade Name(s):

D: Zeisin (3M Medica) J: Exirel (Taito Pfizer)
 GB: Exirel (Pfizer); wfm USA: Maxair (3M)

Pirenzepine

ATC: A02BX03
 Use: peptic ulcer therapeutic

RN: 28797-61-7 MF: C₁₉H₂₁N₅O₂ MW: 351.41 EINECS: 249-228-4

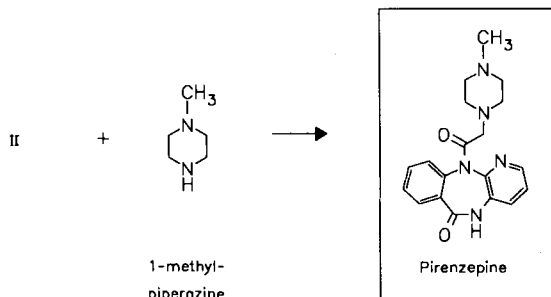
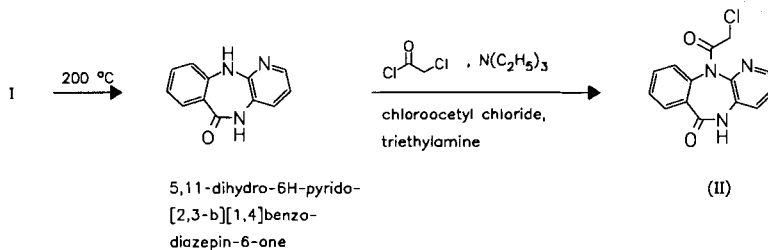
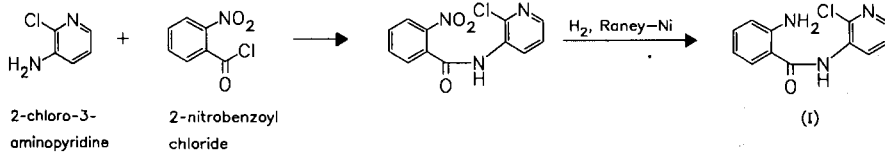
LD₅₀: 156 mg/kg (M, i.v.); 3046 mg/kg (M, p.o.);
 >5 g/kg (R, p.o.)

CN: 5,11-dihydro-11-[(4-methyl-1-piperazinyl)acetyl]-6H-pyrido[2,3-b][1,4]benzodiazepin-6-one

dihydrochloride

RN: 29868-97-1 MF: C₁₉H₂₁N₅O₂ · 2HCl MW: 424.33 EINECS: 249-907-5

LD₅₀: 96 mg/kg (M, i.v.); 2.6 g/kg (M, p.o.);
 92 mg/kg (R, i.v.); 5 g/kg (R, p.o.);
 62.5 mg/kg (dog, i.v.); >3.7 g/kg (dog, p.o.)



Reference(s):

DE 1 795 183 (Thomae; appl. 20.8.1968).
 Eberlein, W. et al.: Arzneimittel.-Forsch. (ARZNAD) **27**, 356 (1977).

5,11-dihydro-6H-pyrido[2,3-b][1,4]benzodiazepin-6-one:
 DE 1 179 943 (Thomae; appl. 8.11.1962).

combination with anti-inflammatories:

DOS 2 708 520 (Thomae; appl. 26.2.1977).

US 4 154 833 (Boehringer Ing.; 15.5.1979; D-prior. 26.2.1977).

Formulation(s): amp. 10 mg/2 ml; cps. 50 mg; tabl. 25 mg, 50 mg (as dihydrochloride)

Trade Name(s):

D:	Gastricur (Heumann)	GB:	Gastrozepin (Boots); wfm	Leblon (De Angeli)
	Gastrozepin (Boehringer Ing.)	I:	Duogastral (Nuovo ISM)	Lucus (Tosi-Novara)
	Ulcoproctect-25/-50 (Azuchemie)		Frazim (Francia Farm.)	Maghen (Caber)
	generics		Gastrol (Salus Research)	Ulcin (Ibirm)
F:	Gastrozépine (Boehringer Ing.); wfm		Gastropiren (AGIPS)	J: Gastrozepin (Boehringer Ing.)
			Gastrozed (Samil)	Gastrozepin (Boehringer-Tablinen)
			Gastrozepin (Boehringer Ing.)	

Piretanide

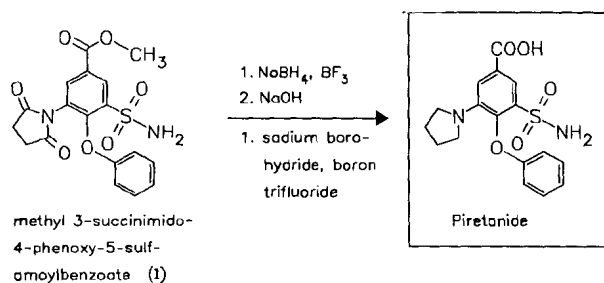
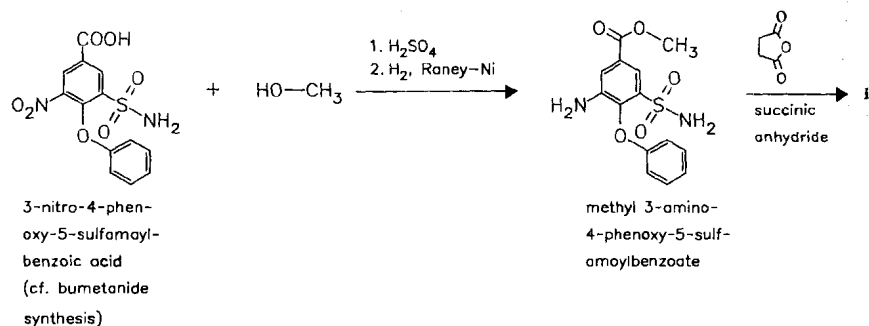
ATC: C03CA03

Use: diuretic

RN: 55837-27-9 MF: C₁₇H₁₈N₂O₅S MW: 362.41 EINECS: 259-852-9

LD₅₀: 618 mg/kg (M, i.v.); 2 g/kg (M, p.o.);
700 mg/kg (R, i.v.); 5601 mg/kg (R, p.o.);
>1 g/kg (dog, p.o.)

CN: 3-(aminosulfonyl)-4-phenoxy-5-(1-pyrrolidinyl)benzoic acid



Reference(s):

DOS 2 419 970 (Hoechst; appl. 25.4.1974).

Merkel, W. et al.: Eur. J. Med. Chem. (EJMCA5) 11, 399 (1976).

Formulation(s): amp. 6 mg/2 ml, 12 mg/5 ml; s. r. cps. 6 mg; tabl. 3 mg, 6 mg

Trade Name(s):

D:	Arelix (Hoechst) Betarelix (Hoechst)-comb.	Arelix (Hoechst/Albert); wfm	I:	Tauliz (Hoechst Marion Roussel)
GB:	Arelix (Albert); wfm		J:	Arelix (Hoechst)

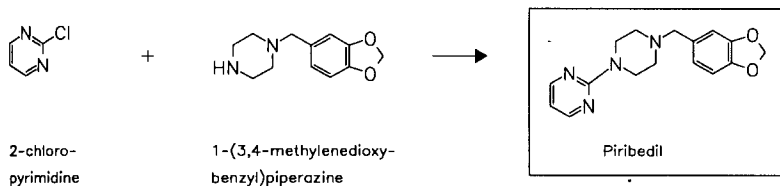
Piribedil

ATC: C04AX13
Use: vasodilator

RN: 3605-01-4 MF: C₁₆H₁₈N₄O₂ MW: 298.35 EINECS: 222-764-6
LD₅₀: 88 mg/kg (M, i.v.); 1460 mg/kg (M, p.o.)
CN: 2-[4-(1,3-benzodioxol-5-ylmethyl)-1-piperazinyl]pyrimidine

monomesylate

RN: 52293-23-9 MF: C₁₆H₁₈N₄O₂ · CH₄O₃S MW: 394.45 EINECS: 257-818-8
LD₅₀: 510 mg/kg (M, i.p.)

**Reference(s):**

US 3 299 067 (Science Union; 17.1.1967; GB-prior. 19.11.1963).
GB 1 101 425 (Science Union; appl. 19.11.1963; valid from 18.11.1964).
Regnier, G.J. et al.: J. Med. Chem. (JMCMAR) **11**, 1151 (1968).

Formulation(s): amp. 3 mg/1 ml; drg. 20 mg; s. r. drg. 50 mg (as mesylate)

Trade Name(s):

D:	Trivastal (Servier)	F:	Trivastal (Euthérapie)	I:	Trivastan (Stroder)
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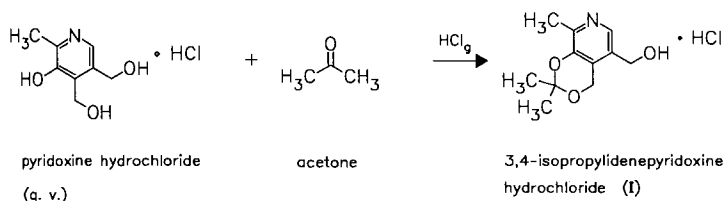
Pirisudanol

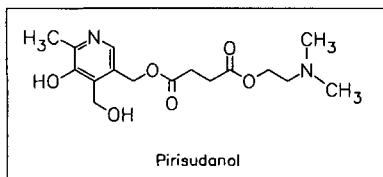
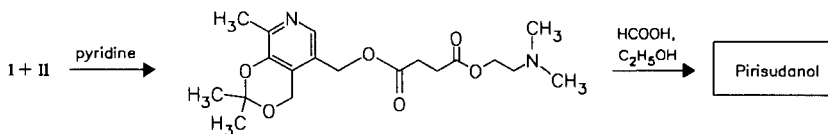
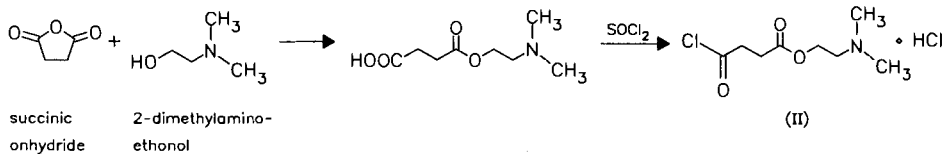
ATC: N06BX08
Use: psychotropic drug, cerebrostimulant

RN: 33605-94-6 MF: C₁₆H₂₄N₂O₆ MW: 340.38 EINECS: 251-591-9
CN: butanedioic acid 2-(dimethylamino)ethyl [5-hydroxy-4-(hydroxymethyl)-6-methyl-3-pyridinyl]methyl ester

dimalate

RN: 33510-78-0 MF: C₁₆H₂₄N₂O₆ · C₄H₄O₄ MW: 456.45 EINECS: 251-550-5



**Reference(s):**

US 3 717 636 (A. Esanu; 20.2.1973; GB-prior. 21.1.1970).

DE 2 102 831 (Soc. d'Etudes de Produits Chim.; appl. 21.1.1971; GB-prior. 21.1.1970).

Formulation(s): cps. 300 mg (as maleate)**Trade Name(s):**

F: Stivane (Beaufour)

I: Mentium (Guidotti)

Piriramide

ATC: N02AC03

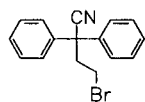
(Pirinitramide)

Use: analgesic

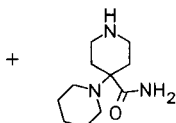
RN: 302-41-0 MF: C₂₇H₃₄N₄O MW: 430.60 EINECS: 206-124-3LD₅₀: 30.7 mg/kg (M, i.v.); >320 mg/kg (M, p.o.);

13 mg/kg (R, i.v.); 320 mg/kg (R, p.o.)

CN: 1'-(3-cyano-3,3-diphenylpropyl)[1,4'-bipiperidine]-4'-carboxamide

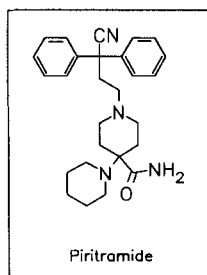


3,3-diphenyl-3-cyano-propyl bromide



4-piperidinopiperidine-4-carboxamide

(cf. pipamperone synthesis)

**Reference(s):**

DE 1 238 472 (Janssen; appl. 2.8.1961; USA-prior. 3.8.1960).

Formulation(s): amp. 15 mg, 20 mg; vial 15 mg, 20 mg

Trade Name(s):

D: Dipidolor (Janssen-Cilag)- GB: Dipidolor (Janssen); wfm
comb.

Pirrenol hydrochloride

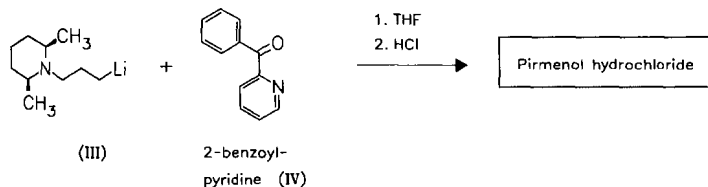
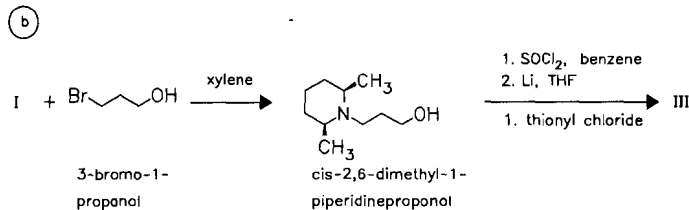
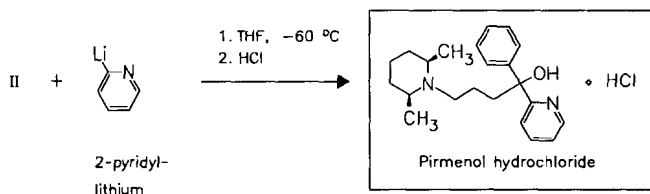
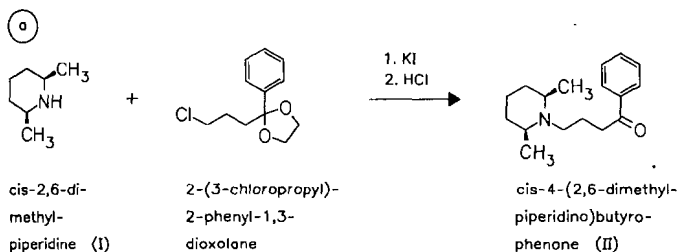
(CI-845)

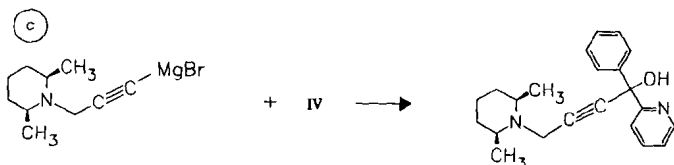
ATC: C01B

Use: antiarrhythmic

RN: 61477-94-9 MF: $C_{22}H_{30}N_2O \cdot HCl$ MW: 374.96LD₅₀: 16 mg/kg (M, i.v.); 159 mg/kg (M, p.o.);

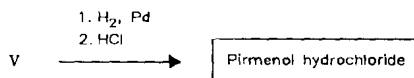
7900 µg/kg (R, i.v.); 251 mg/kg (R, p.o.)

CN: *cis*-(±)-α-[3-(2,6-dimethyl-1-piperidinyl)propyl]-α-phenyl-2-pyridinemethanol monohydrochloride**base**RN: 68252-19-7 MF: $C_{22}H_{30}N_2O$ MW: 338.50



cis-3-(2,6-dimethyl-1-piperidinyl)-1-propynyl-magnesium bromide

(v)



Reference(s):

- a, b BE 864 033 (Parke Davis; appl. 16.2.1978; USA-prior. 15.4.1976).
 c JP 57 053 482 (Sumitomo Chem.; appl. 16.9.1980; J-prior. 16.9.1980).

Formulation(s): cps. 50 mg, 100 mg

Trade Name(s):

J: Pimenol (Warner-Lambert-Dainippon)

Piromidic acid

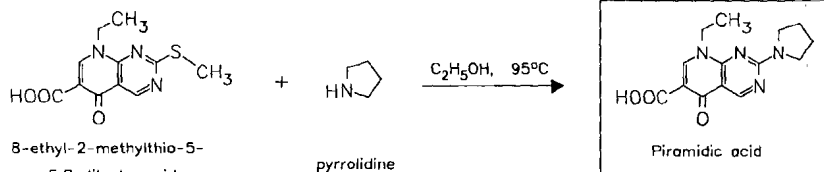
ATC: G04AB02

Use: chemotherapeutic (gramnegative bacteria)

RN: 19562-30-2 MF: C₁₄H₁₆N₄O₃ MW: 288.31 EINECS: 243-161-4

LD₅₀: 100 mg/kg (M, i.v.); 1500 mg/kg (M, p.o.);
 158 mg/kg (R, i.v.); >5 g/kg (R, p.o.);
 >2 g/kg (dog, p.o.)

CN: 8-ethyl-5,8-dihydro-5-oxo-2-(1-pyrrolidinyl)pyrido[2,3-*d*]pyrimidine-6-carboxylic acid



8-ethyl-2-methylthio-5-oxo-5,8-dihydropyrido[2,3-*d*]pyrimidine-6-carboxylic acid
 (cf. pipemidic acid synthesis)

pyrrolidine

Piromidic acid

Reference(s):

- DOS 2 143 369 (Dainippon; appl. 30.8.1971; J-prior. 29.8.1970).
 US 3 673 184 (Dainippon; 27.6.1972; prior. 8.9.1966, 2.9.1970).
 GB 1 129 358 (Dainippon; appl. 8.9.1966; J-prior. 8.9.1965, 10.8.1965).

alternative syntheses:

- DOS 2 338 325 (Roger Bellon; appl. 1.8.1973; F-prior. 2.8.1972).
 US 4 125 720 (Roger Bellon; 14.11.1978; F-prior. 16.4.1976).

Formulation(s): cps. 250 mg; tabl. 250 mg, 500 mg

Trade Name(s):

D: Septural (Grünenthal); wfm

Purim (Laphal); wfm

J: Panacid (Dainippon)

F: Bactamyl (Carrion); wfm

I: Enteromix (Bioprogress)

Piroxicam

ATC: M01AC01; M02AA07; S01BC06

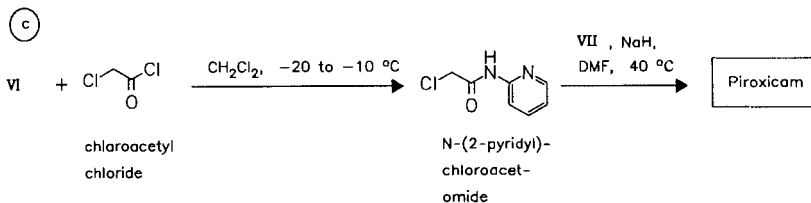
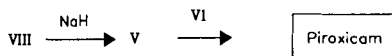
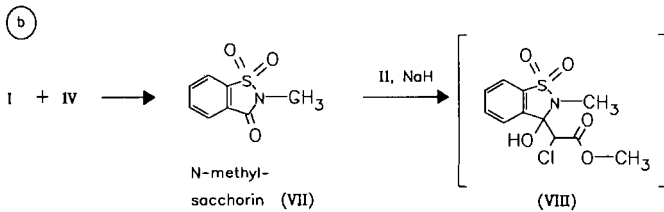
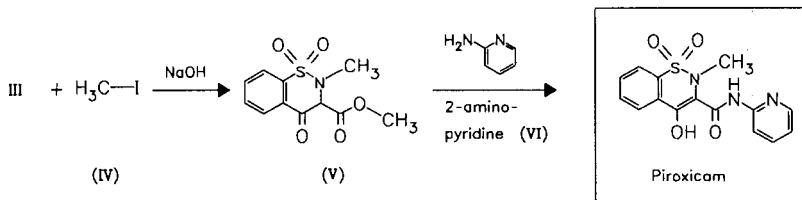
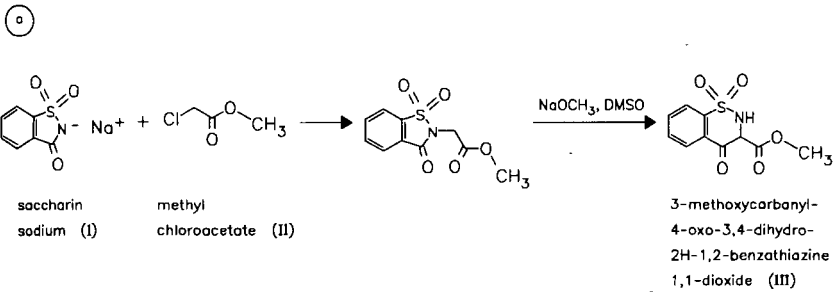
Use: anti-inflammatory

RN: 36322-90-4 MF: C₁₅H₁₃N₃O₄S MW: 331.35 EINECS: 252-974-3LD₅₀: 250 mg/kg (M, p.o.);

216 mg/kg (R, p.o.);

108 mg/kg (dog, p.o.)

CN: 4-hydroxy-2-methyl-N-2-pyridinyl-2H-1,2-benzothiazine-3-carboxamide 1,1-dioxide



Reference(s):

- a** US 3 591 584 (Pfizer; 6.7.1971; appl. 27.8.1968).
 DOS 1 943 265 (Pfizer; appl. 26.8.1969; USA-prior. 27.8.1968).
 Lombardino, J.G. et al.: J. Med. Chem. (JMCMAR) **14**, 1171 (1971); **15**, 848 (1972); **16**, 493 (1973).
- b,c** US 4 483 982 (Pfizer; 20.11.1984; prior. 5.10.1981, 2.9.1982).
 EP 76 643 (Pfizer; appl. 29.9.1982; USA-prior. 5.10.1981, 2.9.1982).

alternative synthesis:

- US 3 853 862 (Pfizer; 10.12.1974; appl. 23.4.1973).
 US 3 891 637 (Pfizer; 24.6.1975; appl. 1.10.1974).
 US 3 892 740 (Pfizer; 1.7.1975; appl. 15.10.1974).
 US 4 100 347 (Pfizer; 11.7.1978; appl. 10.6.1976).
 US 4 469 866 (Pfizer; 4.9.1984; USA-prior. 3.8.1981, 17.6.1982).
 US 4 474 955 (V. Iannella; 2.10.1984; I-prior. 17.6.1981, 7.8.1981).
 BE 900 758 (Orion; appl. 5.10.1984; Finnl.-prior. 6.10.1983).

*pharmaceutical formulations:**polymorphic monoethanolamine salt:*

- US 4 582 831 (Pfizer; 15.4.1986; appl. 16.11.1984).
 EP 182 572 (Pfizer; appl. 11.11.1985; USA-prior. 16.11.1984).

water soluble salts:

- US 4 434 163 (Pfizer; 28.2.1984; prior. 1.6.1981, 13.4.1982).
 US 4 434 164 (Pfizer; 28.2.1984; prior. 1.6.1981, 13.4.1982).
 EP 66 458 (Pfizer; appl. 27.5.1982; USA-prior. 1.6.1981, 13.4.1982).
 EP 66 459 (Pfizer; appl. 27.5.1982; USA-prior. 1.6.1981, 13.4.1982).

lyophilizates:

- US 4 942 167 (Chiesi; 17.7.1990; I-prior. 1.4.1988).

stabilized injectable solutions of the salt with D(-)-N-methylglucamine:

- US 4 628 053 (H. Mack; 9.12.1986; D-prior. 10.10.1984).
 EP 177 870 (H. Mack; appl. 30.9.1985; D-prior. 10.10.1984).

deposition on carrier for rapid onset of action:

- EP 123 520 (Pfizer; appl. 19.4.1984; USA-prior. 25.4.1983).

complex with β -cyclodextrin:

- EP 153 998 (Chiesi; appl. 17.11.1984; I-prior. 22.4.1984).

topical compositions:

- US 4 678 666 (Pfizer; 7.7.1987; J-prior. 13.7.1982).
 EP 101 178 (Pfizer; appl. 7.7.1983; J-prior. 13.7.1982).

- Formulation(s):* amp. 20 mg; cps. 10 mg, 20 mg; cream 5 mg/g; eff. tabl. 10 mg, 20 mg; gel 5 mg/g;
 suppos. 20 mg; tabl. 10 mg, 20 mg

Trade Name(s):

D:	durapirox (durachemie)		Larapam (Lagap)	Polipirox (Bruschettini)
	Fasax (BASF Generics)	I:	Antiflog (Firma)	Reucam (CT)
	Felden (Mack, Illert.; 1980)		Artroxicam (Coli)	Reudene (ABC)
	Flexase (TAD)		Clevian (Aesculapius-Bs)	Farmaceutici)
	Reumitin (Krewel)		Dexicam (O.F.F.)	Reumagil (Lenza)
	Meuselbach)		Feldene (Pfizer)	Riacen (Chiesi)
F:	Feldène (Pfizer; 1981)		Fladol (Farma Uno)	Roxene (Benedetti)
	Geldène (Pfizer)		Flogobene (Ursamedica)	Roxenil (Caber)
	Inflaced (Biotherapie)		Lampoflex (Lampugnani)	Roxiden (Pulitzer)
	Olcam (Irex)		Nirox (Medici)	Zacam (Fournier Pierrel)
GB:	Feldene (Pfizer)		Piroftal (Bruschettini)	Zunden (Sankyo Pharma)

J: Baxo (Toyama)

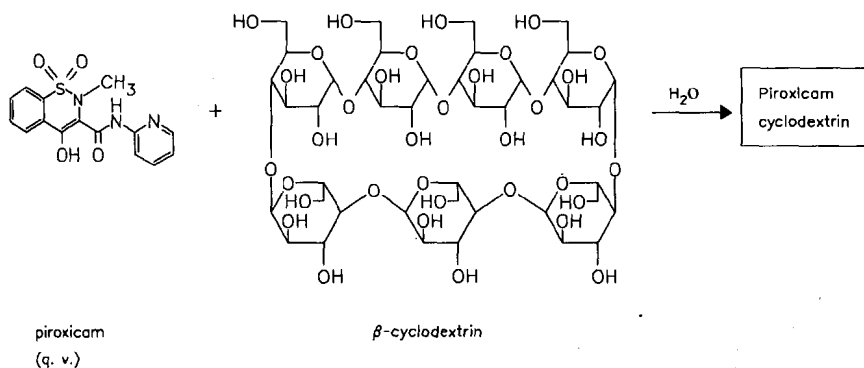
Feldene (Pfizer Taito;
1982)

USA: Feldene (Pfizer; 1982)

Piroxicam cyclodextrin

ATC: M01AC

Use: non-steroidal anti-inflammatory

RN: 96684-40-1 MF: $C_{42}H_{70}O_{35} \cdot 2/5C_{15}H_{13}N_3O_4S$ MW: 6337.64CN: β -cyclodextrin compd. with 4-hydroxy-2-methyl-N-2-pyridinyl-2H-1,2-benzothiazine-3-carboxamide 1,1-dioxide (5:2)*Reference(s):*

EP 153 998 (Chiesi; appl. 17.11.1984; I-prior. 22.2.1984).

US 4 603 123 (Chiesi; 29.7.1986; appl. 13.11.1984).

preparation by co-grinding in presence of steam:

EP 449 167 (Chiesi; appl. 25.3.1991; I-prior. 27.3.1990).

Formulation(s): gran.. 20 mg/3 g; tabl. 20 mg*Trade Name(s):*D: Brexidol (Pharmacia &
Upjohn)-comb.I: Cycladol (Promedica)
Brexin (Chiesi; 1989)Cycladol (Master Pharma;
1989)

F: Brexin (Robapharm)

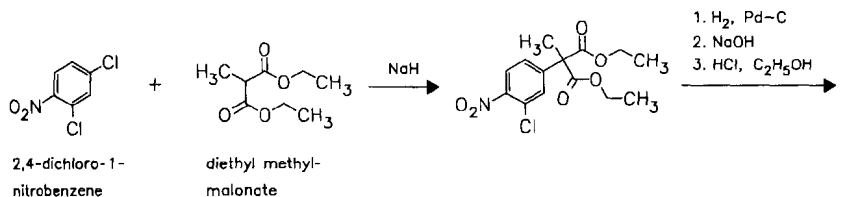
Pirprofen

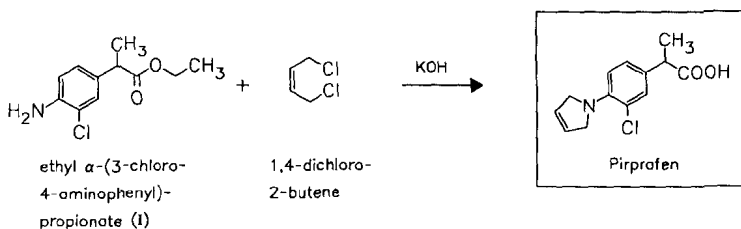
ATC: M01AE08

Use: anti-inflammatory

RN: 31793-07-4 MF: $C_{13}H_{14}ClNO_2$ MW: 251.71 EINECS: 250-805-8LD₅₀: 1350 mg/kg (M, p.o.);

167 mg/kg (R, i.v.); 351 mg/kg (R, p.o.)

CN: 3-chloro-4-(2,5-dihydro-1H-pyrrol-1-yl)- α -methylbenzeneacetic acid

**Reference(s):**

Carney, R.W. et al.: *Experientia (EXPEAM)* **29**, 938 (1973).

US 3 641 040 (Ciba; 8.2.1972; F-prior. 8.7.1969, 18.3.1969, 13.1.1969, 3.9.1968, 27.3.1968).

US 3 868 391 (Ciba Geigy; 25.2.1972; prior. 3.9.1968).

Formulation(s): amp. 400 mg/4 ml; cps. 200 mg, 400 mg

Trade Name(s):

D: Rengasil (Brunnengräber; 1984); wfm
 F: Rengasil (Ciba-Geigy); wfm
 I: Rengasil (Ciba); wfm

Pivampicillin

ATC: J01CA02

Use: antibiotic

RN: 33817-20-8 MF: $\text{C}_{22}\text{H}_{29}\text{N}_3\text{O}_6\text{S}$ MW: 463.56 EINECS: 251-688-6

LD₅₀: 148 mg/kg (R, i.v.); >6 g/kg (R, p.o.)

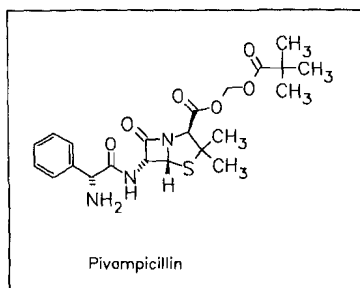
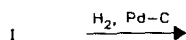
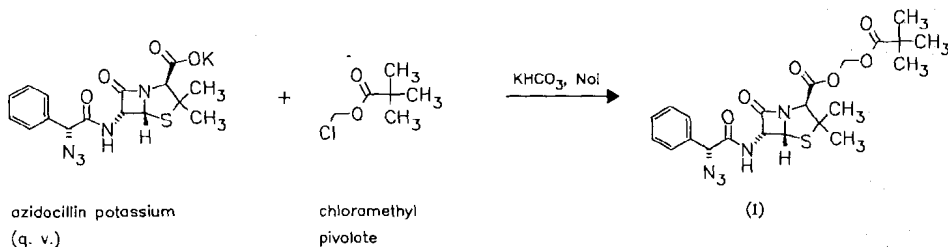
CN: [2S-[2 α ,5 α ,6 β (S*)]]-6-[(aminophenylacetyl)amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid (2,2-dimethyl-1-oxopropoxy)methyl ester

monohydrochloride

RN: 26309-95-5 MF: $\text{C}_{22}\text{H}_{29}\text{N}_3\text{O}_6\text{S} \cdot \text{HCl}$ MW: 500.02 EINECS: 247-604-2

LD₅₀: 150 mg/kg (M, i.v.); 2819 mg/kg (M, p.o.);

145 mg/kg (R, i.v.); >6 g/kg (R, p.o.)



Reference(s):

DE 1 795 423 (Lovens; 2.5.1972; prior. 27.9.1968).

US 3 660 575 (Lovens; 2.5.1972; prior. 26.9.1968).

US 3 697 507 (Lovens Kem. Fabr.; 10.10.1972; appl. 26.9.1968; GB-prior. 29.9.1967).

GB 1 215 812 (Lovens Kem. Fabr.; appl. 29.9.1967; valid from 27.9.1968).

DAS 1 795 702 (Loevens; appl. 27.9.1968; GB-prior. 10.11.1967, 3.1.1968, 22.3.1968).

DAS 1 795 713 (Loevens; appl. 27.9.1968; GB-prior. 29.9.1967, 5.10.1967, 23.10.1967, 10.11.1967, 6.12.1967, 3.1.1968, 22.3.1968).

crystalline form:

US 3 956 279 (Leo; 11.5.1976; appl. 21.9.1973).

DAS 2 349 971 (Leo; appl. 4.10.1973; GB-prior. 6.10.1972).

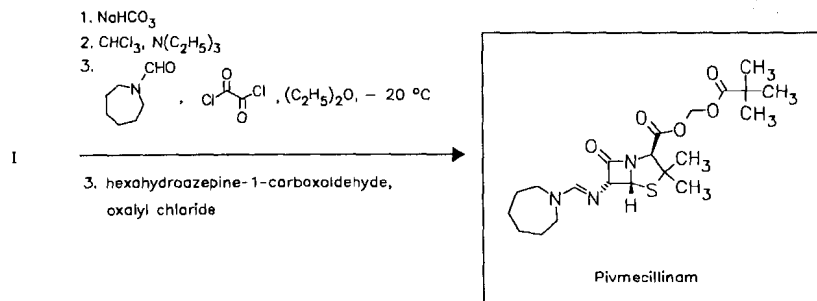
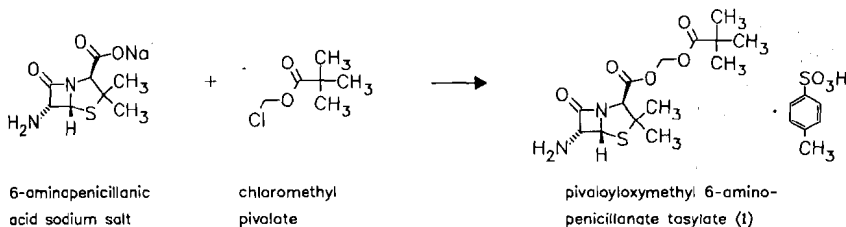
Formulation(s): susp. 175 mg; tabl. 350 mg, 500 mg (as hydrochloride)**Trade Name(s):**D: Berocillin (Thomae; 1972);
wfmMaxifen (Sharp & Dohme/
Boehringer Mannh.; 1972);
wfmMiraxid/-K (Rorer)-comb.;
wfmUro Berocillin (Thomae)-
comb.; wfm

F: Proampi (Leo)

I: Pondocillina (Sigma-Tau);
wfm**Pivmecillinam**

ATC: J01CA08

Use: antibiotic

RN: 32886-97-8 MF: $C_{21}H_{33}N_3O_5S$ MW: 439.58 EINECS: 251-276-6CN: [2S-(2 α ,5 α ,6 β)]-6-[[hexahydro-1H-azepin-1-yl)methylene]amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid (2,2-dimethyl-1-oxopropoxy)methyl ester**hydrochloride**RN: 32887-03-9 MF: $C_{21}H_{33}N_3O_5S \cdot HCl$ MW: 476.04

Reference(s):

DOS 2 055 531 (Loevens; appl. 11.11.1970; GB-prior. 11.11.1969, 8.7.1970).
 GB 1 293 590 (Loevens; appl. 11.11.1969, 8.7.1970; valid from 10.11.1970).
 US 3 957 764 (Loevens; 18.5.1976; GB-prior. 11.11.1969, 8.7.1970).

combination with trimethoprim:

US 4 076 816 (Leo; 28.2.1978; GB-prior. 17.5.1974).

Formulation(s): gran. 100 mg; tabl. 50 mg, 200 mg (as hydrochloride)

Trade Name(s):

D: Miraxid/-K (Rorer; 1984)- F: Selexid (Leo; 1984) Selexid (Leo); wfm
 comb.; wfm GB: Miraxid (Leo)-comb.; wfm J: Mclycin (Takeda; 1979)

Pizotifen

(Pizotyline)

ATC: N02CX01

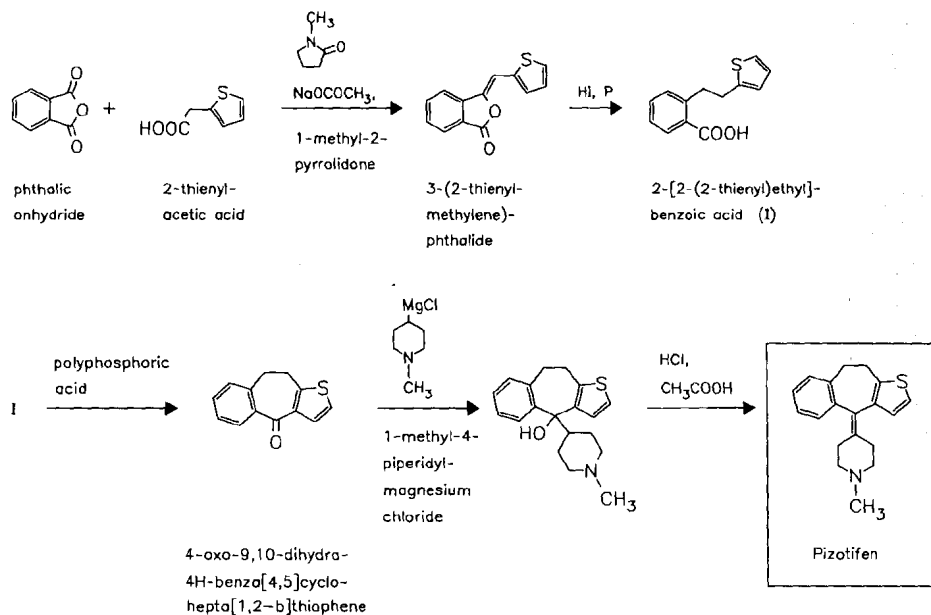
Use: antimigraine agent

RN: 15574-96-6 MF: C₁₉H₂₁NS MW: 295.45 EINECS: 239-632-9LD₅₀: 410 mg/kg (R, p.o.)

CN: 4-(9,10-dihydro-4H-benzo[4,5]cyclohepta[1,2-b]thien-4-ylidene)-1-methylpiperidine

maleate (1:1)RN: 5189-11-7 MF: C₁₉H₂₁NS · C₄H₆O₅ MW: 429.54 EINECS: 225-970-4LD₅₀: 43 mg/kg (M, i.v.);

17 mg/kg (R, i.v.)

*Reference(s):*

BE 636 717 (Sandoz; appl. 28.8.1963; CH-prior. 31.8.1962, 8.7.1963).
 US 3 272 826 (Sandoz; 13.9.1966; CH-prior. 31.8.1962).

Formulation(s): drg. 0.5 mg, 1.5 mg; syrup 0.5 mg/10 ml (as maleate)

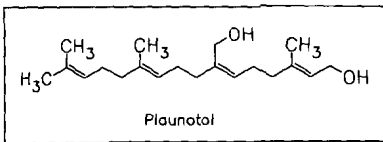
Trade Name(s):

D: Mosegor (Novartis Pharma) GB: Sanomigran (Novartis) USA: Sandomigran (Sandoz);
 Sandomigran (Novartis Pharma) I: Sandomigran (Novartis Farma) wfm
 F: Sanmigran (Novartis)

Plaunotol

ATC: A02B
 Use: peptic ulcer therapeutic

RN: 64218-02-6 MF: $C_{20}H_{34}O_2$ MW: 306.49
 LD₅₀: 83 mg/kg (M, i.v.); 8.1 g/kg (M, p.o.);
 10.9 g/kg (R, p.o.)
 CN: (Z,E,E)-2-(4,8-dimethyl-3,7-nonadienyl)-6-methyl-2,6-octadiene-1,8-diol



Isolation by extraction of *Croton sublyratus* or *Croton columnaris* and purification on silica gel.

Reference(s):

Ogiso, A. et al.: Chem. Pharm. Bull. (CPBTAL) **26**, 3117 (1978).
 US 4 059 641 (Sankyo; 22.11.1977; prior. 18.11.1975).

total synthesis:

CH 629 471 (Sankyo; appl. 18.11.1976; USA-prior. 18.11.1975).
 US 4 151 357 (Sankyo; 24.4.1979; J-prior. 24.4.1976).

Formulation(s): cps. 50 mg

Trade Name(s):

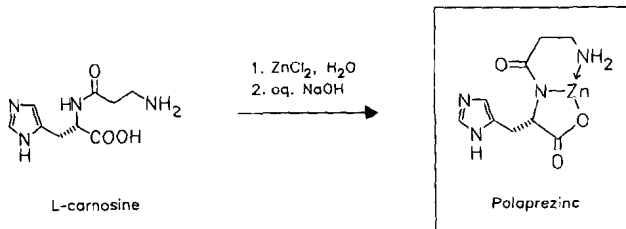
J: Kelnac (Sankyo)

Polaprezinc

(CAZ; Z-103)

ATC: A02B
 Use: hepatic protectant, ulcer therapeutic,
 anti-helicobacter pylori

RN: 107667-60-7 MF: $C_9H_{12}N_4O_3Zn$ MW: 289.61
 LD₅₀: 1269 mg/kg (M, p.o.);
 7375 mg/kg (R, p.o.)
 CN: [N-β-alanyl-L-histidinato(2-)-N,N^N,O^α]zinc



Reference(s):

Yoshikawa, T.; Naito, Y.; Tanigawa, T.; Yoneta, T.; Kondo, M.: *Biochim. Biophys. Acta (BBACAQ)* **1115** (1), 15 (1991).

synthesis:

WO 8 800 048 (Zeria Pharmaceutical Co.; appl. 14.1.1988; J-prior. 3.7.1986).

EP 303 380 (Hamari Chemicals; appl. 15.2.1989; J-prior. 10.8.1987).

pharmaceutical compositions with cyclodextrins:

WO 9 525 513 (Bellera Medical Products; appl. 28.9.1995; 18.3.1994).

oral pharmaceutical compositions:

WO 9 015 616 (Zeria Pharmaceutical Co.; 27.12.1990; J-prior. 15.6.1989).

EP 466 029 (Zeria Pharmaceutical Co.; appl. 15.1.1992; J-prior. 6.7.1990).

Formulation(s): gran. 15 %

Trade Name(s):

J: Promac (Zeria)

Polidocanol

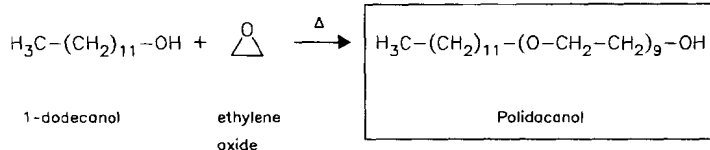
(Hydroxypolyethoxydodecane)

ATC: C05BB02

Use: local anesthetic, agent for sclerotherapy of varicose veins

RN: 3055-99-0 MF: C₃₀H₆₂O₁₀ MW: 582.82 EINECS: 221-284-4

CN: 3,6,9,12,15,18,21,24,27-nonaoxanotriacontan-1-ol

*Reference(s):*

Schöller, C.: *Angew. Chem. (ANCEAD)* **62**, 7 (1950).

Pertsemliades, D.; Soehring, K.: *Arzneim.-Forsch. (ARZNAD)* **10**, 990 (1960).

Formulation(s): amp. 0.5 %, 1 %, 2 %, 3 %, 4 %; cream 5 g/100 g; ointment 30 mg/g, 5 g/100 g; suppos. 10 mg

Trade Name(s):

D: Aethoxysklerol
(Kreussler)-comb.

Recessan (Kreussler)

numerous generics and
combination preparations

F: Aetoxisclérol (Dexo)

GB: Alcos-Anal (Norgine)-
comb.; wfm

I: Atossisclerol (Also)

Polymyxin B

ATC: A07AA05; J01XB02; S01AA18;
S02AA11; S03AA03

Use: antibiotic (macrocylic peptide)

RN: 1404-26-8 MF: unspecified MW: unspecified EINECS: 215-768-4

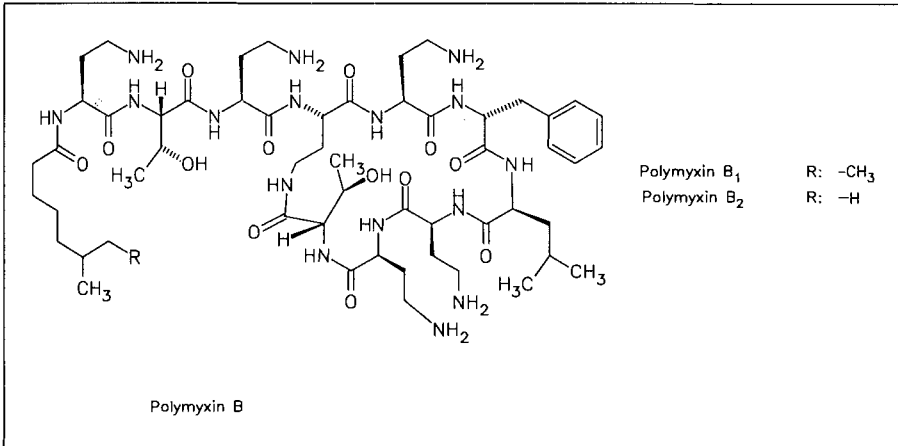
LD₅₀: 3980 µg/kg (M, i.v.)

CN: polymyxin B

sulfate

RN: 1405-20-5 MF: H₂SO₄ · x unspecified MW: unspecified EINECS: 215-774-7

LD₅₀: 5400 µg (M, i.v.); 790 mg (M, p.o.)



Cyclopolypeptide antibiotic from cultures of *Bacillus polymyxa*.

Reference(s):

- US 2 565 057 (Burroughs Wellcome; 1951; GB-prior. 1946).
US 2 595 605 (American Cyanamid; 1952; appl. 1948).
US 2 771 397 (US-Secretary of Agriculture; 1956; prior. 1930).

Formulation(s): ophthalmic ointment 10000 iu/g; sol./drops 10000 iu; tabl. 20 mg (200000 iu), 25 mg (250000 iu) (as sulfate); vial 50 mg

Trade Name(s):

D:	Polymyxin-B (Pfizer) numerous generics and combination preparations	I:	Otosporin (Glaxo Wellcome)-comb. Polyfax (Dominion)-comb. Polytrim (Dominion)- comb.	J:	Cortisporin (Monarch)- comb. Lazersporin-C (Pedinol)- comb. Neosporin (Glaxo Wellcome)-comb.
F:	Antibiotulle Lumière (Solvay Pharma)-comb. Maxidol (Alcon)-comb. Primyxine (Thera France)- comb. Stérimycine (CIBA Vision)-comb. numerous combination preparations	J:	Anauran (Zambon Farm.)- comb. Localyn Oto (Recordati)- comb. Mixotone (Teofarma)- comb.	USA:	Pediotic (Monarch; as sulfate)-comb. Polysporin (Warner- Lambert)-comb. Polytrim (Allergan)-comb. Terramycin (Pfizer; as sulfate)-comb.
GB:	Gregoderm (Unigreg)- comb. Maxitrol (Alcon)-comb. Neosporin (Dominion)- comb.	J:	Otosporia (Warner- Lambert)-comb.		
		USA:	Polymyxin B sulfate (Pfizer) Betadine (Purdue Frederick)-comb.		

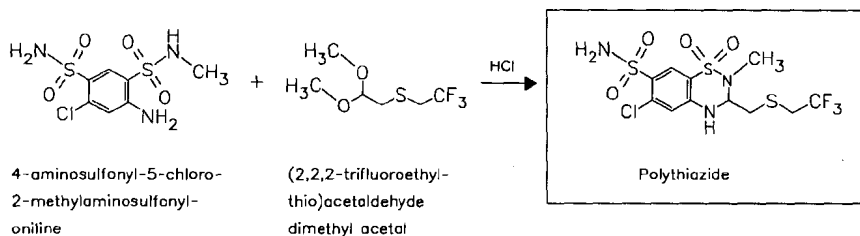
Polythiazide

ATC: C03AA05
Use: diuretic

RN: 346-18-9 MF: C₁₁H₁₃ClF₃N₃O₄S₃ MW: 439.89 EINECS: 206-468-4

LD₅₀: >5 g/kg (M, p.o.);
>10 mg/kg (R, p.o.);
450 mg/kg (dog, p.o.)

CN: 6-chloro-3,4-dihydro-2-methyl-3-[(2,2,2-trifluoroethyl)thio]methyl]-2H-1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide

**Reference(s):**

US 3 009 911 (Pfizer; 21.11.1961; appl. 4.1.1961; prior. 3.6.1960).

Formulation(s): cps 0.5 mg (in comb. with prazosin-HCl); tabl. 0.25 mg, 0.5 mg, 1 mg (as hydrochloride)

Trade Name(s):

D:	Polypress/-forte (Pfizer)-comb.	Rénèse (Pfizer); wfm	USA: Minizide (Pfizer)-comb.
F:	Envarèse (Pfizer)-comb.; wfm	GB: Nephriil (Pfizer)	J: Polyregulon (Yamanouchi) Renese (Taito Pfizer)

Potassium canrenoate

ATC: C03DA02

Use: aldosterone antagonist, diuretic

RN: 2181-04-6 MF: $\text{C}_{22}\text{H}_{29}\text{KO}_4$ MW: 396.57 EINECS: 218-554-9

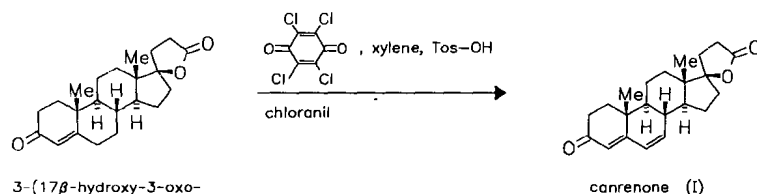
LD₅₀: 125 mg/kg (M, i.v.); 740 mg/kg (M, p.o.);
112 mg/kg (R, i.v.); 650 mg/kg (R, p.o.)

CN: (17 α)-17-hydroxy-3-oxopregna-4,6-diene-21-carboxylic acid monopotassium salt

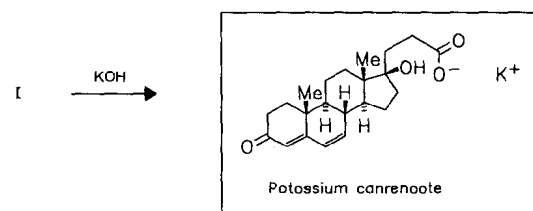
canrenone

RN: 976-71-6 MF: $\text{C}_{22}\text{H}_{28}\text{O}_3$ MW: 340.46 EINECS: 213-554-5

LD₅₀: >5 g/kg (R, p.o.)



3-(17 β -hydroxy-3-oxo-4-androsten-17-yl)propionic acid lactone (cf. spironolactone synthesis)



Reference(s):

US 3 013 012 (Searle; 12.12.1961; prior. 22.12.1960, 12.12.1958).
 US 2 900 383 (Searle; 18.8.1959; appl. 18.12.1957).
 Cella, J.A.; Tweit, R.C.: J. Org. Chem. (JOCEAH) **24**, 1109 (1959).

starting material:

Cella, J.A. et al.: J. Org. Chem. (JOCEAH) **24**, 743 (1959) (spironolactone, q. v.).

injection solutions:

US 4 088 759 (Boehringer Mannh.; 9.5.1978; D-prior. 12.12.1975).
 Woog, M. et al.: Pharm. Ind. (PHINAN) **40**, 1371 (1978).

Formulation(s): amp. 200 mg/10 ml; tabl. 25 mg, 50 mg, 75 mg, 100 mg

Trade Name(s):

D:	Aldactone (Boehringer Mannh.)	Phanurane (Specia); wfm Soludactone (Monsanto)	Luvion (Gienne Pharma) Venactone (Lepetit)
	Kalium-Can.-ratiopharm (ratiopharm)	GB: Spiroctan-M (Boehringer Mannh.)	J: Soldactone (Dainippon)
	Osyrol pro inj. (Hoechst)	I: Kadiur (Gienne Pharma)-comb.	USA: Soldactone (Searle); wfm
F:	Aldatense (Searle)-comb.; wfm	Kanrenol (GNR)	

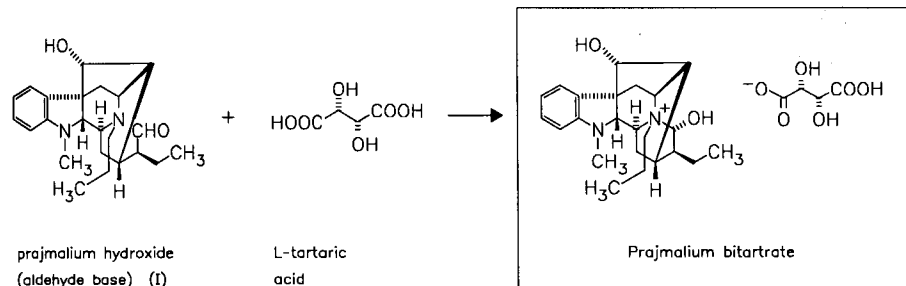
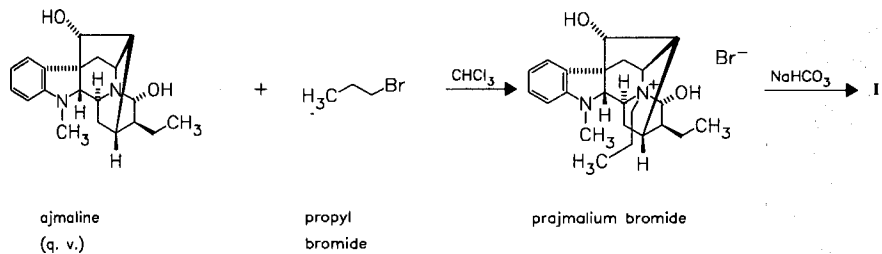
Prajmalium bitartrate

ATC: C01BA08
 Use: antiarrhythmic

RN: 2589-47-1 MF: C₂₃H₃₃N₂O₂ · C₄H₅O₆ MW: 518.61 EINECS: 219-975-0

LD₅₀: 1700 µg/kg (M, i.v.); 43 mg/kg (M, p.o.);
 3400 µg/kg (R, i.v.); 54 mg/kg (R, p.o.)

CN: (17R,21α)-17,21-dihydroxy-4-propylajmalium salt with [R-(R*,R*)]-2,3-dihydroxybutanedioic acid (1:1)



Reference(s):

DE 1 154 120 (Thomae; appl. 10.1.1962).

DE 1 196 207 (Thomae; appl. 5.7.1963; USA-prior. 17.12.1962).

US 3 414 577 (Boehringer Ing.; 3.12.1968; appl. 17.12.1962, 23.7.1964, 7.10.1965; D-prior. 10.1.1962).

Formulation(s): f. c. tabl. 20 mg; tabl. 20 mg*Trade Name(s):*

D: Neo-Gilurytmal (Solvay Arzneimittel) I: Neoaritmina (Solvay Pharma)

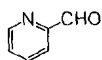
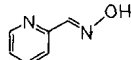
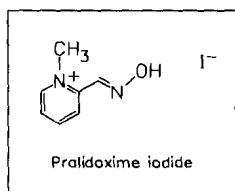
Pralidoxime iodide

ATC: V03AB04

Use: antidote (against anticholinesterase-alkylphosphate), cholinesterase reactivator

RN: 94-63-3 MF: C₇H₉IN₂O MW: 264.07 EINECS: 202-349-6LD₅₀: 145 mg/kg (M, i.v.); 1500 mg/kg (M, p.o.);
178 mg/kg (R, i.v.)

CN: 2-[(hydroxyimino)methyl]-1-methylpyridinium iodide

hydroxideRN: 495-94-3 MF: C₇H₁₀N₂O₂ MW: 154.17**mesylate**RN: 154-97-2 MF: C₇H₉N₂O · CH₃O₃S MW: 232.26 EINECS: 205-839-8LD₅₀: 118 mg/kg (M, i.v.); 3700 mg/kg (M, p.o.);
109 mg/kg (R, i.v.); 7 g/kg (R, p.o.)**chloride**RN: 51-15-0 MF: C₇H₉ClN₂O MW: 172.62 EINECS: 200-080-9LD₅₀: 90 mg/kg (M, i.v.); 4100 mg/kg (M, p.o.);
96 mg/kg (R, i.v.)pyridine-2-
carboxaldehydepyridine-2-
carboxaldehyde
oxime

Pralidoxime iodide

Reference(s):

US 2 816 113 (US-Secretary of the Army; 1957; appl. 1956).

alternative syntheses:

US 3 123 613 (Campbell Pharmac.; 3.3.1964; appl. 5.5.1961).

US 3 140 289 (US-Secretary of the Army; 7.7.1964; appl. 11.4.1962).

US 3 155 674 (Olin Mathieson; 3.11.1964; appl. 19.11.1962).

stabilization of aqueous solutions:

EP 46 685 (Survival Technology; appl. 25.8.1981; USA-prior. 26.8.1980).

Formulation(s): amp. 200 mg/10 ml (as mesylate); vial 1 g/20 ml (as chloride)

Trade Name(s):

F: Contrathion (Serb; as methyl sulfate)

I: Contrathion (Rhône-Poulenc Rorer; as mesylate)

USA: Protopam (Wyeth-Ayerst; as chloride)

Pramipexole hydrochloride

(SND-919Y)

ATC: N04BC05

Use: dopamine D₂-agonist

RN: 104632-25-9 MF: C₁₀H₁₇N₃S · 2HCl MW: 284.26

CN: (S)-4,5,6,7-Tetrahydro-N⁶-propyl-2,6-benzothiazolodiamine dihydrochloride

(S)-base

RN: 104632-26-0 MF: C₁₀H₁₇N₃S MW: 211.33

(S)-dihydrochloride hydrate

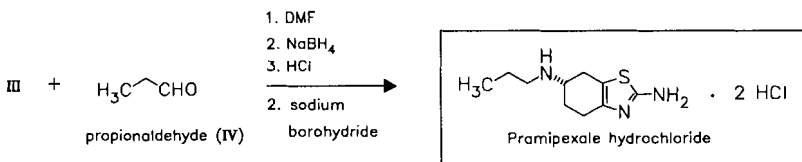
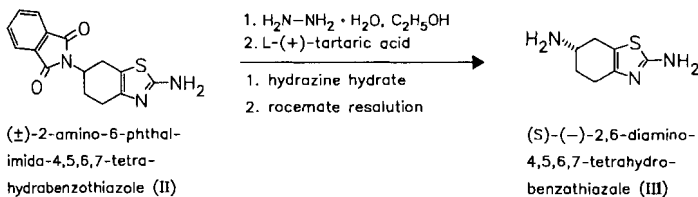
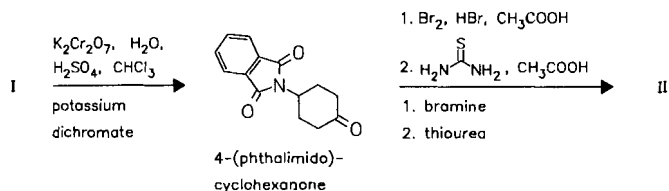
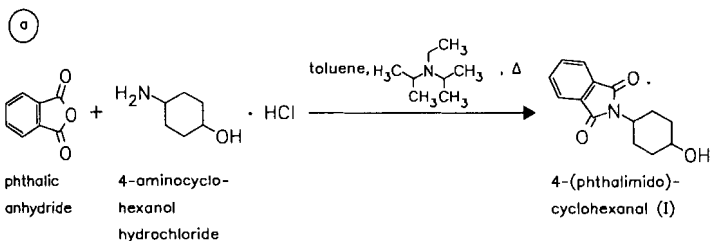
RN: 191217-81-9 MF: C₁₀H₁₇N₃S · 2HCl · H₂O MW: 302.27

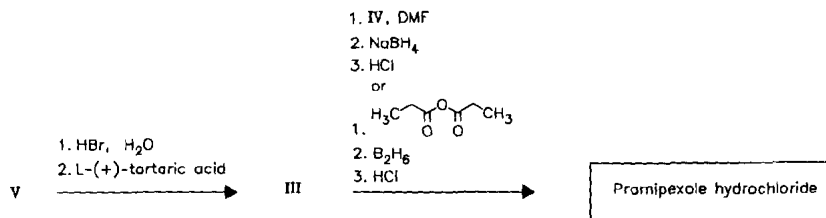
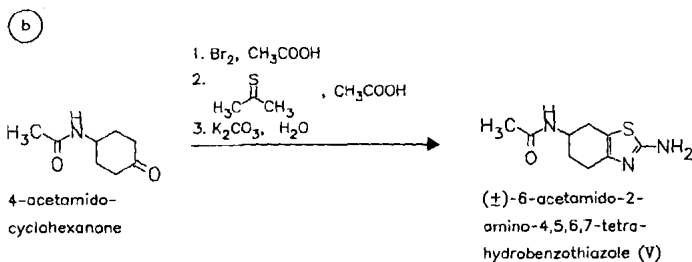
(±)-base

RN: 104617-86-9 MF: C₁₀H₁₇N₃S MW: 211.33

(±)-dihydrochloride

RN: 104617-85-8 MF: C₁₀H₁₇N₃S · 2HCl MW: 284.26



**Reference(s):**

EP 186 087 (Thomae GmbH; appl. 16.12.1985; D-prior. 22.12.1984).
 Schneider, G.S.; Mierau, J.: J. Med. Chem. (JMCMAR) **30**, 494 (1987).

Formulation(s): tabl. 0.088 mg, 0.125 mg, 0.18 mg, 0.25 mg, 0.7 mg, 1.0 (as dihydrochloride hydrate)

Trade Name(s):

D: Sifrol (Boehringer
 Ingelheim)

USA: Mirapex (Boehringer
 Ingelheim; Pharmacia &
 Upjohn)

Pramiracetam hydrochloride

ATC: N06BX16
 Use: nootropic

RN: 75733-50-5 MF: $\text{C}_{14}\text{H}_{27}\text{N}_3\text{O}_2 \cdot \text{HCl}$ MW: 305.85

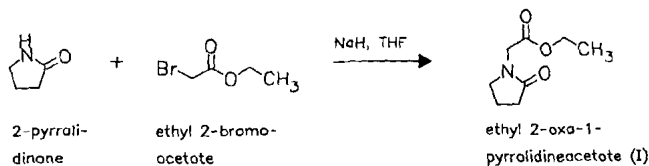
CN: N-[2-[Bis(1-methylethyl)amino]ethyl]-2-oxo-1-pyrrolidineacetamide hydrochloride

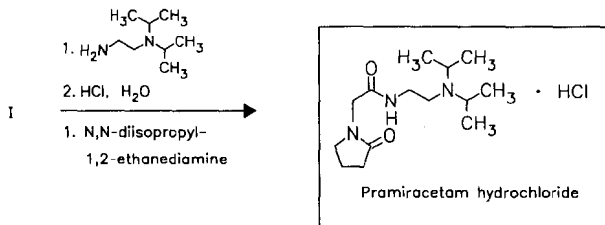
base

RN: 68497-62-1 MF: $\text{C}_{14}\text{H}_{27}\text{N}_3\text{O}_2$ MW: 269.39

sulfate

RN: 72869-16-0 MF: $\text{C}_{14}\text{H}_{27}\text{N}_3\text{O}_2 \cdot \text{H}_2\text{SO}_4$ MW: 367.47





Reference(s):

BE 864 269 (Parke Davis & Co.; appl. 7.3.1978; USA-prior. 3.3.1977).
 US 4 145 347 (Parke Davis & Co; 20.3.1979; USA-prior. 3.3.1977).
 Butler, D.E.; Nordin, J.C.; L'Italien, Y.J.; Zweisler, L.; Poschel, P.H.; Marriott, J.G.: J. Med. Chem. (JMCMAR) **27**, 684 (1984).

Formulation(s): tabl. 600 mg (as sulfate)

Trade Name(s):

I: Neupramir (Lusofarmaco) Pramistar (Firma) Remen (Parke Davis)

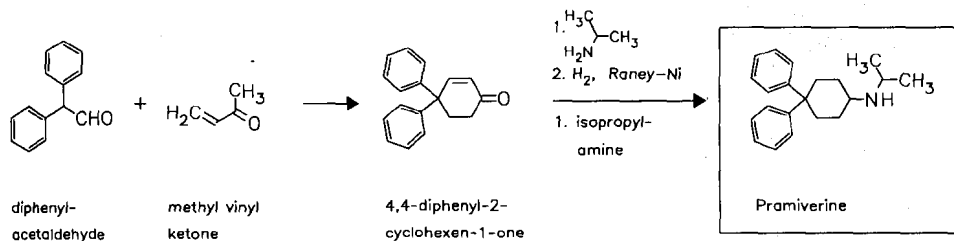
Pramiverine

ATC: A03A
 Use: antispasmodic

RN: 14334-40-8 MF: C₂₁H₂₇N MW: 293.45
 CN: N-(1-methylethyl)-4,4-diphenylcyclohexanamine

hydrochloride

RN: 14334-41-9 MF: C₂₁H₂₇N · HCl MW: 329.92 EINECS: 238-284-5
 LD₅₀: 25 mg/kg (M, i.v.); 346 mg/kg (M, p.o.);
 26 mg/kg (R, i.v.); 623 mg/kg (R, p.o.);
 20 mg/kg (dog, i.v.); 140 mg/kg (dog, p.o.)



Reference(s):

DE 1 793 611 (Merck AG; appl. 15.12.1964).

Formulation(s): amp. 2 mg/2 ml; drg. 2 mg; drops 2 mg/ml; suppos. 6 mg (as hydrochloride)

Trade Name(s):

D: Sistalgin (Cascan); wfm I: Sistalgin (Bracco)-comb.; wfm

Pramocaine

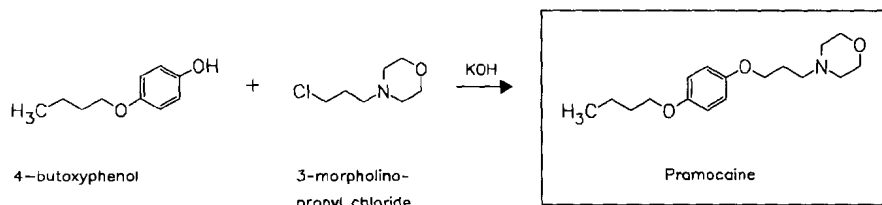
(Pramoxine)

ATC: C05AD07

Use: local anesthetic

RN: 140-65-8 MF: C₁₇H₂₇NO₃ MW: 293.41 EINECS: 205-425-7LD₅₀: 79 mg/kg (M, i.v.)

CN: 4-[3-(4-butoxyphenoxy)propyl]morpholine

hydrochlorideRN: 637-58-1 MF: C₁₇H₂₇NO₃ · HCl MW: 329.87 EINECS: 211-293-1LD₅₀: 79.5 mg/kg (M, i.v.); 1050 mg/kg (M, p.o.)**Reference(s):**

US 2 870 151 (Abbott; 1959; prior. 1954).

Wilson, J.W. et al.: J. Org. Chem. (JOCEAH) **16**, 792 (1951).**Formulation(s):** cream 1 g/100 g; gel 1 g/100 g (as hydrochloride)**Trade Name(s):**

D: Proctofoam HC (Trommsdorff)-comb.; wfm	Anusol (Warner-Lambert) Caladryl (Warner-Lambert)	Prax (Ferndale) Proctofoam (Schwarz)
F: Tronothane (Abbott)	Cortane-B OTIC (Blansett)	Promasone (Ferndale)
I: Tronotene (Abbott)	Cortic (Everett)	Zoto-HC (Horizon)
USA: Analpram-HC (Ferndale)	Epifoam (Schwarz)	

Pranlukast

(ONO-1078; RS-411; SB-205312)

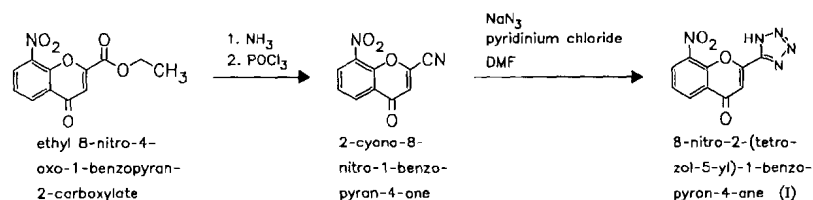
ATC: R03DC02

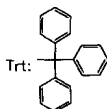
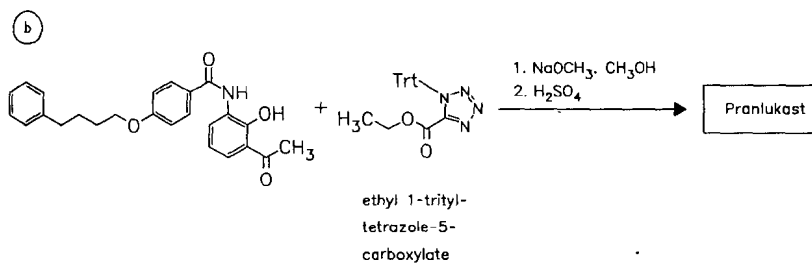
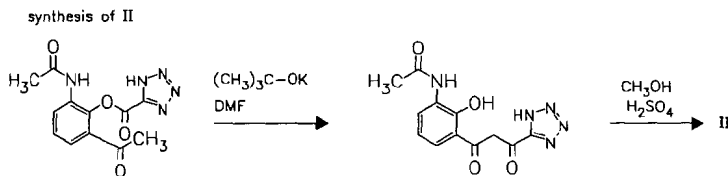
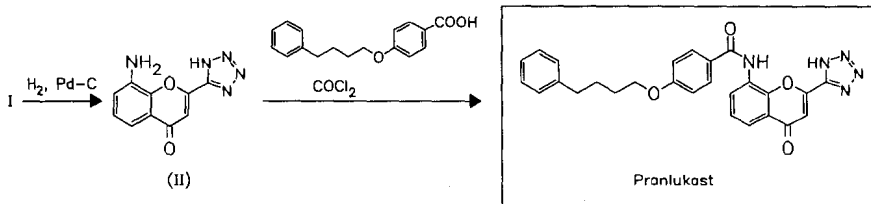
Use: antiallergic, antiasthmatic,
leukotriene D₄-antagonistRN: 103177-37-3 MF: C₂₇H₂₃N₅O₄ MW: 481.51

CN: N-[4-oxo-2-(1H-tetrazol-5-yl)-4H-1-benzopyran-8-yl]-4-(4-phenylbutoxy)benzamide

hydrate (2:1)RN: 150821-03-7 MF: C₂₇H₂₃N₅O₄ · 1/2H₂O MW: 981.04**monosodium salt**RN: 103180-28-5 MF: C₂₇H₂₂N₅NaO₄ MW: 503.49

a





Reference(s):

- a EP 173 516 (Ono Pharm.; 1.12.1993; J-prior. 22.11.1984).
 Nakai, H. et al.: J. Med. Chem. (JMCMAR) **31**, 84-91 (1988).
 b EP 0 716 088 (Sumitomo Chem.; appl. 23.6.1995; J-prior. 23.6.1994).

synthesis of intermediates type II:

WO 9 532 199 (SmithKline Beecham; appl. 30.11.1995; GB-prior. 21.5.1994).

combination with PAF-antagonists:

EP 469 477 (Hoffmann-La Roche; appl. 26.7.1991; USA-prior. 2.8.1990).

Formulation(s): cps. 112.5 mg (as hydrate)

Trade Name(s):

J: Onon (Ono; 1995)

Pranoprofen

ATC: M01AE

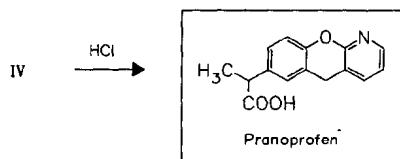
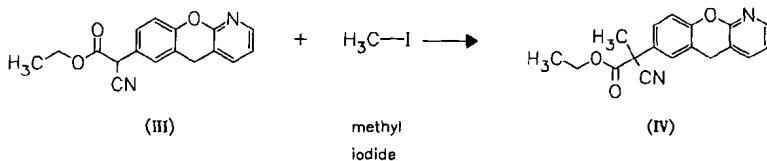
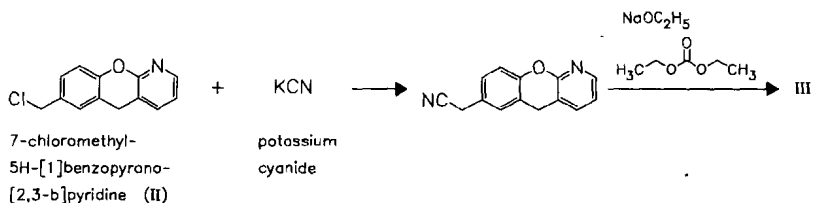
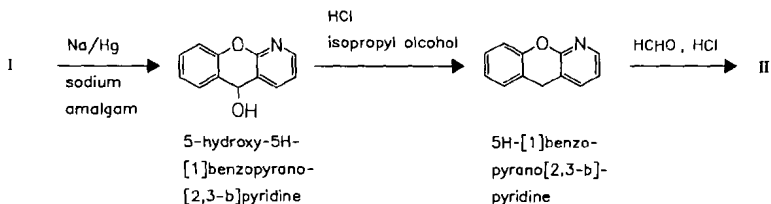
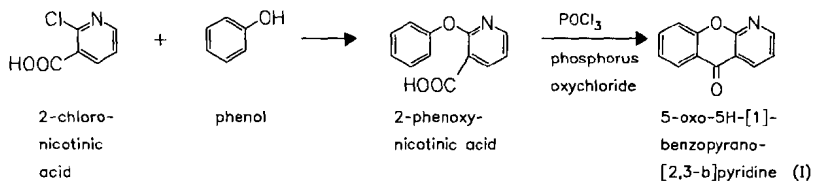
Use: anti-inflammatory, analgesic

RN: 52549-17-4 MF: C₁₅H₁₃NO₃ MW: 255.27

LD₅₀: 447 mg/kg (M, p.o.);

59.5 mg/kg (R, p.o.)

CN: α-methyl-5H-[1]benzopyrano[2,3-b]pyridine-7-acetic acid

**Reference(s):**

FR 2 193 593 (Yoshitomi; appl. 19.7.1973; J-prior. 21.7.1972, 13.1.1973, 3.4.1973).
 DOS 2 337 052 (Yoshitomi; appl. 20.7.1973; J-prior. 21.7.1972, 13.1.1973, 3.4.1973).
 US 3 931 205 (Yoshitomi; 6.1.1976; appl. 18.7.1973; J-prior. 21.7.1972).

synthesis of 5-hydroxy-5H-[1]benzopyrano[2,3-b]pyridine:

Mann, F.G.; Reid, J.A.: J. Chem. Soc. (JCSOA9) **1952**, 2057.

Formulation(s): cps. 75 mg

Trade Name(s):

J: Niflan (Yoshitomi; 1981)

Prasterone

ATC: A14AA07

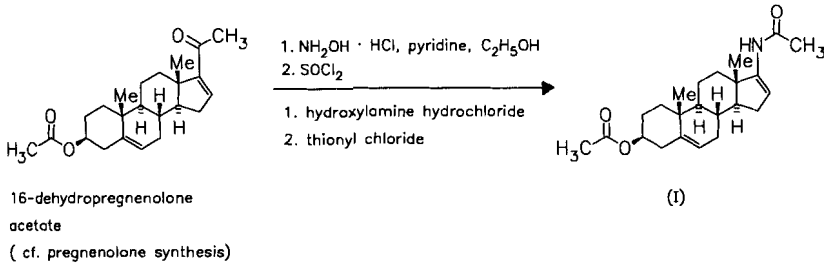
Use: anabolic, androgen

RN: 53-43-0 MF: C₁₉H₂₈O₂ MW: 288.43 EINECS: 200-175-5LD₅₀: >10 g/kg (M, p.o.);

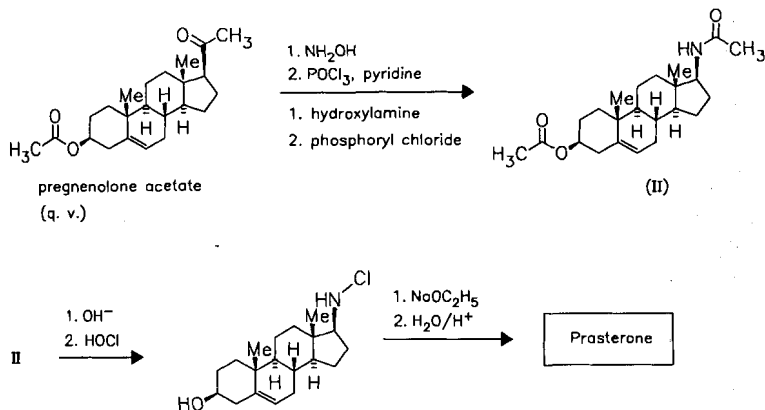
>10 g/kg (R, p.o.)

CN: (3β)-3-hydroxyandrost-5-en-17-one

a



b

**Reference(s):**

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 13, 30.

from cholesterol:

Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. 8, 648.

Rosenkranz, G. et al.: J. Org. Chem. (JOCEAH) 21, 520 (1956).

US 2 335 616 (Parke Davis; 1943; prior. 1941).

Formulation(s): amp. 200 mg/ml

Trade Name(s):

D:	Gero Hormetten (Hormon-Chemie; as sulfate)-comb.; wfm	Gyno Hormetten (Hormon-Chemie; as sulfate)-comb.; wfm	I:	Gynodian (Schering; as valerate)	
		GB:	Diandrone (Organon); wfm	J:	Mylis (Kanebo)

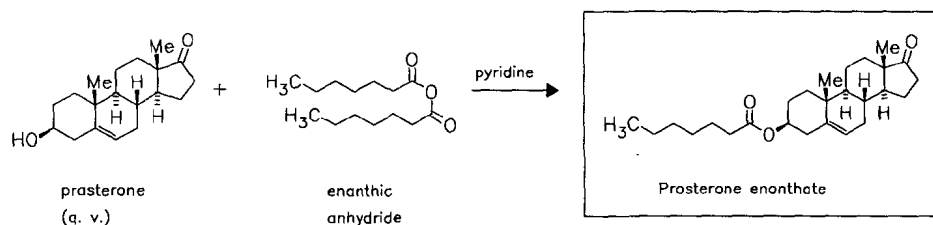
Prasterone enanthate

ATC: A14AA07; G03EA03

Use: androgen

RN: 23983-43-9 MF: C₂₆H₄₀O₃ MW: 400.60 EINECS: 245-970-8

CN: (3β)-3-[(1-oxoheptyl)oxy]androst-5-en-17-one

*Reference(s):*

BE 721 825 (Schering AG; appl. 4.10.1968; D-prior. 4.10.1967).
 ZA 686 112 (Schering AG; appl. 20.9.1968; D-prior. 4.10.1967).
 GB 1 246 639 (Schering AG; valid from 30.9.1968; D-prior. 4.10.1967).

alternative synthesis:

DOS 2 534 911 (Schering AG; appl. 1.8.1975).

use against psoriasis:

DOS 2 147 309 (Schering AG; appl. 17.9.1971).

Formulation(s): amp. 200 mg in comb. with estradiol valerate*Trade Name(s):*

D:	Gynodian Depot (Schering)-comb.	F:	Gynodian Depot (Schering)-comb.; wfm	I:	Gynodian Depot (Schering)-comb.
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Pravastatin

(Eptastatin)

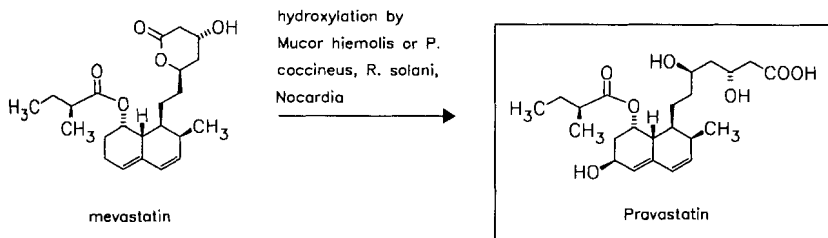
ATC: C10AA03

Use: cholesterol depressant, HMG-CoA-reductase inhibitor

RN: 81093-37-0 MF: C₂₃H₃₆O₇ MW: 424.53

CN: [1S-[1α(βS*, δS*), 2α, 6α, 8β(R*), 8αα]]-1,2,6,7,8,8a-hexahydro-β,δ,6-trihydroxy-2-methyl-8-(2-methyl-1-oxobutoxy)-1-naphthaleneheptanoic acid

monosodium saltRN: 81131-70-6 MF: C₂₃H₃₅NaO₇ MW: 446.52LD₅₀: 2011 mg/kg (M, i. v.); 8939 mg/kg (M, p. o.);
440 mg/kg (R, i. v.); >12 g/kg (R, p. o.)

*Reference(s):*

DE 3 122 499 (Sankyo; appl. 5.6.1981; J-prior. 6.6.1980, 8.9.1980, 19.9.1980, 22.8.1980).
US 4 346 227 (Sankyo; 24.8.1982; appl. 5.6.1981; J-prior. 6.6.1980, 22.8.1980, 11.3.1980).
Seizawa, N. et al.: J. Antibiot. (JANTAJ) **36**, 604 (1983).

asymmetric synthesis:

Daniewski, A.R. et al.: J. Org. Chem. (JOCEAH) **57**, 7133 (1992).

pharmaceutical formulation with increased stability:

EP 336 298 (Squibb; appl. 30.3.1989; USA-prior. 31.3.1988).

combination with coenzyme Q10:

US 4 933 165 (Merck & Co.; 12.6.1990; appl. 8.11.1989).
US 4 929 437 (Merck & Co.; 29.5.1990; appl. 2.2.1989).

mevastatin (compactin):

The Merck Index, 11th Ed., 6088 (Rahway 1989).
Endo, A.: J. Med. Chem. (JMCMAR) **28**, 401 (1985).

new production process:

EP 877 089 (Gist-Brocades, EP-prior. 7.5.1997).
WO 9 736 996 (Gist-Brocades; appl. 21.3.1997; EP-prior. 28.3.1996).
WO 9 845 410 (Yungjin; appl. 30.6.1997; KR-prior. 10.4.1997).
EP 776 974 (Sankyo; appl. 29.11.1996; J-prior. 29.11.1995).

conversion of compactin by Actinomadura:

WO 9 640 863 (MIT; appl. 4.6.1996; USA-prior. 7.6.1995).

hydroxylation by Saccharopolyspora hirsuta:

EP 649 907 (Bristol-Myers Squibb; appl. 18.10.1994; USA-prior. 22.10.1993).

use for slowing progression of atherosclerosis:

EP 671 170 (Bristol-Myers Squibb; appl. 21.2.1995; USA-prior. 11.3.1994).

use for preventing restenosis:

EP 459 453 (Squibb & Sons; appl. 29.5.1991; USA-prior. 31.5.1990).

Formulation(s): tabl. 5 mg, 10 mg, 20 mg (as sodium salt)

Trade Name(s):

D:	Liprevil (Schwarz/SanoI)	GB:	Lipostat (Bristol-Myers Squibb)	Selectin (Bristol-Myers Squibb; 1990)	
	Mevalotin (Sankyo)				
	Pravasin (Bristol-Myers Squibb; 1991)	I:	Aplactin (Mead Johnson)	J:	Mevalotin (Sankyo; 1989)
F:	Elisor (Bristol-Myers Squibb; 1991)		Prasterol (Malesci)	USA:	Pravachol (Bristol-Myers Squibb; 1991)
	Vasten (Specia; Rhône-Poulenc Rorer; 1991)		Pravaselect (Menarini; 1990)		
			Sanapprav (Sankyo Pharma)		

Prazepam

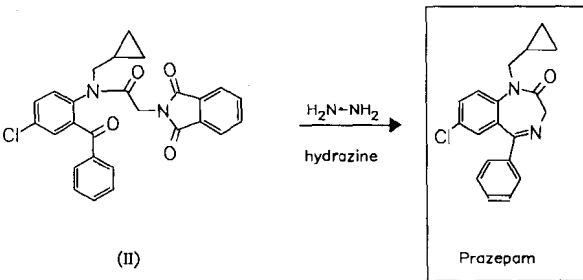
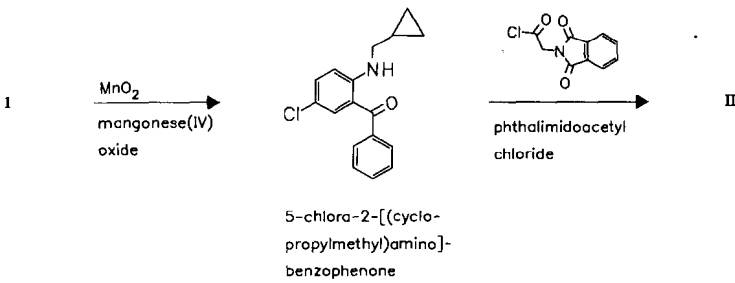
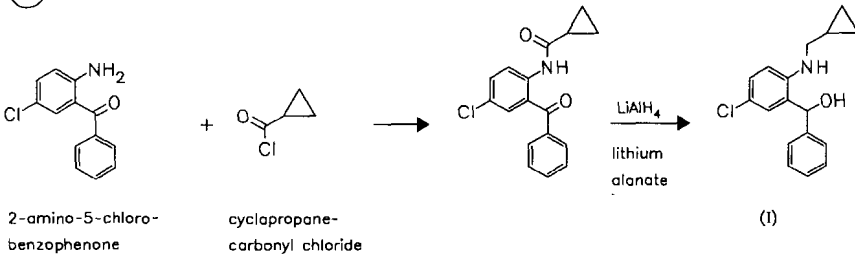
ATC: N05BA11
Use: tranquilizer

RN: 2955-38-6 MF: C₁₉H₁₇ClN₂O MW: 324.81 EINECS: 220-975-8

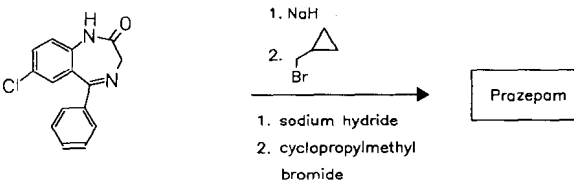
LD₅₀: 2300 mg/kg (M, p.o.);
>4 g/kg (R, p.o.);
>4 g/kg (dog, p.o.)

CN: 7-chloro-1-(cyclopropylmethyl)-1,3-dihydro-5-phenyl-2H-1,4-benzodiazepin-2-one

(a)



(b)



7-chloro-2-oxo-5-phenyl-2,3-dihydro-1H-1,4-benzodiazepine
(cf. diazepam synthesis)

Reference(s):

- a DAS 1 229 098 (Warner-Lambert; appl. 24.2.1964; USA-prior. 1.3.1963).
US 3 192 199 (F. H. McMillan, J. Pattison; 29.6.1965; appl. 1.3.1963).
b US 3 192 200 (H. M. Wuest; 29.6.1965; prior. 5.3.1963).

alternative synthesis:

Inaba, S. et al.: Chem. Pharm. Bull. (CPBTAL) 17, 1263 (1969).

Formulation(s): drops 15 mg/ml; tabl. 10 mg, 20 mg, 40 mg

Trade Name(s):

D:	Demetrin (Gödecke; Parke Davis)	GB:	Centrax (Parke Davis); wfm	USA:	Centrax (Parke Davis); wfm
	Mono-Demetrin (Gödecke; Parke Davis)	I:	Prazene (Parke Davis) Trepidant (Max Farma)		Verstran (Parke Davis; Warner Chilcott); wfm
F:	Lysanxia (Parke Davis)	J:	Prazepam (Sumitomo Chem.)		

Praziquantel

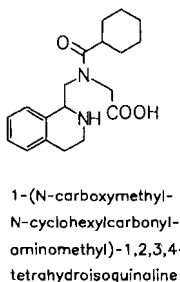
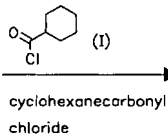
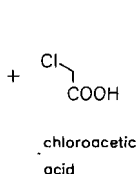
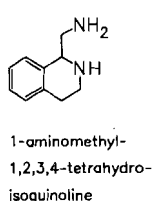
ATC: P02BA01
Use: anthelmintic

RN: 55268-74-1 MF: C₁₉H₂₄N₂O₂ MW: 312.41 EINECS: 259-559-6

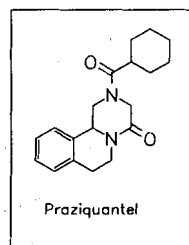
LD₅₀: 2454 mg/kg (M, p.o.);
2840 mg/kg (R, p.o.);
>200 mg/kg (dog, p.o.)

CN: 2-(cyclohexylcarbonyl)-1,2,3,6,7,11b-hexahydro-4H-pyrazino[2,1-a]isoquinolin-4-one

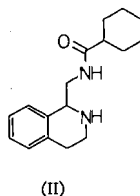
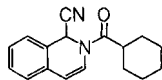
a



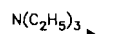
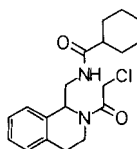
150 °C



b



II +



Proziquantel

Reference(s):

DOS 2 457 971 (E. Merck Patent GmbH; appl. 7.12.1974).
 DOS 2 362 539 (E. Merck Patent GmbH; appl. 17.12.1973).
 DOS 2 504 250 (E. Merck Patent GmbH; appl. 1.2.1975).
 DOS 3 011 156 (E. Merck Patent GmbH; appl. 22.3.1980).

Formulation(s): f. c. tabl. 150 mg, 600 mg; tabl. 500 mg

Trade Name(s):

D:	Biltricide (Bayer)	Cysticide (Merck)	J:	Biltrizide (Bayer)	
	Cesol (Merck)	F:	Biltricide (Bayer Pharma)	USA:	Biltricide (Bayer)

Prazosin

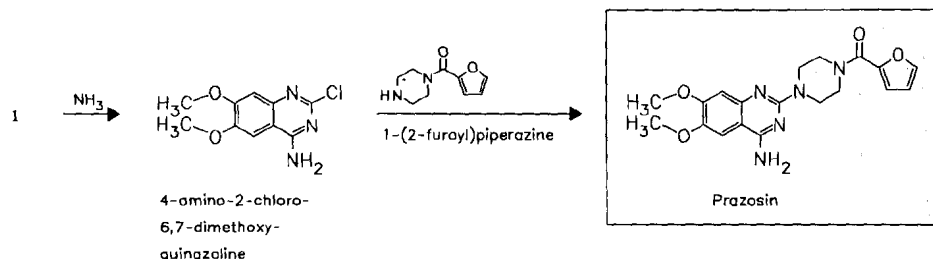
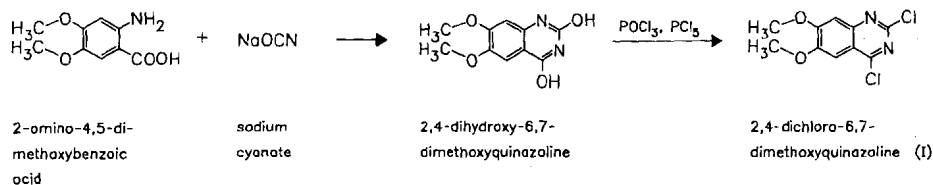
ATC: C02CA01

Use: antihypertensive, α_1 -adrenergic blocker

RN: 19216-56-9 MF: $C_{19}H_{21}N_5O_4$ MW: 383.41 EINECS: 242-885-8
 LD₅₀: >400 mg/kg (M, i.v.); >4 g/kg (M, p.o.)
 CN: 1-(4-amino-6,7-dimethoxy-2-quinazoliny)-4-(2-furanylcarbonyl)piperazine

monohydrochloride

RN: 19237-84-4 MF: $C_{19}H_{21}N_5O_4 \cdot HCl$ MW: 419.87 EINECS: 242-903-4
 LD₅₀: 92 mg/kg (M, i.v.); 5 g/kg (M, p.o.);
 73 mg/kg (R, i.v.); 1950 mg/kg (R, p.o.);
 >700 mg/kg (dog, p.o.)

*Reference(s):*

US 3 511 836 (Pfizer; 12.5.1970; appl. 13.12.1967; prior. 6.8.1965, 7.6.1966).
 US 3 635 979 (Pfizer; 18.1.1972; prior. 6.8.1965, 7.6.1966, 13.12.1967).
 US 3 663 706 (Pfizer; 16.5.1972; prior. 6.8.1965, 13.12.1967, 12.5.1970).
 DAS 1 620 138 (Pfizer; appl. 2.7.1966; USA-prior. 6.7.1965, 7.6.1966).

alternative synthesis:

US 3 935 213 (Pfizer; 27.1.1976; prior. 5.12.1973).
 DOS 2 457 911 (Pfizer; appl. 4.12.1974; USA-prior. 5.12.1973).
 DOS 2 731 737 (Pfizer; appl. 11.7.1977; USA-prior. 6.8.1976).
 US 4 062 844 (Pfizer; 13.12.1977; appl. 20.9.1976).
 US 4 138 561 (Bristol-Myers; 6.2.1979; prior. 30.9.1977).
 BE 861 821 (Fermion; appl. 14.12.1977; SF-prior. 15.12.1976).
 BE 861 822 (Fermion; appl. 14.12.1977; SF-prior. 15.12.1976).

α-form:

US 4 092 315 (Pfizer; 30.5.1978; appl. 1.3.1976).
 DAS 2 708 192 (Pfizer; appl. 25.2.1977; USA-prior. 1.3.1976).

anhydrous crystalline form:

DE 3 429 415 (Orion; appl. 9.8.1984; FL-prior. 25.6.1984).
 US 4 816 455 (Heumann Pharma; 28.3.1989; appl. 3.3.1987; EP-prior. 21.3.1986).

Formulation(s): s. r. cps. 1 mg, 2 mg, 4 mg, 6 mg; tabl. 0.5 mg, 1 mg, 2 mg, 5 mg (as hydrochloride)

Trade Name(s):

D:	Adversuten (ASTA Medica AWD)	Polypress/-forte (Pfizer)-comb.	GB:	Hypovase (Invicta; 1974)
	Duramipress (durachemie)	Prazosin-ratiopharm (ratiopharm)	I:	Minipress (Pfizer; 1978); wfm
	Eurex (Sanofi Winthrop)		J:	Minipress (Pfizer Taito; 1981)
	Minipress (Pfizer; 1977)	F: Alpress LP (Pfizer)	USA:	Minipress (Pfizer)
		Minipress (Pfizer; 1979)		

Prednicarbate

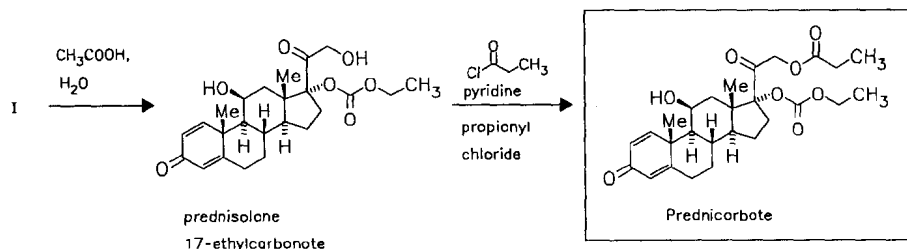
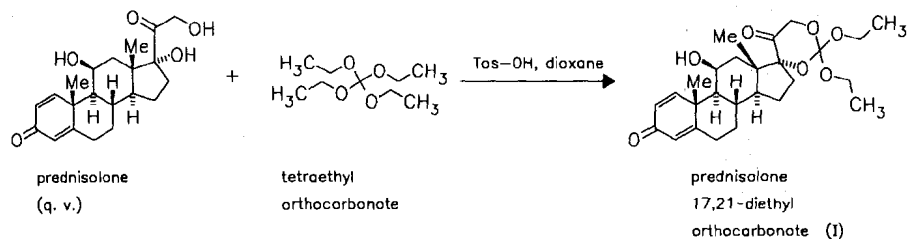
(Hoe 777)

ATC: D07AC18

Use: topical glucocorticoid, steroidal anti-inflammatory

RN: 73771-04-7 MF: C₂₇H₃₆O₈ MW: 488.58 EINECS: 277-590-3

CN: (11β)-17-[(ethoxycarbonyl)oxy]-11-hydroxy-21-(1-oxopropoxy)pregna-1,4-diene-3,20-dione



*Reference(s):*Stache, U. et al.: *Arzneim.-Forsch. (ARZNAD)* **35** (II), 1753 (1985).

EP 742 (Hoechst; appl. 27.7.1978; D-prior. 4.8.1977).

DE 2 735 110 (Hoechst; appl. 4.8.1977).

US 4 242 334 (Hoechst; appl. 21.2.1979; D-prior. 4.8.1977).

Formulation(s): cream 2.5 mg/1 g; ointment 2.5 mg/1 g; sol. (in aqueous ethanol, 20 %) 2.5 mg/1 g*Trade Name(s):*

D: Dermatop (Hoechst)

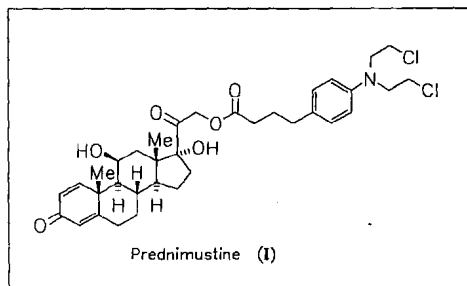
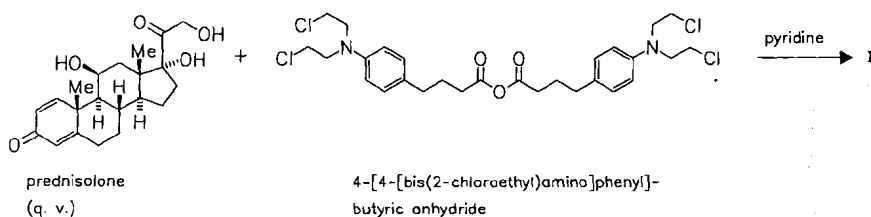
I: Dermatop (Hoechst Marion
Roussel)USA: Dermatop (Hoechst Marion
Roussel)**Prednimustine**

ATC: L01AA08

Use: antineoplastic

RN: 29069-24-7 MF: C₃₅H₄₅Cl₂NO₆ MW: 646.65 EINECS: 249-410-3LD₅₀: 530 mg/kg (R, p.o.)

CN: (11β)-21-[4-[4-[bis(2-chloroethyl)amino]phenyl]-1-oxobutoxy]-11,17-dihydroxypregna-1,4-diene-3,20-dione

*Reference(s):*

DOS 2 001 305 (A B Leo; appl. 13.1.1970; GB-prior. 23.1.1969).

Formulation(s): cps. 10 mg, 50 mg; tabl. 10 mg, 100 mg*Trade Name(s):*

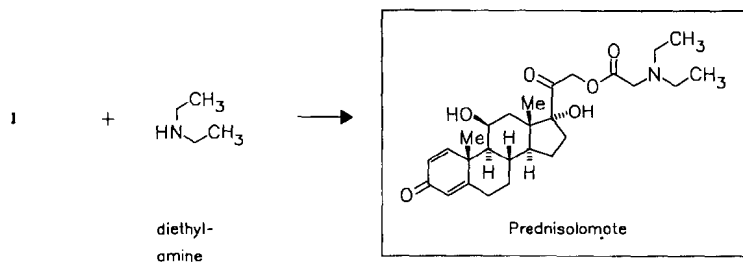
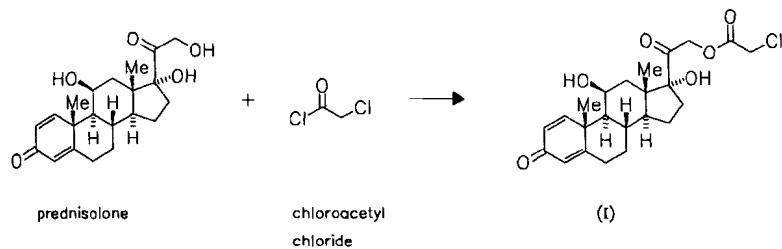
D: Sterecyt (Pharmaleo); wfm

F: Stéréocyt (Roger Bellon);
wfm**Prednisolamate**

ATC: H02AB06

Use: glucocorticoid

RN: 5626-34-6 MF: C₂₇H₃₉NO₆ MW: 473.61 EINECS: 227-064-4CN: *N,N*-diethylglycine (11β)-11,17-dihydroxy-3,20-dioxopregna-1,4-dien-21-yl ester

hydrochlorideRN: 17140-01-1 MF: $C_{27}H_{39}NO_6 \cdot HCl$ MW: 510.07**Reference(s):**

GB 862 370 (Pfizer; valid from 1957; USA-prior. 1956).

DE 1 037 451 (Schering AG; appl. 1957).

alternative synthesis:Pancrazio, G.; Sbarigia, G.: Farmaco, Ed. Prat. (FRPPAO) **16**, 190 (1961).**Formulation(s):** tabl. 5 mg**Trade Name(s):**D: Deltacortril-intravenös
(Pfizer); wfm**Prednisolone**ATC: A07EA01; C05AA04; D07AA03;
D07XA02; H02AB06; R01AD02;
R01AD52; S01BA04; S01CB02;
S02BA03; S03BA02

Use: glucocorticoid

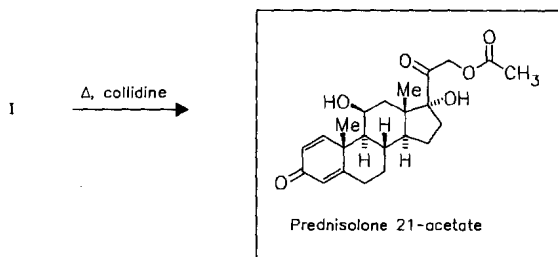
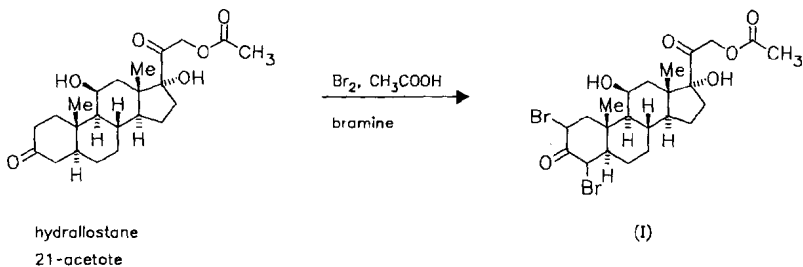
RN: 50-24-8 MF: $C_{21}H_{28}O_5$ MW: 360.45 EINECS: 200-021-7LD₅₀: 180 mg/kg (M, i.v.); 1680 mg/kg (M, p.o.);

120 mg/kg (R, i.v.)

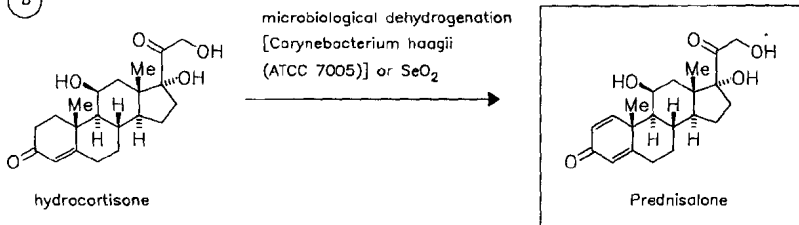
CN: (11 β)-11,17,21-trihydroxypregna-1,4-diene-3,20-dione**acetate**RN: 52-21-1 MF: $C_{23}H_{30}O_6$ MW: 402.49 EINECS: 200-134-1LD₅₀: 3500 mg/kg (M, s.c.);

>240 mg/kg (R, s.c.)

a



b

*Reference(s):*

- a US 2 897 216 (Schering Corp.; 1959; prior. 1952).
starting material:
The Merck Index, 12th Ed., 815 (1996).
- b US 3 134 718 (Schering Corp.; 26.5.1964; appl. 12.12.1963; prior. 11.8.1954).
Wettstein, A. et al.: *Helv. Chim. Acta (HCACAV)* **39**, 734 (1956).
Nobile, A. et al.: *J. Am. Chem. Soc. (JACSAT)* **77**, 4184 (1955).
DAS 1 135 899 (Schering AG; appl. 20.5.1960).

alternative synthesis:

US 4 041 055 (Upjohn; 9.8.1977; appl. 17.11.1975).

Formulation(s): amp. 10 mg/ml, 25 mg/ml, 50 mg/ml (as acetate); eye drops 1.2 mg/ml, 10 mg/ml (as acetate); ointment 5 mg/g, 100 mg/g; suppos. 100 mg (as acetate); syrup 15 mg/5 ml; tabl. 1 mg, 5 mg, 20 mg

Trade Name(s):

D: Alferm (Schöning-Berlin)-
comb.
Decaprednil (Orion
Pharma)
Decortin H (Merck)
Dontisolon (Hoechst)
Dura Prednisolon
(durachemie)

Hefasolon (Hefa Pharma)
Inflanfran (Pharm-
Allergan)
Klismacort (bene-
Arzneimittel)
Linola (Wolff)
Prectal (Artesan; Cassella-
med)

Prednabene (Merckle)
Prednihexal (Hexal)
Predni-H-injekt
(Sanorania)
Predni-H-Tablinen
(Sanorania)
Predni-POS (Ursapharm)

Prednisolon "Ferring" (Ferring)	Deltastab (Knoll)	Delta Prenin (Sumitomo)
Prednisolon "Lentia" (Lentia)	Hydrocortancyl cp séc (Roussel)	Donisolone (Sankyo)
Prednisolon Augensalbe Jenapharm (Jenapharm)	Hydrocortancyl susp inj (Roussel)	Lavine (Tatsumi)
Prednisolut (Jenapharm)	Precortisyl forte (Hoechst)	Prednisolone Cream (Toho)
Solu-Decortin (Merck)	Pred forte (Allergan)	Prednisolon Ophthalmic Oint (Nitten)
Ultracortenol (CIBA Vision)	Scheriproct (Schering; as hexanoate)-comb.	Predonine (Shionogi)
F: combination preparations	I: Biodeltacortilen (SIFI)- comb.	Scherisolone Inj. (Nihon Schering)
Deliproct (Schering; as caproate)-comb.	Meticortelone (Schering- Plough)	Scherisolone Tab. (Nihon Schering)
Dérinox (Thérabel Lucien pharma)-comb.	Solprene (Farmigea)	USA: numerous combination preparations
combination preparations	J: Codelcortone (Merck- Banyu)	Predniso (Roxane)
GB: Deltacortril (Pfizer)	Deltacortil (Taito Pfizer)	Prelone (Muro)

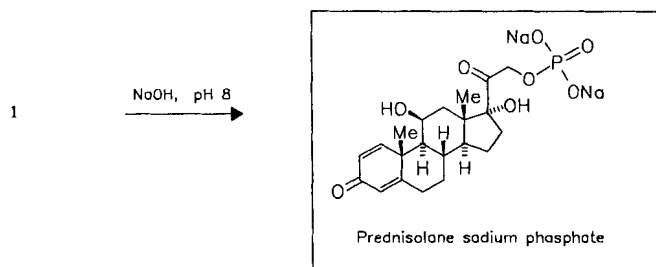
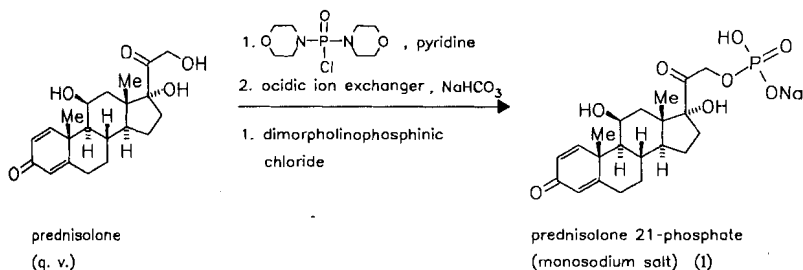
Prednisolone sodium phosphate

ATC: H02AB06
Use: glucocorticoid

RN: 125-02-0 MF: C₂₁H₂₇Na₂O₈P MW: 484.39 EINECS: 204-722-9
LD₅₀: 360 mg/kg (rabbit, i.v.)
CN: (11β)-11,17-dihydroxy-21-(phosphonoxy)pregna-1,4-diene-3,20-dione disodium salt

free acid

RN: 302-25-0 MF: C₂₁H₂₉O₈P MW: 440.43 EINECS: 206-120-1



Reference(s):

DE 1 134 075 (Merck AG; appl. 26.11.1959).

alternative syntheses:

US 2 789 117 (Merck & Co.; 1957; appl. 1957).

US 2 870 177 (Merck & Co.; 1959; appl. 1954).

US 2 932 657 (Merck & Co.; 12.4.1960; appl. 30.7.1957).

US 2 936 313 (Glaxo; 10.5.1960; appl. 18.11.1958; GB-prior. 19.11.1957).

Formulation(s): amp. 33.6 mg/5 ml, 53.75 mg/5 ml; eye drops 0.5 g/100 ml; oral sol. 6.7 mg/5 ml*Trade Name(s):*

D:	Hefasolon (Hefa Pharma)	Phortisolone (Fumouze);	Prednesol (Glaxo Wellcome)
	Prednabene	wfm	Predsol (Evans)
	Injektionslösung (Merckle)	Solucort (Merck Sharp & Dohme-Chibret)	Predsol (Evans)
F:	Colicort (Merck Sharp & Dohme-Chibret)-comb.	GB: Minims Prednisolone (Chauvin)	I: Solprene (Farmigea)-comb.
	Deturgylone (Synthelabo)-comb.		J: Prozorin (Takeda)
			USA: Optimyd (Medeva)-comb.

Prednisolone sodium succinate

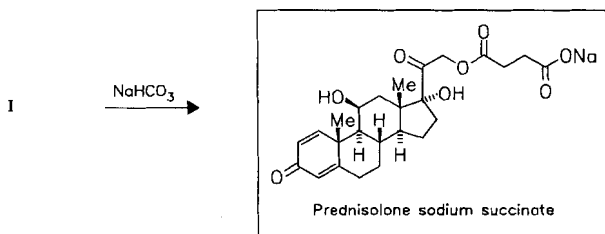
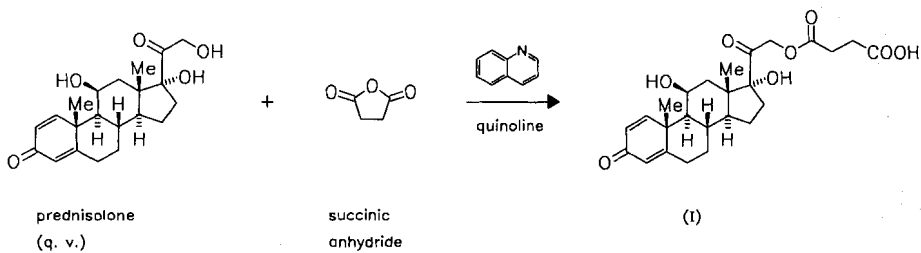
ATC: H02AB06

Use: glucocorticoid

RN: 1715-33-9 MF: C₂₅H₃₁NaO₈ MW: 482.51 EINECS: 216-995-1LD₅₀: 1125 mg/kg (M, i.v.);

770 mg/kg (R, i.v.)

CN: (11β)-21-(3-carboxy-1-oxopropoxy)-11,17-dihydroxypregna-1,4-diene-3,20-dione monosodium salt

free acidRN: 2920-86-7 MF: C₂₅H₃₂O₈ MW: 460.52 EINECS: 220-861-8*Reference(s):*DAS 1 045 400 (Pfizer; appl. 1956; USA-prior. 1955)-withdrawn.
continuation of DE 1 013 648*Formulation(s):* amp. 10 mg, 25 mg, 100 mg (as free acid); amp. 10 mg/ml, 25 mg/ml, 50 mg/ml, 100 mg/ml, 250 mg/5 ml, 250 mg/10 ml, 500 mg/5 ml, 500 mg/10 ml, 1000 mg/5 ml, 1000 mg/10 ml

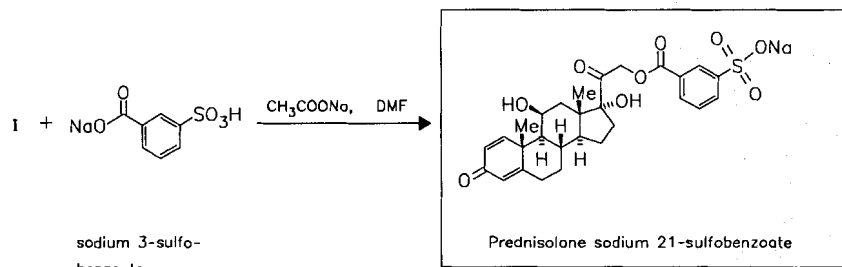
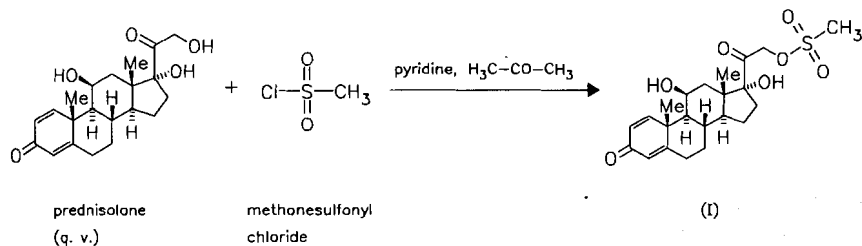
Trade Name(s):

D: Aquapred (Winzer)-comb. Hostacortin H sol. (Hoechst) Realin Supp. (Geigy/ Thomae)-comb.	I: Solo-Decortin H (Merck) Endoprenovis (Vister) Ibisterolon Iniett. (IBI) Policort (Lepetit)-comb. Soludacortin (Bracco)	J: Predonine, water sol. (Shionogi) USA: Meticortelone sol. (Schering); wfm
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Prednisolone sodium sulfobenzoate

ATC: H02AB06
Use: glucocorticoid

RN: 630-67-1 MF: C₂₈H₃₁NaO₉S MW: 566.60 EINECS: 211-141-4
CN: (11β)-11,17-dihydroxy-21-[(3-sulfobenzoyl)oxy]pregna-1,4-diene-3,20-dione monosodium salt



Reference(s):

US 3 037 034 (Roussel-Uclaf; 29.5.1962; appl. 21.4.1960; F-prior. 24.4.1959).

alternative synthesis:

US 3 032 568 (Roussel-Uclaf; 1.5.1962; appl. 15.3.1961; prior. 13.4.1959).

Formulation(s): collutorium 22.5 mg/3 ml; clyisma 20 mg; eye ointment 30 mg/4 g; foam 20 mg

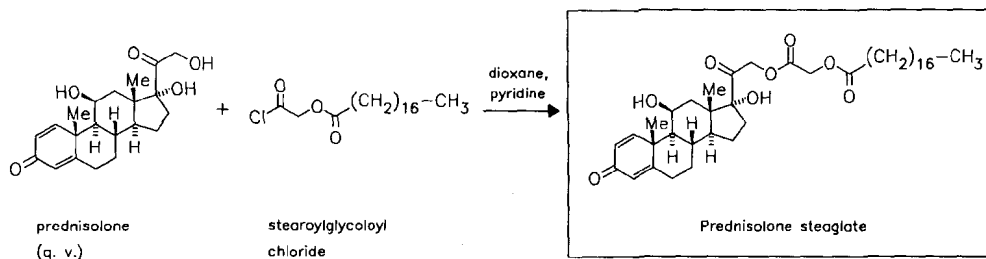
Trade Name(s):

D: Cortiphenicol (Saarstickstoff-Fatol)- comb.; wfm Phoscortil-Klys (Biotherax)-comb.; wfm	F: Positex (Ursapharm)- comb.; wfm Désocort (Chauvin)-comb. Solupred (Houdé)	GB: Tergynan (Bouchara)- comb. Predenema (Pharmax) Predfoam (Pharmax) I: Rexidina (Bouty)-comb.
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Prednisolone steaglate
(Prednisolone stearoylglycolate)

ATC: H02AB06
Use: glucocorticoid

RN: 5060-55-9 MF: C₄₁H₆₄O₈ MW: 684.96 EINECS: 225-763-9
CN: (11β)-11,17-dihydroxy-21-[[[(1-oxooctadecyl)oxy]acetyl]oxy]pregna-1,4-diene-3,20-dione

*Reference(s):*

US 3 171 846 (Carlo Erba; 2.3.1965; I-prior. 10.7.1962).
 Girardi, P.N. et al.: *Arzneim.-Forsch. (ARZNAD)* **16**, 162 (1966).

Formulation(s): nasal drops 0,25 %

Trade Name(s):

F:	Rollsone (Bellon); wfm	Estilsona (Erba); wfm	Siutisane (Erba); wfm
GB:	Sintisone (Farmitalia Carlo Erba); wfm	Glistelone (Erba); wfm	Verisone (Tiber); wfm
I:	Erbacort (Erba); wfm	Glitisona (Vis); wfm	
		Prenissei (Cifa); wfm	

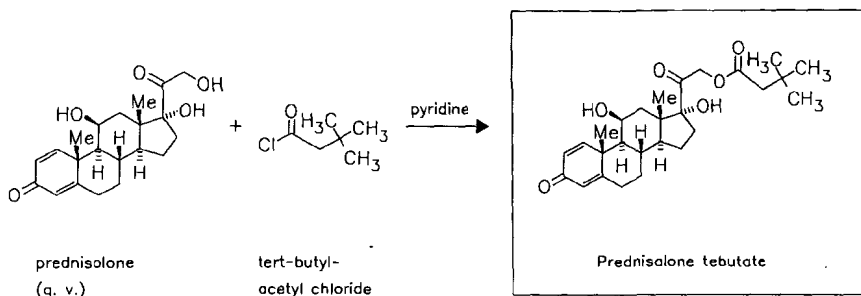
Prednisolone tebutate

ATC: H02AB06

Use: - glucocorticoid

RN: 7681-14-3 MF: C₂₇H₃₈O₆ MW: 458.60 EINECS: 231-661-5

CN: (11β)-21-(3,3-dimethyl-1-oxobutoxy)-11,17-dihydroxypregna-1,4-diene-3,20-dione

*Reference(s):*

US 2 736 734 (Merck & Co.; 1956; prior. 1955).
 DE 1 135 904 (Merck & Co.; appl. 1956; USA-prior. 1955).

Formulation(s): susp. 20 mg/ml

Trade Name(s):

USA: Hydeltra-TBA (Merck
 Sharp & Dohme)

Prednisolone 21-trimethylacetate

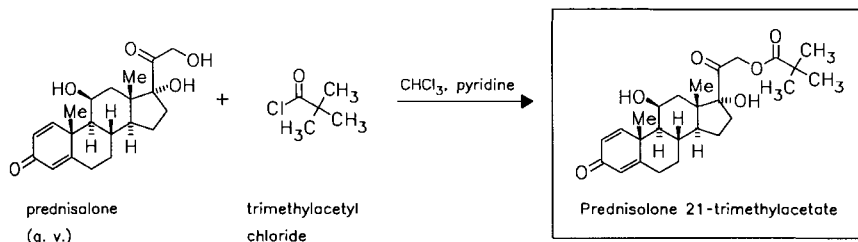
(Prednisolon 21-pivalate)

ATC: H02AB06

Use: glucocorticoid

RN: 1107-99-9 MF: C₂₆H₃₆O₆ MW: 444.57 EINECS: 214-172-1

CN: (11β)-21-(2,2-dimethyl-1-oxopropoxy)-11,17-dihydroxypregna-1,4-diene-3,20-dione

*Reference(s):*

CH 398 585 (Ciba; appl. 1956).

Formulation(s): ophthalmic ointment 5 mg/ml (0.5 %)*Trade Name(s):*

D: Ultracortenol (Ciba); wfm

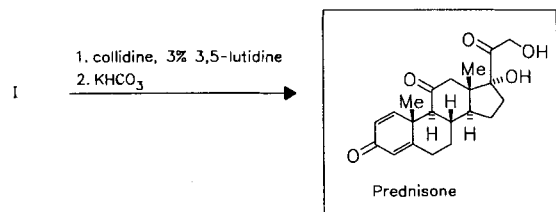
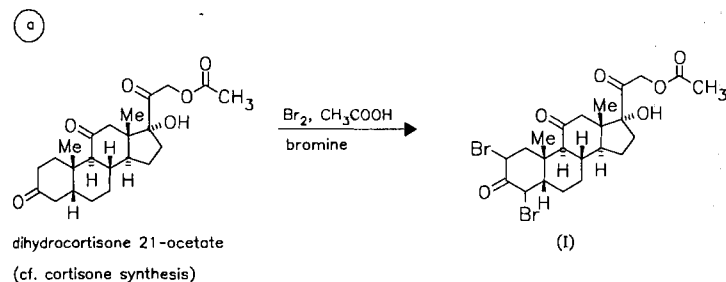
Varecort (Zyma-Blaes)-
comb.; wfm**Prednisone**

ATC: A07EA03; H02AB07

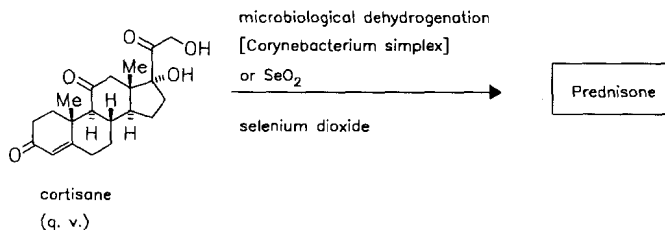
Use: glucocorticoid

RN: 53-03-2 MF: C₂₁H₂₆O₅ MW: 358.43 EINECS: 200-160-3LD₅₀: 600 mg/kg (M, i.m.); 135 mg/kg (M, i.p.); 101 mg/kg (M, s.c.)

CN: 17,21-dihydroxypregna-1,4-diene-3,11,20-trione



(b)

**Reference(s):**

- a** US 2 897 216 (Schering Corp.; 1959; prior. 1952).
Applezweig, N.: Steroid Drugs, Vol. 1, 66 (New York, London, Toronto 1962).
starting material:
Applezweig, N.: Steroid Drugs, Vol. 1, 66 (New York, London, Toronto 1962).
- b** US 3 134 718 (Schering Corp.; 26.5.1964; appl. 12.12.1963; prior. 11.8.1954).
Wettstein, A. et al.: Helv. Chim. Acta (HCACAV) **39**, 734 (1956).

review:

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. **13**, 54.

Formulation(s): cream 5 mg/g; eye drops 2 mg/g in comb. with chloramphenicol; suppos. 5 mg, 10 mg, 30 mg, 100 mg; syrup 5 mg/5 ml, 25 mg/ml, 50 mg/ml; tabl. 1 mg, 5 mg, 20 mg, 50 mg

Trade Name(s):

D:	Decortin (Merck)	Prednison "Sanhelios" (Börner)	Delta-Butazolidin (Geigy)-comb.; wfm
	Oleomycetin-Prednison Augentropfen (Winzer)-comb.	Predni-Tablinen (Beiersdorf-Tablinen)	J: Delta-Butazolidin (Ciba-Geigy-Fujisawa)-comb.
	Prednison "Dorsch" (Orion Pharma)	Predni-Tablinen (Sanorania)	USA: Liquid Pred (Muro)
	Prednison "Ferring" (Pharmagalen)	Rectodelt (Trommsdorff)	Lisacort (Fellows)
	F: Cortancyl (Roussel)	GB: Decortisyl (Roussel); wfm	Sterapred (Merz) generics

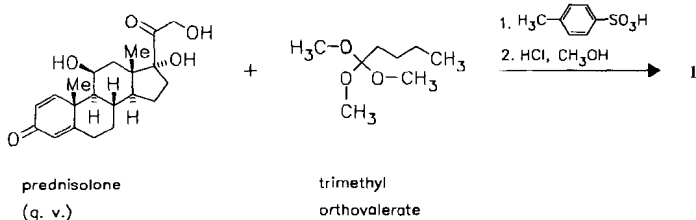
Prednival acetate(Prednisolone 17-*O*-valerate)

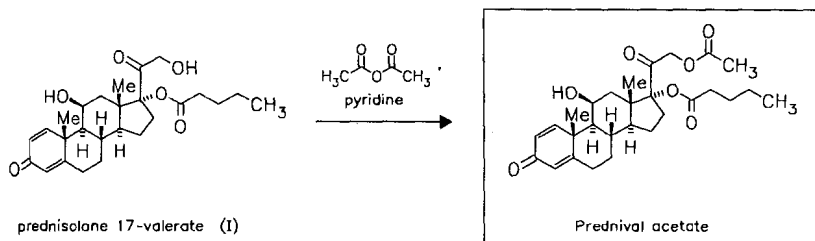
ATC: H02AB

Use: glucocorticoid

RN: 72064-79-0 MF: $\text{C}_{28}\text{H}_{38}\text{O}_7$ MW: 486.61 EINECS: 276-312-8LD₅₀: >3 g/kg (M, p.o.);

>4 g/kg (R, p.o.)

CN: (11 β)-21-(acetyloxy)-11-hydroxy-17-[(1-oxopentyl)oxy]pregna-1,4-diene-3,20-dione**prednival**RN: 15180-00-4 MF: $\text{C}_{26}\text{H}_{36}\text{O}_6$ MW: 444.57 EINECS: 239-228-2LD₅₀: 490 mg/kg (M, s.c.)

*Reference(s):*

Gardi, R. et al.: Gazz. Chim. Ital. (GCITA9) **93**, 431 (1963).

prednisolone 17-valerate:

DE 1 214 677 (Francesco Vismara; appl. 1.6.1962; I-prior. 24.6.1961).

US 3 147 249 (Francesco Vismara; 1.9.1964; I-prior. 13.6.1961).

cf. hydrocortisone butyrate, betametason valerate

Trade Name(s):

I: Acepreval (Parke Davis-Vister); wfm

Prednylidene

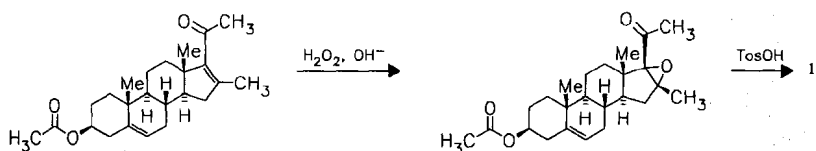
ATC: H02AB11

Use: glucocorticoid

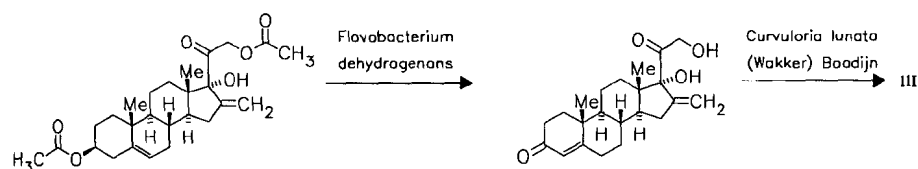
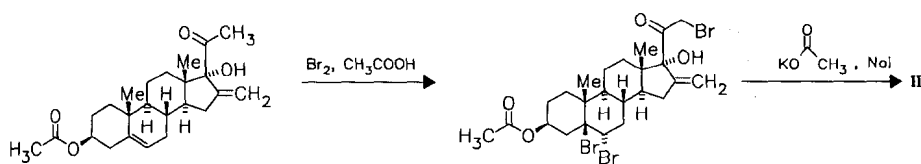
RN: 599-33-7 MF: C₂₂H₂₈O₅ MW: 372.46 EINECS: 209-964-9

LD₅₀: 7450 mg/kg (M, p.o.)

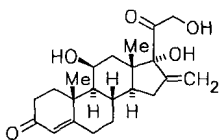
CN: (11β)-11,17,21-trihydroxy-16-methylenepregna-1,4-diene-3,20-dione



3β-acetoxy-16-methyl-20-oxa-5,16-pregnadiene

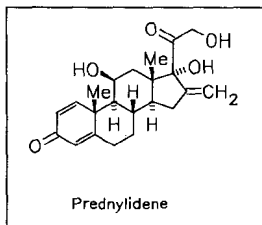


(II)



16-methylhydrocortisone (III)

Bacillus sphaericus
or
Corynebacterium simplex



Prednylidene

Reference(s):

DE 1 134 074 (E. Merck AG; appl. 31.1.1959).
Mannhardt, H.J. et al.: Tetrahedron Lett. (TELEAY) **1960**, 21.
Taub, D. et al.: J. Org. Chem. (JOCEAH) **25**, 2258 (1960).

alternative synthesis:

US 3 068 226 (Merck & Co.; 1962; prior. 1961, 1959).

Formulation(s): tabl. 6 mg, 24 mg, 60 mg

Trade Name(s):

D: Decortilen (Merck) I: Dacortilen Merck (Bracco);
F: Décortilène (Farmex); wfm wfm

Prednylidene diethylaminoacetate

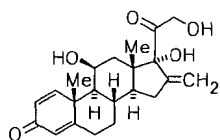
ATC: H02AB11
Use: glucocorticoid

RN: 6890-42-2 MF: C₂₈H₃₉NO₆ MW: 485.62

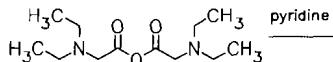
CN: N,N-diethylglycine (11β)-11,17-dihydroxy-16-methylene-3,20-dioxopregna-1,4-dien-21-yl ester

hydrochloride

RN: 22887-42-9 MF: C₂₈H₃₉NO₆ · HCl MW: 522.08 EINECS: 245-299-0

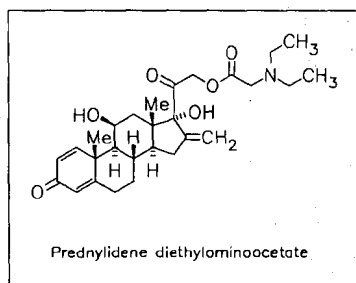


prednylidene
(q. v.)



diethylaminoacetic
anhydride

pyridine



Prednylidene diethylaminoacetate

Reference(s):

DE 1 134 074 (E. Merck AG; appl. 31.1.1959).

combination with quinoline derivatives:

BE 829 197 (Grosjean; appl. 16.5.1975).

Formulation(s): amp. 30 mg/ml, 60 mg/ml

Trade Name(s):

D: Decortilen sol. (Merck)

Pregnenolone

ATC: L02BA
 Use: glucocorticoid

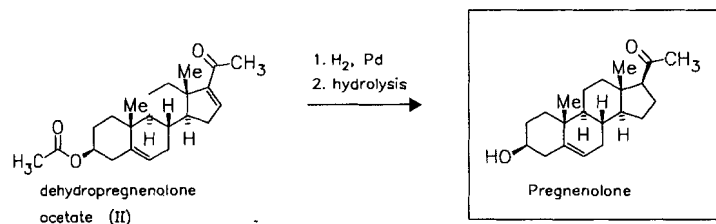
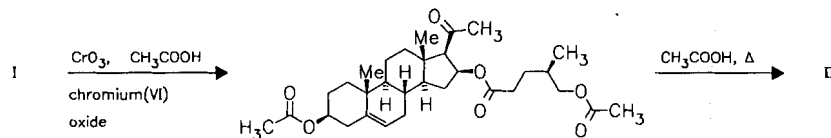
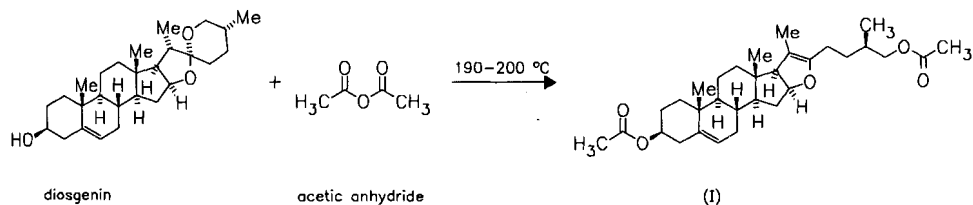
RN: 145-13-1 MF: C₂₁H₃₂O₂ MW: 316.49 EINECS: 205-647-4
 CN: (3β)-3-hydroxypregn-5-en-20-one

succinate

RN: 4598-67-8 MF: C₂₅H₃₆O₅ MW: 416.56 EINECS: 225-001-5

acetate

RN: 1778-02-5 MF: C₂₃H₃₄O₃ MW: 358.52 EINECS: 217-212-6

**Reference(s):**

Ehrhart-Ruschig, **III**, 341.

Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. 8, 664, and there cited literature.

alternative syntheses:

Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. 8, 660.

Formulation(s): cream 0.5 % (as acetate)

Trade Name(s):

F: Fadiamon Crème (Sauba;
 as acetate)-comb.; wfm

USA: Formula 405 (Doak; as
 succinate); wfm

Panzalone (Doak; as
 succinate); wfm

Prenolon (Schering); wfm

Prenalterol

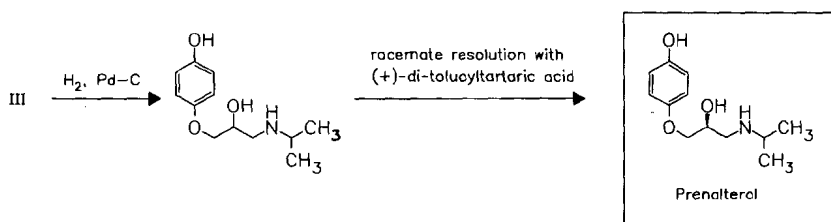
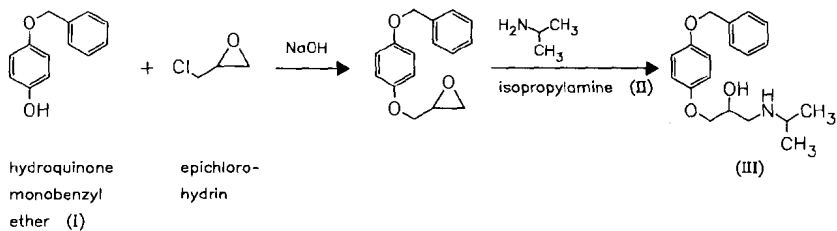
ATC: C01CA13
 Use: cardiotonic

RN: 57526-81-5 MF: C₁₂H₁₉NO₃ MW: 225.29 EINECS: 260-791-5
 CN: (S)-4-[2-hydroxy-3-[(1-methylethyl)amino]propoxy]phenol

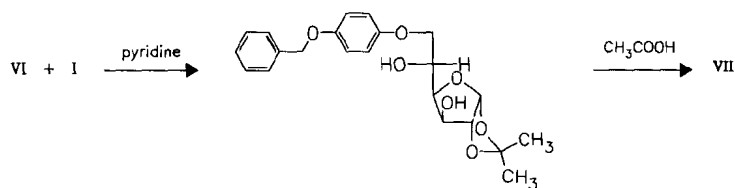
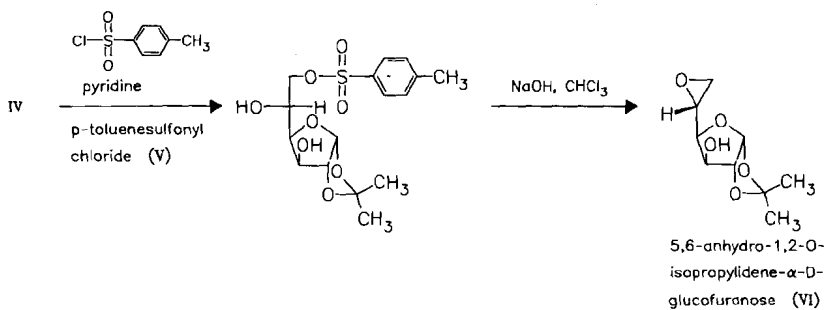
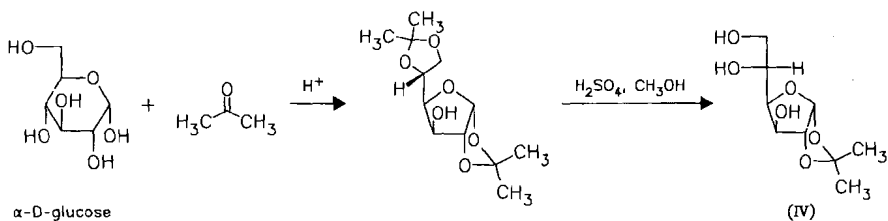
hydrochloride

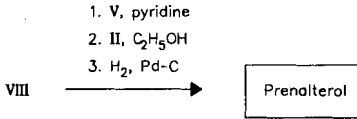
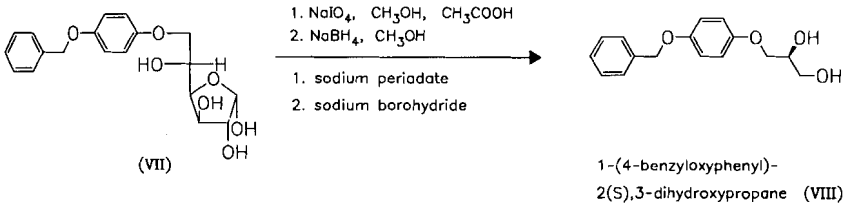
RN: 61260-05-7 MF: $C_{12}H_{19}NO_3 \cdot HCl$ MW: 261.75

a



b





Reference(s):

DOS 2 503 751 (Ciba-Geigy; appl. 30.1.1975; CH-prior. 8.2.1974).

racemate:

NL-appl. 7 501 785 (Hässle; appl. 14.2.1974).

US 4 080 471 (Hässle; 21.3.1978; prior. 25.6.1976).

synthesis of 5,6-anhydro-1,2-O-isopropylidene- α -D-glucofuranose:

Ohle, H.; Dickhäuser, E.: Chem. Ber. (CHBEAM) **58**, 2593 (1925).

Ohle, H.; Vargha, L. v.: Chem. Ber. (CHBEAM) **61**, 1203 (1928); **62**, 2435 (1929).

Schmidt, D. Th.: Methods Carbohydr. Chem. (MCACAI) **2**, 326 (1963).

Horton, D.; Tsai, J.: Methods Carbohydr. Chem. (MCACAI) **8**, 177 (1980).

Formulation(s): amp. 5 mg (as hydrochloride)

Trade Name(s):

GB: Hyprenan (Astra); wfm

Varbiant (Ciba Labs); wfm

I:

Varbiant (Ciba-Geigy); wfm

Prenylamine

ATC: C01DX02

Use: coronary vasodilator

RN: 390-64-7 MF: $\text{C}_{24}\text{H}_{27}\text{N}$ MW: 329.49 EINECS: 206-869-4

LD_{50} : 250 mg/kg (M, i.v.);

11 mg/kg (R, i.v.); 250 mg/kg (R, p.o.)

CN: N-(1-methyl-2-phenylethyl)- γ -phenylbenzenepropanamine

lactate (1:1)

RN: 69-43-2 MF: $\text{C}_{24}\text{H}_{27}\text{N} \cdot \text{C}_3\text{H}_6\text{O}_3$ MW: 419.57 EINECS: 200-705-5

LD_{50} : 250 mg/kg (M, p.o.);

1 g/kg (R, p.o.);

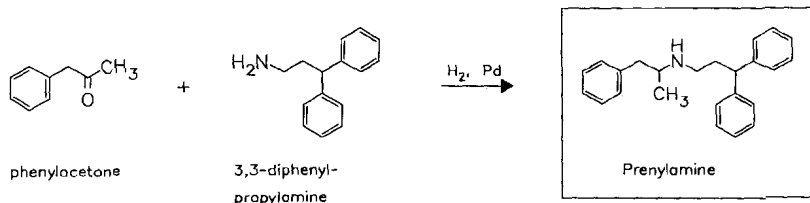
680 mg/kg (dog, p.o.)

gluconate (1:1)

RN: 21156-48-9 MF: $\text{C}_{24}\text{H}_{27}\text{N} \cdot \text{C}_6\text{H}_{12}\text{O}_7$ MW: 525.64

LD_{50} : 14 mg/kg (M, i.v.);

11 mg/kg (R, i.v.)

**Reference(s):**

DE 1 111 642 (Hoechst; appl. 7.5.1958).

DE 1 100 031 (Hoechst; appl. 7.5.1958).

Formulation(s): drg. 15 mg, 30 mg, 60 mg; tabl. 4 mg, 15 mg, 30 mg, 60 mg (as lactate)**Trade Name(s):**

D:	Daxauten (Kettelhacker-Riker); wfm Daxauten (Woelm); wfm Segontin (Albert-Roussel); wfm Segontin (Hoechst); wfm Segontin-Digoxin (Albert-Roussel)-comb.; wfm Segontin-Digoxin (Hoechst)-comb.; wfm	I:	Angiovigor (Violani-Farmavigor); wfm Angorsan (Isola-Ibi); wfm Carditin-Same (Savoma); wfm Eucardion (Vita); wfm Incoran (ITA); wfm Irrorin (Alfa Farm.) Reocorin (Farmochimica Ital.); wfm Segontin (Hoechst); wfm Wasangor (IFI); wfm Wasangor (Wassermann); wfm	J:	Crepasin (Hoei) Epocol (Teisan-Nagase) Herzcon (Sana) Lactamine (Daisan) NP 30 (Sanken) Onlemin (Ono) Prectolact (Showa Yakuhi) Prenylamine Lactate (Towa) Roinin (Mohan) Segontin (Hoechst)
F:	Clémodril (Hoechst)-comb.; wfm Segontine (Hoechst); wfm				
GB:	Synadrin (Hoechst); wfm				

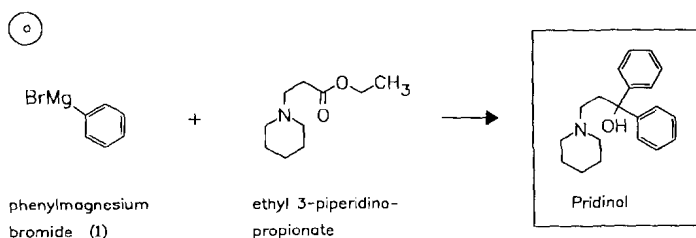
Pridinol

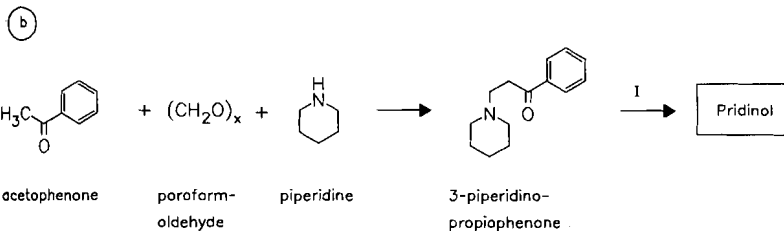
ATC: M03BX03

Use: anticholinergic, antiparkinsonian

RN: 511-45-5 MF: $\text{C}_{20}\text{H}_{25}\text{NO}$ MW: 295.43 EINECS: 208-128-0LD₅₀: 100 mg/kg (M, i.p.); 193 mg/kg (M, s.c.)CN: α, α -diphenyl-1-piperidinepropanol**hydrochloride**RN: 968-58-1 MF: $\text{C}_{20}\text{H}_{25}\text{NO} \cdot \text{HCl}$ MW: 331.89 EINECS: 213-529-9LD₅₀: 25 mg/kg (M, i.v.);

33 mg/kg (R, i.v.)

mesylateRN: 6856-31-1 MF: $\text{C}_{20}\text{H}_{25}\text{NO} \cdot \text{CH}_4\text{O}_3\text{S}$ MW: 391.53 EINECS: 229-953-2

**Reference(s):**

DE 875 660 (Hoechst; appl. 1941).

Formulation(s): amp. 2 mg/ml; drg. 5 mg (as hydrochloride); tabl. 4 mg (as mesylate)**Trade Name(s):**

D:	Lyseen-Hommel (Hommel)	Lyseen (Novartis)	Mitanoline (Toyo Pharmar)
	Parks 12 (Hommel)	J: Hikicenon (Tatsumi)	Trilax (Toyo Seiyaku)
F:	Parks-12 (Laroze); wfm	Konlax (Nippon Shinyaku)	Kasei)
I:	Algolisina (Celsius)-comb.	Loxeen (Maruko-Tobishi)	

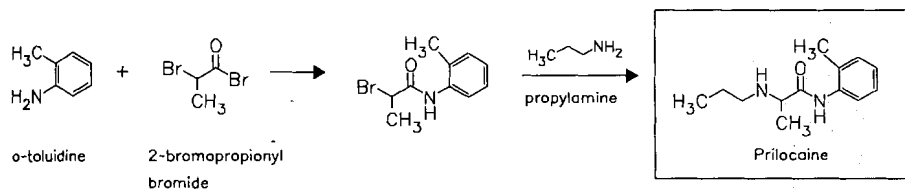
Prilocaine

ATC: N01BB04

Use: local anesthetic

RN: 721-50-6 MF: C₁₃H₂₀N₂O MW: 220.32 EINECS: 211-957-0LD₅₀: 59.9 mg/kg (M, i.v.)CN: *N*-(2-methylphenyl)-2-(propylamino)propanamide**monohydrochloride**RN: 1786-81-8 MF: C₁₃H₂₀N₂O · HCl MW: 256.78 EINECS: 217-244-0LD₅₀: 55 mg/kg (M, i.v.);

56.6 mg/kg (R, i.v.)

**Reference(s):**

GB 839 943 (Astra; appl. 6.6.1958; S-prior. 26.6.1957).

Löfgren, N.; Tegner, C.: Acta Chem. Scand. (ACHSE7) **14**, 486, 490 (1960).**Formulation(s):** cream 25 mg/g in comb. with lidocaine; plaster 25 mg; vial 5 mg/ml, 10 mg/ml, 20 mg/ml, 30 mg/ml**Trade Name(s):**

D:	EMLA Creme (Astra)-comb. with lidocaine	Emlapatch (Astra)	Emla (Astra Farmaceutici)-comb.
	Xylonest (Astra)	GB: Citanest (Astra)	
	Xylonest (Astra)-comb.	EMLA (Astra)-comb.	J: Citanest (Astra-Fujisawa)
F:	Emla (Astra)-comb.	I: Citanest 3 % Octapressin (Astra Farmaceutici)-comb.	USA: Emla (Astra)

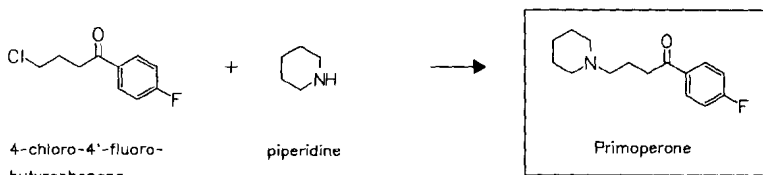
Primaperone

ATC: C01D

Use: vasodilator, antihypertensive

RN: 1219-35-8 MF: C₁₅H₂₀FNO MW: 249.33 EINECS: 214-941-1

CN: 1-(4-fluorophenyl)-4-(1-piperidyl)-1-butanone

hydrochlorideRN: 15847-48-0 MF: C₁₅H₂₀FNO · HCl MW: 285.79**Reference(s):**

FR 1 301 863 (Science Union; appl. 29.6.1961).

FR 1 459 M (Science Union; appl. 18.8.1961; prior. 29.6.1961).

Trade Name(s):F: Diviator (Servier)-comb;
wfm**Primaquine**

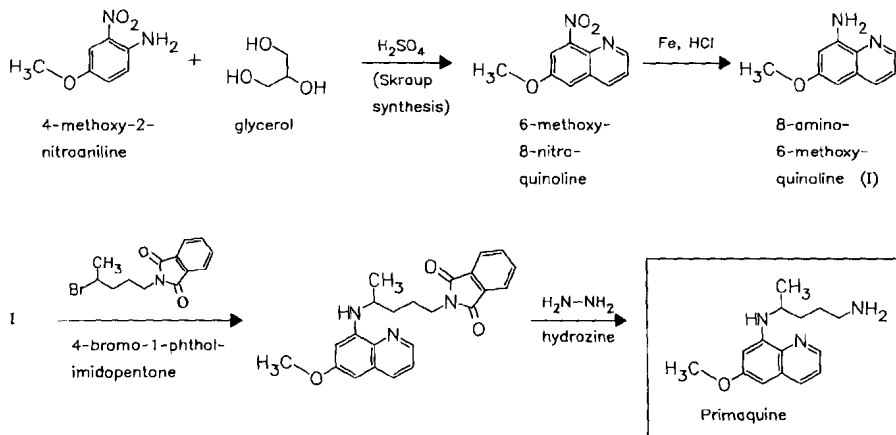
(Primachin)

ATC: P01BA03

Use: antimalarial

RN: 90-34-6 MF: C₁₅H₂₁N₃O MW: 259.35 EINECS: 201-987-2LD₅₀: 15.9 mg/kg (M, i.v.); 100 mg/kg (M, p.o.)CN: N⁴-(6-methoxy-8-quinoliny)-1,4-pentanediamine**phosphate (1:2)**RN: 63-45-6 MF: C₁₅H₂₁N₃O · 2H₃O₄P MW: 455.34 EINECS: 200-560-8LD₅₀: 68 mg/kg (M, p.o.);

177 mg/kg (R, p.o.)



Reference(s):

Elderfield, R.C. et al.: J. Am. Chem. Soc. (JACSAT) **68**, 1524 (1946).
 Elderfield, R.C. et al.: J. Am. Chem. Soc. (JACSAT) **77**, 4816 (1955).

Formulation(s): tabl. 15 mg

Trade Name(s):

D:	Primaquine Bayer (Bayer); wfm	GB:	Primaquine Phosphate (ICI); wfm	USA:	Primaquine Phosphate (Sanofi); wfm
		I:	Primachina fosfato (IFI)		

Primidone

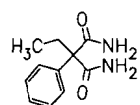
(Primaclone)

ATC: N03AA03

Use: antiepileptic, anticonvulsant

RN: 125-33-7 MF: C₁₂H₁₄N₂O₂ MW: 218.26 EINECS: 204-737-0LD₅₀: 280 mg/kg (M, p.o.);

1500 mg/kg (R, p.o.)

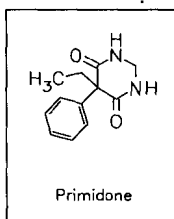
CN: 5-ethylidihydro-5-phenyl-4,6(1*H*,5*H*)-pyrimidinedioneethylphenyl-
malondiamide

+



formamide

→



Primidone

Reference(s):

US 2 578 847 (ICI; 1951; GB-prior. 1949).
 DE 843 413 (ICI; appl. 1950; GB-prior. 1949).

Formulation(s): susp. 250 mg/5 ml; syrup 125 mg/5 ml; tabl. 250 mg

Trade Name(s):

D:	Liskatin (Desitin)	F:	Mysoline (Zeneca)	J:	Mysoline (Dainippon; Marupi)
	Mylepsinum (Zeneca)	GB:	Mysoline (Zeneca)		Primron (Fujinaga)
	Resimatil (Sanofi)	I:	Mysoline (SIT)	USA:	Mysoline (Wyeth-Ayerst)
	Winthrop)				

Probenecid

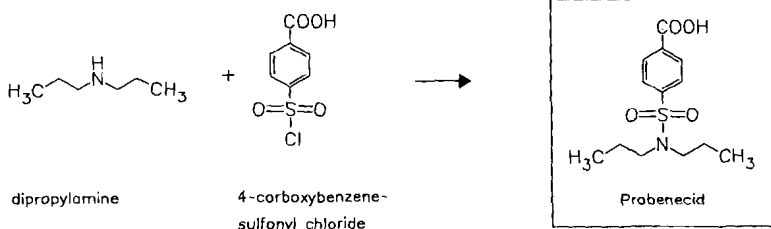
ATC: M04AB01

Use: uricosuric agent

RN: 57-66-9 MF: C₁₃H₁₉NO₄S MW: 285.36 EINECS: 200-344-3LD₅₀: 1666 mg/kg (M, p.o.);

1600 mg/kg (R, p.o.)

CN: 4-[(dipropylamino)sulfonyl]benzoic acid

**Reference(s):**

US 2 608 507 (Sharp & Dohme; 1952; prior. 1949).

Formulation(s): tabl. 500 mg**Trade Name(s):**

D:	Probenecid (Weimer)	Colbenemid (Merck Sharp & Dohme)-comb.; wfm	USA:	Benemid (Merck Sharp & Dohme)
F:	Bénémid (ThérapiX); wfm	I: Probenecid (IFI)		ColBENEMID (Merck Sharp & Dohme)-comb. with colchidine
	Prototapen (Bristol)-comb.; wfm	J: Benecid (Kaken)		
GB:	Benemid (Merck Sharp & Dohme)	Probenemid (Merck-Banyu)		

Probulcol

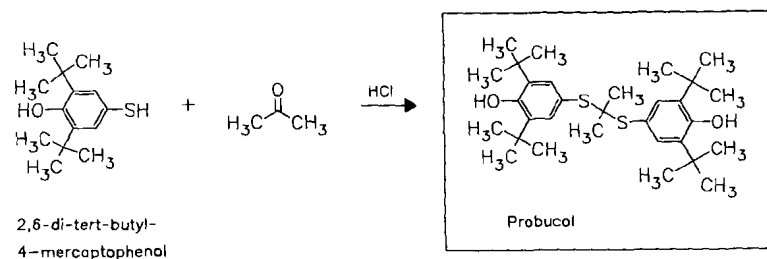
ATC: C10AX02

Use: antiarteriosclerotic (cholesterol depressant and antihyperlipidemic)

RN: 23288-49-5 MF: C₃₁H₄₈O₂S₂ MW: 516.86 EINECS: 245-560-9LD₅₀: >5 g/kg (M, p.o.);

>5 g/kg (R, p.o.)

CN: 4,4'-[(1-methylethylidene)bis(thio)]bis[2,6-bis(1,1-dimethylethyl)phenol]

**Reference(s):**

US 3 576 883 (Consol. Coal; 27.4.1971; prior. 3.6.1969).

US 3 862 332 (Dow; 21.1.1975; prior. 11.5.1967, 19.11.1969).

DE 1 767 443 (Dow; appl. 10.5.1968; USA-prior. 11.5.1967).

DE 1 768 334 (Consol. Coal; prior. 2.5.1968).

starting material:

US 3 129 262 (Consolidation Coal Comp.; 14.4.1964; appl. 8.10.1962).

Formulation(s): tabl. 250 mg, 500 mg

Trade Name(s):

D:	Lorelco (Dow); wfm Lurselle (Merrell; 1982); wfm	GB:	Lurselle (Merrell Dow); wfm	J:	Shinlestal (Dow Chemical- Daiichi)
F:	Lurselle (Lepetit); wfm	I:	Lurselle (Lepetit); wfm	USA:	Lorelco (Dow; 1977); wfm

Procainamide

ATC: C01BA02
Use: antiarrhythmic

RN: 51-06-9 MF: C₁₃H₂₁N₃O MW: 235.33 EINECS: 200-078-8

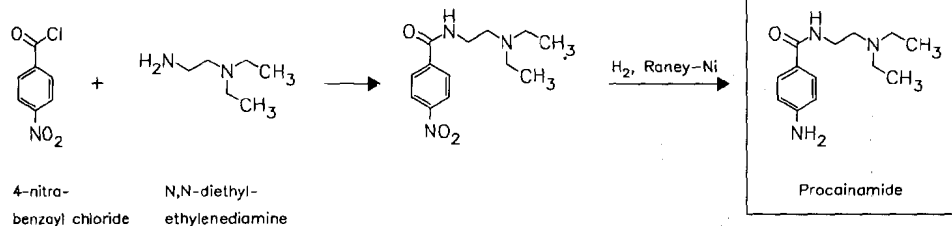
LD₅₀: 49 mg/kg (M, i.v.); 525 mg/kg (M, p.o.);
110 mg/kg (R, i.v.); 1950 mg/kg (R, p.o.)

CN: 4-amino-*N*-[2-(diethylamino)ethyl]benzamide

monohydrochloride

RN: 614-39-1 MF: C₁₃H₂₁N₃O · HCl MW: 271.79 EINECS: 210-381-7

LD₅₀: 94.64 mg/kg (M, i.v.); 1.11 g/kg (M, p.o.);
95 mg/kg (R, i.v.); >2 g/kg (R, p.o.)

**Reference(s):**

Ehrhart-Ruschig II, 38.

Baltzy, R. et al.: J. Am. Chem. Soc. (JACSAT) **64**, 2231 (1942).

Yamazaki, M.Y. et al.: Yakugaku Zasshi (YKKZAJ) **73**, 294 (1953).

Formulation(s): s. r. tabl. 500 mg, 1000 mg (as hydrochloride)

Trade Name(s):

D:	Procainamid Duriles (Astra)	GB:	Procainamide Durules (Astra); wfm	I:	Procainamide (Salf; Sifra) Procamide (Zambon Italia)
F:	Pronestyl (Squibb); wfm	I:	Pronestyl (Bristol-Myers Squibb)	J:	Amisalin (Daiichi)
				USA:	Procanbid (Parke Davis)

Procaine

ATC: C05AD05; N01BA02; S01HA05
Use: local anesthetic, analgesic, geriatric

RN: 59-46-1 MF: C₁₃H₂₀N₂O₂ MW: 236.32 EINECS: 200-426-9

LD₅₀: 45 mg/kg (M, i.v.); 350 mg/kg (M, p.o.);
42 mg/kg (R, i.v.)

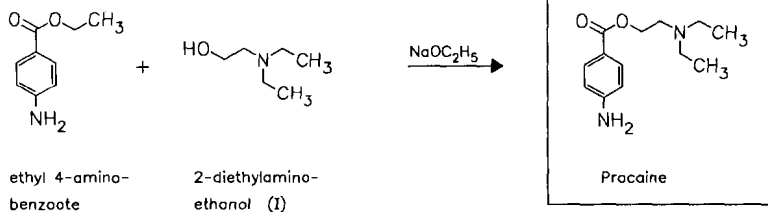
CN: 4-aminobenzoic acid 2-(diethylamino)ethyl ester

monohydrochloride

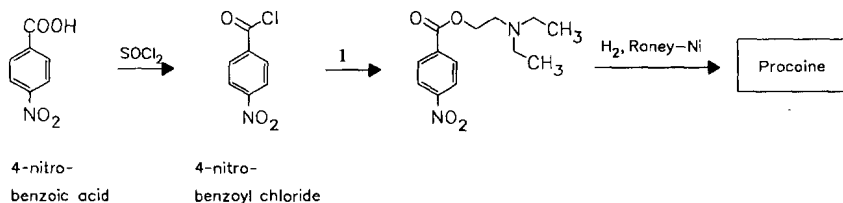
RN: 51-05-8 MF: C₁₃H₂₀N₂O₂ · HCl MW: 272.78 EINECS: 200-077-2

LD₅₀: 33 mg/kg (M, i.v.); 175 mg/kg (M, p.o.);
38 mg/kg (R, i.v.); 200 mg/kg (R, p.o.);
63 mg/kg (dog, i.v.)

(a)



(b)

*Reference(s):*Eichhorn, A.; Uhlfelder, E.: Justus Liebigs Ann. Chem. (JLACBF) **371**, 125, 131, 142, 162 (1909).

DRP 179 627 (Farbwerke Hoechst; appl. 1904).

DRP 180 291 (Farbwerke Hoechst; appl. 1905).

DRP 194 748 (Farbwerke Hoechst; appl. 1905).

salt with phenylbutazone (anti-inflammatory):

DAS 2 055 853 (Dr. Voigt; appl. 13.11.1970).

Formulation(s): amp. 5 mg/ml, 10 mg/ml, 20 mg/ml, 40 mg/2 ml, 100 mg/5 ml (as hydrochloride)*Trade Name(s):*

D: Causat (Sanofi Winthrop)-comb.
 Dodecatol (Heyl)-comb.
 Impletol (Bayer Vital)-comb.
 K.H. 3 Geriatricum
 Schwarzhaupt
 (Schwarzhaupt)-comb.
 Lophakomp-Procain
 (Lomapharm)
 Ney Chondrin (vitOrgan)
 Novocain (Hoechst)
 Pasconeural-Injektapas
 (Pascoe)-comb.
 Procain (curasan;
 Jenapharm)
 Röwo Procain (Pharmakon)

generics and circa 100
 combination preparations
 F: Antiseptique Calmante
 (Chauvin)-comb.
 Otylol (Bridoux)-comb.
 Procaine Aguetant
 (Aguettant)
 Procaine Lavoisier (Chaix
 et du Marais)
 numerous combination
 preparations
 GB: Bicillin (Yamanouchi)-
 comb.
 I: Citroftalmina /-V.C. (SIFI)-
 comb.
 Dentosedina (Teofarma)-
 comb.
 Lenident (Zeta)

Mios (Intes)-comb.
 Neuroftal Fiale (Alfa
 Intes)-comb.
 Oftalzina (SIT)-comb.
 Otagan Berna (Berna)-
 comb.
 Otomidone (SIT)-comb.
 Rinantipiol (Ottolenghi)-
 comb.
 J: Bancain (Banyu)
 Omnicain (Daiichi)
 USA: Adrocaine (Parke Davis);
 wfm
 Novocain (Winthrop); wfm
 Procaine Hydrochloride
 (Abbott); wfm
 Procaine Hydrochloride
 (Elkins-Sinn); wfm

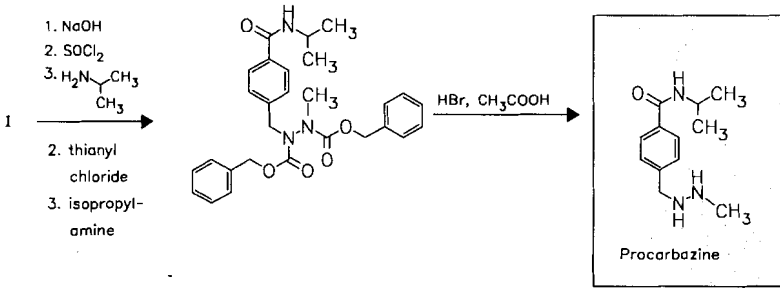
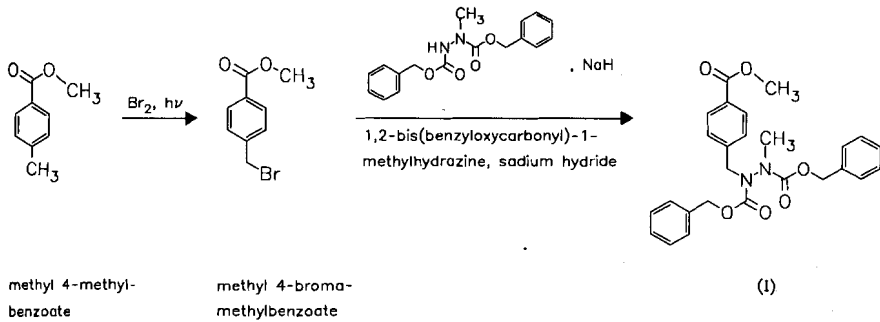
Procabazine

ATC: L01XB01
Use: antineoplastic

RN: 671-16-9 MF: C₁₂H₁₉N₃O MW: 221.30 EINECS: 211-582-2
LD₅₀: 614 mg/kg (M, i.p.);
>400 mg/kg (R, i.p.); 350 mg/kg (R, route unreported)
CN: *N*-(1-methylethyl)-4-[(2-methylhydrazino)methyl]benzamide

monohydrochloride

RN: 366-70-1 MF: C₁₂H₁₉N₃O · HCl MW: 257.77 EINECS: 206-678-6
LD₅₀: 540 mg/kg (M, i.v.); 560 mg/kg (M, p.o.);
350 mg/kg (R, i.v.); 570 mg/kg (R, p.o.)



Reference(s):

US 3 520 926 (Roche; 21.7.1970; CH-prior. 9.6.1961).
GB 968 460 (Roche; appl. 7.6.1962; CH-prior. 9.6.1961).
Zeller, P. et al.: *Experientia (EXPEAM)* **19**, 129 (1963).

Formulation(s): cps. 50 mg; inj. sol. 250 mg/5 ml; syrup 3030 mg (as hydrochloride)

Trade Name(s):

D:	Natulan (Roche)	GB:	Natulan (Roche); wfm	J:	Natulan (Roche)
F:	Natulan (Roche)	I:	Natulan (Roche)	USA:	Matulane (Roche)

Procaterol

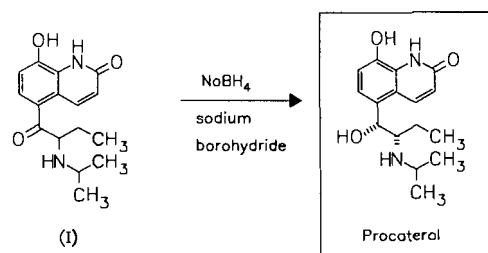
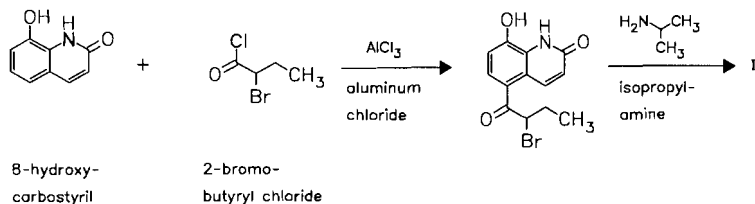
ATC: R03AC16; R03CC08
Use: bronchodilator

RN: 72332-33-3 MF: C₁₆H₂₂N₂O₃ MW: 290.36 EINECS: 276-590-0
LD₅₀: 320 mg/kg (M, i.p.)
CN: (*R**,*S**)-8-hydroxy-5-[1-hydroxy-2-[(1-methylethyl)amino]butyl]-2(1*H*)-quinolinone

monohydrochlorideRN: 62929-91-3 MF: C₁₆H₂₂N₂O₃ · HCl MW: 326.82 EINECS: 263-763-0LD₅₀: 70.3 mg/kg (M, i.v.); 3.2 g/kg (M, p.o.);

80 mg/kg (R, i.v.); 2.6 g/kg (R, p.o.);

100 mg/kg (dog, i.v.); >5 g/kg (dog, p.o.)

**Reference(s):**

DE 2 461 596 (Otsuka; appl. 27.11.1975; prior. 27.12.1974).

US 4 026 897 (Otsuka; 10.5.1977; prior. 26.12.1974).

BE 833 841 (Otsuka; appl. 16.4.1975; J-prior. 4.12.1974).

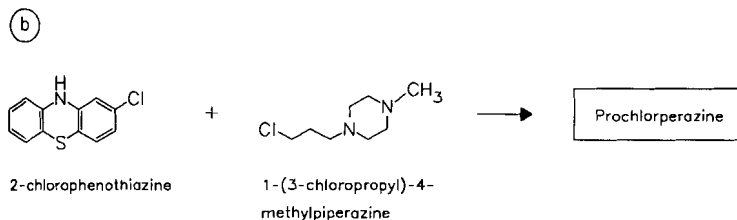
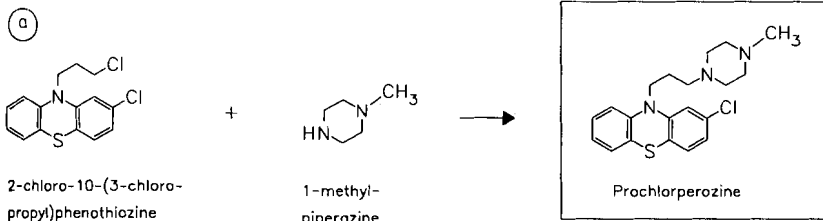
Yoshizaki, S. et al.: J. Med. Chem. (JMCMAR) **19**, 1138 (1976).Yoshizaki, S. et al.: Chem. Pharm. Bull. (CPBTAL) **28**, 3441 (1980).**Formulation(s):** aerosol 0.01 mg; syrup 0.025 mg; tabl. 0.05 mg, 0.1 mg (as hydrochloride)**Trade Name(s):**

D: Onskil (Grünenthal; 1984); wfm

I: Procadil (Recordati)
Propulm (Istoria)J: Meptin (Otsuka; 1980)
Mucodin (Kyorin)**Prochlorperazine**ATC: N05AB04
Use: anti-emeticRN: 58-38-8 MF: C₂₀H₂₄ClN₃S MW: 373.95 EINECS: 200-379-4LD₅₀: 85 mg/kg (M, i.v.); 400 mg/kg (M, p.o.);
>20 mg/kg (R, i.v.); 1800 mg/kg (R, p.o.)

CN: 2-chloro-10-[3-(4-methyl-1-piperazinyl)propyl]-10H-phenothiazine

maleate (1:2)RN: 84-02-6 MF: C₂₀H₂₄ClN₃S · 2C₄H₄O₄ MW: 606.10 EINECS: 201-511-3LD₅₀: 85 mg/kg (M, i.v.);
750 mg/kg (R, p.o.)**dimesylate**RN: 51888-09-6 MF: C₂₀H₂₄ClN₃S · 2CH₃O₃S MW: 566.16 EINECS: 257-495-3

**Reference(s):**

US 2 902 484 (Rhône-Poulenc; 1.9.1959; GB-prior. 1954).
 DE 1 037 461 (Rhône-Poulenc; appl. 1955; GB-prior. 1954).

Formulation(s): cps. 10 mg, 15 mg; drg. 5 mg, 10 mg; suppos. 2 mg, 5 mg, 25 mg; vial 5 mg/5 ml, 10 mg/2 ml, 50 mg/10 ml

Trade Name(s):

F: Témertil (Specia); wfm	I: Stemetil (Rhône-Poulenc)	USA: Compazine (SmithKline Beecham)
GB: Buccastem (Reckitt & Colman)	J: Nibromin A (Maruko)	
Stemetil (Rhône-Poulenc)	Novamin (Shionogi)	
Rorer	Pasotomin (Yoshitomi)	

Procyclidine

ATC: N04AA04
 Use: antiparkinsonian

RN: 77-37-2 MF: C₁₉H₂₉NO MW: 287.45 EINECS: 201-023-0

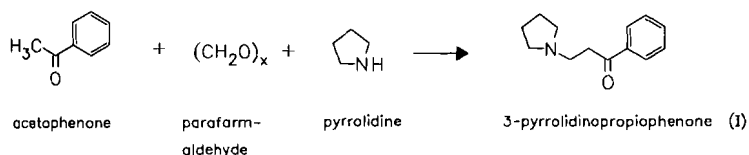
LD₅₀: 60 mg/kg (M, i.v.)

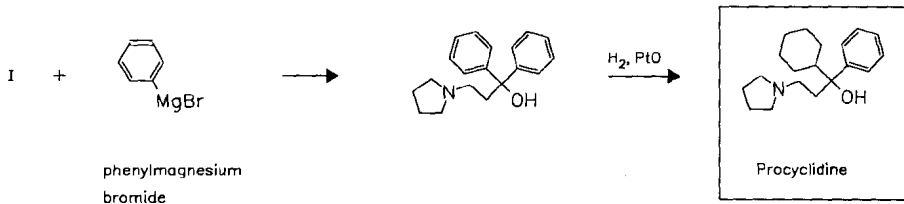
CN: α-cyclohexyl-α-phenyl-1-pyrrolidinepropanol

hydrochloride

RN: 1508-76-5 MF: C₁₉H₂₉NO · HCl MW: 323.91 EINECS: 216-141-8

LD₅₀: 55 mg/kg (M, i.v.)



**Reference(s):**

US 2 682 543 (Burroughs Wellcome; 1954; prior. 1951).
 US 2 891 890 (Burroughs Wellcome; 1959; prior. 1952).

alternative syntheses:

US 2 826 590 (Lilly; 1958; appl. 1954).
 US 2 842 555 (Burroughs Wellcome; 1958; appl. 1954).

Formulation(s): tabl. 5 mg (as hydrochloride)

Trade Name(s):

D:	Osnervan (Glaxo Wellcome)	Kemadrin (Glaxo Wellcome)	USA: Kemadrin (Glaxo Wellcome)
F:	Kémadrine (Wellcome); wfm	I: Kemadrin (Glaxo Wellcome)	
GB:	Arpicolin (Rosemont)	J: Kemadrin (Chugai)	

Profenamine

(Ethopropazine)

ATC: N04AA05

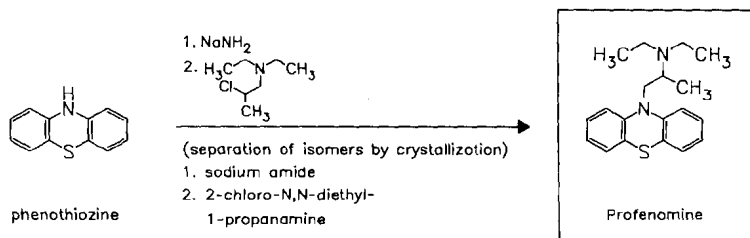
Use: neuroleptic, antiparkinsonian

RN: 522-00-9 MF: $\text{C}_{19}\text{H}_{24}\text{N}_2\text{S}$ MW: 312.48 EINECS: 208-320-4

LD₅₀: 50 mg/kg (M, i.v.); 300 mg/kg (M, p.o.);
 15 mg/kg (R, i.v.)

CN: *N,N*-diethyl- α -methyl-10*H*-phenothiazine-10-ethanamine**monohydrochloride**RN: 1094-08-2 MF: $\text{C}_{19}\text{H}_{24}\text{N}_2\text{S} \cdot \text{HCl}$ MW: 348.94 EINECS: 214-134-4

LD₅₀: 32 mg/kg (M, i.v.); 650 mg/kg (M, p.o.);
 1700 mg/kg (R, p.o.)

**Reference(s):**

US 2 526 118 (Rhône-Poulenc; 1950; F-prior. 1948).
 US 2 607 773 (Rhône-Poulenc; 1952; GB-prior. 1949).

Formulation(s): powder 10 %; tabl. 10 mg, 50 mg (as hydrochloride)

Trade Name(s):

F:	Parsidol (Sevenet); wfm	J:	Parkin (Yoshitomi-Takeda)	Parsidol (Warner Chilcott);
GB:	Lysivane (May & Baker); wfm	USA:	Parsidol (Parke Davis); wfm	

Progabide

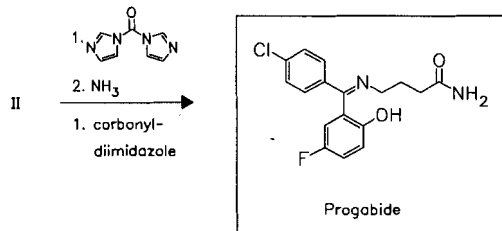
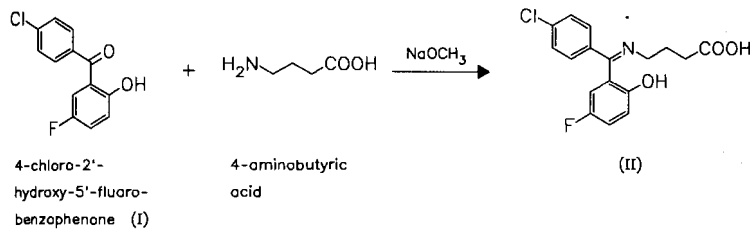
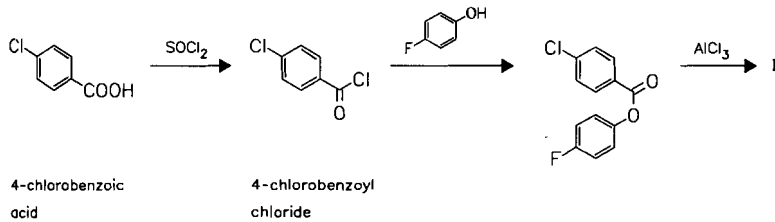
ATC: N03AG05
Use: anticonvulsant

RN: 62666-20-0 MF: C₁₇H₁₆ClFN₂O₂ MW: 334.78 EINECS: 263-679-4

LD₅₀: 1350 mg/kg (M, p.o.);

1350 mg/kg (R, p.o.)

CN: 4-[[[(4-chlorophenyl)(5-fluoro-2-hydroxyphenyl)methylene]amino]butanamide



Reference(s):

US 4 094 992 (Synthelabo; 13.6.1978; F-prior. 1.8.1975).
 DOS 2 634 288 (Synthelabo; appl. 30.7.1976; F-prior. 1.8.1975).
 DOS 2 830 034 (Synthelabo; appl. 7.7.1978; F-prior. 12.7.1977).
 FR 2 319 338 (Synthelabo; appl. 1.8.1975).
 GB 1 506 808 (Synthelabo; appl. 30.6.1976; F-prior. 1.8.1975).

Formulation(s): powder 150 mg; tabl. 300 mg, 600 mg

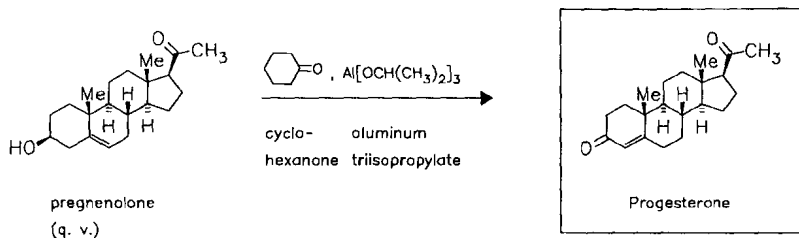
Trade Name(s):

F: Gabrène (Synthélabo)

ATC: G03DA04
Use: progestogen

Progesterone

RN: 57-83-0 MF: C₂₁H₃₀O₂ MW: 314.47 EINECS: 200-350-6
CN: pregn-4-ene-3,20-dione

*Reference(s):*

US 2 379 832 (Schering Corp.; 1945; D-prior. 1936).
Oppenauer, R.: Recl. Trav. Chim. Pays-Bas Belg. (RTCPB4) **56**, 137 (1937).

alternative syntheses:

US 2 232 438 (Schering Corp.; 1941; D-prior. 1934).
US 2 420 489 (Parke Davis; 1947; prior. 1941).
Heyl, F.W.; Herr, U.E.: J. Am. Chem. Soc. (JACSAT) **72**, 2617 (1950).
Slomp, G.; Johnson, J.L.: J. Am. Chem. Soc. (JACSAT) **80**, 915 (1953).
Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. **8**, 660, and patents cited there.
Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. **13**, 29.

Formulation(s): amp. 20 mg in comb. with estradiolbenzoate; cps. 100 mg; gel 1 %, 4 %, 8 %

Trade Name(s):

D:	Crinone (Wyeth)	Utrogestan (Besins-Iscovesco)	Lutes (Mochida)-comb.
	Jephagynon (Jenapharm)		Luteum Depot (Teikoku Zoki)-comb.
	Progestogel (Kade)	GB:	Zoki)-comb.
	Utrogest (Kade)	Crinone (Wyeth)	Oophormin Luteum (Teikoku Zoki)
F:	Progestasert (Théraplif)	Cyclogest (Shire)	Prodiol (Santen-Yamanouchi)-comb.
	Progestogel (Besins-Iscovesco)	Gestone (Ferring)	Progehormon (Mochida)
	Progestosol (Besins-Iscovesco)	I:	Progenin (Santen-Yamanouchi)
	Synergion (Lipha Santé)-comb.	Biormon (Amsa)-comb.	Proluton (Nihon Schering)
	Tocogestan (Théramex)-comb.	Esolut (Angelini)	
	Trophigil (Sanofi Winthrop)-comb.	Menovis (Teofarma)-comb.	USA: Crinone (Wyeth-Ayerst)
		Progestogel (Lusofarmaco)	
		Progestol (Synthelabo)	
		Prontagest (Amsa)	
		J:	
		Duogynon (Nihon Schering)-comb.	
		Estormon (Hokuriku)-comb.	

Proglumetacin

ATC: M01AB14
Use: anti-inflammatory

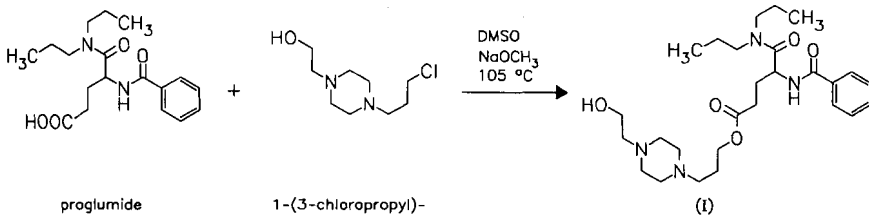
RN: 57132-53-3 MF: C₄₆H₅₈ClN₅O₈ MW: 844.45
CN: (±)-1-(4-chlorobenzoyl)-5-methoxy-2-methyl-1H-indole-3-acetic acid 2-[4-[3-[[4-(benzoylamino)-5-(dipropylamino)-1,5-dioxopentyl]oxy]propyl]-1-piperazinyl]ethyl ester

dihydrochloride

RN: 59209-41-5 MF: C₄₆H₅₈ClN₅O₈ · 2HCl MW: 917.37

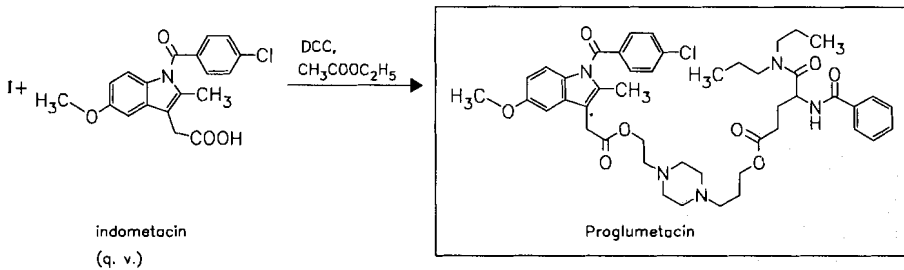
maleate (1:2)

RN: 59209-40-4 MF: C₄₆H₅₈ClN₅O₈ · 2C₄H₄O₄ MW: 1076.59 EINECS: 261-656-3



proglumide
(q. v.)

1-(3-chloropropyl)-
4-(2-hydroxyethyl)-
piperazine
(from 1-(2-hydroxy-
ethyl)piperazine
and 1-bromo-3-
chloropropane)



indometacin
(q. v.)

Proglumetacin

Reference(s):

DOS 2 535 799 (Rotta Research Lab.; appl. 11.8.1975; I-prior. 12.8.1974).
US 3 985 878 (Rotta Research Lab.; 12.10.1976; I-prior. 12.8.1974).

Formulation(s): f. c. tabl. 300 mg; cps. 150 mg (as dimaleate)

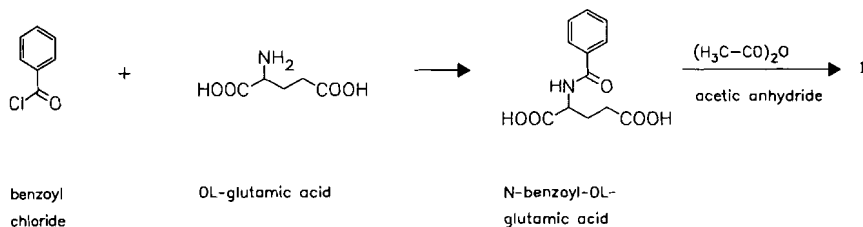
Trade Name(s):

D: Protaxon (Opfermann)	Proxil (Rottapharm)	J: Miridacin (Taiho; as maleate)
I: Afloxan (Rotta Research)		

Proglumide

ATC: A02BX06
Use: peptic ulcer therapeutic

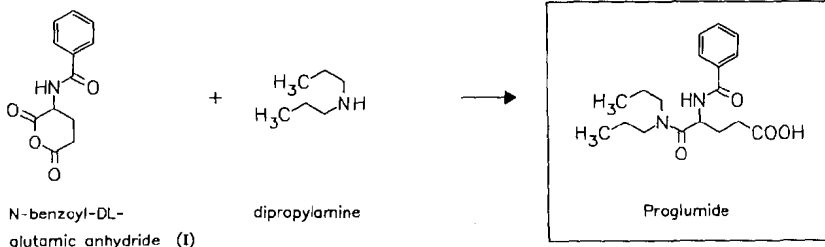
RN: 6620-60-6 MF: C₁₈H₂₆N₂O₄ MW: 334.42 EINECS: 229-567-4
LD₅₀: 2250 mg/kg (M, i.v.); 8070 mg/kg (M, p.o.);
20 g/kg (R, p.o.)
CN: (±)-4-(benzoylamino)-5-(dipropylamino)-5-oxopentanoic acid



benzoyl
chloride

OL-glutamic acid

N-benzoyl-OL-
glutamic acid

**Reference(s):**

ZA 65/4 065 (Rotta Research; appl. 16.7.1965; I-prior. 31.7.1964).
 DAS 1 518 125 (Rotta Research; appl. 30.7.1965; I-prior. 31.7.1964).

Formulation(s): amp. 400 mg/5 ml; f. c. tabl. 400 mg; tabl. 200 mg, 400 mg

Trade Name(s):

D:	Milid (Opfermann)	F:	Milide (Fournier Frères);	I:	Milid (Rottapharm)
	Promid (Opfermann); wfm		wfm	J:	Promid (Kaken)

Proguanil

(Chlorguanide; Chloriguane; Chloroguanide)

ATC: P01BB01

Use: antimalarial

RN: 500-92-5 MF: C₁₁H₁₆ClN₅ MW: 253.74 EINECS: 207-915-6

LD₅₀: 22 mg/kg (M, i.v.)

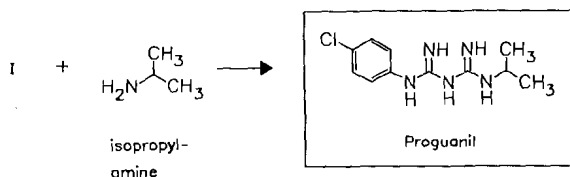
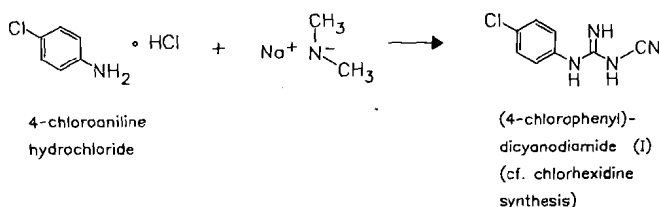
CN: N-(4-chlorophenyl)-N'-(1-methylethyl)imidodicarbonimidic diamide

monohydrochloride

RN: 637-32-1 MF: C₁₁H₁₆ClN₅·HCl MW: 290.20 EINECS: 211-283-7

LD₅₀: 23 mg/kg (M, i.v.); 27 mg/kg (M, p.o.);

33 mg/kg (R, i.v.); 58 mg/kg (R, p.o.)

**Reference(s):**

Curd, F.H.S.; Rose, F.L.: J. Chem. Soc. (JCSOA9) **1946**, 729.
 FR 1 001 548 (Rhône-Poulenc; appl. 1946).

Formulation(s): tabl. 100 mg (as hydrochloride)

Trade Name(s):

D:	Malarone (Glaxo Wellcome)	Savarine (Zeneca)-comb.	I:	Paludrine (Zeneca)
GB:	Paludrine (Zeneca)	Malarone (Glaxo Wellcome)-comb.		
F:	Paludrine (Zeneca)	Paludrine (Zeneca)		

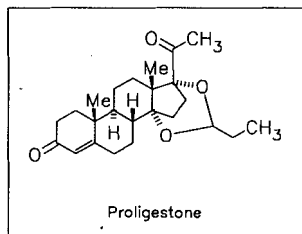
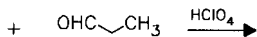
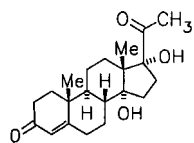
Proligestone

ATC: G03DB

Use: progestogen

RN: 23873-85-0 MF: C₂₄H₃₄O₄ MW: 386.53 EINECS: 245-922-6

CN: 14,17-[propylidenebis(oxy)]pregn-4-ene-3,20-dione



14,17-dihydroxy-
progesterone
(from Reichstein S)

propionaldehyde

Proligestone

Reference(s):

Sijde, D. van der et al.: J. Med. Chem. (JMCMAR) 15, 909 (1972).

ZA 681 592 (Koninkl. Nederl. Gist & Spiritusfabriek; appl. 22.2.1968; NL-prior. 13.3.1967).

starting material:

Cooley, G. et al.: Tetrahedron Suppl. (TETSAE) 7, 325 (1966).

Formulation(s): vial 100 mg/ml*Trade Name(s):*

GB: Delvosteron (Mycofarm);
wfm

Prolintane

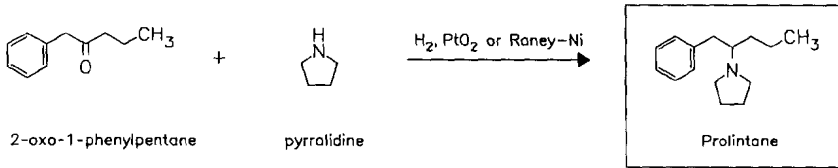
ATC: N06BX14

Use: analeptic, central stimulant,
depressantRN: 493-92-5 MF: C₁₅H₂₃N MW: 217.36 EINECS: 207-784-5LD₅₀: 157 mg/kg (R, p.o.)

CN: 1-[1-(phenylmethyl)butyl]pyrrolidine

hydrochlorideRN: 1211-28-5 MF: C₁₅H₂₃N · HCl MW: 253.82 EINECS: 214-917-0LD₅₀: 25 mg/kg (M, i.v.); 230 mg/kg (M, p.o.);

40 mg/kg (R, i.v.); 278 mg/kg (R, p.o.)

**Reference(s):**

DE 1 088 962 (Thomae; appl. 1956).

DE 1 093 799 (Thomae; appl. 1957; addition to DE 1 088 962).

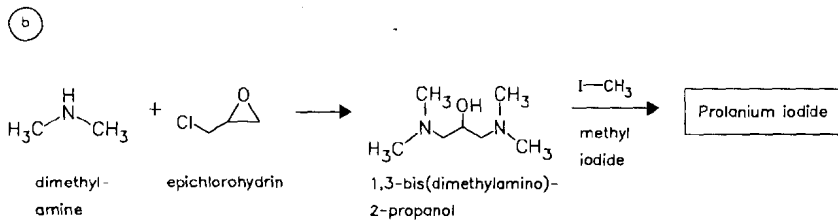
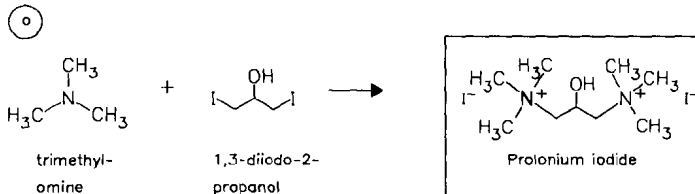
Formulation(s): drg. 10 mg**Trade Name(s):**

D:	Katovit (Thomae)-comb.; wfm	Promotil (Boehringer Ing.); wfm	I:	Villescon-Fher (Boehringer Ing.); wfm
F:	Promotil (Badrial); wfm	GB:	Villescon (Boehringer Ing.)-comb.; wfm	

Prolonium iodide

ATC: H03CA

Use: thyroid therapeutic

RN: 123-47-7 MF: C₉H₂₄I₂N₂O MW: 430.11 EINECS: 204-630-9CN: 2-hydroxy-*N,N,N,N,N,N*-hexamethyl-1,3-propanediaminium diiodide**Reference(s):**

US 1 526 627 (Bayer; 1925; prior. 1924).

Formulation(s): amp. 400 mg/2 ml; drg. 25 mg, 50 mg, 100 mg; drops 20 mg/ml; susp. 50 mg/5 ml; vial 50 mg/ml**Trade Name(s):**

D:	Endojodin (Bayer); wfm	Jodopropano (Farmochimica Ital.); wfm	Trijodina (Lafare); wfm
I:	Endojodo (Cozzolino); wfm	Neiodorsolo os (Baldacci)-comb.; wfm	USA: Entodon (Winthrop); wfm
	Intrajodina (Gentili); wfm		

Promazine

ATC: N05AA03
 Use: neuroleptic, anti-emetic,
 antipsychotic

RN: 58-40-2 MF: $C_{17}H_{20}N_2S$ MW: 284.43 EINECS: 200-382-0

LD₅₀: 45 mg/kg (M, i.v.); 401 mg/kg (M, p.o.);
 14.5 mg/kg (R, i.v.); 350 mg/kg (R, p.o.)

CN: *N,N*-dimethyl-10*H*-phenothiazine-10-propanamine

monohydrochloride

RN: 53-60-1 MF: $C_{17}H_{20}N_2S \cdot HCl$ MW: 320.89 EINECS: 200-179-7

LD₅₀: 38 mg/kg (M, i.v.);
 29 mg/kg (R, i.v.); 400 mg/kg (R, p.o.)

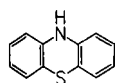
maleate (2:1)

RN: 4701-69-3 MF: $C_{17}H_{20}N_2S \cdot 1/2C_4H_4O_4$ MW: 684.93

phosphate

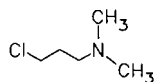
RN: 1508-27-6 MF: $C_{17}H_{20}N_2S \cdot xH_3O_4P$ MW: unspecified

LD₅₀: 60 mg/kg (M, i.v.);
 350 mg/kg (R, p.o.)

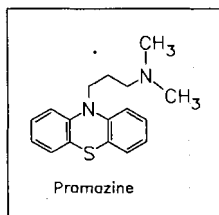


phenothiazine

+



3-dimethylamino-
propyl chloride



Promazine

Reference(s):

US 2 519 886 (Rhône-Poulenc; 1950; F-prior. 1945).
 DE 824 944 (Rhône-Poulenc; appl. 1950; F-prior. 1945).
 Wirth, W.: *Arzneim.-Forsch. (ARZNAD)* **8**, 507 (1958).

Formulation(s): amp. 20 mg/ml, 50 mg/1 ml, 100 mg/2 ml; drg. 25 mg, 50 mg, 100 mg; f. c. tabl. 25 mg; susp. 50 mg/ml (as hydrochloride)

Trade Name(s):

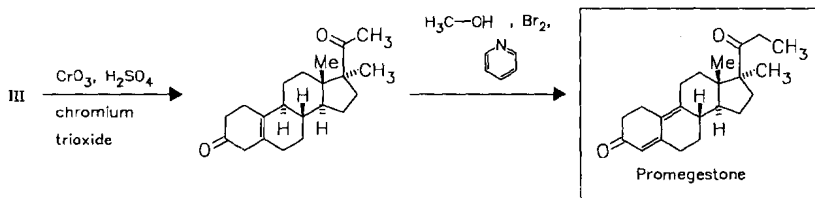
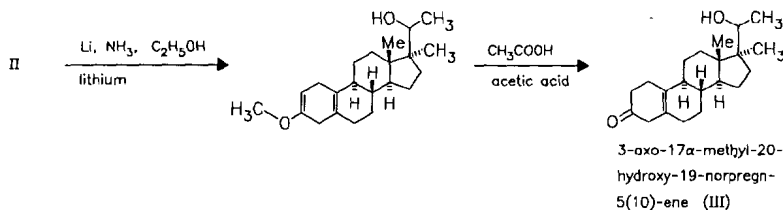
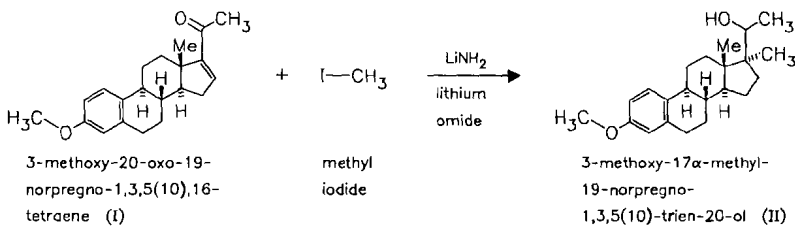
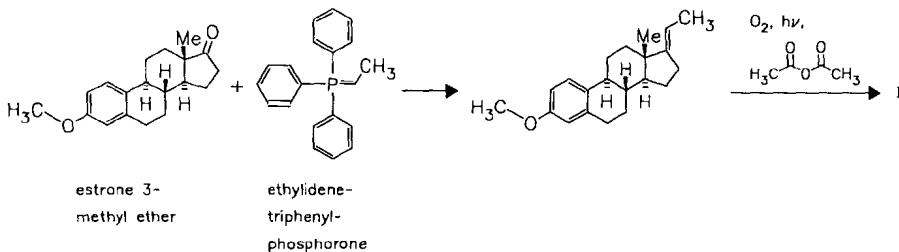
D: Protactyl (Wyeth)	GB: Sparine (Wyeth)	J: Savamine (Banyu)
Sinophenin (Rodleben)	I: Talofen (Fournier Pierrel)	USA: Sparine (Wyeth); wfm

Promegestone

ATC: G03DB07
 Use: progestogen

RN: 34184-77-5 MF: $C_{22}H_{30}O_2$ MW: 326.48

CN: (17β)-17-methyl-17-(1-oxopropyl)estra-4,9-dien-3-one

**Reference(s):**

- DOS 2 107 835 (Roussel-Uclaf; appl. 18.2.1971; F-prior. 20.2.1970).
 US 3 679 714 (Roussel-Uclaf; 25.7.1972; F-prior. 20.2.1970).
 US 3 761 591 (Roussel-Uclaf; 25.9.1973; F-prior. 20.2.1970).

synthesis of 3-methoxy-20-oxo-19-norpregna-1,3,5(10),16-tetraene:

- Krubiner, A.M.; Oliveto, E.P.: J. Org. Chem. (JOCEAH) **31**, 24 (1966).
 Krubiner, A.M. et al.: J. Org. Chem. (JOCEAH) **34**, 3502 (1969).

Formulation(s): tabl. 0.125 mg, 0.25 mg, 0.5 mg

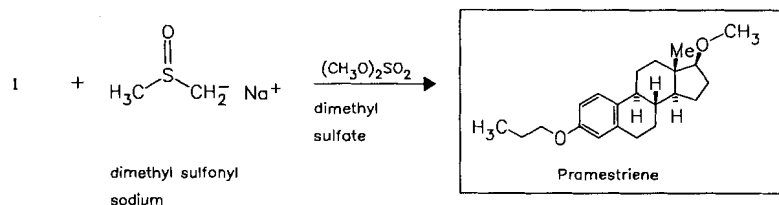
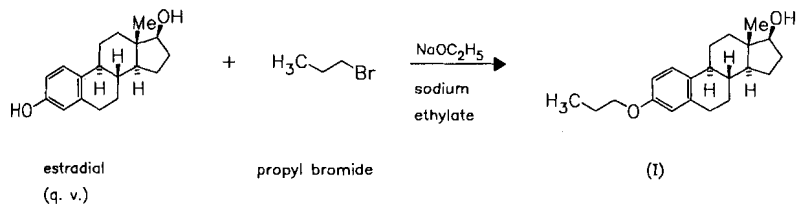
Trade Name(s):

F: Surgestone (Cassenne)

Promestriene

ATC: G03CA09
 Use: estrogen

RN: 39219-28-8 MF: C₂₂H₃₂O₂ MW: 328.50 EINECS: 254-361-6
 CN: (17 β)-17-methoxy-3-propoxyestra-1,3,5(10)-triene

**Reference(s):**

DE 2 215 499 (Sogeras; appl. 29.3.1972; GB-prior. 21.4.1971).

Formulation(s): cream 1 %; vaginal cps. 10 mg

Trade Name(s):

F: Colposeptine (Théramex)-comb. I: Colpotrophine (Théramex)
Colpotrophine (Schering)

Promethazine

ATC: D04AA10; R06AD02
Use: antihistaminic, sedative

RN: 60-87-7 MF: $\text{C}_{17}\text{H}_{20}\text{N}_2\text{S}$ MW: 284.43 EINECS: 200-489-2

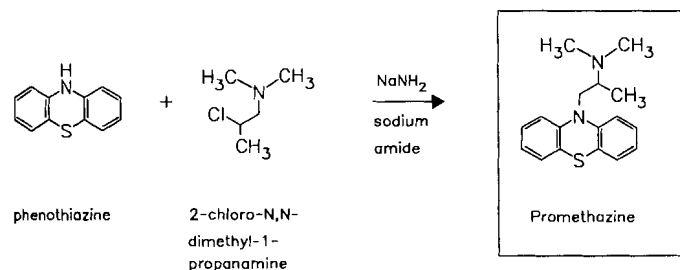
LD₅₀: 40 mg/kg (M, i.v.); 326 mg/kg (M, p.o.);
45 mg/kg (R, i.v.)

CN: N,N,α-trimethyl-10H-phenothiazine-10-ethanamine

monohydrochloride

RN: 58-33-3 MF: $\text{C}_{17}\text{H}_{20}\text{N}_2\text{S} \cdot \text{HCl}$ MW: 320.89 EINECS: 200-375-2

LD₅₀: 50 mg/kg (M, i.v.); 255 mg/kg (M, p.o.);
15 mg/kg (R, i.v.)

**Reference(s):**

US 2 530 451 (Rhône-Poulenc; 1950; F-prior. 1946).
US 2 607 773 (Rhône-Poulenc; 1952; GB-prior. 1949).

Formulation(s): amp. 56 mg/2 ml; f. c. tabl. 25 mg; drg. 25 mg; drops 20 mg/ml; suppos. 12.5 mg, 25 mg, 50 mg; syrup 1 mg/ml, 5.65 mg; tabl. 12.5 mg, 25 mg, 50 mg (as hydrochloride)

Trade Name(s):

D:	Atosil (Bayer Vital)	Tussisèdal (Elerté)-comb.	Prometazina Cloridrato (Ecobi)
	Eusedon (Krewel Meuselbach)	GB: Avomine (Rhône-Poulenc Rorer)	generics and combination preparations
	Promethawern (Pharma Wernigerode)	Parmergan P100 (Martindale)-comb.	J: Hiberna (Yoshitomi)
	Promethazin-neuraxpharm (neuraxpharm)	Phenergan (Rhône-Poulenc Rorer)	Pipolphen (Nakataki)
	Prothazin (Rodleben)	Sominex (Seton)	Prothia (Kanto)
F:	Algotropyl prométhazine (Thera France)-comb.	I: Allerfen (Sella)	Pyrethia (Shionogi)
	Fluisèdal (Elerté)-comb.	Duplamin (Bruschettini)-comb.	USA: Mepergan (Wyeth-Ayerst)
	Paxéladine noctée (Beaufour)-comb.	Fargan (Carlo Erba)	Phenergan (Wyeth-Ayerst)
	Phénergan (Evans Medical)	Farganesse (Pharmacia & Upjohn)	generics and combination preparations
	Rhinathiol prométhazine (Synthélabo)-comb.	Fenazil (Sella)	
		Prometazina (Dynacren)	

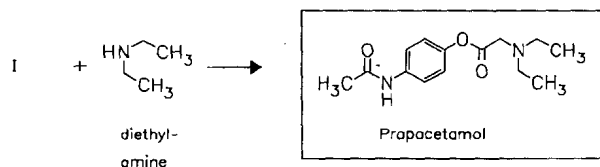
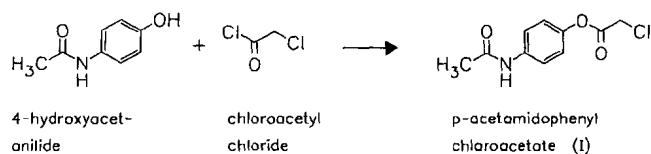
Propacetamol

ATC: N02BE05

Use: analgesic (paracetamol prodrug)

RN: 66532-85-2 MF: C₁₄H₂₀N₂O₃ MW: 264.33 EINECS: 266-390-1

CN: N,N-diethylglycine 4-(acetylamino)phenyl ester

monohydrochlorideRN: 66532-86-3 MF: C₁₄H₂₀N₂O₃ · HCl MW: 300.79 EINECS: 266-391-7

Reference(s):

BE 854 376 (Hexachimie, appl. 9.5.1977).

DE 2 721 987 (Hexachimie; appl. 14.5.1977).

US 4 127 671 (Hexachimie; 28.11.1978; prior. 26.5.1977).

synthesis of p-acetamidophenyl chloroacetate:

Dittert, L.W. et al.: J. Pharm. Sci. (JPMSAE) **57**, 774 (1968).

Formulation(s): amp. 1 g (as hydrochloride)

Trade Name(s):

F: Pro-Dafalgan (UPSA)

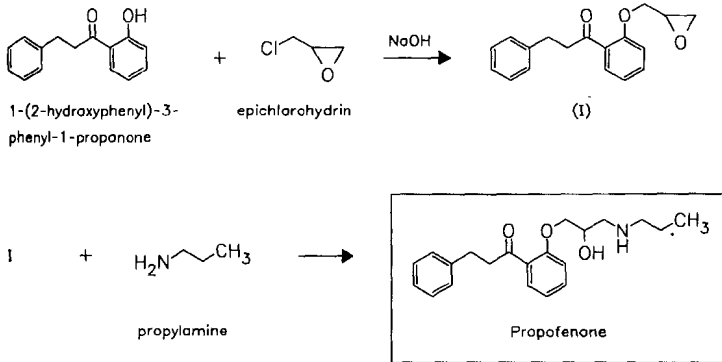
Propafenone

ATC: C01BC03
Use: antiarrhythmic

RN: 54063-53-5 MF: $C_{21}H_{27}NO_3$ MW: 341.45 EINECS: 258-955-6
LD₅₀: 440 mg/kg (M, p.o.)
CN: 1-[2-[2-hydroxy-3-(propylamino)propoxy]phenyl]-3-phenyl-1-propanone

hydrochloride

RN: 34183-22-7 MF: $C_{21}H_{27}NO_3 \cdot HCl$ MW: 377.91 EINECS: 251-867-9
LD₅₀: 25 mg/kg (M, i.v.); 341 mg/kg (M, p.o.);
18.8 mg/kg (R, i.v.); 700 mg/kg (R, p.o.);
10 mg/kg (dog, i.v.)

**Reference(s):**

DE 2 001 431 (Helopharm; appl. 6.1.1970).
GB 1 307 455 (Helopharm; appl. 7.7.1971).
US 4 474 986 (BASF; 2.10.1984; appl. 18.3.1983; D-prior. 19.3.1982).

Formulation(s): amp. 70 mg/20 ml; drg. 10 mg; f. c. tabl. 150 mg, 300 mg; USA: tabl. 150 mg, 225 mg, 300 mg (as hydrochloride)

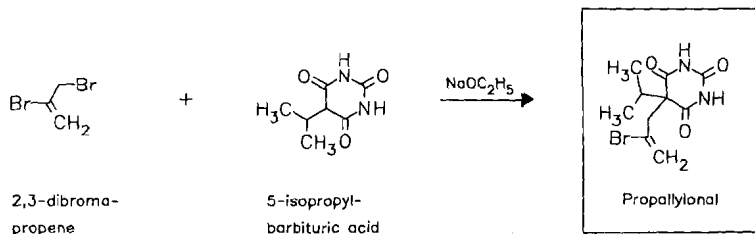
Trade Name(s):

D:	Cuxafenon (TAD)	Rytmonorm (Knoll; 1978)	F:	Rythmol (Knoll; 1985)
	Propafen-BASF (BASF)	Tachyfenon (ASTA Medica AWD)	I:	Pro-effekalgan imiv (Upsamedica)
	Generics)	various generics and combination preparations	J:	Pronon (Yamanouchi)
	Propa Sanorania (Sanorania)		USA:	Rythmol (Knoll)

Propallylonal

ATC: N05C
Use: hypnotic

RN: 545-93-7 MF: $C_{10}H_{13}BrN_2O_3$ MW: 289.13 EINECS: 208-896-7
LD₅₀: 90 mg/kg (R, s.c.)
CN: 5-(2-bromo-2-propenyl)-5-(1-methylethyl)-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione

**Reference(s):**

US 1 622 129 (Riedel AG; 1927; D-prior. 1923).
 DRP 481 733 (Riedel-deHaen; appl. 1923).
 DRP 482 841 (Riedel-deHaen; appl. 1923).
 DRP 485 832 (Riedel-deHaen; appl. 1923).

Formulation(s): tabl. 200 mg

Trade Name(s):

D: Noctal (Cassella-Riedel); wfm
 J: Noctal (UCB); wfm
 Noctenal (Boehringer-Uji)

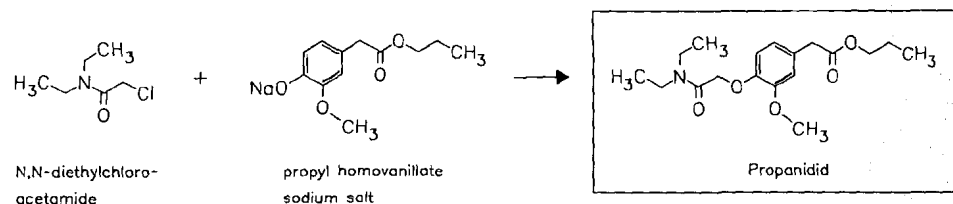
Propanidid

ATC: N01AX04
 Use: anesthetic

RN: 1421-14-3 MF: C₁₈H₂₇NO₅ MW: 337.42 EINECS: 215-822-7

LD₅₀: 113 mg/kg (M, i.v.);
 81 mg/kg (R, i.v.); >10 g/kg (R, p.o.);
 80 mg/kg (dog, i.v.)

CN: 4-[2-(diethylamino)-2-oxoethoxy]-3-methoxybenzeneacetic acid propyl ester

**Reference(s):**

DE 1 134 981 (Bayer; appl. 6.5.1960).

Formulation(s): amp. 1.5 g/30 ml, 500 mg/10 ml

Trade Name(s):

D: Epontol (Bayer); wfm GB: Epontol (Bayer); wfm J: Epontol (Bayer)
 F: Epontol (ThérapiX); wfm I: Epontol (Bayer); wfm

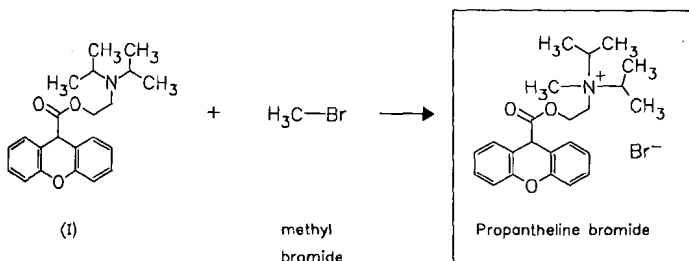
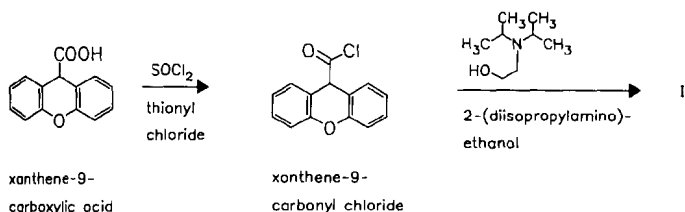
Propantheline bromide

ATC: A03AB05
 Use: antispasmodic, anticholinergic

RN: 50-34-0 MF: C₂₃H₃₀BrNO₃ MW: 448.40 EINECS: 200-030-6

LD₅₀: 6400 µg/kg (M, i.v.); 445 mg/kg (M, p.o.);
 4 mg/kg (R, i.v.); 370 mg/kg (R, p.o.)

CN: N-methyl-N-(1-methylethyl)-N-[2-[(9H-xanthen-9-ylcarbonyl)oxy]ethyl]-2-propanaminium bromide

**Reference(s):**

US 2 659 732 (Searle; 1953; appl. 1952; prior. 1950).

Formulation(s): tabl. 7.5 mg, 15 mg

Trade Name(s):

D:	Corigast (Searle); wfm	F:	Pro-Banthine (Monsanto)	J:	Pro-Banthine (Dainippon)
	Hydonan (Hermal)-comb.; wfm	GB:	Pro-Banthine (Baker Norton)	USA:	Pro-Banthine (Roberts)
	Tensilan (Desitin); wfm	I:	Lexil (Roche)-comb.		

Propatyl nitrate

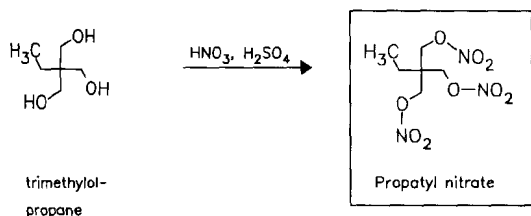
(Etriol trinitrate)

ATC: C01DA07

Use: coronary vasodilator (angina pectoris)

RN: 2921-92-8 MF: $C_6H_{11}N_3O_9$ MW: 269.17 EINECS: 220-866-5

CN: 2-ethyl-2-[(nitrooxy)methyl]-1,3-propanediol dinitrate (ester)

**Reference(s):**

Médard: Meml. Poudres (MPOUAT) **35**, 113 (1953).

Bourjol: Meml. Poudres (MPOUAT) **36**, 79 (1954).

Formulation(s): tabl. 10 mg

Trade Name(s):

F:	Atrilon 5 (Winthrop); wfm	GB:	Gina (Winthrop); wfm	J:	Etrynit (Yoshitomi); wfm
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Propentofylline

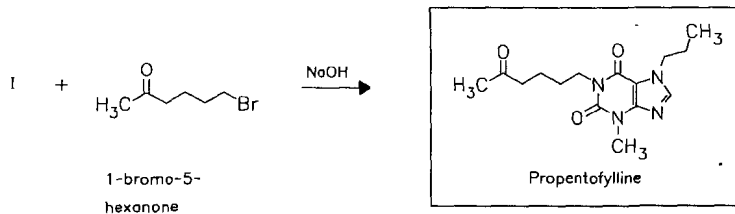
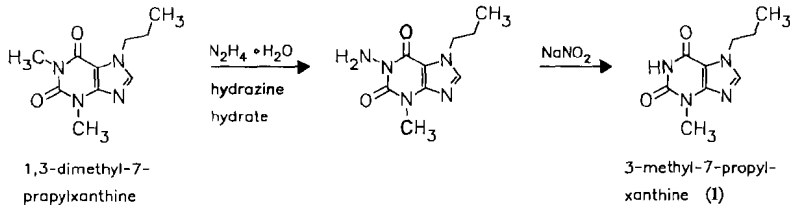
(HWA-285)

ATC: N06BC02

Use: vasodilator, cognition enhancer

RN: 55242-55-2 MF: C₁₅H₂₂N₄O₃ MW: 306.37LD₅₀: 168 mg/kg (M, i.v.); 780 mg/kg (M, p.o.);

180 mg/kg (R, i.v.); 940 mg/kg (R, p.o.)

CN: 3,7-dihydro-3-methyl-1-(5-oxohexyl)-7-propyl-1*H*-purine-2,6-dione*Reference(s):*

DE 2 330 742 (Albert; appl. 16.6.1973).

DE 2 366 501 (Albert; appl. 16.6.1973).

US 4 289 776 (Hoechst; 15.9.1981; D-prior. 16.6.1973).

*synthesis of 3-methyl-7-propylxanthine:*Ohsaki, T. et al.: Chem. Pharm. Bull. (CPBTAL) **36**, 877 (1988).*Formulation(s):* tabl. 100 mg*Trade Name(s):*

J: Hextol (Hoechst; 1988)

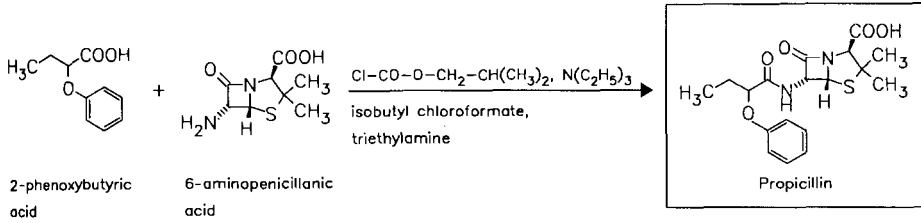
Propicillin

ATC: J01CE03

Use: antibiotic

RN: 551-27-9 MF: C₁₈H₂₂N₂O₅S MW: 378.45 EINECS: 208-995-5CN: [2*S*-(2 α ,5 α ,6 β)]-3,3-dimethyl-7-oxo-6-[(1-oxo-2-phenoxybutyl)amino]-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid**monopotassium salt**RN: 1245-44-9 MF: C₁₈H₂₁KN₂O₅S MW: 416.54 EINECS: 214-993-5LD₅₀: 292 mg/kg (M, i.v.);

5 g/kg (R, p.o.)

**Reference(s):**

- GB 877 120 (Beecham; appl. 10.5.1960; USA-prior. 25.5.1959, 22.10.1959).
 GB 899 199 (Pfizer; appl. 7.1.1960; USA-prior. 28.9.1959).
 GB 904 576 (Bayer; appl. 24.11.1960; D-prior. 4.12.1959).
 GB 958 478 (Beecham; appl. 28.2.1963; USA-prior. 13.3.1962).
 DE 1 143 817 (Beecham; appl. 25.5.1960; USA-prior. 25.5.1959, 22.10.1959).
 DE 1 154 805 (Bayer; appl. 24.10.1961).
 DE 1 159 449 (Grünenthal; appl. 22.3.1961).

Formulation(s): f. c. tabl. 280 mg, 700 mg; syrup 70 mg; tabl. 125 mg, 140 mg, 280 mg, 700 mg (as potassium salt)

Trade Name(s):

D:	Baycillin (Bayer Vital)		Ultrapen (Pfizer); wfm	Trescillin (Beecham-Fujisawa)
	Pluscillin (Bayrofarm)	1:	Bayercillin (Bayer); wfm	
F:	Brocilline (Nativelle); wfm	J:	Oracillin (Takeda)	
GB:	Brocillin (Beecham); wfm		Synthepep-P (Meiji)	

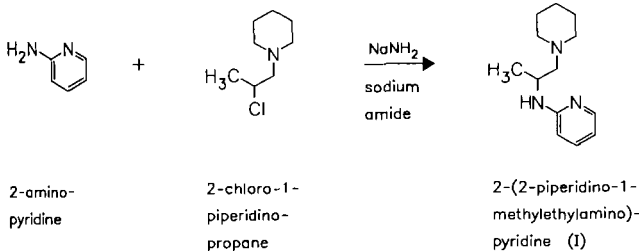
Propiram

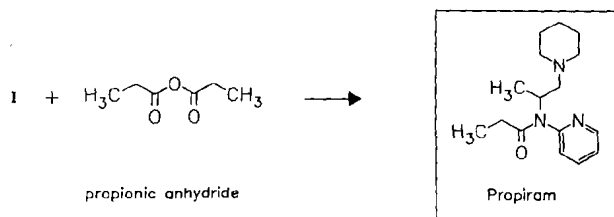
ATC: N02
Use: analgesic

RN: 15686-91-6 MF: $\text{C}_{16}\text{H}_{25}\text{N}_3\text{O}$ MW: 275.40 EINECS: 239-775-7
 LD₅₀: 290 mg/kg (M, s.c.);
 366 mg/kg (R, s.c.)
 CN: *N*-[1-methyl-2-(1-piperidiny)ethyl]-*N*-2-pyridinylpropanamide

fumarate (1:1)

RN: 13717-04-9 MF: $\text{C}_{16}\text{H}_{25}\text{N}_3\text{O} \cdot \text{C}_4\text{H}_4\text{O}_4$ MW: 391.47 EINECS: 237-270-6
 LD₅₀: 48.2 mg/kg (M, i.v.); 874 mg/kg (M, p.o.);
 63.8 mg/kg (R, i.v.); 1289 mg/kg (R, p.o.);
 1 g/kg (dog, p.o.)



**Reference(s):**

US 3 163 654 (Bayer; 29.12.1964; D-prior. 13.4.1961).

FR 1 492 761 (Bayer; appl. 13.4.1962; D-prior. 13.4.1961).

combinations:

US 4 479 956 (Analgesic Assoc.; 30.10.1984; appl. 26.4.1983).

Trade Name(s):

I: Algeril (Bayer); wfm

Propiverine

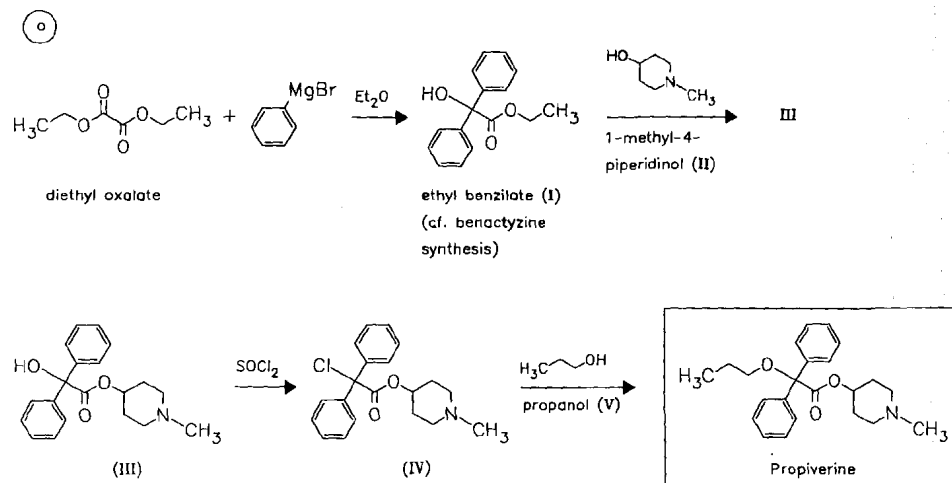
(P4)

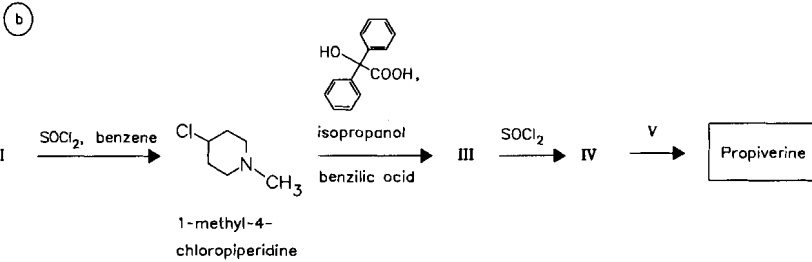
ATC: G04BD06

Use: anticholinergic, treatment of incontinence

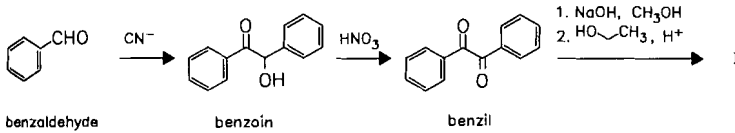
RN: 60569-19-9 MF: C₂₃H₂₉NO₃ MW: 367.49

CN: α-Phenyl-α-propoxybenzeneacetic acid 1-methyl-4-piperidinyl ester

hydrochlorideRN: 54556-98-8 MF: C₂₃H₂₉NO₃ · HCl MW: 403.95



alternative synthesis of ethyl benzilate (I):



Reference(s):

- a DD 106 643 (C. Starke et al.; appl. 12.7.1973; DD-prior. 12.7.1973).
Laphin, I.I. et al.: Khim. Khim. Tekhnol. (SSAKAG) **30** (7), 27-36 (1987).
b Klosa, J.; Delmar, G.: J. Prakt. Chem. (JPCEAO) **16**, 71-82 (1962).

pharmaceutical preparation:

DE 2 937 489 (C. Starke, G. Schubert; appl. 17.9.1979; DD-prior. 9.10.1978).

transdermal formulation:

JP 04 266 821 (Rido Chem.; appl. 22.2.1991)

Formulation(s): drg. 5 mg, 15 mg (as hydrochloride)

Trade Name(s):

D: Mictonetten (Apogepha) Mictonorm (Apogepha)

Propofol

(Disopropfol; ICI-35868)

ATC: N01AX10

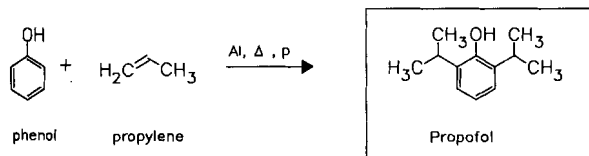
Use: anesthetic (injectible)

RN: 2078-54-8 MF: C₁₂H₁₈O MW: 178.28 EINECS: 218-206-6

LD₅₀: 50 mg/kg (M, i.v.); 1100 mg/kg (M, p.o.);

42 mg/kg (R, i.v.); 500 mg/kg (R, p.o.)

CN: 2,6-bis(1-methylethyl)phenol



Reference(s):

- US 2 831 898 (Ethyl Corp.; 1958).
Kolka, A.J. et al.: J. Org. Chem. (JOCEAH) **21**, 712 (1956); **22**, 642 (1957).
Kealy, T.J.; Coffman, D.D.: J. Org. Chem. (JOCEAH) **26**, 987 (1961).
Carlton, J.K.; Bradbury, W.C.: J. Am. Chem. Soc. (JACSAT) **78**, 1069 (1956).

Formulation(s): amp. 10 mg/ml, 20 mg/ml; prefilled Syringe 10 mg/ml; vial 500 mg/50 ml, 1 g/100 ml

Trade Name(s):

D:	Disoprivan (Glaxo Wellcome; Zeneca)	Propofol-Fresenius (Fresenius-Klinik)	GB:	Diprivan (Zeneca)
	Klimofol (IVAMED)	Propofol-Parke Davis (Parke Davis)	I:	Diprivan (Zeneca)
	Propofol-Abbott (Abbott)		J:	Diprivan (Zeneca)
F:		Diprivan (Zeneca)	USA:	Diprivan (Zeneca)

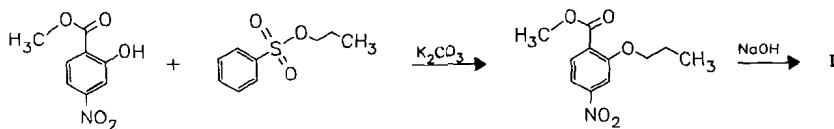
Propoxycaine

ATC: N01BA

Use: local anesthetic

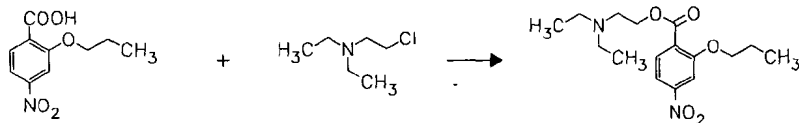
RN: 86-43-1 MF: $C_{16}H_{26}N_2O_3$ MW: 294.40 EINECS: 201-670-9LD₅₀: 9 mg/kg (M, i.v.)

CN: 4-amino-2-propoxybenzoic acid 2-(diethylamino)ethyl ester

monohydrochlorideRN: 550-83-4 MF: $C_{16}H_{26}N_2O_3 \cdot HCl$ MW: 330.86 EINECS: 208-988-7LD₅₀: 7417 µg/kg (M, i.v.)

methyl 4-nitro-salicylate

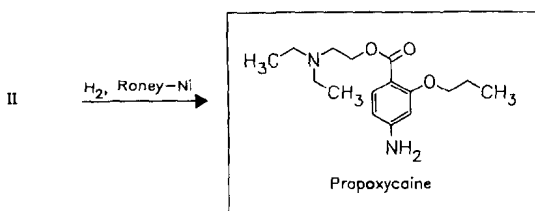
propyl benzene-sulfonate



4-nitro-2-propoxybenzoic acid (I)

2-diethylaminoethyl chloride

(II)



Reference(s):

US 2 689 248 (Sterling Drug; prior. 1950).

Trade Name(s):

USA: Blockain (Breon); wfm

Ravocaine (Cook-Waite)-comb.; wfm

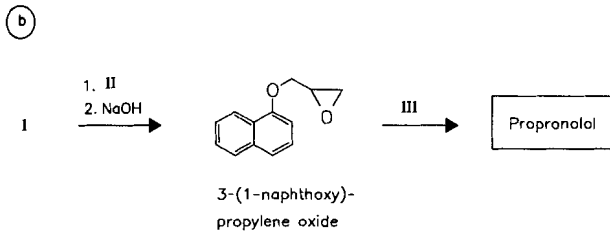
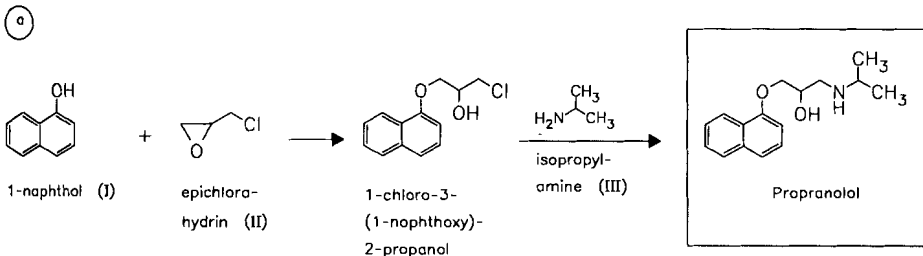
Propranolol

ATC: C07AA05
 Use: beta blocking agent

RN: 525-66-6 MF: C₁₆H₂₁NO₂ MW: 259.35 EINECS: 208-378-0
 LD₅₀: 28.1 mg/kg (M, i.v.); 289 mg/kg (M, p.o.);
 23 mg/kg (R, i.v.); 660 mg/kg (R, p.o.)
 CN: 1-[(1-methylethyl)amino]-3-(1-naphthalenyloxy)-2-propanol

hydrochloride

RN: 318-98-9 MF: C₁₆H₂₁NO₂ · HCl MW: 295.81 EINECS: 206-268-7
 LD₅₀: 18 mg/kg (M, i.v.); 320 mg/kg (M, p.o.);
 21 mg/kg (R, i.v.); 466 mg/kg (R, p.o.)



Reference(s):

DE 1 493 847 (ICI; prior. 18.11.1963).
 US 3 337 628 (ICI; 22.8.1967; GB-prior. 23.11.1962).
 GB 994 918 (ICI; appl. 23.11.1962; valid from 28.10.1963).
 GB 995 800 (ICI; appl. 23.11.1962; valid from 28.10.1963).

retard form:

US 4 138 475 (ICI; 6.2.1979; GB-prior. 1.6.1977).

Formulation(s): amp. 5 mg/5 ml; f. c. tabl. 10 mg, 20 mg, 40 mg, 80 mg; s. r. cps. 60 mg, 80 mg, 120 mg, 160 mg; tabl. 10 mg, 25 mg, 40 mg, 80 mg (as hydrochloride)

Trade Name(s):

D:	Beta-Tablinen (Sanorania)	Propanur 20/40/80	Inderal LA (Zeneca; 1965)
	Dociton (Rhein-Pharma; Zeneca)	(Henning Berlin)	Inderetic (Zeneca)-comb.
	Efektolol (Brenner-Efeka)	Prophylux (Hennig)	Inderex (Zeneca)-comb.
	Elbrol (Pfleger)	Propranolol-Gry (Gry)	Probeta LA (Trinity)
	Indobloc (ASTA Medica AWD)	Sagittol 40/80/160	Propanix LA (Ashbourne)
	Obsidian (Isis Pharma)	(Sagitta); wfm	I: Inderal (Zeneca; 1967)
	Probabloc-40/-80	various generics and	J: Caridolol (Sankyo Zoki)
	(Azupharma)	combination preparations	Inderal (Sumitomo)
F:		Avlocardyl (Zeneca; 1967)	Kemi (Otsuka)
		Hémipralon (Urpac-Astier)	Pylapron (Kyorin)
GB:		Beta-Prograne (Tillomed)	

USA: Inderal (Wyeth-Ayerst;
1967)Inderide (Wyeth-Ayerst)-
comb. with
hydrochlorothiazide

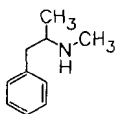
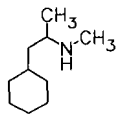
generics

Propylhexedrine

ATC: A08A; N07A

Use: sympathomimetic, appetite
depressantRN: 101-40-6 MF: C₁₀H₂₁N MW: 155.29 EINECS: 202-939-3

CN: N,α-dimethylcyclohexaneethanamine

hydrochlorideRN: 1007-33-6 MF: C₁₀H₂₁N · HCl MW: 191.75 EINECS: 213-753-7**(±)-base**RN: 3595-11-7 MF: C₁₀H₂₁N MW: 155.29 EINECS: 222-741-0**(±)-hydrochloride**RN: 6192-98-9 MF: C₁₀H₂₁N · HCl MW: 191.75 EINECS: 228-246-6LD₅₀: 70 mg/kg (M, i.p.)N,α-dimethyl-
benzeneethanamine

Propylhexedrine

Reference(s):

DE 949 657 (Knoll; appl. 1954).

DE 970 480 (Knoll; appl. 1940).

Zenitz, B.L. et al.: J. Am. Chem. Soc. (JACSAT) **69**, 1117 (1947).**alternative synthesis:**

US 2 454 746 (Smith Kline & French; 1948; appl. 1947).

Formulation(s): drg. 25 mg**Trade Name(s):**

D: Eventin (Minden); wfm

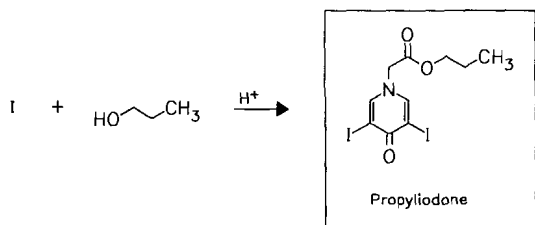
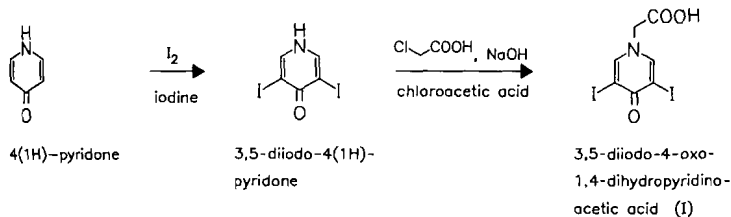
GB: Benzedrex (Smith Kline &
French); wfmUSA: Benzedrex (Smith Kline &
French); wfm**Propyliodone**

ATC: V08AD03

Use: X-ray contrast medium

RN: 587-61-1 MF: C₁₀H₁₁I₂NO₃ MW: 447.01 EINECS: 209-603-5LD₅₀: 300 mg/kg (M, i.v.); >18 g/kg (M, p.o.)

CN: 3,5-diiodo-4-oxo-1(4H)-pyridineacetic acid propyl ester



Reference(s):
 GB 517 382 (ICI; appl. 1938).
 BE 516 687 (Glaxo; appl. 1953; GB-prior. 1952).

Formulation(s): susp. 10 g/20 ml, vial 50 %

Trade Name(s):

D: Dionosil (Glaxo); wfm

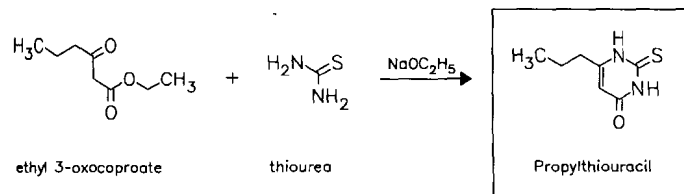
Propyliodon-Cilag (Cilag-Chemie); wfm

J: Dionosil (Torii)

Propylthiouracil

ATC: H03BA02
 Use: antithyroid drug

RN: 51-52-5 MF: C₇H₁₀N₂OS MW: 170.24 EINECS: 200-103-2
 LD₅₀: 1250 mg/kg (R, p.o.)
 CN: 2,3-dihydro-6-propyl-2-thioxo-4(1H)-pyrimidinone



Reference(s):
 Anderson, G.W. et al.: J. Am. Chem. Soc. (JACSAT) **67**, 2197 (1945).

Formulation(s): tabl. 25 mg, 50 mg

Trade Name(s):

D: Thyreostat II (Herbrand Hersteller/Berlin-Chemie Vertrieb)

F: Propylthiouracil Diamant (Diamant); wfm

J: Propacil (Chugai) Thiuragyl (Tokyo Tanabe)

I: Propycil (Sir); wfm

USA: Propylthiouracil (Lederle)

Propyphenazone

(Isopropylantipyrin)

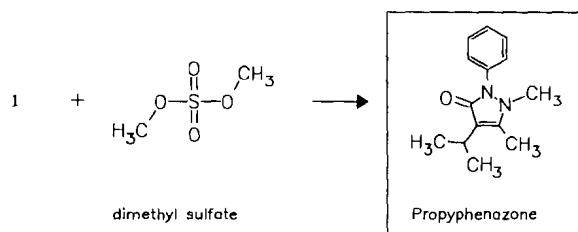
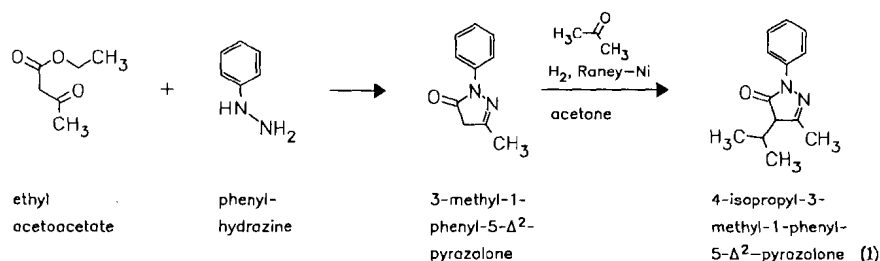
ATC: N02BB04

Use: analgesic, antipyretic

RN: 479-92-5 MF: C₁₄H₁₈N₂O MW: 230.31 EINECS: 207-539-2LD₅₀: 960 mg/kg (M, p.o.);

860 mg/kg (R, p.o.)

CN: 1,2-dihydro-1,5-dimethyl-4-(1-methylethyl)-2-phenyl-3H-pyrazol-3-one

*Reference(s):*

DRP 565 799 (Hoffmann-La Roche; appl. 1931).

DE 962 254 (Riedel-deHaen; appl. 1954).

Formulation(s): cps. 400 mg; suppos. 100 mg, 200 mg, 300 mg, 400 mg; tabl. 500 mg*Trade Name(s):*

D:	Avamigran (ASTA Medica AWD)	I:	Caffalgina (Home)-comb.	Ribelfan (Pharmacia & Upjohn)-comb.
	Demex (Berlin-Chemie)		Flexidone (Poli)-comb.	Saridon (Roche)-comb.
	Eufibron (Berlin-Chemie)		Influvit (Recordati)-comb.	Spasmocibalgina (Novartis)-comb.
	Isoprochin (Merckle)		Micranet (Ogna)-comb.	Spasmoplus (Novartis)-comb.
	Saridon (Roche Nicholas)-comb.		Mindol (Merck-Bracco)-comb.	Uniplus (Angelini)-comb.
	and circa 150 more generics and combination preparations		Neo-Optalidon (Novartis)-comb.	Veramon (Sofar)-comb.
F:	Polypirine (Lehning)-comb.		Omnadol (Montefarmaco)-comb.	Vitalgin (Boots H.M. VITI)-comb.
			Optalidon confetti (Novartis)-comb.	

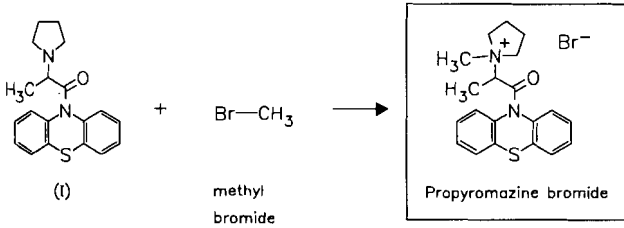
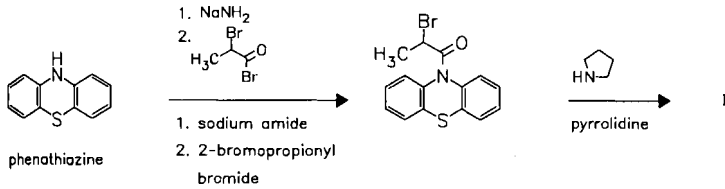
Propyramazine bromide

ATC: A03

Use: antispasmodic

RN: 145-54-0 MF: C₂₀H₂₃BrN₂OS MW: 419.39 EINECS: 205-657-9LD₅₀: 80 mg/kg (M, i.p.)

CN: 1-methyl-1-[1-methyl-2-oxo-2-(10H-phenothiazin-10-yl)ethyl]pyrrolidinium bromide

**Reference(s):**

US 2 615 886 (Astra; 1952; prior. 1951).

Formulation(s): tabl. 25 mg; vial 10 mg/ml

Trade Name(s):

F: Diaspasmyl (Diamant);
wfm

Proquazone

ATC: M01AX13

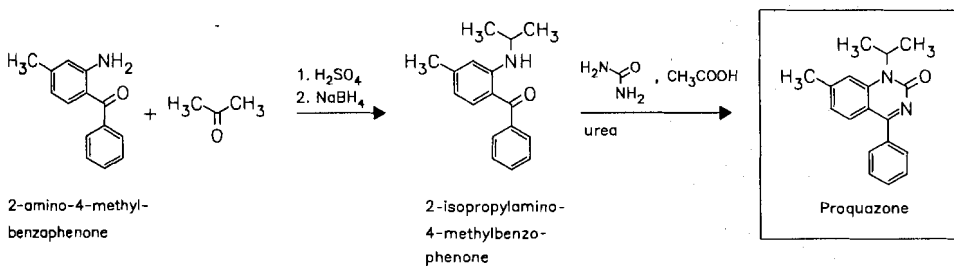
Use: analgesic, anti-inflammatory

RN: 22760-18-5 MF: $\text{C}_{18}\text{H}_{18}\text{N}_2\text{O}$ MW: 278.36 EINECS: 245-203-7

LD_{50} : 930 mg/kg (M, p.o.);

759 mg/kg (R, p.o.)

CN: 7-methyl-1-(1-methylethyl)-4-phenyl-2(1*H*)-quinazolinone

**Reference(s):**

US 3 723 432 (Sandoz-Wander; 27.3.1973; prior. 29.8.1966, 4.5.1967, 4.10.1967, 26.2.1968, 1.7.1968, 12.11.1968).

DE 1 805 501 (Sandoz; appl. 26.10.1968; USA-prior. 30.10.1967, 26.2.1968, 1.7.1968).

alternative synthesis:

US 3 549 635 (Sandoz-Wander; 22.12.1970; prior. 26.2.1968, 1.7.1968).

DOS 1 909 110 (Sandoz; appl. 24.2.1969; USA-prior. 26.2.1968, 1.7.1968).

2-isopropylamino-4-methylbenzophenone:

US 3 845 128 (Sandoz; 29.10.1974; prior. 30.10.1967, 5.8.1970).

DOS 1 818 012 (Sandoz; appl. 26.10.1968; USA-prior. 30.10.1967, 26.2.1968, 1.7.1968).

US 4 071 557 (Sandoz; 31.1.1978; appl. 29.1.1976).

Formulation(s): cps. 200 mg, 300 mg; suppos. 300 mg*Trade Name(s)*:

D: Biarison (Sandoz); wfm

Proscillaridin

(Proscillaridin A)

ATC: C01AB01

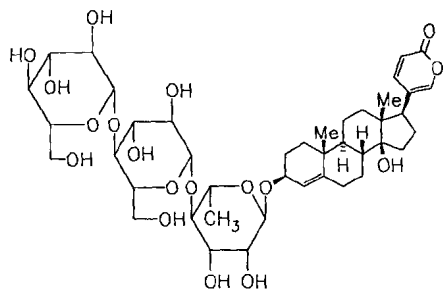
Use: cardiac glycoside

RN: 466-06-8 MF: C₃₀H₄₂O₈ MW: 530.66 EINECS: 207-370-4LD₅₀: 4.7 mg/kg (M, i.v.); 30.5 mg/kg (M, p.o.);

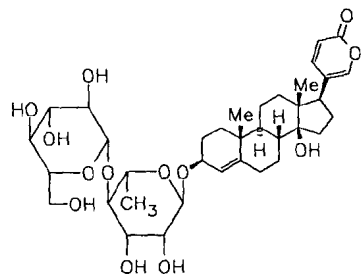
9 mg/kg (R, i.v.); 56 mg/kg (R, p.o.)

CN: (3β)-3-[(6-dcoxy-α-L-mannopyranosyl)oxy]-14-hydroxybufo-4,20,22-trienolide

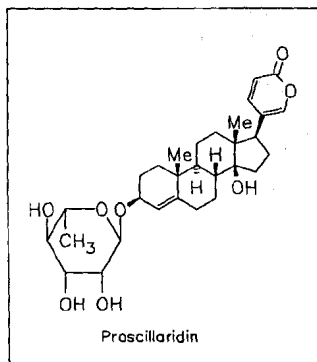
a

enzymatic hydrolysis
(β-glucosidase)

I

glucoscillaren A
(from *Scillo maritimo* L.)

scillaren A (I)

enzymatic hydrolysis
(scillarenase or
strophanthobiasse or
Coranillo enzymes or
fungal enzymes)

Proscillaridin

b

from *Urginea burkei* Baker

Reference(s):

- a Stoll, A. et al.: *Helv. Chim. Acta (HCACAV)* **16**, 703 (1933).
 Stoll, A.; Kreis, W.: *Helv. Chim. Acta (HCACAV)* **34**, 1431 (1951).
 Stoll, A. et al.: *Helv. Chim. Acta (HCACAV)* **35**, 2495 (1952).
 DRP 646 930 (Ciba; appl. 1933; CH-prior. 1932).
 US 3 361 630 (Knoll; 2.1.1968; appl. 30.10.1964; D-prior. 2.11.1963).
- b Louw, P.G.J: *Nature (London) (NATUAS)* **163**, 30 (1949).
 Zoller, P.; Tamm, Ch.: *Helv. Chim. Acta (HCACAV)* **36**, 1744 (1953).

Formulation(s): drg. 0.25 mg, 0.5 mg

Trade Name(s):

D:	Talusin (Knoll)	J:	Apocerpin (Kotani)	Pros Tab. (Mita)
F:	Talusin (Biosedra); wfm		Bunosquin (Seiko)	Proscillar (Toyo Jozo)
I:	Caradrin (Boehringer Ing.); wfm		Caradrin (Kowa)	Prosiladin (Sawai)
	Neogratusminal (Simes)-comb.; wfm		Cardiolidin (Nichiuko)	Prosladin (Zeria)
	Stellarid (Zambeletti); wfm		Cardion (Nippon Chemiphar)	Proszin (Teisan)
	Talusin (Knoll); wfm		Cardon (Kanto)	Scillaridin (Moroshita)
	Teostellarid (Zambeletti)-comb.; wfm		Mitredin (Nippon Shoji)	Silamarin A (Wakamoto)
	Urgilan (Simes); wfm		Procardin (Mohan)	Stellarid (Tobishi-Mochida)
			Procillin (Hokuriku)	Talusin (Dainippon)
			Proherz (Shinshin)	USA: Talusin (Knoll); wfm
				Tradenal (Knoll); wfm

Protheobromine

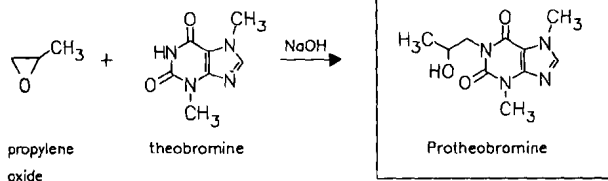
ATC: C03BD

Use: diuretic, cardiotonic

RN: 50-39-5 MF: C₁₀H₁₄N₄O₃ MW: 238.25 EINECS: 200-034-8

LD₅₀: 580 mg/kg (M, s.c.)

CN: 3,7-dihydro-1-(2-hydroxypropyl)-3,7-dimethyl-1H-purine-2,6-dione

*Reference(s):*

DE 1 067 025 (Degussa; appl. 23.8.1955).

Formulation(s): drg. 50 mg, 100 mg

Trade Name(s):

D:	Cordabromin-Digoxin (Homburg)-comb.; wfm	I:	Antelin (OFF)-comb.; wfm	Tebe (Simes); wfm
			Idromin (Arnaldi); wfm	

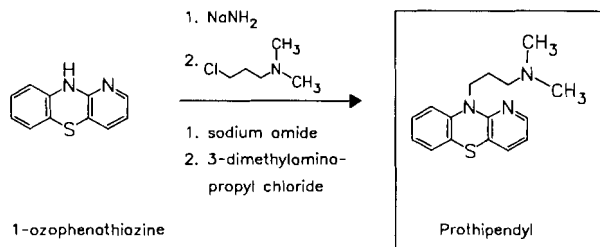
Prothipendyl

ATC: N05AX07

Use: psychosedative, neuroleptic

RN: 303-69-5 MF: C₁₆H₁₉N₃S MW: 285.42LD₅₀: 415 mg/kg (M, p.o.);

25 mg/kg (R, i.v.)

CN: *N,N*-dimethyl-10*H*-pyrido[3,2-*b*][1,4]benzothiazine-10-propanamine**monohydrochloride**RN: 1225-65-6 MF: C₁₆H₁₉N₃S · HCl MW: 321.88 EINECS: 214-958-4LD₅₀: 110 mg/kg (R, i.v.); 610 mg/kg (R, p.o.)**Reference(s):**

DE 1 001 684 (Degussa; appl. 1954).

US 2 974 139 (Degussa; 7.3.1961; D-prior. 2.10.1954).

Formulation(s): amp. 40 mg/2 ml; drg. 40 mg; drops 25 mg/0.5 ml; f. c. tabl. 80 mg (as hydrochloride)**Trade Name(s):**

D: Dominal /-forte (ASTA Medica AWD)

GB: Tolnate (Smith Kline & French); wfm

J: Prosyll (Kanto)

Protionamide

(Prothionamide)

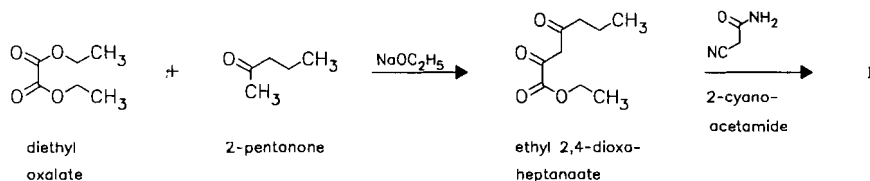
ATC: J04AD01

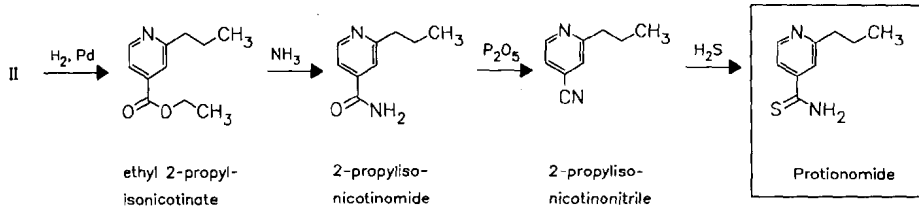
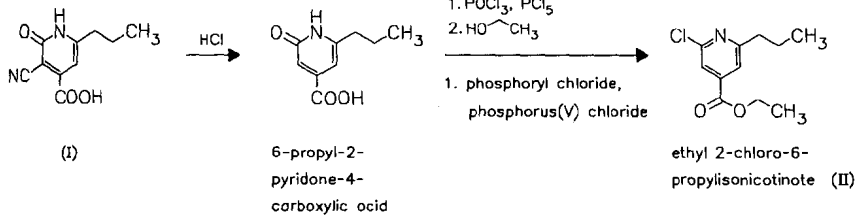
Use: tuberculostatic, antibacterial

RN: 14222-60-7 MF: C₉H₁₂N₂S MW: 180.28 EINECS: 238-093-7LD₅₀: 1 g/kg (M, p.o.);

1320 mg/kg (R, p.o.)

CN: 2-propyl-4-pyridinecarbothioamide





Reference(s):

GB 800 250 (Chimie et Atomistique; appl. 26.3.1957; F-prior. 27.3.1956, 19.4.1956, 6.8.1956, 7.12.1956).
 Libermann, S. et al.: C. R. Hebd. Seances Acad. Sci. (COREAF) **242**, 2409, 2412 (1956).

Formulation(s): f. c. tabl. 250 mg; tabl. 125 mg, 250 mg

Trade Name(s):

D: Ektebin (Hefa Pharma)	GB: Trevintix (May & Baker);	Tuberamin (Meiji)
Isoprodion (Fatol)-comb.	wfm	Tubex (Shionogi)
Peteha Dragees (Fatol)	J: Entelohl (Kyowa)	Tubermide (Sankyo)
F: Trévintix (Thérapiex); wfm	Protionamid (Lederle-Takeda)	

Protirelin

(TRH; Thyroliberin; Tyroliberin)

ATC: V04CJ02

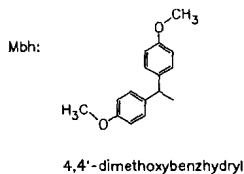
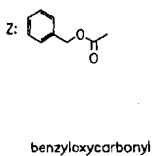
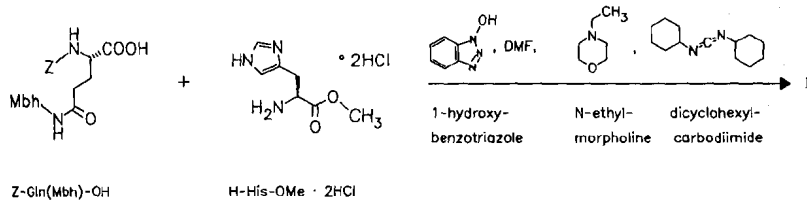
Use: antidepressant, thyroid diagnostic

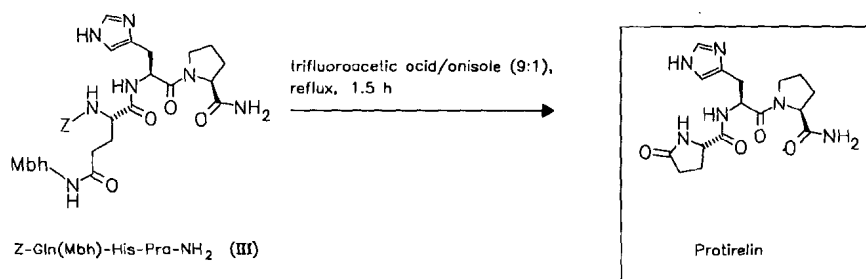
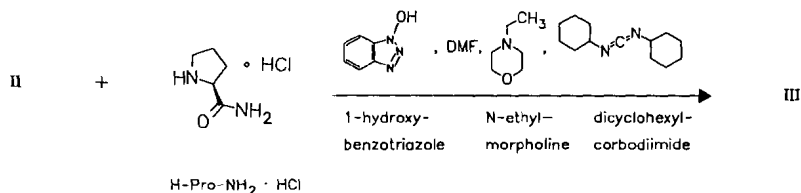
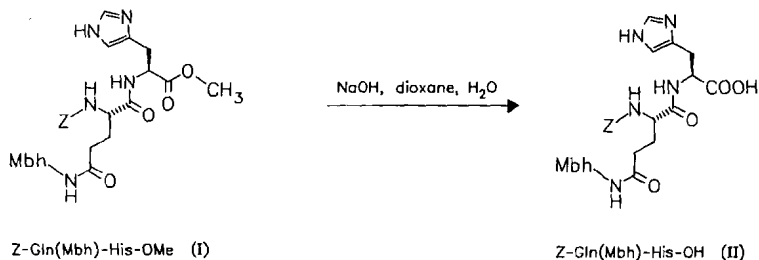
RN: 24305-27-9 MF: $\text{C}_{16}\text{H}_{22}\text{N}_6\text{O}_4$ MW: 362.39 EINECS: 246-143-4

LD_{50} : 921 mg/kg (M, i.v.); >10 g/kg (M, p.o.);

514 mg/kg (R, i.v.); >5 g/kg (R, p.o.)

CN: 5-oxo-L-prolyl-L-histidyl-L-prolinamide



**Reference(s):****synthesis:**

- König, W.; Geiger, R.: Chem. Ber. (CHBEAM) **105**, 2872 (1972).
 US 3 746 697 (K. Folkers et al.; 17.7.1973; prior. 19.9.1969).
 US 3 757 003 (K. Folkers et al.; 4.9.1973; prior. 18.12.1969).
 US 3 753 969 (K. Folkers et al.; 21.8.1973; prior. 22.12.1969).
 US 3 959 247 (Takeda; 25.5.1976; appl. 21.6.1974; J-prior. 2.7.1973).
 DE 2 431 331 (Takeda; appl. 22.5.1975; prior. 29.6.1974).

starting material:

- König, W.; Geiger, R.: Chem. Ber. (CHBEAM) **103**, 2041 (1970).
 Flouret, G.: J. Med. Chem. (JMCMAR) **13**, 843 (1970).

use:**as antidepressant:**

- US 3 737 549 (Abbott; 5.6.1973; appl. 20.3.1972).
 DOS 2 313 635 (Abbott; appl. 19.3.1973; USA-prior. 20.3.1972).

at impaired consciousness:

- DOS 2 611 976 (Takeda; appl. 20.3.1976; GB-prior. 3.4.1975, 26.11.1975).
 US 4 059 692 (Takeda; 22.11.1977; GB-prior. 3.4.1975, 26.11.1975).

for abolition of schizophrenia:

- GB 1 540 574 (Takeda; appl. 23.5.1975; valid from 24.5.1976).

injectable solutions (by use of sugar alcohols):

- DOS 2 743 586 (Takeda; appl. 28.9.1977; J-prior. 1.10.1976).

Formulation(s): amp. 200 µg/2 ml, 400 µg/2 ml; nasal spray 1 mg/0.09 ml; tabl. 40 mg; USA: amp. 500 µg/ml

Trade Name(s):

D: Antepan (Henning Berlin; 1980)
 Relefact TRH (Hoechst; 1975)
 Thyroliberin/TRF Merck (Merck; 1978)

TRH (Berlin-Chemie; Ferring; 1974)
 F: Stimu-T.S.H. (Roussel)
 GB: Relefact (LH-RH/TRH Hoechst; 1978); wfm
 I: Irtonin (Takeda)

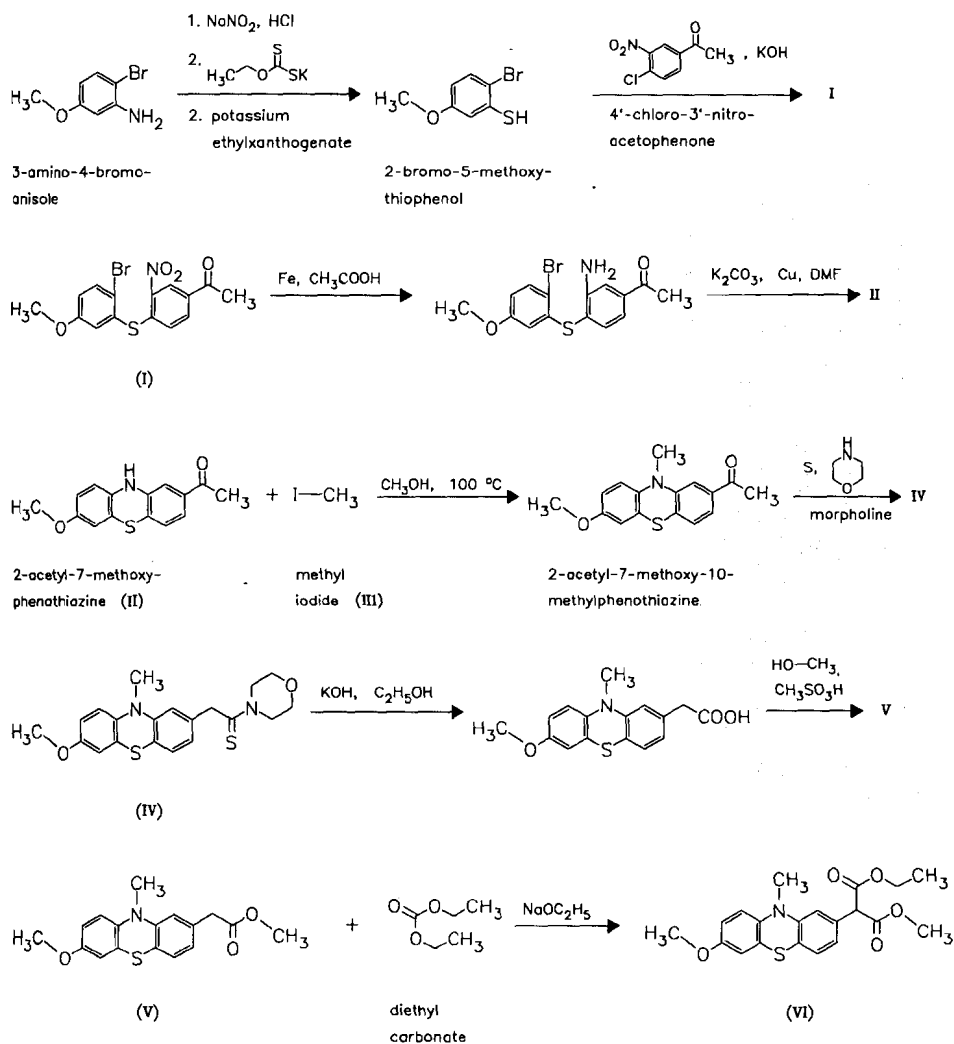
Xantium (Wyeth-Lederle)
 J: TRH (Tanabe)
 USA: Thyrel TRH (Ferring)

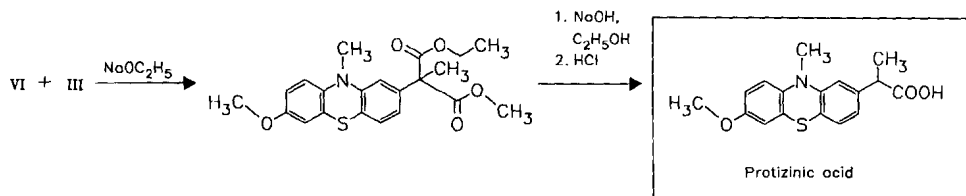
Protizinic acid

(Acide protizinique)

ATC: M01AE

Use: anti-inflammatory

RN: 13799-03-6 MF: C₁₇H₁₇NO₃S MW: 315.39 EINECS: 237-453-0CN: 7-methoxy- α ,10-dimethyl-10H-phenothiazine-2-acetic acid

**Reference(s):**

US 3 450 698 (Rhône-Poulenc; 17.6.1969; F-prior. 29.10.1964).

Formulation(s): cps. 200 mg

Trade Name(s):

F: Pirocid (ThérapiX); wfm J: Piroarid (Mochidia)

Protokylol

ATC: R03A

Use: β -sympathomimetic, bronchodilator

RN: 136-70-9 MF: $\text{C}_{18}\text{H}_{21}\text{NO}_5$ MW: 331.37 EINECS: 205-255-3

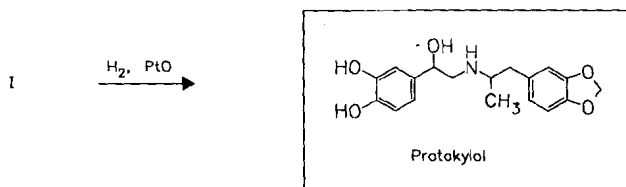
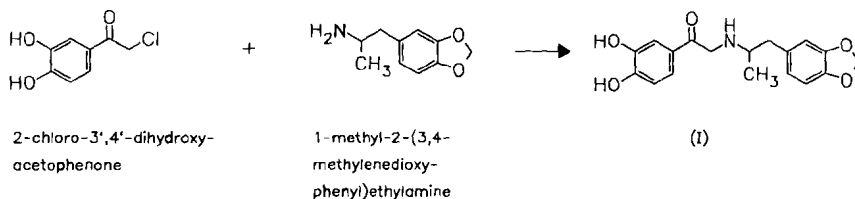
CN: 4-[2-[[2-(1,2-benzodioxol-5-yl)-1-methylethyl]amino]-1-hydroxyethyl]-1,2-benzenediol

hydrochloride

RN: 136-69-6 MF: $\text{C}_{18}\text{H}_{21}\text{NO}_5 \cdot \text{HCl}$ MW: 367.83 EINECS: 205-254-8

LD_{50} : 86.5 mg/kg (M, i.v.); 785 mg/kg (M, p.o.);

71 mg/kg (R, i.v.); 865 mg/kg (R, p.o.)

**Reference(s):**

US 2 900 415 (Lakeside Labs.; 1959; prior. 1954).

Formulation(s): aerosol 0.01 mg; drg. 1 mg; tabl. 1 mg (as hydrochloride)

Trade Name(s):

D: atma-sanol (Sanol)-comb.; wfm I: Asmetil (Benvegna); wfm J: Caytine (Chugai)
 Beres (Simes); wfm USA: Ventaire (Marion); wfm

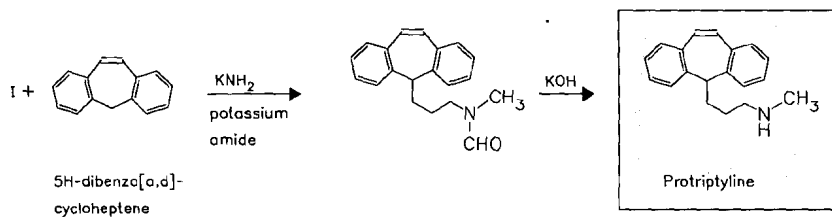
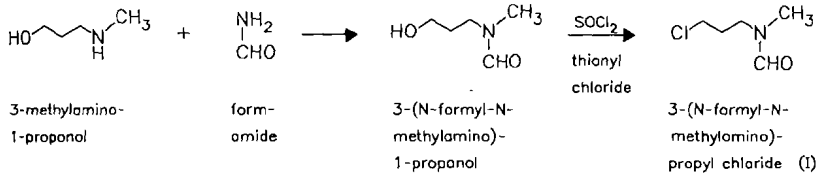
Protriptyline

ATC: N06AA11
Use: antidepressant

RN: 438-60-8 MF: C₁₉H₂₁N MW: 263.38 EINECS: 207-119-9
LD₅₀: 30 mg/kg (M, i.v.); 269 mg/kg (M, p.o.);
240 mg/kg (R, p.o.)
CN: *N*-methyl-5*H*-dibenzo[*a,d*]cycloheptene-5-propanamine

hydrochloride

RN: 1225-55-4 MF: C₁₉H₂₁N · HCl MW: 299.85 EINECS: 214-956-3
LD₅₀: 49 mg/kg (M, i.v.); 211 mg/kg (M, p.o.);
299 mg/kg (R, p.o.)

**Reference(s):**

US 3 244 748 (Merck & Co.; 5.4.1966; prior. 3.7.1962).
US 3 271 451 (Merck & Co.; 6.9.1966; appl. 3.7.1962).
BE 617 967 (Merck & Co.; appl. 22.5.1962; USA-prior. 24.5.1961, 25.9.1961).
DE 1 287 573 (Merck & Co.; appl. 6.5.1963; USA-prior. 14.5.1962).
DE 1 468 212 (Merck & Co.; appl. 21.5.1962; USA-prior. 24.5.1961, 25.9.1961).

alternative syntheses:

DE 1 288 599 (Geigy; appl. 13.3.1962; CH-prior. 14.3.1961, 30.3.1961).
Engelhardt, E.L. et al.: J. Med. Chem. (JMCMAR) **11**, 325 (1968).

Formulation(s): tabl. 5 mg, 10 mg (as hydrochloride)

Trade Name(s):

D:	Maximed (Sharp & Dohme); wfm	GB:	Condordin (Merck Sharp & Dohme)	USA:	Vivactil (Merck Sharp & Dohme)
F:	Concordine (Merck Sharp & Dohme); wfm	I:	Condordin (Merck Sharp & Dohme); wfm		

Proxazole

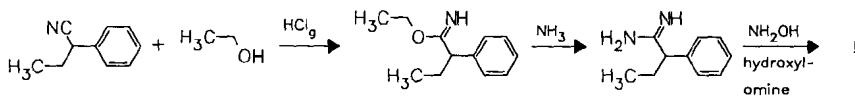
(Propaxoline)

ATC: A03AX07
Use: analgesic, anti-inflammatory, antitussive, antispasmodic, relaxant (smooth muscle)

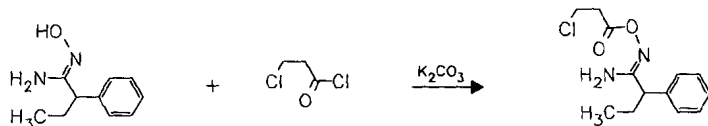
RN: 5696-09-3 MF: C₁₇H₂₅N₃O MW: 287.41
CN: *N,N*-diethyl-3-(1-phenylpropyl)-1,2,4-oxadiazole-5-ethanamine

citrate (1:1)RN: 132-35-4 MF: C₁₇H₂₅N₃O · C₆H₈O₇ MW: 479.53 EINECS: 205-059-8LD₅₀: 68 mg/kg (M, i.v.); 1270 mg/kg (M, p.o.);

1400 mg/kg (R, p.o.)



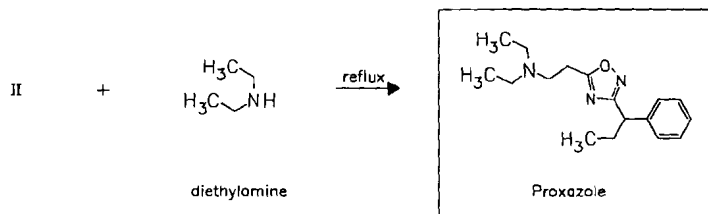
2-phenylbutyronitrile



2-phenylbutyramidoxime (I)

3-chloropropionyl chloride

(II)

**Reference(s):**

US 3 141 019 (Angelini Francesco; 14.7.1964; A-prior. 29.9.1959).

Formulation(s): drops 5 %; tabl. 100 mg (as citrate); vial 30 mg/5 ml**Trade Name(s):**

F: Mendozal (Beaufour); wfm I: Toness (Angelini) J: Pirecin (Yoshitomi)

Proxymetacaine
(Proparacaine)

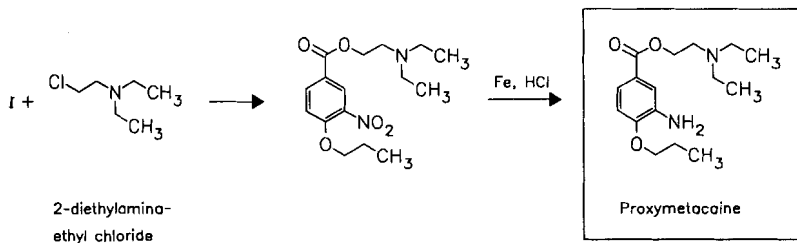
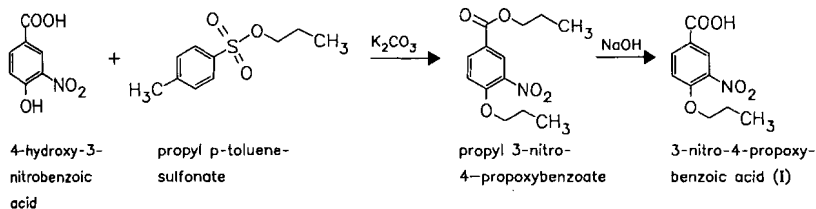
ATC: S01HA04

Use: local anesthetic

RN: 499-67-2 MF: C₁₆H₂₆N₂O₃ MW: 294.40 EINECS: 207-884-9

CN: 3-amino-4-propoxybenzoic acid 2-(diethylamino)ethyl ester

monohydrochlorideRN: 5875-06-9 MF: C₁₆H₂₆N₂O₃ · HCl MW: 330.86 EINECS: 227-541-7LD₅₀: 3371 µg/kg (M, i.v.)

**Reference(s):**Clinton, R.O. et al.: J. Am. Chem. Soc. (JACSAT) **74**, 592 (1952).

US 1 317 250 (Parke Davis; 1919; appl. 1918).

DRP 522 064 (Schering-Kahlbaum AG; appl. 1928).

US 2 288 334 (Abbott; 1942; appl. 1940).

Formulation(s): eye drops 5 mg/ml (as hydrochloride)**Trade Name(s):**D: Proparacain-POS
(Ursapharm)F: Keracaine (Merck Sharp &
Dohme-Chibret); wfmGB: Mimius Proxymetacaine
(Chauvin)Ophthaine (Bristol-Myers
Squibb)

I: Visuanestetico (ISF); wfm

USA: Alcaine (Alcon); wfm

Ophthaine (Squibb); wfm

Ophthetic (Allergan); wfm

Proxyphylline

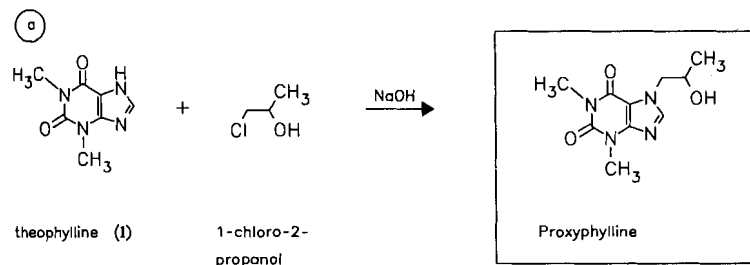
ATC: R03DA03

Use: cardiotonic, bronchodilator

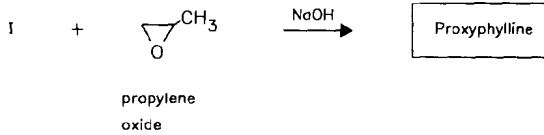
RN: 603-00-9 MF: $C_{10}H_{14}N_4O_3$ MW: 238.25 EINECS: 210-028-7LD₅₀: 510 mg/kg (M, i.v.); 1460 mg/kg (M, p.o.);

430 mg/kg (R, i.v.); 460 mg/kg (R, p.o.)

CN: 3,7-dihydro-7-(2-hydroxypropyl)-1,3-dimethyl-1H-purine-2,6-dione



(b)

**Reference(s):**

US 2 715 125 (Gane's Chem. Works; 1955; prior. 1953).

Formulation(s): clysmas 150 mg/5 ml, 300 mg/10 ml, 600 mg/20 ml; s. r. tabl. 200 mg, 300 mg; suppos. 500 mg; tabl. 300 mg

Trade Name(s):

D:	Antihypertonicum (Trommsdorff)-comb. Neobiphyllin-Clys (Trommsdorff)-comb.	GB:	Brontyl (Reckitt & Colman); wfm Thean (Astra); wfm	I:	Pantafillina (Farmacobiologico); wfm
		J:	Monophyllin (Yoshitomi) Tomophyllin (Nichiiko)		

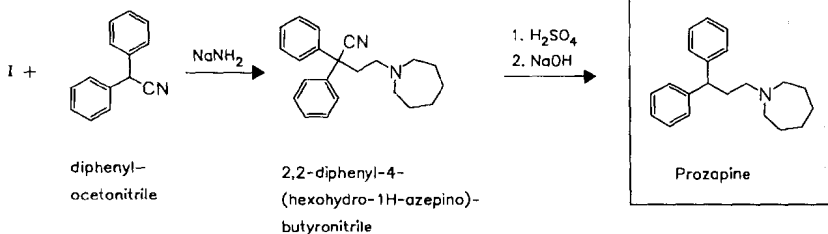
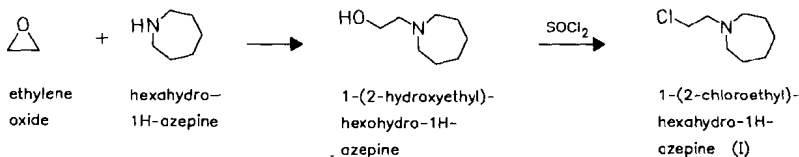
Prozapine

(Hexadiphane)

ATC: A03BA

U_{se}: choleric, antispasmodicRN: 3426-08-2 MF: C₂₁H₂₇N MW: 293.45 EINECS: 222-325-9

CN: 1-(3,3-diphenylpropyl)hexahydro-1H-azepine

hydrochlorideRN: 13657-24-4 MF: C₂₁H₂₇N · HCl MW: 329.92 EINECS: 237-143-5**Reference(s):**

US 2 881 165 (Janssen; 1959; NL-prior. 1956).

Formulation(s): amp. 1 mg/5 ml, 2 mg/5 ml; syrup 1 mg (as hydrochloride)

Trade Name(s):

F: Norbiline (Bellon)-comb. I: Norbiline (Rhône-Poulenc Rorer)

Pyrantel

ATC: P02CC01
Use: anthelmintic (nematodes)

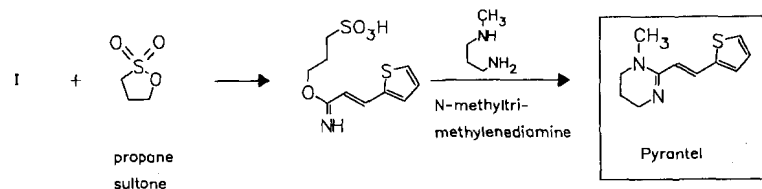
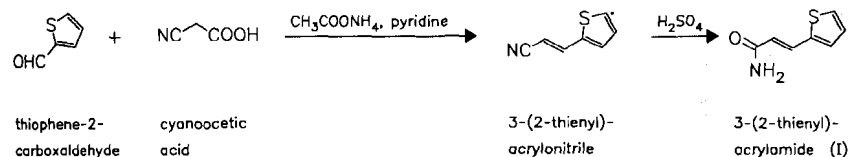
RN: 15686-83-6 MF: C₁₁H₁₄N₂S MW: 206.31 EINECS: 239-774-1
LD₅₀: 175 mg/kg (M, p.o.);
170 mg/kg (R, p.o.);
2 g/kg (dog, p.o.)
CN: (E)-1,4,5,6-tetrahydro-1-methyl-2-[2-(2-thienyl)ethenyl]pyrimidine

tartrate (1:1)

RN: 33401-94-4 MF: C₁₁H₁₄N₂S · C₄H₆O₆ MW: 356.40 EINECS: 251-501-8
LD₅₀: 2220 µg/kg (M, i.v.); 123 mg/kg (M, p.o.);
170 mg/kg (R, p.o.)

pamoate (1:1)

RN: 22204-24-6 MF: C₁₁H₁₄N₂S · C₂₃H₁₆O₆ MW: 594.69 EINECS: 244-837-1
LD₅₀: 620 mg/kg (M, i.p.);
535 mg/kg (R, i.p.)



Reference(s):

BE 658 987 (Pfizer; appl. 28.1.1965; GB-prior. 28.1.1964, 13.8.1964, 26.9.1964).
US 3 502 661 (Pfizer; 24.3.1970; prior. 14.2.1967, 5.6.1967, 9.11.1967).
CH 404 677 (Dr. A. Wander; appl. 2.12.1960).
CH 398 620 (Dr. A. Wander; appl. 16.8.1960).
GB 980 853 (Dr. A. Wander; appl. 16.8.1961; CH-prior. 16.8.1960, 2.12.1960).
NL 147 426 (Dr. A. Wander; appl. 24.5.1963; CH-prior. 25.5.1962, 8.6.1962, 5.12.1962, 15.2.1963).
DE 1 280 879 (Wander; appl. 7.8.1961; CH-prior. 16.8.1960, 2.12.1960).
US 3 539 573 (Wander; 10.11.1970; CH-prior. 16.8.1960, 2.12.1960, 20.7.1961, 25.5.1962, 5.12.1962, 15.2.1963, 22.3.1967, 11.7.1967, 3.11.1967).
Hunziker, F. et al.: Helv. Chim. Acta (HCACAV) **50**, 1588 (1967).

Formulation(s): chewing tabl. 250 mg; sol. 5 %; susp. 250 mg/5 ml, 720 mg; tabl. 125 mg, 250 mg (as pamoate)

Trade Name(s):

D: Helmex (Pfizer) I: Combantrin (Pfizer)
F: Combantrin (Pfizer) International) J: Combantrin (Pfizer)
GB: Combantrin (Pfizer); wfm

USA: Antiminth (Pfizer); wfm

Antiminth (Roerig); wfm

Combantrin (Pfizer); wfm

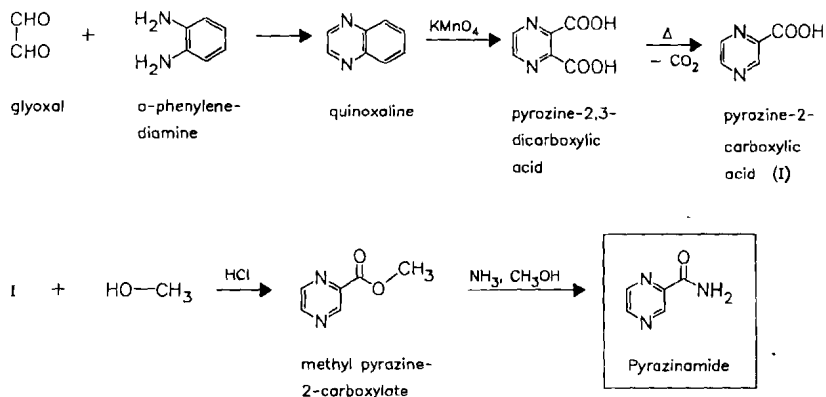
Pyrazinamide

ATC: J04AK01

Use: tuberculostatic, antibacterial

RN: 98-96-4 MF: C₅H₅N₃O MW: 123.12 EINECS: 202-717-6LD₅₀: 1680 mg/kg (M, i.p.); 2793 mg/kg (M, s.c.)

CN: pyrazinecarboxamide

*Reference(s):*

DRP 632 257 (Merck; 1934).

Hall, S.A. et al.: J. Am. Chem. Soc. (JACSAT) **62**, 664 (1940).*alternative synthesis via 2-cyanopyrazine (from 2-chloropyrazine):*

EP 122 355 (Serviphar; appl. 25.7.1983; CH-prior. 21.3.1983).

Formulation(s): cps. 500 mg; drg. 300 mg in comb. with rifapiam, isoniazide; f. c. tabl. 500 mg; tabl. 100 mg, 500 mg

Trade Name(s):

D: Pyrafat (Fatol)

Pyrazinamid (Hefa Pharma)

Pyrazinamid "Lederle" (Lederle)

Rifater (Grünenthal)-comb.

F: Pirilène (Marion Merrell)

Rifater (Marion Merrell)-comb.

 GB: Rifater (Hoechst)-comb.
 Zinamide (Merck Sharp & Dohme)

I: Piralidina (Bracco)

J: Pyramide (Sankyo)

 USA: Rifater (Hoechst Marion Merrell)-comb.
 generics
Pyridinol carbamate

(Pyricarbate)

ATC: C04AX49

Use: antiarteriosclerotic

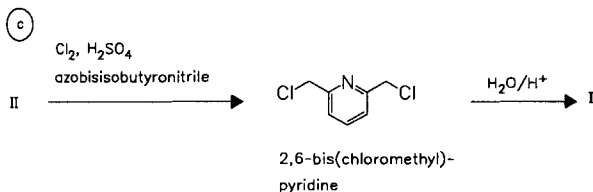
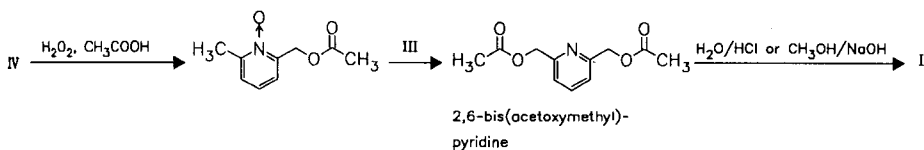
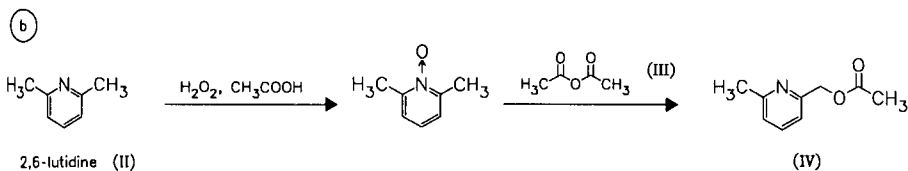
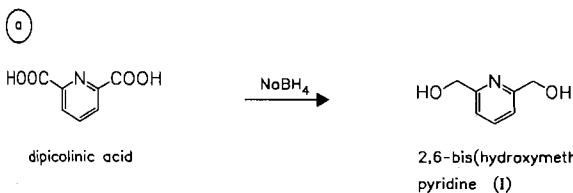
RN: 1882-26-4 MF: C₁₁H₁₅N₃O₄ MW: 253.26 EINECS: 217-538-9LD₅₀: 3100 mg/kg (M, p.o.);

1230 mg/kg (R, p.o.);

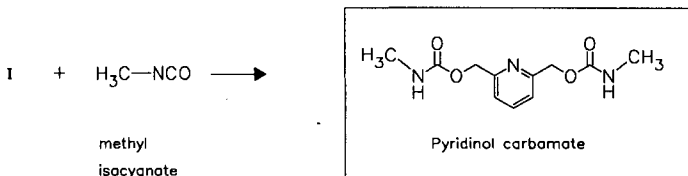
1 g/kg (dog, p.o.)

CN: 2,6-pyridinedimethanol bis(methylcarbamate)

starting product:



final product:


Reference(s):

FR 1 396 624 (M. Inoue; appl. 13.4.1964; J-prior. 13.4.1963).
 AT 258 953 (M. Inoue; appl. 13.4.1964; J-prior. 13.4.1963).
 AT 258 954 (M. Inoue; appl. 13.4.1964; J-prior. 13.4.1963).
 AT 258 955 (M. Inoue; appl. 8.11.1965).

alternative syntheses [from 2,6-bis(hydroxymethyl)pyridine and N,N'-dimethylurea]:

DOS 2 263 812 (Rocador S. A.; appl. 28.12.1972; E-prior. 28.12.1971).

 γ_1 - and γ_2 -modifications:

DOS 2 702 772 (Richter Gedeon; appl. 24.1.1977; H-prior. 24.1.1976).
 GB 1 548 334 (Richter Gedeon; appl. 21.1.1977; H-prior. 24.1.1976).

2,6-bis(hydroxymethyl)pyridine:

a FR 1 396 624 (M. Inoue; appl. 13.4.1964; J-prior. 13.4.1963).
b Bockelheide, V.; Linn, W.J.: J. Am. Chem. Soc. (JACSAT) **76**, 1286 (1954).
c FR 1 394 362 (Merck & Co.; appl. 31.3.1964; USA-prior. 2.4.1963).

alternative syntheses:

DAS 2 460 039 (Richter Gedeon; appl. 19.12.1974; H-prior. 29.12.1973).

DAS 2 614 400 (Richter Gedeon; appl. 2.4.1976; H-prior. 2.4.1975).

Formulation(s): tabl. 250 mg*Trade Name(s):*

F: Angioxine (Roussel); wfm

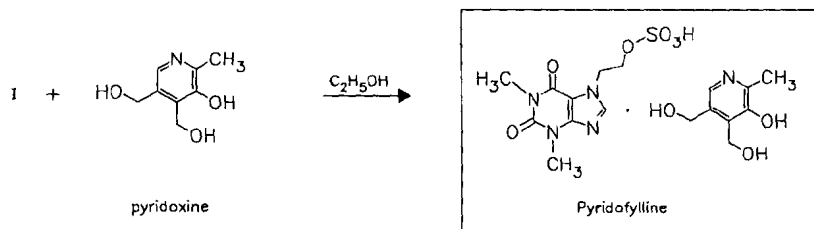
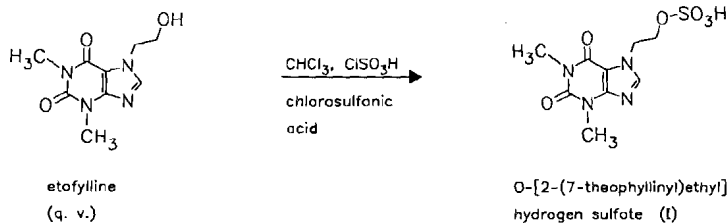
I: Cicloven (AGIPS)

J: Anginin (Banyu)

Pyridofylline

ATC: C01D

Use: coronary vasodilator

RN: 53403-97-7 MF: $C_9H_{12}N_4O_6S \cdot C_8H_{11}NO_3$ MW: 473.46 EINECS: 258-521-6LD₅₀: 1 g/kg (M, i.v.); 1600 mg/kg (M, p.o.)CN: 3,7-dihydro-1,3-dimethyl-7-[2-(sulfooxy)ethyl]-1*H*-purine-2,6-dione compd. with 5-hydroxy-6-methyl-3,4-pyridinedimethanol (1:1)*Reference(s):*

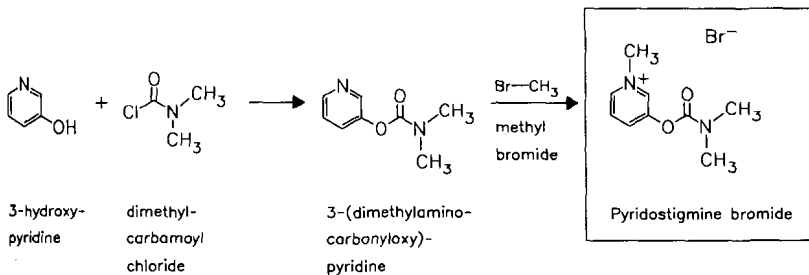
FR-M 828 (J. Debarge; appl. 23.12.1960).

*Trade Name(s):*F: Atherophylline (Merrell);
wfm**Pyridostigmine bromide**

ATC: N07AA02

Use: parasymphathomimetic (cholinesterase
blocker), antimyasthenic, vagotonicRN: 101-26-8 MF: $C_9H_{13}BrN_2O_2$ MW: 261.12 EINECS: 202-929-9LD₅₀: 1500 µg/kg (M, i.v.); 16 mg/kg (M, p.o.)

CN: 3-[[dimethylamino]carbonyl]oxy]-1-methylpyridinium bromide



Reference(s):
 CH 246 834 (Roche; appl. 1945).
 US 2 572 579 (Roche; 1951; CH-prior. 1945).

Formulation(s): amp. 1 mg/ml, 5 mg/ml; drg. 60 mg; s. r. tabl. 180 mg; syrup 60 mg/5 ml; tabl. 60 mg

Trade Name(s):

D:	Kalymin (ASTA Medica AWD) Mestinon (ICN)	F:	Mestinon (Roche)	J:	Mestinon (Nippon Roche)
		GB:	Mestinon (Roche)	USA:	Mestinon (ICN)
		I:	Mestinon (Roche)		Regonol (Organon)

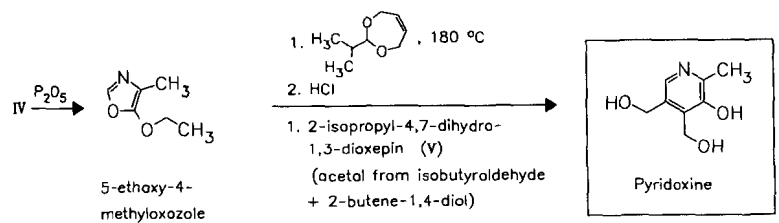
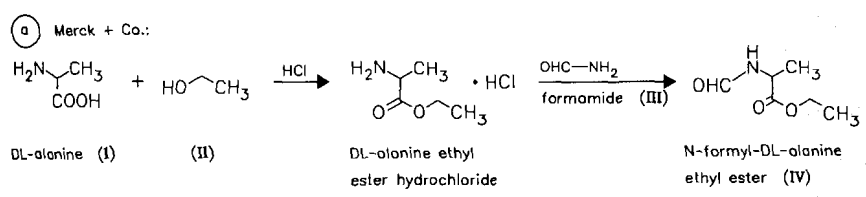
Pyridoxine
 (Vitamin B₆)

ATC: A11HA02
 Use: vitamin (enzym co-factor)

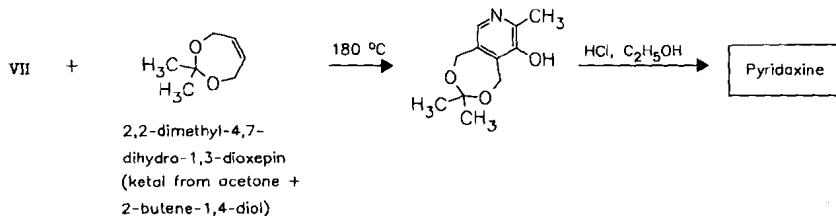
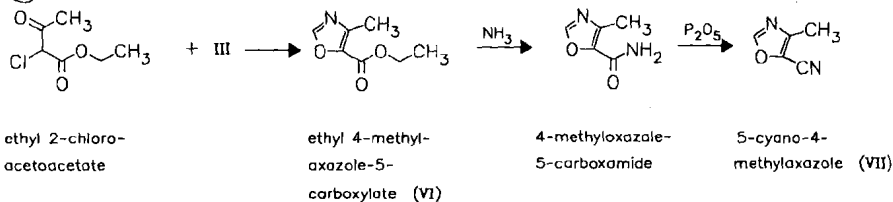
RN: 65-23-6 MF: C₈H₁₁NO₃ MW: 169.18 EINECS: 200-603-0
 LD₅₀: 545 mg/kg (M, i.v.); 657 mg/kg (R, i.v.); 4 g/kg (R, p.o.)
 CN: 5-hydroxy-6-methyl-3,4-pyridinedimethanol

hydrochloride

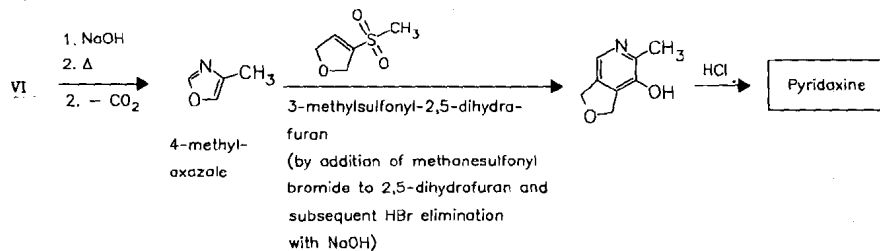
RN: 58-56-0 MF: C₈H₁₁NO₃ · HCl MW: 205.64 EINECS: 200-386-2
 LD₅₀: 660 mg/kg (M, i.v.); 5500 mg/kg (M, p.o.); 530 mg/kg (R, i.v.); 4 g/kg (R, p.o.); >500 mg/kg (dog, p.o.)



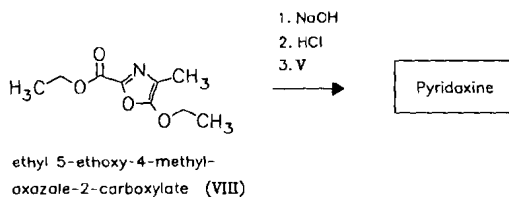
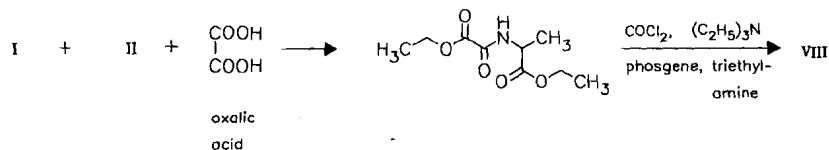
(b) Roche:



(c) BASF:



(d)



*Reference(s):**review of pyridoxine syntheses:*König, H.; Böll, W.: Chem.-Ztg. (CMKZAT) **100**, 105 (1976).**a** Harris, E.E. et al.: J. Org. Chem. (JOCEAH) **27**, 2705 (1962).

DAS 1 470 022 (Merck & Co.; appl. 10.5.1962; USA-prior. 15.5.1961, 16.1.1962).

US 3 227 721 (Merck & Co.; 4.1.1966; prior. 15.5.1961, 16.1.1962, 24.5.1965).

US 3 227 724 (Merck & Co.; 4.1.1966; prior. 15.5.1961, 16.1.1962, 16.6.1964).

b US 3 222 374 (Roche; 7.12.1965; prior. 22.5.1963, 20.11.1964).

US 3 250 778 (Roche; 10.5.1966; appl. 29.11.1962).

US 4 026 901 (Roche; 31.5.1977; appl. 30.4.1975).

DOS 2 616 349 (Roche; appl. 14.4.1976; USA-prior. 30.4.1975).

5-cyano-4-methyloxazole:

US 4 093 654 (Roche; 6.6.1978; appl. 31.3.1977).

c DAS 2 143 989 (BASF; appl. 2.9.1971).

3-methylsulfonyl-2,5-dihydrofuran:

DOS 2 435 098 (BASF; 22.7.1974).

d Maeda, J. et al.: Bull. Chem. Soc. Jpn. (BCSJA8) **42**, 1435 (1969).*alternative syntheses:**from 5-ethoxy-4-oxazolylacetic acid:*

DAS 2 008 854 (Roche; appl. 25.2.1970; CH-prior. 25.3.1969).

4-methyloxazol from formimino ester hydrochloride and hydroxyacetone:

GB 1 515 737 (BASF; appl. 22.10.1975; D-prior. 31.10.1974).

Formulation(s): amp. 25 mg/2 ml, 50 mg/2 ml, 100 mg/2 ml, 300 mg; drg. 100 mg, 300 mg; f. c. tabl. 40 mg; tabl. 1 mg, 25 mg, 40 mg, 50 mg, 100 mg, 300 mg (as hydrochloride)*Trade Name(s):*

D:	B ₆ -ASmedic (Dyckerhoff)	Alcalosio (SIT)-comb.	Neogeynevral (Geymonat)-comb.
	B ₆ -Vicotrat (Heyl)	Antemesyl (Molteni)-comb.	Neuraben (Bioindustria)-comb.
	BYK (Roche Nicholas)-comb.	Antimicotico pom. derm. (IFI)-comb.	Neurobionta (Bracco)-comb.
	Bonasanit (Weimer)	Benadon (Roche)	Sustenium (Menarini)-comb.
	Hexobion (Merck)	Benexol (Roche)-comb.	Triferon (Salus)-comb.
	Vitamin B ₆ ratiopharm (ratiopharm)	Coxanturenasi (Teofarma)-comb.	Trinevrina B ₆ (Guidotti)-comb.
	generics and circa 500 combination preparations	Detoxergon (Baldacci)-comb.	Xanturenasi (Teofarma)
F:	Becilan (Specia)	Dobetin (Angelini)-comb.	J: Aderoxin (Sonybod-Torii)
	Dermo-6 (Pharmadéveloppement)	Emoferrina B ₁₂ os (Piam)-comb.	Pyridomin (Showa)
	Pyridoxine Aguettant (Aguettant)	Etanicozid (Piam)-comb.	Sandoxin (Sanko)
	Vitamine B ₆ Richard (Richard)	Furanvit (SIFI)-comb.	numerous combination preparations
	numerous combination preparations	Memosprint (Poli)-comb.	USA: Aminoxin (Tyson)
GB:	Comploment Continus (Napp); wfm	Menalgon (Menarini)-comb.	Beelith (Beach)-comb.
	numerous combination preparations	Miazide B ₆ (Wyeth-Lederle)-comb.	Lurline (Fielding)-comb.
I:	Acutil Fosforo (SmithKline Beecham)	Midium (Glaxo)-comb.	Marlyn Formula 50 (Marlyn)-comb.
	Adenoplex (Lepetit)-comb.	Mionevrasi forte (Boehringer Mannh.)-comb.	Mega-B (Arco)-comb.

Pyrimethamine

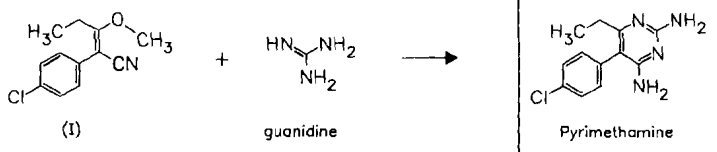
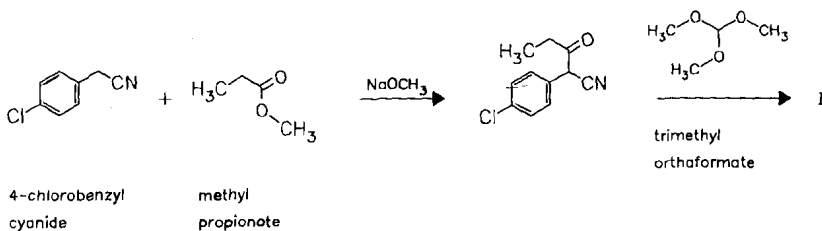
ATC: P01BD01

Use: chemotherapeutic (toxoplasmosis and malaria), antimalarial

RN: 58-14-0 MF: C₁₂H₁₃CIN₄ MW: 248.72 EINECS: 200-364-2LD₅₀: 92 mg/kg (M, p.o.);

440 mg/kg (R, p.o.)

CN: 5-(4-chlorophenyl)-6-ethyl-2,4-pyrimidinediamine

**Reference(s):**

US 2 576 939 (Burroughs Wellcome; 1951; prior. 1950).

US 2 602 794 (Burroughs Wellcome; 1952; appl. 1950).

US 2 680 740 (Rhône-Poulenc; 1954; F-prior. 1951).

Formulation(s): tabl. 25 mg**Trade Name(s):**

D:	Daraprim (Glaxo Wellcome)	Fansidar (Roche)-comb. Maloprim (Wellcome)-comb.	USA:	Daraprim (Glaxo Wellcome)
F:	Fansidar (Roche)-comb. Malocide (Specia)	I:	Metakelfin (Pharmacia & Upjohn)-comb.	Fansidar (Roche)-comb. with sulfadoxine
GB:	Daraprim (Burroughs Wellcome)	J:	Fansidar (Roche)-comb.	

Pyrrithione zinc

(Zinc pyrrithione)

ATC: D11AX

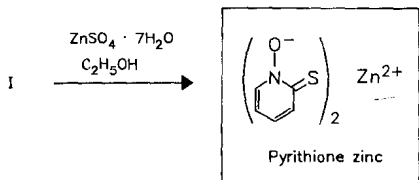
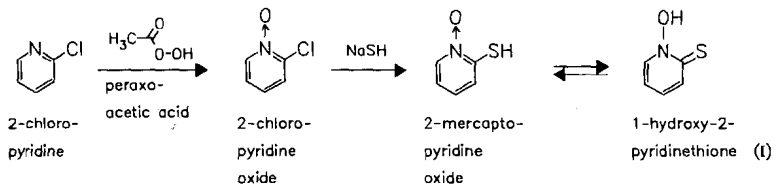
Use: antiseborrhoic, fungicide, bactericide

RN: 13463-41-7 MF: C₁₀H₈N₂O₂S₂Zn MW: 317.71 EINECS: 236-671-3LD₅₀: 160 mg/kg (M, p.o.);

177 mg/kg (R, p.o.);

600 mg/kg (dog, p.o.)

CN: (T-4)-bis(1-hydroxy-2(1H)-pyridinethionato-O,S)zinc



Reference(s):

GB 761 171 (Olin Mathieson; appl. 19.5.1954; USA-prior. 29.5.1953).

pyrithione:

US 2 745 826 (Olin Mathieson; 15.5.1956; appl. 16.12.1953).

Shaw, E. et al.: J. Am. Chem. Soc. (JACSAT) **72**, 4362 (1950).

use:

US 3 236 733 (Procter & Gamble; 22.2.1966; prior. 5.9.1963, 1.4.1965).

US 3 281 366 (Procter & Gamble; 25.10.1966; prior. 25.8.1964, 4.11.1965).

Formulation(s): cream 1 g/100 g; shampoo 1 %, 2 %

Trade Name(s):

D:	de-squamam hermal (Hermal)	Ultrex antipelluculaire (Lab. Pharmaeurop); wfm	USA: DHS Zinc (Person & Covey)
F:	Fonderma (Doms); wfm	GB: Polystar AF (Stiefel)-comb. J: Merit (Kao)	Head & Shoulders (Procter & Gamble)

Pyrithyldione

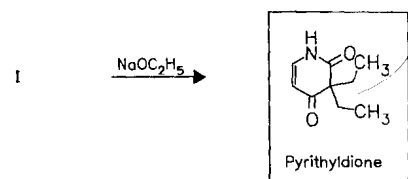
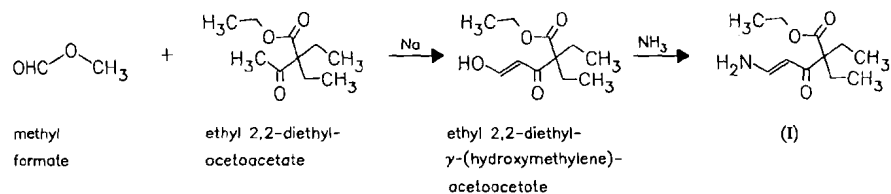
ATC: N05CE03

Use: hypnotic, sedative

RN: 77-04-3 MF: C₉H₁₃NO₂ MW: 167.21 EINECS: 201-000-5

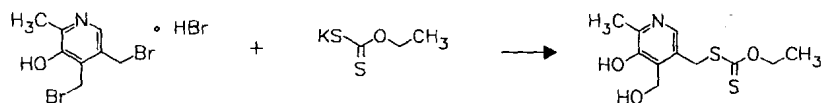
LD₅₀: 780 mg/kg (R, p.o.)

CN: 3,3-diethyl-2,4(1*H*,3*H*)-pyridinedione

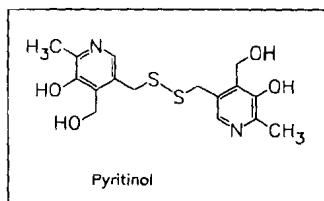
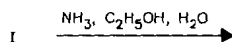


Reference(s):

US 2 090 068 (Hoffmann-La Roche; 1937; D-prior. 1935).

*Trade Name(s):*D: Perscdon Roche (Roche); wfm
I: Hibersulfan (Ecobi)-comb.; wfm**Pyritinol**
(Pyrithioxine)ATC: N06BX02
Use: neurotropic, nootropicRN: 1098-97-1 MF: C₁₆H₂₀N₂O₄S₂ MW: 368.48 EINECS: 214-150-1
CN: 3,3'-[dithiobis(methylene)]bis[5-hydroxy-6-methyl-4-pyridinemethanol]**dihydrochloride monohydrate**RN: 10049-83-9 MF: C₁₆H₂₀N₂O₄S₂ · 2HCl · H₂O MW: 459.42 EINECS: 233-178-5
LD₅₀: 221 mg/kg (M, i.v.); 5786 mg/kg (M, p.o.);
300 mg/kg (R, i.v.); 6 g/kg (R, p.o.)3,4-bis(bromomethyl)-
5-hydroxy-6-methyl-
pyridine hydrobromide
(from pyridoxine)potassium ethyl-
xanthogenate

(I)

*Reference(s):*US 3 010 966 (E. Merck AG; 28.11.1961; D-prior. 21.3.1958).
DE 1 135 460 (E. Merck AG; appl. 21.3.1958).
DE 1 197 455 (E. Merck AG; appl. 27.8.1960).*alternative syntheses:*DAS 1 210 429 (E. Merck AG; appl. 3.8.1963).
DE 1 222 062 (E. Merck AG; appl. 8.2.1964).
DE 1 227 908 (E. Merck AG; appl. 8.2.1964).
DOS 1 695 402 (E. Merck AG; appl. 25.3.1967).*Formulation(s):* amp. 200 mg; drg. 100 mg, 200 mg; susp. 80.5 mg/5 ml, 100 mg; syrup 100 mg (as hydrochloride)*Trade Name(s):*D: Ardeyceryl P (Ardeypharm)
Encephabol (Merck)
F: Biontabol (Merck-Clévenot)-comb.; wfm
Encéphabol (Merck-Clévenot); wfm
I: Encefabol (Bracco)
J: Chioebon (Kyowa Yakuin)
Divalvon (Nippon Kayaku)

Enbol (Merck-Chugai)
Neurotin (Nakataki)

Neuroxin (Yamanouchi)
Piritiomin (Hishiyama)

Pyrovalerone

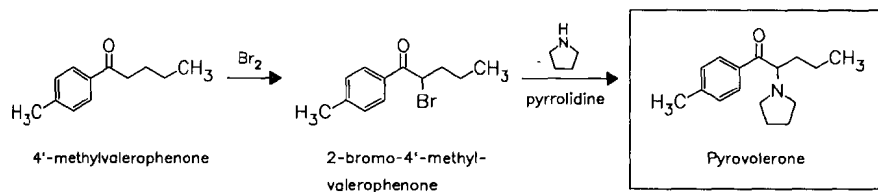
ATC: N06BA

Use: central stimulant

RN: 3563-49-3 MF: $C_{16}H_{23}NO$ MW: 245.37
CN: 1-(4-methylphenyl)-2-(1-pyrrolidinyl)-1-pentanone

hydrochloride

RN: 1147-62-2 MF: $C_{16}H_{23}NO \cdot HCl$ MW: 281.83 EINECS: 214-556-9
LD₅₀: 43 mg/kg (M, i.v.); 350 mg/kg (M, p.o.);
47 mg/kg (R, i.v.); 620 mg/kg (R, p.o.)



Reference(s):

GB 933 507 (Thomae; appl. 4.4.1961; D-prior. 7.4.1960).
GB 927 475 (Dr. A. Wander; appl. 18.5.1961; CH-prior. 24.5.1960).

Formulation(s): cps. 20 mg

Trade Name(s):

F: Thymergix (Joullié); wfm

Pyrobutamine

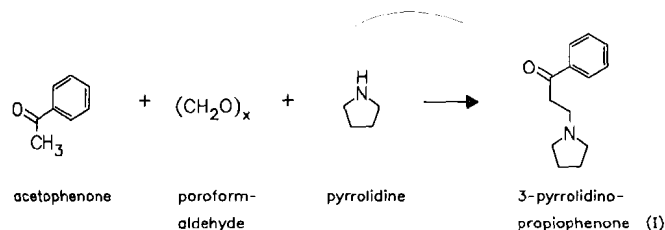
ATC: R06AX08

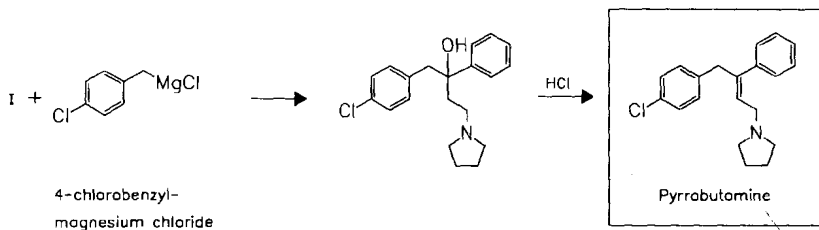
Use: antihistaminic

RN: 91-82-7 MF: $C_{20}H_{22}ClN$ MW: 311.86 EINECS: 202-101-7
CN: 1-[4-(4-chlorophenyl)-3-phenyl-2-butenyl]pyrrolidine

phosphate (1:2)

RN: 135-31-9 MF: $C_{20}H_{22}ClN \cdot 2H_3O_4P$ MW: 507.84 EINECS: 205-185-3
LD₅₀: 54 mg/kg (M, i.v.); 1116 mg/kg (M, p.o.)



**Reference(s):**

US 2 655 509 (Eli Lilly; 1953; prior. 1951).

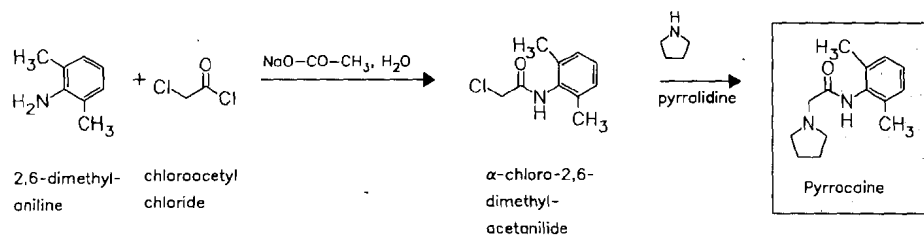
Formulation(s): tabl. 15 mg**Trade Name(s):**

D:	Copynilum (Lilly)- comb.; wfm	USA:	Co-Pyronil (Dista)-comb.; wfm
GB:	Co-Pyronil (Lilly)-comb.; wfm		Co-Pyronil (Lilly)-comb.; wfm

Pyrrocaine

ATC: N01BB

Use: local anesthetic

RN: 2210-77-7 MF: C₁₄H₂₀N₂O MW: 232.33CN: *N*-(2,6-dimethylphenyl)-1-pyrrolidineacetamide**monohydrochloride**RN: 2210-64-2 MF: C₁₄H₂₀N₂O · HCl MW: 268.79 EINECS: 218-642-7**Reference(s):**Löfgren, N. et al.: Acta Chem. Scand. (ACHSE7) **11**, 1724 (1957).**Formulation(s):** vial 2 %**Trade Name(s):**

USA: Dynacaine (Graham); wfm Endocaine (Endo); wfm

Pyrrolnitrin

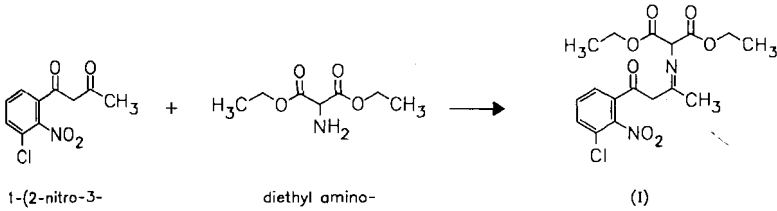
ATC: D01AA07

Use: antibiotic, antifungal

RN: 1018-71-9 MF: C₁₀H₆Cl₂N₂O₂ MW: 257.08 EINECS: 213-812-7LD₅₀: 1 g/kg (M, p.o.);

>2 g/kg (R, p.o.)

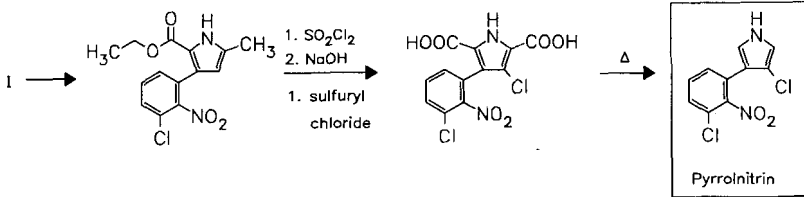
CN: 3-chloro-4-(3-chloro-2-nitrophenyl)-1*H*-pyrrole



1-(2-nitro-3-chlorophenyl)-1,3-butanedione

diethyl amino-malonate

(I)



Reference(s):

US 3 428 648 (Fujisawa; 18.2.1969; J-prior. 8.4.1965, 2.2.1965, 4.12.1964, 7.12.1964, 22.10.1964, 12.10.1964).
 Nakano, H. et al.: Tetrahedron Lett. (TELEAY) **1966**, 737 (also further methods).

isolation from Pseudomonas:

Arina, K. et al.: Agric. Biol. Chem. (ABCHA6) **28**, 575 (1964).

Formulation(s): cream 1 %

Trade Name(s):

D: Antimycoticum Klinger (Dr. Klinger)-comb.; wfm	Micutrin Beta (Monsanto)-comb.
I: Micutrin (Monsanto)	J: Pyroace (Fujisawa)

Pyrvinium embonate

(Pyrvinium pamoate)

ATC: P02CX01
 Use: anthelmintic

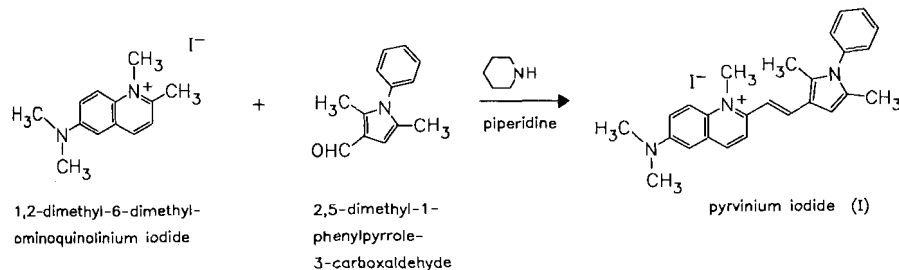
RN: 3546-41-6 MF: C₂₆H₂₈N₃ · 1/2C₂₃H₁₄O₆ MW: 1151.42 EINECS: 222-596-3

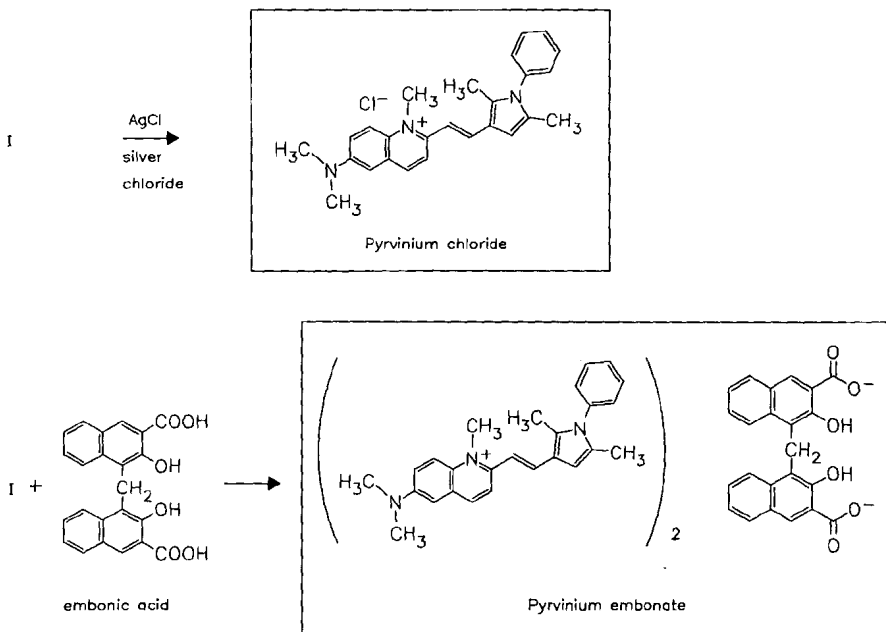
LD₅₀: 200 mg/kg (M, s.c.)

CN: 6-(dimethylamino)-2-[2-(2,5-dimethyl-1-phenyl-1H-pyrrol-3-yl)ethenyl]-1-methylquinolinium 4,4'-methylenebis[3-hydroxy-2-naphthalenecarboxylate] (2:1)

chloride

RN: 548-84-5 MF: C₂₆H₂₈ClN₃ MW: 417.98



*Reference(s):*pyrvinium iodide *and* chloride:

US 2 515 912 (Eastman Kodak; 1950; prior. 1946).

pyrvinium embonate:

US 2 925 417 (Parke Davis; 16.2.1960; prior. 6.11.1957).

Formulation(s): drg. 75.25 mg; susp.75.25 mg/5 ml*Trade Name(s):*D: Molevac (Parke Davis)
Pyrccen (Krewel
Meuselbach)F: Povanyl (Warner-Lambert)
I: Vanquin (Parke Davis)J: Poquil (Parke Davis-
Sankyo)

USA: Povon (Parke Davis); wfm

Quazepam

(Sch-16134)

ATC: N05CD10

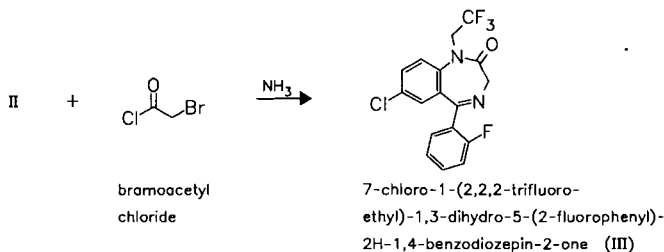
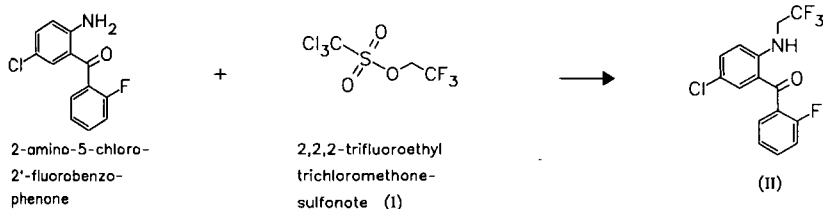
Use: benzodiazepine hypnotic

RN: 36735-22-5 MF: C₁₇H₁₁ClF₄N₂S MW: 386.80 EINECS: 253-179-4LD₅₀: 845 mg/kg (M, i.p.); >1370 mg/kg (M, i.v.); >5000 mg/kg (M, p.o.);

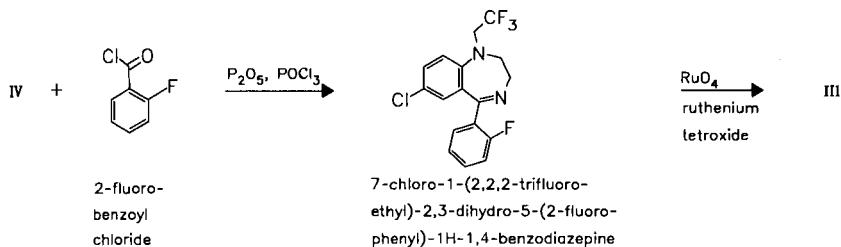
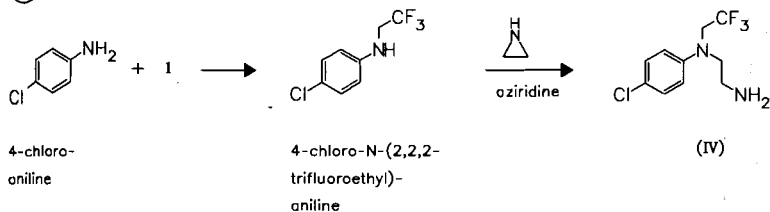
2749 mg/kg (R, i.p.); >5 g/kg (R, p.o.)

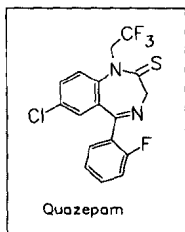
CN: 7-chloro-5-(2-fluorophenyl)-1,3-dihydro-1-(2,2,2-trifluoroethyl)-2H-1,4-benzodiazepine-2-thione

a



b



III $\xrightarrow{P_2S_5, \text{dioxane}}$ *Reference(s):*

US 3 845 039 (Schering Corp.; 29.10.1974; appl. 26.7.1972; prior. 7.8.1970).

US 3 920 818 (Schering Corp.; 18.11.1975; appl. 31.7.1974; prior. 26.7.1972, 24.1.1972, 7.8.1970).

DOS 2 138 773 (Scherico; appl. 3.8.1971; USA-prior. 7.8.1970).

Steinman, M. et al.: J. Med. Chem. (JMCMAR) **16**, 1354 (1973).*alternative synthesis:*

DOS 2 106 175 (Scherico; appl. 10.2.1971; USA-prior. 13.2.1970).

Formulation(s): tabl. 7.5 mg, 15 mg*Trade Name(s):*I: Quazium (Schering-
Plough; 1987)

USA: Doral (Wallace)

Quetiapine fumarate

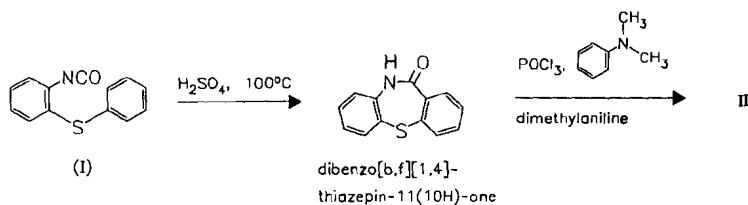
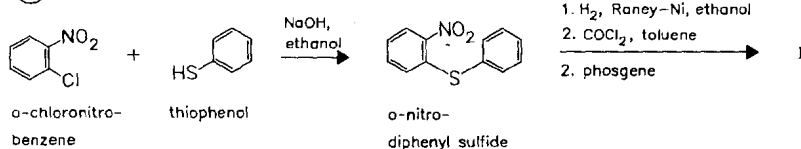
(ZD 5077; ZM 204636; ICI-204636)

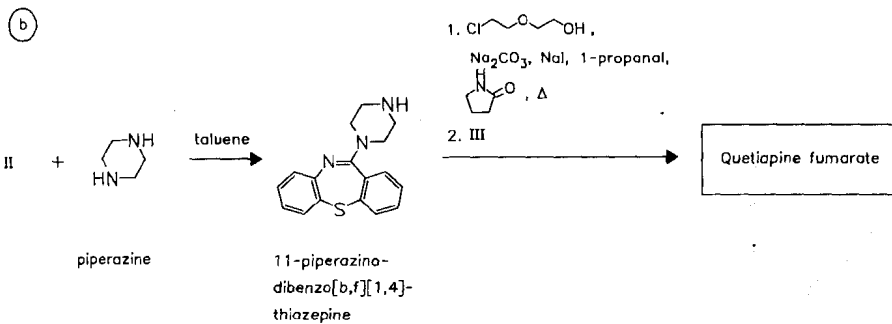
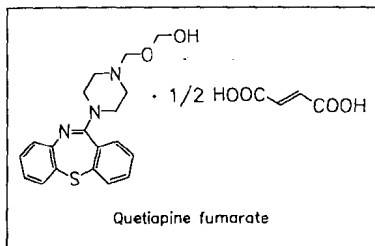
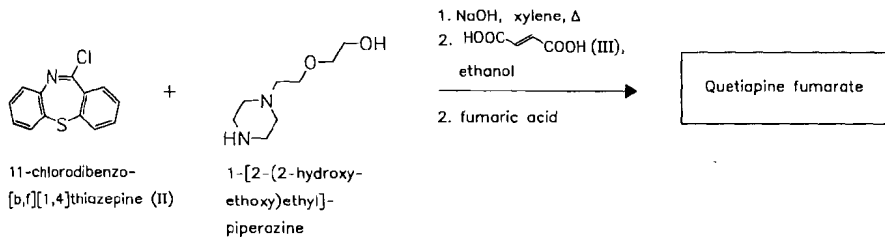
ATC: N05AH04

Use: antipsychotic

RN: 111974-72-2 MF: $C_{21}H_{25}N_3O_2S \cdot 1/2C_4H_4O_4$ MW: 883.10CN: 2-[2-(4-Dibenzo[*b,f*][1,4]thiazepin-11-yl-1-piperazinyl)ethoxy]ethanol fumarate (2:1)**base**RN: 111974-69-7 MF: $C_{21}H_{25}N_3O_2S$ MW: 383.52

a





Reference(s):

- a EP 240 228 (ICI; appl. 24.3.1987; GB-prior. 27.3.1986).
- b EP 282 236 (ICI; appl. 4.3.1988; GB-prior. 10.3.1987).

synthesis of dibenzo[b,f][1,4]thiazepin-10(11H)-one:

Schmutze, J. et al.: *Helv. Chim. Acta (HCACAV)* **48**, 336 (1965).

sustained-release formulation:

WO 9 745 124 (Zeneca; appl. 27.5.1997; GB-prior. 31.5.1996).

pharmaceutical composition for treatment of psychoses:

EP 830 864 (Eli Lilly; appl. 22.9.1997; USA-prior. 23.9.1996).

Formulation(s): tabl. 25 mg, 100 mg, 150 mg, 200 mg

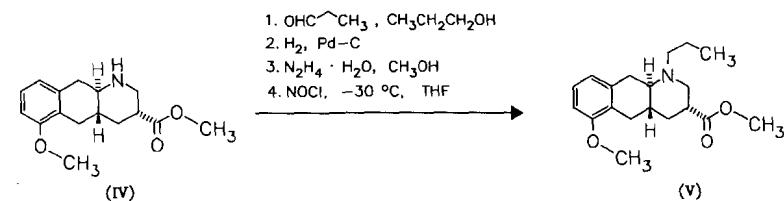
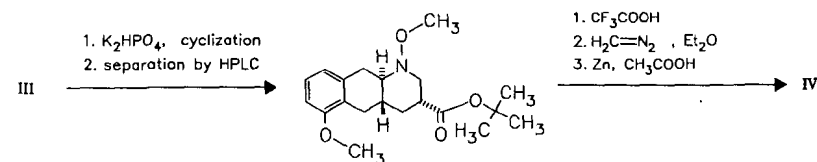
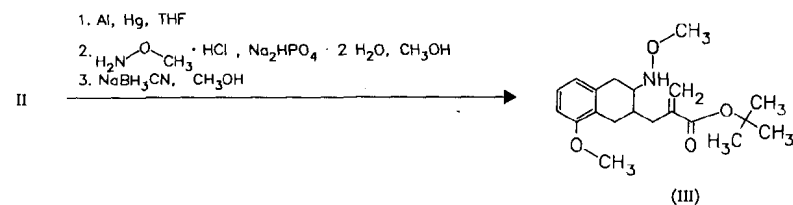
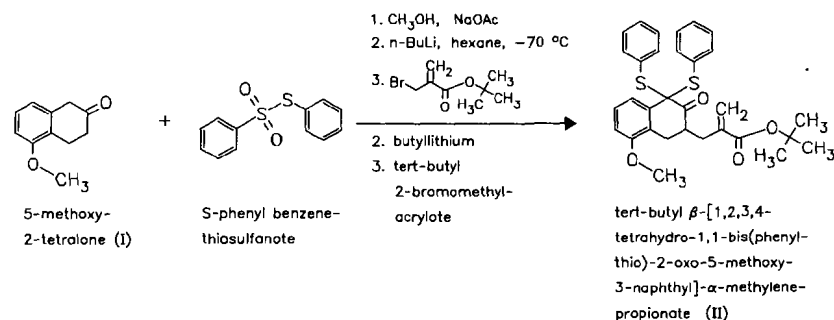
Trade Name(s):

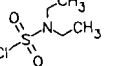
GB: Seroquel (Zeneca; 1997) USA: Seroquel (Zeneca; 1997)

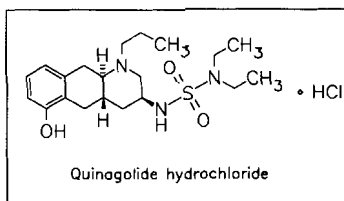
Quinagolide hydrochloride

(CV-205502; SDZ-205502)

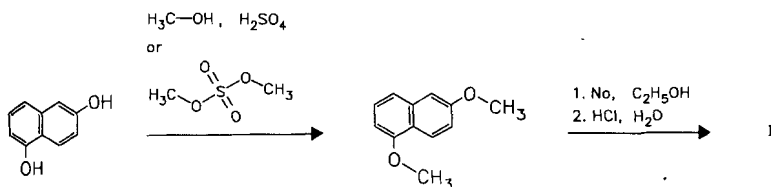
ATC: G02CB04

Use: dopamine D₂-receptor agonist,
antiparkinsonian, prolactin secretion
inhibitorRN: 94424-50-7 MF: C₂₀H₃₃N₃O₃S · HCl MW: 432.03CN: (3 α ,4 α ,10 α \beta)-(±)-N,N-diethyl-N'-(1,2,3,4,4a,5,10,10a-octahydro-6-hydroxy-1-propylbenzo[g]quinolin-3-yl)sulfamide monohydrochloride**base (racemate)**RN: 87056-78-8 MF: C₂₀H₃₃N₃O₃S MW: 395.57**all diastereomers**RN: 130793-78-1 MF: C₂₀H₃₃N₃O₃S · HCl MW: 432.03**base (all diastereomers)**RN: 130793-77-0 MF: C₂₀H₃₃N₃O₃S MW: 395.57**3 β -diastereomers**RN: 132071-86-4 MF: C₂₀H₃₃N₃O₃S · HCl MW: 432.03**base (3 β -diastereomers)**RN: 132014-58-5 MF: C₂₀H₃₃N₃O₃S MW: 395.57

1. $N_2H_4 \cdot H_2O$, CH_3OH
2. $NOCl$, THF , $-30\text{ }^\circ C$
3. HCl
4. K_2CO_3 , CH_2Cl_2
5. , $N(C_2H_5)_3$, $CHCl_3$
6. HCl
7. BBR_3 , CH_2Cl_2 , $-30\text{ }^\circ C$

 V $\xrightarrow{\hspace{10em}}$


preparation of 5-methoxy-2-tetralone


 1,6-naphthalene-
diol

Reference(s):

EP 77 754 (Sandoz; appl. 27.4.1983; CH-prior. 16.10.1982, 25.6.1982).
 US 4 565 818 (Sandoz; appl. 21.1.1986; CH-prior. 16.10.1981, 25.6.1982).

preparation of 5-methoxy-2-tetralone:

Abell, A.D. et al.: Aust. J. Chem. (AJCHAS) **51** (5), 398 (1998).
 Copping, S. et al.: J. Med. Chem. (JMCMAR) **36** (20), 2891 (1993).
 Cornforth, Robinson: J. Chem. Soc. (JCSOA9) **1949** 1855, 1861.
 Cornforth et al.: J. Chem. Soc. (JCSOA9) 689 (1942).

use for treatment of nicotine addiction:

FR 2 634 379 (Sandoz; appl. 26.1.1990; USA-prior. 22.7.1989).
 WO 9 000 896 (Sandoz; appl. 8.2.1990; USA-prior. 22.7.1988).

use in cancer therapy:

EP 373 658 (Sandoz; appl. 20.6.1990; GB-prior. 16.12.1988).

Formulation(s): tabl. (containing quinagolide hydrochloride base equivalent) 0.025 mg, 0.050 mg, 0.075 mg, 0.150 mg

Trade Name(s):

D:	Norprolac (Novartis Pharma)	F:	Norprolac (Novartis)
		GB:	Norprolac (Novartis)

Quinapril hydrochloride

ATC: C02EA; C09AA06

Use: non-sulphydryl angiotensine
converting enzyme inhibitor,
antihypertensiveRN: 82586-55-8 MF: $C_{25}H_{30}N_2O_5 \cdot HCl$ MW: 474.99LD₅₀: 504 mg/kg (M, i.v.); 1739 mg/kg (M, p.o.);

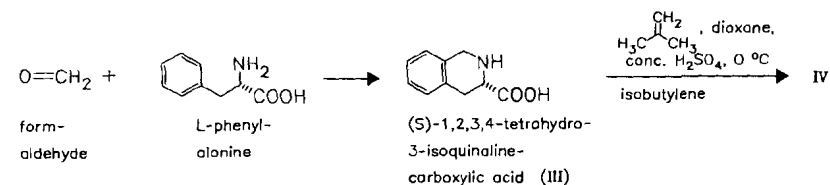
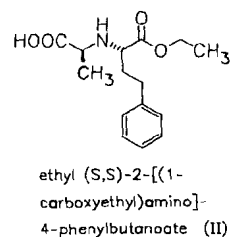
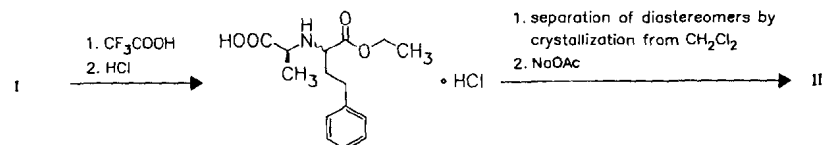
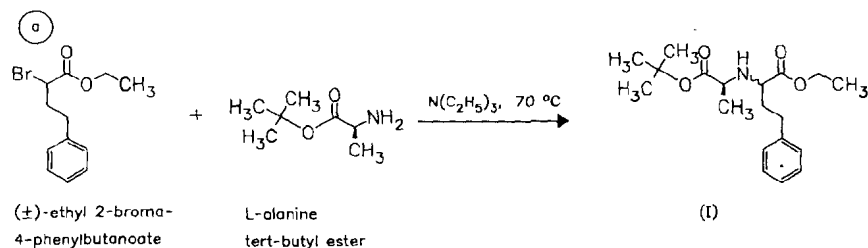
107 mg/kg (Rf, i.v.); 158 mg/kg (Rm, i.v.); 3541 mg/kg (R, p.o.)

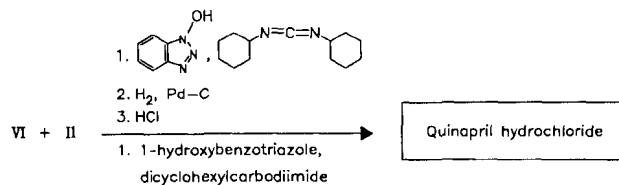
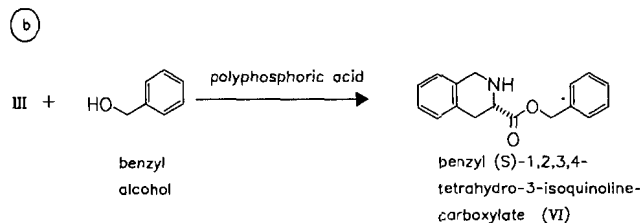
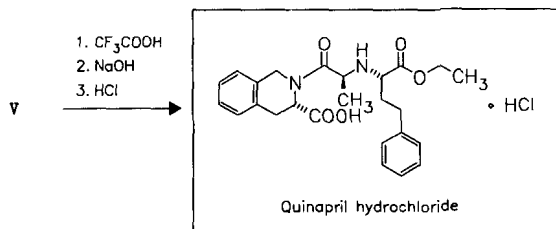
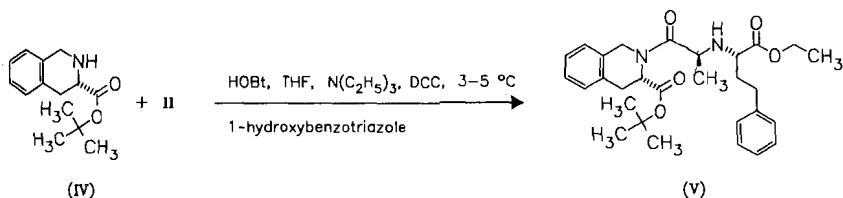
CN: [3S-[2(R*(R*)),3R*]]-2-[2-[[1-(ethoxycarbonyl)-3-phenylpropyl]amino]-1,2,3,4-tetrahydro-3-isoquinolinecarboxylic acid monohydrochloride

monohydrate

RN: 90243-99-5 MF: $C_{25}H_{30}N_2O_5 \cdot HCl \cdot H_2O$ MW: 493.00

quinapril

RN: 85441-61-8 MF: $C_{25}H_{30}N_2O_5$ MW: 438.52



Reference(s):

- a** EP 49 605 (Warner-Lambert; appl. 1.10.1981; USA-prior. 20.2.1981, 3.10.1980).
 US 4 344 949 (Warner-Lambert; 17.8.1982; appl. 20.2.1981; prior. 3.10.1980).
 Klutchko, S. et al.: J. Med. Chem. (JMCMAR) **29**, 1953 (1986).
- b** EP 49 605 (Warner-Lambert; appl. 1.10.1981; USA-prior. 20.2.1981, 3.10.1980).
 US 4 344 949 (Warner-Lambert; 17.8.1982; appl. 20.2.1981; prior. 3.10.1980).

crystalline quinapril hydrochloride:

- EP 285 992 (Warner-Lambert; appl. 29.3.1988; USA-prior. 30.3.1987).
 US 4 761 479 (Warner-Lambert; 2.8.1988; appl. 30.3.1987).

preparation of ethyl 2-bromo-4-phenylbutanoate and 2-bromo-4-phenylbutanoic acid:

- Fischer, E.; Schmitz: Ber. Dtsch. Chem. Ges. (BCD GAS) **39**, 2212 (1906).
 Baxter, A.D. et al.: Bioorg. Med. Chem. Lett. (BMCLE8) **7** (21), 2765 (1997).
 Iwasaki, G.; Kimura, R.; Numao, N.; Kondo, K.: Chem. Pharm. Bull. (CPBTAL) **37** (2), 280 (1989).
 Coric, P. et al.: J. Med. Chem. (JMCMAR) **39** (6), 1210 (1996).
 Goel, O.P.; Krolls, K.: Tetrahedron Lett. (TELEAY) **24** (2), 163 (1983).

stabilization of pharmaceutical formulations:

- EP 264 887 (Warner-Lambert; appl. 19.10.1987; USA-prior. 20.10.1986).
 EP 264 888 (Warner-Lambert; 19.10.1987; USA-prior. 20.10.1986).
 EP 280 999 (Warner-Lambert; appl. 23.2.1988; USA-prior. 24.2.1987).

Formulation(s): f. c. tabl. 5 mg, 10 mg, 20 mg, 40 mg

Trade Name(s):

D:	Accupro (Gödecke/Parke Davis; 1991)	Korec (Sanofi Winthrop)	Quinazil (Malesci; 1989)
	Accuzide (Gödecke; Parke Davis)-comb.	Koretic (Sanofi Winthrop)-comb.	J: Conan (Yoshitomi-Green Cross)
F:	Acuilix (Parke Davis)-comb.	GB: Accupro (Parke Davis)	USA: Accupril (Parke Davis; 1991)
	Acuitel (Parke Davis; 1990)	I: Accuprin (Parke Davis; 1989)	
		Acequin (Recordati; 1989)	

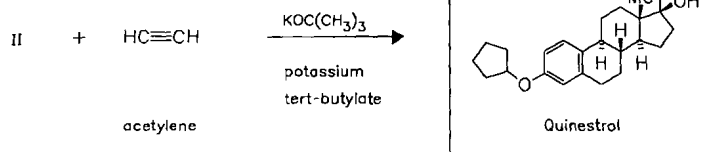
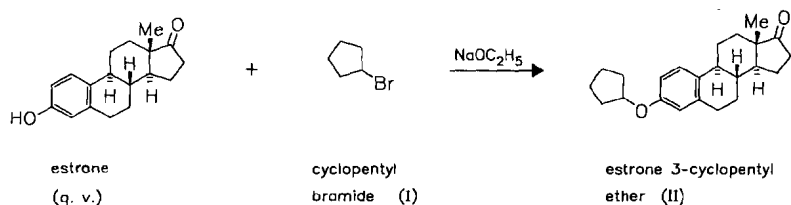
Quinestrol

ATC: G03

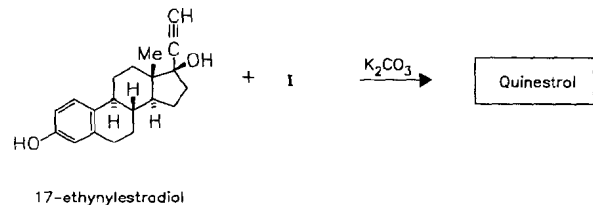
Use: estrogen

RN: 152-43-2 MF: C₂₅H₃₂O₂ MW: 364.53 EINECS: 205-803-1CN: (17 α)-3-(cyclopentyloxy)-19-norpregna-1,3,5(10)-trien-20-yn-17-ol

a



b



Reference(s):

US 3 159 543 (F. Vismara S.p.A.; 1.12.1964; I-prior. 7.4.1961).

DAS 1 157 610 (F. Vismara S.p.A.; appl. 7.2.1961; I-prior. 8.2.1960, 13.12.1960).

Ercoli, A.; Gardi, R.: Chem. Ind. (London) (CHINAG) **1961**, 1037.

alternative syntheses:

US 3 231 567 (F. Vismara; 25.1.1966; I-prior. 16.12.1963).

BE 641 351 (F. Vismara; appl. 16.12.1963; I-prior. 19.12.1962, 30.9.1963).

Formulation(s): tabl. 0.025 mg, 0.1 mg

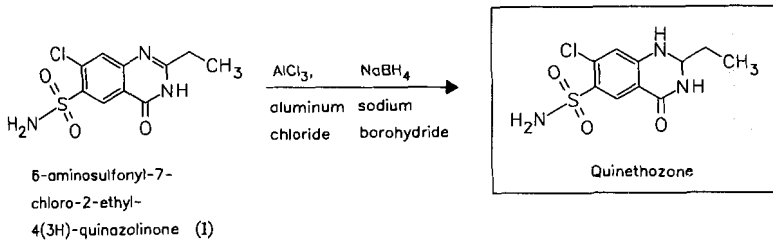
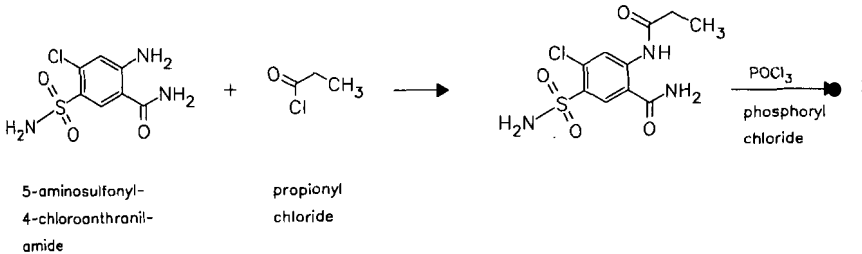
Trade Name(s):

D: Estrovis (Gödecke); wfm Estrovis (Warner); wfm USA: Estrovis (Warner Chilcott); wfm
 GB: Estrovis (Parke Davis); wfm I: Colpovis (SIT) wfm

Quinethazone
 (Chinethazonum)

ATC: C03BA02
 Use: diuretic, antihypertensive

RN: 73-49-4 MF: C₁₀H₁₂ClN₃O₃S MW: 289.74 EINECS: 200-801-7
 LD₅₀: >10 g/kg (M, p.o.)
 CN: 7-chloro-2-ethyl-1,2,3,4-tetrahydro-4-oxo-6-quinazolinesulfonamide



Reference(s):

US 2 976 289 (American Cyanamid; 21.3.1961; prior. 30.6.1959).

Formulation(s): tabl. 50 mg

Trade Name(s):

D: Aquamox (Lederle); wfm I: Aquamox (Cyanamid); wfm J: Hydromox (Lederle)
 GB: Aquamox (Lederle); wfm Ipotex (Cyanamid); wfm USA: Hydromox (Lederle); wfm

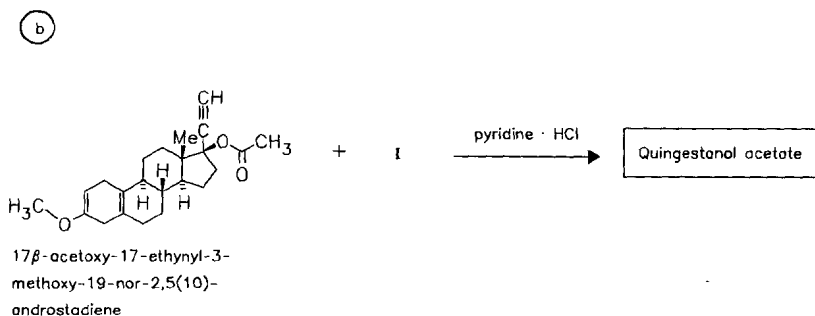
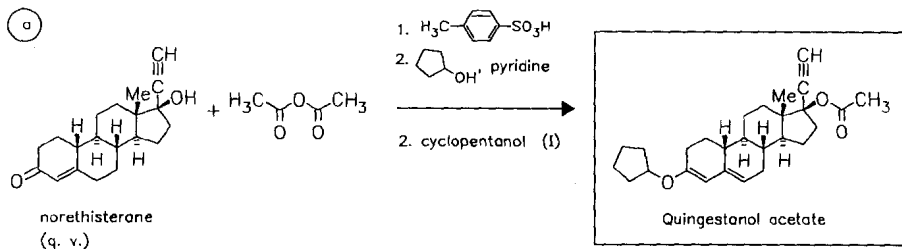
Quingestanol acetate

ATC: G03AC04
 Use: progestogen

RN: 3000-39-3 MF: C₂₇H₃₆O₃ MW: 408.58 EINECS: 221-078-4
 CN: (17α)-3-(cyclopentyloxy)-19-norpregna-3,5-dien-20-yn-17-ol acetate

quingestanol

RN: 10592-65-1 MF: C₂₅H₃₄O₂ MW: 366.55 EINECS: 234-199-2

*Reference(s):*

- a DE 1 159 940 (F. Vismara; appl. 1961; I-prior. 1961).
 addition to DE 1 119 264 (F. Vismara; appl. 1959).
- b DE 1 228 608 (F. Vismara; appl. 1.6.1964; I-prior. 12.6.1963).
 addition to DE 1 119 264 (F. Vismara; appl. 1959).

alternative synthesis:

US 3 159 620 (F. Vismara; 1.12.1964; I-prior. 22.5.1963).

Trade Name(s):

F: Délovis (Substantia); wfm I: Demovis (Vister); wfm

Quinidine

ATC: C01BA01
 Use: antiarrhythmic

RN: 56-54-2 MF: $\text{C}_{20}\text{H}_{24}\text{N}_2\text{O}_2$ MW: 324.42 EINECS: 200-279-0

LD₅₀: 53.6 mg/kg (M, i.v.); 535 mg/kg (M, p.o.);
 23 mg/kg (R, i.v.); 263 mg/kg (R, p.o.)

CN: (9S)-6'-methoxycinchonan-9-ol

sulfate (2:1)

RN: 50-54-4 MF: $\text{C}_{20}\text{H}_{24}\text{N}_2\text{O}_2 \cdot 1/2\text{H}_2\text{SO}_4$ MW: 746.93 EINECS: 200-046-3

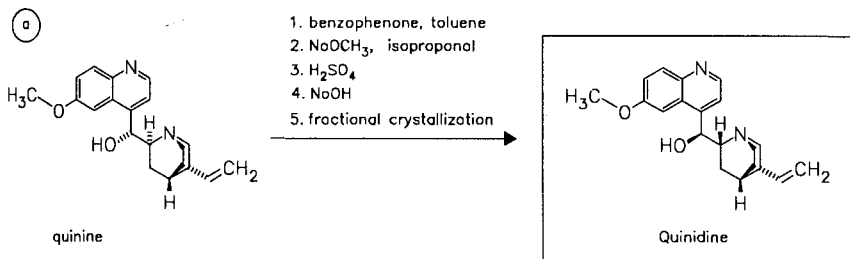
LD₅₀: 54 mg/kg (M, i.v.); 505 mg/kg (M, p.o.);
 55 mg/kg (R, i.v.); 456 mg/kg (R, p.o.)

gluconate

RN: 7054-25-3 MF: $\text{C}_{20}\text{H}_{24}\text{N}_2\text{O}_2 \cdot \text{C}_6\text{H}_{12}\text{O}_7$ MW: 520.58 EINECS: 230-333-9

polygalacturonate

RN: 58829-32-6 MF: $\text{C}_{20}\text{H}_{24}\text{N}_2\text{O}_2 \cdot x$ unspecified MW: unspecified



(b) from the mother liquors of the quinine production

Reference(s):

- a DE 877 611 (Boehringer Mannh.; appl. 1950).
- b Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. 3, 212.

polygalacturonate:

US 2 878 252 (Synergistics; 1959; appl. 1957).

quinidine alginate:

DOS 2 156 725 (Lab. G.-A. Cochard; appl. 16.11.1971; B-prior. 19.11.1970, 8.11.1971).

Formulation(s):

f. c. tabl. 250 mg; s. r. tabl. 200 mg, 250 mg (as hydrogen sulfate); tabl. 166 mg, 275 mg (as polygalacturonate); s. r. tabl. 300 mg; tabl. 100 mg, 200 mg, 300 mg (as sulfate)

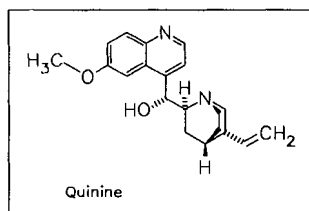
Trade Name(s):

<p>D: Chinidin Duriles (Astra) Chinidin-retard (Isis Pharma) Chinidinum Compreten (Cascan); wfm Chinidinum sulfuricum "Buchler" (Buchler); wfm Galactoquin (Mundipharma; as polygalacturonate); wfm Optochinidin (Boehringer Mannh.; as hydrogen sulfate) Quintex Extentabs (Brenner); wfm Systodin "Buchler" (Buchler); wfm numerous combination preparations</p>	<p>F: Cardioquine (ASTA Medica; as polygalacturonate) Longacor (Procter & Gamble; as arabogalacturonate) Quinidurule (Astra) Quinimax (Sanofi Winthrop)-comb.</p> <p>GB: Kinidin Durules (Astra; as bisulfate)</p> <p>I: Chin el (Fadem) Chinina cloridrato (Biologici Italia) Chinina solfato (Iema) Chinteina (Lafare; as sulfate) Longachin (Teofarma) Naticardina (ASTA Medica)</p>	<p>J: Natisedina (Teofarma) Nicoprive (IFI)-comb. Ritmacor (Malesci; as polygalacturonate) numerous generics Quinidine HCl (Nikken) Quinidine Sulfate (Alps; Hoei; Iwaki; Sanko; Yamada) generics</p> <p>USA: Cardioquin (Purdue Frederick; as polygalacturonate) Quinaglute Dura-Tabs' (Berex; as gluconate) Quinidex Extentabs (Robins; as sulfate) generics</p>
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Quinine

ATC: P01BC01
 Use: chemotherapeutic, antipyretic, stimulant

RN: 130-95-0 MF: C₂₀H₂₄N₂O₂ MW: 324.42 EINECS: 205-003-2
 LD₅₀: 68 mg/kg (M, i. v.)
 CN: (8α,9R)-6'-methoxycinchonan-9-ol

hydrochlorideRN: 7549-43-1 MF: $C_{20}H_{24}N_2O_2 \cdot xHCl$ MW: unspecified EINECS: 231-437-7**sulfate (1:1)**RN: 549-56-4 MF: $C_{20}H_{24}N_2O_2 \cdot H_2SO_4$ MW: 422.50 EINECS: 208-970-9**iodobismutate**RN: 8048-94-0 MF: $C_{20}H_{24}N_2O_2 \cdot BiI_3 \cdot HI$ MW: 1042.03**acetylsalicylate (1:1)**RN: 130-93-8 MF: $C_{20}H_{24}N_2O_2 \cdot C_9H_8O_4$ MW: 504.58**monoformate**RN: 130-90-5 MF: $C_{20}H_{24}N_2O_2 \cdot CH_2O_2$ MW: 370.45 EINECS: 205-002-7LD₅₀: 290 mg/kg (dog, i.m.)

By extraction of *Cinchona* bark with aromatic hydrocarbons, conversion of the crude alkaloids into the sulfates and fractional precipitation with NaOH as sulfate.

Reference(s):

Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. 3, 213.

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 7, 86.

BIOS Final Reports No. 1404, p. 20.

FR 1 279 901 (Omnium Chimique; appl. 1955).

combination of quinine sulfate with theophylline ethylenediamine:

US 2 985 558 (W. B. Rawls; 23.5.1961; appl. 27.2.1959).

Formulation(s): amp. 245 mg/ml, 250 mg/ml (as dihydrochloride); tabl. 200 mg (as ethyl carbonate);
tabl. 250 mg (as hydrochloride); tabl. 200 mg (as sulfate)

Trade Name(s):

D:	Chinum aethylcarbonicum (Cassella-med) Chinum dihydrochloricum (Cassella-med) Chinum hydrochloricum (Merck) Chinum hydrochloricum Compretten (Cascan); wfm Chinum sulfuricum "Buchler" (Buchler); wfm Limplar (Cassella-med; as sulfate) Sagittaproct (BASF Generics)	F:	numerous combination preparations and generics Cequiny (SmithKline Beecham)-comb. Dinacode (Picot)-comb. Hexaquine (Gomenol)- comb. Kinur�a "H" (Fuca) Nicoprive (Th�eranol- Deglaude)-comb. Quinimax (Sanofi Winthrop)-comb. Quinine Lafran (Lafran; as hydrochloride) numerous combination preparations	GB:	numerous combination preparations; wfm	I:	Broncopulmin (Ecobi)- comb. Nicoprive (IFI)-comb.	J:	Quinine HCl (Alps; Hoei; Iwaki; Kotani; Sank; Takeda; Torii; Toyo S.- Ono; Yamada) Quinine Sulfate (Alps; Hoei; Iwaki; Sanko; Yamada) generics	USA:	Quinine Sulfate (Watson)
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Quinisocaine

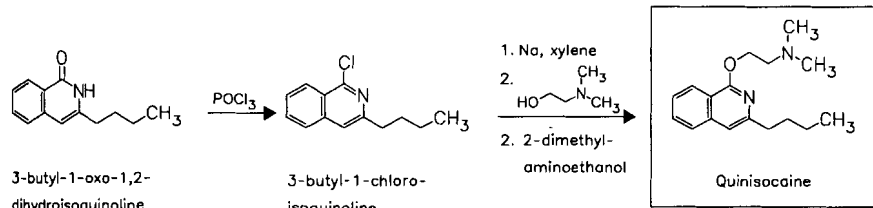
(Dimethisoquin)

ATC: D04AB05

Use: local anesthetic

RN: 86-80-6 MF: C₁₇H₂₄N₂O MW: 272.39 EINECS: 201-700-0LD₅₀: 8 mg/kg (M, i.v.)

CN: 2-[(3-butyl-1-isoquinolinyl)oxy]-N,N-dimethylethanamine

monohydrochlorideRN: 2773-92-4 MF: C₁₇H₂₄N₂O · HCl MW: 308.85 EINECS: 220-468-1LD₅₀: 45 mg/kg (R, i.p.)**Reference(s):**

US 2 612 503 (Smith Kline & French; 1952; CDN-prior. 1949).

Formulation(s): ointment 0.5 g/100 g (as hydrochloride)**Trade Name(s):**

D: Haenal Salbe (Strathmann)

Isochinol (Schwarzhaupt)

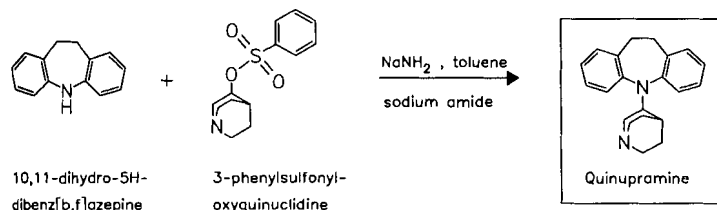
Isochinol Salbe
(Chemipharm)Pruralgan Salbe
(Pharmacia)F: Quotane (Evans Medical)
Rectoquotane (Evans
Medical)-comb.GB: Quotane (Smith Kline &
French); wfmI: Pruralgin Pharmacia
(Importex); wfm**Quinupramine**

ATC: N06AA23

Use: antidepressant

RN: 31721-17-2 MF: C₂₁H₂₄N₂ MW: 304.44 EINECS: 250-780-3

CN: 5-(1-azabicyclo[2.2.2]oct-3-yl)-10,11-dihydro-5H-dibenz[b,f]azepine

**Reference(s):**

DOS 2 030 492 (Sogeras; appl. 20.6.1970; GB-prior. 20.6.1969).

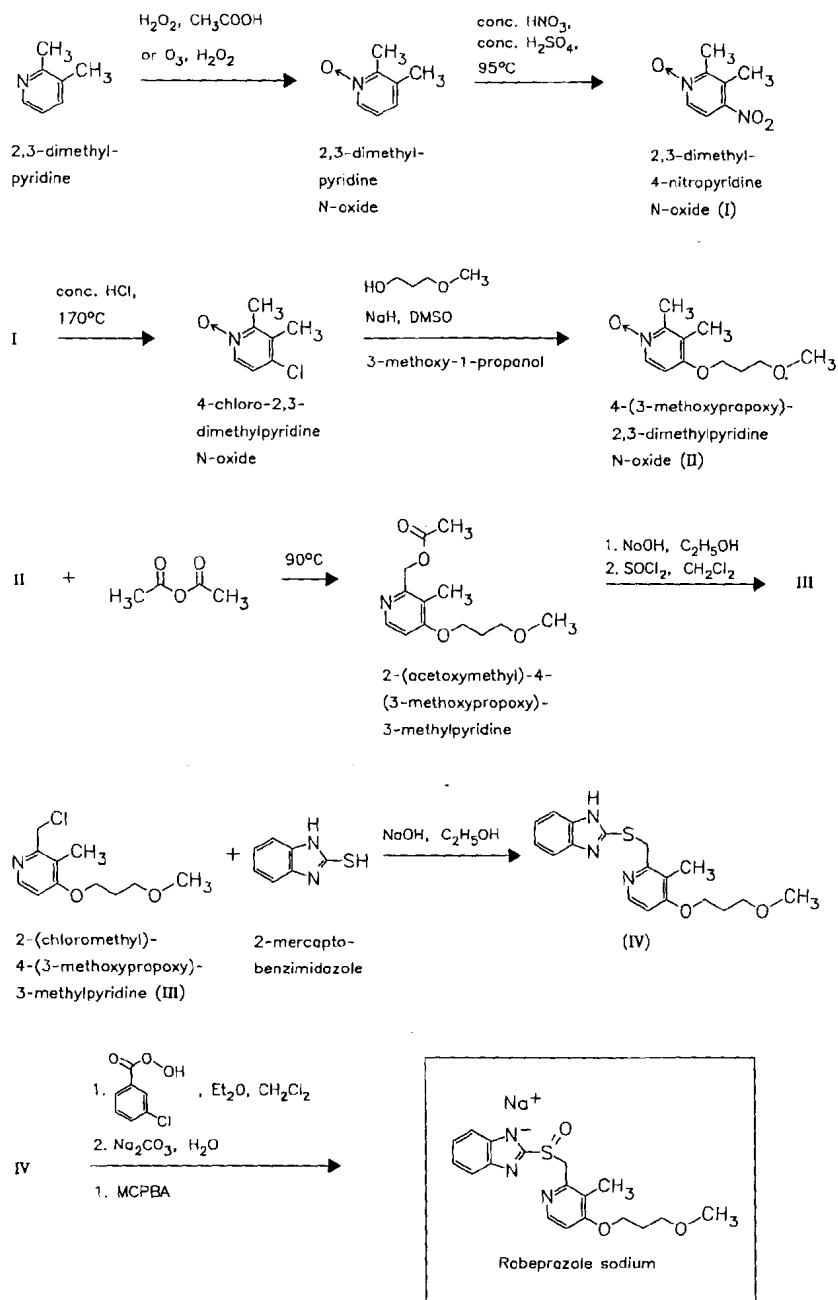
GB 1 252 320 (Sogeras; valid from 29.5.1970; prior. 20.6.1969).

Formulation(s): vial 2.5 mg; tabl. 2.5 mg, 7.5 mg**Trade Name(s):**

F: Kinupril (Bellon)

Rabeprazole sodium

ATC: A02BC04

Use: gastric antisecretory, H⁺/K⁺-ATPase inhibitorRN: 117976-90-6 MF: C₁₈H₂₀N₃NaO₃S MW: 381.43CN: (±)-2-[[[4-(3-Methoxypropoxy)-3-methyl-2-pyridinyl]-methyl]sulfinyl]-1*H*-benzimidazole sodium salt**acid**RN: 117976-89-3 MF: C₁₈H₂₁N₃O₃S MW: 359.45

Reference(s):

EP 268 956 (Eisai Co.; J-prior. 13.11.1986; 2.2.1987; 31.3.1987).

WO 8 910 927 (Eisai Co.; appl. 11.5.1989; J-prior. 12.5.1988).

*preparation of 4-chloro-2,3-dimethylpyridine N-oxide:*Kuehler, T.C.; Fryklund, J.; Bergman, H.A.; Weilitz, J.; Lee, A.; Larsson, H.: J. Med. Chem. (JMCMAR) **38** (25), 4906 (1995).*pharmaceutical preparations:*

WO 9 953 918 (Eisai Co.; appl. 20.4.1999; J-prior. 20.4.1998).

EP 585 722 (Eisai Co.; appl. 17.8.1993; J-prior. 21.8.1992).

WO 9 902 521 (Eisai Co.; appl. 10.7.1998; J-prior. 11.7.1997).

Formulation(s): tabl. 10 mg, 20 mg (as sodium salt)*Trade Name(s):*

D: Pariet (Eisai; Janssen-Cilag; 1998)

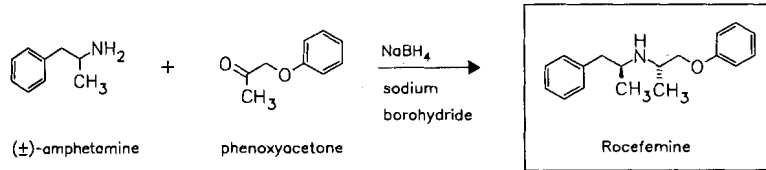
J: Pariet (Eisai; 1998)
USA: Aciphex (Eisai)**Racefemine**

ATC: A03

Use: antispasmodic, coronary vasodilator

RN: 22232-57-1 MF: C₁₈H₂₃NO MW: 269.39 EINECS: 244-856-5

CN: (R*,R*)-(±)-α-methyl-N-(1-methyl-2-phenoxyethyl)benzeneethanamine

hydrogen fumarate (1:1)RN: 1590-35-8 MF: C₁₈H₂₃NO · C₄H₄O₄ MW: 385.46 EINECS: 216-462-3*Reference(s):*

NL-appl. 6 407 309 (Clin-Byla; appl. 26.6.1964; F-prior. 28.6.1963).

Formulation(s): tabl. 50 mg; vial 50 mg/5 ml*Trade Name(s):*

F: Dysmalgine (Clin-Comar-Byla); wfm

Dysmalgine (Clin-Midy); wfm

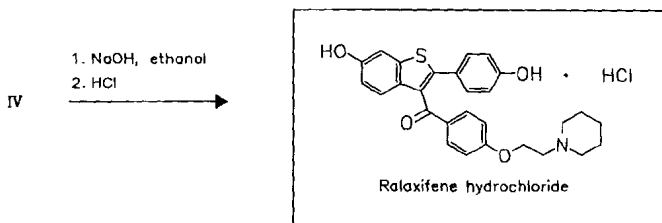
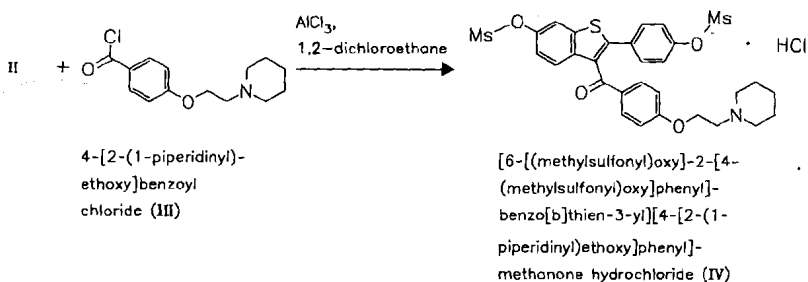
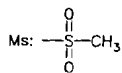
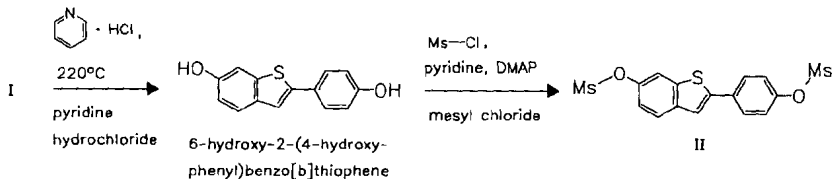
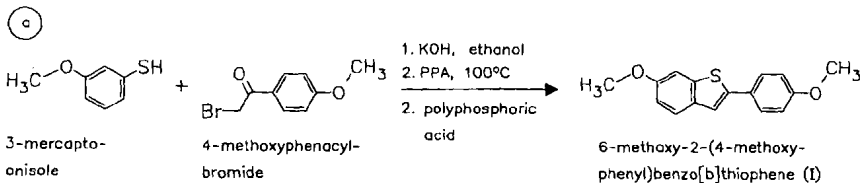
Raloxifene hydrochloride

(LY-156758; Keoxifene)

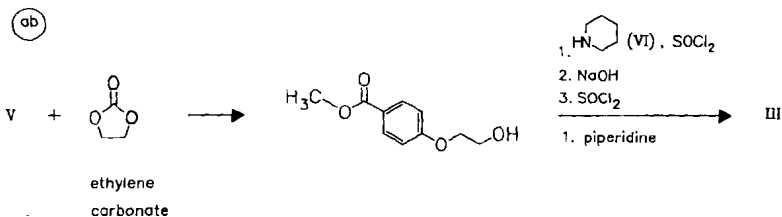
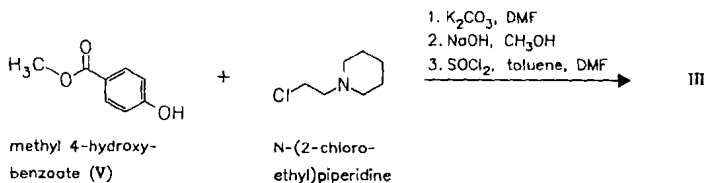
ATC: G03XC01

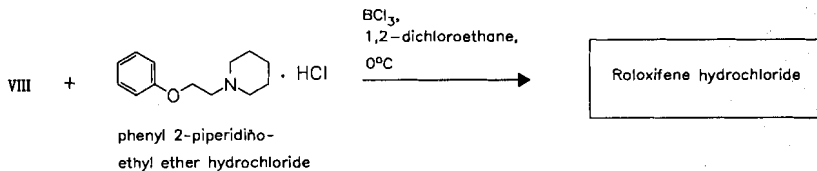
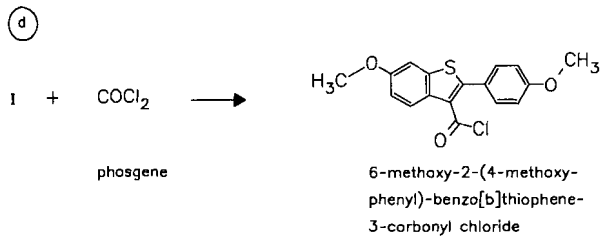
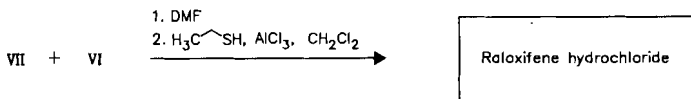
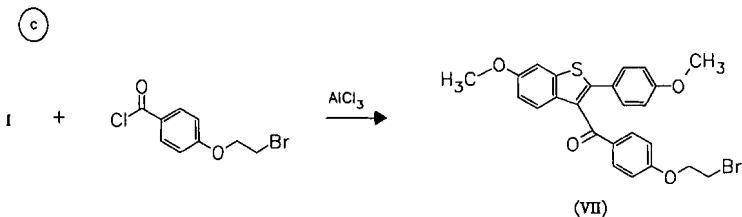
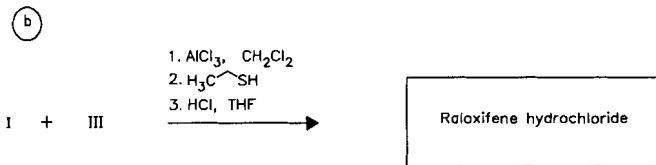
Use: antiestrogen, prevention of osteoporosis

RN: 82640-04-8 MF: C₂₈H₂₇NO₄S · HCl MW: 510.05CN: [6-Hydroxy-2-(4-hydroxyphenyl)benzo[*b*]thien-3-yl][4-[2-(1-piperidinyl)ethoxy]phenyl]methanone hydrochloride

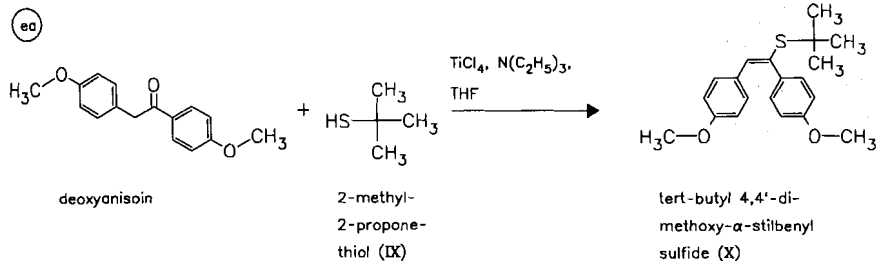


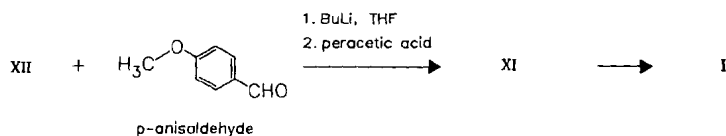
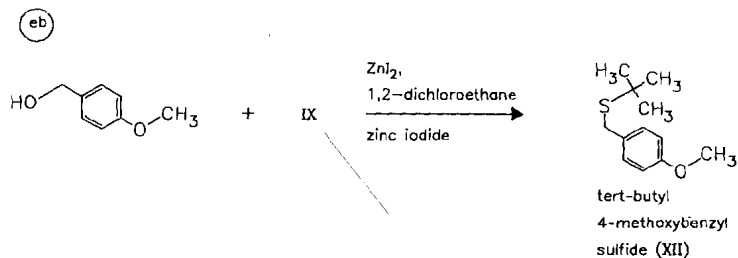
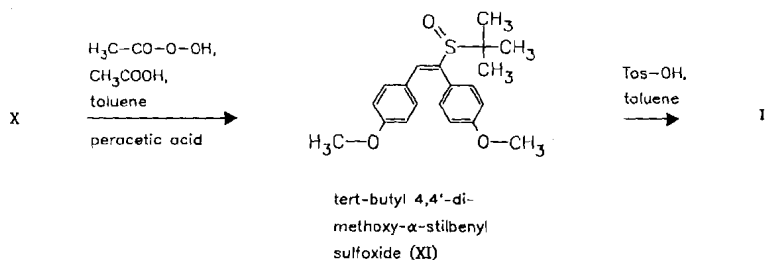
(aa) starting material III can be synthesized from





alternative regiospecific synthesis of I



*Reference(s):*

- a,b** Jones, C.D. et al.: J. Med. Chem. (JMCMAR) **27**, 1057 (1984).
EP 62 504 (Lilly + Co., appl. 1.4.1982; USA-prior. 3.4.1981).
Vicenzi, J.T. et al.: Org. Process Res. Dev. (OPRDFK) **3**, 56-59 (1999).
- a** US 4 418 068 (Lilly + Co.; 29.11.1983; USA-prior. 3.4.1981).
- aa** EP 699 672 (E. Lilly + Co.; appl. 30.8.1995; USA-prior. 31.8.1994).
- b** EP 693 488 (Lilly + Co.; appl. 20.7.1995; USA-prior. 22.7.1994).
US 4 380 635 (Lilly + Co.; 19.4.1983; USA-prior. 3.4.1981).
- c** EP 738 725 (E. Lilly + Co.; appl. 18.4.1996; USA-prior. 21.4.1995).
- d** WO 9 734 888 (E. Lilly + Co.; appl. 20.3.1996; USA-prior. 19.3.1996).
- e** WO 9 640 691 (E. Lilly + Co.; appl. 4.6.1996; USA-prior. 7.6.1995).
WO 9 640 693 (E. Lilly + Co.; appl. 4.6.1996; USA-prior. 7.6.1995).
WO 9 640 677 (E. Lilly + Co.; appl. 4.6.1996; USA-prior. 7.6.1995).
WO 9 640 676 (E. Lilly + Co.; appl. 4.6.1996; USA-prior. 7.6.1995).
US 5 512 701 (E. Lilly + Co.; 30.4.1996; USA-prior. 7.6.1995).

preparation of an amorphous form and formulation:

WO 9 808 513 (E. Lilly + Co.; appl. 22.8.1997; USA-prior. 28.8.1996).

preparation of glucopyranosides (metabolites) as antihyperlipidemics:

EP 683 170 (E. Lilly + Co.; appl. 16.5.1995; USA-prior. 20.5.1994).

treatment of hormone dependent cancers:

EP 62 503 (E. Lilly + Co.; appl. 1.4.1982; USA-prior. 3.4.1981).

method for lowering serum cholesterol:

US 5 464 845 (E. Lilly + Co.; 7.11.1995; USA-prior. 22.12.1992).

treatment of mammary cancer:

US 4 656 187 (E. Lilly + Co.; 7.4.1987; USA-prior. 3.8.1981).

pharmaceutical composition for inhibiting bone loss and lowering serum cholesterol:

CA 2 141 999 (E. Lilly + Co.; appl. 7.2.1995; USA-prior. 2.3.1994).

preparation of unsolvated crystalline form:

DE 19 534 744 (E. Lilly + Co.; appl. 19.9.1995; USA-prior. 19.9.1994).

Formulation(s): f. c. tabl. 60 mg (as hydrochloride); tabl. 60 mg

Trade Name(s):

D: EVISTA (Eli Lilly; 1997) USA: Evista (Eli Lilly; 1998)

Raltitrexed

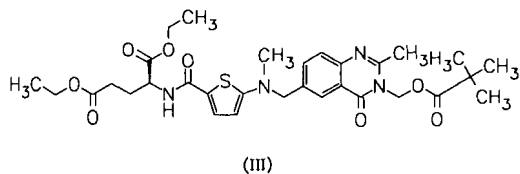
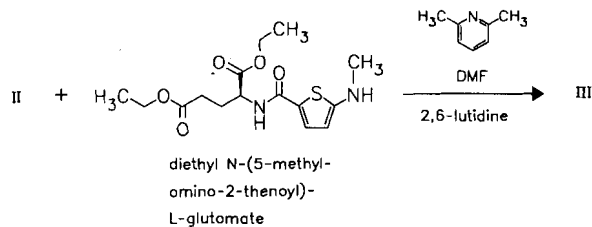
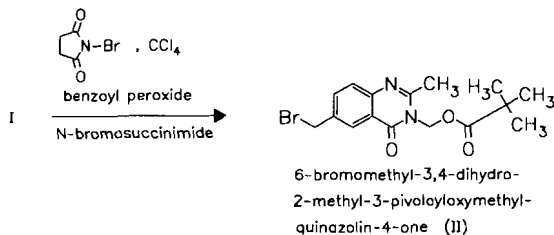
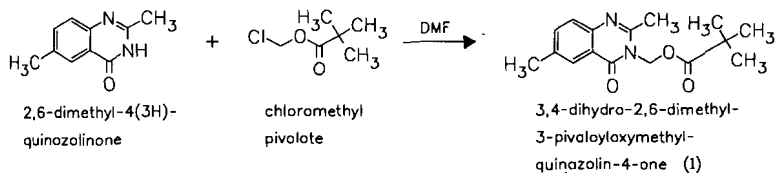
(D-1694; ICI-D 1694; ZN-1694)

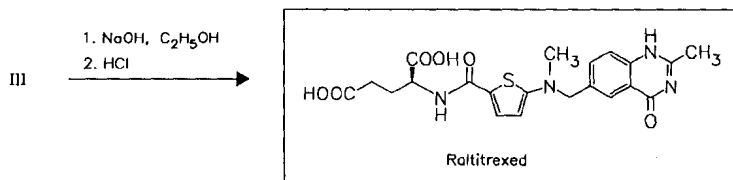
ATC: L01BA03

Use: antineoplastic, thymidylate synthetase inhibitor

RN: 112887-68-0 MF: C₂₁H₂₂N₄O₆S MW: 458.50

CN: N-[[5-[[[(1,4-dihydro-2-methyl-4-oxo-6-quinazolinyl)methyl]methylamino]-2-thienyl]carbonyl]-L-glutamic acid



*Reference(s):*

- EP 239 362 (ICI; appl. 24.3.1987; GB-prior. 27.3.1986).
 Marsham, P.R. et al.: J. Med. Chem. (JMCMAR) **42** (19), 3809 (1999).
 Marsham, P.R. et al.: J. Med. Chem. (JMCMAR) **34** (5), 1594 (1991).
 Bisset, G.M.F. et al.: J. Med. Chem. (JMCMAR) **35** (5), 859 (1992).

preparation of 2,6-dimethyl-4(3H)-quinazolinone from 5-methylantranilic acid:

- Patil, S.D; Jones, C.; Nair, M.G.; Galivan, J.; Maley, F.; J. Med. Chem. (JMCMAR) **32** (6), 1284 (1989).
 Battacharyya; Bosc; Ray: J. Indian. Chem. Soc. (JICSAH) **6**, 283 (1929).
 Bischler; Muntendam: Ber. Dtsch. Chem. Ges. (BDCGAS) **28**, 730 (1895).

Formulation(s): amp. 2 mg

Trade Name(s):

F: Tomudex (Zeneca) I: Tomudex (Zeneca)
 GB: Tomudex (Zeneca) J: Tomudex (Zeneca)

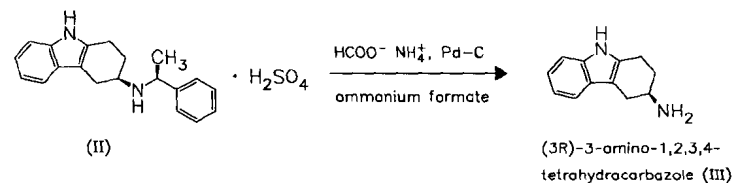
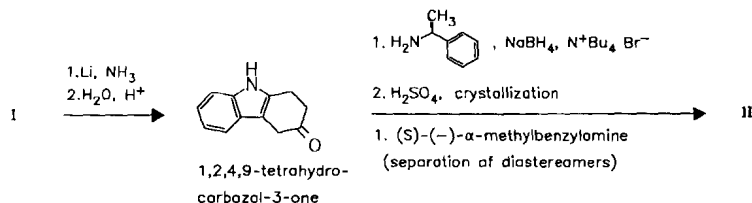
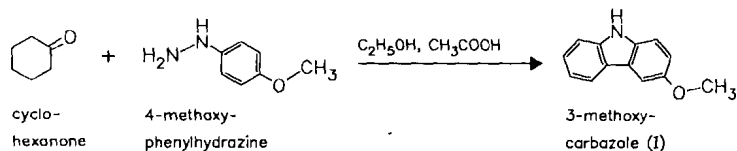
Ramatroban

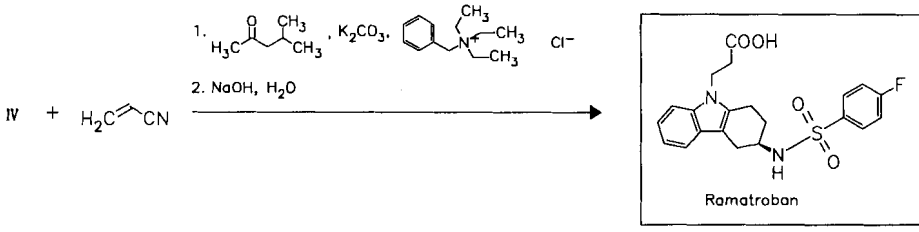
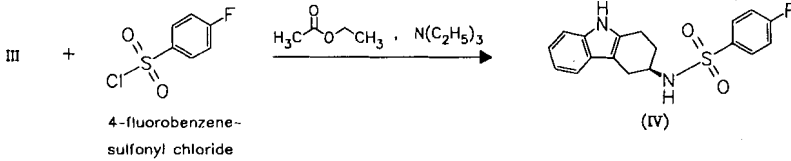
(Bay u 3405)

Use: treatment of allergic rhinitis,
 thromboxane receptor antagonist

RN: 116649-85-5 MF: $\text{C}_{21}\text{H}_{21}\text{FN}_2\text{O}_4\text{S}$ MW: 416.47

CN: (R)-3-[[[4-Fluorophenyl)sulfonyl]amino]-1,2,3,4-tetrahydro-9H-carbazole-9-propanoic acid





Reference(s):

DE 3 631 824 (Bayer AG; appl. 19.9.1986; prior. 21.2.1986).
 EP 728 743 (Bayer AG; appl. 14.2.1996; D-prior. 27.2.1995).

thermodynamically stable form of ramatroban:

DE 19 757 983 (Bayer Yakuhin Ltd.; D-prior. 24.12.1997)

preparation of 1,2,4,9-tetrahydrocarbazol-3-one:

Bailey, A.S.; Vandrevale, M.H.: J. Chem. Soc., Perkin Trans. 1 (JCPRB4) **1980**, 1512

preparation of 1,2,3,4-tetrahydrocarbazol-3-ol:

Gardner et al.: J. Org. Chem. (JOCEAH) **22**, 1206, 1210 (1957)

oxidation of 1,2,3,4-tetrahydrocarbazol-3-ol:

Ritchie, R.; Saxton, J.E.: J. Chem. Res., Miniprint (JRMPDM) **1990** (2), 528.

Formulation(s): tabl.

Trade Name(s):

J: Baynas (Bayer; 2000)

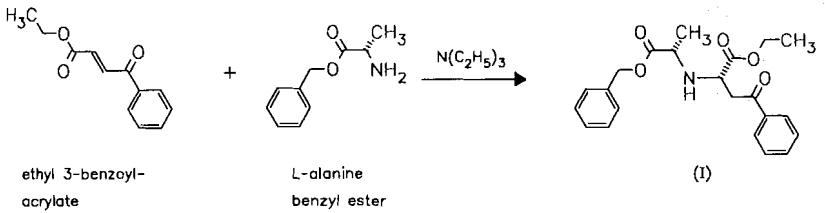
Ramipril

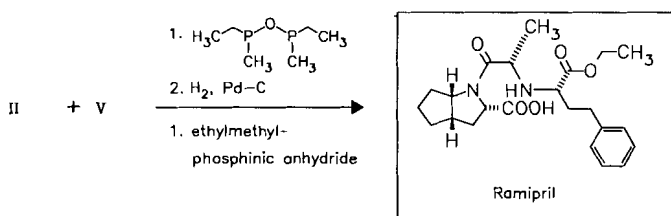
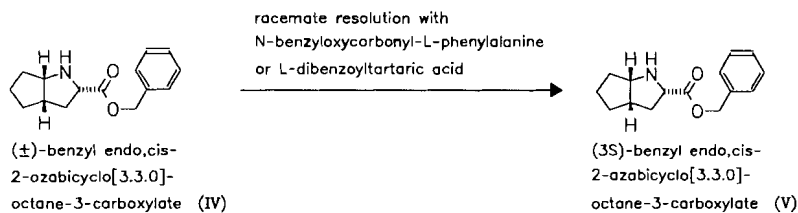
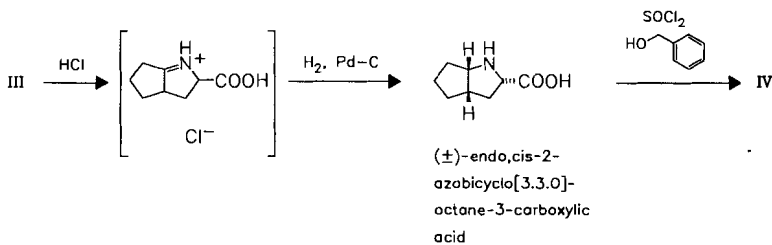
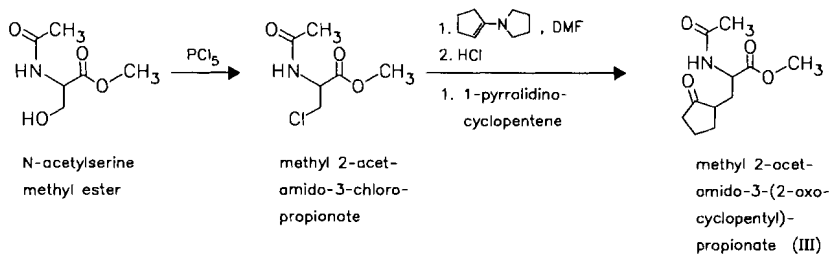
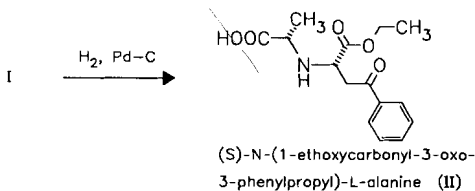
ATC: C09AA05
 Use: antihypertensive (ACE inhibitor)

RN: 87333-19-5 MF: C₂₃H₃₂N₂O₅ MW: 416.52

LD₅₀: 1100 mg/kg (M, i.v.); 10.048 g/kg (M, p.o.);
 600 mg/kg (R, i.v.); >10 g/kg (R, p.o.);
 >250 mg/kg (dog, i.v.); >1 g/kg (dog, p.o.)

CN: [2S-[1[R*(R*)],2α,3aβ,6aβ]]-1-[2-[[1-(ethoxycarbonyl)-3-phenylpropyl]amino]-1-oxopropyl]octahydrocyclopenta[b]pyrrole-2-carboxylic acid



**Reference(s):**

- Teetz, V. et al.: *Arzneim.-Forsch. (ARZNAD)* **34** (II), 1399 (1984).
 EP 79 022 (Hoechst; appl. 2.11.1982; D-prior. 5.11.1981, 17.7.1982).
 DOS 3 226 768 (Hoechst; appl. 5.11.1981).
 EP 115 345 (Hoechst; appl. 27.1.1984; D-prior. 31.1.1983).
 DOS 3 303 112 (Hoechst; appl. 31.1.1983).
 DOS 3 303 139 (Hoechst; appl. 31.1.1983).

Formulation(s): cps. 1.25 mg, 2.5 mg, 5 mg; tabl. 1.25 mg, 2.5 mg, 5 mg

Trade Name(s):

D: Arelix (Hoechst)-comb.

Delix (Hoechst)

Delix (Hoechst)-comb.

Vesdil (Astra/Promed)	GB: Tritace (Hoechst)	Unipril (Astra Farmaceutici)
Vesdil (Astra/Promed)-comb.	I: Quark (Polifarma)	USA: Altace (Hoechst Marion Roussel)
F: Triatec (Hoechst Houdé)	Triatec (Hoechst Marion Roussel)	

Ramosetron hydrochloride

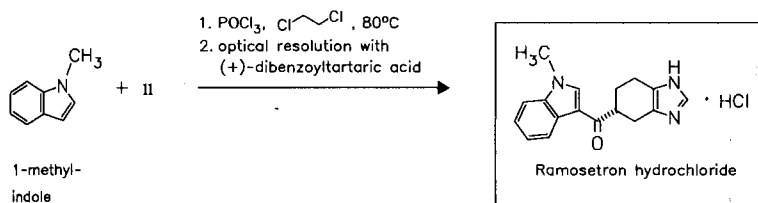
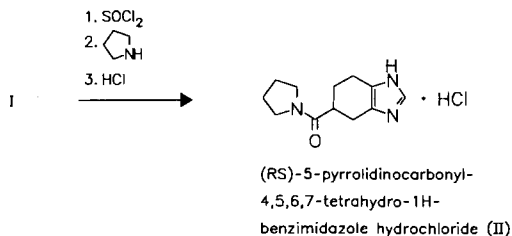
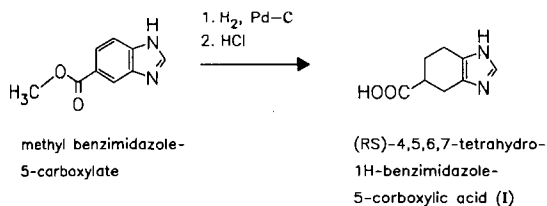
(YM-060)

ATC: A04AA

Use: anti-emetic, 5-HT₃-antagonistRN: 132907-72-3 MF: C₁₇H₁₇N₃O · HCl MW: 315.80

CN: (R)-(1-methyl-1H-indol-3-yl)(4,5,6,7-tetrahydro-1H-benzimidazol-5-yl)methanone monohydrochloride

ramosetron

RN: 132036-88-5 MF: C₁₇H₁₇N₃O MW: 279.34

Reference(s):

EP 381 422 (Yamanouchi Pharm.; appl. 4.8.1994; J-prior. 2.2.1989).

Ohta, M. et al.: Chem. Pharm. Bull. (CPBTAL) **44** (9), 1707 (1996).

sustained release composition:

WO 9 933 491 (Yamanouchi Pharm.; appl. 25.12.1998; J-prior. 26.12.1977).

WO 9 933 489 (Yamanouchi Pharm.; appl. 25.12.1998; J-prior. 26.12.1977).

preparation of methyl benzimidazole-5-carboxylate from 3,4-diaminobenzoic acid:

Dellweg et al.: Biochem. Z. (BIZEA2) **327**, 422, 446 (1956).

drug composition:

WO 9 416 682 (Yamanouchi Pharm.; appl. 4.8.1994; J-prior. 21.1.1993).

Formulation(s): amp. 0.3 mg/2 ml; tabl. 0.1 mg

Trade Name(s):

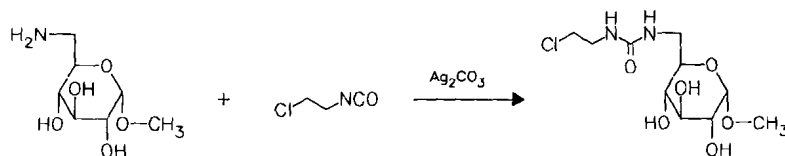
J: Nasea (Yamanouchi)

Ranimustine

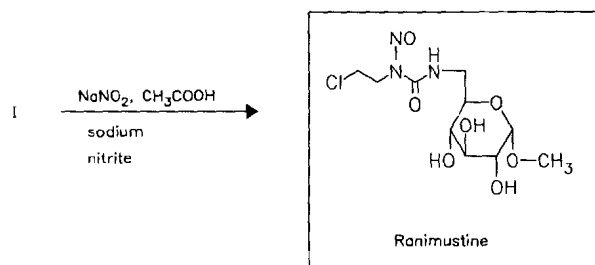
(MCNU; Ranomustine)

ATC: L01AD07

Use: antineoplastic, nitrosourea

RN: 58994-96-0 MF: C₁₀H₁₈ClN₃O₇ MW: 327.72LD₅₀: 41.2 mg/kg (M, i.v.); 45.7 mg/kg (M, p.o.);
31.8 mg/kg (R, i.v.); 46.4 mg/kg (R, p.o.)CN: methyl 6-[[[(2-chloroethyl)nitrosoamino]carbonyl]amino]-6-deoxy- α -D-glucopyranosidemethyl 6-amino-
6-deoxy- α -D-
glucopyranoside2-chloroethyl
isocyanate

(I)



Ranimustine

Reference(s):

DE 2 530 416 (Tokyo Tanabe; appl. 4.7.1975; J-prior. 5.7.1974).

GB 1 499 760 (Tokyo Tanabe; appl. 4.7.1975; J-prior. 5.7.1974).

alternative synthesis:

US 4 156 777 (Tokyo Tanabe; 29.5.1979; J-prior. 3.2.1977).

DE 2 805 185 (Tokyo Tanabe; appl. 3.2.1978; J-prior. 3.2.1977).

Formulation(s): amp. 50 mg, 100 mg

Trade Name(s):

J: Cymerine (Tokyo Tanabe)

Ranitidine

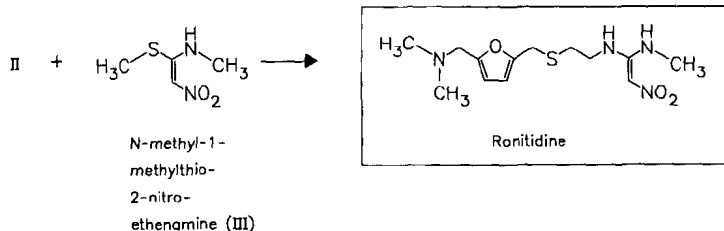
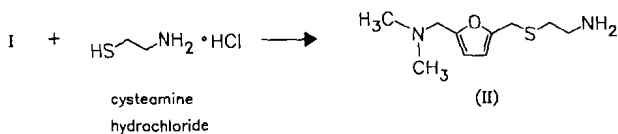
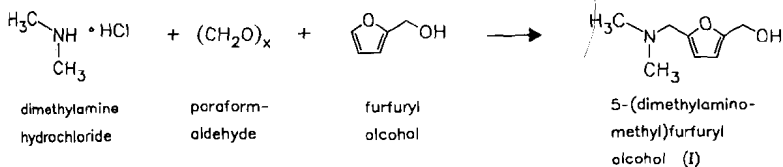
ATC: A02BA02

Use: peptic ulcer therapeutic (H₂-blocker)RN: 66357-35-5 MF: C₁₃H₂₂N₄O₃S MW: 314.41 EINECS: 266-332-5LD₅₀: 80 mg/kg (M, i.v.); 884 mg/kg (M, p.o.);
93 mg/kg (R, i.v.); >5 g/kg (R, p.o.)

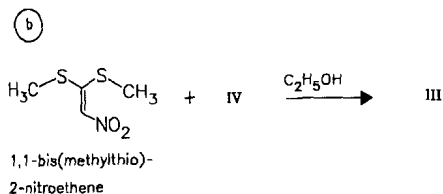
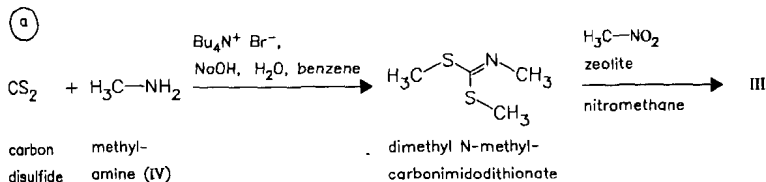
CN: N-[2-[[[5-[(dimethylamino)methyl]-2-furanyl]methyl]thio]ethyl]-N'-methyl-2-nitro-1,1-ethenediamine

monohydrochlorideRN: 66357-59-3 MF: $C_{13}H_{22}N_4O_3S \cdot HCl$ MW: 350.87 EINECS: 266-333-0LD₅₀: 60 mg/kg (M, i.v.); 1100 mg/kg (M, p.o.);

85 mg/kg (R, i.v.); 4190 mg/kg (R, p.o.)

bismuth citrateRN: 128345-62-0 MF: $C_{19}H_{30}BiN_4O_{10}S$ MW: 715.51

preparation of N-methyl-1-methylthio-2-nitroethenamine

**Reference(s):**

DOS 2 734 070 (Allen & Hanburys; appl. 28.7.1977; GB-prior. 4.8.1976, 6.12.1976, 13.5.1977).

US 4 128 658 (Glaxo; 5.12.1978; GB-prior. 4.8.1976, 6.12.1976, 13.5.1977).

"form 2":

US 4 521 431 (Glaxo; 4.6.1985; GB-prior. 1.10.1980).

US 4 672 133 (Glaxo; 4.6.1985; GB-prior. 1.10.1980).

alternative syntheses:

EP-appl. 59 082 (Glaxo; appl. 19.2.1982; GB-prior. 20.2.1981).

US 4 399 294 (Glaxo; 16.8.1983; GB-prior. 30.12.1980).

US 4 399 293 (Glaxo; 16.8.1983; GB-prior. 20.1.1981).

DOS 3 242 204 (Lab. Pharmamedical; appl. 15.11.1982; E-prior. 16.11.1981).

BE 888 747 (Ricerca Chimica; appl. 11.5.1981; I-prior. 13.5.1980, 7.10.1980, 21.11.1980).

*synthesis of 5-(dimethylaminomethyl)furfuryl alcohol:*Gill, E.W.; Ing, H.R.: J. Chem. Soc. (JCSOA9) **1958**, 4728.*preparation of N-methyl-1-methylthio-2-nitroethenamine:*

a IN 172 064 (Council Scient. Ind. Res.; 23.10.1993; prior. 3.1.1989).

Deshmulek, A.R. et al.: J. Chem. Soc., Perkin Trans. 1 (JCPRB4) **1990** (4); 1217.Mohanalingam, K.; Nethaji, M.; Das, P.K.: J. Mol. Struct. (JMOSB4) **378** (3), 177 (1996).

b JP 7 157 465 (Nitto Chem. Ind. Co. Ltd.; 20.6.1995; prior. 3.12.1993).

Sega, A. et al.: Gazz. Chim. Ital. (GCITA9) **111** (5/6), 217 (1981).Manjunatha, S.G.; Reddy, K.V.; Rajappa, S.: Tetrahedron Lett. (TELEAY) **31**, 1327 (1990).*stable aqueous formulations:*

US 4 585 790 (Glaxo)

ranitidine bismuth citrate:

GB 2 220 937 (Glaxo; appl. 17.7.1989; prior. 18.7.1988; 1.3.1989).

DE 4 130 061 (Glaxo; appl. 10.9.1991; GB-prior. 11.9.1990).

Formulation(s): amp. 50 mg/5 ml; eff. tabl. 150 mg, 300 mg; f. c. tabl. 150 mg, 300 mg; tabl. 150 mg, 300 mg (as hydrochloride); tabl. 400 mg (as bismuth citrate)

Trade Name(s):

D:	Sostril (Glaxo Wellcome/ Cascan; 1982) Zantic (Glaxo Wellcome; 1982) various generics and combination preparations	GB:	Zantic (Glaxo Wellcome; 1981)		Ulcex (Guidotti) Zantic (Glaxo Wellcome; 1981)
F:	Azantac (Glaxo Wellcome; 1984) Raniplex (Fournier; 1984)	I:	Elicodil (Menarini; as bismuth citrate) Pylorid (Glaxo Wellcome; as bismuth citrate) Raniben (Firma) Ranibloc (Glaxo Allen) Ranidil (Menarini; 1981)	J:	Zantic (Glaxo; 1984) Zantic Glaxo (Nippon Glaxo) Zantic Sankyo (Sankyo)
				USA:	Tritec (Glaxo Wellcome) Zantic (Glaxo; 1983)

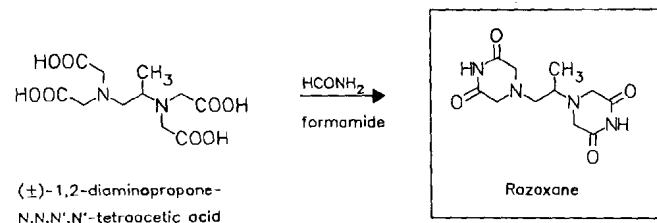
Razoxane

ATC: V03AF

Use: antineoplastic

RN: 21416-87-5 MF: C₁₁H₁₆N₄O₄ MW: 268.27LD₅₀: 861 mg/kg (M, i.p.)

CN: (±)-4,4'-(1-methyl-1,2-ethanediy)bis[2,6-piperazinedione]

*Reference(s):*

DOS 1 910 283 (ICI; appl. 28.2.1969; USA-prior. 2.7.1968).

Formulation(s): tabl. 125 mg

Trade Name(s):

GB: Razoxin (ICI); wfm

Rebamipide

(Proamipide)

ATC: A02BX

Use: ulcer therapeutic

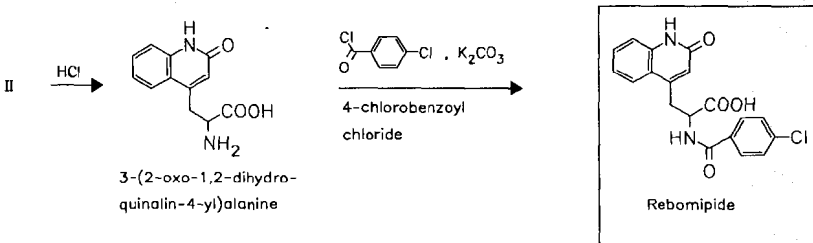
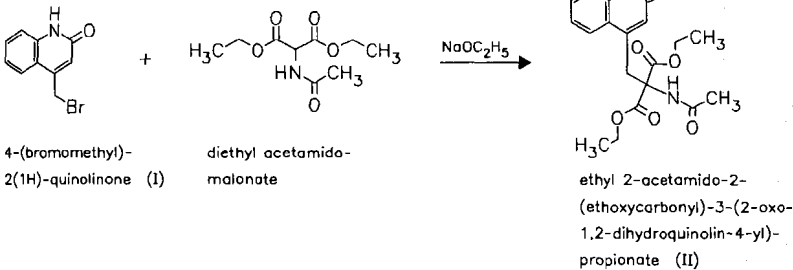
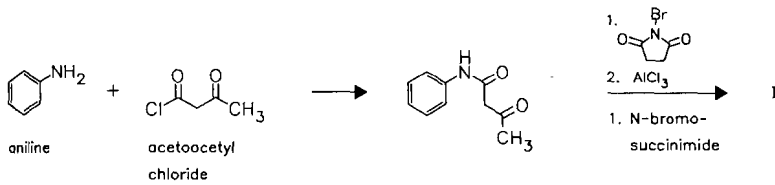
RN: 90098-04-7 MF: C₁₉H₁₅ClN₂O₄ MW: 370.79

LD₅₀: 572 mg/kg (M, i.v.);

700 mg/kg (R, i.v.);

>2 g/kg (dog, p.o.)

CN: α-(4-chlorobenzoyl)amino]-1,2-dihydro-2-oxo-4-quinolinepropanoic acid



Reference(s):

DOS 3 324 034 (Otsuka; appl. 7.4.1983; J-prior. 7.5.1982).

GB 2 123 825 (Otsuka, appl. 7.5.1983; J-prior. 7.5.1982).

Uchida, M. et al.: Chem. Pharm. Bull. (CPBTAL) **33**, 3775 (1985).

oral and parenteral formulations:

JP 60 019 767 (Otsuka; appl. 7.11.1983).

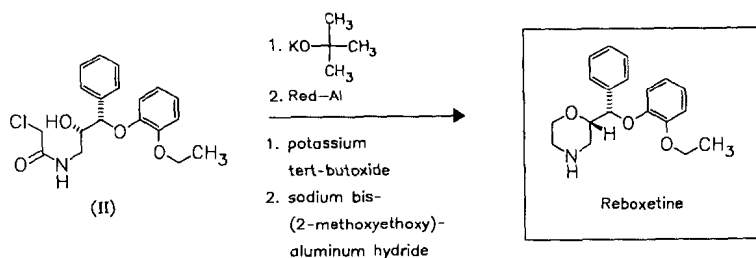
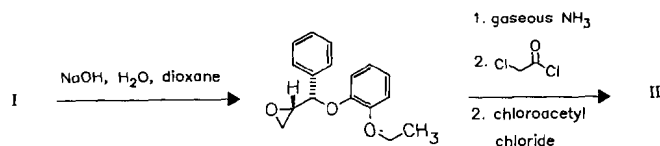
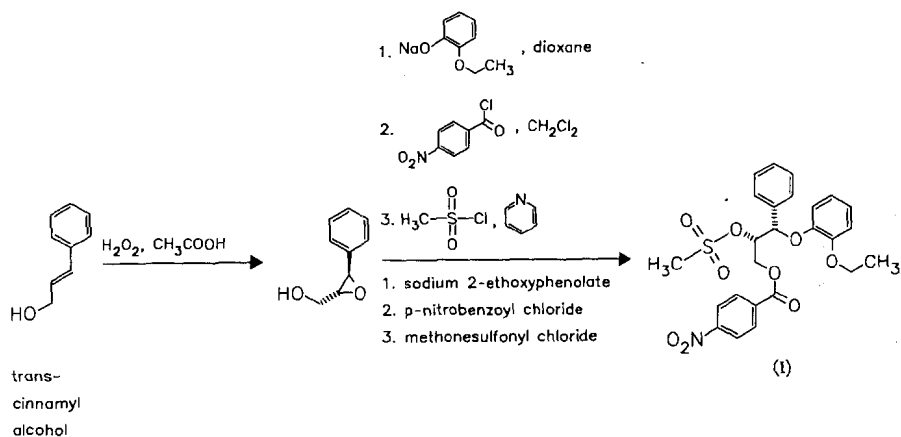
Formulation(s): tabl. 100 mg

Trade Name(s):

J: Mucosta (Otsuka; 1990)

Reboxetine
(FCE-20124)

ATC: N06AX18

Use: antidepressant, selective
norepinephrine reuptake inhibitorRN: 98769-81-4 MF: $C_{19}H_{23}NO_3$ MW: 313.40CN: (*R*,R**)-2-[(2-Ethoxyphenoxy)phenylmethyl]morpholine**mesilate**RN: 98769-82-5 MF: $C_{19}H_{23}NO_3 \cdot CH_4O_3S$ MW: 409.50**Reference(s):****racemic synthesis:**

DE 2 901 032 (Farmitalia Carlo Erba; appl. 12.1.1979; I-prior. 20.1.1978).

synthesis of stereoisomers of reboxetine:

DE 3 540 093 (Farmitalia Carlo Erba; appl. 12.11.1985; GB-prior. 22.11.1984).

configurational studies on 2-[α-(2-ethoxyphenoxy)benzyl]morpholine:Melloni, P.; Della Torre, A.; Lazzari, E.; Mazzini, G.; Meroni, M.; Tetrahedron (TETRAB) **41** (7), 1393 (1985).

Formulation(s): tabl. 2 mg, 4 mg

Trade Name(s):

D:	Edronax (Pharmacia & Upjohn)	GB:	Edronax (Pharmacia & Upjohn; 1997)	Edronax (Pharmacia & Upjohn)
I:		I:	Davedax (Carlo Erba)	

Remifentanil

(GI-87084B)

ATC: N01AH06

Use: analgesic

RN: 132875-61-7 MF: C₂₀H₂₈N₂O₅ MW: 376.45

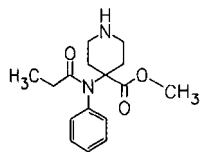
CN: 4-(methoxycarbonyl)-4-[(1-oxopropyl)phenylamino]-1-piperidinepropanoic acid methyl ester

monohydrochloride

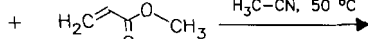
RN: 132539-07-2 MF: C₂₀H₂₈N₂O₅ · HCl MW: 412.91

oxalate (1:1)

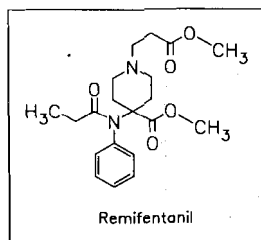
RN: 132875-62-8 MF: C₂₀H₂₈N₂O₅ · C₂H₂O₄ MW: 466.49



4-methoxycarbonyl-
4-[(1-oxopropyl)-
phenylamino]-
piperidine



methyl
acrylate



Remifentanil

Reference(s):

EP 383 579 (Glaxo; appl. 14.2.1990; USA-prior. 11.12.1989).

preparation of 4-methoxycarbonyl-4-[(1-oxopropyl)phenylamino]piperidine:

DE 2 610 228 (Janssen Pharmaceutica; appl. 13.1.1976; prior. 14.3.1975).

Feldman, P.L., Brackeen, M.F.: J. Org. Chem. (JOCEAH) **55** (13), 4207 (1990).

Colapret, J.A.; Diamantidis, G.; Spencer, H.K.; Spaulding, T.C.; Rudo, F.G: J. Med. Chem. (JMCMAR) **32** (5), 968 (1989).

use as anesthetic:

US 5 466 700 (Glaxo Wellcome; USA-prior. 30.8.1993).

Formulation(s): amp. 1 mg, 2 mg, 5 mg; vial 1 mg, 2 mg, 5 mg (as hydrochloride)

Trade Name(s):

D:	Ultiva (Glaxo Wellcome; Zeneca)	F:	Ultiva (Glaxo Wellcome)	I:	Ultiva (Glaxo Wellcome)
		GB:	Ultiva (Glaxo Wellcome)	USA:	Ultiva (Glaxo Wellcome)

Remoxipride

ATC: N05AL04

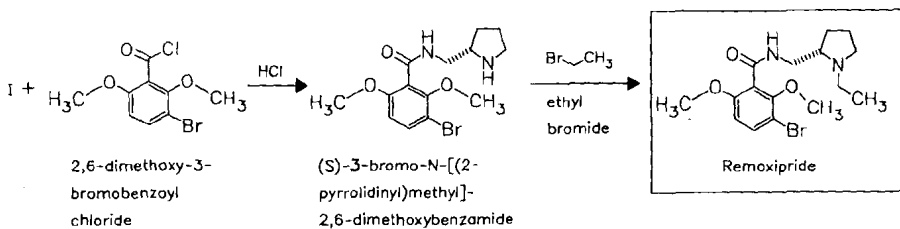
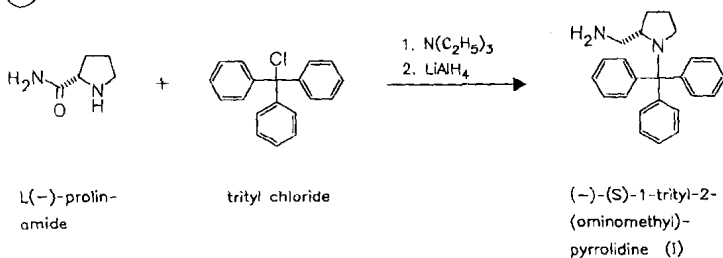
Use: neuroleptic with selective dopamine D₂-antagonistic activity

RN: 80125-14-0 MF: C₁₆H₂₃BrN₂O₃ MW: 371.28

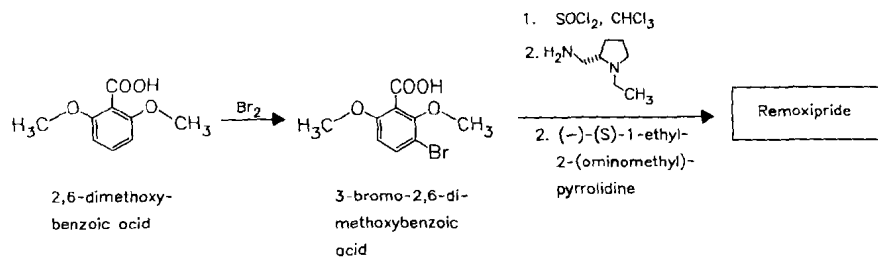
CN: (S)-3-bromo-N-[(1-ethyl-2-pyrrolidinyl)methyl]-2,6-dimethoxybenzamide

hydrochlorideRN: 100288-39-9 MF: $C_{16}H_{23}BrN_2O_3 \cdot xHCl$ MW: unspecified

(a)



(b)

**Reference(s):**

- US 4 232 037 (Astra; 4.11.1980; S-prior. 23.3.1978).
 DE 2 964 774 (Astra; appl. 5.3.1979; S-prior. 23.3.1978).
 EP 4 831 (Astra; appl. 5.3.1979; S-prior. 23.3.1978).
 EP 60 235 (Astra; appl. 5.3.1982; S-prior. 11.3.1981).
 Florvall, L.; Ögren, S.-O.: J. Med. Chem. (JMCMAR) **25**, 1280 (1986).

synthesis of 2,6-dimethoxybenzoic acid:

Doyle, F.P. et al.: J. Chem. Soc. (JCSOA) 497 (1963).

synthesis of (-)-(S)-1-ethyl-2-(aminomethyl)pyrrolidine:

FR 1 528 014 (Soc. d'Etudes Sci. et ind.; appl. 24.4.1967).

oral pharmaceutical formulation:

EP 273 890 (Astra; appl. 7.12.1987; S-prior. 22.12.1986).

Formulation(s): amp. 200 mg/2 ml; s. r. cps. 150 mg, 300, mg; susp. 150 mg/6 ml (as hydrochloride)**Trade Name(s):**

D: Psyloc (Astra; 1991); wfm

Roxiam (Astra; 1991); wfm

Repaglinide

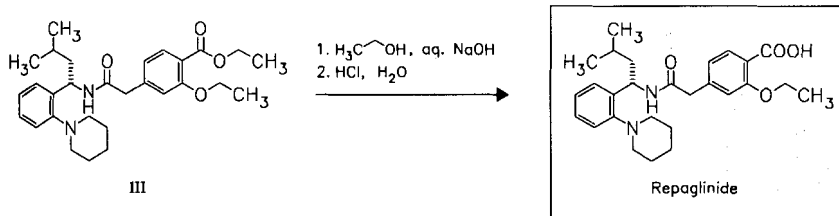
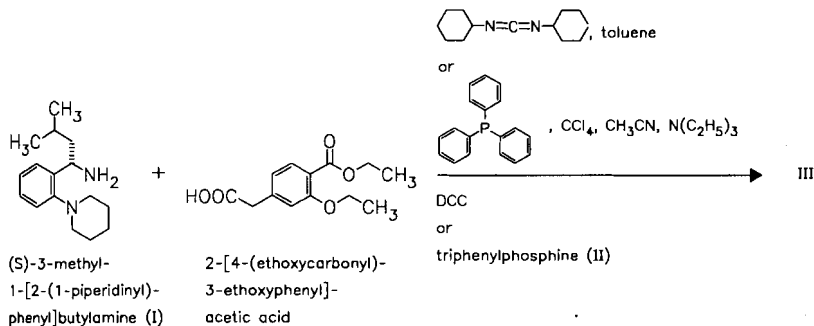
(AG-EE-623ZW; AG-EE-388)

ATC: A10BX02

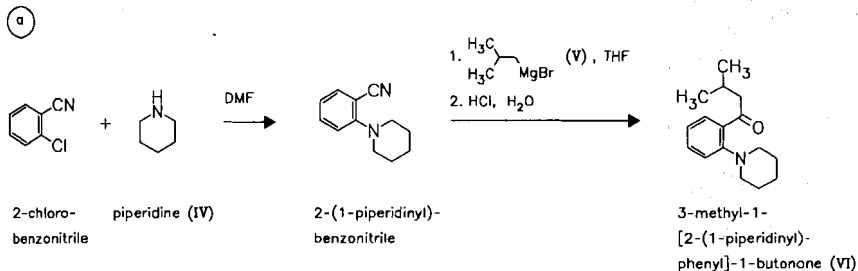
Use: antidiabetic

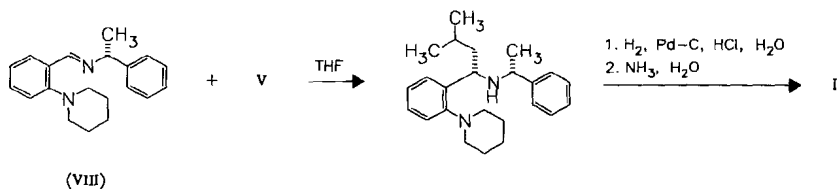
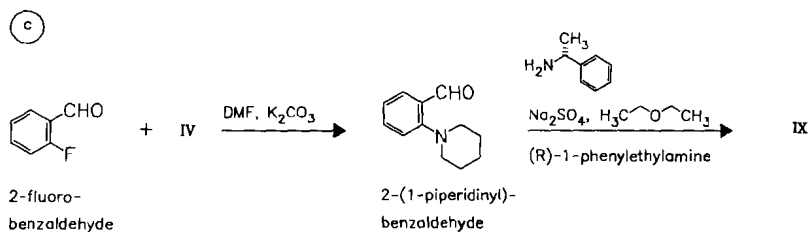
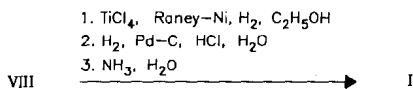
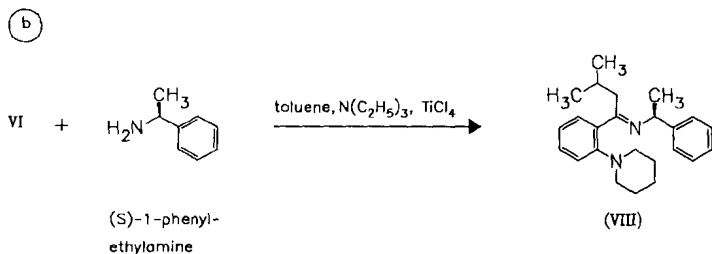
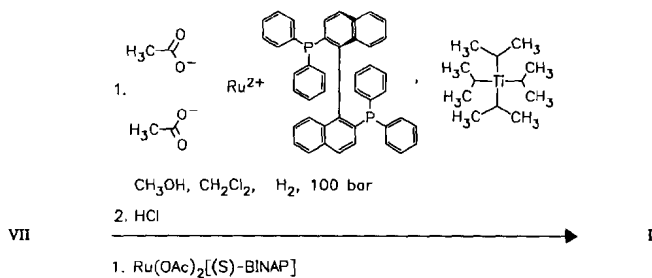
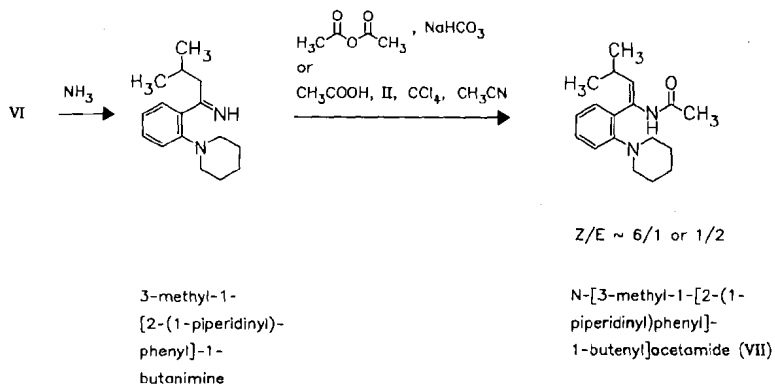
RN: 135062-02-1 MF: $C_{27}H_{36}N_2O_4$ MW: 452.60

CN: (S)-2-Ethoxy-4-[2-[[[3-methyl-1-[2-(1-piperidinyl)-phenyl]butyl]amino]-2-oxoethyl]benzoic acid

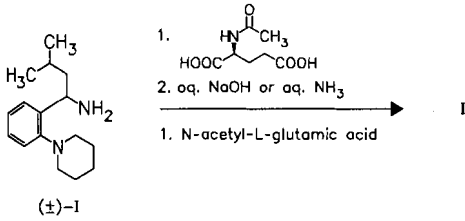
(S)-(+)-Ca saltRN: 172041-25-7 MF: $C_{44}H_{70}CaN_4O_8$ MW: 823.14**racemate**RN: 108157-53-5 MF: $C_{27}H_{36}N_2O_4$ MW: 452.60

synthesis of starting product I: (S)-3-methyl-1-[2-(1-piperidinyl)phenyl]butylamine





(d) resolution of racemic mixture



Reference(s):

WO 9 300 337 (Thomae GmbH; WO-prior. 21.6.1991).

Grell, W. et al.: Eur. J. Med. Chem. (EJMCA5) **41** (26), 5219 (1998)

racemic synthesis and solid forms of repaglinide:

EP 207 331 (Thomae GmbH; appl. 10.6.1986; D-prior. 25.6.1985)

preparation of 2-(1-piperidinyl)benzaldehyde:

GB 1 299 580 (Lilly Ind.; GB-prior. 15.10.1968)

Formulation(s): tabl. 0.5 mg, 1 mg, 2 mg

Trade Name(s):

D: NovoNorm (Novo Nordisk) USA: Prandin (Novo Nordisk; 1998)

Repirinast

ATC: R03D

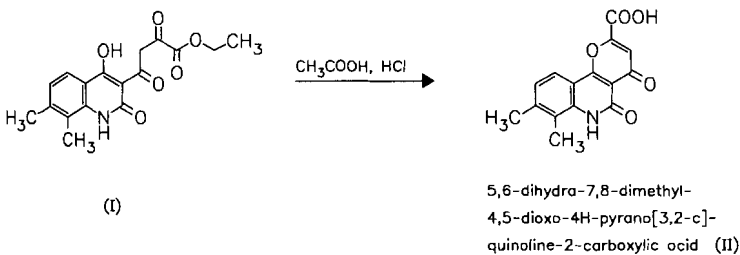
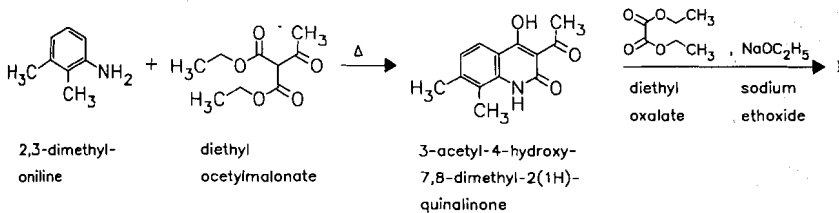
Use: antiallergic, treatment of bronchial asthma

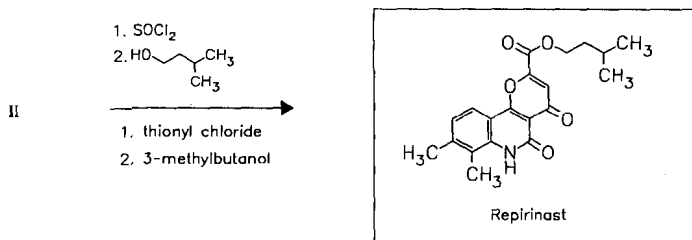
RN: 73080-51-0 MF: C₂₀H₂₁NO₅ MW: 355.39

LD₅₀: >5 g/kg (M, p.o., s.c.);

>5 g/kg (R, p.o., s.c.)

CN: 5,6-dihydro-7,8-dimethyl-4,5-dioxo-4H-pyrano[3,2-c]quinoline-2-carboxylic acid 3-methylbutyl ester



**Reference(s):**

DOS 2 922 231 (Mitsubishi; appl. 31.5.1979; J-prior. 5.6.1978).
US 4 298 610 (Mitsubishi; 3.11.1981; J-prior. 5.6.1978).
Morinaka, Y. et al.: Eur. J. Med. Chem. (EJMCA5) **16**, 251 (1981).

synthesis of ¹⁴C-repirinast:

Esumi, A. et al.: Clin. Rep. **20**, 391 (1986).

Formulation(s): tabl. 150 mg

Trade Name(s):

J: Romet (Mitsubishi; 1989)

Reproterol

ATC: R03AC15; R03CC14

Use: bronchodilator

RN: 54063-54-6 MF: C₁₈H₂₃N₅O₅ MW: 389.41 EINECS: 258-956-1

LD₅₀: 145 mg/kg (M, i.v.)

CN: 7-[3-[[2-(3,5-dihydroxyphenyl)-2-hydroxyethyl]amino]propyl]-3,7-dihydro-1,3-dimethyl-1H-purine-2,6-dione

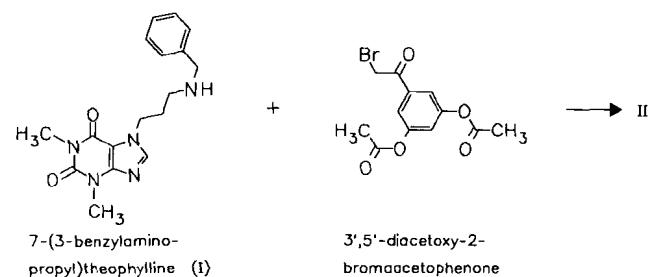
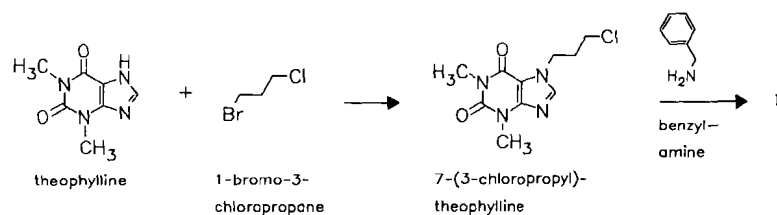
monohydrochloride

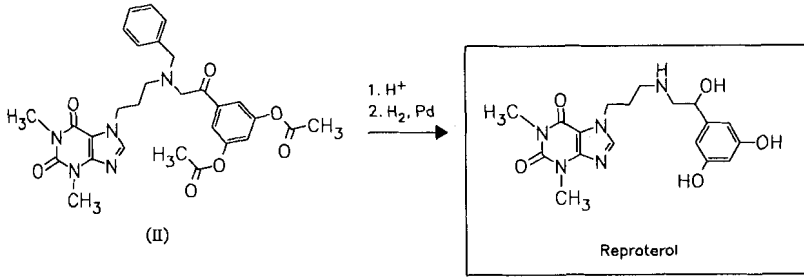
RN: 13055-82-8 MF: C₁₈H₂₃N₅O₅ · HCl MW: 425.87 EINECS: 235-942-3

LD₅₀: 148 mg/kg (M, i.v.); >10 g/kg (M, p.o.);

142 mg/kg (R, i.v.); >10 g/kg (R, p.o.);

160 mg/kg (dog, i.v.); 400 mg/kg (dog, p.o.)



**Reference(s):**

DE 1 545 725 (Degussa; appl. 16.1.1965).
 DE 1 795 573 (Degussa; appl. 16.1.1965).

hydrogenation:

DOS 2 701 629 (Degussa; appl. 17.1.1977).
 US 4 150 227 (Degussa; 17.4.1979; D-prior. 17.1.1977).

medical use:

US 3 544 685 (Degussa; 1.12.1970; prior. 26.7.1968).

starting material:

Priewe, H.; Poljak, A.: Chem. Ber. (CHBEAM) **90**, 1651 (1957).

review:

Klingler, K.H.: Arzneim.-Forsch. (ARZNAD) **27**, 1-76 (1a) (1977).

Formulation(s): aerosol 0.5 mg/0.05 ml; amp. 0.09 mg/ml; f. c. tabl. 20 mg (as hydrochloride)

Trade Name(s):

D:	Allergospasmin (ASTA Medica AWD)-comb.	Bronchospasmin (ASTA Medica AWD)	I:	Broncospasmin (ASTA Medica)
	Arane (Fisons; Rhône-Poulenc Rorer)-comb.	GB: Bronchodil (ASTA Medica)	J:	Bronchospasmin (Farmades)

Rescimetol

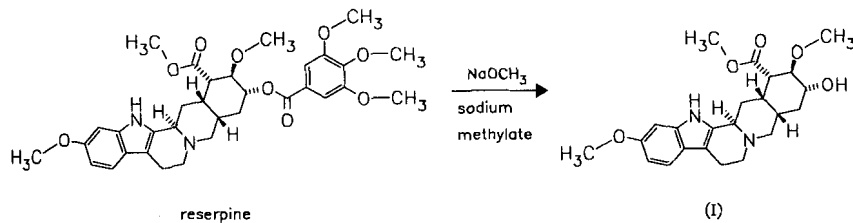
ATC: C02AA
 Use: antihypertensive

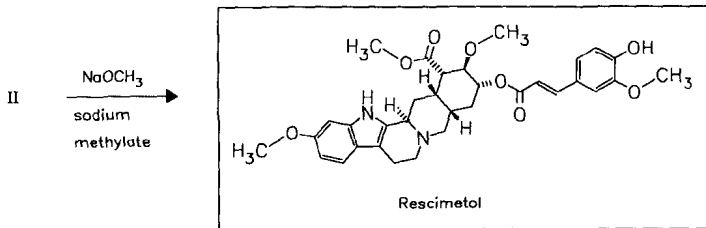
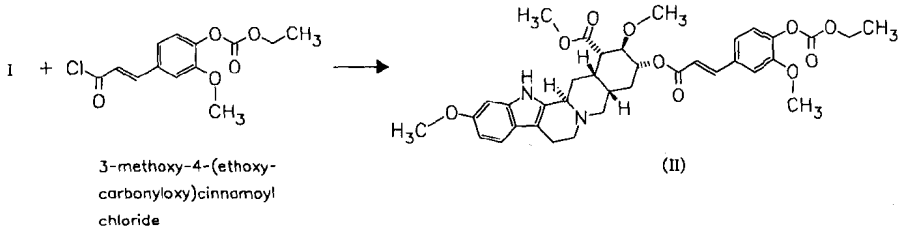
RN: 73573-42-9 MF: C₃₃H₃₈N₂O₈ MW: 590.67

LD₅₀: >40 mg/kg (M, i.v.); >15 g/kg (M, p.o.);

>20 mg/kg (R, i.v.); >15 g/kg (R, p.o.)

CN: [3β,16β,17α,18β(E),20α]-18-[13-(4-hydroxy-3-methoxyphenyl)-1-oxo-2-propenyl]oxy]-11,17-dimethoxyyohimban-16-carboxylic acid methyl ester



**Reference(s):**

- DOS 2 221 123 (Nippon Chemiphar; appl. 28.8.1972; J-prior. 8.10.1971, 28.12.1971).
 US 3 898 215 (Nippon Chemiphar; 5.8.1975; J-prior. 8.10.1971, 28.12.1971).
 Kametami, T. et al.: J. Med. Chem. (JMCMAR) **15**, 686 (1972).
 JP 7 619 799 (Nippon Chemiphar; appl. 7.8.1974).
 JP 7 476 890 (Nippon Chemiphar; appl. 30.11.1972).

Formulation(s): tabl. 1 mg

Trade Name(s):

J: Toscarina (Nippon Chemiphar)

Rescinnamine

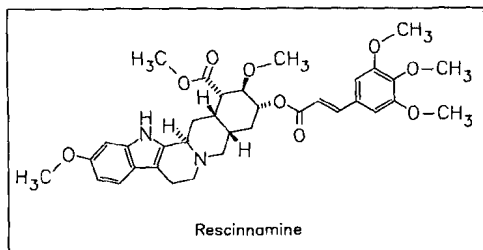
ATC: C02AA01

Use: antihypertensive, sedative, tranquilizer

RN: 24815-24-5 MF: C₃₅H₄₂N₂O₉ MW: 634.73 EINECS: 246-471-8

LD₅₀: 56 mg/kg (M, i.v.); 1420 mg/kg (M, p.o.);
1 g/kg (R, p.o.)

CN: (3β,16β,17α,18β,20α)-11,17-dimethoxy-18-[[1-oxo-3-(3,4,5-trimethoxyphenyl)-2-propenyl]oxy]yohimban-16-carboxylic acid methyl ester



By extraction of the roots of *Rauwolfia serpentina* (L.) Beuth. and column chromatographic separation of reserpine.

Reference(s):

US 2 974 144 (Riker; 7.3.1961; appl. 1954; prior. 1953).
 US 2 876 228 (Pfizer; 3.3.1959; appl. 1956).
 Klohs, M.W. et al.: J. Am. Chem. Soc. (JACSAT) **77**, 2241 (1955).

partial synthesis from reserpic acid methyl ester:

US 2 854 454 (P. R. Ulshafer; 1958; appl. 1954).

Formulation(s): tabl. 0.25 mg, 0.5 mg

Trade Name(s):

D:	Detensitral (Karlspharma)- comb.; wfm	Sarparel (Servier)-comb.; wfm	Caniramine (Hokuriku)
	Diuraupur (Guilini)-comb.; wfm	Tensid (Bayer Pharma)- comb.; wfm	Cinnaloid (Taito Pfizer)
	Rauwopur (Giulini)-comb.; wfm	Tensitral (Dausse)-comb.; wfm	Colstamin "Kowa" (Kowa)
F:	Aldatense (Searle)-comb.; wfm	Tensitral (Synthelabo)- comb.; wfm	Daisaloid (Mohan)
	Anaprel F (Servier)-comb.; wfm	I: Resertan (Perkins)-comb.; wfm	Isocalsin (Kowa Yakuhin)
	Diviator (Servier)-comb.; wfm	J: Apolon (Toyama)	Rescinate (Ohta)
		Aporecin (Kayaku)	Resiloid (Nippon Shoji)
		Atension (Santen)	Rozex (Teisan)
			Scimanan (Kotani)
			Seripinin (Fuji Zoki)
			Sinselpin (Kobayashi)
			USA: Moderil (Pfizer); wfm

Reserpine

ATC: C02AA02

Use: antihypertensive, tranquilizer

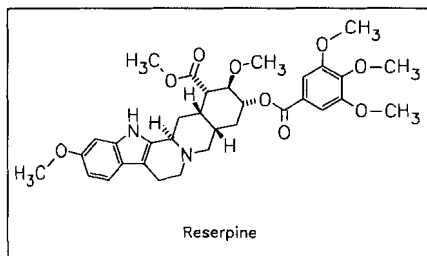
RN: 50-55-5 MF: C₃₃H₄₀N₂O₉ MW: 608.69 EINECS: 200-047-9

LD₅₀: 21 mg/kg (M, i.v.); 200 mg/kg (M, p.o.);

15 mg/kg (R, i.v.); 420 mg/kg (R, p.o.);

500 µg/kg (dog, i.v.)

CN: (3β,16β,17α,18β,20α)-11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]yohimban-16-carboxylic acid methyl ester



By extraction of the roots of *Rauwolfia serpentina* (L.) Beuth.

Reference(s):

DE 967 469 (Boehringer Ing.; appl. 1954).
 US 2 752 351 (Ciba; 1956; appl. 1953).
 US 2 833 771 (Ciba; 1958; CH-Frior. 1954).
 US 2 887 489 (Ciba; 1959; CH-prior. 1956).
 US 2 938 906 (Ciba; 1960; CH-prior. 1952).
 Dorfmann, L. et al.: Helv. Chim. Acta (HCACAV) **37**, 59 (1954).
 Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. **7**, 178.
 Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. **13**, 277.

total synthesis:

DAS 1 088 062 (Research Corp.; appl. 3.5.1957; USA-prior. 3.5.1956).

Hanessian, S et al.: J. Org. Chem. (JOCEAH) **62**, 465 (1997).*Formulation(s):* cps. 0.075 mg, 0.15 mg; drg. 0.05 mg, 0.07 mg, 0.1 mg; tabl. 0.1 mg, 0.125 mg, 0.25 mg*Trade Name(s):*

D:	Adelphan-Esidrix (Novartis Pharma)-comb.	Resaltex (Procter & Gamble)-comb.	Serpasil Esidrex (Ciba)-comb.; wfm
	Barotonal (Brenner-Efeka)-comb.	Reserpin Hameln (Hameln); wfm	combination preparations; wfm
	Bendigon (Bayer Vital)-comb.	Reserpin Saar (Chephasaar); wfm	I: Brinerdina (Novartis)-comb.
	Brisarin (Novartis Pharma)-comb.	Sedaraupin (Boehringer Mannh.); wfm	J: Igroton (Novartis)-comb.
	Darebon (Novartis Pharma)-comb.	Serpasil (Ciba); wfm	numerous generic preparations
	Disalpin (ASTA Medica AWD)-comb.	Triniton (Apogepha)-comb.	Serpasil (Ciba-Geigy-Takeda)
	Durotan (Beiersdorf-Lilly)-comb.	Tri-Thiazid Reserpin (Stada)-comb.	USA: Diupres (Merck Sharp & Dohme)-comb.
	dysto-Loges (Loges)-comb.	numerous combination preparations	Diutensen-R (Wallace)-comb.
	Modenol (Boehringer Mannh.)-comb.	F: Tensionorme (Leo)-comb.	Hydropres (Merck Sharp & Dohme)-comb.
		GB: Abicol (Boots)-comb.; wfm	
		Serpasil (Ciba); wfm	

Retinol

(Axcrophthol; Vitamin A)

ATC: A11CA01; D10AD02; R01AX02; S01XA02

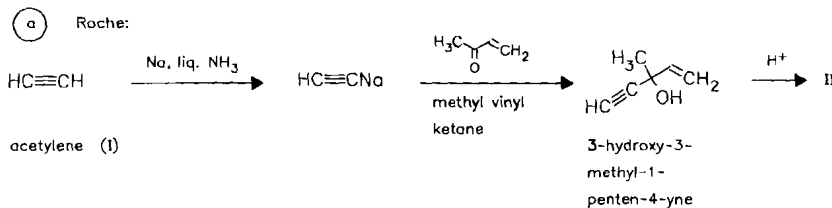
Use: epithelial protective vitamin

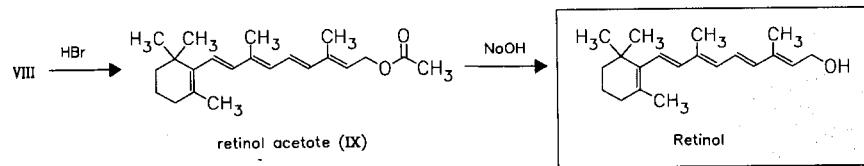
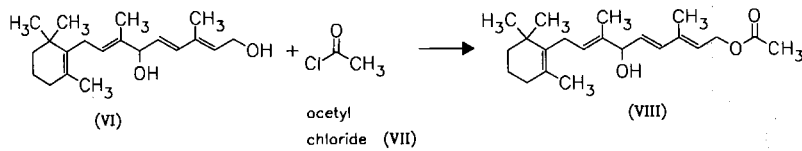
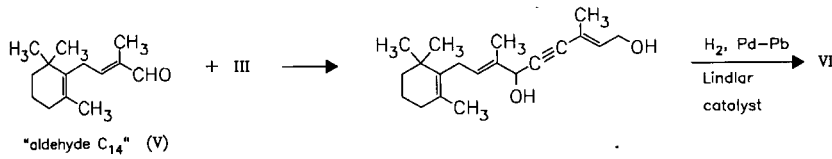
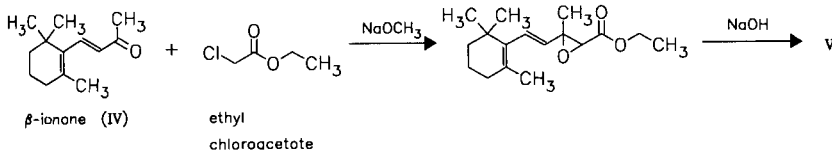
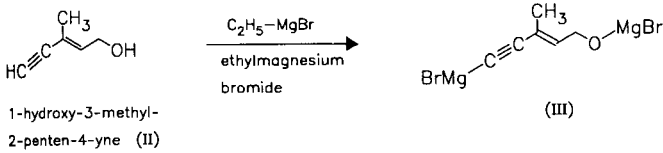
RN: 68-26-8 MF: C₂₀H₃₀O MW: 286.46 EINECS: 200-683-7LD₅₀: 1510 mg/kg (M, p.o.);

2 g/kg (R, p.o.)

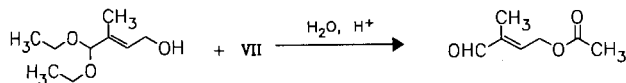
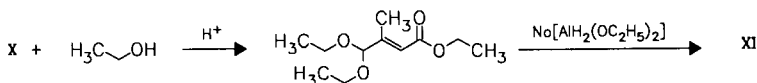
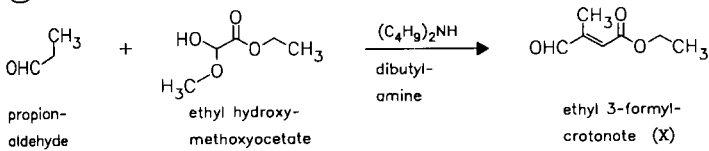
CN: (*all-E*)-3,7-dimethyl-9-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2,4,6,8-nonatetraen-1-ol**acetate**RN: 127-47-9 MF: C₂₂H₃₂O₂ MW: 328.50 EINECS: 204-844-2LD₅₀: 432 mg/kg (M, i.v.); 4100 mg/kg (M, p.o.)**propionate**RN: 7069-42-3 MF: C₂₃H₃₄O₂ MW: 342.52 EINECS: 230-363-2**palmitate**RN: 79-81-2 MF: C₃₆H₆₀O₂ MW: 524.87 EINECS: 201-228-5LD₅₀: 6060 mg/kg (M, p.o.);

7910 mg/kg (R, p.o.)





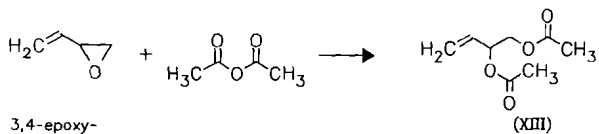
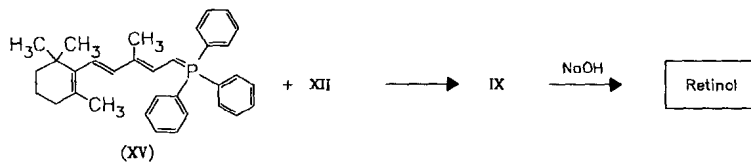
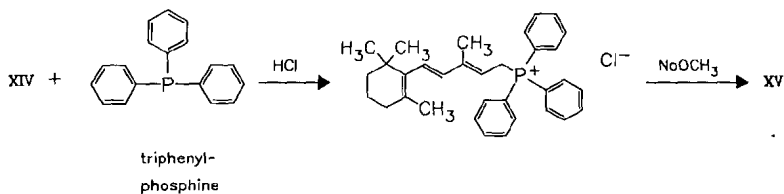
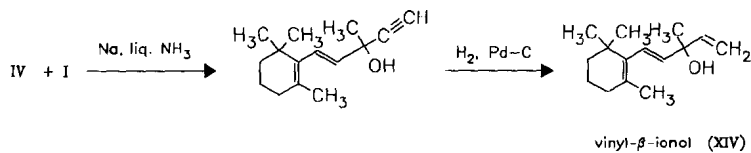
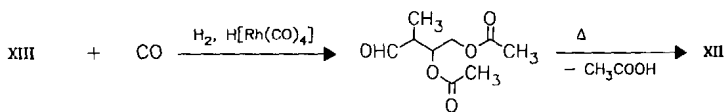
(b) BASF:



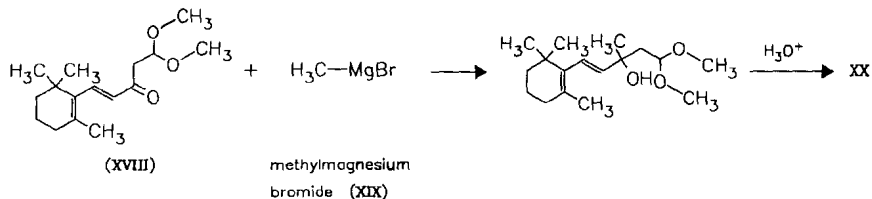
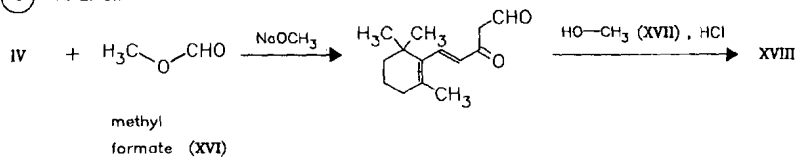
4,4-diethoxy-3-methyl-crotyl alcohol (XI)

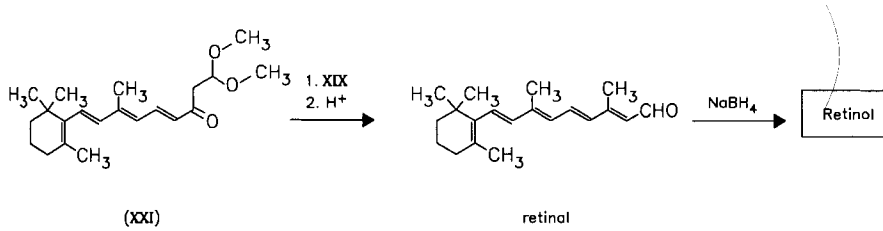
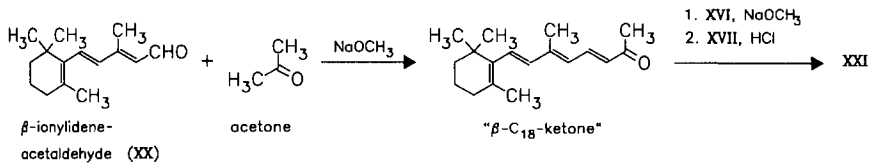
3-formylcrotyl acetate (XII)

alternative synthesis:

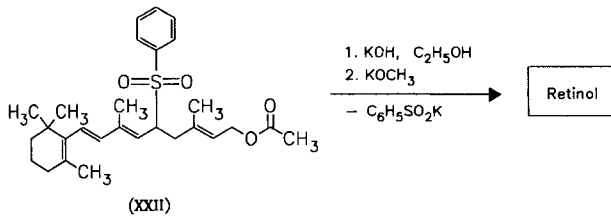
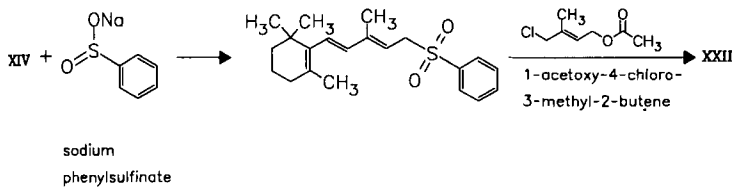
3,4-epoxy-
1-butene

c) A. E. C.:

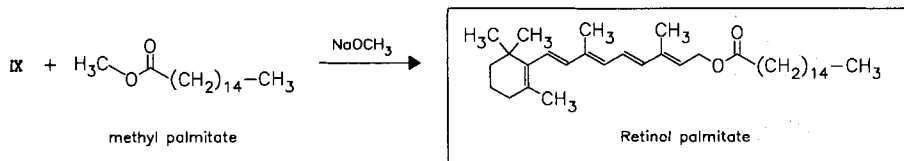




d Rhone-Poulenc:



Retinol palmitate:



Reference(s):

reviews:

Isler, O.; Brubacher, G.: Vitamine I (Fat Soluble Vitamins), Thieme Verlag Stuttgart, New York 1982.

Ullmann's Encyclopedia of Industrial Chemistry, 5th Ed., Vol. A27, p. 453-469, VCH Verlagsges. m.b.H., Weinheim 1996.

*older review:*Baxter, J.G.: Fortschr. Chem. Org. Naturst. (FCONAA) **9**, 41 (1952).**a** Isler, O. et al.: Helv. Chim. Acta (HCACAV) **30**, 1911 (1947).Isler, O. et al.: Helv. Chim. Acta (HCACAV) **32**, 489 (1949).Isler, O.: Chimia (CHIMAD) **4**, 103 (1950).Isler, O.: Angew. Chem. (ANCEAD) **68**, 547 (1956).

DE 839 495 (Roche; appl. 1949; CH-prior. 1945, 1947).

DE 844 596 (Roche; appl. 1949; CH-prior. 1947).

DE 842 190 (Roche; appl. 1949; CH-prior. 1946) ("*C*₁₄-aldehyde")**b** Pommer, H.: Angew. Chem. (ANCEAD) **72**, 811, 911 (1960).Pommer, H.: Angew. Chem. (ANCEAD) **89**, 437 (1977).Reif, W.; Grassner, H.: Chem.-Ing.-Tech. (CITEAH) **45**, 646 (1973).Freyschlag, H. et al.: Angew. Chem. (ANCEAD) **77**, 277 (1965).

DE 957 942 (BASF; appl. 1955).

DE 1 059 900 (BASF; appl. 1957).

DE 1 060 386 (BASF; appl. 1957).

DE 1 068 702 (BASF; appl. 1958).

ethinylation of β-ionone:

DE 1 081 883 (BASF; appl. 1958).

synthesis of 3-formylcrotyl acetate:

DAS 2 004 675 (BASF; appl. 1970).

EP 87 097 (BASF; appl. 14.2.1983; D-prior. 20.2.1982).

c FR 1 243 824 (A.E.C.).**d** Julia, M.; Arnould, D.: Bull. Soc. Chim. Fr. (BSCFAS) **1973**, 743, 746.

DOS 2 305 267 (Rhône-Poulenc).

DAS 2 361 144 (Rhône-Poulenc; appl. 7.12.1973; F-prior. 7.12.1972, 22.12.1972).

DE 2 734 172 (Rhône-Poulenc; appl. 28.7.1977; F-prior. 28.7.1976).

Formulation(s): cps. 2500 iu, 30000 iu, 50000 iu; drg. 10000 iu (as acetate); drops 1000 iu/ml, 10000 iu/g, 40000 iu/ml; emulsion 30000 iu/ml, 300000 iu/g; gel 1000 iu/ml; ointment 250 iu/g, 10000 iu/g; tabl. 20000 iu.

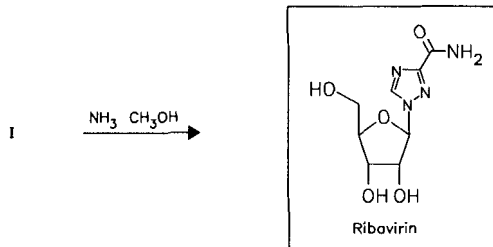
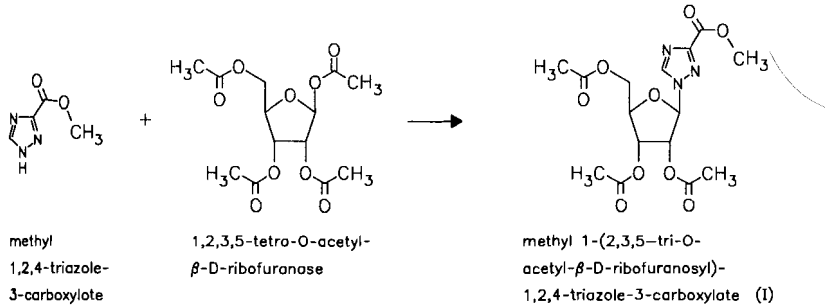
Trade Name(s):

D:	A-Mulsin (Mucos)	generics and circa 300	Euvitol (Bracco)
	Arovit (Roche); wfm	combination preparations	Euvitol Labra (Bracco)
	A-Vicotrat (Heyl)	F: A 313	Evitex (Alcon)
	Oculotect Augentropfen	(Pharmadéveloppement)	Haliborange (Eurosipital)-
	(CIBA Vision)	Arovit Roche (Roche)	comb.
	Ophthosan Augentropfen	Avibon (Thérapiex)	Lasonil H Antiemorr.
	(Winzer)	Halivite (Whitehall)	(Bayer)-comb.
	Retinol (Ursapharm)	Vitamine A Dulcis	Midium (Teofarma)-comb.
	Solan (Winzer)	(Allergan)	Repervit (IDI)
	Taxofit Vitamin A	Vitamine A Faure (Théa)	Rovigon (Roche)-comb.
	(Anasco); wfm	numerous combination	Tocalfa (ASTA Medica)-
	Vitamin A Dispersa (CIBA	preparations	comb.
	Vision)	GB: Abidec (Warner-Lambert)-	Vitalipid (Pharmacia &
	Vitamin A Dispersa	comb.	Upjohn)
	Baeschlin (Baeschlin); wfm	Dalivit drops (Eastern)-	J: numerous combination
	Vitamin-A-Kapseln	comb.	preparations
	"Extracta" (Extracta); wfm	numerous combination	USA: ACES (Carlson)-comb.
	Vitamin-A-POS	preparations	Aquasol A (Astra)
	(Ursapharm)	I: AD Pabyrn (Samil)-comb.	Lazer (Pedinol)-comb.
	Vitamin-A-Saar	Adisterolo (Abiogen	Materna (Lederle)-comb.
	(Chephasaar)	Pharma)-comb.	Megadose (Arco)-comb.
	Vogan (Merck); wfm	Arovit (Roche)	Vi-Daylin (Ross)-comb.

Ribavirin

ATC: J05AB04

Use: antiviral

RN: 36791-04-5 MF: C₈H₁₂N₄O₅ MW: 244.21LD₅₀: 2700 mg/kg (R, p.o.)CN: 1-β-D-ribofuranosyl-1*H*-1,2,4-triazole-3-carboxamide**Reference(s):**Witkowski, J.T.: J. Med. Chem. (JMCMAR) **15**, 1150 (1972).**alternative syntheses:**

DOS 2 220 246 (ICN; appl. 25.4.1972; USA-prior. 1.6.1971, 31.3.1972).

DOS 2 441 823 (ICN; appl. 12.3.1974; USA-prior. 12.3.1973).

DOS 2 511 828 (ICN; appl. 18.3.1975; USA-prior. 18.3.1974).

JP-appl. 75 123 883 (Kyowa; appl. 15.3.1974).

US 3 976 545 (ICN; 24.8.1976; prior. 1.6.1971).

US 4 138 547 (ICN; 6.2.1979; prior. 22.12.1977).

structure and conformation:Kreishman, G.P. et al.: J. Am. Chem. Soc. (JACSAT) **94**, 5894 (1972).**Formulation(s):** powder 6 g (for preparation of inhalation solution)**Trade Name(s):**

D: Virazole (ICN)

I: Viramid (Alfa Wassermann)

USA: Virazole (ICN)

Riboflavin(Lactoflavin; Vitamin B₂)

ATC: A11HA04

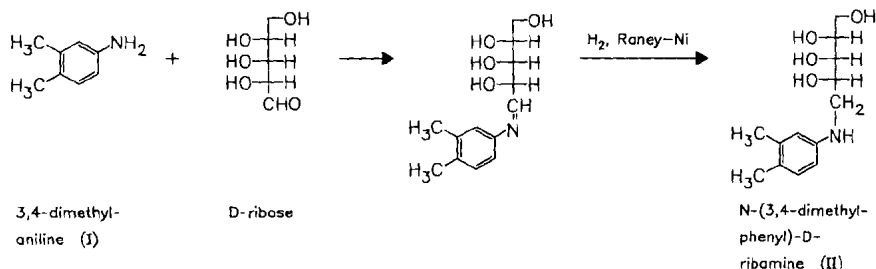
Use: vitamin

RN: 83-88-5 MF: C₁₇H₂₀N₄O₆ MW: 376.37 EINECS: 201-507-1LD₅₀: 50 mg/kg (R, i.v.); >10 g/kg (R, p.o.)CN: 1-deoxy-1-[3,4-dihydro-7,8-dimethyl-2,4-dioxobenzo[g]pteridin-10(2*H*)-yl]-D-ribitol

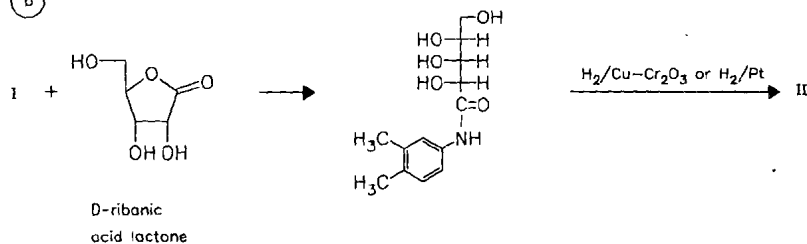
5'-phosphate monosodium saltRN: 130-40-5 MF: C₁₇H₂₀N₄NaO₉P MW: 478.33

N-(3,4-dimethylphenyl)-D-riboamine

(a)

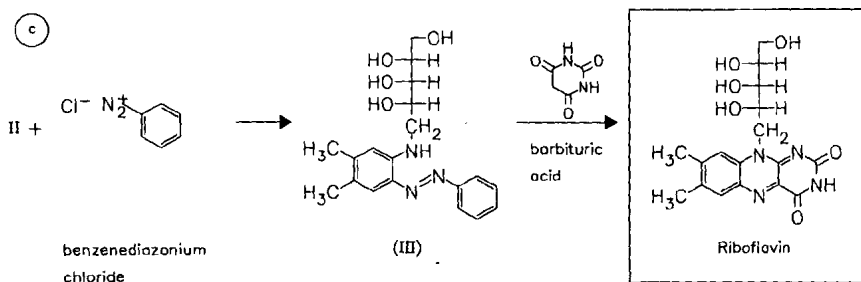


(b)

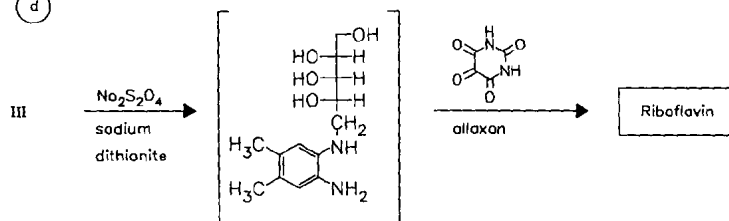


riboflavin

(c)



(d)

**Reference(s):**

- a US 2 384 105 (Roche; 1945; appl. 1943).
 b US 2 411 611 (Roche; 1946; GB-prior. 1941).
 US 2 422 997 (Roche; 1947; appl. 1944).
 DAS 2 558 515 (BASF; appl. 24.12.1975) – hydrogenation on Cu-Cr₂O₃.
 DAS 2 558 516 (BASF; appl. 24.12.1975) – hydrogenation on Cu-Cr₂O₃.

alternative syntheses (from 3,4-dimethylnitrobenzene):

DOS 2 650 830 (BASF; appl. 6.11.1976).

- c Tishler, M. et al.: J. Am. Chem. Soc. (JACSAT) **69**, 1487 (1947).
 US 2 350 376 (Merck & Co.; 1944; appl. 1941).
 US 2 370 093 (Merck & Co.; 1945; appl. 1941).

similar processes:

Tishler, M. et al.: J. Am. Chem. Soc. (JACSAT) **67**, 2165 (1945).
 US 2 807 611 (Merck & Co.; 1957; appl. 1955).

- d Karrer, P.; Meerwein, H.: Helv. Chim. Acta (HCACAV) **18**, 1130 (1935).
 Kuhn, R.; Weygand, F.: Ber. Dtsch. Chem. Ges. (BDCGAS) **68**, 1282 (1935).

fermentative methods:

US 2 445 128 (USA-Secret. Agriculture; 1948; Anm, 1946).
 US 2 483 855 (Commercial Solvents Corp.; 1949; appl. 1942).
 US 2 876 169 (Grain Process. Corp.; 1959; appl. 1956).
 US 4 165 250 (Merck & Co.; 21.8.1979; prior. 29.8.1975, 22.3.1976, 14.11.1977).

isolation from fermentation liquors and purification:

US 2 387 023 (Commercial Solvents Corp.; 1945; appl. 1944).
 US 2 421 142 (Commercial Solvents Corp.; 1947; appl. 1944).
 US 2 367 646 (Commercial Solvents Corp.; 1945; appl. 1943).
 US 2 571 896 (Merck & Co.; 1951; appl. 1945).
 US 2 797 215 (Commercial Solvents Corp.; 1957; prior. 1951, 1955).
 US 4 165 250 (Merck & Co.; 21.8.1979; prior. 29.8.1975, 22.3.1976, 14.11.1977).

Formulation(s): amp. 10 mg/2 ml, 20 mg/ml (as 5'-phosphate monosodium salt); drg. 10 mg; tabl. 10 mg

Trade Name(s):

D:	Biovital (Dr. Schieffer)- comb.	Capsules Pharmaton (Boehringer Ing.)-comb.	I:	Pabrinex (Link) following vitaminous combination preparations:
	B-Komplex-Vicotrat (Heyl)	Carencyl (Riom)-comb.		Becozym (Roche)
	BVK Roche (Roche Nicholas)	Glutamag Vitaminé (Euform)-comb.		Berocca (Roche)
	Doppelherz (Quiesser Pharma)	Hydosol polyvitaminé Labaz (Labaz)-comb.		Betacomplexo (Medosan)
	Eunova (SmithKline Beecham OTC Medicines)	Hydosol polyvitaminé Roche (Roche)-comb.		Betotal (Pharmacia & Upjohn)
	Kendural (Abbott)	Nutrigène (GNR-pharma)- comb.		Diagran (Bristol-Myers Squibb)
	Merz Spezial Dragees (Merz & Co.)	Plurifactor (Gomenol)- comb.		Emazian (Bioindustria)
	Multibionta (Merck Produkte)	Renutryl 500 (Nestlé clinical)-comb.		Emoantitossina (Piam)
	Multi Sanostol (Roland)	Survitine (Roche Nicholas)-comb.		Idropan B (Lisapharma)
	Polybion (Merck)	Vitamine C-B ₂ Lemoine (Lemoine)-comb.		Idroplurivit (Menarini)
	Tai Ginseng (Dr. Poehlmann)	Vivamyne (Whitehall)- comb.		Ipavit (IPA)
	Vita Buerlecithin (Roland)- comb.	numerous combination preparations		Katabios (SIT)
	and circa 300 combination preparations			Neocromaton (Menarini)
F:	Alvityl (Solvay Pharma)- comb.	GB:		Plexoton B12 (Coli)
	B-Chabre (ATC Pharma)- comb.	only combination preparations:		Priovit (SIT)
	Bécozyme (Roche)-comb.	Abidec (Warner-Lambert)	J:	Sincrivit (AGIPS)
	Beflavine (Roche)	Dalivit Drops (Paines & Byrne)		Vinutro Drops (Bergamon)
		Ketovite (Paines & Byrne)	USA:	Vitalerina (Polifarma)
				Vitamax (Medosan)
				Vitate (SIT)
				Viterra (Pfizer)
				numerous combination preparations
				Mega-B (Arco)

Ribostamycin

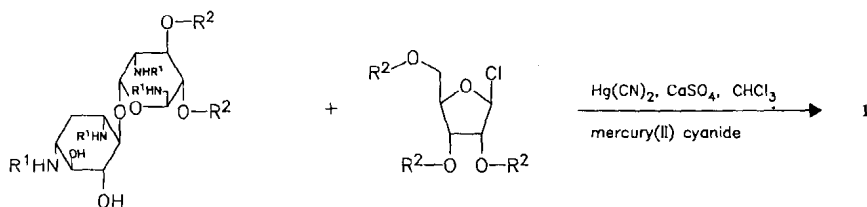
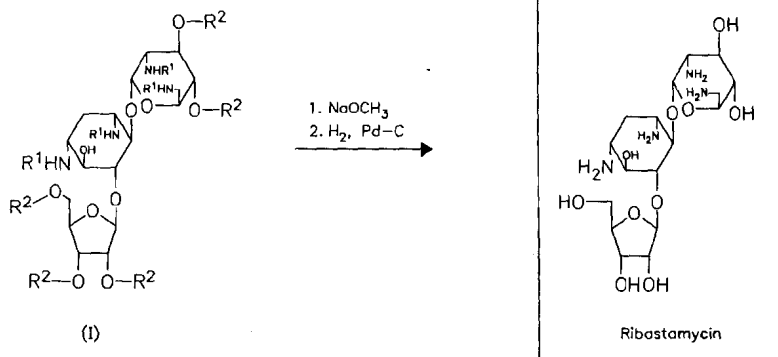
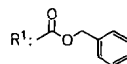
(Ribostamin)

ATC: J01GB10

Use: antibiotic

RN: 25546-65-0 MF: $C_{17}H_{34}N_4O_{10}$ MW: 454.48 EINECS: 247-091-5LD₅₀: 300 mg/kg (M, i.v.); 7 g/kg (M, p.o.);
535 mg/kg (R, i.v.); >10 g/kg (R, p.o.)CN: *O*-2,6-diamino-2,6-dideoxy- α -D-glucopyranosyl(1 \rightarrow 4)-*O*-[β -D-ribofuranosyl-(1 \rightarrow 5)]-2-deoxy-D-streptamine**sulfate**RN: 53797-35-6 MF: $C_{17}H_{34}N_4O_{10} \cdot xH_2SO_4$ MW: unspecified EINECS: 258-783-1LD₅₀: 210 mg/kg (M, i.v.); >7 g/kg (M, p.o.);
375 mg/kg (R, i.v.); >7 g/kg (R, p.o.)(a) by fermentation from *Streptomyces ribosidicus* (ATCC 21294)

(b)

4-*O*-[2,6-bis(benzoyloxycarbonyl-amino)-3,4-di-*O*-benzyl-2,6-dideoxy- α -D-glucopyranosyl]-*N,N'*-bis(benzoyloxycarbonyl)-2-deoxy-D-streptamine2,3,5-tri-*O*-benzyl- β -D-ribofuranosyl chloride**Reference(s):**

- a DE 1 814 735 (Meiji Seika Kaisha; appl. 14.12.1968; J-prior. 15.10.1968, 18.12.1967).
Shomura, T. et al.: J. Antibiot. (JANTAJ) **23**, 155 (1970).
US 3 661 892 (Meiji Seika; appl. 3.12.1968; J-prior. 18.12.1967).
US 3 799 842 (Meiji Seika; USA-prior. 1.6.1970; J-prior. 15.10.1968, 18.12.1967).
- b DOS 2 104 129 (Meiji Seika Kaisha; appl. 29.1.1971; J-prior. 2.2.1970).

alternative syntheses:

DOS 2 537 688 (Hoechst; appl. 23.8.1975).

JP 54 008 792 (Shionogi; appl. 16.6.1977).

JP 53 201 155 (Suami; appl. 10.8.1976).

Suami, T. et al.: Carbohydr. Res. (CRBRAT) **56**, 415 (1977) and literature cited therein.*total synthesis:*Fukami, H. et al.: Agric. Biol. Chem. (ABCHA6) **41**, 1689 (1977).*Formulation(s):* vial 0.5 g, 1 g (as sulfate)*Trade Name(s):*

D:	Landamycine (Delalande; 1977); wfm	F:	Ribomycin (Delalande); wfm	I:	Ibistacin (IBI); wfm
J:	Vistamycin (Meiji; 1972)				

Rifampicin

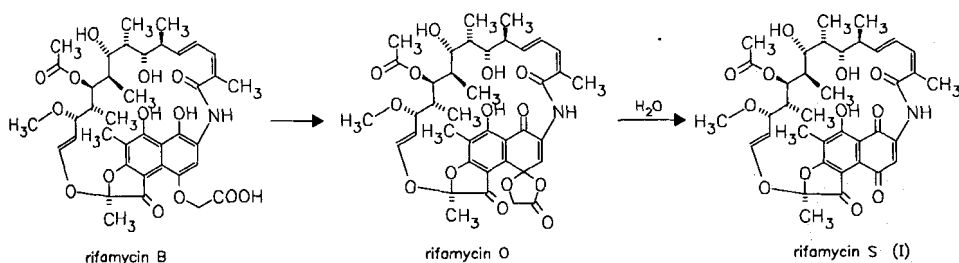
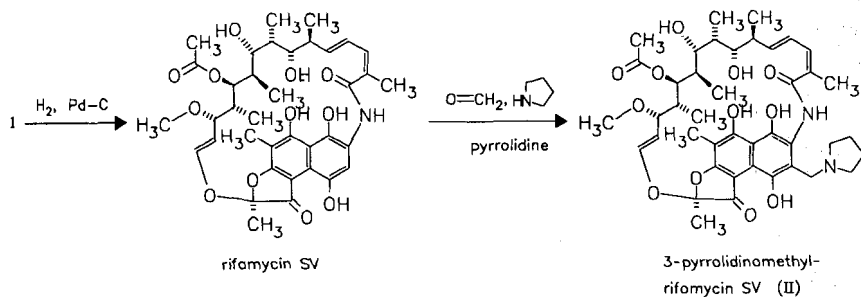
ATC: J04AB02

Use: antibiotic (tuberculosis agent)

RN: 13292-46-1 MF: C₄₃H₅₈N₄O₁₂ MW: 822.95 EINECS: 236-312-0LD₅₀: 260 mg/kg (M, i.v.); 500 mg/kg (M, p.o.);

1570 mg/kg (R, p.o.)

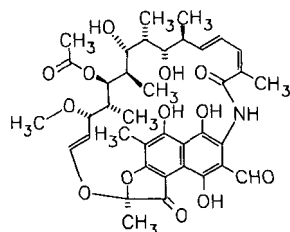
CN: 3-[[[4-methyl-1-piperazinyl]imino]methyl]rifamycin

[from *Streptomyces mediterranei*
(ATCC 13685)]

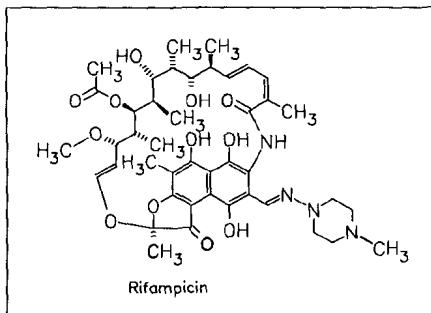
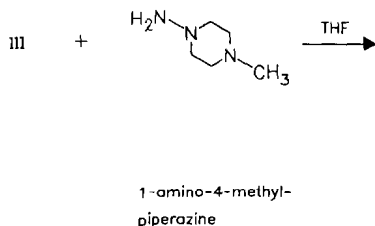
II

1. Pb(O-CO-CH₃)₄, CH₃COOH, CHCl₃
2. aq. ascorbic acid

1. lead tetraacetate



3-formylrifamycin SV (III)

*Reference(s):*

Maggi, N. et al.: *Chemotherapia (CMTRAG)* **11**, 285 (1966).
 US 3 342 810 (Lepetit; 19.9.1967; GB-prior. 31.7.1964).
 DAS 1 795 567 (Lepetit; appl. 28.7.1965; GB-prior. 31.7.1964).

alternative syntheses:

DOS 2 846 321 (Holco; appl. 24.10.1978; GB-prior. 25.11.1977).

fermentative production of rifamycin B:

DE 1 089 513 (Lepetit; appl. 11.8.1959; GB-prior. 12.8.1958).

Formulation(s): cps. 150 mg, 300 mg; drg. 150 mg, 300 mg, 450 mg, 600 mg; f. c. tabl. 150 mg, 300 mg, 450 mg, 600 mg; syrup 100 mg/5 ml; vial 600 mg

Trade Name(s):

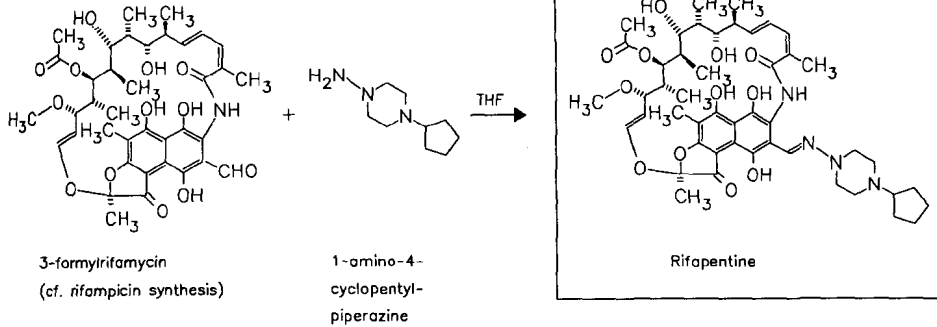
D:	Eremfat (Fatol)	GB:	Rifadin (Hoechst; 1969)	Rimactane (Ciba-Geigy-Fujisawa)
	Rifa (Grünenthal; 1970)		Rifater (Hoechst)-comb. with isoniazid	USA: Rifadin (Hoechst Marion Roussel; 1970)
	Rifampicin-Hefa (Hefa Pharma)		Rifinah (Hoechst)-comb. with isoniazid	Rifamate (Hoechst Marion Roussel; 1976)-comb. with isoniazid
	Rifater (Grünenthal)-comb.		Rimactane (Ciba; 1969)	Rifater (Hoechst Marion Roussel)
	Rifinah (Grünenthal)-comb.		Rimactazid (Ciba)-comb. with isoniazid	Rimactazid (Ciba)-comb. with isoniazid
F:	Rifadine (Marion Merrell SA; 1969)	I:	Rifadin (Lepetit)	
	Rifater (Marion Merrell SA)-comb.		Rifapiam (Piam)	
	Rifinah (Marion Merrell SA)-comb.		Rifinah (Lepetit)-comb. with isoniazid	
	Rimactan (Novartis Pharma SA; 1969)	J:	Rifadin (Daiichi)	

Rifampentine

Use: antibacterial

RN: 61379-65-5 MF: C₄₇H₆₄N₄O₁₂ MW: 877.05 EINECS: 262-743-9

CN: 3-[[[4-Cyclopentyl-1-piperazinyl]imino]methyl]rifamycin

**Reference(s):**

DE 2 608 218 (Gruppo Lepetit; GB-prior. 5.3.1975).

Traxler, P.; Kümp, W.; Mueller, K.; Tosch, W.: *J. Med. Chem. (JMCMAR)* **33**, 552 (1990)**Formulation(s):** tabl 150 mg**Trade Name(s):**USA: Priftin (Hoechst Marion
Roussel; 1998)**Rifaximin**

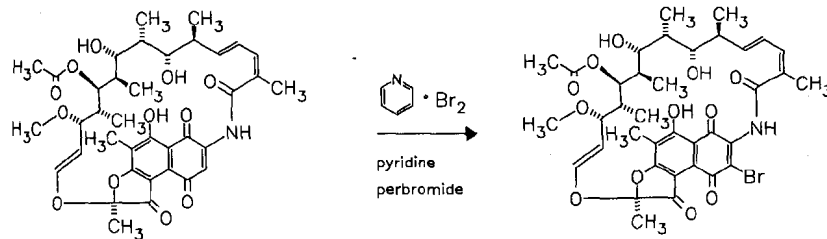
(L-105)

ATC: A07AA11; D06AX11

Use: antibiotic, antibacterial

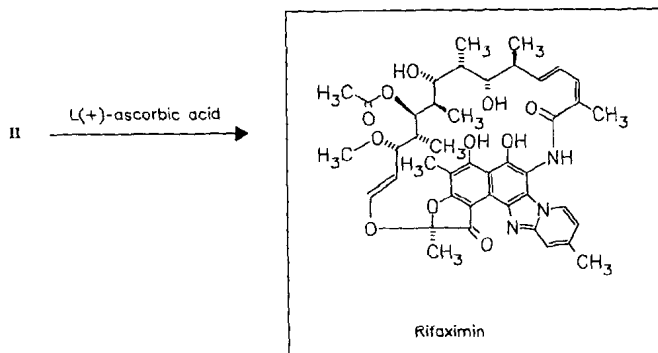
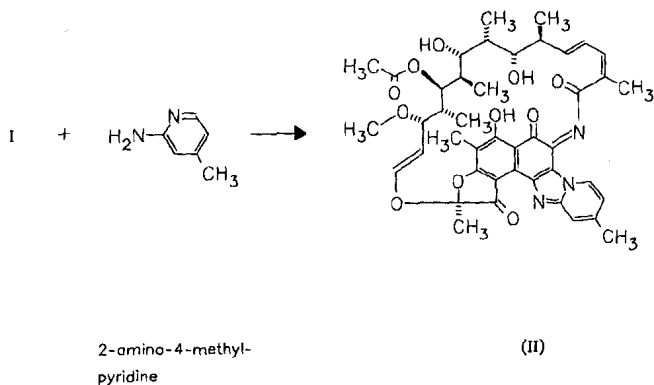
RN: 80621-81-4 MF: C₄₃H₅₁N₃O₁₁ MW: 785.89LD₅₀: >2 g/kg (R, p.o.);

>2 g/kg (dog, p.o.)

CN: [2*S*-(2*R**,16*Z*,18*E*,20*R**,21*R**,22*S**,23*S**,24*S**,25*R**,26*S**,27*R**,28*E*)]-25-(acetyloxy)-5,6,21,23-tetrahydroxy-27-methoxy-2,4,11,16,20,22,24,26-octamethyl-2,7-(epoxypentadeca[1,11,13]trienimino)benzofuro[4,5-*e*]pyrido[1,2-*a*]benzimidazole-1,15(2*H*)-dione

rifamycin S

3-bromorifamycin S (1)

**Reference(s):**

DE 3 120 460 (Alfa Farm.; appl. 22.5.1981; I-prior. 22.5.1980).

US 4 341 785 (Alfa Farm.; 27.7.1982; I-prior. 22.5.1980).

Marchi, E. et al.: J. Med. Chem. (JMCMAR) **28**, 960 (1985).**alternative synthesis:**

EP 161 534 (Alfa Farm.; appl. 19.4.1985; I-prior. 15.5.1984).

synthesis of 3-bromorifaximin S:

US 4 179 438 (Alfa Farm.; 18.12.1979; I-prior. 29.11.1977).

Formulation(s): ointment 5 %; susp. 2 %; tabl. 200 mg**Trade Name(s):**I: Dermadis (Farmades)
Normix (Alfa Wassermann)Redactiv (Alfa
Wassermann)

Rifacol (Formenti)

Rilmazafone

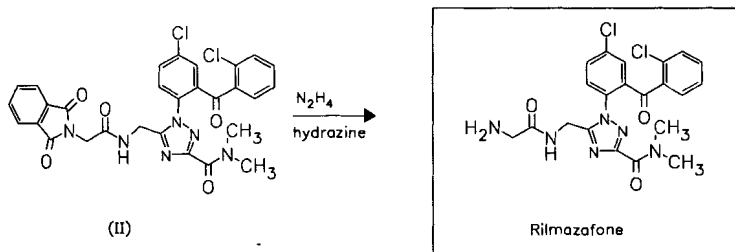
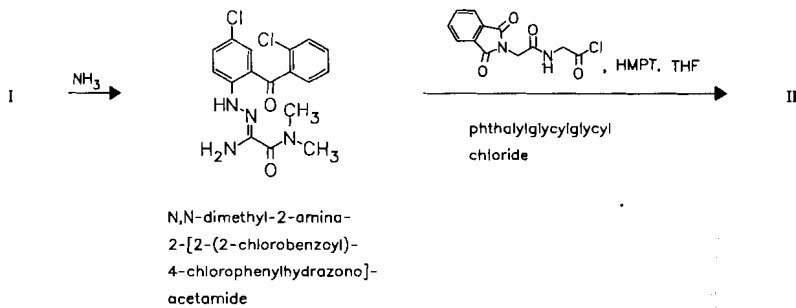
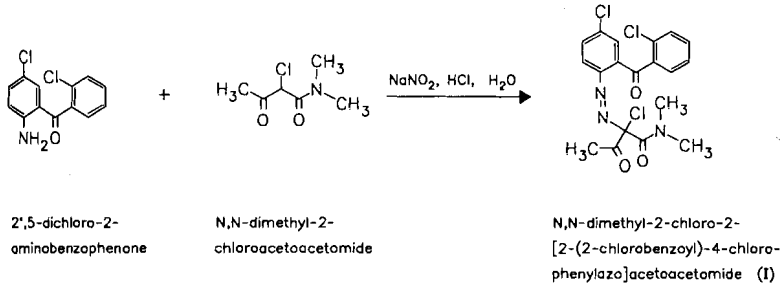
ATC: N05B; N05C

Use: hypnotic, anxiolytic, treatment of neurotic insomnia, ring-opened benzodiazepine

RN: 99593-25-6 MF: C₂₁H₂₀Cl₂N₆O₃ MW: 475.34LD₅₀: 72 mg/kg (M, i.p.); 540 mg/kg (M, p.o.); 620 mg/kg (M, s.c.);

91 mg/kg (R, i.p.); 680 mg/kg (R, p.o.); 1600 mg/kg (R, s.c.)

CN: 5-[[aminoacetyl]amino]methyl]-1-[4-chloro-2-(2-chlorobenzoyl)phenyl]-N,N-dimethyl-1H-1,2,4-triazole-3-carboxamide

monohydrochlorideRN: 85815-37-8 MF: $C_{21}H_{20}Cl_2N_6O_3 \cdot HCl$ MW: 511.80**Reference(s):**

DE 2 725 164 (Shionogi; appl. 6.3.1977; J-prior. 6.4.1976).
 US 4 159 374 (Shionogi; 26.6.1979; appl. 6.3.1977; J-prior. 6.4.1976).
 Hirai, K. et al.: J. Heterocycl. Chem. (JHTCAD) **19**, 1363 (1982).

Formulation(s): tabl. 1 mg, 2 mg

Trade Name(s):

J: Rhythmy (Shionogi; 1989)

Rilmenidine

(Oxaminozolin; S-3341)

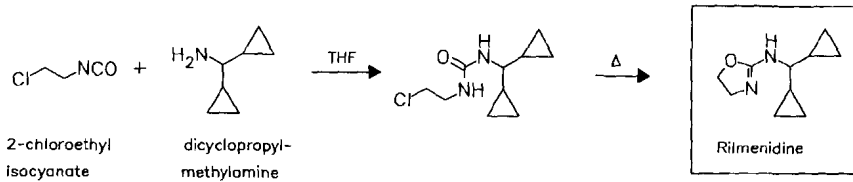
ATC: C02AC06

Use: antihypertensive, α_2 -adrenoceptor agonist

RN: 54187-04-1 MF: $C_{10}H_{16}N_2O$ MW: 180.25 EINECS: 259-021-0

LD₅₀: 24 mg/kg (M, i.v.)

CN: N-(dicyclopropylmethyl)-4,5-dihydro-2-oxazolamine

(E)-2-butendioate (1:1)RN: 54249-57-9 MF: $C_{10}H_{16}N_2O \cdot C_4H_4O_4$ MW: 296.32**dihydrogen phosphate**RN: 85409-38-7 MF: $C_{10}H_{16}N_2O \cdot H_3PO_4$ MW: 278.25**Reference(s):**

DE 2 362 754 (Sci. Union et Cie., Soc. Franç. de Recherche Medicale; appl. 17.12.1973; GB-prior. 28.12.1972).
 US 3 988 464 (Sci. Union et Cie., Soc. Franç. de Recherche Medicale; 26.10.1976; appl. 26.12.1973; F-prior. 28.12.1972).

US 4 102 890 (Sci. Union et Cie., Soc. Franç. de Recherche Medicale; 25.7.1978; appl. 11.8.1976; F-prior. 26.12.1973; prior. 28.12.1972).

synthesis of dicyclopropylmethylamine:

Corrodi, H.: Helv. Chim. Acta (HCACAV) **46**, 1059 (1963).

Timberlake, J.; Martin, J.C.: J. Org. Chem. (JOCEAH) **33**, 4054 (1968).

Formulation(s): tabl. 1 mg (as dihydrogen phosphate)

Trade Name(s):

F: Hyperium (Biopharma;
 Servier; 1988)

Riluzole

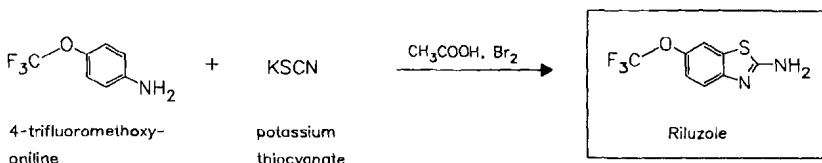
(PK-26124; RP-54274)

ATC: N07XX02

Use: anticonvulsant, glutamate release inhibitor

RN: 1744-22-5 MF: $C_8H_5F_3N_2OS$ MW: 234.20LD₅₀: 67 mg/kg (M, p.o.)

CN: 6-(trifluoromethoxy)-2-benzothiazolamine

**Reference(s):**

EP 50 551 (Pharminindustrie; appl. 9.10.1981; F-prior. 17.10.1980).

use to treat mitochondrial disorders:

FR 2 714 828 (Rhône-Poulenc Rorer; F-prior. 12.1.1994).

use to treat neurological symptoms with HIV infections:

FR 2 702 148 (Rhône-Poulenc Rorer; F-prior. 5.3.1993).

use as radioprotector:

FR 2 700 116 (Rhône-Poulenc Rorer; F-prior. 7.1.1993).

use to treat Parkinson's disease:

FR 2 700 117 (Rhône-Poulenc Rorer; F-prior. 7.1.1993).

use to treat neurological disorders:

WO 9 413 288 (Rhône-Poulenc Rorer; appl. 10.12.1993; F-prior. 16.12.1992).

use to treat motor-neuron diseases:

EP 558 861 (Rhône-poulenc Rorer; appl. 22.10.1992; F-prior. 6.3.1992).

use to treat schizophrenia:

EP 305 276 (Rhône-Poulenc Rorer; appl. 18.8.1988; F-prior. 25.8.1987).

use to treat depression:

EP 3 052 277 (Rhône-Poulenc Rorer; appl. 18.8.1988; F-prior. 25.8.1987).

use to treat amyotrophic lateral sclerosis:

WO 9 715 304 (Sanofi; appl. 25.10.1996; F-prior. 13.6.1996).

Formulation(s): f. c. tabl. 50 mg

Trade Name(s):

D:	Rilutek (Rhône-Poulenc Rorer)	GB:	Rilutek (Rhône-Poulenc Rorer)	USA:	Rilutek (Rhône-Poulenc Rorer)
F:	Rilutek (Specia; Rhône-Poulenc Rorer)	I:	Rilutek (Rhône-Poulenc Rorer)		

Rimantadine

ATC.: J05AC02

Use: antiviral

RN: 13392-28-4 MF: C₁₂H₂₁N MW: 179.31

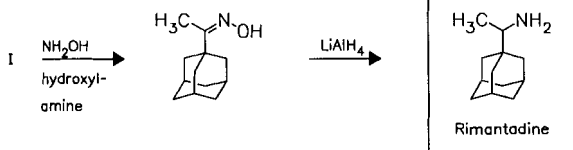
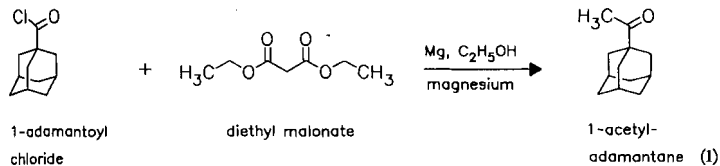
CN: α -methyltricyclo[3.3.1.1^{3,7}]decane-1-methanamine

hydrochloride

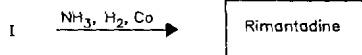
RN: 1501-84-4 MF: C₁₂H₂₁N · HCl MW: 215.77

LD₅₀: 640 mg/kg (R, p.o.)

⊙



(b)

**Reference(s):**

DE 1 468 769 (Du Pont; appl. 18.7.1964; USA-prior. 24.7.1963).
 US 3 352 912 (Du Pont; 14.11.1967; prior. 18.6.1964, 24.7.1963).

alternative synthesis:

EP 178 668 (Du Pont; appl. 17.10.1985; USA-prior. 19.10.1984).

Formulation(s): syrup 50 mg/5 ml; tabl. 100 mg (as hydrochloride)

Trade Name(s):

F: Roflual (Hoffmann-La Roche; 1988); wfm
 USA: Flumadine (Forest)

Rimiterol

ATC: R03AC05
 Use: bronchodilator

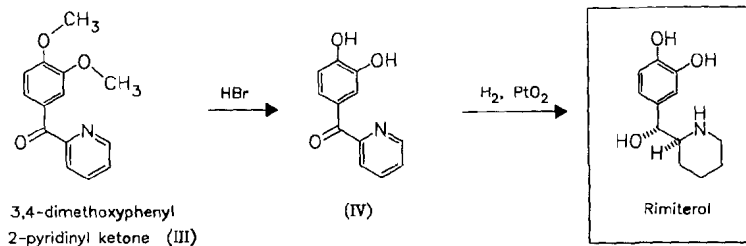
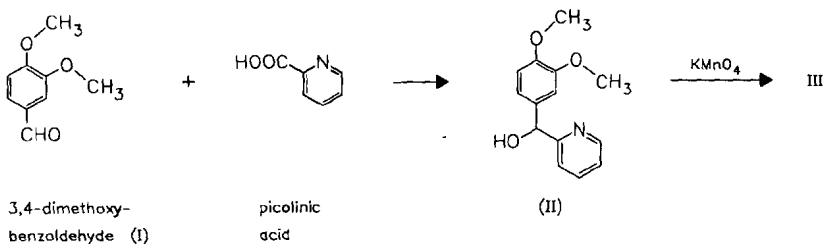
RN: 32953-89-2 MF: $\text{C}_{12}\text{H}_{17}\text{NO}_3$ MW: 223.27 EINECS: 251-305-2

CN: (*R**,*S**)-4-(hydroxy-2-piperidinylmethyl)-1,2-benzenediol

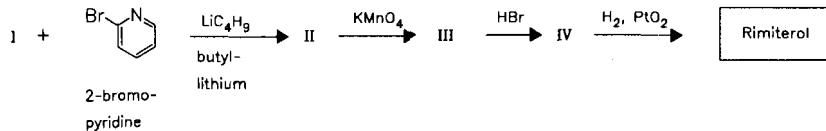
hydrobromide

RN: 31842-61-2 MF: $\text{C}_{12}\text{H}_{17}\text{NO}_3 \cdot \text{HBr}$ MW: 304.18 EINECS: 250-834-6

(a)



(b)

*Reference(s):*

- a DAS 2 024 049 (Minnesota 3M; appl. 16.5.1970; GB-prior. 20.5.1969).
 b US 3 705 169 (Smith Kline & French; 5.12.1972; prior. 8.10.1969, 5.11.1970).

Formulation(s): inhalation aerosol 10 mg, 0.2 mg/dose (as hydrobromide)

Trade Name(s):

GB: Pulmadil (Riker); wfm

Risedronate sodium

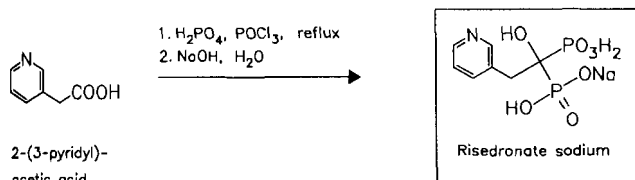
Use: bone resorption inhibitor, bisphosphonate

RN: 115436-72-1 MF: $\text{C}_7\text{H}_{10}\text{NNaO}_7\text{P}_2$ MW: 305.10

CN: [1-Hydroxy-2-(3-pyridinyl)ethylidene]bis-[phosphonic acid] monosodium salt

acid

RN: 105462-24-6 MF: $\text{C}_7\text{H}_{11}\text{NO}_7\text{P}_2$ MW: 283.11

*Reference(s):*

- EP 186 405 (Procter and Gamble Co.; appl. 16.12.1985; USA-prior. 21.12.1984).
 WO 9 211 269 (Huhtamaki Oy; appl. 18.12.1991; FI-prior. 20.12.1990).

oral enteric-coated sustained-release compositions:

- WO 9 309 785 (Procter and Gamble Pharm.; USA-prior. 22.11.1991).

Formulation(s): tabl. 30 mg (as sodium hemipentahydrate)

Trade Name(s):

USA: Actonel (Procter & Gamble; 1998)

Risperidone

ATC: N05AX08

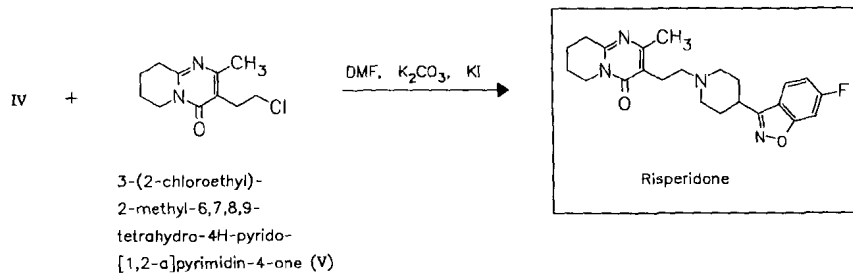
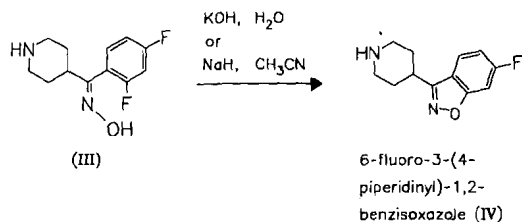
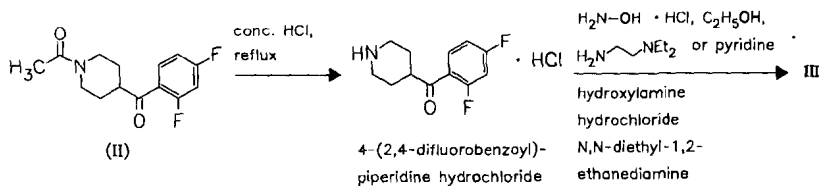
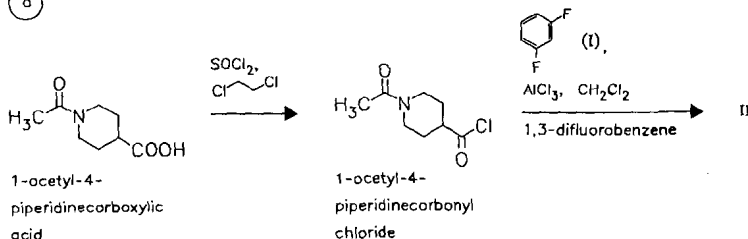
Use: antipsychotic, 5-HT₂-antagonist,
dopamine-D₂-antagonistRN: 106266-06-2 MF: C₂₃H₂₇FN₄O₂ MW: 410.49LD₅₀: 34.3 mg/kg (R, i. v.); 56.6 mg/kg (R, p. o.);

26.9 mg/kg (M, i. v.); 63.1 mg/kg (M, p. o.);

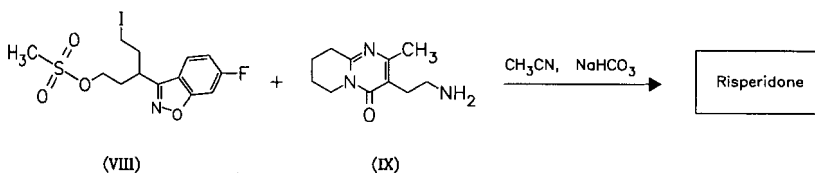
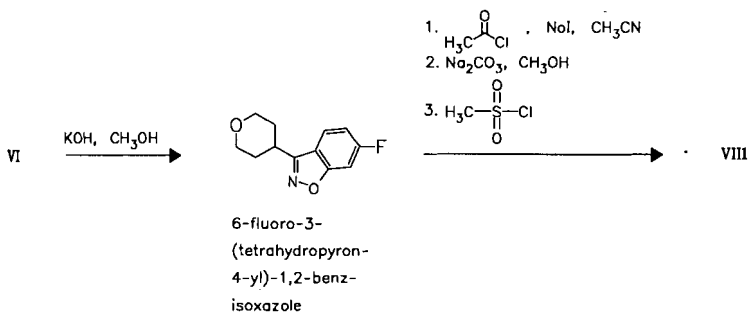
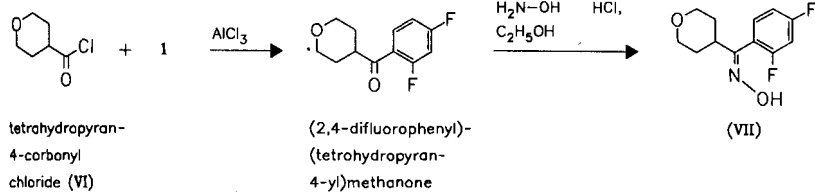
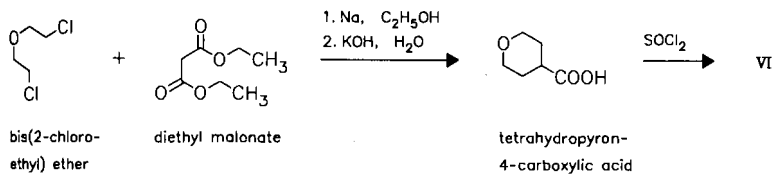
14.1 mg/kg (dog, i. v.); 18.3 mg/kg (dog, p. o.)

CN: 3-[2-[4-(6-Fluoro-1,2-benzisoxazol-3-yl)-1-piperidinyl]ethyl]-6,7,8,9-tetrahydro-2-methyl-4H-pyrido[1,2-a]pyrimidin-4-one

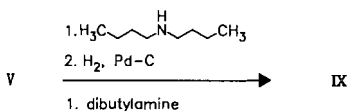
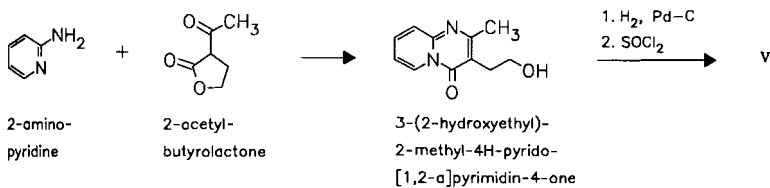
○



(b)



preparation of intermediates V and IX



Reference(s):

- a EP 196 132 (Janssen Pharmaceutica N. V.; appl. 13.3.1986; USA-prior. 27.3.1985; 5.2.1986).
- b ES 2 074 966 (Vita-invest, S. A.; appl. 16.9.1995; E-prior. 11.2.1994).

preparation of 1-acetyl-4-piperidinecarbonylchloride:

Strupczewski, J.T.; Allen, R.C.; Gardner, B.A.; Schmid, B.L.; Stache, U.: J. Med. Chem. (JMCMAR) **28** (6), 761 (1985).

preparation of tetrahydropyran-4-carboxylic acid:

Radiszewski, J.G.; Kaszynski, P.; Littmann, D.; Balaji, V.; Hess, B.A.; Michl, J.: J. Am. Chem. Soc. (JACSAT) **115** (18), 8401 (1993)

Straessler, C.; Linden, A.; Heimgartner, H.: Helv. Chim. Acta (HCACAV) **80** (5), 1528 (1997)

Angelastro, M.R.; Baugh, L.E.; Bey, P.; Burkhardt, J.P.; Chen Teng-Man: J. Med. Chem. (JMCMAR) **37** (26), 4538 (1994)

preparation of 3-(2-hydroxyethyl)-2-methylpyrido[1,2-a]pyrimidin-4-one:

Willenbrock et al.: Justus Liebigs Ann. Chem. (JLACBF) **1973**, 107, 108, 109

Formulation(s): f. c. tabl. 1 mg, 2 mg, 3 mg, 4 mg; sol. 100 ml 1 mg/ml

Trade Name(s):

D:	Risperdal (Janssen-Cilag)	I:	Belivon (Organon)	USA:	Risperdal (Janssen Pharmac.)
	Risperdal (Organon)		Risperdal (Janssen-Cilag)		
GB:	Risperdal (Janssen-Cilag)	J:	Risperdal (Janssen-Kyowa)		

Ritodrine

ATC: G02CA01

Use: uterus relaxant

RN: 26652-09-5 MF: C₁₇H₂₁NO₃ MW: 287.36 EINECS: 247-879-9

CN: (R*,S*)-4-hydroxy- α -[1-[[2-(4-hydroxyphenyl)ethyl]amino]ethyl]benzenemethanol

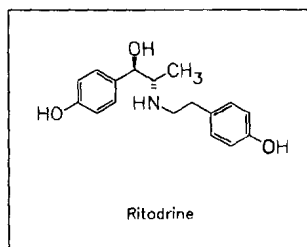
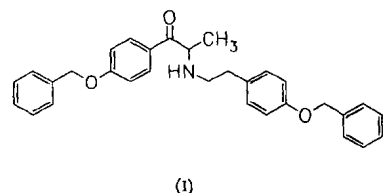
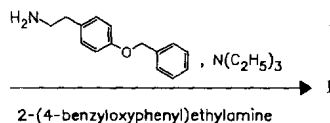
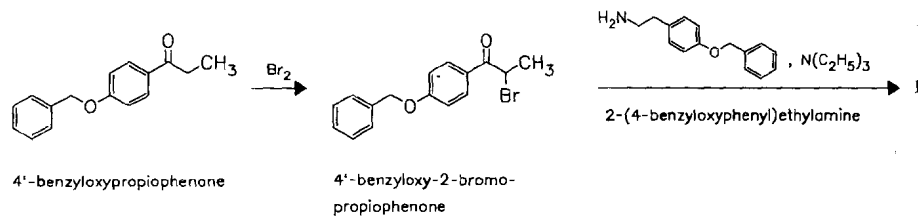
hydrochloride

RN: 23239-51-2 MF: C₁₇H₂₁NO₃ · HCl MW: 323.82 EINECS: 245-514-8

LD₅₀: 69 mg/kg (M, i.v.); 687 mg/kg (M, p.o.);

83 mg/kg (R, i.v.); 1840 mg/kg (R, p.o.);

128 mg/kg (dog, i.v.); 2458 mg/kg (dog, p.o.)

*Reference(s):*

US 3 410 944 (Philips; 12.11.1968; NL-prior. 27.2.1964).

Formulation(s): amp. 50 mg/5 ml; s. r. cps. 40 mg; tabl. 10 mg (as hydrochloride)

Trade Name(s):

D:	Pre-par (Solvay Arzneimittel)	GB:	Yutopar (Solvay)	J:	Miolene (Lusofarmaco) Utemerin (Kissei)
F:	Pre-Par (Solvay Pharma)	I:	Miolene (Lusofarmaco) Prepar (Solvay Pharma)	USA:	Yutopar (Astra)

Ritonavir

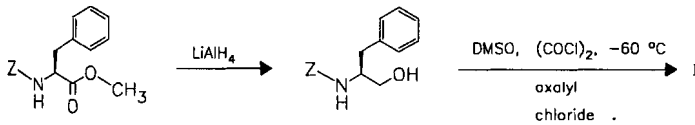
(A-84538; ABT-538)

ATC: J05AE03

Use: antiviral, HIV-1-protease inhibitor

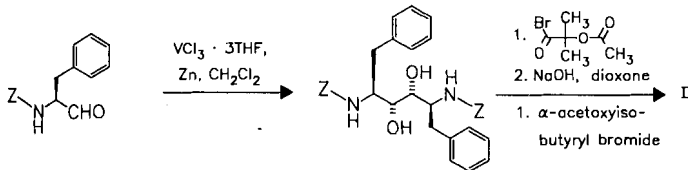
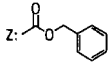
RN: 155213-67-5 MF: C₃₇H₄₈N₆O₅S₂ MW: 720.96CN: [5*S*-(5*R**,8*R**,10*R**,11*R**)]-10-hydroxy-2-methyl-5-(1-methylethyl)-1-[2-(1-methylethyl)-4-thiazolyl]-3,6-dioxo-8,11-bis(phenylmethyl)-2,4,7,12-tetraazatridecan-13-oic acid 5-thiazolylmethyl ester

a

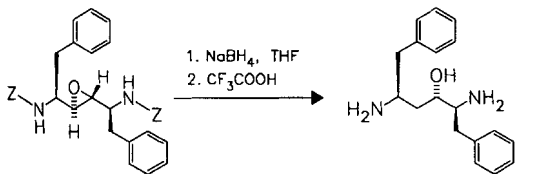


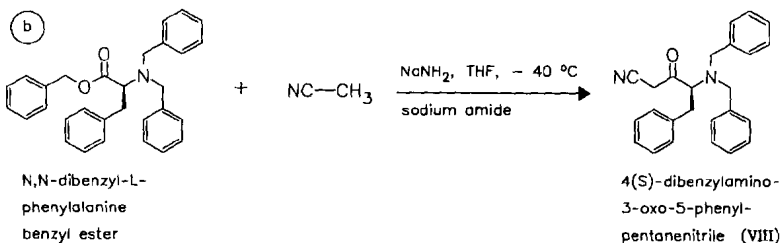
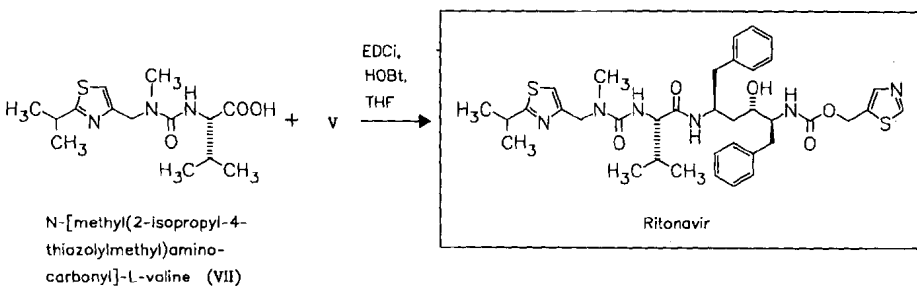
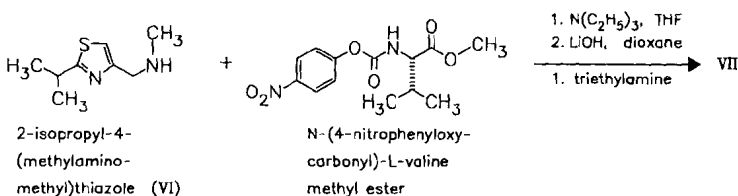
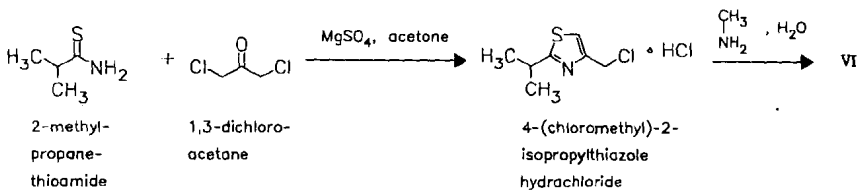
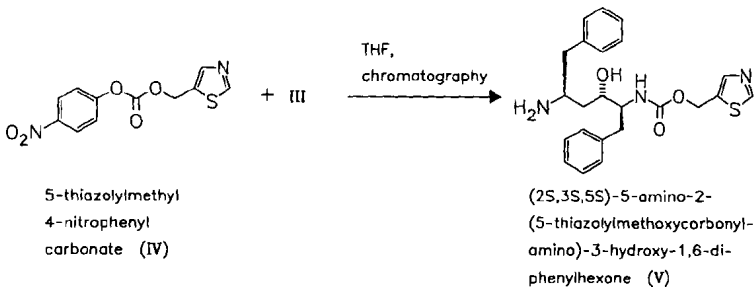
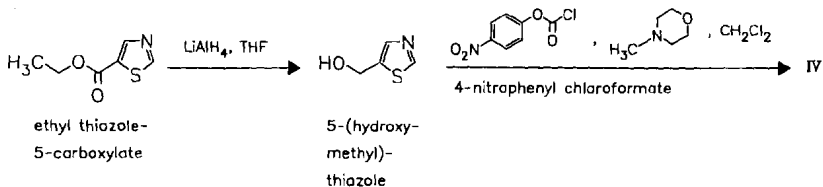
N-(benzyloxycarbonyl)-L-phenylalanine methyl ester

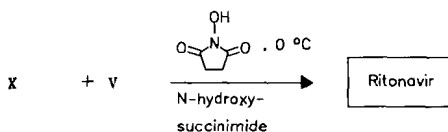
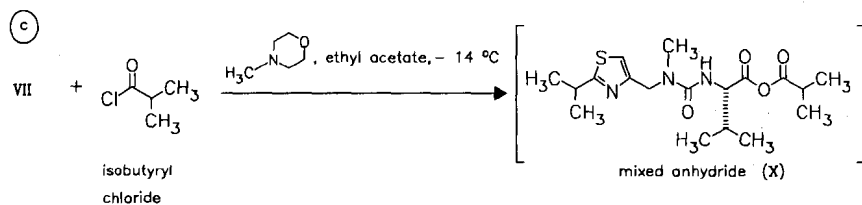
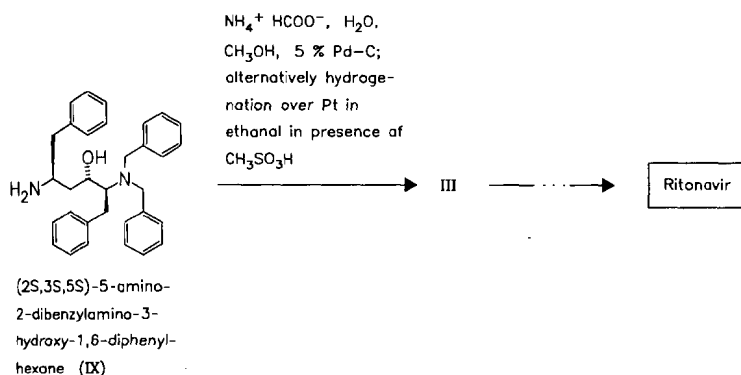
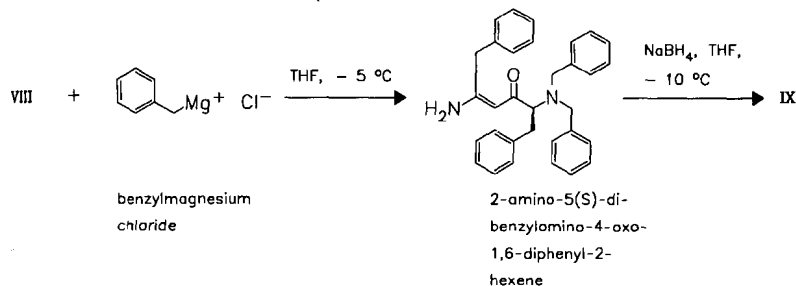
N-(benzyloxycarbonyl)-L-phenylalaninol



N-(benzyloxycarbonyl)-L-phenylalaninal (I)

(2*S*,3*R*,4*R*,5*S*)-2,5-bis[(benzyloxy-carbonyl)amino]-3,4-dihydroxy-1,6-diphenylhexane(2*S*,3*R*,4*R*,5*S*)-2,5-bis[(benzyloxy-carbonyl)amino]-3,4-epoxy-1,6-diphenylhexane (II)(2*S*,3*S*,5*S*)-2,5-diamino-3-hydroxy-1,6-diphenylhexane (III)





Reference(s):

- a,b** WO 9 414 436 (Abbott Labs.; appl. 16.12.1993; USA-prior. 29.12.1992, 2.12.1993).
b WO 9 511 224 (Abbott Labs.; appl. 26.9.1994; USA-prior. 22.10.1993, 27.7.1994).
 WO 9 604 232 (Abbott Labs.; appl. 17.7.1995; USA-prior. 29.7.1994).
c US 5 567 823 (Abbott Labs.; 22.10.1996; appl. 6.6.1995; USA-prior. 6.6.1995).
 Kempf, D.J. et al.: J. Med. Chem. (JMCMAR) **41**, 602 (1998).

pharmaceutical composition in alcoholic/organic solvent:

- WO 9 507 696 (Abbott Labs.; appl. 30.4.1994; USA-prior. 13.9.1993, 28.1.1994, 15.8.1994).
 WO 9 520 384 (Abbott Labs.; appl. 3.1.1995; USA-prior. 29.7.1994, 28.1.1994, 12.5.1995).

use for treating HIV:

- WO 9 701 349 (Abbott Labs.; appl. 28.6.1996; USA-prior. 15.9.1995, 29.6.1995).

combination with lamivudine:

- WO 9 626 734 (Glaxo; appl. 22.2.1996; GB-prior. 25.2.1995).

combination of HIV protease inhibitors:

WO 9 604 913 (Merck & Co.; appl. 7.8.1995; USA-prior. 20.7.1995, 11.8.1994, 14.11.1994).
EP 691 345 (Bristol-Myers Squibb; appl. 5.7.1995; USA-prior. 17.5.1995, 5.7.1994, 31.7.1987).

pharmaceutical composition with improved oral bioavailability:

WO 9 509 614 (Abbott Labs.; appl. 9.9.1994; USA-prior. 31.8.1994).

Formulation(s): cps. 100 mg wfm; sol. 600 mg/7.5 ml

Trade Name(s):

D: Norvir (Abbott)

GB: Norvir (Abbott)

USA: Norvir (Abbott)

F: Norvir (Abbott)

I: Norvir (Abbott)

Rivastigmine

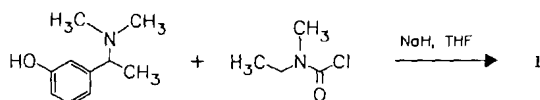
(SDZ 212-713; ENA 713)

ATC: N06DA03

Use: cognition enhancer, alzheimer treatment, acetylcholinesterase inhibitor

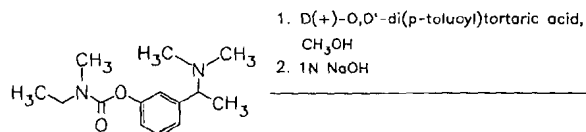
RN: 123441-03-2 MF: C₁₄H₂₂N₂O₂ MW: 250.34

CN: (S)-Ethylmethylcarbamic acid 3-[1-(dimethylamino)-ethyl]phenyl ester



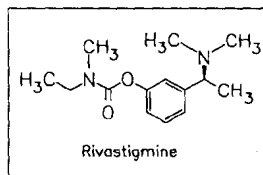
(±)-3-[1-(dimethylamino)ethyl]phenol

N-ethyl-N-methylcarbonyl chloride



(±)-N-ethyl-N-methylcarbamic acid

3-[1-(dimethylamino)-ethyl]phenyl ester (1)

*Reference(s):*

Amstutz, R. et al.: *Helv. Chim. Acta (HCACAV)* **73** (3), 739-753 (1990).

DE 3 805 744 (Sandoz; appl. 24.2.1988; D-prior. 4.3.1987).

systemic transdermal administration:

AT 392 587 (Sandoz; appl. 25.1.1989; A-prior. 3.3.1988).

Formulation(s): cps. 1 mg, 1.5 mg, 3 mg, 4.5 mg, 6 mg (as tartrate)

Trade Name(s):

D: Exelon (Novartis; 1998)

GB: Exelon (Novartis)

Rizatriptan benzoate

(MK-462)

ATC: N02CC04

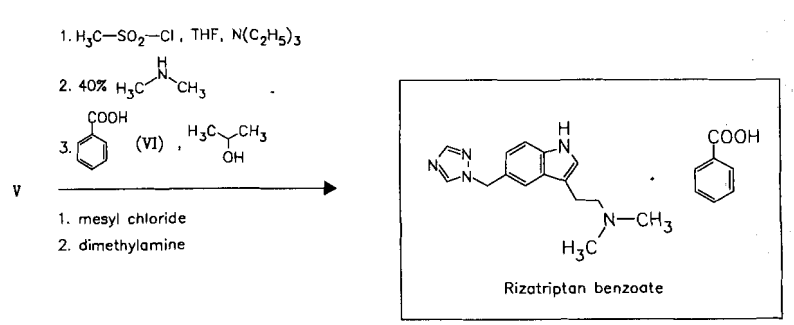
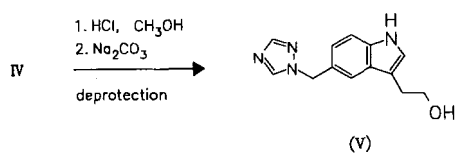
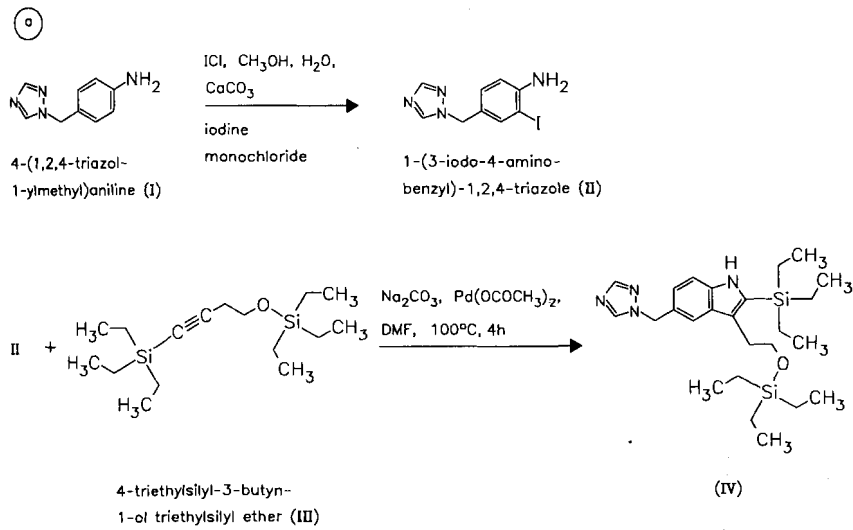
Use: antimigraine agent, selective 5-HT_{1B/1D}-agonist

RN: 145202-66-0 MF: C₁₅H₁₉N₅ · C₇H₆O₂ MW: 391.48

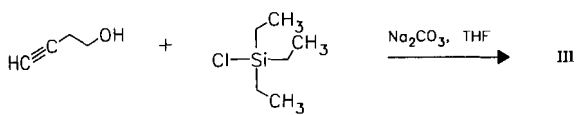
CN: *N,N*-Dimethyl-5-(1*H*-1,2,4-triazol-1-ylmethyl)-1*H*-indole-3-ethanamine benzoate

base

RN: 144034-80-0 MF: C₁₅H₁₉N₅ MW: 269.35

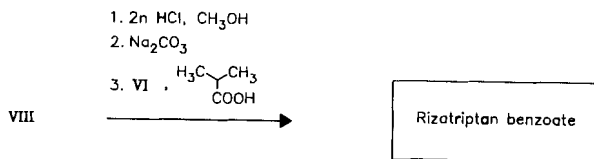
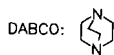
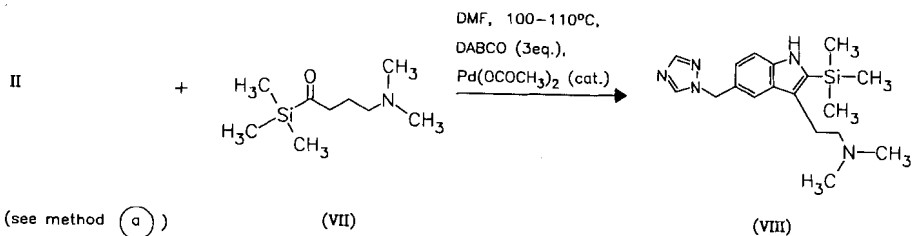


preparation of the silyl reagent III

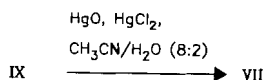
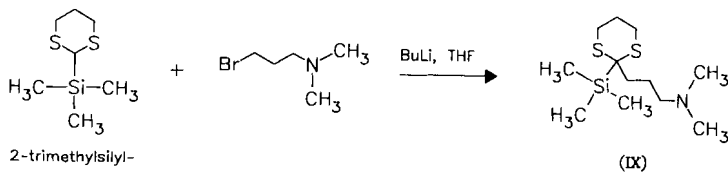


3-buten-1-ol

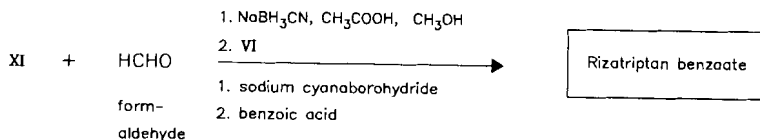
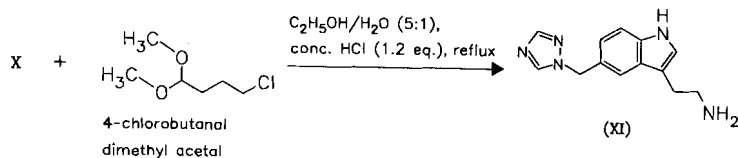
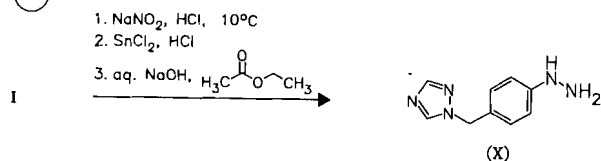
(b)

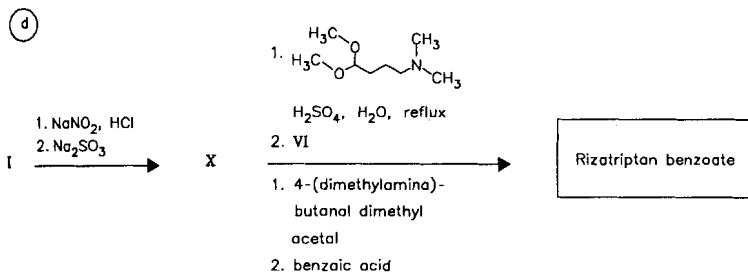


preparation of acyl silane VII

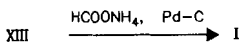
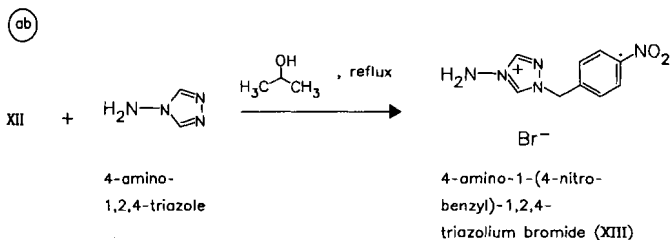
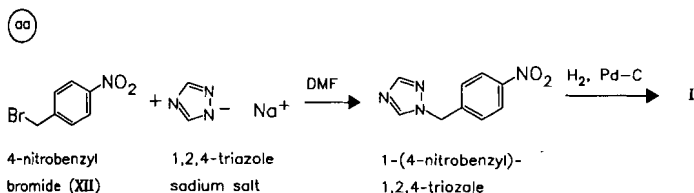


(c)





preparation of 4-(1,2,4-triazol-1-ylmethyl)aniline I



Reference(s):

- a WO 9 532 197 (Merck & Co.; appl. 19.5.1995; USA-prior. 24.5.1994).
Chen, C.-Y.: *Tetrahedron Lett.* (TELEAY) **35** (38), 6981 (1994).
- b WO 9 806 725 (Merck & Co.; appl. 8.8.1997; USA-prior. 13.8.1996; GB-prior. 12.9.1996).
- c EP 497 512 (Merck & Co.; appl. 24.1.1992; GB-prior. 1.2.1991).
- d EP 573 221 (Merck Sharp & Dohme, Ltd.; appl. 28.5.1993; GB-prior. 5.6.1992).

preparation of 4-(1,2,4-triazol-1-ylmethyl)aniline (I)

c,d Street, L.J. et al.: *J. Med. Chem.* (JMCMAR) **38**, 1799 (1995).

Formulation(s): tabl. 5 mg, 10 mg (as benzoate)

Trade Name(s):

D: MAXALT (Merck Sharp & Dohme) GB: Maxalt (Merck Sharp & Dohme) USA: Maxalt (Merck Sharp & Dohme; 1998)

Rocuronium bromide

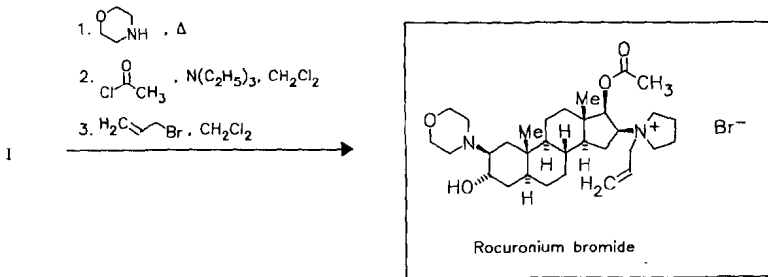
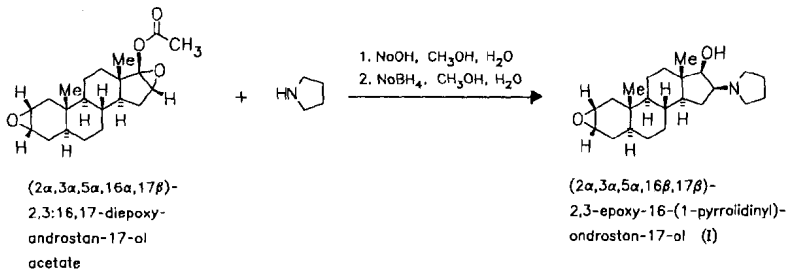
(Org-9426)

ATC: M03AC09

Use: neuromuscular blocker, non-depolarizing blocking drug

RN: 119302-91-9 MF: $\text{C}_{32}\text{H}_{53}\text{BrN}_2\text{O}_4$ MW: 609.69

CN: 1-[(2 β ,3 α ,5 α ,16 β ,17 β)-17-(acetyloxy)-3-hydroxy-2-(4-morpholinyl)androstan-16-yl]-1-(2-propenyl)pyrrolidinium bromide



Reference(s):

EP 287 150 (AKZO NV; appl. 19.10.1988; GB-prior. 14.4.1987).
 Buckett, W.R. et al.: J. Med. Chem. (JMCMAR) **16**, 1116 (1973).
 Meyer, M.; Doenicke, A.; Hofmann, A.; Angster, R.; Peter, K.: Anaesthetist (ANATAE) **40**(12), 668 (1991).

Formulation(s): amp. 50 mg/5 ml; vial 100 mg/100 ml

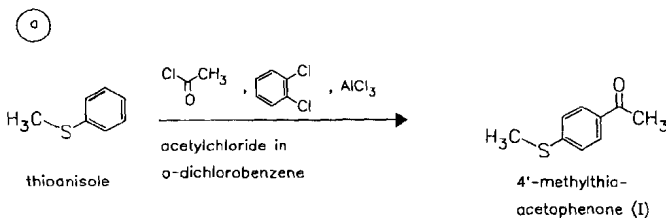
Trade Name(s):

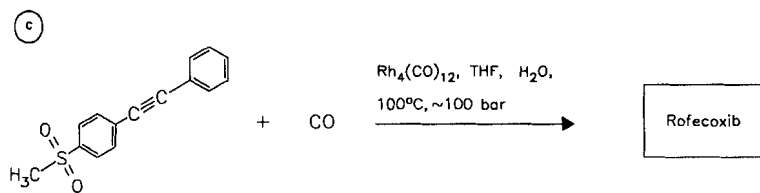
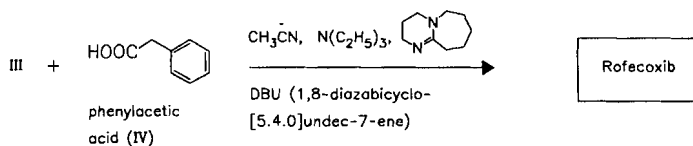
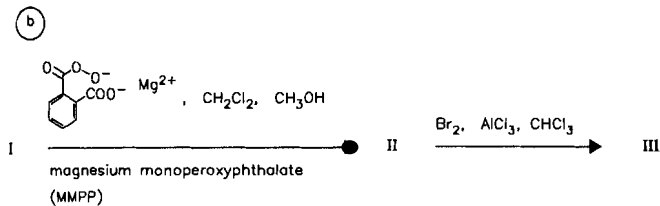
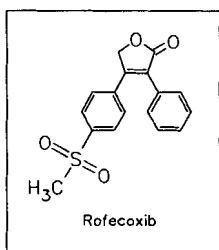
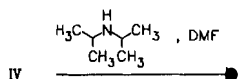
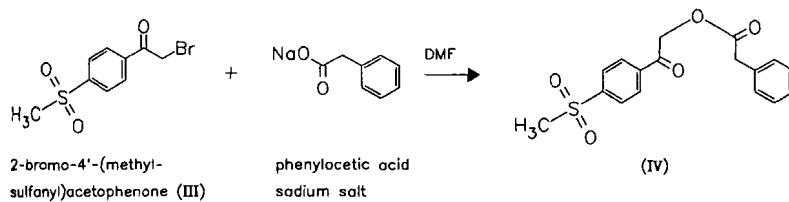
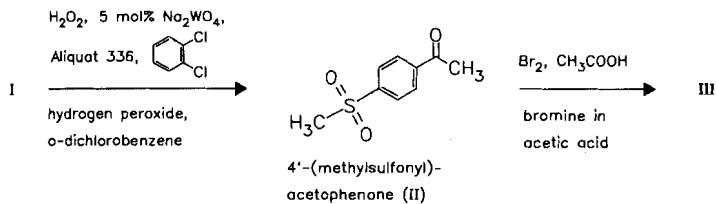
D:	Esmeron (Organon Teknika)	F:	Esmeron (Organon Teknika)	I:	Esmeron (Organon Teknika)
		GB:	Esmeron (Organon)	USA:	Zemuron (Organon)

Rofecoxib
(MK-966)

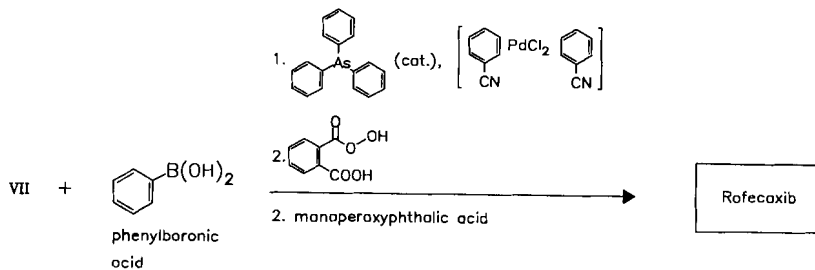
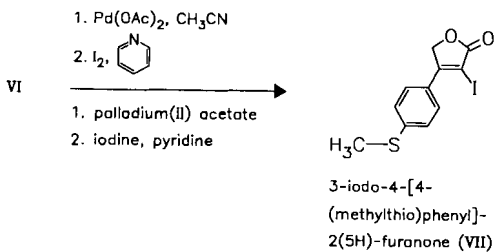
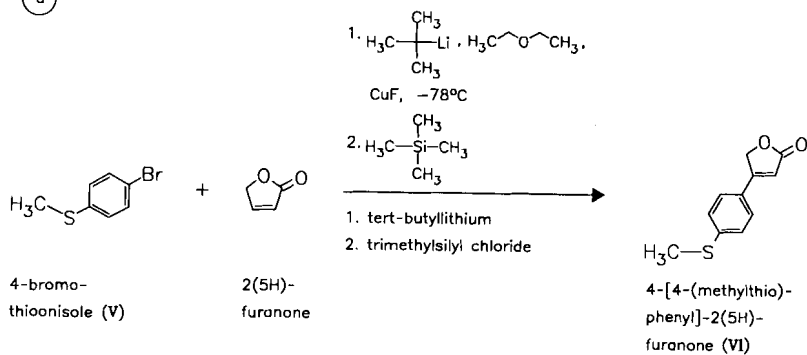
ATC: M01AH02
 Use: anti-inflammatory, cyclooxygenase-2 inhibitor

RN: 162011-90-7 MF: C₁₇H₁₄O₄S MW: 314.36
 CN: 4-[4-(Methylsulfonyl)phenyl]-3-phenyl-2(5H)-furanone

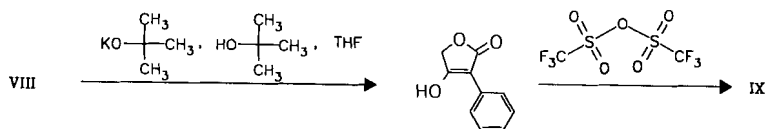
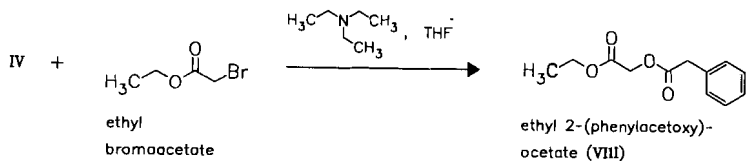


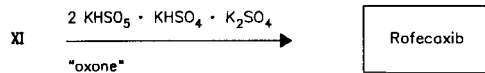
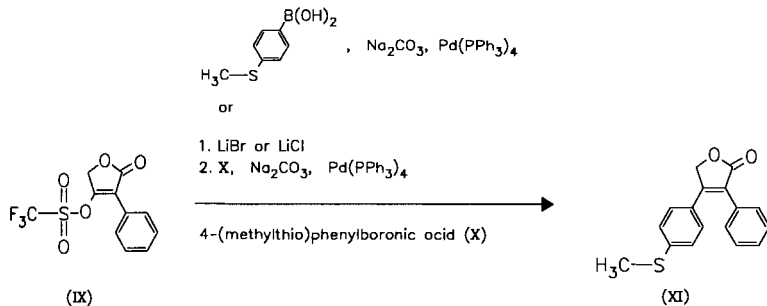


d

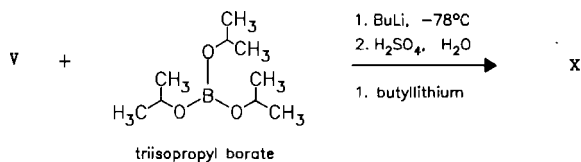


e





synthesis of 4-(methylthio)phenylboronic acid



Reference(s):

- a WO 9 800 416 (Merck & Co.; appl. 27.6.1997; GB-prior. 29.7.1996).
- b WO 9 613 483 (Merck Frosst Canada; appl. 2.10.1994; USA-prior. 27.10.1994)
- e WO 9 608 482 (Merck & Co.; appl. 12.9.1995; USA-prior. 16.9.1994).
- a-e WO 9 500 501 (Merck Frosst Canada Inc.; appl. 15.5.1995; USA-prior. 24.6.1993, 10.1.1994).

The discovery of rofecoxib:

Prasit, P. et al.: Bioorg. Med. Chem. Lett. (BMCLE8) 9 (13), 1773 (1999).

alternative syntheses:

- WO 9 636 623 (Merck Frosst Canada; appl. 15.5.1996; USA-prior. 18.5.1995).
- GB 2 294 879 (Merck & Co.; appl. 9.10.1995; USA-prior. 19.10.1994).
- WO 9 619 469 (Merck Frosst Canada; appl. 18.12.1995; USA-prior. 21.12.1994).

Formulation(s): susp. 25 mg; tabl. 12.5 mg

Trade Name(s):

D:	Vioxx (Merck Sharp & Dohme)	GB:	Vioxx (Merck Sharp & Dohme; 1999)	USA:	Vioxx (Merck Sharp & Dohme)
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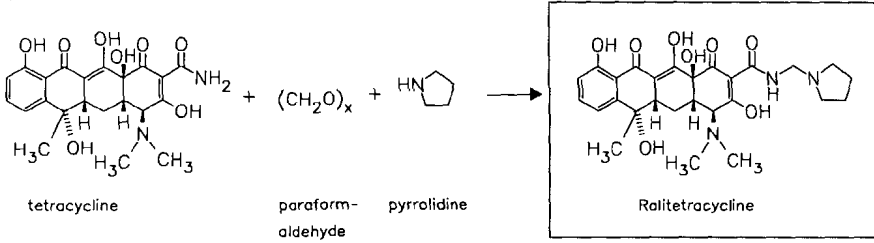
Rolitetracycline

ATC: J01AA09
 Use: antibiotic, antibacterial

RN: 751-97-3 MF: $\text{C}_{27}\text{H}_{33}\text{N}_3\text{O}_8$ MW: 527.57 EINECS: 212-031-9

LD₅₀: 75 mg/kg (M, i.v.); 1320 mg/kg (M, p.o.);
 93 mg/kg (dog, i.v.)

CN: [4S-(4 α ,4 α ,5 α ,6 β ,12 α)]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,6,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-N-(1-pyrrolidinylmethyl)-2-naphthacenicarboxamide



Reference(s):

- DE 1 044 806 (Hoechst; appl. 3.10.1956).
- DE 1 063 598 (Hoechst; appl. 14.2.1957).
- US 3 104 240 (Bristol-Myers; 17.9.1963; prior. 18.8.1958).
- Gottstein, W.J. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 1198 (1959).

Formulation(s): vial 275 mg

Trade Name(s):

D: Reverin (Hoechst); wfm	I: Colbiocin (SIFI)-comb.	Hostacyclin-PRM (Hoechst)
F: Transcycline (Hoechst); wfm	Iducol (SIFI)-comb.	Velacycline (Squibb)
GB: Tetrex PMT (Bristol)-comb.; wfm	J: Bristacin (Bristre-Banyu)	USA: Syntetrin (Bristol); wfm

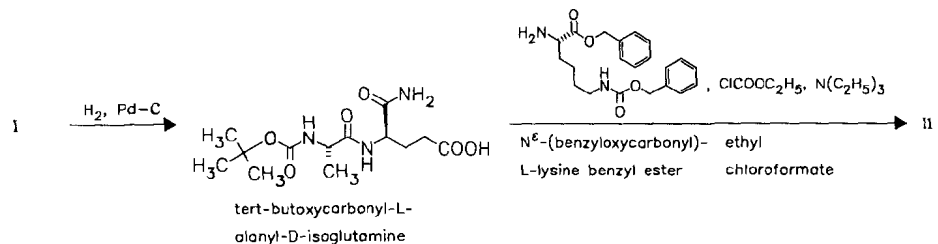
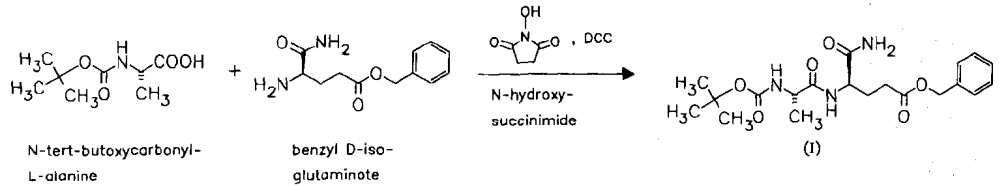
Romurtide

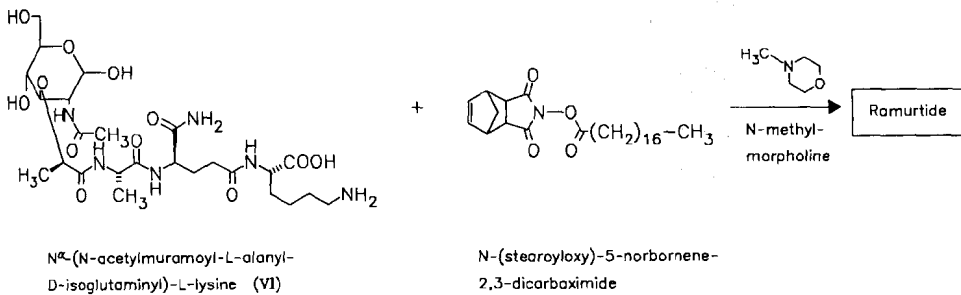
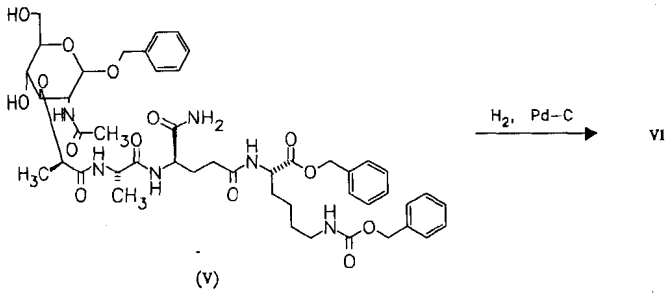
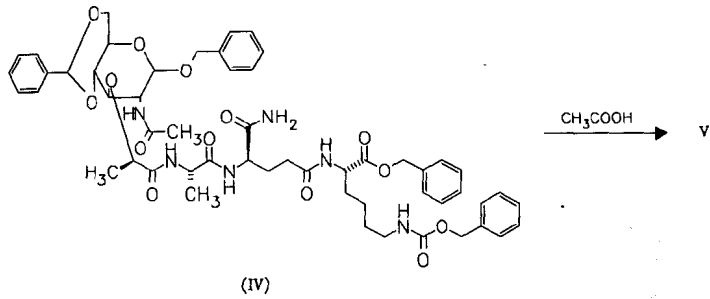
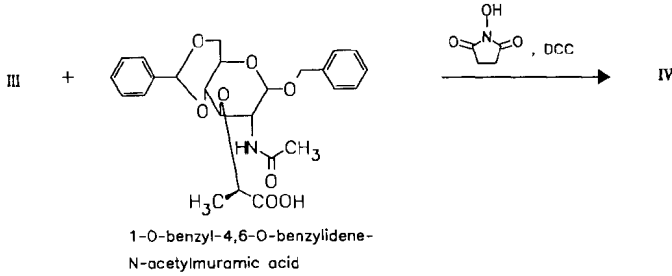
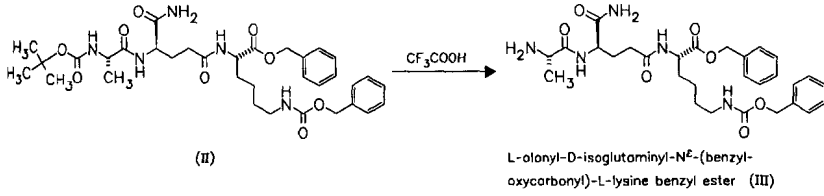
(Muroctasin; Nomurtide)

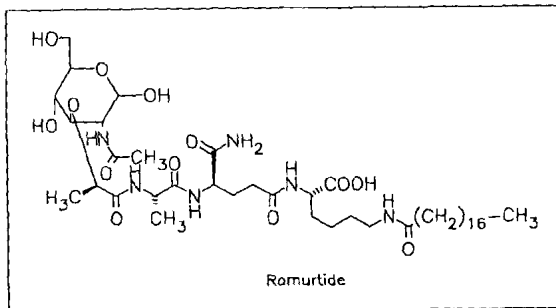
ATC: L03AX

Use: immunostimulant, muramyl dipeptide derivative, treatment of leukopenia associated with cancer radiotherapy

RN: 78113-36-7 MF: C₄₃H₇₈N₆O₁₃ MW: 887.13
 LD₅₀: >600 mg/kg (M, p.o.); 436 mg/kg (Mm, s.c.); 625 mg/kg (Mf, s.c.); >90 mg/kg (R, i.v.); >600 mg/kg (R, p.o.); 761 mg/kg (Rm, s.c.); 801 mg/kg (Rf, s.c.); >200 mg/kg (dog, s.c.)
 CN: N²-[N²-[N-(N-acetylmuramoyl)-L-alanyl]-D-α-glutamyl]-N⁶-(1-oxooctadecyl)-L-lysine





**Reference(s):**

EP 21 367 (Daiichi; appl. 20.6.1980; J-prior. 21.6.1979).

US 4 317 771 (Daiichi; 2.3.1982; appl. 23.6.1980; J-prior. 21.6.1979).

medical use for treatment of thrombopenia:

EP 331 756 (Daiichi; appl. 2.9.1988; J-prior. 2.9.1987).

medical use as analgesic/anti-inflammatory:

JP 63 093 724 (Daiichi; appl. 9.10.1986).

Formulation(s): vial 200 µg**Trade Name(s):**

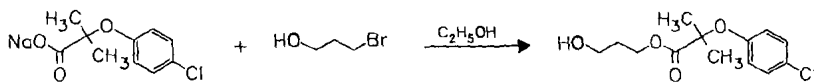
J: Nopia (Daiichi; 1991)

Ronifibrate

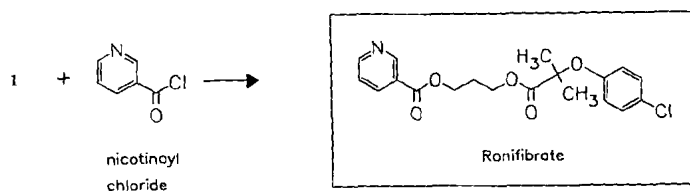
ATC: C10AB07

Use: antihyperlipoproteinemic, fibrate
serum antihyperlipidemicRN: 42597-57-9 MF: C₁₉H₂₀ClNO₅ MW: 377.82LD₅₀: 3100-4080 mg/kg (M, p.o.)

CN: 3-pyridinecarboxylic acid 3-[2-(4-chlorophenoxy)-2-methyl-1-oxopropoxy]propyl ester

hydrochlorideRN: 42749-78-0 MF: C₁₉H₂₀ClNO₅ · HCl MW: 414.29sodium 2-(4-chloro-
phenoxy)-2-methyl-
propionate

(I)



Reference(s):JP 49 030 377 (Kowa; appl. 19.7.1972); C.A. (CHABA8) **81**, 135984s.JP 4 840 777 (Yamanouchi; appl. 5.10.1971); C.A. (CHABA8) **79**, 66180w (1973).**Formulation(s):** cps. 250 mg, 500 mg**Trade Name(s):**

I: Cloprane (Sankyo Pharma)

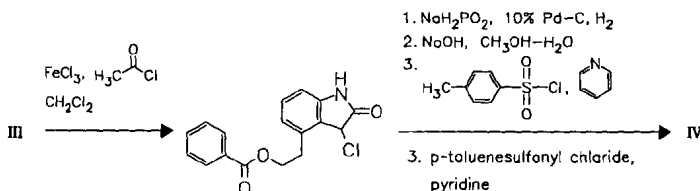
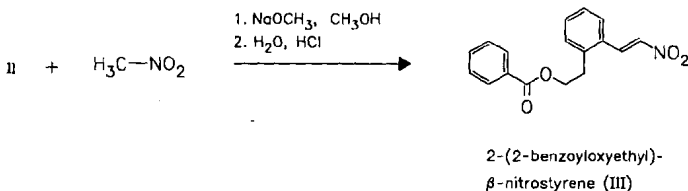
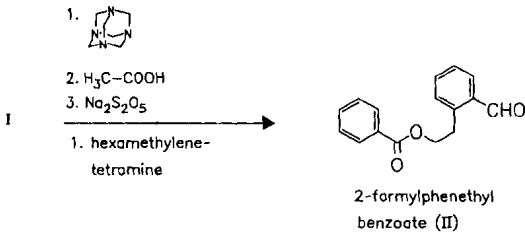
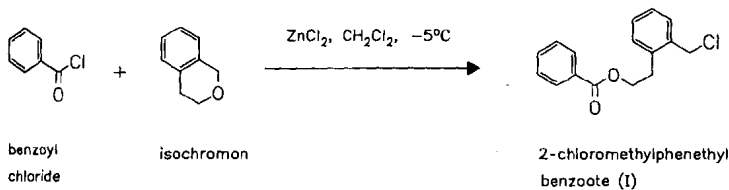
Ropinirole

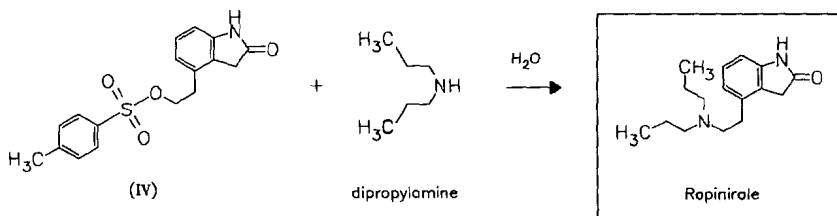
(SK & F-101468; SK & F-101468A)

ATC: N04BC04

Use: dopamine-D₂-agonist,
antiparkinsonianRN: 91374-21-9 MF: C₁₆H₂₄N₂O MW: 260.38

CN: 4-[2-(dipropylamino)ethyl]-1,3-dihydro-2-indol-2-one

hydrochlorideRN: 91374-20-8 MF: C₁₆H₂₄N₂O · HCl MW: 296.84

**Reference(s):***synthesis of ropivirole:*

WO 9 116 306 (Smith Kline & French; appl. 15.4.1991; GB-prior. 17.4.1990).

EP 113 964 (Smith Kline & French; appl. 30.11.1983; USA-prior. 7.12.1982).

Hayler, J.D. et al.: *Org. Process Res. Dev. (OPRDFK)* **2**, 3 (1998).

synthesis of 2-formylphenethyl benzoate:

Hayler, H.D.; Howie, S.L.B.; Negus, A.; Oxley, P.W.: *J. Heterocycl. Chem. (JHTCAD)* **32** (3), 875 (1995).

dihydroindolinones as cardiovascular agents:

US 4 997 954 (Smith Kline & French; 25.1.1989; GB-prior. 19.6.1987).

EP 300 614 (Smith Kline & French; appl. 16.6.1988; GB-prior. 19.6.1987).

AU 8 777 615 (Smith Kline & French; appl. 25.1.1989; GB-prior. 30.8.1986).

US 4 452 808 (Smith Kline & French; appl. 5.6.1984; USA-prior. 7.12.1982).

WO 9 415 918 (Smith Kline & French; appl. 21.7.1994; GB-prior. 8.1.1993).

use for treatment of Parkinson's disease:

EP 299 602 (Smith Kline & French; appl. 18.1.1989; GB-prior. 21.5.1987).

WO 9 711 696 (Cygnus Inc.; appl. 6.9.1996; USA-prior. 29.9.1995, 4.9.1996).

WO 9 639 136 (SmithKline Beecham; appl. 12.12.1996; GB-prior. 6.6.1995).

WO 9 323 035 (SmithKline Beecham; appl. 25.11.1993; GB-prior. 18.5.1992).

WO 9 200 735 (SmithKline Beecham; appl. 8.7.1991; GB-prior. 9.7.1990).

WO 9 706 786 (Scherer Ltd.; appl. 16.8.1996; GB-prior. 18.18.1995).

Formulation(s): tabl. 0.25 mg, 0.5 mg, 1 mg, 2 mg, 3 mg, 4 mg, 5 mg (as hydrochloride)

Trade Name(s):

D:	Requib (SmithKline Beecham)	GB:	ReQuip (SmithKline Beecham; 1996)	USA:	Requib (SmithKline Beecham)
F:	Requib (SmithKline Beecham)	I:	Requib (SmithKline Beecham)		

Ropivacaine hydrochloride

(LEA-103)

ATC: N01BB09

Use: local anesthetic

RN: 98717-15-8 MF: $\text{C}_{17}\text{H}_{26}\text{N}_2\text{O} \cdot \text{HCl}$ MW: 310.87

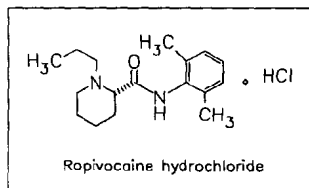
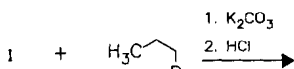
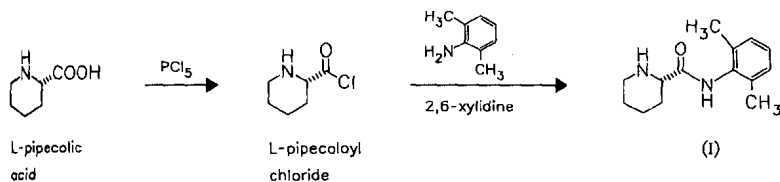
CN: (S)-N-(2,6-dimethylphenyl)-1-propyl-2-piperidinecarboxamide monohydrochloride

monohydrate

RN: 132112-35-7 MF: $\text{C}_{17}\text{H}_{26}\text{N}_2\text{O} \cdot \text{HCl} \cdot \text{H}_2\text{O}$ MW: 328.88

base

RN: 84057-95-4 MF: $\text{C}_{17}\text{H}_{26}\text{N}_2\text{O}$ MW: 274.41

**Reference(s):**

WO 8 500 599 (Apothekernes Lab., Astra; WO-prior. 1.8.1983).

preparation of optically-enriched pipecolic acid:

WO 9 611 185 (Chiroscience; appl. 9.10.1995; GB-prior. 7.10.1994).

storage stable optically pure hydrochloride monohydrate:

AU 8 666 449 (Astra, Nissan; appl. 12.12.1986; S-prior. 3.1.1986).

WO 9 636 606 (Astra; appl. 30.4.1996; S-prior. 16.5.1995).

composition with long/medium chain triglycerides:

EP 770 387 (Braun Melsungen; prior. 28.10.1995).

sustained release formulation:

WO 9 641 616 (Euroceltique; USA-prior. 9.6.1996).

combination with β -blocker:

WO 9 527 511 (Astra; appl. 24.3.1995; S-prior. 7.4.1994).

composition containing hydroxypropyl- β -cyclodextrin:

WO 9 505 198 (F. M. Borgbjerg; appl. 16.8.1994; DK-prior. 17.8.1993).

injection suspension:

WO 9 401 087 (Astra; appl. 24.6.1993; S-prior. 9.7.1992).

Formulation(s): amp. 2 mg/ml, 5 mg/ml, 7.5 mg/ml, 10 mg/ml (as monohydrate)

Trade Name(s):

D: Naropin (Astra)

GB: Naropin (Astra)

USA: Naropin (Astra)

F: Naropeine (Astra)

I: Naropina (Astra)

Rosiglitazone

(BRL 49653)

ATC: A10BG02

Use: antidiabetic, insulin enhancer

RN: 122320-73-4 MF: $\text{C}_{18}\text{H}_{19}\text{N}_3\text{O}_3\text{S}$ MW: 357.43

CN: 5-[[4-[2-(Methyl-2-pyridinylamino)ethoxy]phenyl]methyl]-2,4-thiazolidinedione

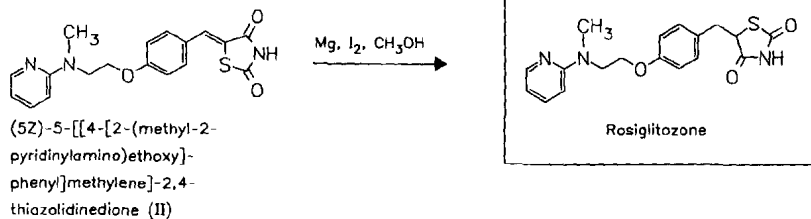
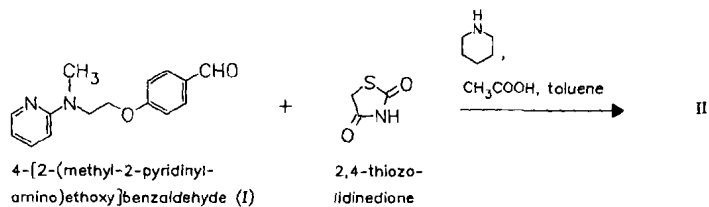
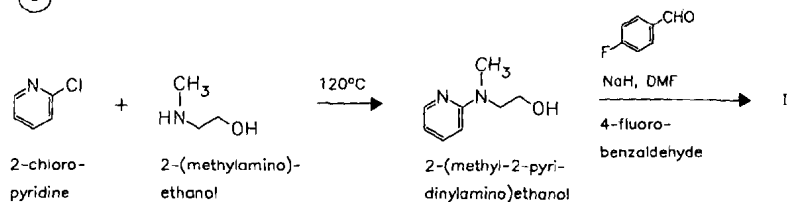
(R)-(+)-form

RN: 163860-16-0 MF: $\text{C}_{18}\text{H}_{19}\text{N}_3\text{O}_3\text{S}$ MW: 357.43

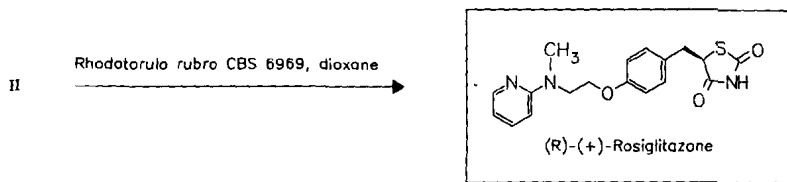
maleate

RN: 155141-29-0 MF: $\text{C}_{18}\text{H}_{19}\text{N}_3\text{O}_3\text{S} \cdot \text{C}_4\text{H}_4\text{O}$ MW: 425.51

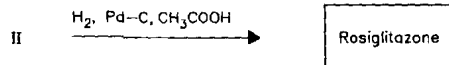
a



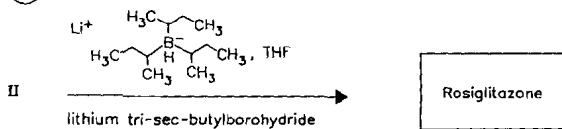
b) alternative biocatalytic reduction of II and synthesis of the (R)-(+)-enantiomer



c



d



Reference(s):

- a Cantello, B.C.C. et al.: J. Med. Chem. (JMCMAR) **37**, 3977-3985 (1994).
Cantello, B.C.C. et al.: Bioorg. Med. Chem. Lett. (BMCLE8) **4** (1), 29. (1994).
EP 306 228 (Beecham; appl. 26.8.1988; GB-prior. 4.9.1987).
- b Cantello, B.C.C. et al.: J. Chem. Soc., Perkin Trans. 1 (JCPRB4) **1994**, 3319.
Heath, C.M. et al.: J. Chem. Technol. Biotechnol. (JCTBED) **68** (3), 324-330 (1997).
WO 9 310 254 (SmithKline Beecham; appl. 19.11.1992; GB-prior. 19.11.1991).
- c WO 9 923 095 (SmithKline Beecham; appl. 27.10.1998; GB-prior. 4.11.1997).
- d WO 9 837 073 (SmithKline Beecham; appl. 13.2.1998; GB-prior. 18.2.1997).

maleate salt and other derivatives:

WO 9 405 659 (SmithKline Beecham; appl. 1.9.1993; GB-prior. 5.9.1992).

treatment of diabetes with insulin and rosiglitazone:

WO 9 837 073 (SmithKline Beecham; appl. 15.6.1998; GB-prior. 18.6.1997).

Formulation(s): tabl. 2 mg, 4 mg, 8 mg

Trade Name(s):

USA: Avandia (SmithKline Beecham; 1999)

Rosoxacin

(Acrosoxacin)

ATC: J01MB01

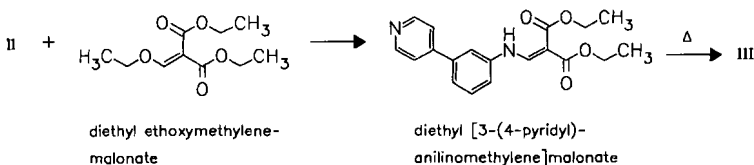
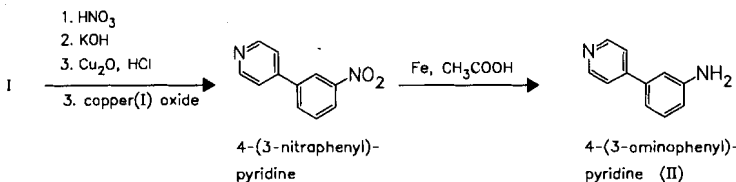
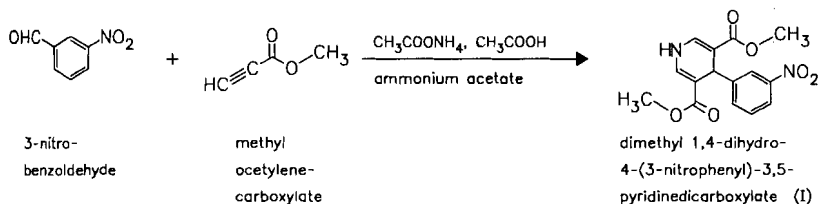
Use: antibiotic

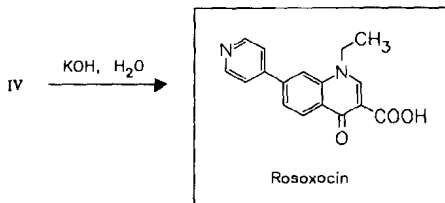
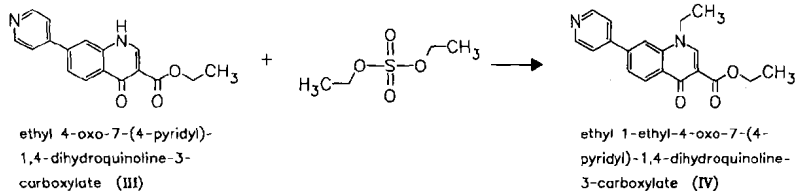
RN: 40034-42-2 MF: C₁₇H₁₄N₂O₃ MW: 294.31 EINECS: 254-758-4

CN: 1-ethyl-1,4-dihydro-4-oxo-7-(4-pyridinyl)-3-quinolinecarboxylic acid

sodium salt

RN: 40035-08-3 MF: C₁₇H₁₃N₂NaO₃ MW: 316.29



**Reference(s):**

US 3 753 993 (Sterling Drug; 21.8.1973; prior. 17.5.1971).
 US 3 907 808 (Sterling Drug; 23.9.1975; prior. 17.5.1971, 3.5.1973).
 US 3 922 278 (Sterling Drug; 25.11.1975; prior. 12.6.1972).

alternative synthesis:

US 4 107 167 (Sterling Drug; 15.8.1978; prior. 17.6.1974).

Formulation(s): cps. 150 mg

Trade Name(s):

D: Winuron (Winthrop); wfm GB: Eradacin (Sterling); wfm
 F: Ézacine (Sanofi Winthrop) USA: Eradocil (Winthrop); wfm

Roxatidine acetate

ATC: A02BA06
 Use: histamine H_2 -receptor antagonist, ulcer therapeutic

RN: 78628-28-1 MF: $\text{C}_{19}\text{H}_{28}\text{N}_2\text{O}_4$ MW: 348.44

LD₅₀: 1 g/kg (M, p.o.)

CN: 2-(acetyloxy)-N-[3-[3-(1-piperidinylmethyl)phenoxy]propyl]acetamide

monohydrochloride

RN: 93793-83-0 MF: $\text{C}_{19}\text{H}_{28}\text{N}_1\text{O}_4 \cdot \text{HCl}$ MW: 370.90

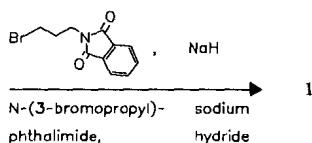
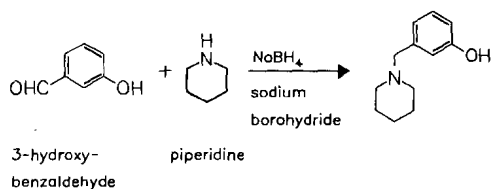
LD₅₀: 83 mg/kg (M, i.v.); 509 mg/kg (M, p.o.); 384 mg/kg (M, s.c.);

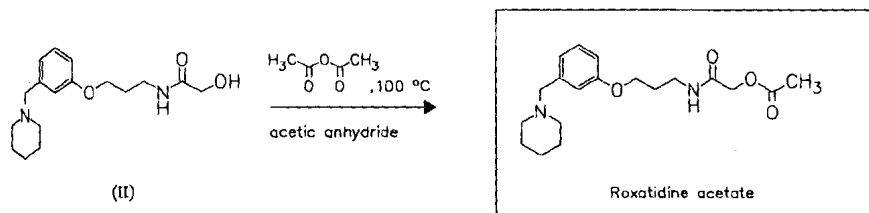
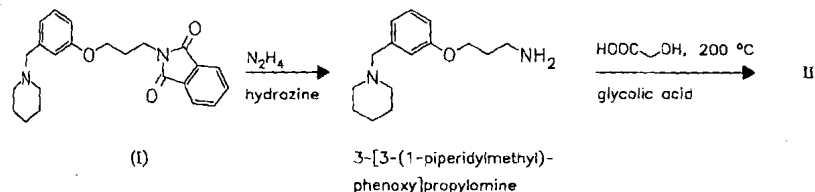
227 mg/kg (R, i.p.); 755 mg/kg (R, p.o.); 595 mg/kg (R, s.c.);

900 mg/kg (rabbit, p.o.);

75 mg/kg (dog, i.v.); 100 mg/kg (dog, p.o.);

50 mg/kg (monkey, p.o.)



**Reference(s):**

EP 24 510 (Teikoku Hormone; appl. 1.7.1980; J-prior. 3.7.1979, 20.2.1980).

US 4 293 557 (Teikoku Hormone; 10.6.1981; appl. 30.6.1980; J-prior. 3.7.1979, 20.2.1980).

combination with serotonin antagonists:

EP 275 669 (Glaxo; appl. 16.12.1987; GB-prior. 17.12.1986).

Formulation(s): s. r. cps. 75 mg, 150 mg; tabl. 75 mg, 150 mg (as hydrochloride)**Trade Name(s):**D: Roxit (Albert-Roussel;
Hoechst Marion Roussel;
1989)I: Gastralgin (Ist. De Angeli)
Neoh 2 (Boehringer Ing.)
Roxit (Hoechst Marion)J: Altat (Teikoku; Takeda;
Sumitomo; 1986)**Rufloxacin hydrochloride**

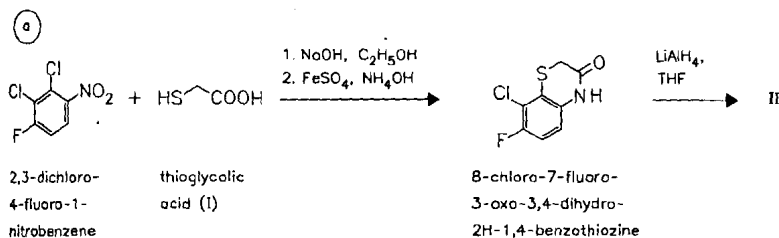
(ISF-09334; MF 934)

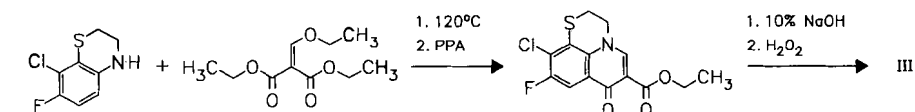
ATC: J01MA10

Use: antibacterial

RN: 106017-08-7 MF: C₁₇H₁₈FN₃O₃S · HCl MW: 399.87

CN: 9-Fluoro-2,3-dihydro-10-(4-methyl-1-piperazinyl)-7-oxo-7H-pyrido[1,2,3-de]-1,4-benzothiazine-6-carboxylic acid monohydrochloride

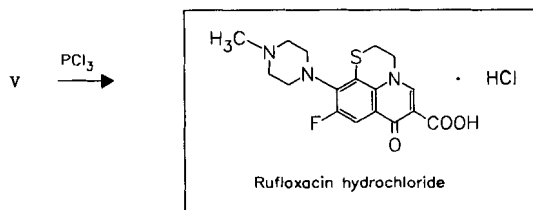
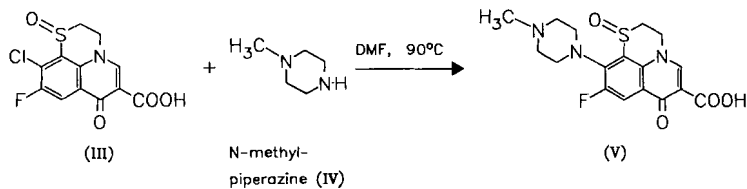
baseRN: 101363-10-4 MF: C₁₇H₁₈FN₃O₃S MW: 363.41



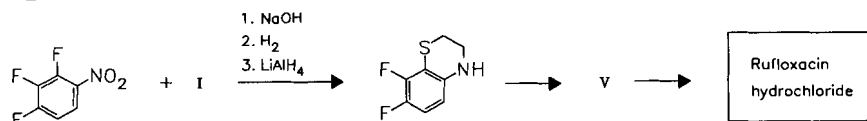
8-chloro-7-fluoro-3,4-dihydro-2H-1,4-benzothiazine (II)

diethyl ethoxymethylene-malonate

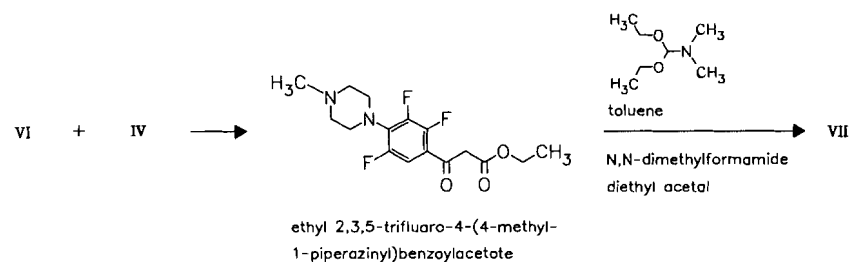
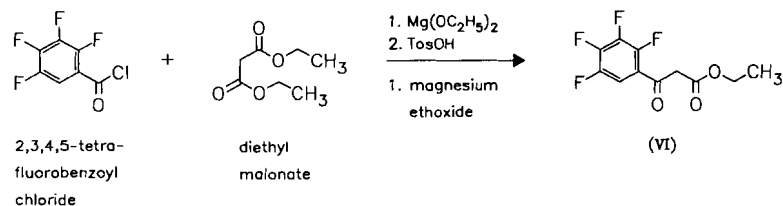
ethyl 10-chloro-9-fluoro-7-oxo-2,3-dihydro-7H-pyrido[1,2,3-de]-1,4-benzothiazine-6-carboxylate

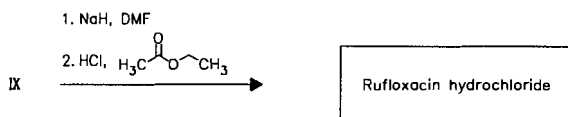
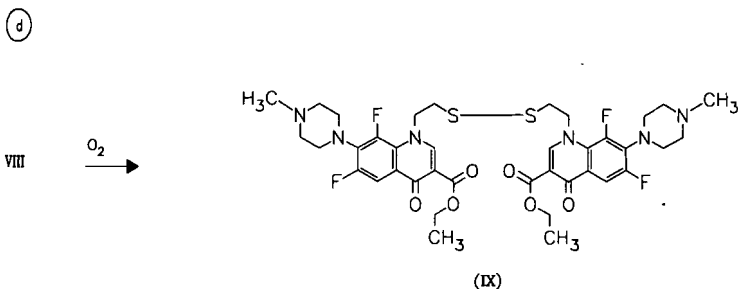
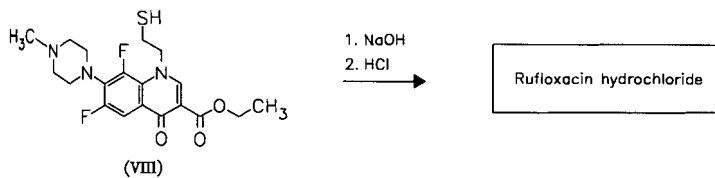
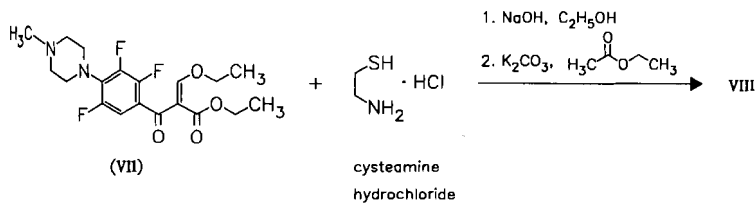


(b)



(c)





Reference(s):

- a Cecchetti, V. et al.: J. Med. Chem. (JMCMAR) **30**, 465-473 (1987).
EP 165 375 (Mediolanum Farm.; appl. 21.2.1985; I-prior. 24.2.1984).
EP 252 352 (Mediolanum Farm.; appl. 22.6.1987; I-prior. 1.7.1986).
- b Wang, E. et al.: Zhongguo Yaoke Xuebao (ZHXYE9) **28** (1), 5-8 (1997).
- c EP 522 277 (Mediolanum Farm.; appl. 29.5.1992; I-prior. 7.6.1991).
Cecchetti, V. et al.: Synth. Commun. (SYNCAV) **21** (22), 2301-2308 (1991).
- d WO 9 511 907 (Archimica; appl. 26.10.1994; I-prior. 27.10.1993).
WO 9 511 886 (Archimica; appl. 26.10.1994; I-prior. 27.10.1993).

Formulation(s): cps. 150 mg, 200 mg; tabl 150 mg, 200 mg (as hydrochloride)

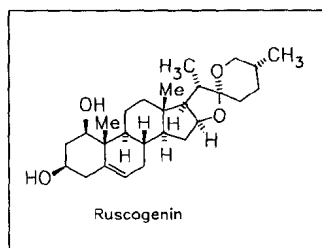
Trade Name(s):

I: Monos (SmithKline Beecham)	Qari (Mediolanum) Tebraxin (Bracco)
----------------------------------	--

Ruscogenin

ATC: C05AX
Use: vein therapeutic, hemorrhoidal
therapeutic

RN: 472-11-7 MF: C₂₇H₄₂O₄ MW: 430.63 EINECS: 207-447-2
CN: (1β,3β,25R)-spirost-5-ene-1,3-diol



- a** Hydrolyzation of *Ruscus aculeatus*,
b hydrolyzation of *Tribulus terrestris*,
c hydrolyzation of *Ruscus hyrcanus*.

Reference(s):

- Iskenderov, G.B.: Farmatsiya (Moscow) (FRMTAL) **38** (1), 42-46 (1989).
 Panova, D.; Nikolov, St.; Minkov, Cr.: Farmatsiya (Sofia) (FMTYA2) **30** (4), 33-35 (1980).
 Panova, D.; Nikolov, St.: Farmatsiya (Sofia) (FMTYA2) **29** (6), 25-29 (1979).
 Ilarionov, J.; Panova, D.; Nikolov, St.: Farmatsiya (Sofia) (FMTYA2) **33** (1), 18-24 (1983).
a Panova, D.; Nikolov, St.: Farmatsiya (Sofia) (FMTYA2) **21**, 43 (1971).
 Sannié, C.; Lapin, H.: Bull. Soc. Chim. Fr. (BSCFAS) **1957**, 301, 1237.
 Sannié, C.; Lapin, H.: C. R. Hebd. Seances Acad. Sci. (COREAF) **241**, 1498 (1955).
b Iskenderov, G.B.: Khim. Prir. Soedin. (KPSUAR) **6**, 488 (1970); **3**, 216 (1967).
c Iskenderov, G.B.: Farmatsiya (Moscow) (FRMTAL) **17**, 37 (1968).

use as anti-inflammatory:

- FR-M 2 366 (C. P. Roux, D. R. Torossiar; appl. 3.4.1964).
 FR 2 104 911 (Inv. Scientifiques Pharm.; appl. 3.9.1970).

structure:

- Benn, W.R. et al.: J. Am. Chem. Soc. (JACSAT) **79**, 3920 (1957).
 Burn, D. et al.: J. Chem. Soc. (JCSOA9) **1958**, 795.
 Burn, D. et al.: Proc. Chem. Soc., London (PCSLAW) **1957**, 119.
 Lapin, H.: C. R. Hebd. Seances Acad. Sci. (COREAF) **244**, 3065 (1957).

Formulation(s): ointment 800 mg/100g; suppos. 8 mg

Trade Name(s):

- | | | | | | |
|----|---|----|--|----|--|
| D: | Ruscorectal (Heumann)
Venobiase (Fournier
Pharma)-comb. | F: | Calmoroide (Phygiène)
Proctolog (Jouvainal)-
comb. | I: | Ruscoroid (Inverni della
Beffa)-comb. |
|----|---|----|--|----|--|

Saccharin

Use: non-caloric sweetener

RN: 81-07-2 MF: $C_7H_5NO_3S$ MW: 183.19 EINECS: 201-321-0LD₅₀: 17 g/kg (M, p.o.)

CN: 1,2-benzisothiazol-3(2H)-one 1,1-dioxide

calcium salt

RN: 6485-34-3 MF: $C_{14}H_8CaN_2O_6S_2$ MW: 404.44 EINECS: 229-349-9

calcium salt hydrate (4:7)

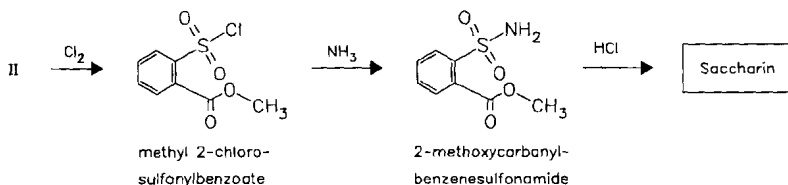
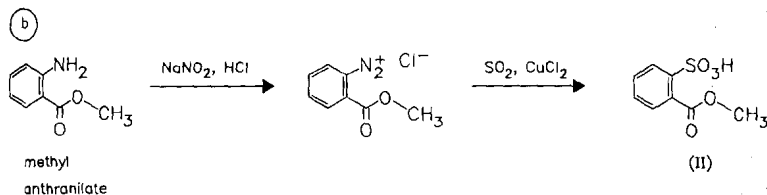
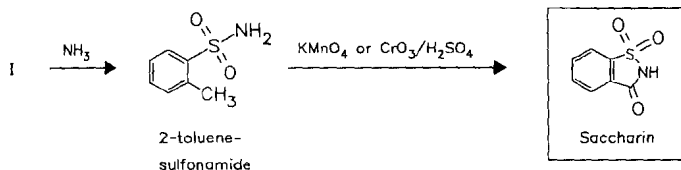
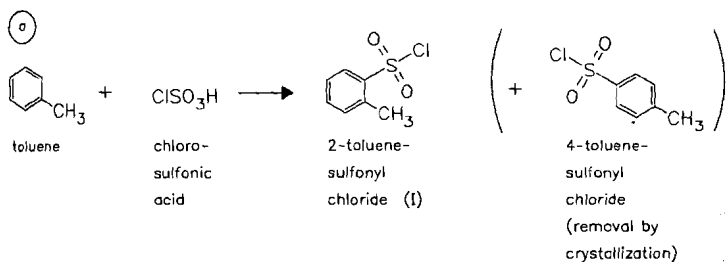
RN: 6381-91-5 MF: $C_{14}H_8CaN_2O_6S_2 \cdot 7/2H_2O$ MW: 934.98

sodium salt

RN: 128-44-9 MF: $C_7H_4NNaO_3S$ MW: 205.17 EINECS: 204-886-1LD₅₀: 17.5 g/kg (M, p.o.);

1.28 g/kg (R, p.o.)

sodium salt dihydrate

RN: 6155-57-3 MF: $C_7H_4NNaO_3S \cdot 2H_2O$ MW: 241.20LD₅₀: 17.5 g/kg (M, i.p.)

Reference(s):

review:

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. **22**, 356.**a** DRP 35 211 (Fahlberg-List; appl. 1884).

US 1 601 505 (J. W. Orclup; 1926; appl. 1921).

oxidation of 2-toluenesulfonamide with oxygen:

US 3 759 936 (Rhône-Poulenc, ert. 18.9.1973; F-prior. 1.4.1970, 16.11.1970).

b DOS 3 044 112 (BASF; appl. 24.11.1980).

US 4 464 537 (BASF; 7.8.1984; D-prior. 24.11.1980).

other methods:

US 2 667 503 (Maumee Dev.; 1954; appl. 1951).

purification:

DOS 2 730 861 (Chimicasa; appl. 8.7.1977; LUX-prior. 2.8.1976).

Formulation(s): tabl. 16.2 mg, 32.4 mg, 64.8 mg*Trade Name(s):*D: numerous combination
preparationsSaccar (Schiapparelli
Farm.)

I: Diet Sucaryl (Abbott)

USA: Sweetaste (Purepac)

Salacetamide

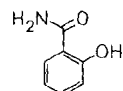
(Acetsalicylamide)

ATC: N02B

Use: antipyretic, antirheumatic

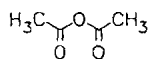
RN: 487-48-9 MF: C₉H₉NO₃ MW: 179.18 EINECS: 207-656-9LD₅₀: >5 g/kg (M, p.o.);

2 g/kg (R, p.o.)

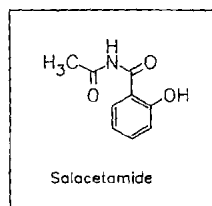
CN: *N*-acetyl-2-hydroxybenzamide

salicylamide

+



acetic anhydride



Salacetamide

Reference(s):

DRP 177 054 (Kalle; appl. 1905).

DAS 2 509 481 (Bayer; appl. 5.3.1975).

Formulation(s): tabl. 100 mg*Trade Name(s):*D: Eu-Med (Novartis
Consumer Health)-comb.;
wfmOctadon (Thiemann)-
comb.; wfm

Salazosulfapyridine

(Salicylazosulfapyridine; Sulphasalazine; Sulfasalazine)

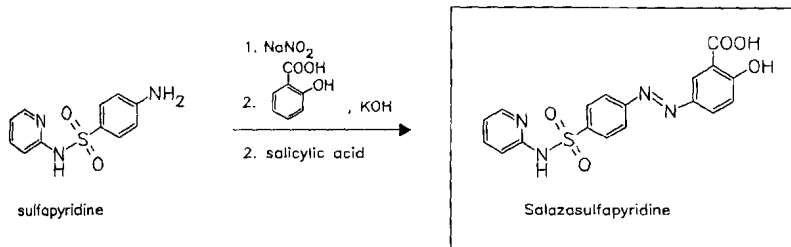
ATC: A07EC01

Use: chemotherapeutic (colitis), intestinal anti-inflammatory (ulcerative colitis, Crohn's disease)

RN: 599-79-1 MF: C₁₆H₁₄N₄O₅S MW: 398.40 EINECS: 209-974-3LD₅₀: 1096 mg/kg (M, i.v.); 12500 mg/kg (M, p.o.);

1520 mg/kg (R, i.v.); 15600 mg/kg (R, p.o.)

CN: 2-hydroxy-5-[4-[(2-pyridinylamino)sulfonyl]phenyl]azo]benzoic acid

*Reference(s):*

US 2 396 145 (AB Pharmacia; 1946; S-prior. 1940).

Formulation(s): drg. 500 mg; f. c. tabl. 500 mg; suppos. 500 mg; susp. 3 g/100 ml; tabl. 500 mg*Trade Name(s):*

D:	Azulfidine (Pharmacia & Upjohn)	F:	Salazopyrine (Pharmacia)	USA:	Salisulf gastroprotetto (Gipharmex)
	Colo-Pleon (Henning Berlin)	GB:	Salazopyrin (Pharmacia & Upjohn)		
	Sulfasalazin-Heyl (Heyl)	I:	Salazopyrin (Pharmacia & Upjohn)		USA: Azulfidine (Pharmacia & Upjohn)

Salbutamol

(Albuterol)

ATC: R03AC02; R03AK04; R03CC02

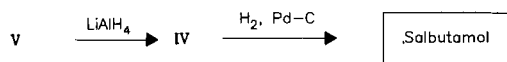
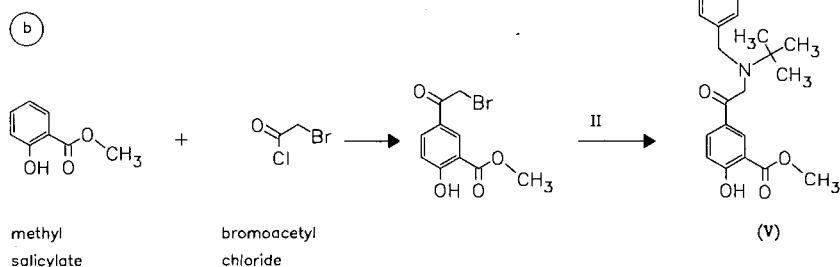
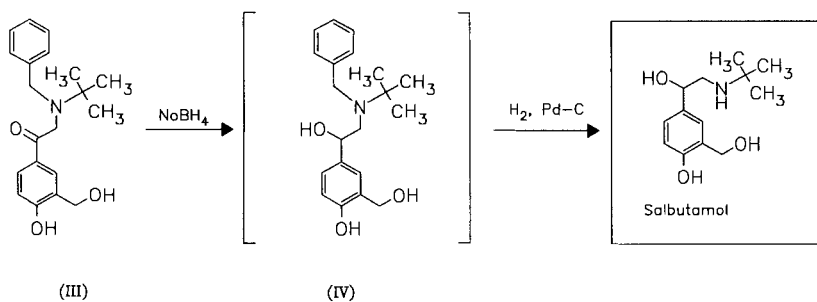
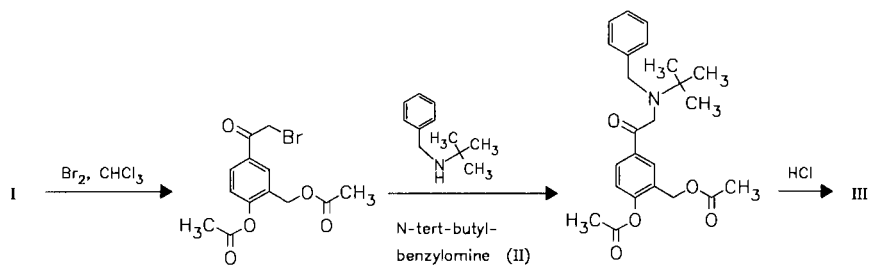
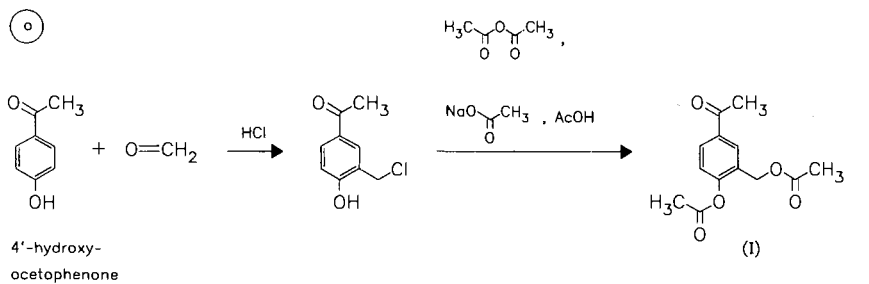
Use: bronchodilator

RN: 18559-94-9 MF: C₁₃H₂₁NO₃ MW: 239.32 EINECS: 242-424-0LD₅₀: 48.7 mg/kg (M, i.v.); 2707 mg/kg (M, p.o.);

57.1 mg/kg (R, i.v.); 660 mg/kg (R, p.o.)

CN: α¹-[[[(1,1-dimethylethyl)amino]methyl]-4-hydroxy-1,3-benzenedimethanol**sulfate (2:1)**RN: 51022-70-9 MF: C₁₃H₂₁NO₃ · 1/2H₂SO₄ MW: 576.71 EINECS: 256-916-8LD₅₀: 48.7 mg/kg (M, i.v.); 1950 mg/kg (M, p.o.);

59.1 mg/kg (R, i.v.); >2500 mg/kg (R, p.o.)



Reference(s):

- DE 1 643 224 (Allen & Hanburys; prior. 22.9.1967).
 US 3 644 353 (Allen & Hanburys; 15.2.1972; prior. 23.9.1966).
 Collin, D.T. et al.: J. Med. Chem. (JMCMAR) **13**, 674 (1970).
 GB 1 200 886 (Allen & Hanburys; appl. 23.9.1966; valid from 21.4.1967).
 a US 3 642 896 (Allen & Hanburys; 15.2.1972; GB-prior. 21.4.1967).
 b US 3 705 233 (Allen & Hanburys; 5.12.1972; GB-prior. 23.9.1966).

alternative synthesis:

DAS 2 340 189 (Polfa; appl. 8.8.1973).

R(-)-enantiomer:

DE 2 128 258 (Allen & Hanburys; appl. 7.6.1971; GB-prior. 17.6.1970).

Effenberger, F., Jäger, J.: J. Org. Chem. (JOCEAH) **62**, 3867 (1997).*stable aqueous formulation:*

DOS 3 319 356 (Glaxo; appl. 27.5.1983; GB-prior. 27.5.1982).

Formulation(s): amp. 0.6 mg/ml, 1.5 mg/2.5 ml, 3 mg/2.5 ml, 6 mg/5 ml; metered-dose aerosol 0.1 mg; metered-dose aerosol 0.12 mg; powder 0.12 mg, 0.24 mg; sol. 6 mg/g, 6 mg/ml; s. r. tabl. 4.82 mg, 9.64 mg; syrup 2.4 mg/5 ml (as sulfate) tabl. 2.4 mg, 4.8 mg

Trade Name(s):

D:	Apsomol (Farmasan)	Spréor (Inava)	Broncovaleas (Valeas)
	Arubendol (Farmasan)	Ventodisks (Glaxo)	Clenil (Chiesi)- comb.
	Bronchospray (Klinge)	Wellcome)	Perventil (Malesci)-comb.
	Epaq (ASTA Medica	Ventoline (Glaxo	Salbutard (Lusofarmaco)
	AWD; 3M Medica)	Wellcome; 1971)	Ventolin (Glaxo Wellcome)
	Loftan (Glaxo Wellcome/	GB: Asmasal (Evans)	Volmax (Glaxo Allen)
	Cascan)	Combivent (Boehringer	J: Asmidon (Dainippon)
	Salbulair (ASTA Medica	Ing.)-comb. .	Sultanol (Nippon Glaxo)
	AWD; 3M Medica)	Salamol Steri-Neb (Baker)	Ventoli (Sankyo)
	Sultanol (Glaxo; 1971)	Ventide (A. & H.)-comb.	USA: Proventil (Schering; 1981)
	Volmac (Glaxo Wellcome)	Ventolin (Allen &	Ventolin (Glaxo Wellcome;
F:	Combivent (Boehringer	Hanburys; 1969)	1981)
	Ing.)-comb.	Volmax (Allen &	Volumax (Muro)
	Salbumol (Glaxo	Hanburys)	
	Wellcome)	I: Brevia (Valeas)-comb.	

Salicylamide

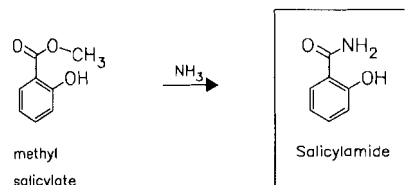
ATC: N02BA05

Use: analgesic, antipyretic, antirheumatic

RN: 65-45-2 MF: C₇H₇NO₂ MW: 137.14 EINECS: 200-609-3LD₅₀: 313 mg/kg (M., i.v.); 300 mg/kg (M, p.o.);

980 mg/kg (R, p.o.)

CN: 2-hydroxybenzamide

*Reference(s):*Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. **13**, 91.*Formulation(s):* gel 4 g/100 g; tabl. 200 mg, 400 mg*Trade Name(s):*

D:	Coffalon (Stark, Konstanz)-comb.	Glutisal (Ravensberg)-comb.	numerous combination preparations
	Girheulit (Pflüger)-comb.	Salistoperm (Ursapharm)-comb.	F: Percutalgine (Besins-Iscovesco)-comb.

GB:	Intralgin (3M Health Care)	J:	Saliamin (Yoshitomi)	USA:	Lobac (Seatrace)-comb.
I:	Azerodol (Edmond) Tuscalman Berna (Berna)- comb.		Salimid (Yoshitomi) numerous combination preparations		

Salicylic acid

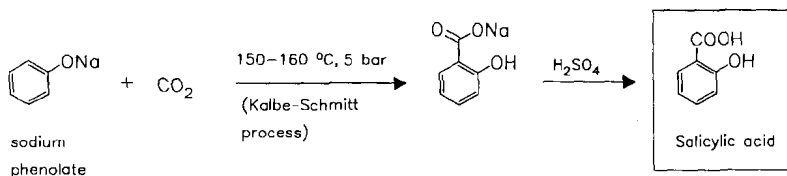
(Acidum salicylicum; Spiroylsäure; Spirsäure)

ATC: D01AE12

Use: keratolytic, antipyretic, antirheumatic

RN: 69-72-7 MF: C₇H₆O₃ MW: 138.12 EINECS: 200-712-3LD₅₀: 184 mg/kg (M, i.v.); 480 mg/kg (M, p.o.);
891 mg/kg (R, p.o.)

CN: 2-hydroxybenzoic acid

monosodium saltRN: 54-21-7 MF: C₇H₅NaO₃ MW: 160.10 EINECS: 200-198-0LD₅₀: 560 mg/kg (M, i.v.); 540 mg/kg (M, p.o.);
930 mg/kg (R, p.o.);
562 mg/kg (dog, i.v.)**calcium salt (2:1)**RN: 824-35-1 MF: C₁₄H₁₀CaO₆ MW: 314.31 EINECS: 212-525-4**magnesium salt**RN: 18917-89-0 MF: C₁₄H₁₀MgO₆ MW: 298.53 EINECS: 242-669-3**Reference(s):**

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. 20, 300.

fluid bed process:

EP 89 565 (Bayer; appl. 11.3.1983; D-prior. 23.3.1982).

Formulation(s): cream 40 g/100 g; eye drops 1 mg/ml; gel 10 g/100 g; ointment 3 g/100 g, 2 g/100 g; plaster 4 mg, 23 mg, 32 mg, 0.81 g, 1.39 g; sol. 0.1 g/g, 10 g/100 g**Trade Name(s):**

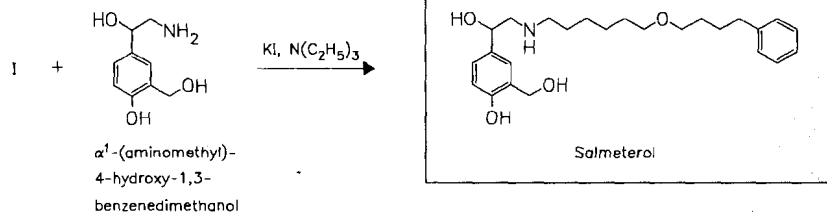
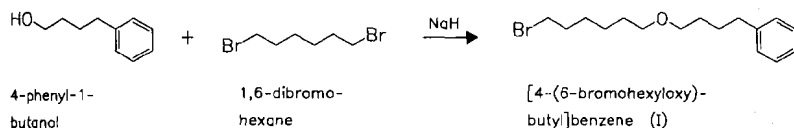
D:	Gehwol (Gerlach)	Diprosalic (Schering-Plough)	Diprosalic (Schering-Plough)-comb.
	Guttaplast (Beiersdorf)	Eau Précieuse (Hygiène)	Duofilm (Stiefel)-comb.
	Hansaplast Footcare (Beiersdorf)	Généserine (Amido)	Gelcosal (Quinoderm)-comb.
	Mobilat (Sankyo)	Pansoral (Pierre Fabre)	Ionil T (Galderma)-comb.
	Squamazol Gel (Ichthylol)	Verrucosal (Novartis)	Meted (Euroderma)
	Urgo Hühneraugenpflaster (Fournier Pharma)	numerous combination preparations	Monphytol (L.A.B.)-comb.
	numerous combination preparations	GB:	Movelat (Sankyo)-comb.
F:	Algipan (Darcy)	Acnival (Euroderma)	Occlusal (Euroderma)
	Betnesalic (Glaxo Wellcome)	Aserbine (Goldshield)-comb.	Phytex (Pharmax)-comb.
	Coricide Le Diable (Sodia)	Capasal (Dermal)	Posalifin (Norgine)-comb.
		Cocois (Evans)	Pragmatar (Bioglan)-comb.
		Cuplex (S & N)-comb.	Pyralvex (Norgine)-comb.
			Salactol (Dermal)-comb.

<p>I: Verrugon (Pickles) Apsor (IDI Farmaceutici)- comb. Colloidio All'acido Salicilico (Afom)-comb. Dermatar (IDI Farmaceutici)-comb. Diprosalic (Schering- Plough) Donalg (Dynacren)-comb. J: Giovanardi bruciaporri (Giovanardi)-comb.</p>	<p>Halciderm (Bristol-Myers Squibb)-comb. Locorten-(Novartis) Losalen (Novartis) Mobilat (Sankyo Pharma)- comb. Pyralvex (Norgine Italia)- comb. numerous preparations Salicylic acid-Vaseline (Iwaki; Maruishi; Ono; Toho-Sankyo; Tsukishima; Yoshida)</p>	<p>USA: Speel Plaster (Nichiban) DHS Sal (Person & Covey)-comb. Hydrisalic Gel (Pedinol) Occlusal-HP (GenDerm)- comb. SalAc (GenDerm) Sal-Acid (Pedinol) Salactic Film (Pedinol)- comb. Sal-Plant (Pedinol)</p>
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Salmeterol

(Salmaterol)

ATC: R03AC12

Use: long acting β_2 -adrenoceptor agonistRN: 89365-50-4 MF: C₂₅H₃₇NO₄ MW: 415.57CN: (\pm)-4-hydroxy- α^1 -[[[6-(4-phenylbutoxy)hexyl]amino]methyl]-1,3-benzenedimethanol**xinafoate (1-hydroxy-2-naphthoate)**RN: 94749-08-3 MF: C₂₅H₃₇NO₄ · C₁₁H₈O₃ MW: 603.76**Reference(s):**

DOS 3 414 752 (Glaxo; appl. 23.8.1989; GB-prior. 18.4.1983, 23.6.1983, 4.11.1983, 25.1.1984).

US 4 992 474 (Glaxo; 12.2.1991; appl. 23.8.1989; GB-prior. 18.4.1984, 19.11.1986; GB-prior. 18.4.1983, 23.6.1983, 4.11.1983, 25.1.1984).

medical use for treatment of inflammation:

EP 416 925 (Glaxo; appl. 6.9.1990; GB-prior. 7.9.1989).

combination with beclometasone:

EP 416 950 (Glaxo; appl. 7.9.1990; GB-prior. 8.9.1989; 20.10.1989).

combination with fluticasone:

EP 416 951 (Glaxo; appl. 7.9.1990; GB-prior. 8.9.1989, 20.10.1989).

Formulation(s): dose aerosol 0.025 mg/85 mg; powder for inhalation 0.05 mg/12.5 mg (as xinafoate)**Trade Name(s):**D: aeromax (Glaxo Wellcome/
Cascan)F: Serevent (Glaxo Wellcome)
Serevent (Glaxo Wellcome)GB: Serevent (Allen &
Hanburys)

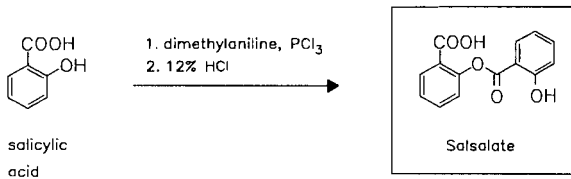
I: Arial (Dompe) Serevent (Glaxo Wellcome)
 Salmeterol (Menarini) USA: Serevent (Glaxo Wellcome)

Salsalate

ATC: N02BA

Use: analgesic, antirheumatic, urinary antiseptic

RN: 552-94-3 MF: C₁₄H₁₀O₅ MW: 258.23 EINECS: 209-027-4
 LD₅₀: 1020 mg/kg (M, s.c.)
 CN: 2-hydroxybenzoic acid 2-carboxyphenyl ester



Reference(s):

DRP 211 403 (C. F. Boehringer Mannh.; appl. 1907).

Formulation(s): cps. 500 mg; tabl. 500 mg, 750 mg

Trade Name(s):

D:	Disalgescic (Kettelhack-Riker); wfm	USA:	Disalcid (3M) Mono-Gescic (Schwarz)	generic
GB:	Disalcid (Riker); wfm		Salflex (Carrick)	

Saquinavir

(Ro-31-8959)

ATC: J05AE01

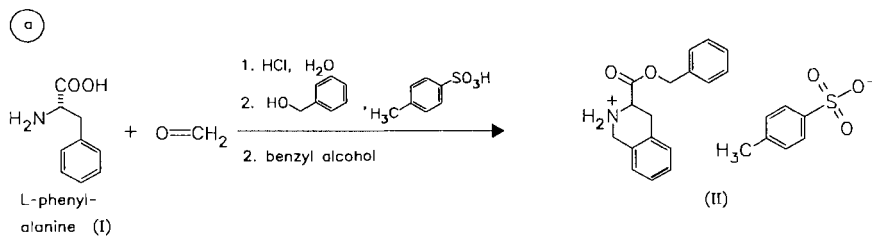
Use: antiviral, HIV-1-protease inhibitor

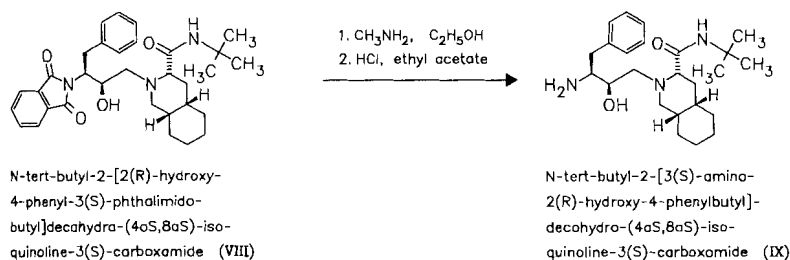
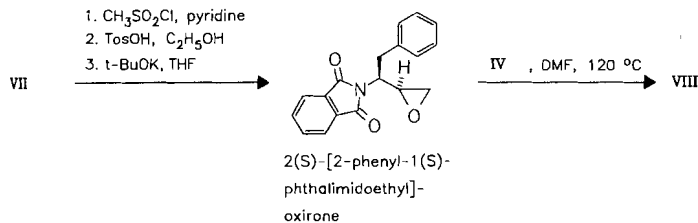
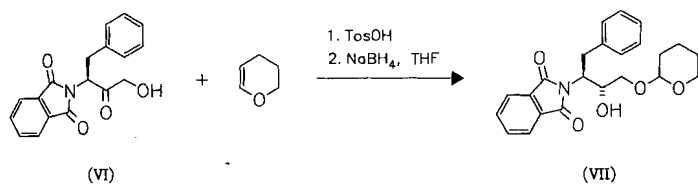
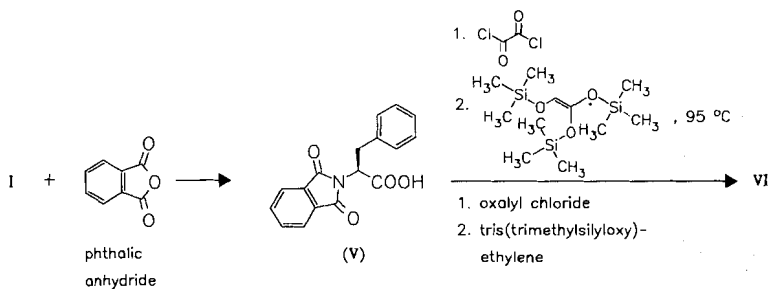
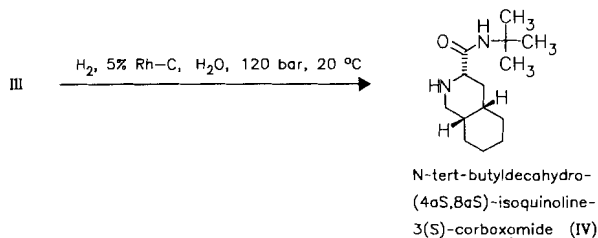
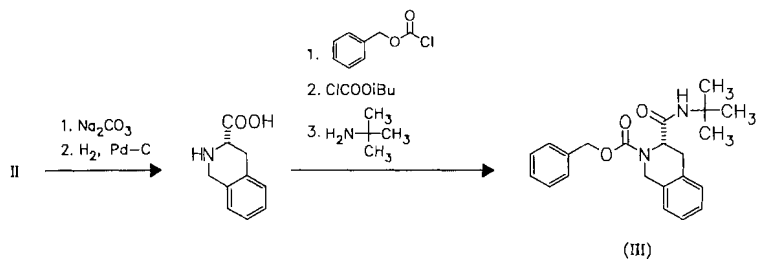
RN: 127779-20-8 MF: C₃₈H₅₀N₆O₅ MW: 670.86

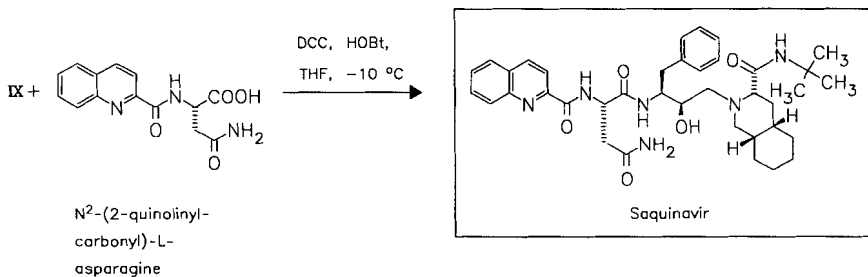
CN: [3S-[2[1R*(R*),2S*],3α,4aβ,8aβ]]-N¹-[3-[3-[[[1,1-dimethylethyl]amino]carbonyl]octahydro-2(1H)-isoquinolinyl]-2-hydroxy-1-(phenylmethyl)propyl]-2-[(2-quinolinylcarbonyl)amino]butanediamide

monomesylate

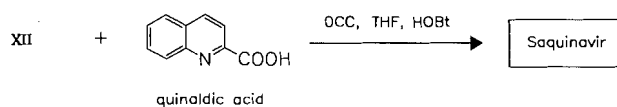
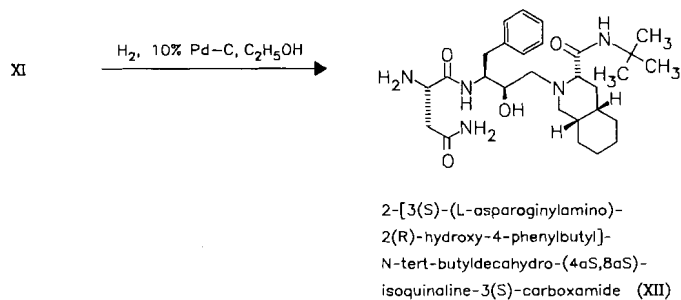
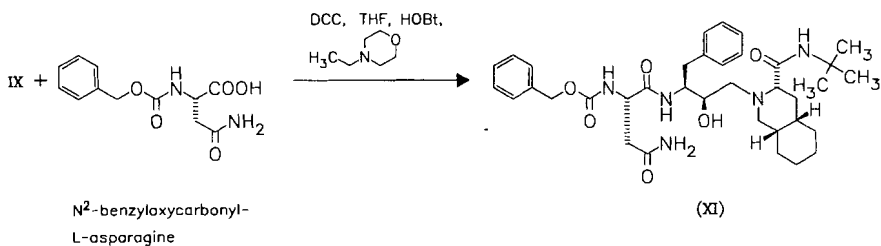
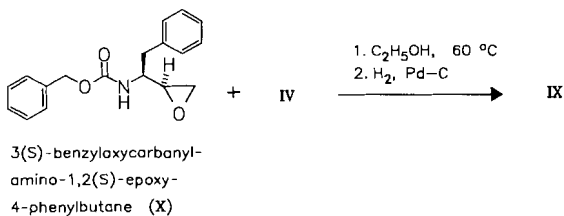
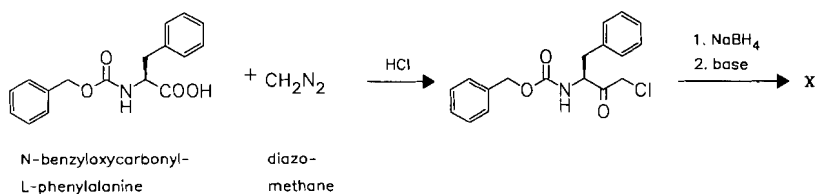
RN: 149845-06-7 MF: C₃₈H₅₀N₆O₅ · CH₄O₃S MW: 766.96

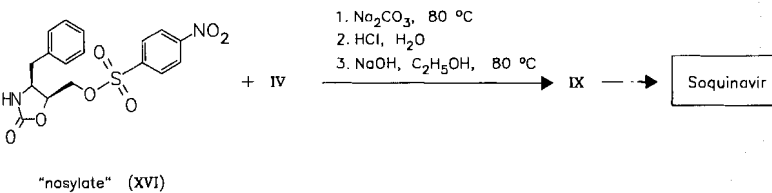
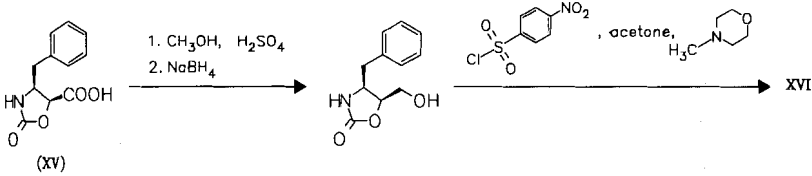
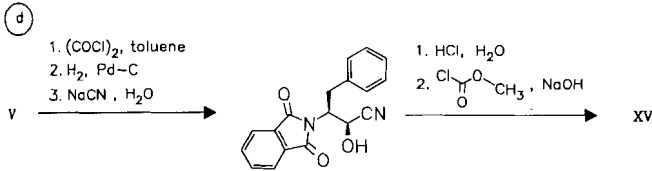
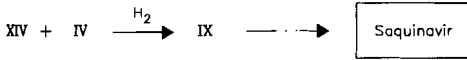
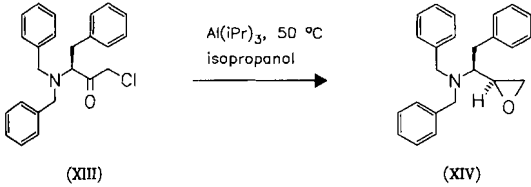
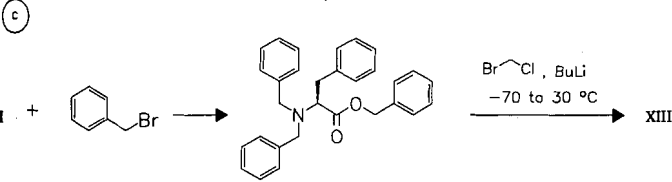






(b)





Reference(s):

- a Parkes, K.E.B. et al.: J. Org. Chem. (JOCEAH) **59**, 3656 (1994).
 EP 346 847 (Hoffmann-La Roche; appl. 13.6.1989; GB-prior. 13.6.1988, 10.4.1989).
 EP 432 694 (Hoffmann-La Roche; appl. 10.12.1992; GB-prior. 11.12.1989).
 b EP 432 695 (Hoffmann-La Roche; appl. 10.12.1990; GB-prior. 11.12.1989, 10.12.1990).

combinations:

- WO 9 419 008 (Merrell Dow Pharm.; appl. 18.1.1994; GB-prior. 22.2.1993).
 EP 513 917 (Glaxo; appl. 11.5.1992; GB-prior. 16.5.1991, 8.10.1991, 6.11.1991).
 EP 691 345 (Bristol-Myers Squibb; appl. 5.7.1995; USA-prior. 17.5.1995, 5.7.1994).
 WO 9 533 464 (Searle & Co.; appl. 2.6.1995; USA-prior. 3.6.1994).

Formulation(s): cps. 200 mg (as mesylate)

Trade Name(s):

D:	FORTOVASE (Roche) Invirase (Roche)	GB:	Fortovase (Roche) Invirase (Roche; 1996)	USA:	Invirase (Roche)
F:	Invirase (Roche; 1996)	I:	Invirase (Roche)		

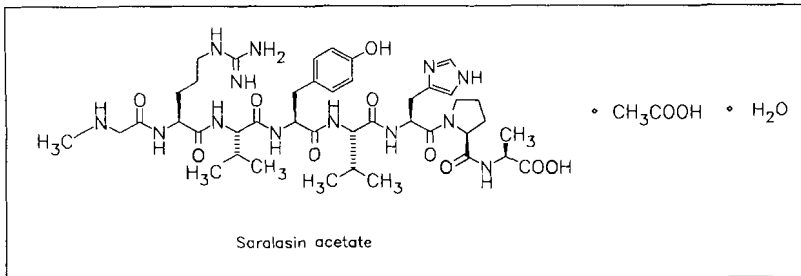
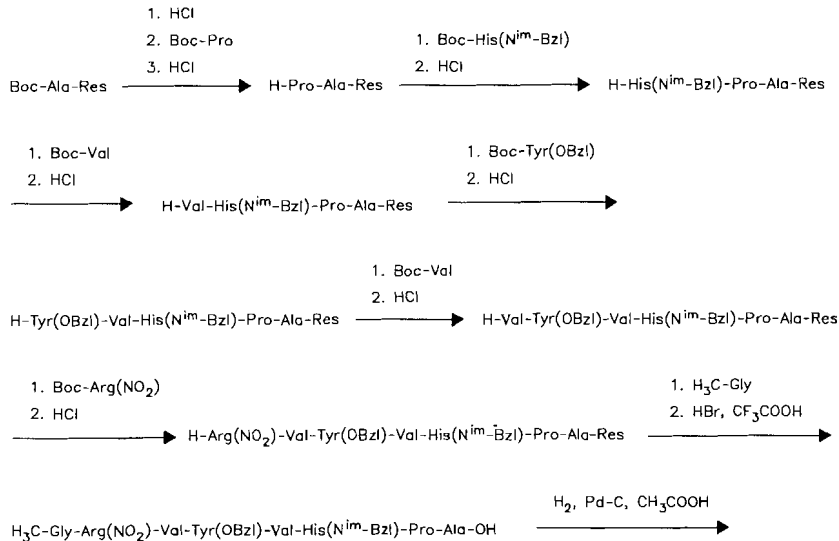
Saralasin acetate

ATC: C09

Use: antihypertensive, diagnostic (renin-dependent hypertension)

RN: 39698-78-7 MF: $C_{42}H_{65}N_{13}O_{10} \cdot xC_2H_4O_2 \cdot xH_2O$ MW: unspecifiedLD₅₀: 1171 mg/kg (M, i.v.)

CN: 1-(N-methylglycine)-5-L-valine-8-L-alanineangiotensin II acetate (salt) hydrate

saralasinRN: 34273-10-4 MF: $C_{42}H_{65}N_{13}O_{10}$ MW: 912.06**monoacetate**RN: 60173-70-8 MF: $C_{42}H_{65}N_{13}O_{10} \cdot C_2H_4O_2$ MW: 972.12N^{im}-Bzl: N-benylation in the imidazole ring

Res: resin ester

Reference(s):

DOS 2 127 393 (Norwich; appl. 2.6.1971; USA-prior. 12.2.1971).
 GB 1 320 104 (Norwich; valid from 20.5.1971).
 ZA 7 103 182 (Norwich; appl. 29.9.1971).

subcutaneously applicable pharmaceutical formulation:

US 3 932 624 (Morton-Norwich; 13.1.1976; prior. 17.6.1974).

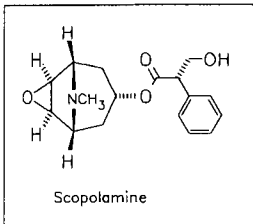
Trade Name(s):

D: Sarenin (Röh m Pharma); USA: Sarenin (Norwich Pharm.);
 wfm wfm

Scopolamine

(Hyoscine)

ATC: A04AD01; N05CM05; S01FA02

Use: mydriatic, parasympatholytic,
sedative, antispasmodicRN: 51-34-3 MF: C₁₇H₂₁NO₄ MW: 303.36 EINECS: 200-090-3LD₅₀: 100 mg/kg (M, i.v.); 1275 mg/kg (M, p.o.);
2650 mg/kg (R, p.o.)CN: [7(S)-(1 α ,2 β ,4 β ,5 α ,7 β)]- α -(hydroxymethyl)benzeneacetic acid 9-methyl-3-oxa-9-azatricyclo[3.3.1.0^{2,4}]non-7-yl ester**hydrobromide**RN: 114-49-8 MF: C₁₇H₂₁NO₄ · HBr MW: 384.27 EINECS: 204-050-6LD₅₀: 203 mg/kg (M, i.v.); 1880 mg/kg (M, p.o.);
1270 mg/kg (R, p.o.)**hydrobromide trihydrate**RN: 6533-68-2 MF: C₁₇H₂₁NO₄ · HBr · 3H₂O MW: 438.32

a From mother liquors of hyoscyamine production (atropine, q. v.).

b By extraction of *Scopolia* drugs, as *Datura metel* and *Duboisia*.

Reference(s):

Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. 3, 204.

Formulation(s): amp. 0.3 mg/ml, 0.5 mg/ml, 1 mg/ml; eye drops 0.25 % (as hydrobromide trihydrate); eye drops 2.5 mg/g (as borate); plaster 1.5 mg/2.5 cm²

Trade Name(s):

D: Boro-Scopol (Winzer)	Scopolamin. hydrobromic.	Scopolamina Bromidrato
Neurovegetalin (Verla)- comb.	Dispersa Baeschlin (Baeschlin); wfm	(Biologici Italia) Spasmeridan (UCB)
Scopoderm TTS (Novartis Pharma)	F: Génoseopolamine (Amido) Scopoderm TTS (Novartis)	Transcop 4 sistemi transderm (Recordati)
Scopolamin. hydrobromic.	GB: Buscopan (Boehringer Ing.)	combination preparations
Dispersa (Dispersa); wfm	Hypal 2 (S & N)	numerous generic
	I: Buscopan (Boehringer Ing.)	J: preparations

USA: Atrohist Plus (Medeva; as hydrobromide)

Bellatal (Richwood; as hydrobromide)

Donnatal (Robins; as hydrobromide)
Transderm Scop (Novartis)**Secbutobarbital**

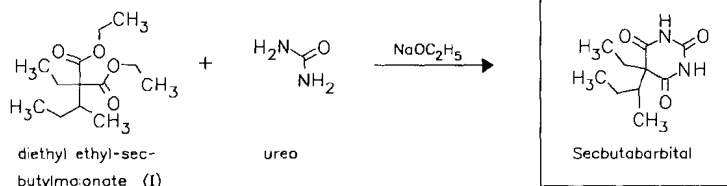
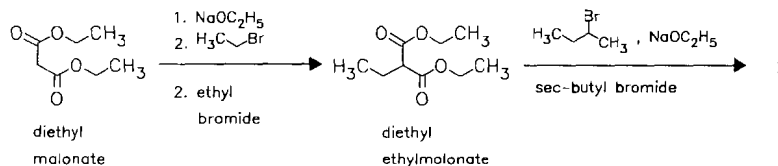
(Butabarbital; Secbutobarbitone; Sodium Butabarbital; Butethal)

ATC: N05CA

Use: sedative, hypnotic

RN: 125-40-6 MF: C₁₀H₁₆N₂O₃ MW: 212.25 EINECS: 204-738-6LD₅₀: 175 mg/kg (M, i.v.)CN: 5-ethyl-5-(1-methylpropyl)-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione**monosodium salt**RN: 143-81-7 MF: C₁₀H₁₅N₂NaO₃ MW: 234.23 EINECS: 205-611-8LD₅₀: 70 mg/kg (R, i.v.); 78 mg/kg (R, p.o.);

90 mg/kg (dog, i.v.)

**Reference(s):**

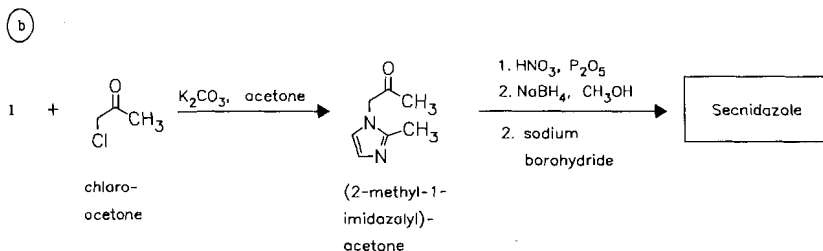
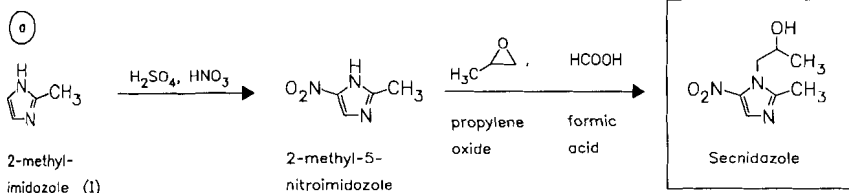
US 1 856 792 (Eli Lilly; 1932; prior. 1929).

Formulation(s): tabl. 15 mg, 30 mg, 50 mg, 100 mg (as sodium salt)**Trade Name(s):**D: Dormilfo (Wachter)-comb.; wfm
Nervolitan (Kettelhack)-comb.; wfmResedorm (Lappe)-comb. with aprobarbital; wfm
F: Butobarbital Dipharma (Amido)Hypnasmine (Élerté)-comb.
GB: Soneryl (Concord)
USA: Barbased (Major)
Butisol Sodium (Wallace)**Secnidazole**

ATC: P01AB07

Use: chemotherapeutic, amoebicide

RN: 3366-95-8 MF: C₇H₁₁N₃O₃ MW: 185.18 EINECS: 222-134-0CN: α ,2-dimethyl-5-nitro-1*H*-imidazolc-1-ethanol



Reference(s):

- a Cosar, C. et al.: *Arzneim.-Forsch. (ARZNAD)* **16**, 23 (1966).
FR-M 3 270 (Rhône-Poulenc; appl. 30.12.1963).
FR 1 427 627 (Rhône-Poulenc; appl. 10.10.1963).
- b DOS 2 107 423 (Rhône-Poulenc; appl. 16.2.1971; F-prior. 16.2.1970).
GB 1 278 758 (Rhône-Poulenc; valid from 19.4.1971; F-prior. 16.2.1970).
GB 1 265 466 (Rhône-Poulenc; valid from 15.7.1970; F-prior. 16.2.1970).

alternative syntheses:

- DOS 2 107 405 (Rhône-Poulenc; appl. 16.2.1971; F-prior. 16.2.1970).
GB 1 278 757 (Rhône-Poulenc; valid from 19.4.1971; F-prior. 16.2.1970).

Formulation(s): tabl. 500 mg

Trade Name(s):

F: Flagentyl (Specia; Rhône-Poulenc)

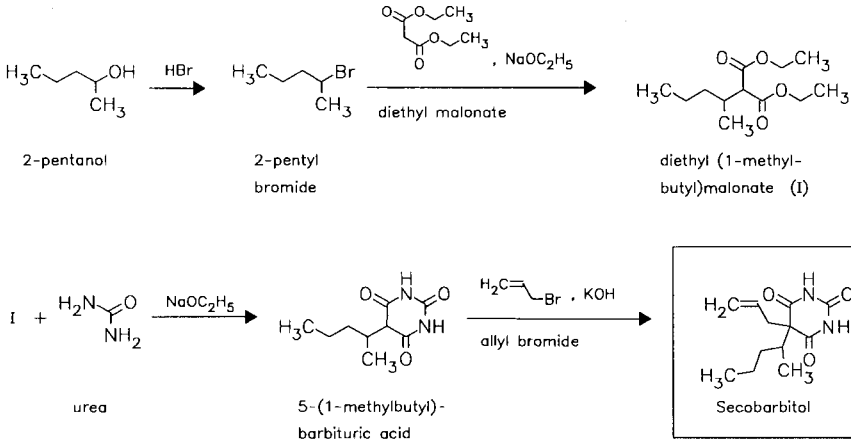
Secobarbital
(Quinalbarbitone)

ATC: N05CA06
Use: hypnotic

RN: 76-73-3 MF: C₁₂H₁₈N₂O₃ MW: 238.29 EINECS: 200-982-2
LD₅₀: 145 mg/kg (M, p.o.);
80 mg/kg (R, i.v.)
CN: 5-(1-methylbutyl)-5-(2-propenyl)-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione

monosodium salt

RN: 309-43-3 MF: C₁₂H₁₇N₂NaO₃ MW: 260.27 EINECS: 206-218-4
LD₅₀: 110 mg/kg (M, i.v.);
65 mg/kg (R, i.v.); 125 mg/kg (R, p.o.);
48 mg/kg (dog, i.v.); 85 mg/kg (dog, p.o.)



Reference(s):

US 1 954 429 (Eli Lilly; 1934; CDN-prior. 1930).

Formulation(s): cps. 50 mg, 100 mg; powder 50 mg (as sodium salt)

Trade Name(s):

D:	Dormilfo (Wachter)-comb.; wfm	F:	Binooctal (Houdé)-comb.; wfm	Supponooctal (Houdé)-comb.; wfm
	Medinox (Pfleger)-comb.; wfm		Dinoctin (Spret-Mauchant)-comb.; wfm	combination preparations; wfm
	Optipyrin (Pfleger)-comb.; wfm		Divinoctal (I.S.H.)-comb.; wfm	GB: Seconal Sodium (Lilly)
	Solamin (Ardeypharm)-comb.; wfm		Imménoctal (Houdé); wfm	I: Immenox (Roussel-Maestretti); wfm
	Tempidorm (Roland)-comb.; wfm		Imménoctal (I.S.H.); wfm	Neogratusminal (Simes)-comb.; wfm
	Tempidorm N (Roland)-comb.; wfm		Insomnyl (Elerté)-comb.; wfm	Vesparax (UCB)-comb.; wfm
	Trisomin (Asche)-comb.; wfm		Noctadiol (Millot-Solac)-comb.; wfm	J: Ional Sodium (Yoshitomi)
	Vesparax (UCB)-comb.; wfm		Reposal (Martinet)-comb.; wfm	USA: Seconal Sodium (Lilly)
			Sonuctane (Bottu)-comb.; wfm	Tuinal (Lilly)-comb.

Secretin

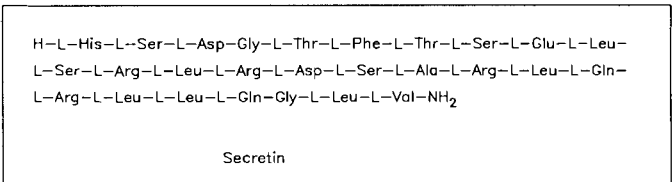
ATC: V04CK01

Use: diagnostic, hormon (pancreatic)

RN: 1393-25-5 MF: unspecified MW: unspecified EINECS: 215-733-3

LD₅₀: >5000 iu/kg (M, i.v.); >5000 iu/kg (M, p.o.); >5000 iu/kg (R, i.v.); >5000 iu/kg (R, p.o.)

CN: secretin



From hog duodenummucosa.

Reference(s):

Jorpes, J.E.; Mutt, V.: Acta Chem. Scand. (ACHSE7) **15**, 1790 (1961).

synthesis:

US 3 767 639 (Squibb; 23.10.1973; prior. 12.4.1968, 17.4.1970).

Bodanszky, M. et al.: J. Am. Chem. Soc. (JACSAT) **89**, 685; 6753 (1967).

Ondetti, M.A. et al.: J. Am. Chem. Soc. (JACSAT) **90**, 4711 (1968).

Wuensch, E. et al.: Chem. Ber. (CHBEAM) **104**, 2430, 2445, 3854 (1971); **105**, 2508 (1972).

purification:

Wuensch, E. et al.: Chem. Ber. (CHBEAM) **105**, 2515 (1972).

structure:

Mutt, V.; Jorpes, J.E.: Eur. J. Biochem. (EJBCAI) **15**, 513 (1970).

Formulation(s): amp. 0.029 mg (as hydrochloride)

Trade Name(s):

D: Sekretolin (Hoechst)

F: Sécrotine Sinbio (Fimex);
wfm

J: Secrepan (Eisai)

USA: Secretin-Ferring (Ferring)

Selegiline

(L-Deprenil; L-Deprenyl)

ATC: N04BD01

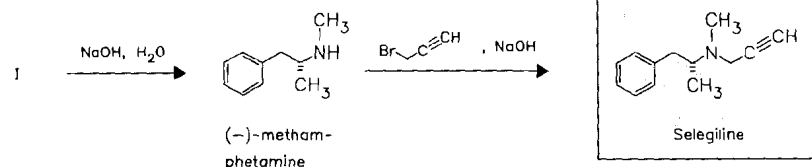
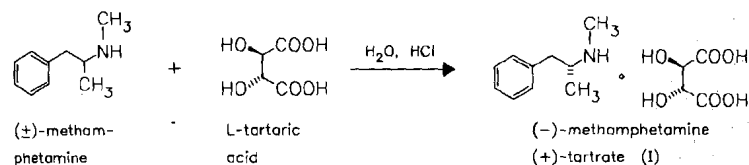
Use: antiparkinsonian

RN: 14611-51-9 MF: C₁₃H₁₇N MW: 187.29

CN: (R)-N,α-dimethyl-N-2-propynylbenzeneethanamine

hydrochloride

RN: 14611-52-0 MF: C₁₃H₁₇N · HCl MW: 223.75



Reference(s):

DOS 1 568 277 (Chinoin; appl. 30.4.1966; H-prior. 3.5.1965).

alternative syntheses:

GB 1 031 425 (Chinoin; Complete Specification 26.3.1963; H-prior. 30.3.1962).

EP 344 675 (Farmakon; appl. 29.5.1989; CS-prior. 30.5.1988).

methamphetamine racemate resolution:

Li Chiang: J. Chin. Chem. Soc. (Peking) (JCCOAV) **18**, 161 (1951).

Jung et al.: J. Am. Chem. Soc. (JACSAT) **75**, 4664 (1953).

Formulation(s): tabl. 5 mg, 10 mg (as hydrochloride)

Trade Name(s):

D:	Amindan (Desitin)	Selepark (betapharm)	Jumex (Chiesi)
	Antiparkin (ASTA Medica AWD)	Seletop (Azupharma)	Seledat (Master Pharma)
	Deprenyl (Sanofi)	F: Déprényl (Schering-Plough)	Selpar (Therabel Pharma)
	Winthrop)	GB: Eldepryl (Orion)	USA: Atapryl (Athena)
	Movergan (Orion Pharma)	Vivapryl (ASTA Medica)	Eldepryl (Somerset)
	Selegam (Neuro Hexal)	I: Egibren (Chiesi)	generics

Seratrodast

(AA-2414; A-73001; ABT-001)

ATC: R03DC
Use: antiallergic, antiasthmatic, thromboxane A₂/leukotriene antagonist

RN: 112665-43-7 MF: C₂₂H₂₆O₄ MW: 354.45

LD₅₀: 1520 mg/kg (M, p.o.);

3750 mg/kg (R, p.o.)

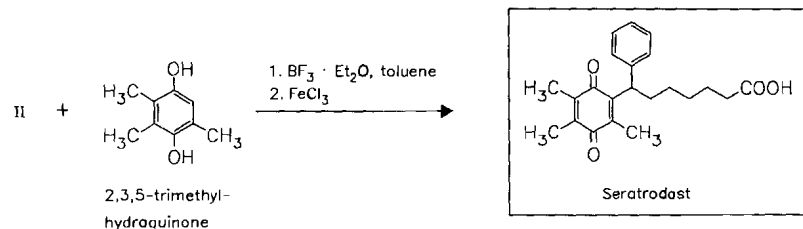
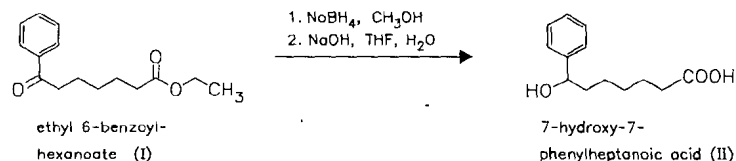
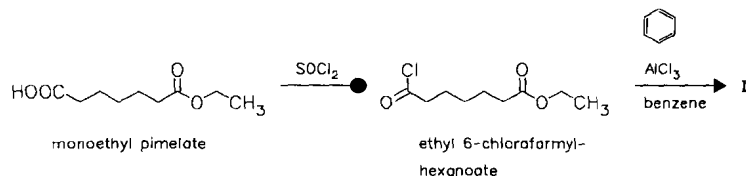
CN: ζ-(2,4,5-trimethyl-3,6-dioxo-1,4-cyclohexadien-1-yl)benzeneheptanoic acid

(+)-R-enantiomer

RN: 103187-09-3 MF: C₂₂H₂₆O₄ MW: 354.45

(-)-S-enantiomer

RN: 103196-89-0 MF: C₂₂H₂₆O₄ MW: 354.45



Reference(s):

Shiraishi, M. et al.: J. Med. Chem. (JMCMAR) 32 (9), 2214-2221 (1989).
EP 171 251 (Takeda Chem.; appl. 30.7.1985; prior. 1.8.1984).

medical use as thromboxane A₂ antagonist:

EP 645 137 (Takeda Chem.; appl. 19.9.1994; J-prior. 21.9.1993).
EP 719 552 (Takeda Chem.; appl. 22.12.1995; J-prior. 26.12.1994).
JP 02 273 625 (Takeda Chem.; J-prior. 14.4.1989).

composition for treatment/prophylaxis of circulatory disorders:

JP 63 101 322 (Takeda Chem.; J-prior. 17.10.1986).

Formulation(s): gran. 100 mg/g (10 %); tabl. 40 mg, 80 mg

Trade Name(s):

J: Bronica (Takeda; Grelan)

Sertaconazole

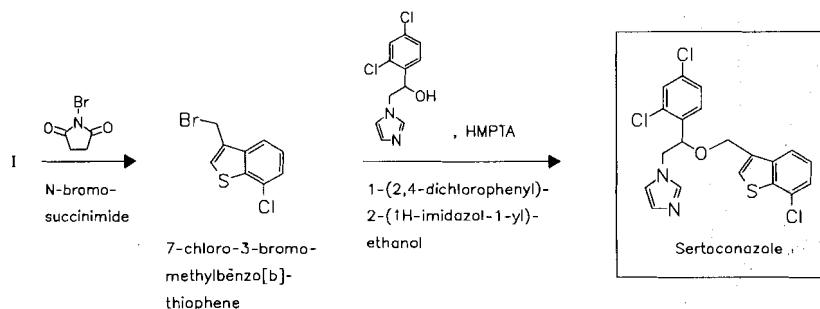
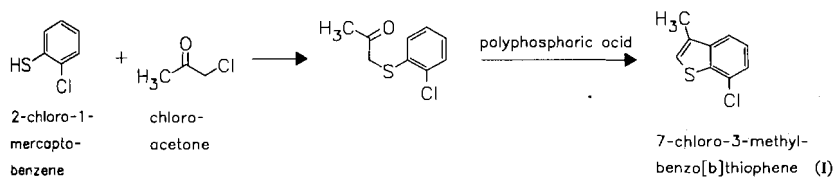
ATC: D01AC
Use: antifungal

RN: 99592-32-2 MF: C₂₀H₁₅Cl₃N₂OS MW: 437.78

CN: 1-[2-[(7-chlorobenzo[*b*]thien-3-yl)methoxy]-2-(2,4-dichlorophenyl)ethyl]-1*H*-imidazole

mononitrate

RN: 99592-39-9 MF: C₂₀H₁₅Cl₃N₂OS · HNO₃ MW: 500.79



Reference(s):

EP 151 477 (Ferrer; appl. 2.1.1985; E-prior. 8.6.1984, 2.2.1984, 6.1.1984).
Raga, M.M. et al.: *Arzneim.-Forsch. (ARZNAD)* **42**, 691 (1992).

Formulation(s): cream 20 mg/g

Trade Name(s):

D: Zalain (Trommsdorff)

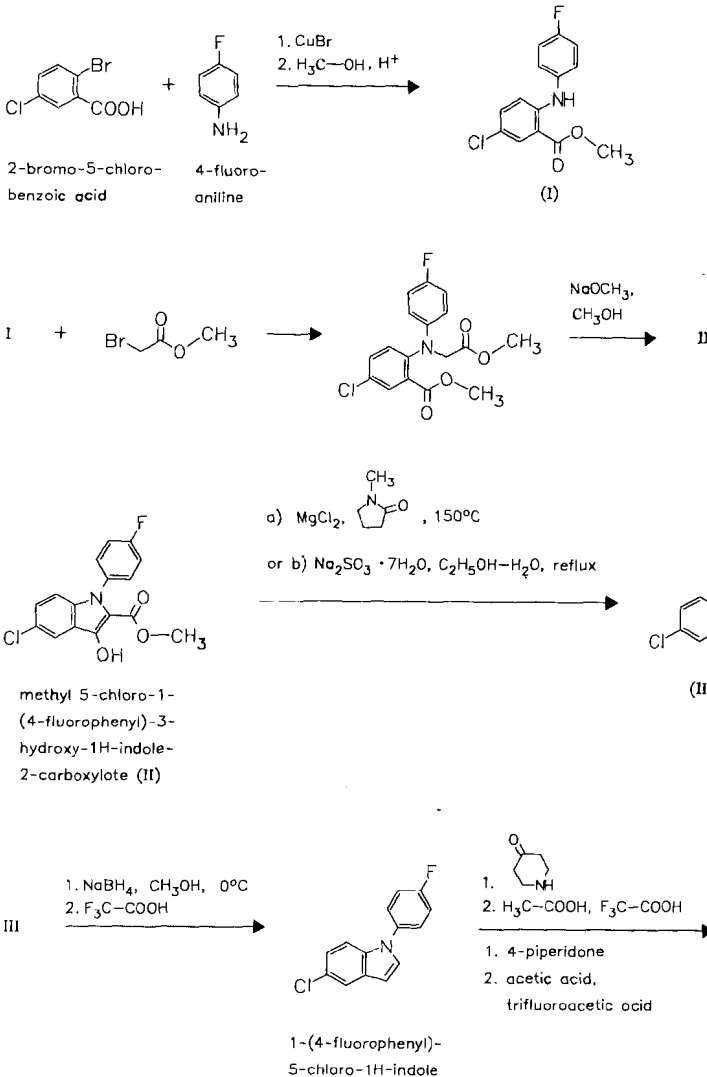
Sertindole

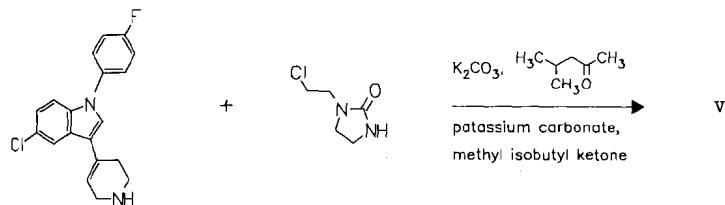
(LU-23-174; S-1991)

ATC: N05AE03

Use: antipsychotic, dopamine D₂-antagonist, 5-HT₂-antagonistRN: 106516-24-9 MF: C₂₄H₂₆ClFN₄O MW: 440.95

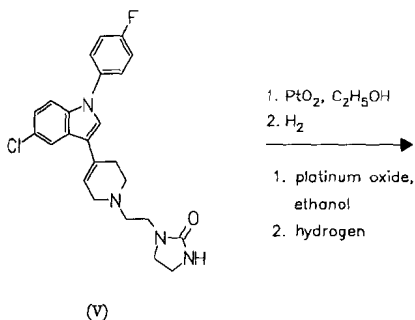
CN: 1-[2-[4-[5-chloro-1-(4-fluorophenyl)-1H-indol-3-yl]-1-piperidinyl]ethyl]-2-imidazolidinone

maleateRN: 106516-25-0 MF: C₂₄H₂₆ClFN₄O · C₄H₄O₄ MW: 557.02

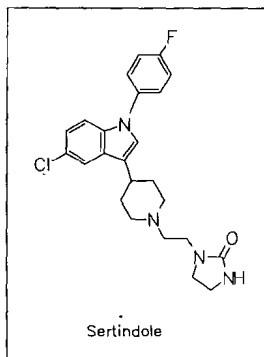


5-chloro-1-(4-fluoro-phenyl)-3-(1,2,3,6-tetrahydropyridin-4-yl)-1H-indole (IV)

1-(2-chloroethyl)-2-imidazolidinone



(V)



Reference(s):

EP 200 322 (Lundbeck; appl. 5.11.1986; GB-prior. 10.4.1985).

synthesis of 1-(4-fluorophenyl)-5-chloro-1H-indole:

Perregaard, J.K. et al.: J. Med. Chem. (JMCMAR) **35**, 1092 (1992).

Anderssen, K. et al.: J. Med. Chem. (JMCMAR) **39**, 3723 (1996).

WO 9 200 070 (Lundbeck; appl. 9.1.1992; DK-prior. 22.6.1990).

use of sertindole for the treatment of schizophrenia:

EP 392 959 (Lundbeck; appl. 17.10.1990; GB-prior. 11.4.1989).

use of sertindole as serotonin-2/dopamine-2-receptor-blocking agent for the treatment of mental disorders:

EP 730 865 (Sumitomo Pharm.; appl. 11.9.1996; J-prior. 12.1.1995).

use of sertindole for the treatment of cognitive disorders, for the treatment of addiction and alleviating, relieving or suppressing cocaine, diazepam, nicotine or alcohol addictions:

WO 9 215 303 (Lundbeck; appl. 17.9.1992; DK-prior. 1.3.1991).

use of sertindole for treating of hypertension and peripheral vascular diseases:

WO 9 215 301 (Lundbeck; appl. 17.9.1992; J-prior. 1.3.1991).

Formulation(s): f. c. tabl. 4 mg, 12 mg, 16 mg, 20 mg

Trade Name(s):

D: Serdolect (Promonta
Lundbeck)

GB: Serdolect (Lundbeck)

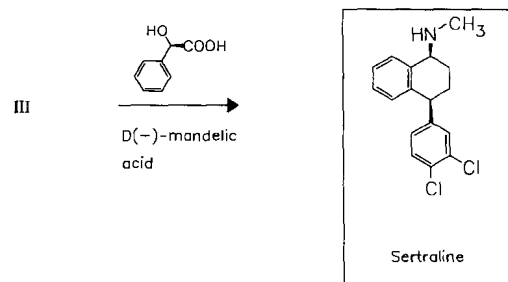
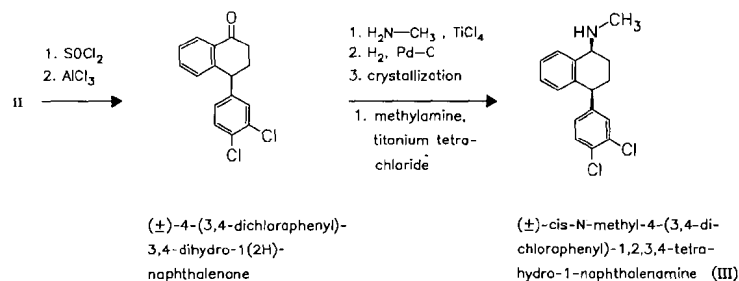
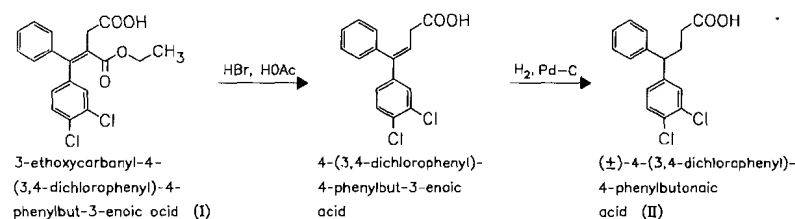
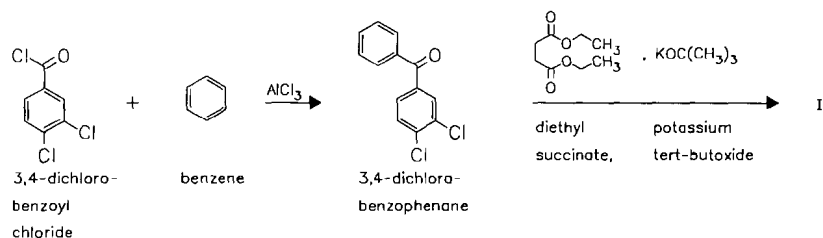
Sertraline

ATC: N06AB06

Use: antidepressant, selective competitive inhibitor of synaptosomal serotonin-uptake

RN: 79617-96-2 MF: C₁₇H₁₇Cl₂N MW: 306.24CN: (1*S*-*cis*)-4-(3,4-dichlorophenyl)-1,2,3,4-tetrahydro-*N*-methyl-1-naphthalenamine

hydrochloride

RN: 79559-97-0 MF: C₁₇H₁₇Cl₂N · HCl MW: 342.70

Reference(s):

EP 30 081 (Pfizer; appl. 28.10.1980; USA-prior. 1.11.1979).

US 4 536 518 (Pfizer; 20.8.1985; appl. 1.11.1979).

Welch, W.M. et al.: J. Med. Chem. (JMCMAR) 27, 1508 (1984).

alternative synthesis:

US 4 839 104 (Pfizer; 13.6.1989; appl. 16.6.1988; prior. 11.6.1987).
 EP 295 050 (Pfizer; appl. 7.6.1988; USA-prior. 11.6.1987).
 Lautens, M.; Rovis, T.: J. Org. Chem. (JOCEAH) **62**, 5246 (1977)
 WO 9 827 050 (Richter Gedeon Vegyeszeti Gyar Rt.; appl. 15.12.1997; HU-prior. 18.12.1996).
 WO 9 815 516 (Egis Gyogyszergyar Rt.; appl. 8.10.1997; HU-prior. 9.10.1996).
 Corey, E.J., Gant, T.G.: Tetrahedron Lett. (TELEAY) **35** (30), 5373 (1994).
 WO 9 515 299 (Pfizer; appl. 2.9.1994; USA-prior. 30.11.1993).
 WO 9 301 162 (Pfizer; appl. 3.9.1992; GB-prior. 11.7.1991).
 Williams, M.; Quallich, G.: Chem. Ind. (London) (CHINAG) **1990** (10), 315

synthesis of trans-isomer:

US 4 556 676 (Pfizer; 3.12.1985; appl. 1.11.1979).
 EP 28 901 (Pfizer; appl. 28.10.1980; USA-prior. 1.11.1979, 5.9.1980).

preparation of sertraline intermediates:

WO 9 312 062 (Pfizer; appl. 15.9.1992; USA-prior. 13.12.1991).
 WO 9 301 161 (Pfizer; appl. 3.7.1992; GB-prior. 11.7.1991).
 Quallich, G.J.; Williams, M.T; Friedmann, R.C.: J. Org. Chem. (JOCEAH) **55** (16), 4971 (1990).

process for converting trans to cis isomer:

US 5 082 970 (Pfizer; 21.1.1992; USA-prior. 6.3.1991).

sertraline polymorphism:

US 5 248 699 (Pfizer; 28.9.1993; USA-prior. 13.8.1992).
 US 5 734 083 (Torcan Chemical Ltd.; 31.3.1998; USA-prior. 17.5.1996).

controlled-release formulation:

EP 259 113 (Pfizer; appl. 28.8.1987; USA-prior. 4.9.1986).
 EP 357 369 (Pfizer; appl. 29.8.1989; USA-prior. 30.8.1988).

medical use for treatment of anxiety:

US 4 962 128 (Pfizer; 9.10.1990; appl. 2.11.1989).
 EP 429 189 (Pfizer; appl. 29.10.1990; USA-prior. 2.11.1989).

medical use for treatment of psychosis:

US 4 981 870 (Pfizer; 1.1.1991; appl. 7.3.1989).
 EP 386 997 (Pfizer; appl. 6.3.1990; USA-prior. 7.3.1989).

medical use for treatment of dependency:

EP 415 612 (Pfizer; appl. 17.8.1990; USA-prior. 30.8.1989).

Formulation(s): f. c. tab]. 50 mg, 100 mg (as hydrochloride)

Trade Name(s):

D:	Gladem (Boehringer Ing.)	GB:	Lustral (Invicta; Pfizer; 1990)	Tatig (Bioindustria)
	Zoloft (Pfizer)			Zoloft (Roerig)
F:	Zoloft (Pfizer)	I:	Serad (Boehringer Mannh.)	USA: Zoloft (Pfizer; 1991)

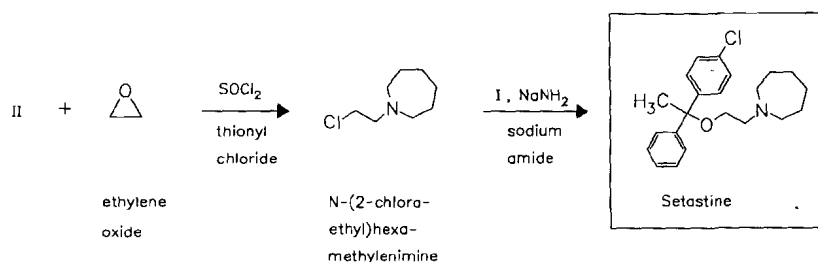
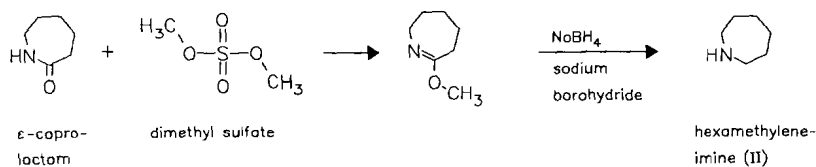
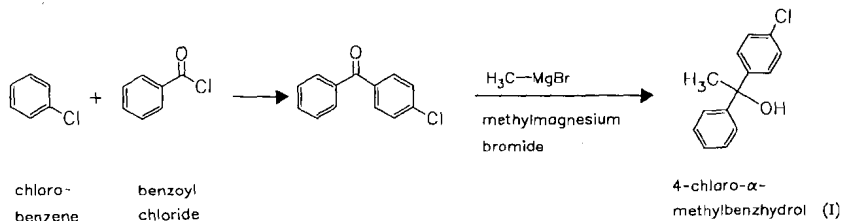
Setastine

ATC: R06AB
 Use: antihistaminic

RN: 64294-95-7 MF: C₂₂H₂₈ClNO MW: 357.93
 CN: 1-[2-[1-(4-chlorophenyl)-1-phenylethoxy]ethyl]hexahydro-1H-azepine

hydrochloride

RN: 59767-13-4 MF: C₂₂H₂₈ClNO · HCl MW: 394.39
 LD₅₀: 510 mg/kg (M, p.o.)

**Reference(s):**

DE 2 528 194 (Egyt; appl. 24.6.1975; H-prior. 24.6.1974).

GB 1 463 038 (Egyt; appl. 24.6.1975; H-prior. 24.6.1974).

Formulation(s): tabl. 1 mg (as hydrochloride)**Trade Name(s):**

H: Loderix (EGIS; 1988)

Setiptiline
(Teciptiline)

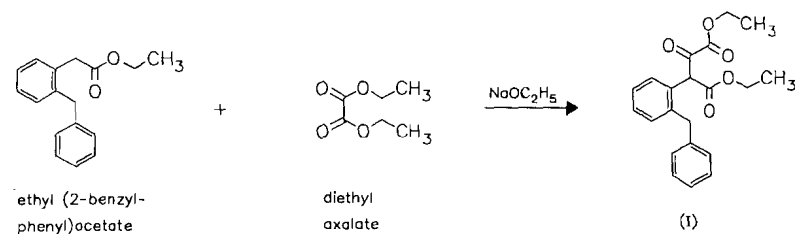
ATC: N06AX

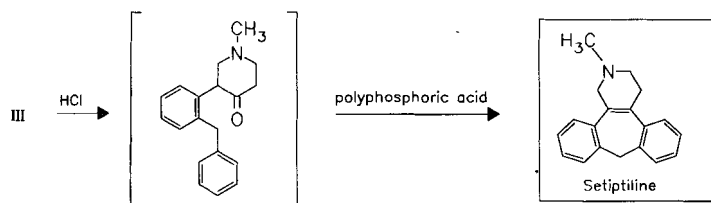
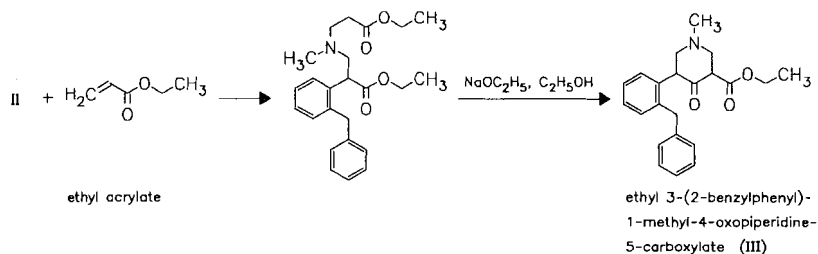
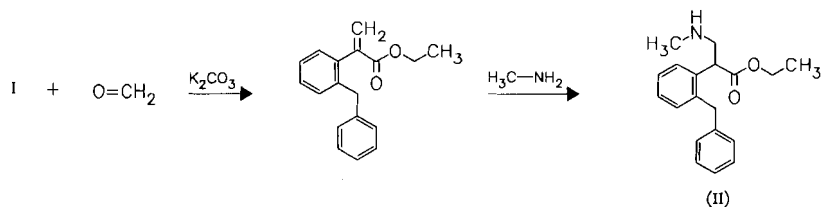
Use: antidepressant, mianserin analog

RN: 57262-94-9 MF: $\text{C}_{19}\text{H}_{19}\text{N}$ MW: 261.37 EINECS: 260-653-4LD₅₀: 423 mg/kg (M, p.o.);

554 mg/kg (R, p.o.)

CN: 2,3,4,9-tetrahydro-2-methyl-1H-dibenzo[3,4:6,7]cyclohepta[1,2-c]pyridine

maleate (1:1)RN: 85650-57-3 MF: $\text{C}_{19}\text{H}_{19}\text{N} \cdot \text{C}_4\text{H}_4\text{O}_4$ MW: 377.44 EINECS: 288-065-3

**Reference(s):**

DE 2 503 407 (Akzo; appl. 28.1.1975; NL-prior. 31.1.1974).
US 4 002 632 (Akzo; 11.1.1977; appl. 22.1.1975; NL-prior. 31.1.1974).

preparation of ethyl (2-benzylphenyl)acetate:

Kenyon, W.G. et al.: J. Org. Chem. (JOCEAH) **28**, 3108 (1963).
Yoshioka, M.; Osawa, H.; Fukuzawa, S.: Bull. Chem. Soc. Jpn. (BCSJA8) **55** (3), 877 (1982).
Weizmann et al.: J. Org. Chem. (JOCEAH) **15**, 918, 920, 926 (1950).
McElvain; Kent; Stevens: J. Am. Chem. Soc. (JACSAT) **68**, 1922 (1946).
Meyer: Ber. Dtsch. Chem. Ges. (BDCGAS) **21**, 1313 (1888).

medical use for treatment of gastric ulcers:

US 4 447 437 (Mochida; 8.5.1984; appl. 24.5.1982; J-prior. 3.6.1981).

Formulation(s): tabl. 1 mg

Trade Name(s):

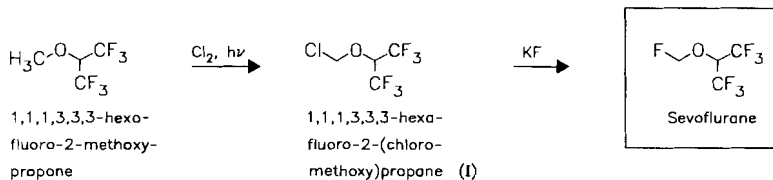
J: Tecipul (Mochida; 1989)

Sevoflurane

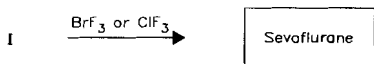
ATC: N01AB08
Use: anesthetic (inhalation)

RN: 28523-86-6 MF: $C_4H_7F_7O$ MW: 200.05
LD₅₀: 18.2 g/kg (M, p.o.); 28300 ppm/3H (M, inhal.);
10.8 g/kg (R, p.o.); 28800 ppm/3H (R, inhal.)
CN: 1,1,1,3,3,3-hexafluoro-2-(fluoromethoxy)propane

a



b

*Reference(s):*

- a** DE 1 954 268 (Baxter; appl. 28.10.1969; USA-prior. 29.10.1968).
 US 3 683 092 (Baxter; 8.8.1972; appl. 31.7.1970; prior. 28.10.1968).
 EP 341 005 (BOC; appl. 28.4.1989; USA-prior. 6.5.1988).
 US 4 874 901 (BOC; 17.10.1989; appl. 6.5.1988).
- b** US 4 874 902 (BOC; 17.10.1989; appl. 20.5.1988).

alternative synthesis:

EP 42 412 (Baxter Travenol; appl. 10.12.1980; USA-prior. 26.12.1979).

Formulation(s): inhalation sol. 1 ml

Trade Name(s):

D: Sevorane (Abbott) J: Sevofrane (Maruishi; 1990) Ultane (Abbott)
 I: Sevorane (Abbott) USA: Sevorane (Abbott)

Sibutramine hydrochloride

(BTS-54524)

ATC: A08AA
 Use: antidepressant, anorexic

RN: 125494-59-9 MF: $\text{C}_{17}\text{H}_{26}\text{ClN} \cdot \text{HCl} \cdot \text{H}_2\text{O}$ MW: 334.33

CN: (\pm)-1-(4-chlorophenyl)-*N,N*-dimethyl- α -(2-methylpropyl)cyclobutanemethanamine hydrochloride monohydrate

(\pm)-base

RN: 106650-56-0 MF: $\text{C}_{17}\text{H}_{26}\text{ClN}$ MW: 279.86

(\pm)-anhydrous hydrochloride

RN: 84485-00-7 MF: $\text{C}_{17}\text{H}_{26}\text{ClN} \cdot \text{HCl}$ MW: 316.32

(+)-base

RN: 154752-44-0 MF: $\text{C}_{17}\text{H}_{26}\text{ClN}$ MW: 279.86

(+)-hydrochloride

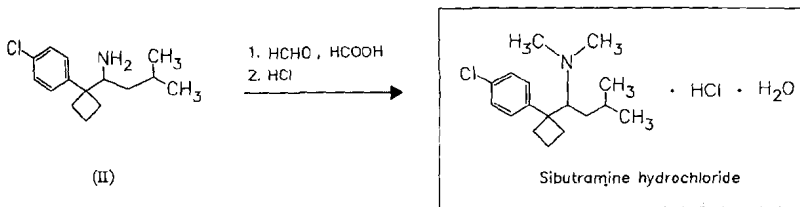
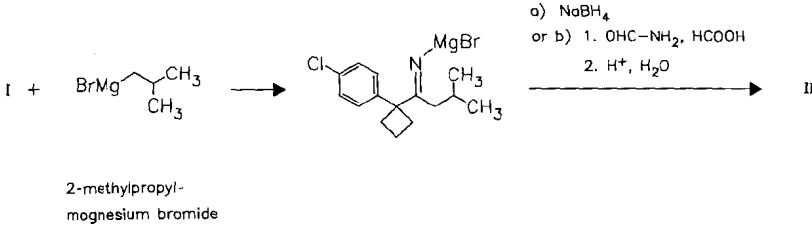
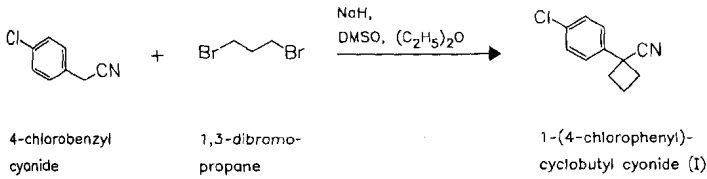
RN: 154752-45-1 MF: $\text{C}_{17}\text{H}_{26}\text{ClN} \cdot \text{HCl}$ MW: 316.32

(-)-base

RN: 153341-22-1 MF: $\text{C}_{17}\text{H}_{26}\text{ClN}$ MW: 279.86

(-)-hydrochloride

RN: 153341-23-2 MF: $\text{C}_{17}\text{H}_{26}\text{ClN} \cdot \text{HCl}$ MW: 316.32

**Reference(s):**

DE 3 212 682 (Boots; appl. 21.10.1982; GB-prior. 6.4.1981).
 WO 9 720 810 (Knoll AG; appl. 12.6.1997; GB-prior. 2.12.1996).
 US 4 929 629 (Boots; 29.5.1990; GB-prior. 17.12.1985).

synthesis of 1-(4-chlorophenyl)cyclobutyl cyanide:

Butler, D.E.; Pollatz, J.C.: J. Org. Chem. (JOCEAH) **36**, 1308 (1971).

use for treating depression:

GB 2 184 122 (Boots; appl. 17.6.1987; GB-prior. 17.12.1985).

use for treatment of Parkinson's disease:

WO 8 806 444 (Boots; appl. 7.9.1988; GB-prior. 28.2.1987).

use for treatment of obesity:

WO 9 006 110 (Boots; appl. 14.6.1990; USA-prior. 29.11.1988).

use to lower lipid levels:

WO 9 813 034 (Knoll AG; appl. 2.4.1998; GB-prior. 25.9.1996).

Formulation(s): cps. 5 mg, 10 mg, 15 mg

Trade Name(s):

D: Reductil (Knoll; 1999) USA: Meridia (Knoll; 1998)

Sildenafil

(UK-92480)

ATC: G04C

Use: male erectile dysfunction, PDE 5-inhibitor

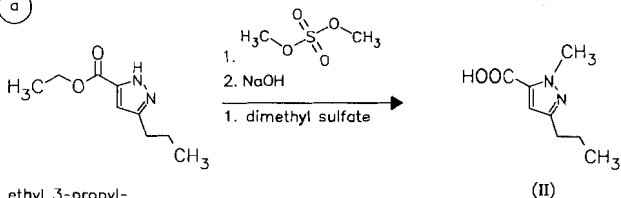
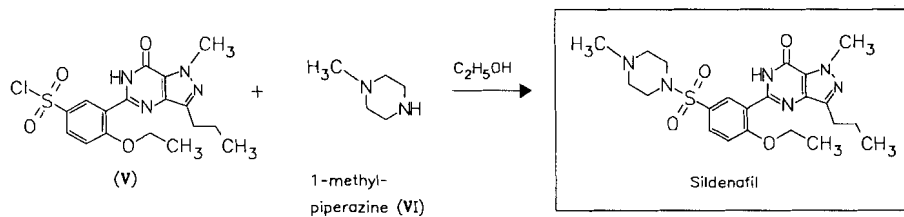
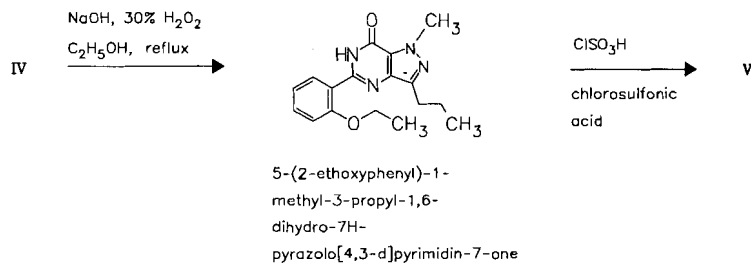
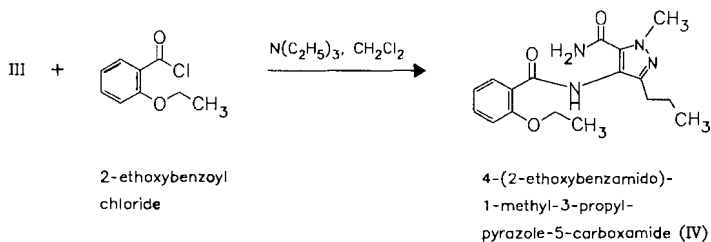
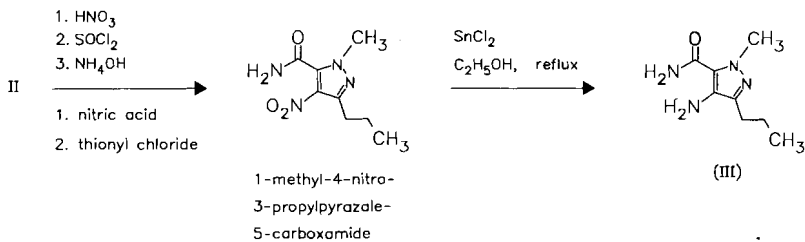
RN: 139755-83-2 MF: C₂₂H₃₀N₆O₄S MW: 474.59

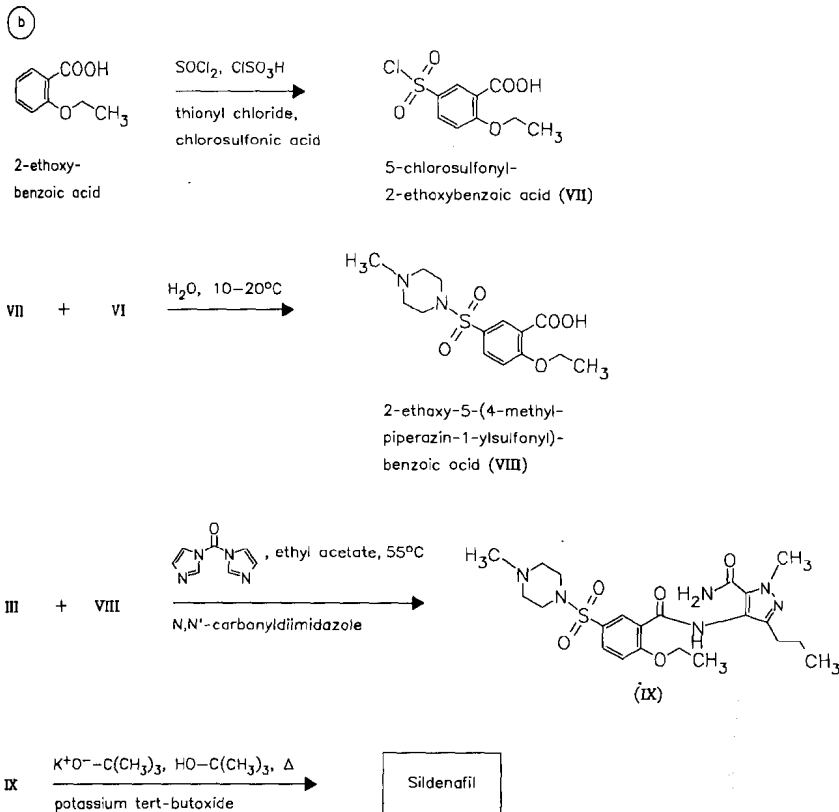
CN: 1-[[[3-(4,7-dihydro-1-methyl-7-oxo-3-propyl-1H-pyrazolo [4,3-d]pyrimidin-5-yl)-4-ethoxyphenyl]sulfonyl]-4-methylpiperazine

citrate

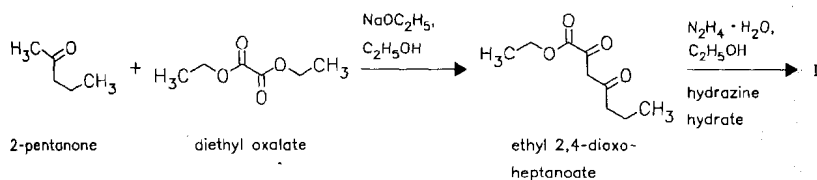
RN: 171599-83-0 MF: $C_{22}H_{30}N_6O_4S \cdot C_6H_8O_7$ MW: 666.71

a

ethyl 3-propyl-
pyrazole-5-
carboxylate (I)



preparation of ethyl 3-propylpyrazole-5-carboxylate



Reference(s):

- a EP 463 756 (Pfizer Inc.; appl. 7.6.1991; GB-prior. 20.6.1990).
Terrett, N.K. et al.: *Bioorg. Med. Chem. Lett.* (BMCLE8) **6**, 1819-1824 (1996).
Palmer, E.: *Chem. Brit.* (CHMBAY) **1999**, 24
- b EP 812 845 (Pfizer Corp.; appl. 4.6.1997; GB-prior. 14.6.1996).
Dale, D.J. et al.: *Org. Process Res. Dev.* (OPRDFK) **4**, 17-22 (2000).

preparation of ethyl 3-propylpyrazole-5-carboxylate:

Terrett, N.K.; Bell, A.S.; Brown, D.; Ellis, P.: *Bioorg. Med. Chem. Lett.* (BMCLE8) **6** (15), 1819 (1996).

preparation of ethyl 2,4-dioxoheptanoate:

Lapworth; Hann: *J. Chem. Soc.* (JCSOA9) **81**, 1490 (1902).
Liebermann et al.: *Bull. Soc. Chim. Fr.* (BSCFAS) **1958**, 687, 690.
Burch, H.A.; Gray, J.E.: *J. Med. Chem.* (JMCMAR) **15**, 429 (1972).

use for treatment of impotence:

WO 9 428 902 (Pfizer Inc; appl. 13.5.1994; GB-prior. 9.6.1993).

Formulation(s): f. c. tabl. 25 mg, 50 mg, 100 mg (as citrate)

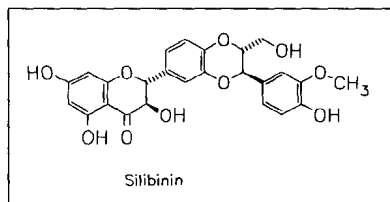
Trade Name(s):

D: Viagra (Pfizer; 1999) GB: Viagra (Pfizer; 1999) USA: Viagra (Pfizer; 1998)
 F: Viagra (Pfizer; 1999) I: Viagra (Pfizer; 1999)

Silibinin

ATC: A05

Use: liver therapeutic

RN: 22888-70-6 MF: C₂₅H₂₂O₁₀ MW: 482.44 EINECS: 245-302-5LD₅₀: 1056 mg/kg (M, i.v.)CN: [2*R*-[2α,3β,6(2*R**,3*R**)]]-2-[2,3-dihydro-3-(4-hydroxy-3-methoxyphenyl)-2-(hydroxymethyl)-1,4-benzodioxin-6-yl]-2,3-dihydro-3,5,7-trihydroxy-4*H*-1-benzopyran-4-one

By extraction of the fruits of *Silybum marianum* Gaertn. (milk thistle) and column chromatographic purification.

*Reference(s):*Wagner, H. et al.: *Arzneim.-Forsch. (ARZNAD)* **18**, 688 (1968); **24**, 466 (1974).

DOS 1 767 666 (Madaus; appl. 1.6.1968)

DAS 1 923 082 (Madaus; appl. 6.5.1969)

DOS 3 537 656 (Madaus; appl. 23.10.1985; D-prior. 22.11.1984).

derivatives and salts:

DRP 1 963 318 (ATO Investment; appl. 17.12.1969).

DAS 2 302 593 (Madaus; appl. 19.1.1973).

Formulation(s): cps. 35 mg, 70 mg, 140 mg, 150 mg, 200 mg; f. c. tabl. 70 mg, 140 mg; gran. 200 mg; susp. 0.43 g/100 g

Trade Name(s):

D: durasilymarin (durachemie)	F: Légalon (Madaus)	Silimarin B (Benedetti-)
Legalon (Madaus)	I: Eparsil (Pulitzer)	comb.
Silymarin (Ziethen; ct- Arzneimittel)	Legalon (IBI)	Silirex (Lampugnani)
	Silepar (Ibim)	Silliver (Abbott)

Simfibrate

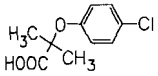
ATC: C01AB06

Use: antiarteriosclerotic (hypolipemic)

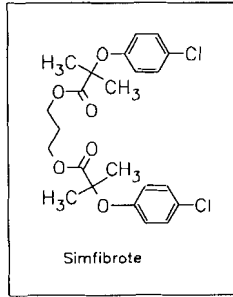
RN: 14929-11-4 MF: C₂₃H₂₆Cl₂O₆ MW: 469.36 EINECS: 238-998-7LD₅₀: 3300 mg/kg (M, p.o.);

7300 mg/kg (R, p.o.)

CN: 2-(4-chlorophenoxy)-2-methylpropanoic acid 1,3-propanediyl ester



+



2-(4-chlorophenoxy)-
isobutyric acid
(cf. clofibrate
synthesis)

1,3-propanediol

Simfibrote

Reference(s):

US 3 494 957 (Yoshitomi; 10.2.1970; J-prior. 5.1.1965).

Formulation(s): cps. 250 mg

Trade Name(s):

I: Cholesolvin (Cyanamid);
wfm

Liposolvin (Tosi-Novara);
wfm

J: Sinfibrex (Isnardi); wfm
Cholesorbin (Takeda)

Simvastatin
(MK-733; Synvinolin)

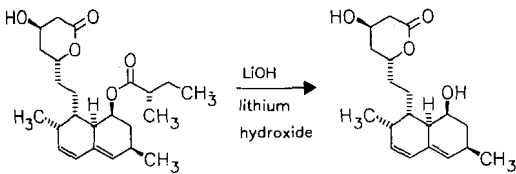
ATC: C10AA01

Use: antihyperlipidemic cholesterol
synthesis inhibitor, HMG-CoA-
reductase inhibitor

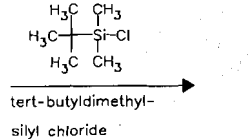
RN: 79902-63-9 MF: C₂₅H₃₈O₅ MW: 418.57

LD₅₀: 3 g/kg (M, p.o.);
4438 mg/kg (R, p.o.);
>5 g/kg (dog, p.o.)

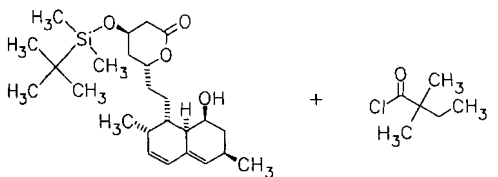
CN: [1S-[1α,3α,7β,8β(2S*,4S*),8aβ]]-2,2-dimethylbutanoic acid 1,2,3,7,8,8a-hexahydro-3,7-dimethyl-8-[2-(tetrahydro-4-hydroxy-6-oxo-2H-pyran-2-yl)ethyl]-1-naphthalenyl ester



lovastatin
(q. v.)



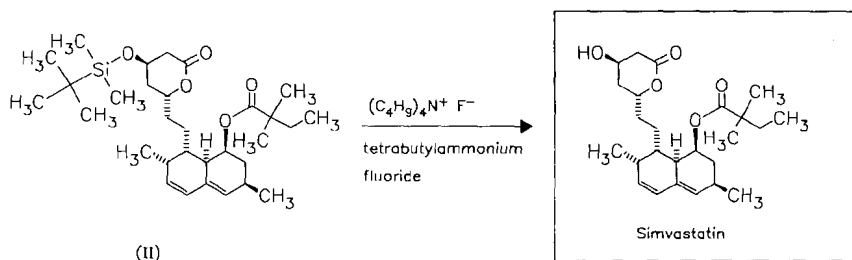
I



(I)

2,2-dimethyl-
butyryl chloride

II

*Reference(s):*

US 4 444 784 (Merck & Co.; 24.4.1984; prior. 5.8.1980, 4.2.1980).
 US 4 450 171 (Merck & Co.; 22.5.1984; prior. 14.6.1982, 18.12.1980, 5.8.1980, 4.2.1980).
 Hoffmann, W.F. et al.: J. Med. Chem. (JMCMAR) **29**, 849 (1986).

alternative syntheses:

US 5 159 104 (Merck & Co.; 27.10.1992; appl. 1.5.1991).
 GB 2 255 974 (Merck & Co.; 25.11.1992; USA-prior. 24.5.1991).
 WO 9 812 188 (Brantford; 5.9.1996; CA-prior. 19.9.1996).
 US 5 763 653 (Ranbaxy; 9.6.1998; appl. 13.3.1997).
 US 5 763 646 (Ranbaxy; 9.6.1998; appl. 13.3.1997).
 US 5 393 893 (Aptex; 28.2.1995; appl. 8.11.1993).
 EP 33 538 (Merck & Co.; appl. 2.2.1981; USA-prior. 4.2.1980, 5.8.1980).
 Thaper, R.K. et al.: Org. Process Res. Dev. (OPRDFK) **3**, 476-479 (1999).

controlled-release formulation:

EP 302 693 (Merck & Co.; appl. 1.8.1988; USA-prior. 3.8.1987, 31.8.1987).

Formulation(s): f. c. tabl. 5 mg, 10 mg, 20 mg, 40 mg; tabl. 5 mg, 10 mg, 20 mg, 40 mg

Trade Name(s):

D:	Denan (Boehringer Ing.; 1990)	GB:	Zocor (Merck Sharp & Dohme; 1989)	Sivastin (Sigma-Tau)
F:	Lodalès (Sanofi Winthrop)	I:	Liponorm (Gentili)	Zocor (Neopharmed)
	Zocor (MSD-Chibret; 1989)		Medipo (Mediolanum)	J: Lipovas (Banyu)
			Sinvacor (Merck Sharp & Dohme)	USA: Zocor (Merck)

Sisomicin

ATC: J01GB08

Use: antibiotic

RN: 32385-11-8 MF: C₁₉H₃₇N₅O₇ MW: 447.53 EINECS: 251-018-2

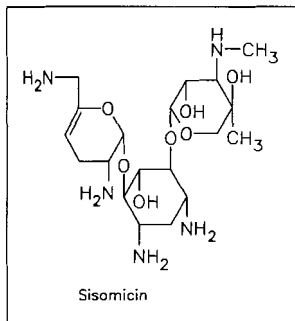
LD₅₀: 34 mg/kg (M, i.v.); >5 g/kg (M, p.o.);
 32 mg/kg (R, i.v.); >5 g/kg (R, p.o.)

CN: O-3-deoxy-4-C-methyl-3-(methylamino)-β-L-arabinopyrasoyl-(1→6)-O-[2,6-diamino-2,3,4,6-tetra-deoxy-α-D-glycero-hex-4-enopyranosyl-(1→4)]-2-deoxy-D-streptamine

sulfate (2:5)

RN: 53179-09-2 MF: C₁₉H₃₇N₅O₇ · 5/2H₂SO₄ MW: 1385.46 EINECS: 258-414-4

LD₅₀: 34 mg/kg (M, i.v.); >5 g/kg (M, p.o.);
 49 mg/kg (R, i.v.); >5 g/kg (R, p.o.)



From fermentation solutions of *Micromonospora inyoensis* (NRRL 3292).

Reference(s):

- DOS 1 932 309 (Schering; appl. 26.6.1969; USA-prior. 27.6.1968, 16.12.1968).
- US 3 832 286 (Schering Corp.; 27.8.1974; prior. 16.12.1968, 27.6.1968, 26.6.1973).
- US 3 907 771 (Schering Corp.; 23.9.1975; prior. 3.2.1971, 16.12.1968, 27.6.1968).
- US 4 009 328 (Schering; 22.2.1977; prior. 2.5.1975).
- Wagman, G.H. et al.: J. Antibiot. (JANTAJ) **23**, 551, 555 (1970).
- Schmidt-Kastner, G.; Reimann, H.: Infection (Munich) (IFTNAL) **4**, (Suppl. 4), 292 (1976).

structure:

- Reimann, H. et al.: J. Org. Chem. (JOCEAH) **39**, 1451 (1974).
- Cleophax, J. et al.: J. Chem. Soc., Chem. Commun. (JCCCAT) **1975**, 11.

synthesis:

- Davis, D.H. et al.: J. Med. Chem. (JMCMAR) **21**, 189 (1978):

Formulation(s): amp. 20 mg/2 ml, 100 mg/2 ml, 75 mg/1.5 ml (as sulfate)

Trade Name(s):

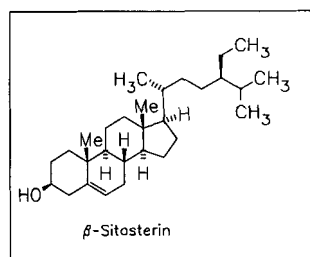
D:	Extramycin (Bayer; 1976); wfm	F:	Sisolline (Schering Plough); wfm	I:	Mensiso (Menarini) Sisomin (Max)
	Pathomycin (Byk Essex; 1976); wfm		Sisolline (Unilabo-Cétrane); wfm	USA:	Siseptin (Schering); wfm

β-Sitosterin

(β-Sitosterol; α-Phytosterol)

ATC: C10AX; G04C
 Use: prostata adenoma therapeutic (benign prostate hypertrophy, BPH), antihypercholesterolemic

RN: 83-46-5 MF: C₂₉H₅₀O MW: 414.72 EINECS: 201-480-6
 CN: (3β)-stigmast-5-en-3-ol



From wheat seeds, soybeans etc.

Reference(s):

The Merck Index, 12th Ed., 1467 (1996).

US 4 153 622 (Medipolar Oy; 8.5.1979; prior. 18.5.1978).

use in combination with chenodeoxycholic acid for disintegration of gallstones:

DOS 2 618 854 (Fresenius; appl. 29.4.1976).

Formulation(s): cps. 10 mg, 65 mg; gran. 1.76 g/2 g; tabl. 75 mg, 100 mg

Trade Name(s):

D:	Azuprostat Kapseln (Azuchemie)-comb. Cinchol Kapseln (Evers); wfm Flemun (Intermuti) Harzol (Hoyer)	Liposit Merz (Merz & Co.) LP-Truw (Truw) Prostasal Kapseln (TAD) Sito-Lande (Synthelabo) Sitosterin Prostata Kapseln (Intermuti)	F:	Triastonal (Intermuti) Sitostérol Delalande (Delalande); wfm
			USA:	Cytellin (Lilly); wfm

Sizofiran

(Schizophyllan)

ATC: A06A; L03A

Use: antineoplastic, immunomodulator

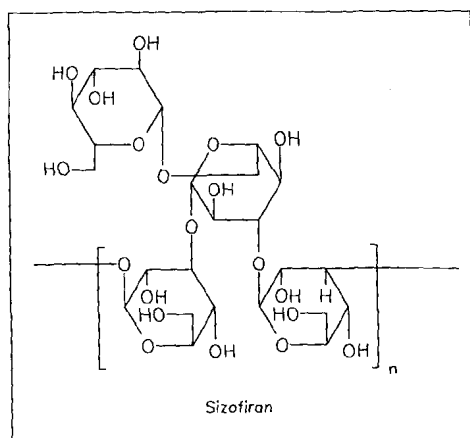
RN: 9050-67-3 MF: $[C_{24}H_{40}O_{20}]_x$ MW: unspecified

LD₅₀: >300 mg/kg (M, i.v.); >1 g/kg (M, p.o.);

>300 mg/kg (R, i.v.); >500 mg/kg (R, p.o.);

>100 mg/kg (dog, i.v.)

CN: poly[3→[O-β-D-glucopyranosyl-(1→3)-O-[β-D-glucopyranosyl-(1→6)-O-β-D-glucopyranosyl-(1→3)]-O-β-D-glucopyranosyl]→1]



Preparation by fermentation of *Schizophyllum commune*.

Reference(s):

JP 71/37 873 (Taito; appl. 20.7.1968).

Kozima, T. et al.: Int. J. Immunopharmacol. (IJIMDS) 2 (3), 49 (1980).

Formulation(s): amp. 40 mg

Trade Name(s):

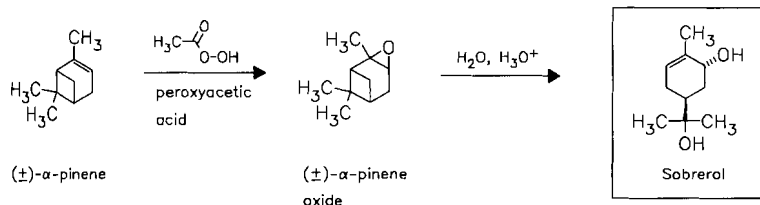
J: Sonifilan (Taito Pfizer)

Sobrerol

(Pinolhydrat)

ATC: R05CB07

Use: respiratory stimulant, secretolytic, mucolytic

RN: 498-71-5 MF: C₁₀H₁₈O₂ MW: 170.25 EINECS: 207-868-1LD₅₀: 580 mg/kg (M, i.v.)CN: 5-hydroxy- $\alpha,\alpha,4$ -trimethyl-3-cyclohexene-1-methanol*Reference(s):*

US 2 815 378 (Glidden; 3.12.1957; appl. 12.6.1953).

DE 1 096 348 (FMC; appl. 26.10.1959).

DE 2 114 138 (C. Corvi; appl. 24.3.1971; I-prior. 17.4.1970).

medical use:

DE 2 166 355 (Camillo Corvi; appl. 24.3.1971; I-prior. 17.4.1970).

GB 1 176 817 (C. Corvi; appl. 8.12.1967; NL-prior. 9.12.1966).

Formulation(s): cps. 200 mg; gran. 100 mg, 300 mg; suppos. 20 mg, 100 mg, 200 mg; syrup 0.8 %*Trade Name(s):*

I: Fluental (Corvi)-comb.

Sobrepin (Roche)

Polimucil (Poli)-comb.

Sopulmin (Scharper)

Sobuzoxane

(MST 16)

ATC: L01

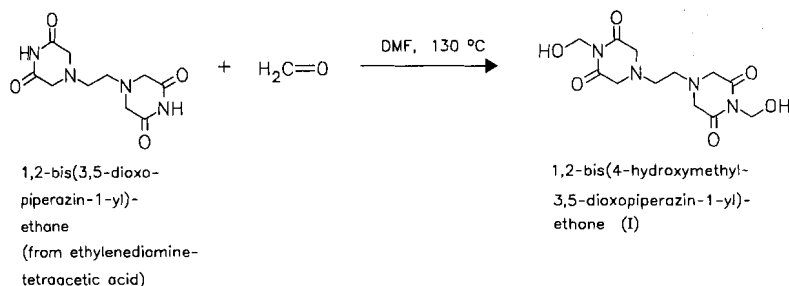
Use: antineoplastic, topoisomerase II-inhibitor

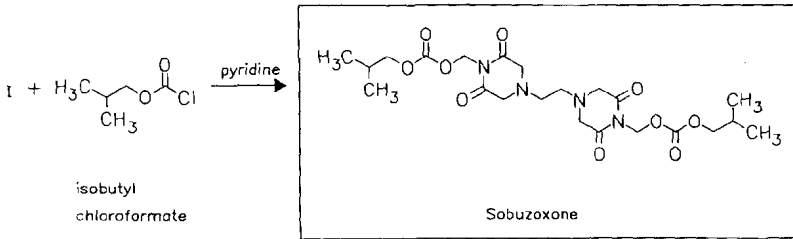
RN: 98631-95-9 MF: C₂₂H₃₄N₄O₁₀ MW: 514.53LD₅₀: >1 g/kg (M, p.o.);

>5 g/kg (R, p.o.);

>3 g/kg (dog, p.o.)

CN: carbonic acid 1,2-ethanediybis[(2,6-dioxo-4,1-piperazinediyl)methylene] bis(2-methylpropyl) ester



**Reference(s):**

EP 140 327 (Zenyaku Koguo Co.; appl. 23.10.1984; J-prior. 31.10.1983).

Formulation(s): sachets containing gran. 400 mg, 800 mg, 1200 mg, 1600 mg**Trade Name(s):**

J: Perazolin (Zenyaku Koguo)

Sodium aurothiomalate

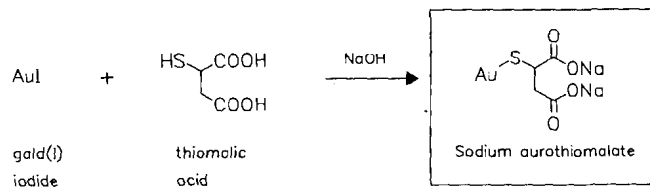
(Gold Sodium Thiomalate)

ATC: M01CB01

Use: gold therapeutic (antirheumatic, antiarthritic)

RN: 12244-57-4 MF: $\text{C}_4\text{H}_5\text{AuO}_4\text{S} \cdot x\text{Na}$ MW: unspecified EINECS: 235-479-7

CN: sodium [mercaptobutanedioato(2-)]aurate(2-)

free acidRN: 24145-43-5 MF: $\text{C}_4\text{H}_5\text{AuO}_4\text{S}$ MW: 346.14 EINECS: 246-034-1**Reference(s):**

US 1 994 213 (Rhône-Poulenc; 1935; GB-prior. 1933).

Formulation(s): amp. 10 mg, 20 mg, 50 mg**Trade Name(s):**D: Tauredon (Byk Gulden);
Byk TosseGB: Myocrisin (IHC)
J: Kidon (Ono)

USA: Myochrysine (Merck)

Sodium dioctyl sulfosuccinate

(Dioctyl sodium sulfosuccinate; Docusate sodium)

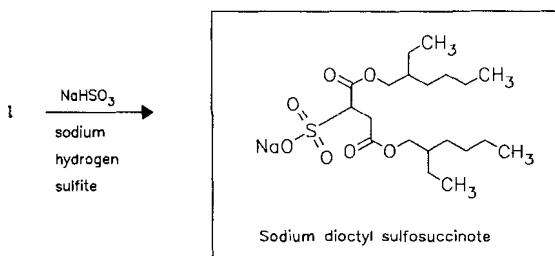
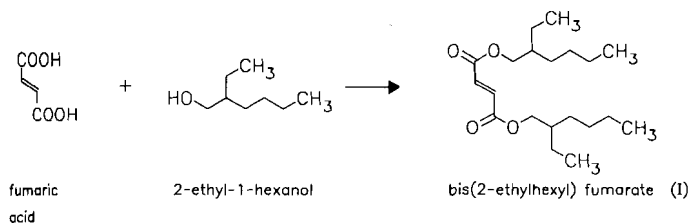
ATC: A06A

Use: laxative, detergent, emulgator, cerumenolytic

RN: 577-11-7 MF: $\text{C}_{20}\text{H}_{37}\text{NaO}_7\text{S}$ MW: 444.57 EINECS: 209-406-4

CN: sulfobutanedioic acid 1,4-bis(2-ethylhexyl) ester sodium salt

free acidRN: -10041-19-7 MF: $\text{C}_{20}\text{H}_{38}\text{O}_7\text{S}$ MW: 422.58 EINECS: 233-124-0

calcium saltRN: 128-49-4 MF: C₄₀H₇₄CaO₁₄S₂ MW: 883.23 EINECS: 204-889-8**potassium salt**RN: 7491-09-0 MF: C₂₀H₃₇KO₇S MW: 460.67 EINECS: 231-308-5**Reference(s):**

US 2 028 091 (American Cyanamid; 1936; appl. 1933).

US 2 176 423 (American Cyanamid; 1939; appl. 1936).

calcium salt:

US 3 035 973 (Lloyd Brothers Inc.; 1962; appl. 1958).

Formulation(s): drg. 5 mg; drinking amp. 50 mg, 100 mg; suppos. 10 mg; syrup 20 mg/5 ml; tabl. 2.5 mg, 5 mg, 50 mg

Trade Name(s):

D:	Agarolleten (Warner-Lambert)-comb.	Norgalax (Norgine Pharma)	Sorbiclis (Pharkos)-comb.; wfm
	Florisan (Boehringer Ing.)-comb.	GB: Klyx (Ferring); wfm	Tipicol (Biomedica Foscamo)-comb.; wfm
	Laxagetten (ct-Arzneimittel)-comb.	Solivax (Concept); wfm	
	Otowaxol (Norgine)-comb.	numerous combination preparations	J: Bulkosol (Eisai)
	Potsilo (Stark, Konstanz)-comb.	I: Dorbantyl (Robins)-comb.; wfm	USA: Colace (Roberts)
	Tirgon (Woelm)-comb.	Fisiolax (Manetti Roberts)-comb.; wfm	Modane Plus (Savage)
	further combination preparations	Ikelix (Iketon)-comb.; wfm	Modane Soft (Savage)
F:	Jamylène (Expanpharm)	Lambanol (Zilliken)-comb.; wfm	Peri-Colace (Roberts)
			Senokot-S (Purdue Frederick)
			generics and further combination preparations

Sodium picosulfate

(Natrium-picosulfat; Picosulfate sodium; Sodium picosulphate)

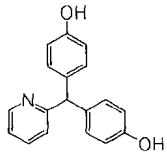
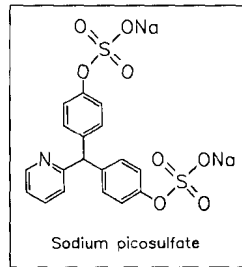
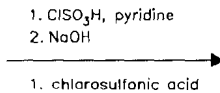
ATC: A06AB08

Use: laxative

RN: 10040-45-6 MF: C₁₈H₁₃NNa₂O₈S₂ MW: 481.41 EINECS: 233-120-9LD₅₀: 1600 mg/kg (M, i.v.); 14.5 g/kg (M, p.o.);

1450 mg/kg (R, i.v.); 17 g/kg (R, p.o.)

CN: 4,4'-(2-pyridinylmethylene)bisphenol bis(hydrogen sulfate)(ester) disodium salt

2-(4,4'-dihydroxybenzhydryl)pyridine
(cf. bisacodyl)**Reference(s):**

US 3 528 986 (De Angeli; 15.9.1970; appl. 22.8.1966).

alternative synthesis (with amidosulfonic acid or pyridine sulfur trioxide adduct):

DOS 1 904 322 (Dr. K. Thomae; appl. 29.1.1969).

Formulation(s): drg. 5 mg; drops 7.5 mg/ml; tabl. 1.25 mg, 5 mg**Trade Name(s):**

D:	Agiolax (Madaus)	Regulax (Krewel)	Gocce Antonetto
	Dalcolax (Boehringer Ing.)	Meuselbach)	(Antonetto)
	Laxoberal (Boehringer Ing.)	GB: Laxoberal (Windsor)	Gocce Lassarive Aicardi
	Mandrolax Pico (Dolorgiet)	I: Falquigut (Falqui)	(SIT)
	Midro (Midro)		Guttalax (Fher)

Sofalcone

(SU-88)

ATC: A02B

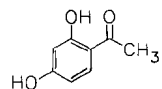
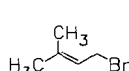
Use: ulcer therapeutic

RN: 64506-49-6 MF: C₂₇H₃₀O₆ MW: 450.53LD₅₀: 131 mg/kg (M, i.v.); >10 g/kg (M, p.o.);

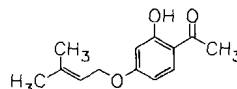
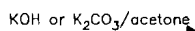
105 mg/kg (R, i.v.); >10 g/kg (R, p.o.);

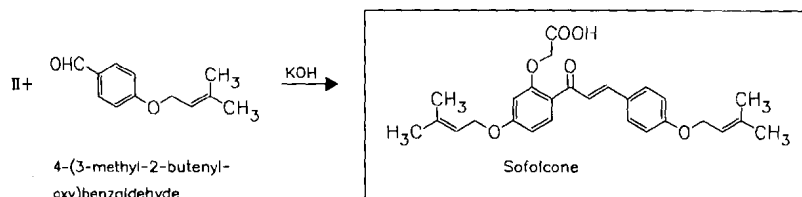
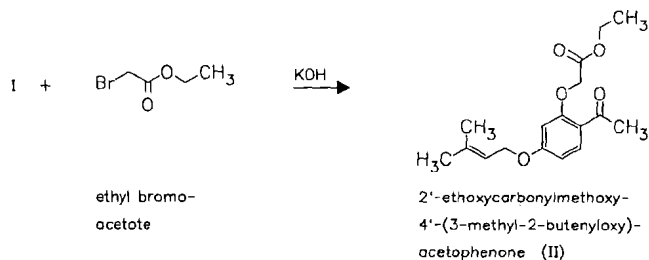
>20 g/kg (dog, p.o.)

CN: [5-[(3-methyl-2-butenyl)oxy]-2-[3-[4-[(3-methyl-2-butenyl)oxy]phenyl]-1-oxo-2-propenyl]phenoxy]acetic acid

2',4'-dihydroxy-
acetophenone

prenyl bromide

2'-hydroxy-4'-(3-methyl-
2-butenyloxy)acetophenone (I)

**Reference(s):**

DE 2 705 603 (Taisho; appl. 10.2.1977; J-prior. 13.2.1976).
US 4 085 135 (Taisho; 18.4.1978; appl. 11.2.1977; J-prior. 13.2.1976).

synthesis of intermediate I:

Kyogoku, K. et al.: Chem. Pharm. Bull. (CPBTAL) **27**, 2943 (1979).

Formulation(s): cps. 50 mg, 100 mg; gran. 10 %

Trade Name(s):

J: Solon (Taisho; 1984); wfm

Sorbitol

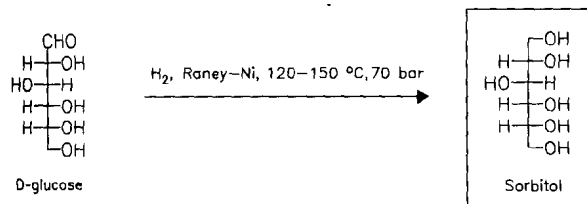
(D-Glucitol)

ATC: A06AG07; B05CX02; V04CC01

Use: osmotic, laxative

RN: 50-70-4 MF: C₆H₁₄O₆ MW: 182.17 EINECS: 200-061-5

CN: D-glucitol

**Reference(s):**

Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. **24**, 772.

Formulation(s): sol. 13.4 g/67.5 ml, 400 g/1000 ml; clysmas 200 g/1000 ml; susp. 48 g/120 ml, 96 g/240 ml

Trade Name(s):

D: 1 x klysmas Sorbit Klistier
(Pharmacia & Upjohn)
Mikroklist (Pharmacia &
Upjohn)-comb.

Sorbitol-Infusionslösung
40 (Braun Melsungen)
Yal (Trommsdorff)

F: numerous combination
preparations
Arnilose (ATC Pharma)

Hépagrume (Rosa-Phytopharma)
Hépargitol (Elerté)
Sorbitol Aguettant (Aguettant)
Sorbitol Delalande (Synthelabo)
numerous combination preparations

GB: Glandosane (Fresenius)-comb.
Relaxit (Crawford)-comb. combination preparations only
I: Sorbilande (Delalande)
numerous combination preparations

J: Sorbit Inj. (Nikken Kagaku)
D-Sorbitol Solution (Maruishi)
Sorbit TS Inj. (Termo)
USA: Actidose (Paddock)-comb. Sorbitol Sodium (Pharmaceutical Associates)

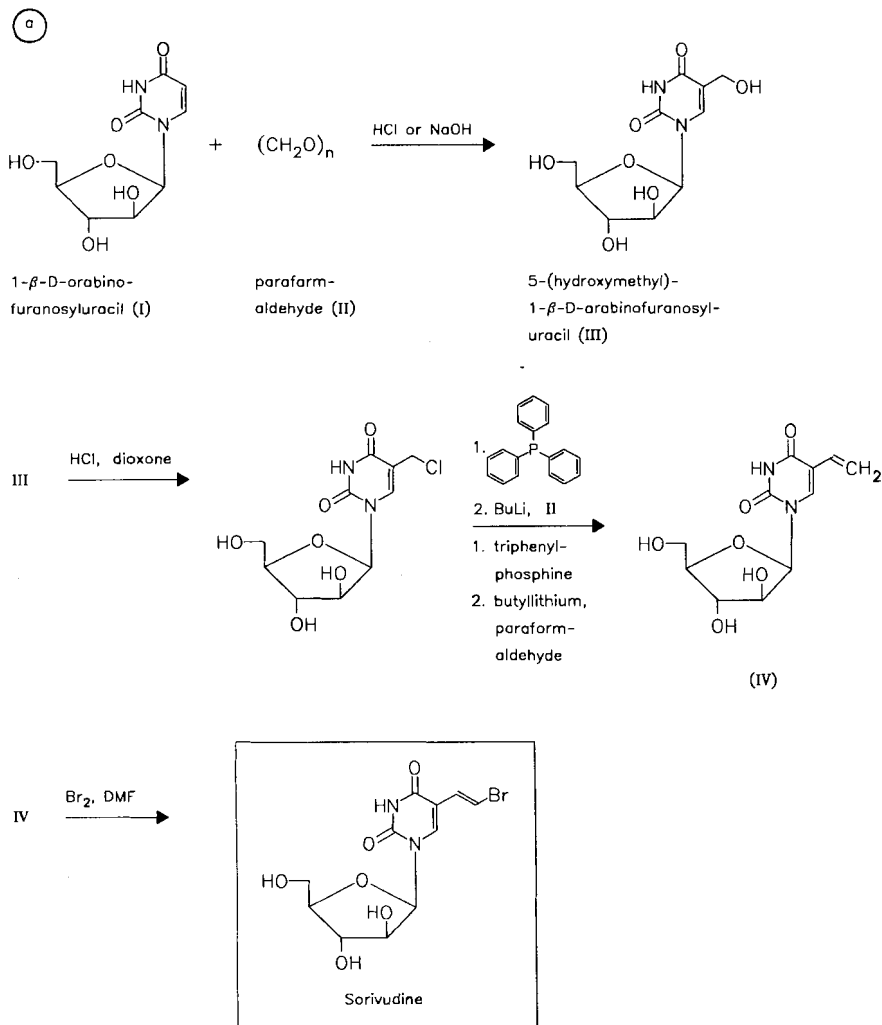
Sorivudine (BVAU)

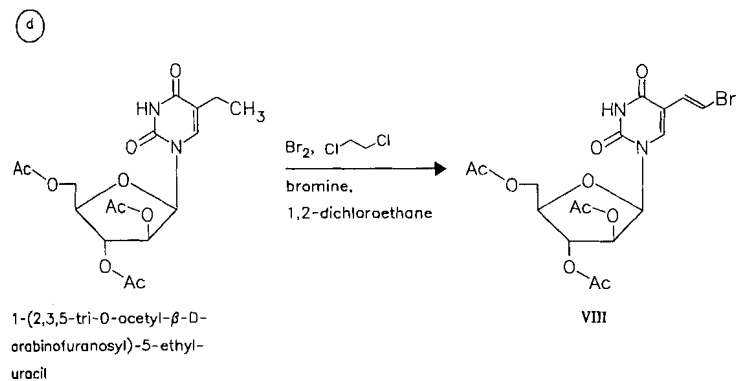
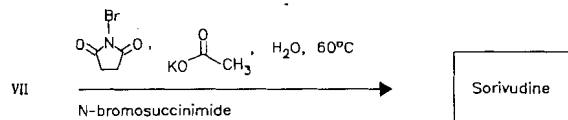
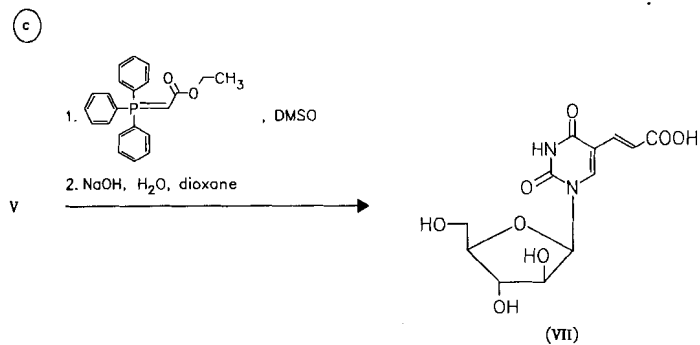
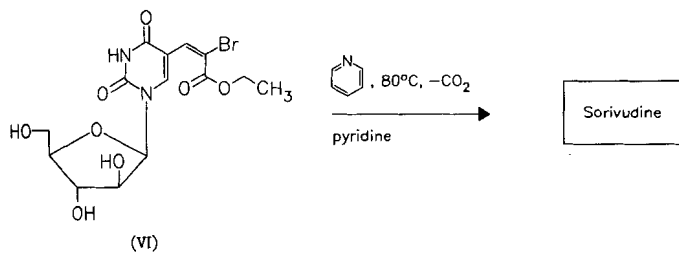
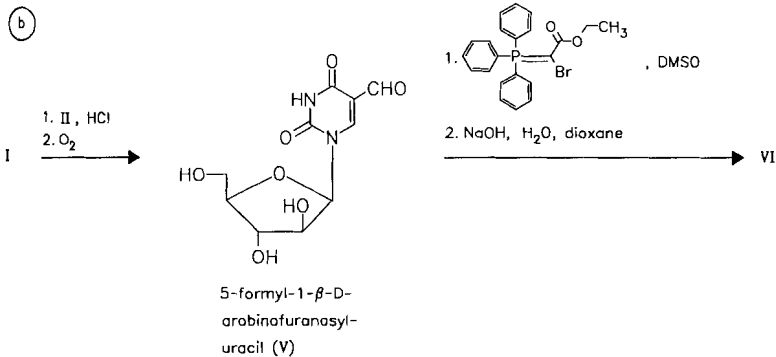
Use: antiviral

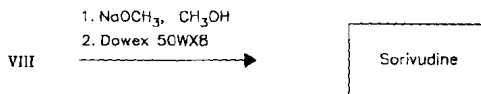
RN: 77181-69-2 MF: $C_{11}H_{13}BrN_2O_6$ MW: 349.14

LD₅₀: >8 g/kg (R, p. o.); >2 g/kg (R, s. c.);
>10 g/kg (M, p. o.); >5 g/kg (M, s. c.);
>5 g/kg (dog, p. o.)

CN: (E)-1-β-D-Arabinofuranosyl-5-(2-bromoethenyl)-2,4(1*H*,3*H*)-pyrimidinedione





*Reference(s):*

- a EP 031 128 (Yamasa Shoyu; appl. 1.7.1981; J-prior. 19.12.1979).
 b JP 59 163 395 (Yamasa Shoyu Co.; appl. 14.9.1984; J-prior. 8.3.1983).
 c JP 58 062 195 (Yamasa Shoyu Co.; appl. 14.4.1983; J-prior. 8.10.1981).
 d DD 280 763 (Akademie der Wissenschaften der DDR; appl. 18.7.1990; DD-prior. 4.8.1981).

nucleic acid related compounds:

Robins, M.J.; Manfredini, S.: *Tetrahedron Lett. (TELEAY)* **31** (39), 5633 (1990).

facile access to 2'-O-acetyl prodrugs of 1-(β-D-arabinofuranosyl)-5(E)-(2-bromovinyl)uracil:

Baraldi, P.G.; Bazzanini, R.; Manfredini, S.; Simoni, D.; Robins, M.J.: *Tetrahedron Lett. (TELEAY)* **34** (19), 3177 (1993).

synthesis and antiviral activity of (E)-5-(2-bromovinyl)uracil:

De Clercq, E. et al.: *J. Med. Chem. (JMCMAR)* **29**, 213 (1986).

Formulation(s): tabl. 50 mg

Trade Name(s):

J: Usevir (Nippon Shoji
Kaisha/Eisai; 1993); wfm

Sotalol

ATC: C07AA07

Use: beta blocking agent, antianginal,
antihypertensive

RN: 3930-20-9 MF: C₁₂H₂₀N₂O₃S MW: 272.37

LD₅₀: 166 mg/kg (M, i.v.)

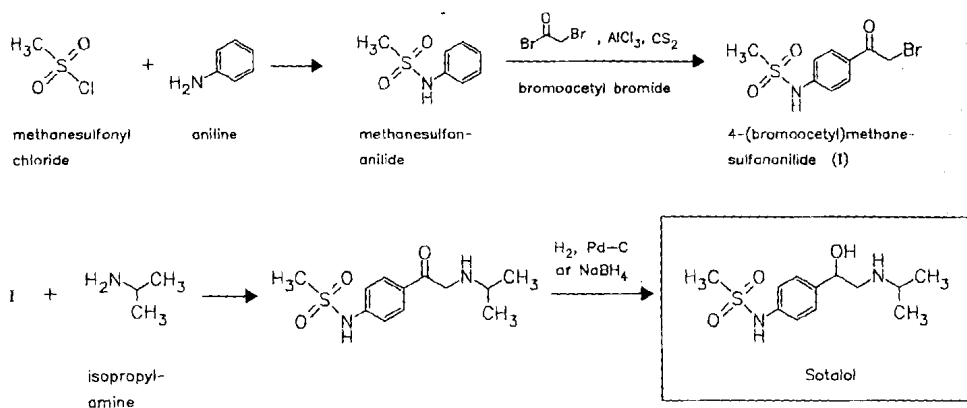
CN: N-[4-[1-hydroxy-2-[(1-methylethyl)amino]ethyl]phenyl]methanesulfonamide

monohydrochloride

RN: 959-24-0 MF: C₁₂H₂₀N₂O₃S · HCl MW: 308.83 EINECS: 213-496-0

LD₅₀: 2600 mg/kg (M, p.o.);

3450 mg/kg (R, p.o.)

*Reference(s):*

Uloth, R.H. et al.: *J. Med. Chem. (JMCMAR)* **9**, 88 (1966).

Formulation(s): amp. 20 mg/2 ml, 40 mg/4 ml; tabl. 40 mg, 80 mg, 160 mg, 240 mg

Trade Name(s):

D: CorSotalol (durachemie)	various generics	Tolerzide (Bristol-Myers)- comb.; wfm
Darob (Knoll)	F: Sotalex (Bristol-Myers Squibb)	I: Betades (Farmades)
Gilucor (Solvay Arzneimittel)	GB: Beta-Cardone (Evans)	Sotalex (Bristol-Myers Squibb)
Sotalex (Bristol-Myers Squibb)	Sotacor (Bristol-Myers Squibb)	USA: Betapace (Berlex; as hydrochloride)
Sotaziden (Bristol)-comb.	Sotazide (Bristol-Myers)- comb.; wfm	
Tachytalol (ASTA Medica AWD)		

Sparfloxacin

(AT-4140; Ci-978; CP 103826; PD-131501; RP-64206)

ATC: J01MA09

Use: antibacterial

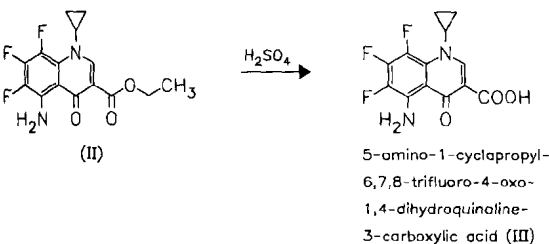
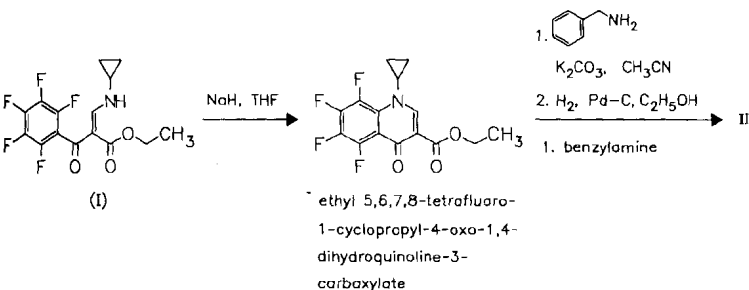
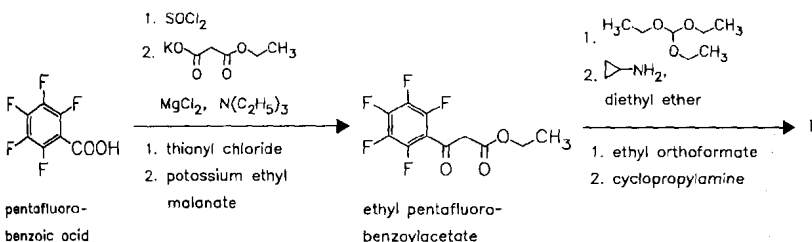
RN: 110871-86-8 MF: $C_{19}H_{22}F_2N_4O_3$ MW: 392.41

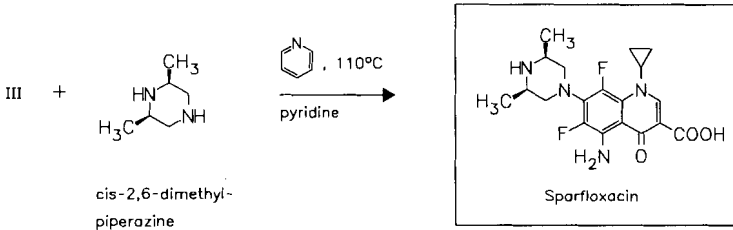
LD₅₀: >5 g/kg (R, p. o.); >2 g/kg (R, s. c.);

>2 g/kg (M, p. o.); >2 g/kg (M, s. c.);

> 600 mg/kg (dog, p. o.)

CN: *cis*-5-Amino-1-cyclopropyl-7-(3,5-dimethyl-1-piperazinyl)-6,8-difluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid



**Reference(s):**

Miyamoto, T. et al.: J. Med. Chem. (JMCMAR) **33**, 1645-1656 (1990).
 EP 221 463 (Dainippon; appl. 23.10.1986; J-prior. 29.10.1985).

synthesis of ethyl pentafluorobenzoylacetate:

Clay, R.J.; Collom, T.A.; Karride, G.L.; Wemple, J.: Synthesis (SYNTBF) **3**, 290 (1993)

Formulation(s): f. c. tabl. 200 mg; tabl. 100 mg, 150 mg

Trade Name(s):

D:	Zagam (Rhône-Poulenc Rorer)	J:	Spara (Dainippon) Zagam (Dainippon)	USA:	Zagam (Rhône-Poulenc Rorer)
F:	Zagam (Specia)				

Spectinomycin

(Actinospectacin)

ATC: J01XX04

Use: antibiotic

RN: 1695-77-8 MF: C₁₄H₂₄N₂O₇ MW: 332.35 EINECS: 216-911-3

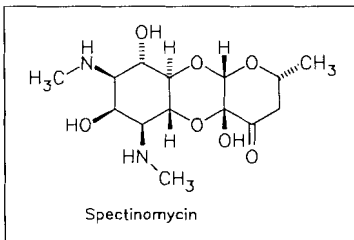
LD₅₀: 2 g/kg (M, i.v.);
 >5 g/kg (R, p.o.)

CN: [2*R*-(2α,4αβ,5αβ,6β,7β,8β,9α,9α,10αβ)]-decahydro-4a,7,9-trihydroxy-2-methyl-6,8-bis(methylamino)-4*H*-pyrano[2,3-*b*][1,4]benzodioxin-4-one

dihydrochloride pentahydrate

RN: 22189-32-8 MF: C₁₄H₂₄N₂O₇ · 2HCl · 5H₂O MW: 495.35

LD₅₀: >10 mg/kg (M, p.o.);
 >5 g/kg (R, p.o.)



From culture of *Streptomyces spectabilis*.

Reference(s):

US 3 206 360 (Upjohn; 14.9.1965; prior. 18.6.1962).
 US 3 234 092 (Upjohn; 8.2.1966; prior. 20.10.1959).
 US 3 272 706 (Upjohn; 13.9.1966; prior. 2.8.1961).
 US 3 819 485 (Abbott; 25.6.1974; appl. 3.7.1972).

Formulation(s): vial 3 g (as dihydrochloride pentahydrate)

Trade Name(s):

D:	Stanilo (Pharmacia & Upjohn)	GB:	Trobicin (Pharmacia & Upjohn)	J:	Trobicin (Nihon Upjohn)
F:	Trobicine (Pharmacia & Upjohn)	I:	Trobicin (Pharmacia & Upjohn)	USA:	Trobicin (Upjohn); wfm

Spiperone

ATC: N05C

Use: neuroleptic

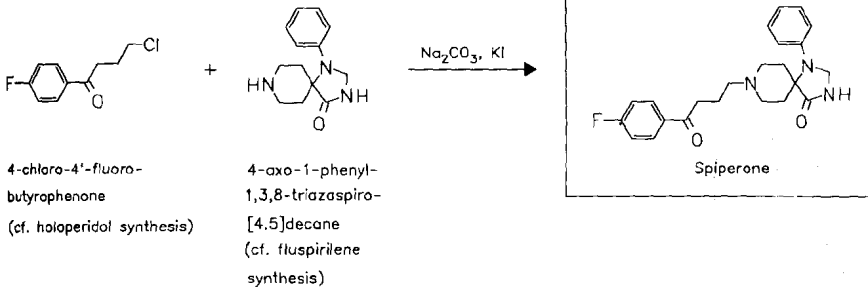
RN: 749-02-0 MF: C₂₃H₂₆FN₃O₂ MW: 395.48 EINECS: 212-024-0

LD₅₀: 25.5 mg/kg (M, i.v.); 600 mg/kg (M, p.o.);

14 mg/kg (R, i.v.); >1 g/kg (R, p.o.);

>20 mg/kg (dog, i.v.); >100 mg/kg (dog, p.o.)

CN: 8-[4-(4-fluorophenyl)-4-oxobutyl]-1-phenyl-1,3,8-triazaspiro[4.5]decan-4-one



Reference(s):

US 3 155 669 (Janssen; 3.11.1964; appl. 22.6.1962).

US 3 155 670 (Janssen; 3.11.1964; appl. 22.6.1962).

US 3 161 644 (Janssen; 15.12.1964; appl. 22.6.1962).

Formulation(s): tabl. 0.25 mg; vial 3 mg

Trade Name(s):

J: Spiropitan (Eisai)

Spiramycin

ATC: J01FA02

Use: antibiotic

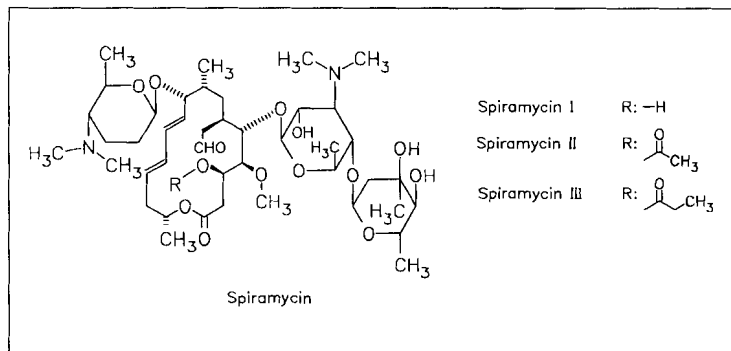
RN: 8025-81-8 MF: unspecified MW: unspecified EINECS: 232-429-6

LD₅₀: 130 mg/kg (M, i.v.); 2900 mg/kg (M, p.o.);

170 mg/kg (R, i.v.); 3550 mg/kg (R, p.o.);

5200 mg/kg (dog, p.o.)

CN: spiramycin



From culture of *Streptomyces ambofaciens*.

Reference(s):

- US 2 943 023 (Rhône-Poulenc; 28.6.1960; F-prior. 30.5.1956).
 US 2 978 380 (Rhône-Poulenc; 4.4.1961; F-prior. 30.11.1955).
 US 3 000 785 (Rhône-Poulenc; 19.9.1961; F-prior. 31.7.1953).
 US 3 011 947 (Rhône-Poulenc; 5.12.1961; F-prior. 30.11.1955).
 Pinnert-Sindico, S. et al.: *Antibiot. Annu. (ABANA)* **1954-1955**, 724.

Formulation(s): f. c. tabl. 187.5 mg, 250 mg, 375 mg, 500 mg

Trade Name(s):

D:	Rovamycine (Rhône-Poulenc Rorer)	GB:	Rovamycin (May & Baker); wfm	I:	Rovamicina (Rhône-Poulenc Rorer)
F:	Rodogyl (Specia)-comb.				

Spirapril

(Sch-33844)

ATC: C09AA11

Use: antihypertensive (ACE inhibitor)

RN: 83647-97-6 MF: $\text{C}_{22}\text{H}_{30}\text{N}_2\text{O}_5\text{S}_2$ MW: 466.62

LD₅₀: >2500 mg/kg (M, p.o.);
 >2500 mg/kg (R, p.o.)

CN: [8*S*-[7[*R**(*R**)],8*R**]]-7-[2-[[1-(ethoxycarbonyl)-3-phenylpropyl]amino]-1-oxopropyl]-1,4-dithia-7-azaspiro[4.4]nonane-8-carboxylic acid

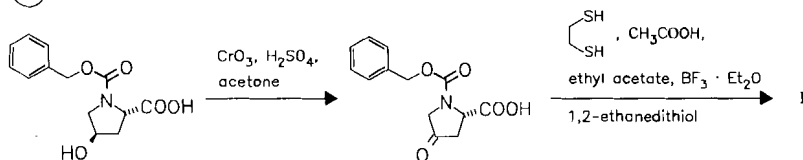
monohydrochloride

RN: 94841-17-5 MF: $\text{C}_{22}\text{H}_{30}\text{N}_2\text{O}_5\text{S}_2 \cdot \text{HCl}$ MW: 503.08

maleate (2:1)

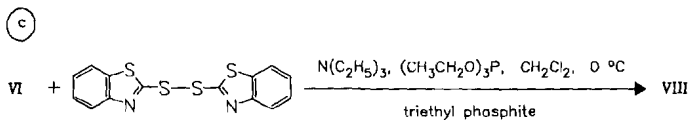
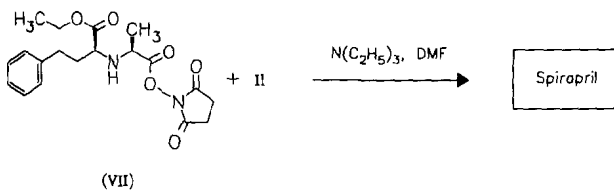
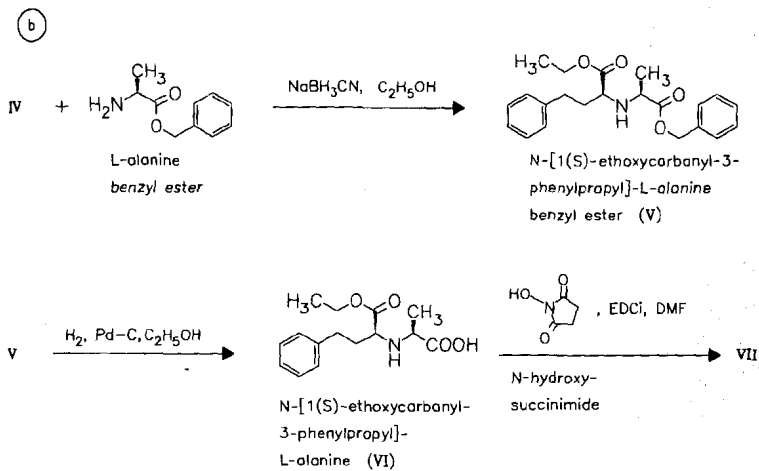
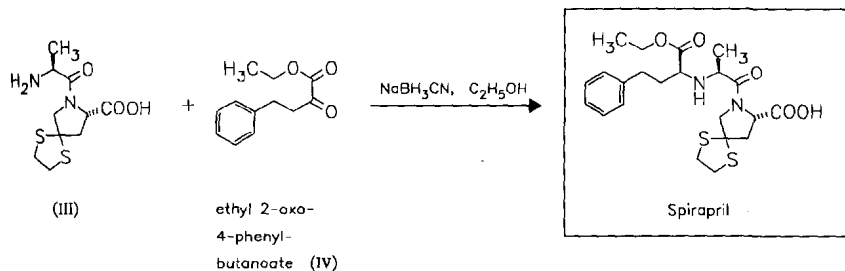
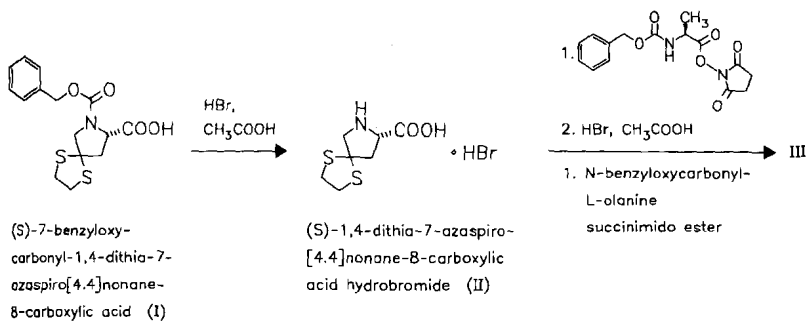
RN: 94799-76-5 MF: $\text{C}_{22}\text{H}_{30}\text{N}_2\text{O}_5\text{S}_2 \cdot 1/2\text{C}_4\text{H}_4\text{O}_4$ MW: 1049.32

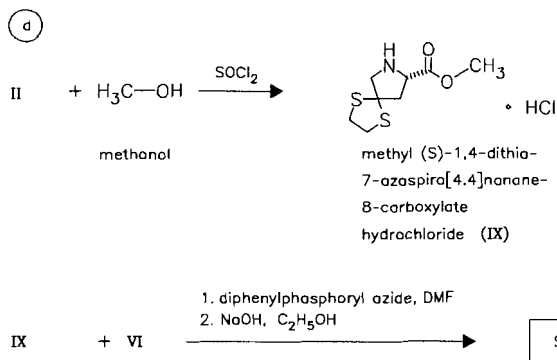
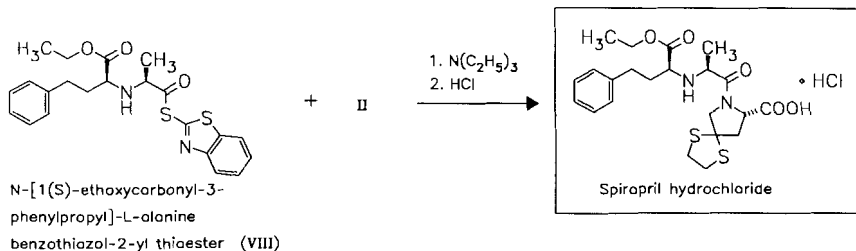
Ⓐ



N-benzoyloxycarbonyl-4-hydroxy-L-proline

N-benzoyloxycarbonyl-4-oxo-L-proline



**Reference(s):**

- a,b** US 4 470 972 (Schering Corp.; appl. 6.12.1982; USA-prior. 23.10.1980).
c US 4 847 384 (Sandoz Pharm.; appl. 12.3.1987; USA-prior. 12.3.1987).
d US 4 462 943 (Squibb & Sons; appl. 28.9.1981; USA-prior. 24.11.1980).

topical composition for reducing intraocular pressure:

- EP 114 333 (Schering Corp.; appl. 19.12.1983; USA-prior. 27.12.1982, 23.7.1986).
 WO 8 702 585 (Schering Corp.; appl. 31.10.1986; USA-prior. 1.11.1985).

combinations:

- EP 254 032 (Schering Corp.; appl. 17.6.1987; USA-prior. 20.6.1986, 27.3.1987, 11.5.1988).
 DE 3 736 505 (Sandoz; appl. 28.10.1987; GB-prior. 3.11.1986, 8.6.1987).
 DE 4 020 133 (Sandoz; appl. 25.6.1990; GB-prior. 4.7.1989).

formulations:

- EP 468 929 (Sandoz; appl. 23.7.1991; USA-prior. 25.7.1990).
 US 5 403 593 (Sandoz; appl. 4.3.1991; USA-prior. 4.3.1991).
 US 5 178 867 (Alza Corp.; appl. 19.8.1991; USA-prior. 19.8.1991).
 Patchett, A.A.; Witkop, B.: J. Am. Chem. Soc. (JACSAT) **79**, 185 (1957).

alternative oxidation reagents:

- Blanco, M.J. et al.: Tetrahedron Lett. (TELEAY) **35** (45), 8493-8496 (1994).
 Dornoy, J.R. et al.: Synthesis (SYNTBF) **1986**, 81.
 Barraclough, P. et al.: Tetrahedron (TETRAB) **51** (14), 4195-4212 (1995).

Formulation(s): tabl. 6 mg (as hydrochloride)

Trade Name(s):

- D: Quadropril (ASTA Medica) I: Setrilan (Essex Italia)
 AWD; as hydrochloride)

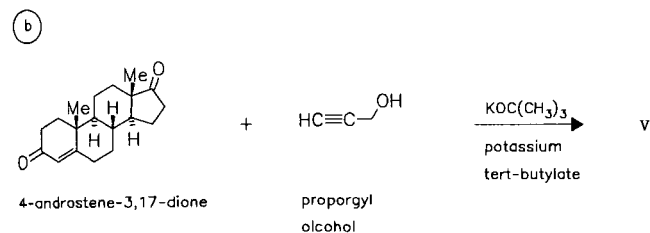
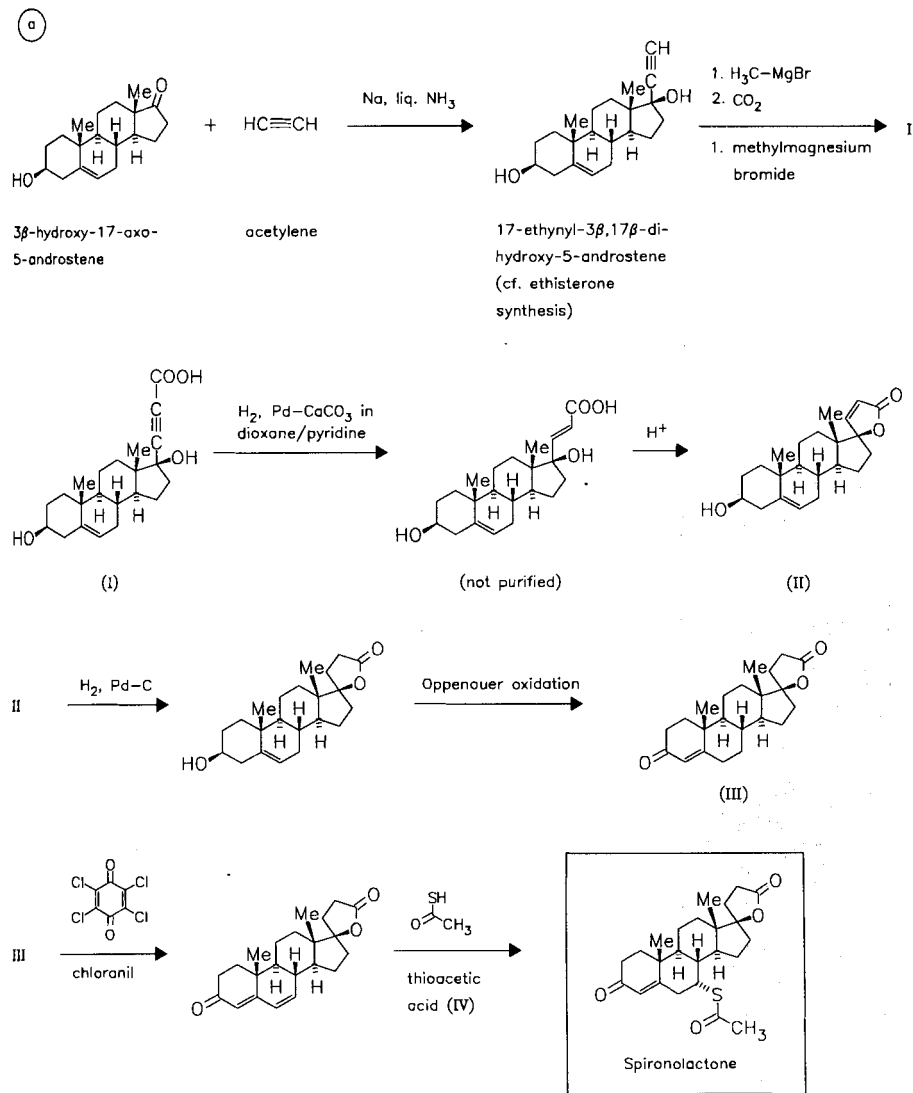
Spirolactone

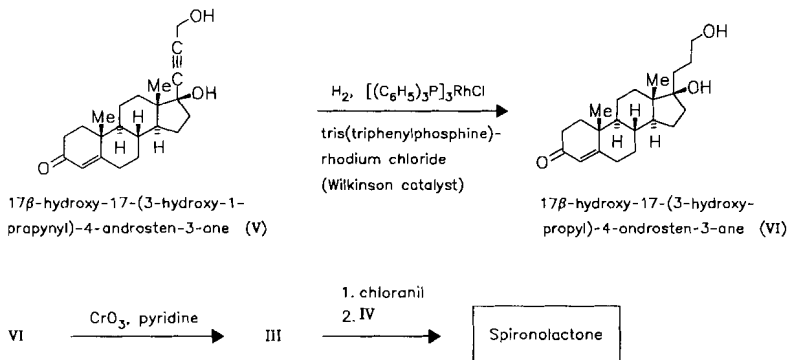
ATC: C03DA01
 Use: diuretic (aldosterone antagonist)

RN: 52-01-7 MF: C₂₄H₃₂O₄S MW: 416.58 EINECS: 200-133-6

LD₅₀: >1 g/kg (M, p.o.);
 >1 g/kg (R, p.o.)

CN: (7 α ,17 α)-7-(acetylthio)-17-hydroxy-3-oxopregn-4-ene-21-carboxylic acid γ -lactone



*Reference(s):*

- a US 3 013 012 (Searle; 12.12.1961; appl. 22.12.1960; prior. 12.12.1958).
DE 1 121 610 (Searle; appl. 10.12.1959; USA-prior. 12.12.1958).
Cella, J.A. et al.: J. Org. Chem. (JOCEAH) **24**, 1109 (1959).
Dodson, R.M. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 1224 (1959).
US 3 137 690 (Searle; 16.6.1964; appl. 26.9.1963).
improved methods for precursors:
US 3 270 008 (Searle; 30.8.1966; GB-prior. 1.10.1963).
US 3 738 983 (Searle; 12.6.1973; appl. 6.8.1971).
improved thioacetic acid addition:
DOS 2 809 838 (Mitsubishi Chemical; appl. 7.3.1978; J-prior. 17.3.1977).
- b DE 2 327 448 (Schering AG; appl. 25.5.1973).

alternative syntheses:

- GB 1 444 272 (Hoechst; appl. 27.7.1973; D-prior. 28.7.1972).
GB 1 447 247 (Hoechst; appl. 22.10.1973; D-prior. 20.10.1972).
GB 1 450 425 (Hoechst; appl. 4.10.1973; D-prior. 5.10.1972).
GB 1 450 693 (Hoechst; appl. 4.10.1973; D-prior. 5.10.1972).
DAS 1 250 818 (Searle; appl. 30.9.1964; GB-prior. 1.10.1963).
DOS 2 852 145 (Searle; appl. 1.12.1978; USA-prior. 2.12.1977).
GB 1 548 259 (Ciba-Geigy; appl. 11.6.1976; CH-prior. 13.6.1975).

Formulation(s): cps. 100 mg; drg. 25 mg, 50 mg; tabl. 25 mg, 50 mg, 100 mg

Trade Name(s):

D:	Aldactone (Boehringer Mannh.)	Spirothiazid (Henning Berlin)-comb.	Spirolactone (GNR-pharma)
	Aldactone (Boehringer Mannh.-Searle)	Spirostada (Stada)-comb.	Spirozone Microfine (EG Labo)
	Aldactone-Saltucin (Boehringer Mannh.)-comb.	various generics and combination preparations	GB:
	Aquareduct (Azupharma)	Aldactazine (Monsanto)-comb.	Aldactide 50 (Searle)-comb.
	Duraspiron (durachemie)	Aldactone (Monsanto)	Lasilactone (Hoechst)-comb.
	Osyrol (Hoechst)	Aldalix (Monsanto)-comb.	Spiroctan (Boehringer Mannh.)
	Risicordin (Heumann)-comb.	Flumach (Mayoly-Spindler)	I:
	Sali-Aldopur (Hormosan)-comb.	Practazin (Cardel)-comb.	Aldactone (Lepetit)
	Spiro comp. forte (ratiopharm)-comb.	Practon 50 (Cardel)	Lasitone (Hoechst Marion Roussel)-comb.
	Spirolacton (ratiopharm; Stada)	Prinactizide (Dakota)-comb.	Spiridazide (SIT)-comb.
		Spiroctan (Boehringer Mannh.)	Spiroderm (Monsanto)
		Spiroctazine (Boehringer Mannh.)-comb.	Spirofur (Bruno Farmaceutici)-comb.
			Spirolang (SIT)
			Uractone (SPA)

J:	Aldactone-A (Dainippon; Searle-Marupi) Alexan (Sanwa) Almatol (Fujisawa) Alpamed (Sawai)	Apolasnon (Nihon Iyakuhin) Dairopeal (Daito Koeki) Dira (Kakenyaku Kako) Lacalmin (Tatsumi) Nefurofan (Maruko)	Osyrol (Hoechst) Suracton (Toho Iyaku) USA: Aldactazide (Searle)-comb. Aldactone (Searle) generics and combination preparations
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Spizofurone

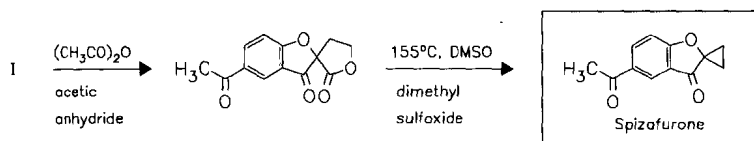
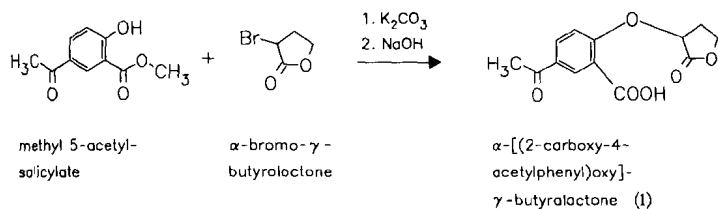
(AG-629)

ATC: A02B

Use: ulcer therapeutic

RN: 72492-12-7 MF: C₁₂H₁₀O₃ MW: 202.21LD₅₀: 1740 mg/kg (M, p.o.);

5440 mg/kg (R, p.o.)

CN: 5-acetylspiro[benzofuran-2(3*H*),1'-cyclopropan]-3-one**Reference(s):**

US 4 284 644 (Takeda; 18.8.1981; J-prior. 6.11.1978).

EP 3 084 (Takeda; appl. 27.12.1978; J-prior. 27.12.1977, 19.6.1978, 6.11.1978).

DE 2 861 651 (Takeda; 25.7.1979; J. prior. 27.12.1977, 19.6.1978, 6.11.1978).

Kawada, M. et al.: Chem. Pharm. Bull. (CPBTAL) **32**, 3532 (1984).**one step synthesis:**Watanabe, M. et al.: Chem. Pharm. Bull. (CPBTAL) **32**, 3373 (1984).**Formulation(s):** tabl. 80 mg**Trade Name(s):**

J: Maon (Takeda; 1987)

Stallimycin

(Distamycin A)

ATC: D06BB

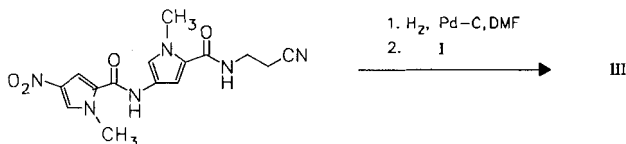
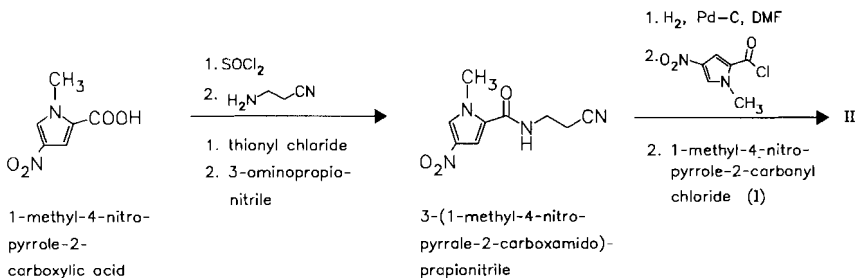
Use: antibiotic, antiviral

RN: 636-47-5 MF: C₂₂H₂₇N₉O₄ MW: 481.52LD₅₀: 75 mg/kg (M, i.v.)CN: N-[5-[[[(3-amino-3-iminopropyl)amino]carbonyl]-1-methyl-1*H*-pyrrol-3-yl]-4-[[[4-(formylamino)-1-methyl-1*H*-pyrrol-2-yl]carbonyl]amino]-1-methyl-1*H*-pyrrole-2-carboxamide

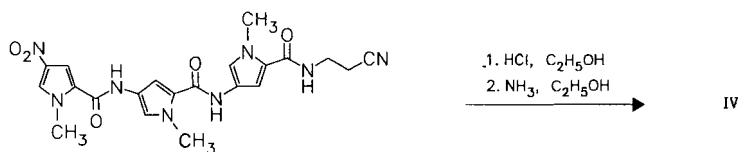
monohydrochlorideRN: 6576-51-8 MF: $C_{22}H_{27}N_9O_4 \cdot HCl$ MW: 517.98 EINECS: 229-505-6LD₅₀: 75 mg/kg (M, i.v.)

a) isolation from fermentation solutions of *Streptomyces distolicus*

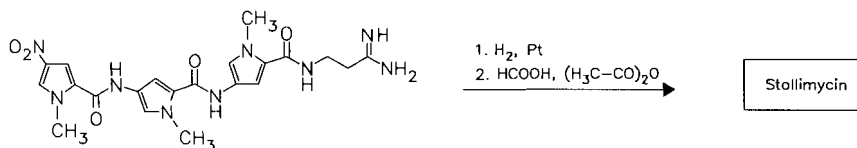
b)



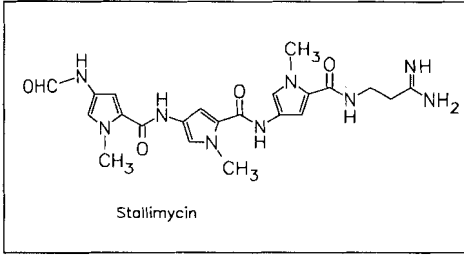
3-[1-methyl-4-(1-methyl-4-nitropyrrole-2-carboxamido)-pyrrole-2-carboxamido]-propionitrile (II)



3-[1-methyl-4-[1-methyl-4-(1-methyl-4-nitropyrrole-2-carboxamido)pyrrole-2-carboxamido]pyrrole-2-carboxamido]-propionitrile (III)



(IV)



Reference(s):

- a US 3 190 801 (Farmitalia; 22.6.1965; I-prior. 12.12.1956).
Arcamone, F. et al.: Gazz. Chim. Ital. (GCITA9) **97**, 1097 (1967).
- b DE 1 470 284 (Farmitalia; appl. 22.7.1964; I-prior. 26.7.1963).
US 3 420 844 (Farmitalia; 7.1.1969; I-prior. 26.7.1963).
Arcamone, F. et al.: Nature (London) (NATUAS) **203**, 1064 (1964).

starting material:

Weiss, M.J. et al.: J. Am. Chem. Soc. (JACSAT) **79**, 1266 (1957).

Trade Name(s):

I: Herperal (Carlo Erba); wfm

Stanozolol

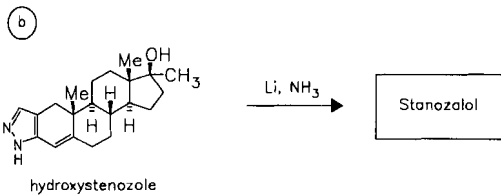
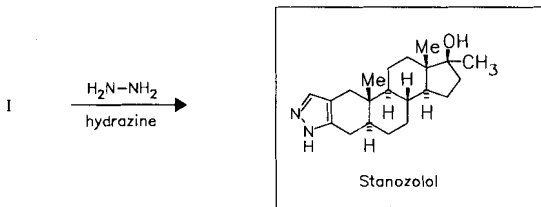
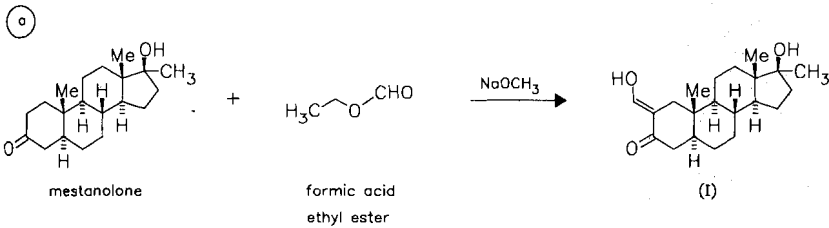
(Stanozol)

ATC: A14AA02

Use: anabolic steroid

RN: 10418-03-8 MF: C₂₁H₃₂N₂O MW: 328.50 EINECS: 233-894-8

CN: (5 α ,17 β)-17-methyl-2H-androst-2-eno[3,2-c]pyrazol-17-ol



Reference(s):

- a Clinton, R.O. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 1513 (1959).
Clinton, R.O. et al.: J. Am. Chem. Soc. (JACSAT) **83**, 1478 (1961).
- b US 3 030 358 (Sterling Drug; 17.4.1962; appl. 11.5.1961; prior. 16.2.1959).

starting material:

Clinton, R.O.: J. Am. Chem. Soc. (JACSAT) **83**, 1478 (1961).

Formulation(s): tabl. 2 mg, 5 mg, 15 mg

Trade Name(s):

D:	Stromba (Winthrop); wfm Strombaject (Winthrop); wfm	GB:	Stromba (Sanofi Winthrop)	J:	Winstrol (Zambon); wfm Winstrol (Yamanouchi)
F:	Stromba (Winthrop); wfm	I:	Anasyth (Causyth); wfm	USA:	Winstrol (Sanofi Winthrop)

Stavudine

(BMY-27857; dde Thd; DTH; D4T)

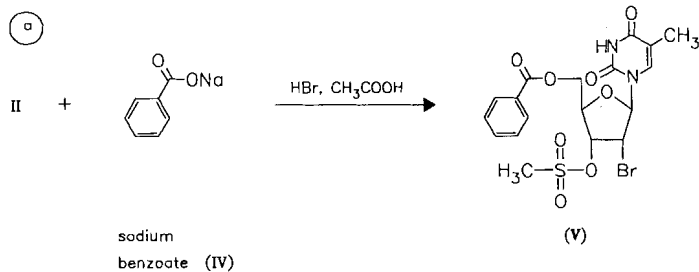
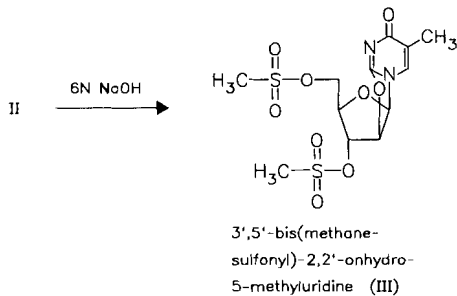
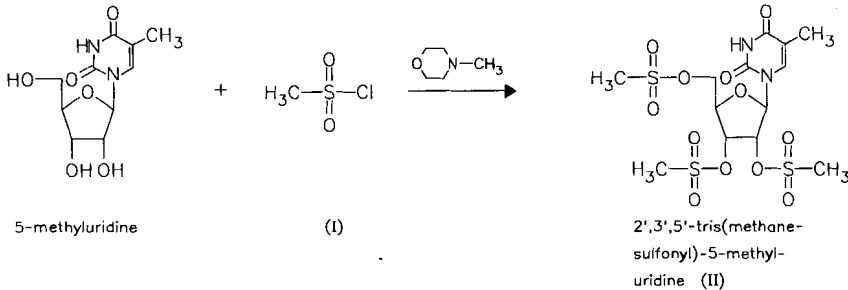
ATC: J05AF04

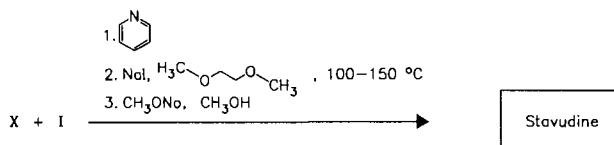
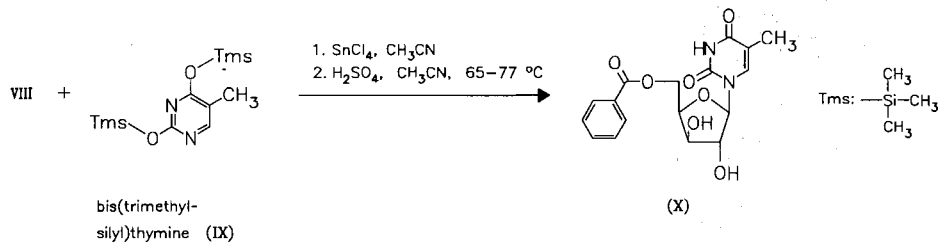
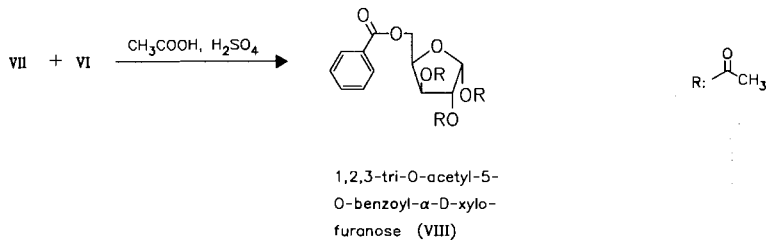
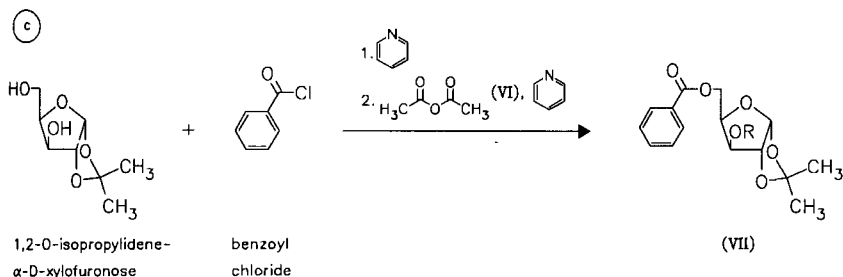
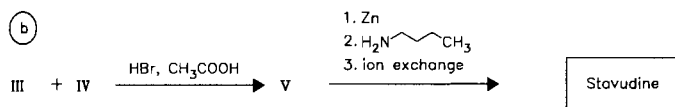
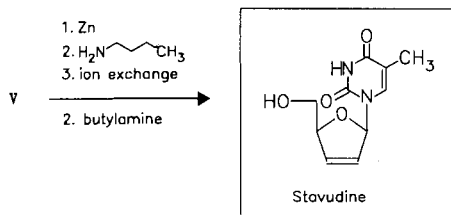
Use: anti-AIDS therapeutic

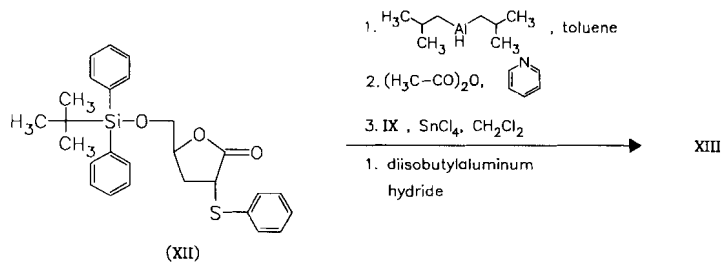
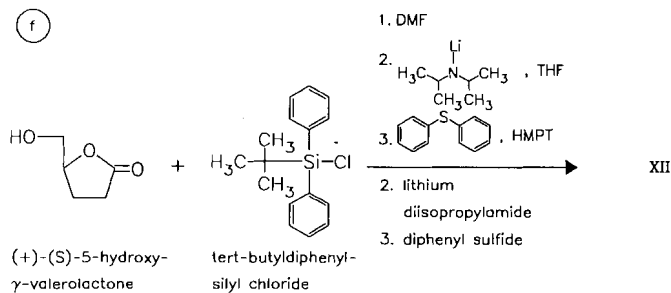
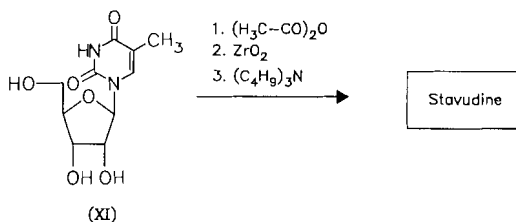
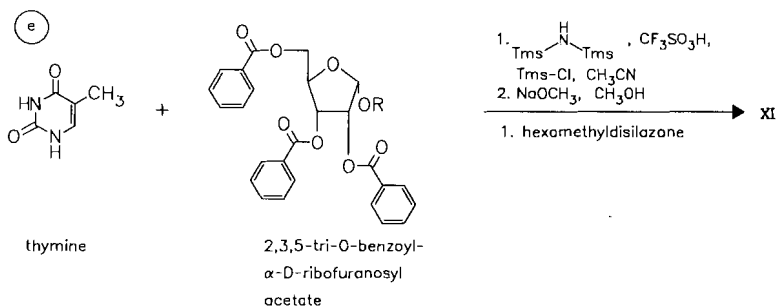
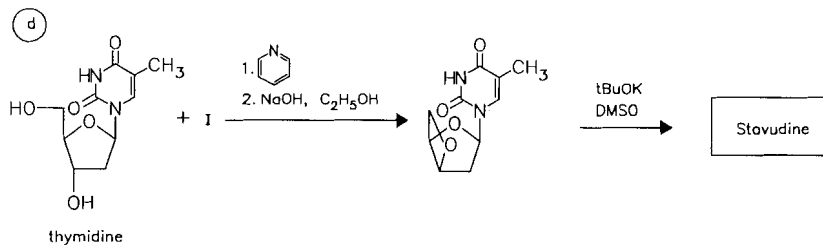
RN: 3056-17-5 MF: C₁₀H₁₂N₂O₄ MW: 224.22

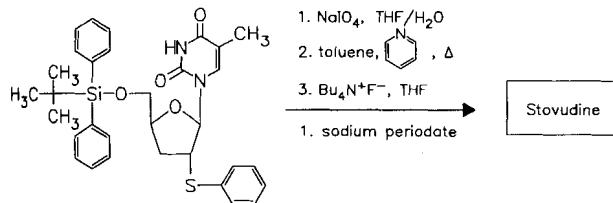
CN: 2',3'-didehydro-3'-deoxythymidine

Intermediates II and III:









(XIII)

Reference(s):*synthesis:*

- EP 334 368 (Bristol-Myers Squibb; appl. 27.9.1989; USA-prior. 24.3.1988).
 EP 653 436 (Bristol-Myers Squibb; appl. 17.5.1995; USA-prior. 15.11.1993, 3.11.1994, 23.9.1994).
 RU 2 047 619 (Institut Organicheskoy Khimii Ufimskogo Nauchnogo Tsentra Ran.; appl. 10.11.1995; RU-prior. 14.4.1993).
 JP 07 278 178 (Nippon Tobacco Sangyo; appl. 24.1.1995; J-prior. 1.4.1994).
 EP 501 511 (Bristol-Myers Squibb; appl. 2.9.1992; USA-prior. 2.9.1992).
 JP 04 054 193 (Nippon Tobacco Sangyo; appl. 20.2.1992; J-prior. 25.5.1990).
 WO 9 202 516 (Japan Tobacco Inc.; appl. 26.6.1991; J-prior. 27.7.1990, 30.11.1990).
 WO 9 209 599 (Yamasa Shoyu; appl. 11.6.1992; J-prior. 30.11.1990).
 EP 519 464 (Ajinomoto Co.; appl. 23.12.1992; J-prior. 19.6.1991).
 JP 04 226 976 (Japan Tobacco Inc.; appl. 17.8.1992; J-prior. 5.6.1990).
 US 5 175 267 (University of Georgia Res. Found.; appl. 29.12.1992; USA-prior. 2.3.1990).
 Horwitz, J.P. et al.: J. Org. Chem. (JOCEAH) **31**, 205 (1966).
 Herdewijn, P. et al.: J. Med. Chem. (JMCMAR) **30** (8), 1270 (1987).
 Lin, T.-S. et al.: J. Med. Chem. (JMCMAR) **30** (2), 440 (1987).

pharmaceutical compositions:

- EP 273 277 (Yale University; appl. 6.7.1988; USA-prior. 17.12.1986).
 JP 63 107 924 (Yamasa Shoyu Co.; appl. 12.5.1988; J-prior. 25.10.1986).
 JP 04 038 727 (Yamasa Shoyu Co.; appl. 25.6.1992; J-prior. 25.10.1986).

*in combination with**porphyrin and phthalocyanine:*

- WO 8 911 277 (Georgia State Univ. Found.; appl. 30.11.1989; USA-prior. 23.5.1988).

nucleoside derivatives:

- WO 9 011 081 (Oncogene; appl. 16.3.1990; USA-prior. 22.3.1989, 17.3.1989).
 EP 631 783 (Mitsubishi Kasei; appl. 31.5.1994; J-prior. 3.6.1993).

quinoxalines:

- EP 657 166 (Hoechst AG; appl. 5.12.1992; D-prior. 9.12.1993).

aminopyridones:

- EP 484 071 (Merck & Co.; appl. 6.5.1992; USA-prior. 1.11.1990, 25.1.1991).

Formulation(s): cps. 15 mg, 20 mg, 30 mg 40 mg; powder 200 mg (oral sol.)

Trade Name(s):

- | | | | | | |
|----|------------------------------|-----|------------------------------|------|------------------------------|
| D: | Zerit (Bristol-Myers Squibb) | GB: | Zerit (Bristol-Myers Squibb) | USA: | Zerit (Bristol-Myers Squibb) |
| F: | Zerit (Bristol-Myers Squibb) | J: | Zerit (Green Cross) | | |

Stepronin

(Prosthenoglycine; Tenoglicine; Tiofacic)

ATC: R05CB11

Use: mucolytic, hepatic protectant

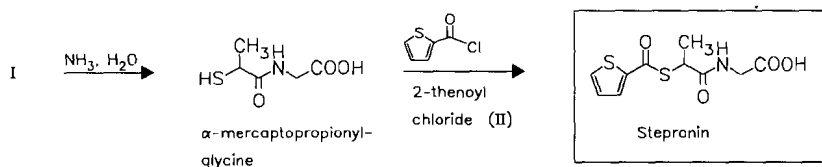
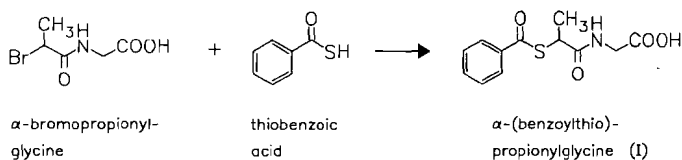
RN: 72324-18-6 MF: C₁₀H₁₁NO₄S₂ MW: 273.33 EINECS: 276-587-4LD₅₀: >1250 mg/kg (M, i.v.); 3336 mg/kg (M, p.o.);

1801 mg/kg (R, i.m.); >1250 mg/kg (R, i.v.); >2500 mg/kg (R, p.o.)

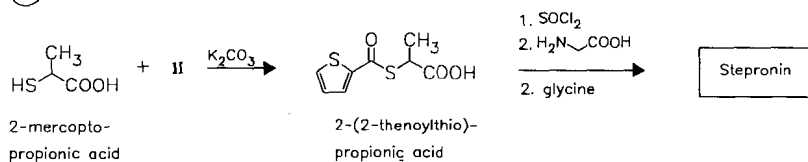
CN: N-[1-oxo-2-[(2-thienylcarbonyl)thio]propyl]glycine

sodium saltRN: 78126-10-0 MF: C₁₀H₁₀NNaO₄S₂ MW: 295.32

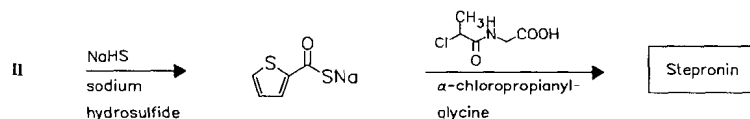
a



b



c

**Reference(s):**

- a** DE 2 913 211 (Mediolanum; appl. 3.4.1979; I-prior. 11.4.1978).
 US 4 242 354 (Mediolanum; 30.12.1980; appl. 4.4.1979; I-prior. 11.4.1978, 12.2.1979).
b DOS 3 120 592 (BTB Ind. Chimica; appl. 23.5.1981; I-prior. 3.6.1980).
c IT 1 193 195 (Mediolanum; appl. 20.7.1979).

synthesis of α-mercaptopropionylglycine:

JP 11 616 (Santen; appl. 1961); C.A. (CHABA8) 61, 16155 (1962).

US 3 246 025 (Santen; 1965; appl. 1962; I-prior. 1961).

Formulation(s): cps. 420 mg; gran. 180 mg, 360 mg (as sodium salt); suppos. 180 mg, 360 mg, 720 mg (as sodium salt); vial 335 mg

Trade Name(s):

I:	Broncoplus (Sigma-Tau; 1981 as sodium salt)	Mucodil (Valeas; as lysine salt)	Tioten (Mediolanum; as sodium salt)
	Masor (Formenti; as lysine salt)	Tiase (Mediolanum)	

Streptokinase

ATC: B01AD01

Use: fibrinolytic (plasminogen activator)

RN: 9002-01-1 MF: unspecified MW: unspecified EINECS: 232-647-1

LD₅₀: 3700 mg/kg (M, i.v.); >10 g/kg (M, p.o.);
2 g/kg (R, i.v.)

CN: streptokinase (enzyme-activating)

Co-enzyme obtained from cultures of various strains of *Streptococcus haemolyticus* and capable of changing plasminogen into plasmin (complex enzyme mixture of streptokinase, streptodornase and streptolysin "O"). From fermentation liquors of hemolytic streptococci species (*Streptococcus haemolyticus*), e. g. H 46 A.

Reference(s):

- US 2 666 729 (Merck & Co.; 1954; appl. 1951).
 US 2 701 227 (American Cyanamid; 1955; appl. 1951).
 US 3 063 913 (Behringwerke; 13.11.1962; D-prior. 29.12.1959).
 US 3 063 914 (Behringwerke; 13.11.1962; D-prior. 22.12.1959).

purification:

- US 2 753 291 (American Cyanamid; 1956; appl. 1954).
 US 3 016 337 (Ortho Pharmac. Corp.; 9.1.1962; appl. 27.4.1959).
 US 3 042 586 (Merck & Co.; 3.7.1962; appl. 29.9.1959).
 US 3 107 203 (Merck & Co.; 15.10.1963; appl. 24.11.1961).
 US 3 138 542 (Behringwerke; 23.6.1964; D-prior. 31.12.1959).

Formulation(s): vial 100000 iu, 250000 iu, 600000 iu, 750000 iu, 1500000 iu.

Trade Name(s):

D:	Kabikinase (Pharmacia & Upjohn)	Streptase (Hoechst)	Pesiron (Towa)
	Streptase (Hoechst)	Varidase (Wyeth)-comb.	Reoprase (Tabishi)
	Streptokinase (B/Braun)	I: Streptase (Hoechst Marion Roussel)	Screptase (Tenyo-Towa)
	Varidase (Lederle)-comb.	Varidase (Wyeth-Lederle)-comb.	Seoritase (Choseido-Nihon Garen)
F:	Kabikinase (Pharmacia & Upjohn)	J: Belsiene (Misshin-Yamagata)	Stochemidaze (Chemix)
	Streptase (Hoechst)		Twinnase (Taisho)
GB:	Kabikinase (Pharmacia & Upjohn)	Ceoluase (Maruko)	Varidase (Takeda)
		Gospelaze (Takeshima)	USA: Streptase (Astra)

Streptomycin

ATC: A07AA04; J01GA01

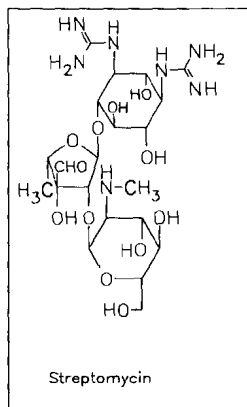
Use: antibiotic

RN: 57-92-1 MF: C₂₁H₃₉N₇O₁₂ MW: 581.58 EINECS: 200-355-3LD₅₀: 90.2 mg/kg (M, i.v.); 500 mg/kg (M, p.o.);
175 mg/kg (R, i.v.); 9 g/kg (R, p.o.)

CN: O-2-deoxy-2-(methylamino)-α-L-glucopyranosyl(1→2)-O-5-deoxy-3-C-formyl-α-L-lyxofuranosyl(1→4)-N,N'-bis(aminoiminomethyl)-D-streptamine

sulfate (2:3)RN: 3810-74-0 MF: $C_{21}H_{39}N_7O_{12} \cdot 3/2H_2SO_4$ MW: 1457.39 EINECS: 223-286-0LD₅₀: 90.2 mg/kg (M, i.v.); 430 mg/kg (M, p.o.);

430 mg/kg (R, p.o.)

From fermentation solutions of *Streptomyces griseus*.**Reference(s):**

US 2 449 866 (Rutgers Res. Found; 1948; prior. 1945).

Ehrhart, Ruschig **IV**, 317.**purification:**

US 2 765 302 (Olin Mathieson; 1956; appl. 1953).

US 2 868 779 (Olin Mathieson; 1959; appl. 1956).

Formulation(s): amp. 1 g (as sulfate)**Trade Name(s):**

D:	Strepto-Fatol (Fatol) Streptomycin-Hefa (Hefa Pharma) generics	GB:	Orastrep (Dista); wfm Streptaguaine (Dista); wfm Streptotriad (May & Baker)-comb.; wfm	J:	Streptomycin Sulfate (Banyu; Dainippon; Kaken; Kyowa; Meiji; Nikken; Sankyo; Sanwa; Taito)
F:	Streptomycine Diamant (Diamant); wfm generics; wfm	I:	Streptocol (Molteni) Streptomicina Solfato (Fisiopharma; ISF)	USA:	Streptomycin Sulfate (Pfizer)

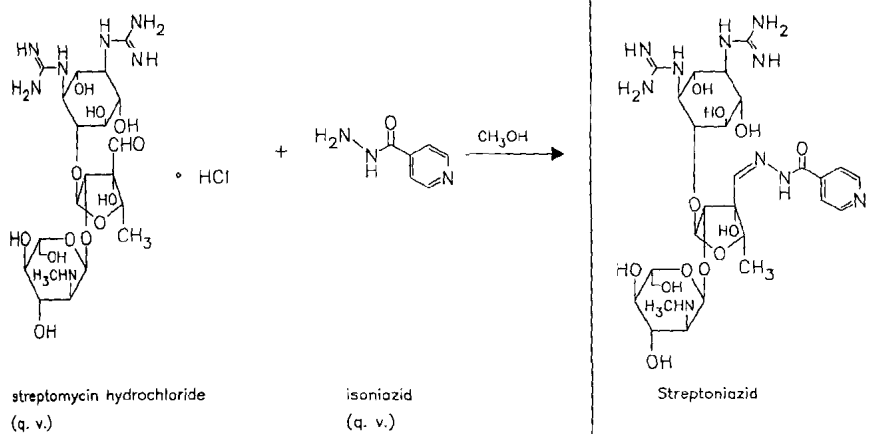
Streptoniazid

(Streptonicozid)

ATC: D08; J04A

Use: tuberculostatic

RN: 4480-58-4 MF: $C_{27}H_{44}N_{10}O_{12}$ MW: 700.71LD₅₀: 81.9 mg/kg (M, route unreported)CN: 4-pyridinecarboxylic acid hydrazide, hydrazone with *O*-2-deoxy-2-(methylamino)- α -L-glucopyranosyl-(1 \rightarrow 2)-*O*-5-deoxy-3-C-formyl- α -L-lyxofuranosyl-1(1 \rightarrow 4)-*N,N'*-bis(aminoiminomethyl)-D-streptamine**sulfate (2:3)**RN: 5667-71-0 MF: $C_{27}H_{44}N_{10}O_{12} \cdot 3/2H_2SO_4$ MW: 1695.65 EINECS: 227-128-1

**Reference(s):**

Pennington, F.C. et al.: J. Am. Chem. Soc. (JACSAT) **75**, 2261 (1953).
DE 1 069 618 (Pfizer; appl. 1953; USA-prior. 1953, 1952).

use as tuberculostatic:

US 3 035 044 (Olin Mathieson; 15.5.1962; prior. 4.5.1956, 1.3.1952).

alternative synthesis:

FR 1 058 441 (Rhône-Poulenc; appl. 1952).

Trade Name(s):

F:	Streptoniacide "LeBrun"	I:	Nicostreptil Atrial	USA:	Streptohydrizid (Pfizer); wfm
	(LeBrun); wfm		(Mastroeni); wfm		

Streptozocin

(Streptozotocin)

ATC: L01AD04

Use: antineoplastic

RN: 72521-89-2 MF: C₈H₁₅N₃O₇ MW: 265.22

CN: 2-deoxy-2-[[[(methylnitrosoamino)carbonyl]amino]-D-glucopyranose

open-chain tautomer

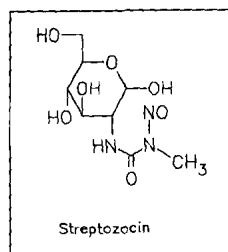
RN: 18883-66-4 MF: C₈H₁₅N₃O₇ MW: 265.22 EINECS: 242-646-8

LD₅₀: 275 mg/kg (M, i.v.);

138 mg/kg (R, i.v.);

50 mg/kg (dog, i.v.)

From cultures of *Streptomyces achromogenes* var. *streptozoticus*.



Reference(s):

Vavra, J.J. et al.: *Antibiot. Annu. (ABANAE)*. **1959-60**, 230.
 DE 1 090 823 (Upjohn; appl. 29.7.1960; USA-prior. 1.8.1958).
 US 3 027 300 (Upjohn; 27.3.1962; prior. 1.8.1958).

Formulation(s): vial 1 g

Trade Name(s):

F: Zanosar (Pharmacia & Upjohn) USA: Zanosar (Pharmacia & Upjohn)

g-Strophanthin

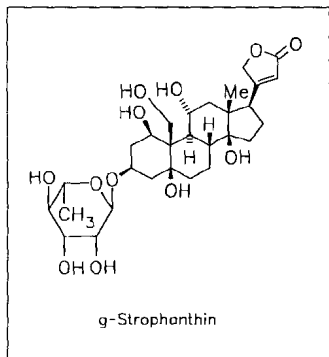
(g-Strophantoside; Ouabain)

ATC: C01AC01
 Use: cardiac glycoside

RN: 630-60-4 MF: C₂₉H₄₄O₁₂ MW: 584.66 EINECS: 211-139-3

LD₅₀: 2200 µg/kg (M, i.v.); 5 mg/kg (M, p.o.);
 14 mg/kg (R, i.v.)

CN: (1β,3β,5β,11α)-3-[(6-deoxy-α-L-mannopyranosyl)oxy]-1,5,11,14,19-pentahydroxycard-20(22)-enolide



a From *Strophantus gratus*.
b From *Acokanthera ouabaio* Cathel.

Reference(s):

a Arnaud, A.: *C. R. Hebd. Seances Acad. Sci. (COREAF)* **106**, 1011 (1888); **107**, 1162 (1888).
 Mannich, C.; Siewert, G.: *Ber. Dtsch. Chem. Ges. (BDCGAS)* **75**, 737 (1942).
 Reichstein, T. et al.: *Helv. Chim. Acta (HCACAV)* **50**, 179 (1967).
b Arnaud, A.: *C. R. Hebd. Seances Acad. Sci. (COREAF)* **106**, 1011 (1888); **107**, 1162 (1888).

review:

Podolsky, E.: *Am. Prof. Pharm. (APPTAZ)* **8**, 293 (1942).
 Fieser, L.F.; Fieser, M.: *Steroids*, 845 (Weinheim 1961).
 Ullmanns Encykl. Tech. Chem., 4. Aufl., Vol. **12**, 617.

Formulation(s): cps. 3 mg, 6 mg

Trade Name(s):

D:	Strodival (Herbert)	Ouabaine Aguettant	GB:	Oubaine Arnaud (Wilcox); wfm
F:	Antally Ouabaine (Bailly)- comb.; wfm	Ouabaine-Arnaud	J:	Uabanin (Takeda)
	Digibaïne (Deglaude)- comb.; wfm	(Nativelle); wfm		

***k*-Strophanthin**

(*k*-Strophanthin-β + *k*-Strophanthoside)

ATC: C01AC
Use: cardiac glycoside

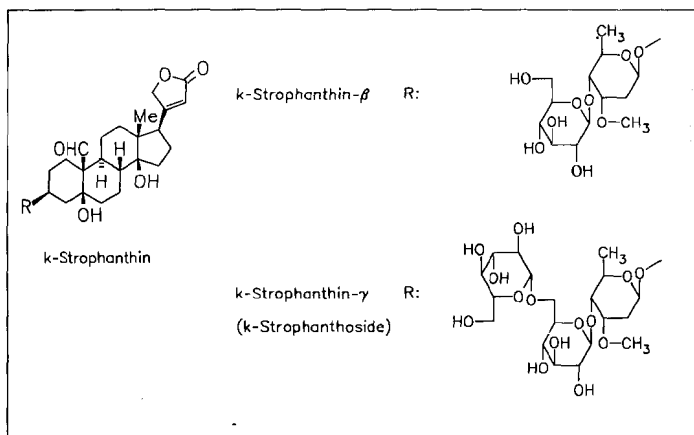
RN: 11005-63-3 MF: unspecified MW: unspecified
CN: strophanthin

***k*-Strophanthin-β**

RN: 560-53-2 MF: C₃₆H₅₄O₁₄ MW: 710.81 EINECS: 209-210-9
LD₅₀: 1071 μg/kg (M, i.p.); 213 μg/kg (M, s.c.)
CN: (3β,5β)-3-[(2,6-dideoxy-4-*O*-β-D-glucopyranosyl-3-*O*-methyl-β-D-ribo-hexopyranosyl)oxy]-5,14-dihydroxy-19-oxocard-20(22)-enolide

***k*-Strophanthoside**

RN: 33279-57-1 MF: C₄₂H₆₄O₁₉ MW: 872.96
CN: (3β,5β)-3-[(*O*-β-D-glucopyranosyl-(1→6)-*O*-β-D-glucopyranosyl-(1→4)-2,6-dideoxy-3-*O*-methyl-β-D-ribo-hexopyranosyl)oxy]-5,14-dihydroxy-19-oxocard-20(22)-enolide



From *Strophanthus kombé* and other *Strophanthus* species (preparation of *k*-strophanthin-α, q. v.).

Reference(s):

- DRP 721 001 (Sandoz; appl. 1937; CH-prior. 1937).
- DRP 737 540 (Sandoz; appl. 1937; CH-prior. 1937).
- Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. 8, 232.
- Ullmanns Encykl. Tech. Chem., 4. Aufl.; Vol. 12, 617.

Formulation(s): amp. 0.125 mg, 0.25 mg

Trade Name(s):

D:	Kombetin (Boehringer Mannh.)	I:	Kombetin (Boehringer Biochemia)	USA:	Pasanol (Tilden Yates)- comb.; wfm
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***k*-Strophanthin- α**

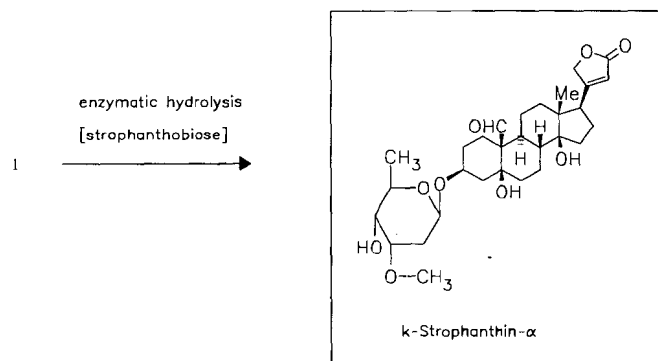
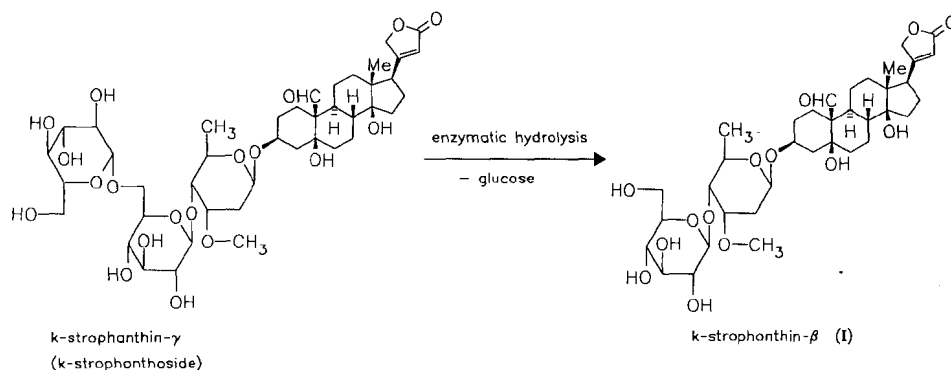
(Cymarin)

ATC: C01AC03

Use: cardiac glycoside

RN: 508-77-0 MF: C₃₀H₄₄O₉ MW: 548.67 EINECS: 208-087-9LD₅₀: 2800 μ g/kg (M, i.v.);

20 mg/kg (R, i.v.)

CN: (3 β ,5 β)-3-[(2,6-dideoxy-3-*O*-methyl- β -D-ribo-hexopyranosyl)oxy]-5,14-dihydroxy-19-oxocard-20(22)-enolidea From *Strophanthus kombé*.b From *Castilleja elastica* Cerv.c From *Apocynum cannabinum*.*Reference(s):*

- a Stoll, A. et al.: *Helv. Chim. Acta* (HCACAV) **20**, 1484 (1937).
DRP 721 001 (Sandoz; appl. 1937; CH-prior. 1937).
DRP 737 540 (Sandoz; appl. 1937; CH-prior. 1937).
Ullmanns Encykl. Tech. Chem., 3. Aufl., Vol. **8**, 232.
DE 1 920 177 (Gödecke; appl. 21.4.1969).
DOS 2 050 457 (Gödecke; appl. 14.10.1972).
- b GB 972 917 (Wellcome Foundation; appl. 20.4.1961).
- c DD 35 688 (W. Grundmann, R. Giessner; appl. 26.3.1964).
DD 43 401 (W. Grundmann; R. Giessner; appl. 25.1.1965).

alternative syntheses:

The Merck Index, 12th Ed., 1512 (1996).

Formulation(s): amp. 0.125 mg, 0.25 mg

Trade Name(s):

D: Alvonal MR (Gödecke);
wfm

Stabilocard (Gödecke);
wfm

Theo-Alvonal (Gödecke);
wfm

Styramate

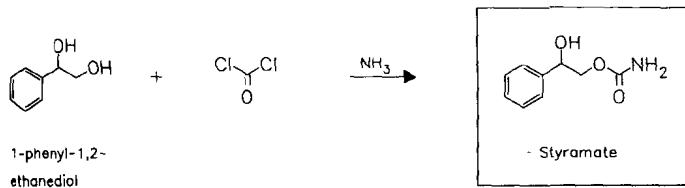
ATC: M03BA04

Use: muscle relaxant, antispasmodic

RN: 94-35-9 MF: $C_9H_{11}NO_3$ MW: 181.19 EINECS: 202-326-0

LD₅₀: 1240 mg/kg (M, p.o.)

CN: 1-phenyl-1,2-ethanediol 2-carbamate



Reference(s):

GB 841 626 (Armour; appl. 1956; USA-prior. 1955).

Formulation(s): tabl. 200 mg

Trade Name(s):

GB: Sinaxar (Armour); wfm

J: Menfula (Taisho)-comb.

Sinaxar (Tokyo Tanabe)

Succinylsulfathiazole

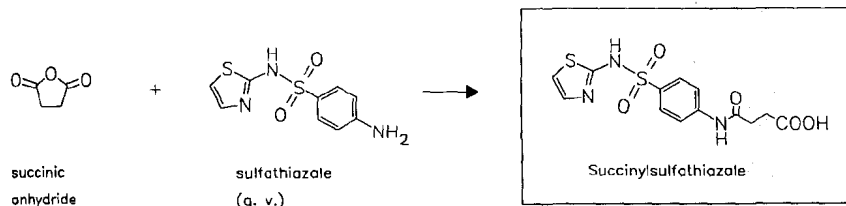
ATC: A07AB04

Use: chemotherapeutic, antibacterial

RN: 116-43-8 MF: $C_{13}H_{13}N_3O_5S_2$ MW: 355.40 EINECS: 204-141-0

LD₅₀: 10 g/kg (M, i.v.)

CN: 4-oxo-4-[4-[(2-thiazolylamino)sulfonyl]phenyl]amino]butanoic acid



Reference(s):

US 2 324 013 (Sharp & Dohme; 1943; appl. 1941).

US 2 324 014 (Sharp & Dome; 1943; appl. 1941).

Formulation(s): tabl. 500 mg

Trade Name(s):

F: Thiacyl (Théraplax); wfm

GB: Cremomycin (Merck Sharp & Dohme)-comb.; wfm

Cremostrep (Merck Sharp & Dohme)-comb.; wfm

Creמושidine (Merck
Sharp & Dohme); wfm
Sulfasuxidine (Merck
Sharp & Dohme); wfm

I: Creמושulfa strept.
(Angelini)-comb.; wfm
Streptoguanidin
(Lisapharma)-comb.; wfm

Sucralfate

ATC: A02BX02

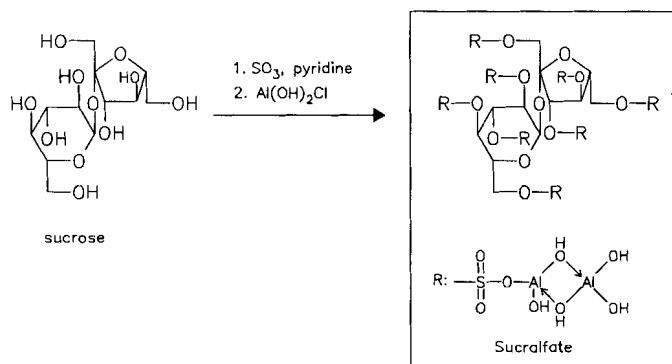
Use: ulcer therapeutic

RN: 54182-58-0 MF: $C_{12}H_{54}Al_16O_{75}S_8$ MW: 2086.73 EINECS: 259-018-4

LD₅₀: >8 g/kg (M, p.o.);

>12 g/kg (R, p.o.)

CN: hexadeca- μ -hydroxytetracosahydroxy[[μ_8 -[[1,3,4,6-tetra-*O*-sulfo- β -D-fructofuranosyl α -D-glucopyranoside tetrakis(sulfato- $\kappa O'$)](8-)]hexadecaaluminum



Reference(s):

DE 1 568 346 (Chugai; appl. 31.10.1966; J-prior. 5.11.1965).

US 3 432 489 (Chugai; 11.3.1969; J-prior. 5.11.1965).

FR 1 500 571 (Chugai; appl. 3.11.1966; S-prior. 5.11.1965).

Nagashima, R.; Yoshida, N.: *Arzneim.-Forsch. (ARZNAD)* **29**, 1668 (1979).

formulations with amino acids:

EP 107 209 (Chugai; appl. 26.10.1983; J-prior. 27.10.1982).

Formulation(s): chewing tabl. 1 g; gran. 1 g; susp. 1 g/5 ml; tabl. 0.5 g, 1 g

Trade Name(s):

D:	Sucrabest (Hexal)	Sucrager (Ripari-Gero)	Ritaalumin (Hotta)
	Sucralfat-ratiopharm	Sucral (Bioprogress)	Shualmin (Rorer-Funai)
	(ratiopharm)	Sucralfin (Inverni della	SibonarI (Mohan-
	Sucraphil (Philopharm)	Beffa)	Wakamoto)
	Ulcogant (Lipha; Merck)	Sucramal (Sanofi	Tredol (Kaigai-Nippon
F:	Kéal (EG Labo)	Winthrop)	Kayaku)
	Sucralfate (GNR-pharma)	Sucrate (Lisapharma)	Ulban-A (Toho)
	Ulcar (Houdé)	Suril (Ibirn)	Ulcerlmin (Chugai)
GB:	Antepsin (Wyeth)	J: Adopilon (Kantoishi)	Yuwan-S (Sawai-Meiji)
I:	Antepsin (Baldacci)	Altsamin (Taiyo-Sanwa)	USA: Carafate (Hoechst Marion
	Crafilm (Francia Farm.)	Bingast (Maruko)	Roussel)
	Gastrogel (Giuliani)	Bisma (Sana)	generics

Sufentanil

ATC: N01AH03

Use: narcotic, analgesic

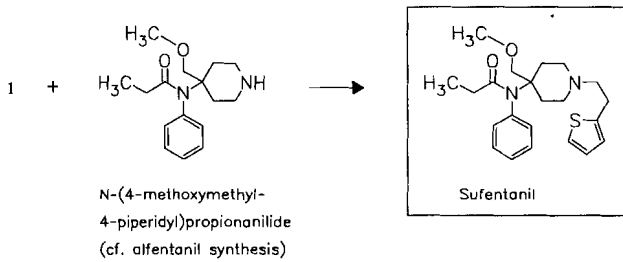
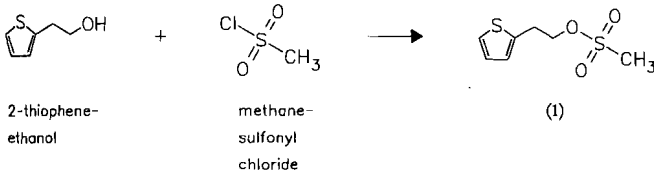
RN: 56030-54-7 MF: $C_{22}H_{30}N_2O_2S$ MW: 386.56

CN: N-[4-(methoxymethyl)-1-[2-(2-thienyl)ethyl]-4-piperidinyl]-N-phenylpropanamide

citrate (1:1)RN: 60561-17-3 MF: $C_{22}H_{30}N_2O_2S \cdot C_6H_8O_7$ MW: 578.68 EINECS: 262-295-4LD₅₀: 18.7 mg/kg (M, i.v.);

17.9 mg/kg (R, i.v.);

14.1 mg/kg (dog, i.v.)

**Reference(s):**

DE 2 610 228 (Janssen; prior. 11.3.1976).

US 3 998 834 (Janssen; 21.12.1976; prior. 14.3.1975, 13.1.1976, 13.9.1976).

Daele, P.G.H. van et al.: *Arzneim.-Forsch. (ARZNAD)* **26**, 1521 (1976).**Formulation(s):** amp. 50 µg/ml, 100 µg/2 ml, 500 µg/5 ml (as citrate)**Trade Name(s):**

D: Sulfenta (Janssen-Cilag)

F: Sulfenta (Janssen-Cilag; as citrate)

I: Fentatienil (Angelini)

USA: Sufenta (Janssen; 1984)

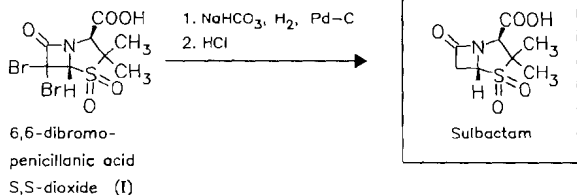
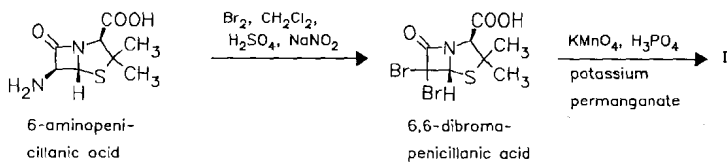
Sulbactam

(CP-45899-2)

ATC: J01CG01

Use: antibacterial in combination with β-lactam antibiotics, semisynthetic β-lactamase inhibitor

RN: 68373-14-8 MF: $C_8H_{11}NO_5S$ MW: 233.24 EINECS: 269-878-2CN: (2*S*-*cis*)-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid 4,4-dioxide**sodium salt**RN: 69388-84-7 MF: $C_8H_{10}NNaO_5S$ MW: 255.23 EINECS: 273-984-4

**Reference(s):**

Volkman, R.A. et al.: J. Org. Chem. (JOCEAH) 47, 3344 (1982).

US 4 234 579 (Pfizer; 18.11.1980; appl. 5.3.1979; USA-prior. 7.6.1977, 21.2.1978, 29.3.1978).

US 4 420 426 (Pfizer; 13.12.1983; appl. 9.12.1980; USA-prior. 5.3.1979).

DE 2 824 535 (Pfizer; appl. 5.6.1978; USA-prior. 7.6.1977, 21.2.1978).

DE 2 912 511 (Pfizer; appl. 29.3.1979; USA-prior. 29.3.1978, 27.11.1978).

combination with cefoperazone:

US 4 276 285 (Pfizer; 30.6.1981; appl. 5.3.1978; USA-prior. 7.6.1977, 21.2.1978, 29.3.1978, 27.11.1978).

Formulation(s): vial 750 mg, 1 g, 1.5 g, 3 g (as sodium sulfate)

Trade Name(s):

D:	Combactam 1,0 g (Pfizer)	Unacim (Jouveinal; as sodium salt)-comb. with ampicillin	Unasyn (Pfizer)-comb. with ampicillin
F:	Bétamaze (Pfizer; as sodium salt)	I: Bethacil (Bioindustria)-comb. with ampicillin	J: Sulperazone (Pfizer Taito; 1986)-comb.
		Loricin (Sigma-Tau)-comb. with ampicillin	USA: Unasyn (Pfizer; 1987)-comb. with ampicillin

Sulbenicillin

ATC: J01CA16

Use: antibiotic

RN: 34779-28-7 MF: $\text{C}_{16}\text{H}_{18}\text{N}_2\text{O}_7\text{S}_2$ MW: 414.46 EINECS: 252-209-3

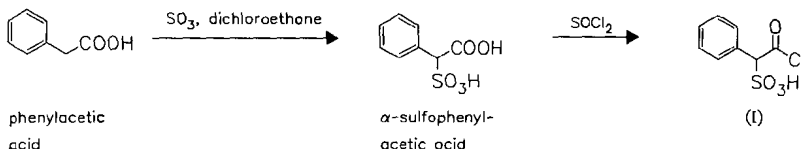
CN: [2S-(2 α ,5 α ,6 β)]-3,3-dimethyl-7-oxo-6-[(phenylsulfoacetyl)amino]-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

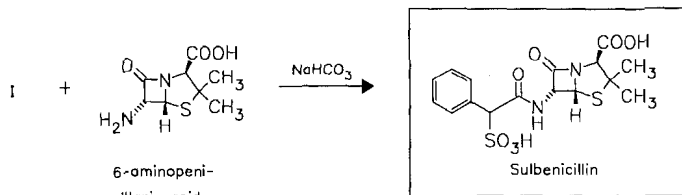
disodium salt

RN: 28002-18-8 MF: $\text{C}_{16}\text{H}_{16}\text{N}_2\text{Na}_2\text{O}_7\text{S}_2$ MW: 458.42 EINECS: 248-769-3

LD₅₀: 7900 mg/kg (M, i.v.); >15 g/kg (M, p.o.);

6 g/kg (R, i.v.); >15 g/kg (R, p.o.)



**Reference(s):**

DE 1 933 629 (Takeda; prior. 2.7.1969).
 DOS 1 948 943 (Takeda; appl. 27.9.1969; J-prior. 28.9.1968).
 DAS 1 966 850 (Takeda; appl. 27.9.1969; J-prior. 28.9.1968).
 US 3 660 379 (Takeda; 2.5.1972; appl. 29.9.1969; J-prior. 28.9.1968).
 US 3 891 763 (Takeda; 24.6.1975; prior. 18.1.1972).

Formulation(s): vial 1 g, 2 g, 4 g (as disodium salt)

Trade Name(s):

I: Kedacillina (Bracco; 1982) J: Kedacillin (Takeda) Lilacillin (Takeda)

Sulbentine

(Dibenzthione)

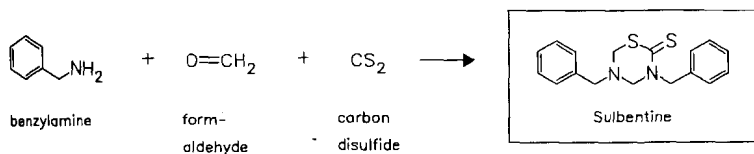
ATC: D01AE09

Use: antifungal

RN: 350-12-9 MF: $\text{C}_{17}\text{H}_{18}\text{N}_2\text{S}_2$ MW: 314.48 EINECS: 206-497-2

LD₅₀: 1100 mg/kg (M, i.p.)

CN: tetrahydro-3,5-bis(phenylmethyl)-2H-1,3,5-thiadiazine-2-thione

**Reference(s):**

DD 20 634 (appl. 17.8.1958).

Formulation(s): gel 3 g/100 g; ointment 3 g/100 g; sol. 3 g/100 g

Trade Name(s):

D: Fungiplex (Hermal); wfm I: Fungiplex (Bruschettini); J: Dampa D (Nippon Shinyaku)
 wfm

Sulconazole

ATC: N01AH03

Use: antifungal

RN: 61318-90-9 MF: $\text{C}_{18}\text{H}_{15}\text{Cl}_3\text{N}_2\text{S}$ MW: 397.76

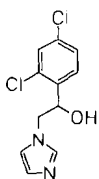
CN: (\pm)-1-[2-[[4-chlorophenyl)methyl]thio]-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole

mononitrate

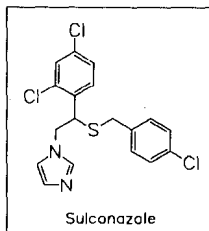
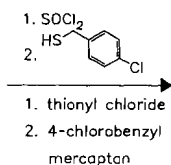
RN: 61318-91-0 MF: $\text{C}_{18}\text{H}_{15}\text{Cl}_3\text{N}_2\text{S} \cdot \text{HNO}_3$ MW: 460.77

LD₅₀: 2475 mg/kg (M, p.o.);

1741 mg/kg (R, p.o.)



1-(2,4-dichlorophenyl)-
2-(1H-imidazol-1-yl)-
ethanol
(cf. miconazole synthesis)



Reference(s):

DOS 2 541 833 (Syntex; appl. 19.9.1975; USA-prior. 23.9.1974, 7.7.1975).
US 4 055 652 (Syntex; 25.10.1977; appl. 8.3.1976; prior. 7.7.1975).

Formulation(s): cream 1 %; sol. 1 % (as nitrate)

Trade Name(s):

F:	Myk (Cassenne)	I:	Exelderm (Schwarz)	USA:	Exelderm (Westwood-Squibb)
GB:	Exelderm (Zeneca; 1985)	J:	Exelderm (Tanabe; 1986)		

Sulfabenzamide

(Benzoylsulfanilamide; Sulphabenzamide)

ATC: D08; J01E

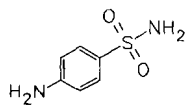
Use: chemotherapeutic (sulfonamide),
antibacterial

RN: 127-71-9 MF: C₁₃H₁₂N₂O₃S MW: 276.32 EINECS: 204-859-4

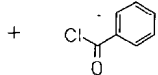
LD₅₀: 320 mg/kg (M, i.v.)

CN: N-[(4-aminophenyl)sulfonyl]benzamide

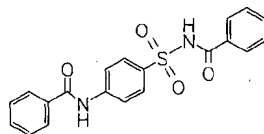
ⓐ



sulfanilamide
(q. v.)

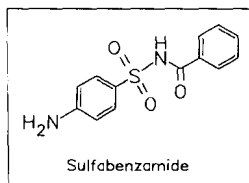


benzoyl
chloride (I)

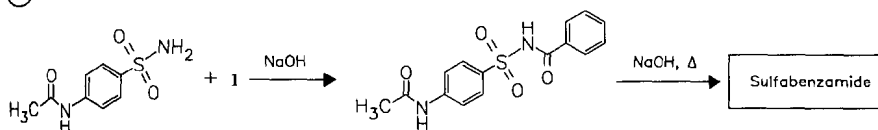


N¹,N⁴-dibenzoylsulfanilamide (II)

II



(b)



4-acetamido-
benzenesulfonamide
(cf. sulfanilamide
synthesis)

Reference(s):

- a Siebenmann, C.; Schnitzer, R.J.: J. Am. Chem. Soc. (JACSAT) **65**, 2126 (1943).
 b US 2 240 496 (Monsanto; 1941; appl. 1939).
 GB 541 958 (Schering AG; appl. 1938; D-prior. 1938).

Formulation(s): pessaries 185 mg; vaginal cream 37 mg/g

Trade Name(s):

D: Neosultrin (Cilag)-comb.; GB: Sultrin (Janssen-Cilag)-
wfm comb. USA: Sultrin (Ortho-McNeil
Pharmaceutical)-comb.

Sulfacarbamide

(Sulphaurea; Sulfanylurea)

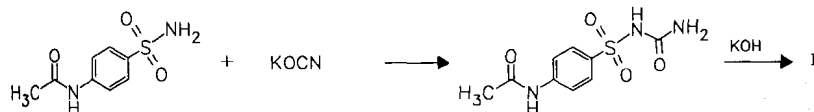
ATC: D08; J01E

Use: chemotherapeutic, antibacterial

RN: 547-44-4 MF: C₇H₉N₃O₃S MW: 215.23 EINECS: 208-922-7

LD₅₀: 405 mg/kg (M, i.p.)

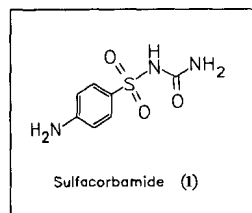
CN: 4-amino-*N*-(aminocarbonyl)benzenesulfonamide



4-acetamidobenzene-
sulfonamide

potassium
cyanate

(4-acetamidobenzene-
sulfonyl)ureo

**Reference(s):**

US 2 411 661 (Geigy; 1946; CH-prior. 1939).

Formulation(s): drg. 0.5 g; syrup 0.1 g/ml

Trade Name(s):

D: Cysto-Myacyne O.W.G.
(Schur)-comb.; wfm
Euvernil (Heyden); wfm

Spasmo-Euvernil
(Heyden)-comb.; wfm

GB: Uromide (Consolidated
Chemicals)-comb.; wfm

Sulfacetamide

(N'-acetylsulfanilamide; Sulphacetamide)

ATC: S01AB04

Use: chemotherapeutic (eye infection),
antibacterial

RN: 144-80-9 MF: C₈H₁₀N₂O₃S MW: 214.25 EINECS: 205-640-6

LD₅₀: 16.5 g/kg (M, p.o.);

6.6 g/kg (R, i.v.)

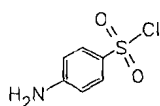
CN: N-[(4-aminophenyl)sulfonyl]acetamide

monosodium salt

RN: 127-56-0 MF: C₈H₉N₂NaO₃S MW: 236.23 EINECS: 204-848-4

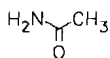
LD₅₀: 6 g/kg (M, s.c.)

(a)

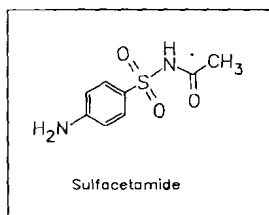


4-aminobenzene-
sulfonyl chloride

+

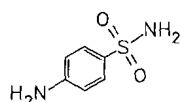


acetamide



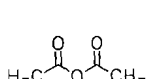
Sulfacetamide

(b)

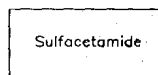
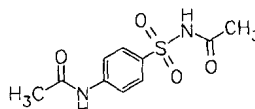


4-aminobenzene-
sulfanamide

+



acetic anhydride



Sulfacetamide

Reference(s):

US 2 411 495 (Schering Corp.; 1946; D-prior. 1938).

Formulation(s): eye drops 100 mg/ml; ophthalmic ointment 2 mg/g, 100 mg/g (as sodium salt); pessaries 143.75 mg

Trade Name(s):

D: Albuclid (Chauvin
ankerpharm)
Blefcon (Alcon)-comb.
Blephamide (Pharm-
Allergan)-comb.
Combiamid (Winzer)-
comb.

F: Antébor (Lab. Biol. de
l'Ile-De-France)-comb.

GB: Sultrin (Janssen-Cilag)-
comb.

I: Antisetico Astr. Sed.
(Bruschettini)-comb.
Aureomix (SIT)-comb.
Brumeton (Bruschettini)-
comb.

Chemyterral (SIT)-comb.

Cosmiciclina (Alfa Intes)-
comb.

Prontamid (SIT)

Rinosulfargolo

(Bruschettini)-comb.

Visublefarite (Pharmec)-

comb.

J: Neo-Gerison (Yamanouchi)
USA: Blephamide (Allergan)

Sultrin (Ortho-McNeil
Pharmaceutical)-comb.

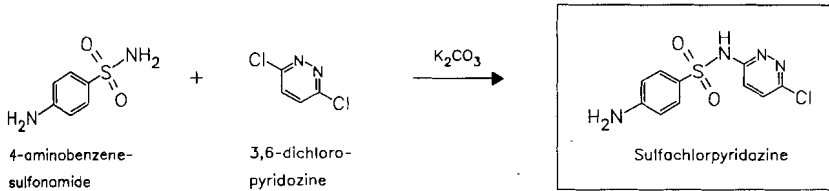
Sulfachlorpyridazine

ATC: D08; J01ED

Use: chemotherapeutic (urogenital tract infections), antibacterial

RN: 80-32-0 MF: C₁₀H₉ClN₄O₂S MW: 284.73 EINECS: 201-269-9

CN: 4-amino-N-(6-chloro-3-pyridazinyl)benzenesulfonamide



Reference(s):

US 2 790 798 (American Cyanamid; 1957; prior. 1955).

Formulation(s): tabl. 500 mg

Trade Name(s):

I: Durasulf (Dessy); wfm
Sulfacorazina (Ellem);
wfm

USA: Consolid (Ciba-Geigy);
wfm
Nefrosul (Riker); wfm

Sonilyn (Mallinckrodt);
wfm

Sulfacitine

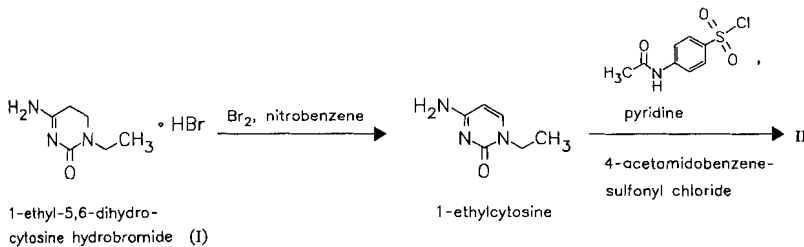
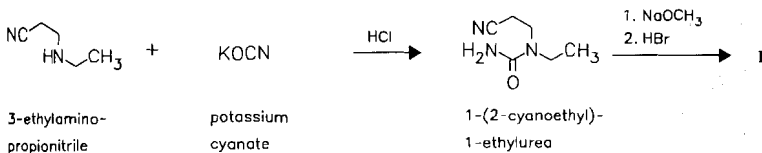
(Sulfacytine)

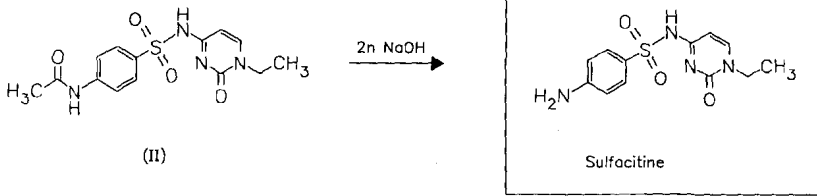
ATC: J01E

Use: chemotherapeutic (depot sulfonamide), antibacterial

RN: 17784-12-2 MF: C₁₂H₁₄N₄O₃S MW: 294.34

CN: 4-amino-N-(1-ethyl-1,2-dihydro-2-oxo-4-pyrimidinyl)benzenesulfonamide





Reference(s):

US 3 375 247 (Parke Davis; 26.3.1968; appl. 2.8.1965).
 DE 1 620 140 (Parke Davis; appl. 1.8.1966; USA-prior. 2.8.1965).
 Doub, L. et al.: J. Med. Chem. (JMCMAR) **13**, 242 (1970).

Formulation(s): tabl. 250 mg

Trade Name(s):

USA: Renoquid (Parke Davis);
 wfm

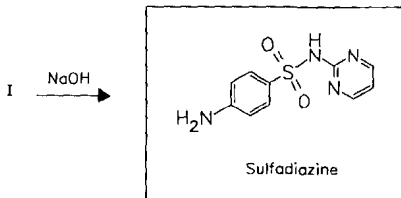
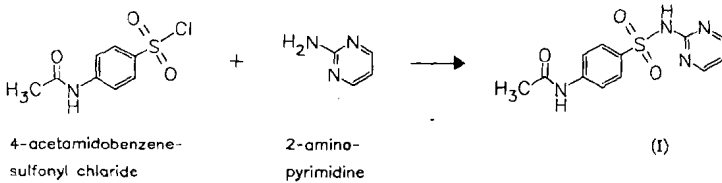
Sulfadiazine
 (Sulphadiazine)

ATC: J01EC02
 Use: chemotherapeutic

RN: 68-35-9 MF: C₁₀H₁₀N₄O₂S MW: 250.28 EINECS: 200-685-8
 LD₅₀: 180 mg/kg (M, i.v.); 1500 mg/kg (M, p.o.);
 880 mg/kg (R, i.v.)
 CN: 4-amino-*N*-2-pyrimidinylbenzenesulfonamide

silver salt

RN: 22199-08-2 MF: C₁₀H₉AgN₄O₂S MW: 357.14



Reference(s):

US 2 407 966 (Sharp & Dohme; 1946).
 US 2 410 793 (American Cyanamid; 1946).

Formulation(s): cream 1 %; tabl. 500 mg (as silver salt)

Trade Name(s):

D: Brandiazine (medphano) Flammazine (Solvay) Arzneimittel)

	Sterinor (Heumann)-comb. with tetroxprim		Streptotriad (M. & B.)- comb.; wfm		Silvadene (Marion Labs.; as silver salt); wfm
	Sulfadiazin (Heyl)	I:	Connettivina (Fidia; as silver salt)		Sodium Sulfadiazine (City Chem.); wfm
	Urospasmon (Heumann)- comb.		Kombinax (Bracco)-comb.		Sodium Sulfadiazine (Lederle); wfm
F:	Adiazine (Doms-Adrian)		Oxosint (Medivis)-comb.		Sulfonamides Duplex (Lilly); wfm
	Antrima (Doms-Adrian)- comb.		Sofargen (Sofar; as silver salt)		Sulfose (Wyeth)-comb.; wfm
	Flamenacerium (Solvay Pharma; as silver salt)- comb.		Sterinor (ABC Farmaceutici)-comb.		Terfonyl (Squibb)-comb.; wfm
	Flammazine (Solvay Pharma; as silver salt)		Sulfadiazina (Ecobi; IFI)		Triple Sulfas (Lederle)- comb.; wfm
	Sicazine (Smith & Nephew; as silver salt)	J:	Sulfadiazina Sodica (Salf; as sodium salt)		Trisem (Beecham)-comb.; wfm
GB:	Flamazine (Smith & Nephew; as silver salt); wfm	USA:	Theradia (Daiichi)		further combination preparations; wfm
			Theradiazine (Daiichi)		
			Coco-Diazine (Lilly); wfm		
			Neotrizine (Lilly)-comb.; wfm		

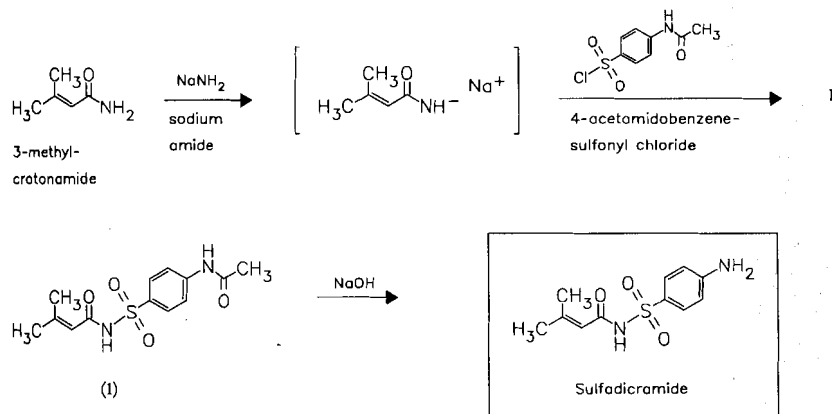
Sulfadiazine

ATC: S01AB03

Use: chemotherapeutic

RN: 115-68-4 MF: C₁₁H₁₄N₂O₃S MW: 254.31 EINECS: 204-099-3

CN: N-[(4-aminophenyl)sulfonyl]-3-methyl-2-butenamide



Reference(s):

US 2 417 005 (Geigy; 1947; CH-prior. 1943).

Formulation(s): ophthalmic ointment 150 mg/g

Trade Name(s):

D: Irgamid Augensalbe
(Dispersa); wfmIrgamid Augensalbe
(Zyma-Blaes); wfm

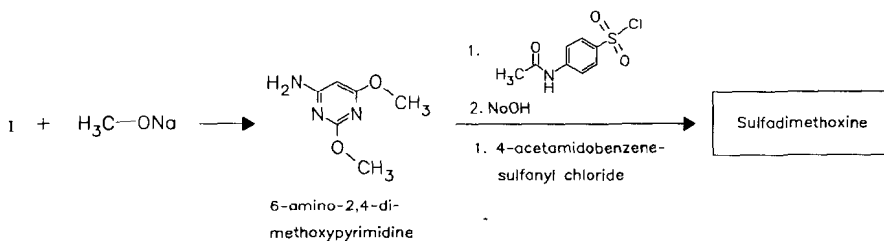
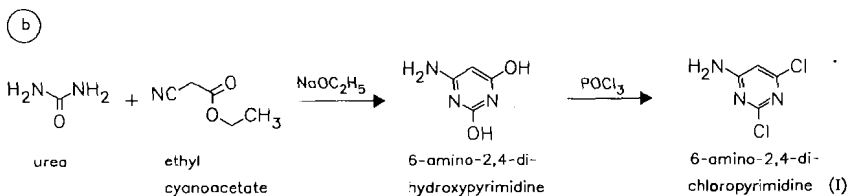
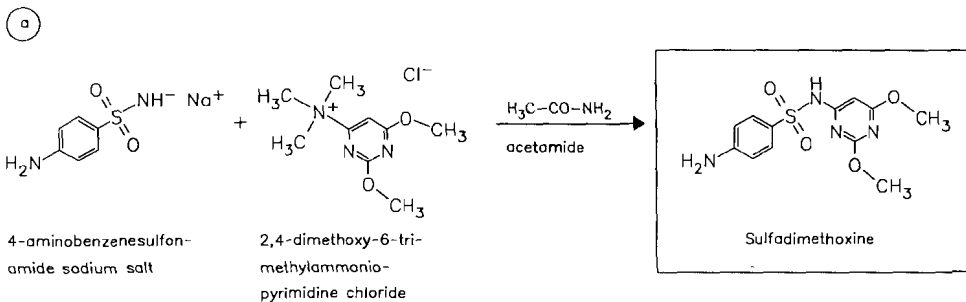
Sulfadimethoxine

ATC: J01ED01

Use: chemotherapeutic

RN: 122-11-2 MF: C₁₂H₁₄N₄O₄S MW: 310.33 EINECS: 204-523-7LD₅₀: 844 mg/kg (M, i.v.);
>3200 mg/kg (dog, p.o.)

CN: 4-amino-N-(2,6-dimethoxy-4-pyrimidinyl)benzenesulfonamide



Reference(s):

a US 2 703 800 (Österr. Stickstoffwerke; 1955; A-prior. 1951).

b Bretschneider, H. et al.: *Monatsh. Chem. (MOCMB7)* **87**, 136 (1956); **92**, 75 (1961); **92**, 128 (1961).

Formulation(s): drops 200 mg/ml; syrup 250 mg/5 ml; tabl. 250 mg, 500 mg

Trade Name(s):

D: Madribon (Roche); wfm

F: Madribon (Roche); wfm

GB: Madribon (Roche); wfm

I: Sulfadimetossina (IFI)

J: Abcid (Daiichi)

Asthoxin (Kobayashi)

Dimetoxin (Nissin)

Dimexin (Fuso)

Hachimetoxin (Toyo S.-
Ono)

Melfa (Tanabe)

Mition-D (Taisho)

Omunibon (Yamanouchi)

Sulfalon (Sumitomo)

Sulmethon (Mohan)

Sulmetoxyn (Nichiiko)

Sulxin (Chugai)

Sumetamin (Samva)

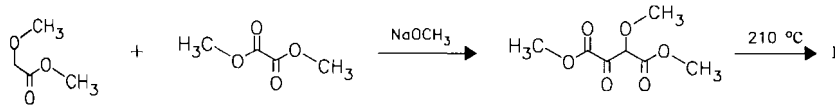
USA: Albon (Roche); wfm

Sulfadoxine

(Sulformetoxinum; Sulforthomidine; Sulformethoxine)

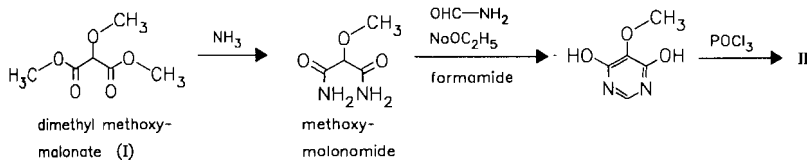
ATC: P01BD51

Use: chemotherapeutic (sulfonamide)

RN: 2447-57-6 MF: C₁₂H₁₄N₄O₄S MW: 310.33 EINECS: 219-504-9LD₅₀: 5200 mg/kg (M, p.o.)CN: 4-amino-*N*-(5,6-dimethoxy-4-pyrimidinyl)benzenesulfonamide

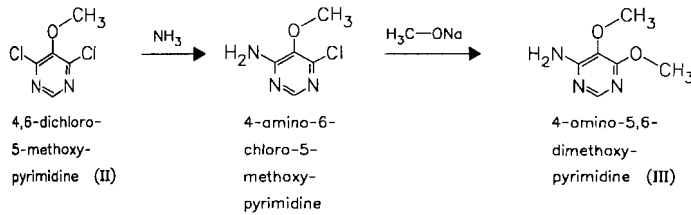
methyl methoxyacetate

dimethyl oxalate



dimethyl methoxymalonate (I)

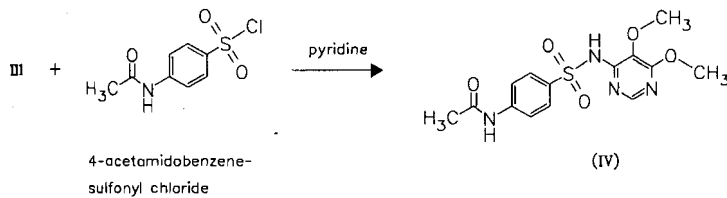
methoxymalonamide



4,6-dichloro-5-methoxypyrimidine (II)

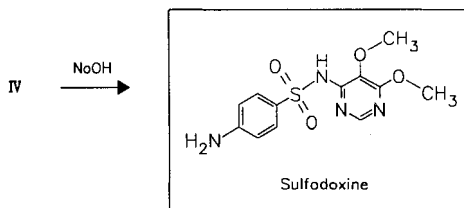
4-amino-6-chloro-5-methoxypyrimidine

4-amino-5,6-dimethoxypyrimidine (III)



4-acetamidobenzene-sulfonyl chloride

(IV)



Sulfadoxine

Reference(s):

US 3 132 139 (Roche; 1964; CH-prior. 1961).

Grüssner, A. et al.: Monatsh. Chem. (MOCMB7) **96**, 1676 (1965).Bretschneider, H. et al.: Monatsh. Chem. (MOCMB7) **96**, 1661 (1965).**Formulation(s):** amp. 400 mg; tabl. 500 mg (in comb. with 25 mg pyrimethamine)

Trade Name(s):

D: Fansidar (Roche)-comb.; GB: Fansidar (Roche)-comb. USA: Fansidar (Roche)
 wfm I: Fanasil (Roche); wfm
 F: Fansidar (Roche)-comb. J: Fansidar (Roche)-comb.

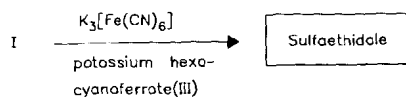
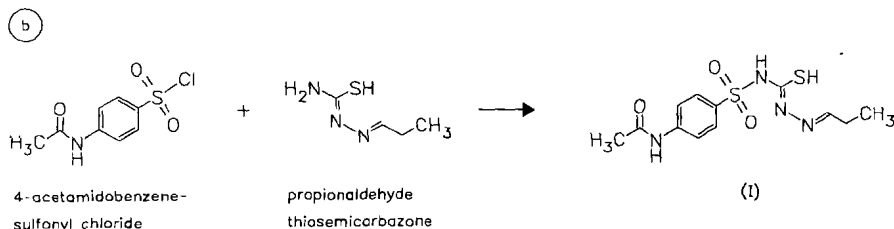
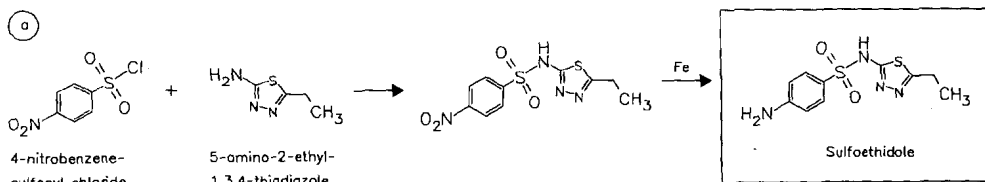
Sulfaethidole

ATC: G04A
 Use: chemotherapeutic

RN: 94-19-9 MF: $C_{10}H_{12}N_4O_2S_2$ MW: 284.36 EINECS: 202-312-4

LD₅₀: 1300 mg/kg (R, i.v.)

CN: 4-amino-N-(5-ethyl-1,3,4-thiadiazol-2-yl)benzenesulfonamide



Reference(s):

- a US 2 358 031 (American Cyanamid; 1944; prior. 1940).
 DE 957 841 (Schering AG; appl. 1940).
 b US 2 447 702 (Lundbeck; 1948; DK-prior. 1942).

Formulation(s): drg. 150 mg (in comb. with 350 mg sulfamethiozole)

Trade Name(s):

D: Harnosal (TAD)-comb.

Sulfafurazole

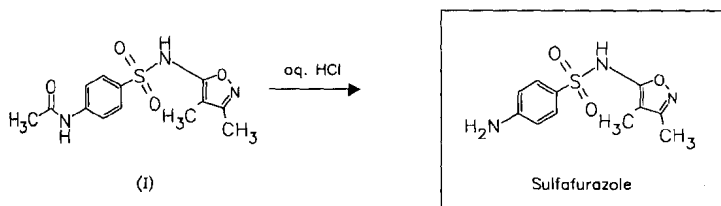
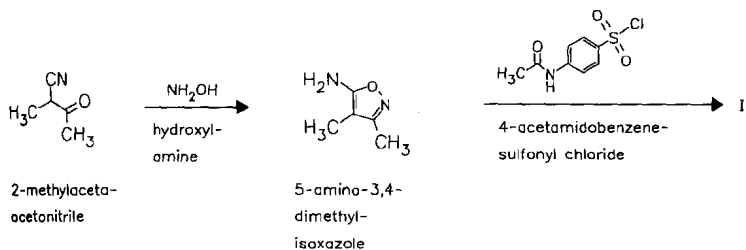
(Sulfisoxazole; Sulphafurazole)

ATC: J01EB05; S01AB02
 Use: chemotherapeutic

RN: 127-69-5 MF: $C_{11}H_{13}N_3O_3S$ MW: 267.31 EINECS: 204-858-9

LD₅₀: 2500 mg/kg (M, i.v.); 6800 mg/kg (M, p.o.);
 10 g/kg (R, p.o.)

CN: 4-amino-N-(3,4-dimethyl-5-isoxazolyl)benzenesulfonamide

**Reference(s):**

US 2 430 094 (Hoffmann-La Roche; 1947; prior. 1944).

DE 819 855 (Hoffmann-La Roche; USA-prior. 1944).

Formulation(s): amp. 4 mg/ml; eye drops 4 %; tabl. 500 mg**Trade Name(s):**

D:	Gantrisin (Roche); wfm	Thiasin (Yamanouchi)	Koro-Sulf (Holland-Rantos); wfm
F:	Gantrisine (Roche); wfm	USA: Azo-Gantrisin (Roche)-comb.; wfm	SK-Soxazole (Smith Kline & French); wfm
	Pédiazole (Abbott)-comb. with erythromycine	Dow-Sulfisoxazole (Dow); wfm	Sosol (McKesson); wfm
GB:	Gantrisin (Roche); wfm	Erythromycin	Soxomide (Upjohn); wfm
I:	Fultrexin (Zambon)-comb.; wfm	Ethylsuccinate / Sulfisoxazole Acetate (Warner Chilcott)	Sulfalar (Parke Davis); wfm
J:	Isoxamin (Fuso)	Gantrisin (Roche); wfm	combination preparations and generics
	Sulfazin (Shionogi)		

Sulfaguanidine

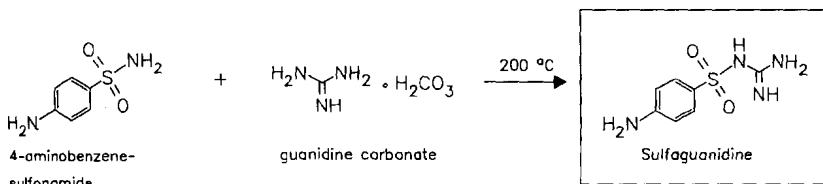
(Sulphaguanidine)

ATC: A07AB03

Use: chemotherapeutic

RN: 57-67-0 MF: $\text{C}_7\text{H}_{10}\text{N}_4\text{O}_2\text{S}$ MW: 214.25 EINECS: 200-345-9

CN: 4-amino-N-(aminoiminomethyl)benzenesulfonamide

**Reference(s):**

US 2 218 490 (American Cyanamid; 1940; appl. 1940).

US 2 229 784 (American Cyanamid; 1941; appl. 1940).

US 2 233 569 (American Cyanamid; 1941; appl. 1940).

Formulation(s): tabl. 0.5 g (as hydrate)

Trade Name(s):

D:	Diarönt (Chephasaar)- comb.; wfm		Resulfon-S (Nordmark); wfm		Streptoguanidin (Lisapharma)-comb.; wfm
	Enterastrept (Heyl)-comb.; wfm	F:	Litoxol (SmithKline Beecham)		combination preparations; wfm
	Guabeta (OTW); wfm	I:	Aseptil-Guanidina (Wassermann); wfm	J:	Aterian (Takeda)
	Jacosulfon (Giulini)-comb.; wfm		Kinol (Lafare)-comb.; wfm		

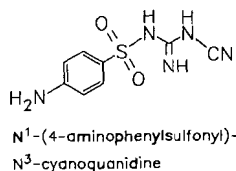
Sulfaguanoole

ATC: D08

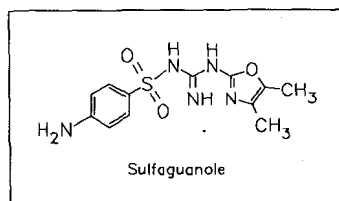
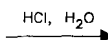
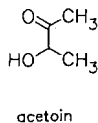
Use: chemotherapeutic (depot
sulfonamide)

RN: 27031-08-9 MF: C₁₂H₁₅N₅O₃S MW: 309.35 EINECS: 248-175-4

CN: 4-amino-N-[(4,5-dimethyl-2-oxazolyl)amino]iminomethyl]benzenesulfonamide



+



Reference(s):

US 3 562 258 (Nordmark; 9.2.1971; prior. 10.2.1969).

GB 1 185 139 (Nordmark; appl. 13.2.1969).

Formulation(s): drg. 400 mg

Trade Name(s):

D:	Enterocura (Nordmark); wfm	I:	Asorec (Radiumfarma); wfm	Enterocura (De Angeli); wfm
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Sulfalene

(Sulfametopyrazine)

ATC: J01ED02

Use: chemotherapeutic (depot
sulfonamide)

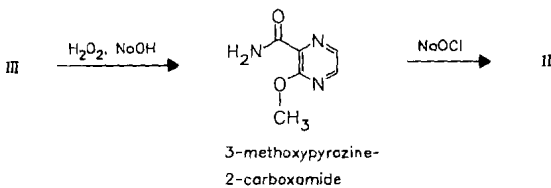
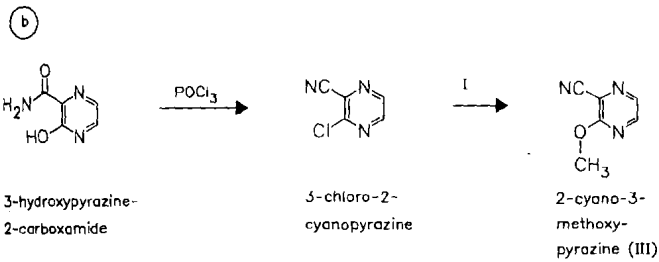
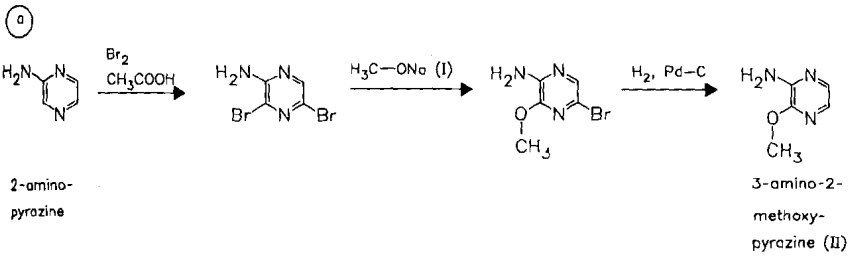
RN: 152-47-6 MF: C₁₁H₁₂N₄O₃S MW: 280.31 EINECS: 205-804-7

LD₅₀: 893 mg/kg (M, i.v.); 1292 mg/kg (M, p.o.);

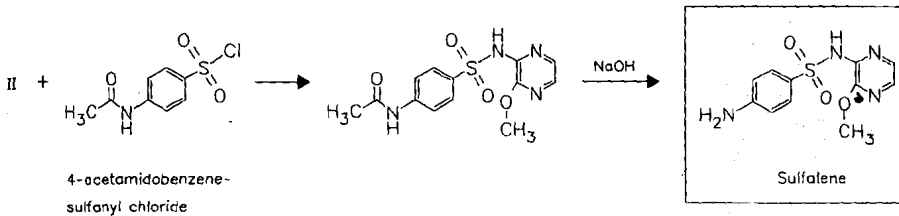
1790 mg/kg (R, i.v.); 2739 mg/kg (R, p.o.)

CN: 4-amino-N-(3-methoxy-pyrazinyl)benzenesulfonamide

starting product:



final product:



Reference(s):

US 3 098 069 (Carlo Erba; 16.7.1963; GB-prior. 14.7.1959).

Formulation(s): tabl. 2 g

Trade Name(s):

D:	Longum (Pharmacia & Upjohn)	I:	Kelfiprim (Pharmacia & Upjohn)-comb.
GB:	Kelfizine-W (Pharmacia & Upjohn)		Kelfizina (Pharmacia & Upjohn)

Sulfaloxic acid

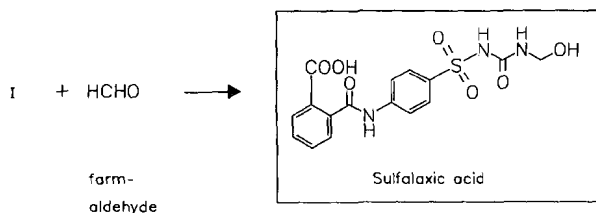
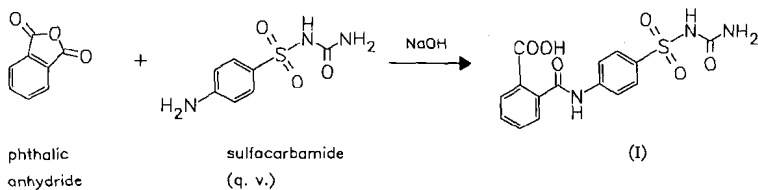
(Sulphaloxate; Sulphaloxic Acid)

ATC: D08

Use: chemotherapeutic (sulfonamide), antibacterial

RN: 14376-16-0 MF: C₁₆H₁₅N₃O₇S MW: 393.38 EINECS: 238-348-2

CN: 2-[[[4-[[[(hydroxymethyl)amino]carbonyl]amino]sulfonyl]phenyl]amino]carbonyl]benzoic acid

calcium saltRN: 97259-91-1 MF: C₃₂H₂₈CaN₆O₁₄S₂ MW: 824.81**Reference(s):**

DE 960 190 (Chem. Fabrik von Heyden; appl. 1954).

DAS 1 002 319 (Chem. Fabrik von Heyden; appl. 15.6.1954).

Formulation(s): tabl. 0.55 g (as calcium salt)**Trade Name(s):**D: Intestin-Euvernil (Heyden)
Myacine (Schur)-comb.;
wfmSulfa-Adsorgan
(Combustin); wfmGB: Enteromide (Consolidated;
as calcium salt); wfm**Sulfamerazine**

(Methylsulfadiazine)

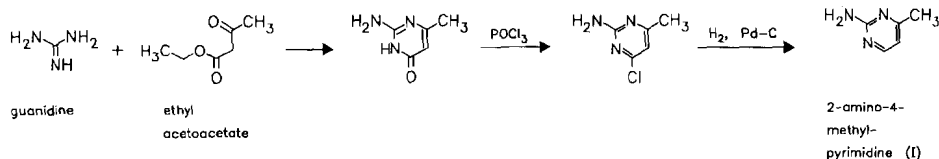
ATC: J01ED07

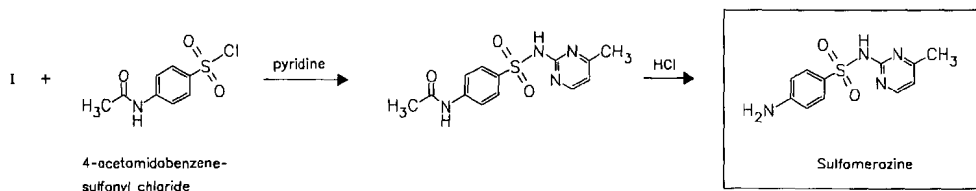
Use: chemotherapeutic, antibacterial

RN: 127-79-7 MF: C₁₁H₁₂N₄O₂S MW: 264.31 EINECS: 204-866-2LD₅₀: 25 g/kg (M, p.o.);

1100 mg/kg (R, i.v.).

CN: 4-amino-N-(4-methyl-2-pyrimidinyl)benzenesulfonamide

sodium saltRN: 127-58-2 MF: C₁₁H₁₁N₄NaO₂S MW: 286.29

**Reference(s):**

US 2 407 966 (Sharp & Dohme; 1946; appl. 1940).

Formulation(s): susp. 60 mg/5 ml; tabl. 120 mg (as sodium salt)

Trade Name(s):

D: Dosulfon (Geigy)-comb.; wfm	F: Dosulfone (Gomenol)-comb.; wfm Solumedine (Specia); wfm	I: Polagin (De Angeli)-comb.; wfm
		J: Romezin (Tanabe)

Sulfamethizole
(Sulphamethizole)

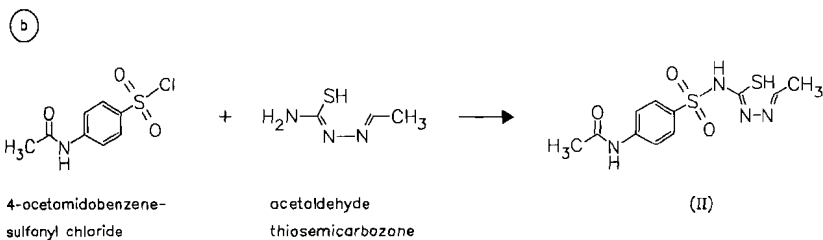
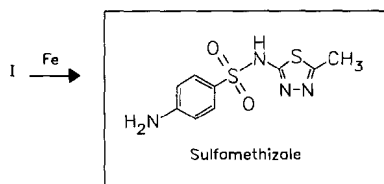
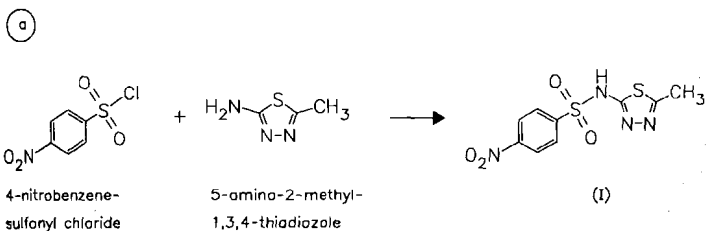
ATC: B05CA04; D06BA04; J01EB02;
S01AB01

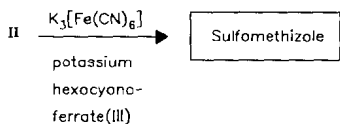
Use: chemotherapeutic, antibacterial

RN: 144-82-1 MF: C₉H₁₀N₄O₂S₂ MW: 270.34 EINECS: 205-641-1

LD₅₀: 1820 mg/kg (M, i.v.); >10 g/kg (M, p.o.);
2710 mg/kg (R, i.v.); 3500 mg/kg (R, p.o.)

CN: 4-amino-N-(5-methyl-1,3,4-thiadiazol-2-yl)benzenesulfonamide





Reference(s):

- a US 2 358 031 (American Cyanamid; 1944; prior. 1940).
- b US 2 447 702 (Lundbeck & Co.; 1948; DK-prior. 1942).

Formulation(s): cps. 250 mg in comb. with oxytetracycline.HCl (250 mg) and phenazopyridine.HCl (50 mg);
 drg. 350 mg in comb. with sulfaethidole

Trade Name(s):

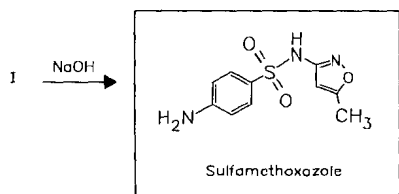
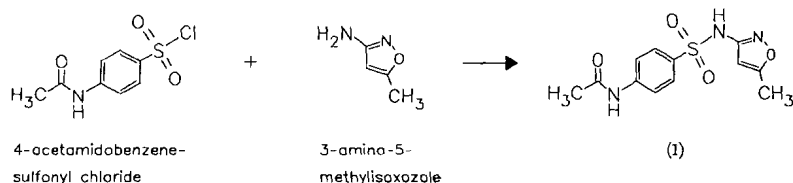
D:	Harnosal (TAD)-comb.		Thiosulfil (Ayerst); wfm	Urosol (Kanto)
F:	Rufol (Débat)	J:	Harnway (Nichiiiko)	Urosol (Mohan)
GB:	Urolucosil (Warner); wfm		Salimol (Maruishi-Kanebo)	USA: Urobiotic-250 (Pfizer)- comb.
I:	Rufol (Roussel-Maestretti); wfm		Urokinon (Chugai)	
			Urokizol (Chugai)	

Sulfamethoxazole

(Sulphamethoxazole)

ATC: J01EC01
 Use: antipneumocystis, chemotherapeutic
 (urogenital tract infections)

RN: 723-46-6 MF: C₁₀H₁₁N₃O₃S MW: 253.28 EINECS: 211-963-3
 LD₅₀: 1460 mg/kg (M, i.v.); 2300 mg/kg (M, p.o.);
 6200 mg/kg (R, p.o.)
 CN: 4-amino-N-(5-methyl-3-isoxazolyl)benzenesulfonamide



Reference(s):

- US 2 888 455 (Shionogi; 26.5.1959; J-prior. 4.9.1956).

Formulation(s): amp. 400 mg/5 ml, 800 mg/3 ml; susp. 200 mg/5 ml; syrup 200 mg/5 ml, 400 mg/5 ml; tabl. 100 mg, 400 mg, 800 mg, 960 mg

Trade Name(s):

D:	Bactoreduct (Azupharma)- comb. with trimethoprim	Bactrim/forte (Roche)- comb. with trimethoprim	Berlocid (Berlin-Chemie)- comb. with trimethoprim
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Cotrim (Heumann; ct-Arzneimittel; Holsten; BASF; Hefa; PUREN; ratiopharm; Hexal)-comb. with trimethoprim
 Cotrim-Diolan/-forte (Engelhard)-comb. with trimethoprim
 Cotrim-EuRho (Eu Rho Arznei)-comb. with trimethoprim
 Cotrimoxazol (Aluid Pharma)-comb. with trimethoprim
 Cotrimoxazol/-forte (Fatol)-comb. with trimethoprim
 Cotrimox-Wolff (Wolff)-comb. with trimethoprim

F:

Drylin (Merckle)-comb. with trimethoprim
 Eusaprine (Glaxo Wellcome)-comb. with trimethoprim
 Jenamoxazol (Jenapharm)-comb. with trimethoprim
 Kepinol (Pfleger)-comb. with trimethoprim
 Microtrim (Rosen Pharma)-comb.
 Sijaprim (Kytta-Siegfried)-comb.
 Bactrim (Roche)
 Cotrimazol Forte
 Ratiopharm (Lafon-ratiopharm)
 Eusaprim (Glaxo Wellcome)
 Gantanol (Roche)

GB: Chemotrim (Rosemont)-comb.
 Gantanol (Roche)
 Septrin (Glaxo Wellcome)-comb.
 I: Abacin (Benedetti)-comb.
 Bacterial (CT)-comb.
 Bactrim (Dompé)-comb.
 Chemitrim (Biomedica Foscam)-comb.
 Eusaprim (Glaxo Wellcome)-comb.
 Gantrim (Geymonat)-comb.
 Isotrim (Ghimas)-comb.
 J: Sinomin (Shionogi)
 USA: Bactrim (Roche)-comb.
 Gantanol (Roche)
 Septra (Glaxo Wellcome)-comb.
 generics

Sulfamethoxypyridazine

(Sulphamethoxypyridazine)

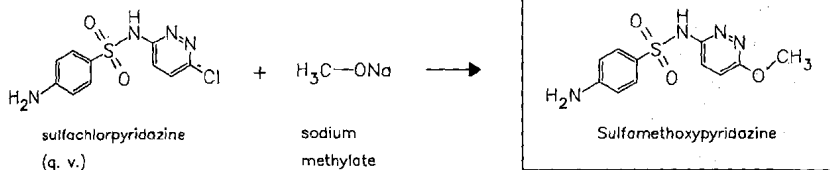
ATC: J01ED05

Use: chemotherapeutic

RN: 80-35-3 MF: $C_{11}H_{12}N_4O_3S$ MW: 280.31 EINECS: 201-272-5

LD₅₀: 1 g/kg (M, i.v.); 1700 mg/kg (M, p.o.);
 2739 mg/kg (R, p.o.)

CN: 4-amino-N-(6-methoxy-3-pyridazinyl)benzenesulfonamide



Reference(s):

US 2 712 012 (American Cyanamid; 1955; prior. 1954).

N'-acetyl derivative:

US 2 833 761 (American Cyanamid; 1958; appl. 1957).

Formulation(s): cps. 120 mg in comb. with trimethoprim; suppos. 60 mg, 200 mg, 400 mg in comb. with trimethoprim; syrup 75 mg in comb. with trimethoprim; tabl. 250 mg, 500 mg;

Trade Name(s):

D:	Davosin (Parke Davis); wfm Lederkyn (Novalis Arzn.); wfm	F:	Sulmidal (Roger Bellon)-comb.; wfm Sultirénc (Specia); wfm	I:	Velaten (Camillo Corvi)-comb.
GB:	Lederkyn (Lederle); wfm Midicel (Parke Davis); wfm	J:	Lederkyn (Lederle) Oroxin (Otsuka)	USA:	Midicel (Parke Davis); wfm

Sulfametoxydiazine

(Sulfamer)

ATC: D08; J01ED

Use: chemotherapeutic (depot sulfonamide)

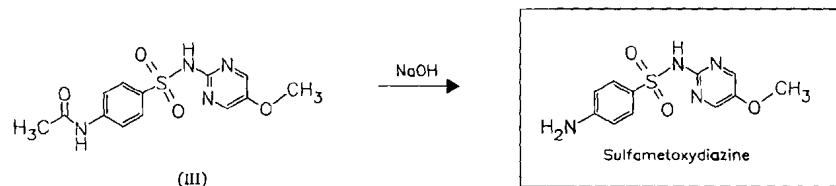
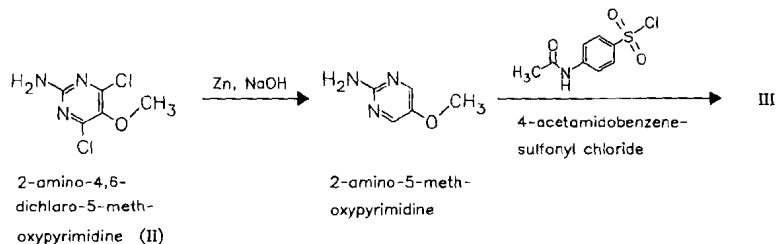
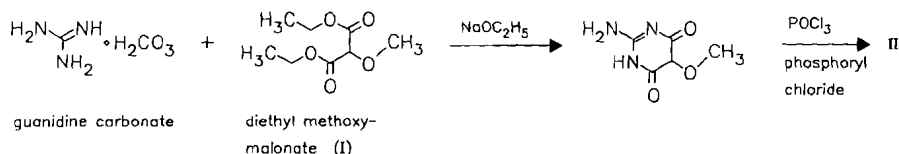
RN: 651-06-9 MF: C₁₁H₁₂N₄O₃S MW: 280.31 EINECS: 211-480-8LD₅₀: 1 g/kg (M, i.v.); 16 g/kg (M, p.o.);

1 g/kg (R, i.v.); 6 g/kg (R, p.o.);

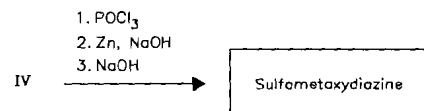
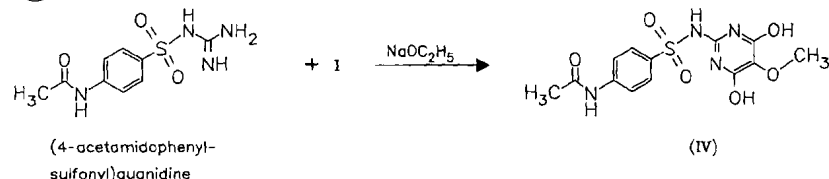
1 g/kg (dog, p.o.)

CN: 4-amino-*N*-(5-methoxy-2-pyrimidinyl)benzenesulfonamide

(a)



(b)

**Reference(s):**

DE 1 101 428 (Schering AG; appl. 8.7.1959).

Formulation(s): syrup 200 mg/5 ml; tabl. 0.5 g

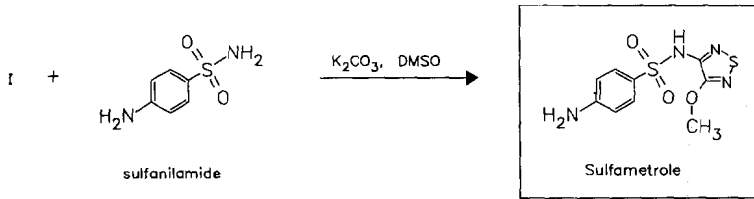
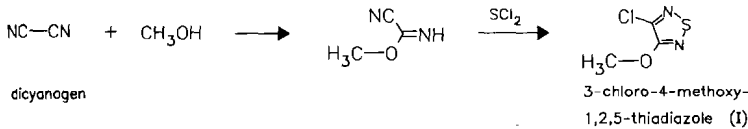
Trade Name(s):

D: Durenat (Bayer-Schering); wfm
 F: Bayrena (Bayer-Pharma); wfm
 GB: Durenate (Bayer); wfm
 I: Kiron (Schering); wfm
 USA: Sulla (Robins); wfm

Sulfametrole

ATC: J01EA

Use: chemotherapeutic (in combination with trimethoprim)

RN: 32909-92-5 MF: C₉H₁₀N₄O₃S₂ MW: 286.34 EINECS: 251-288-1CN: 4-amino-*N*-(4-methoxy-1,2,5-thiadiazol-3-yl)benzenesulfonamide*Reference(s):*

BE 862 952 (Chemie Linz; appl. 16.1.1978; D-prior. 17.1.1977).

DOS 2 701 632 (Lentia; appl. 17.1.1977).

US 4 151 164 (Chemie Linz; 24.4.1979; D-prior. 17.1.1977).

alternative syntheses:

US 3 247 193 (Österr. Stickstoffwerke; 19.4.1966; A-prior. 14.3.1962).

US 3 636 209 (Merck & Co.; 18.1.1972; prior. 15.10.1965, 16.9.1966, 1.8.1969, 11.4.1965).

Formulation(s): f. c. tabl. 800 mg; vial 800 mg; tabl. 400 mg*Trade Name(s):*

D: Lidaprim (Hormon-Chemie)-comb. with trimethoprim; wfm
 I: Lidaprim (Lisapharma)-comb. with trimethoprim

Sulfamoxole

(Sulphamoxole)

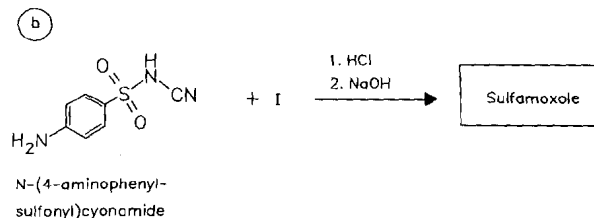
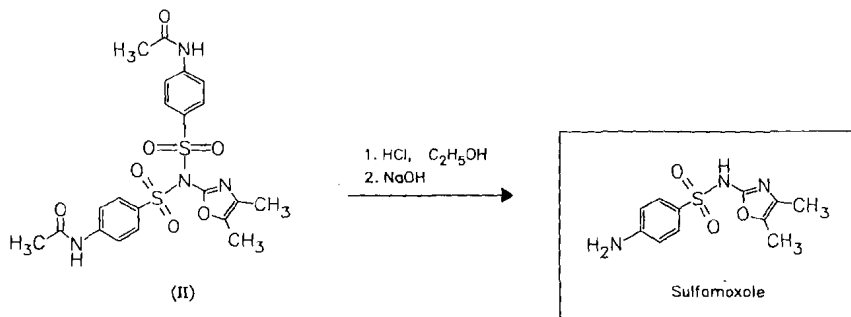
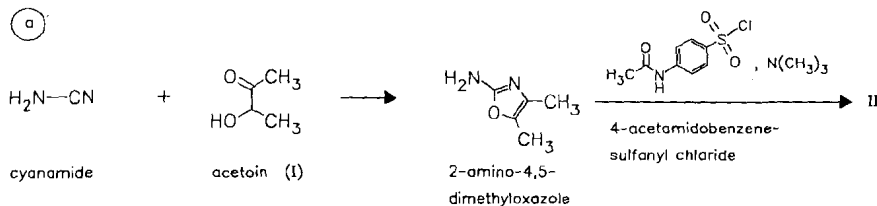
ATC: J01EC03

Use: chemotherapeutic

RN: 729-99-7 MF: C₁₁H₁₃N₃O₃S MW: 267.31 EINECS: 211-982-7LD₅₀: 1 g/kg (M, i.v.); 15.2 g/kg (M, p.o.);

>12.5 g/kg (R, p.o.)

CN: 4-amino-*N*-(4,5-dimethyl-2-oxazolyl)benzenesulfonamide



Reference(s):

- a DE 1 003 737 (Nordmark; appl. 28.7.1955).
US 2 809 966 (Nordmark; 1957; D-prior. 1955).
- b DE 1 121 052 (Nordmark; appl. 1.2.1960).
DE 1 128 429 (Nordmark; appl. 19.5.1960; addition to DE 1 121 052).

Formulation(s): susp. 200 mg; tabl. 400 mg .

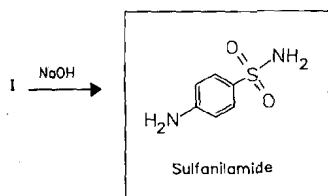
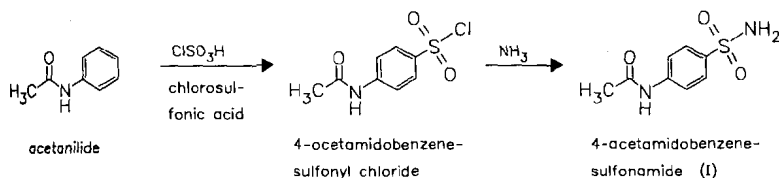
Trade Name(s):

D:	Sulfuno (Nordmark); wfm Tardamide (Grünenthal); wfm	I:	Supristol (Gallier)-comb. with trimethoprim; wfm Oxasulfa (Trinum); wfm	USA:	Sulmen (Menarini)-comb. with trimethoprim; wfm Naprin (Upjohn); wfm
F:	Justamil (Hépatrol); wfm				

Sulfanilamide
(Sulphanilamide)

ATC: J01EB06
Use: chemotherapeutic

RN: 63-74-1 MF: C₆H₈N₂O₂S MW: 172.21 EINECS: 200-563-4
LD₅₀: 500 mg/kg (M, i.v.); 3 g/kg (M, p.o.);
1400 mg/kg (R, i.v.); 3900 mg/kg (R, p.o.);
2 g/kg (dog, p.o.)
CN: 4-aminobenzenesulfonamide



Reference(s):

US 2 132 178 (Mietzsch, Klarer; 1938).

US 2 276 664 (Mietzsch, Klarer; 1942).

Formulation(s): vaginal ointment 15 %; vaginal suppos. 1.05 g

Trade Name(s):

D: Pyodental (Artesan); wfm
Sulfonamid-Spuman
(Luitpold); wfm
combination preparations;
wfm

F: Anafluose (Techni-
Pharma)-comb.; wfm

Exoseptoplix (ThérapiX);
wfm
Pulvi-bactéramide (Bailly);
wfm
Rhinamide (Bailly)-comb.;
wfm
Tablamide (Bureau)

I: Chemiovis (SIT)-comb.;
wfm
Rinocorfene (Ottolenghi)-
comb.; wfm
J: Neo-Gerison (Yamanouchi)
USA: AVC (Hoechst Marion
Roussel)-comb.
generic

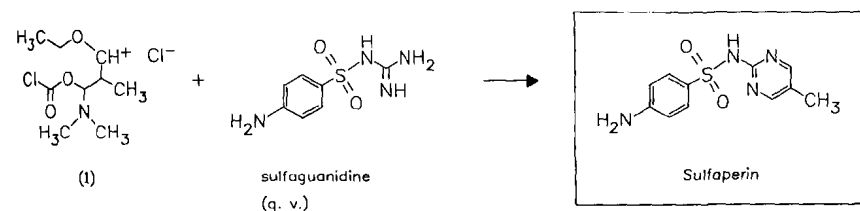
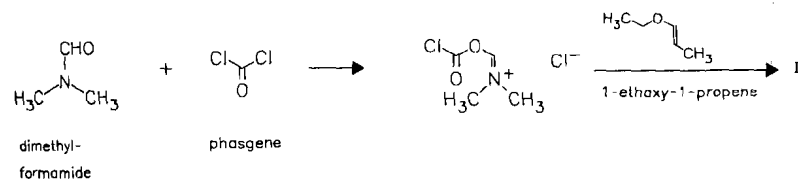
Sulfaperin

ATC: J01ED06

Use: chemotherapeutic

RN: 599-88-2 MF: $\text{C}_{11}\text{H}_{12}\text{N}_4\text{O}_2\text{S}$ MW: 264.31 EINECS: 209-976-4LD₅₀: >8 g/kg (M, s.c.)

CN: 4-amino-N-(5-methyl-2-pyrimidinyl)benzenesulfonamide



Reference(s):

DE 1 117 587 (BASF; appl. 25.10.1958)-method.

Formulation(s): styl. 1 g

Trade Name(s):

D:	Pallidin (Merck); wfm Palliopen (Merck)-comb.	Rexulfa (Medici); wfm Sintosulfa (AFI); wfm	Sulfixone (Ital. Suisse); wfm
I:	Ipersulfidin (Francia Farm.); wfm Palidin (Bracco); wfm Retardsulf (Virgiliano); wfm	Sulfalest (Farmochimica Ital.); wfm Sulfapenta (Savoma); wfm Sulfatreis (Ecobi); wfm	Sulfopiran (Panthox & Burck); wfm Sulfopirimidina (Terapeutico M.R.); wfm

Sulfaphenazole

(Sulphaphenazole)

ATC: J01ED08

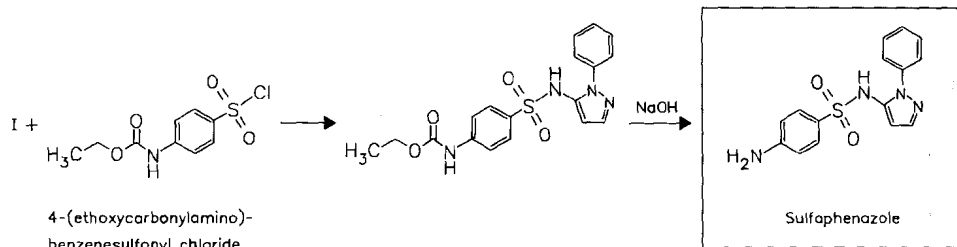
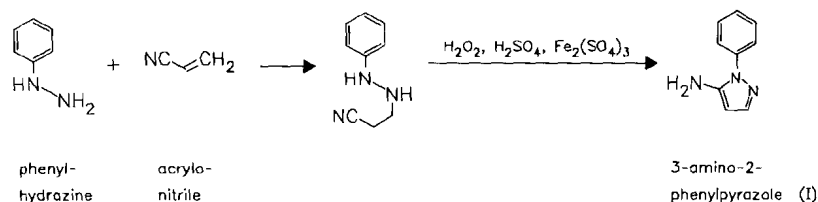
Use: chemotherapeutic

RN: 526-08-9 MF: C₁₅H₁₄N₄O₂S MW: 314.37 EINECS: 208-384-3

LD₅₀: 470 mg/kg (M, i.v.); 3016 mg/kg (M, p.o.);

525 mg/kg (R, i.v.)

CN: 4-amino-N-(1-phenyl-1H-pyrazol-5-yl)benzenesulfonamide



Reference(s):

DE 1 049 384 (Ciba; appl. 30.4.1957; CH-prior. 7.5.1956).

US 2 858 309 (Ciba; 28.10.1958; CH-prior. 7.5.1956).

3-amino-2-phenylpyrazole:

DE 1 065 850 (Ciba; appl. 26.3.1958; CH-prior. 5.4.1957, 29.8.1957).

Formulation(s): tabl. 500 mg

Trade Name(s):

D:	Orisul (Ciba); wfm	Sulfapirina (Biopharma)- comb.; wfm	Temoxa (Chinoïn)-comb.; wfm
GB:	Orisulf (Ciba); wfm		
I:	Fenazolo (Sam); wfm Sulfapadil (Padil); wfm	Sulforal (Farber-Ref); wfm	combination preparations; wfm

J: Merian (Dainippon)
Sulfenal (Kanto)

Sulphena (Nisshin)

USA: Sulfabid (Purdue
Frederick); wfm

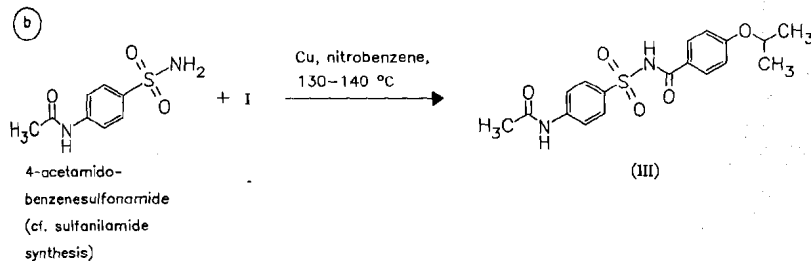
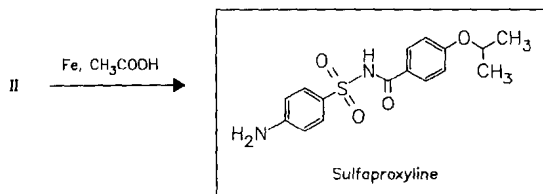
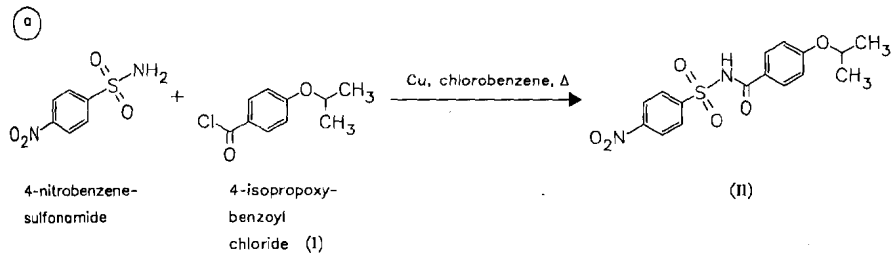
Sulfaproxyline

ATC: D08; J01ED

Use: chemotherapeutic (sulfonamide)

RN: 116-42-7 MF: C₁₅H₁₈N₂O₄S MW: 334.40 EINECS: 204-140-5

CN: N-[(4-aminophenyl)sulfonyl]-4-(1-methylethoxy)benzamide



Reference(s):

US 2 503 820 (Geigy; 1950; CH-prior. 1947).

Trade Name(s):

F: Dosulfine (Gomenol)-
comb.; wfm

Sulfathiazole

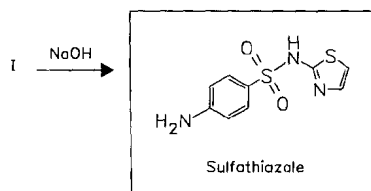
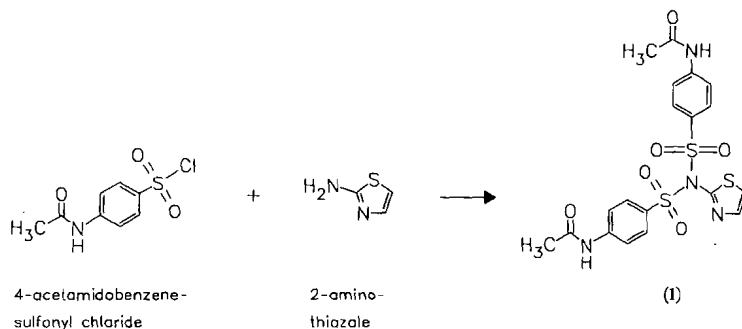
(Sulphathiazole)

ATC: D06BA02; J01EB07

Use: chemotherapeutic

RN: 72-14-0 MF: C₉H₉N₃O₂S₂ MW: 255.32 EINECS: 200-771-5LD₅₀: 990 mg/kg (M, i.v.); 4500 mg/kg (M, p.o.);

1370 mg/kg (R, i.v.)

CN: 4-amino-*N*-2-thiazolylbenzenesulfonamide*Reference(s):*

DRP 742 753 (Ciba; appl. 1938; CH-prior. 1938).

soluble form:

US 4 070 356 (MBH Chemical Corp.; 24.1.1978; appl. 22.1.1976).

Formulation(s): cream 3.42 %; pessaries 172.5 mg (in comb. with surfacetamide, sulfabenzamide)*Trade Name(s):*

D:	Cibazol (Ciba); wfm	Tampovagan (AGM)-comb.; wfm	I:	Streptosil Neomicina (Fher)-comb.	
	Neosultrin (Cilag)-comb.; wfm	F:	Thiazomide (Specia); wfm	J:	Sulzol (Yoshitomi)
	Peniazol (Winzer)-comb.; wfm	GB:	Thiazamide (May & Baker); wfm	USA:	Sultrin (Ortho-McNeil)-comb.

Sulfinpyrazone

(Sulphinpyrazone)

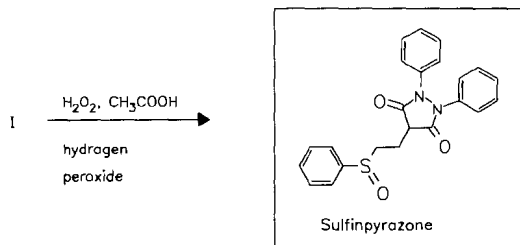
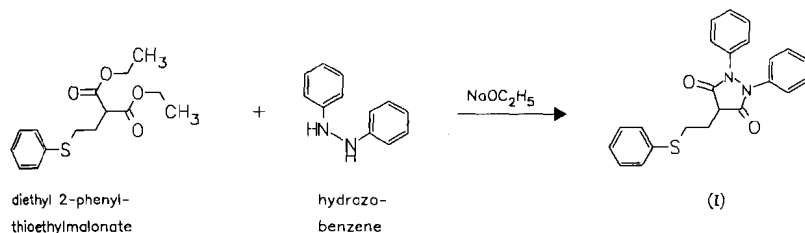
ATC: M04AB02

Use: antiarthritic, uricosuric agent, platelet aggregation inhibitor (for descent of postinfarct mortality)

RN: 57-96-5 MF: C₂₃H₂₀N₂O₃S MW: 404.49 EINECS: 200-357-4LD₅₀: 240 mg/kg (M, i.v.); 298 mg/kg (M, p.o.);

154 mg/kg (R, i.v.); 358 mg/kg (R, p.o.)

CN: 1,2-diphenyl-4-[2-(phenylsulfinyl)ethyl]-3,5-pyrazolidinedione

**Reference(s):**

DE 903 578 (Geigy; appl. 1951; CH-prior. 1950).

US 2 700 671 (Geigy; 1955; CH-prior. 1950).

CH 303 938 (Geigy; appl. 1950).

Pfister, R.; Häfziger, F.; *Helv. Chim. Acta (HCACAV)* **44**, 232 (1961).**Formulation(s):** drg. 200 mg; tabl. 100 mg**Trade Name(s):**

D: Anturano (Geigy); wfm

I: Enturen (CIBA Vision)

USA: Anturane (Geigy); wfm

F: Anturan (Geigy); wfm

J: Anturan (Ciba-Geigy-

GB: Anturan (Novartis)

Fujisawa)

Sulfisomidine

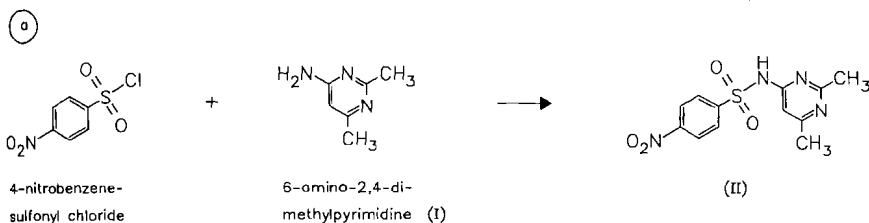
(Sulphasomidine)

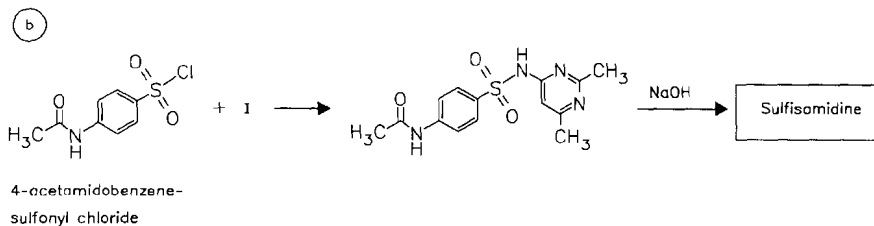
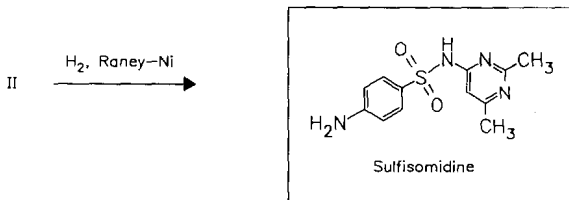
ATC: J01E

Use: chemotherapeutic

RN: 515-64-0 MF: $\text{C}_{12}\text{H}_{14}\text{N}_4\text{O}_2\text{S}$ MW: 278.34 EINECS: 208-204-3LD₅₀: 50 g/kg (M, p.o.)

CN: 4-amino-N-(2,6-dimethyl-4-pyrimidinyl)benzenesulfonamide

sodium salt hydrateRN: 2462-17-1 MF: $\text{C}_{12}\text{H}_{13}\text{N}_4\text{NaO}_2\text{S} \cdot \text{H}_2\text{O}$ MW: 318.33

**Reference(s):**

US 2 351 333 (Geigy; 1944; CH-prior. 1940).

Formulation(s): eye drops 114.4 mg; ophthalmic ointment 100 mg (as sodium salt hydrate)

Trade Name(s):

D:	Aristamid (Nordmark); wfm Elkosin (Ciba); wfm	F:	Elcosine (Ciba); wfm J: Domian (Dainippon) Entamidine (Nippon Shoji)	USA:	Elkosin (Ciba); wfm Elkosin (Ciba-Geigy); wfm
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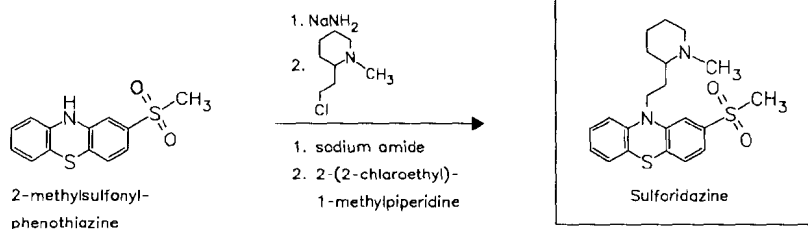
Sulforidazine

ATC: N05C
Use: neuroleptic

RN: 14759-06-9 MF: C₂₁H₂₆N₂O₂S₂ MW: 402.58 FINECS: 238-818-7

LD₅₀: 29 mg/kg (M, i.v.); 520 mg/kg (M, p.o.);
24 mg/kg (R, i.v.)

CN: 10-[2-(1-methyl-2-piperidyl)ethyl]-2-(methylsulfonyl)-10H-phenothiazine

**Reference(s):**

FR 1 459 476 (Sandoz; appl. 30.11.1965; CH-prior. 15.9.1965).

alternative synthesis:

FR 1 363 683 (Sandoz; appl. 17.7.1963; CH-prior. 19.7.1962, 23.10.1962).

Formulation(s): drg. 50 mg

Trade Name(s):

D: Inofal (Sandoz); wfm

Sulfoxone sodium

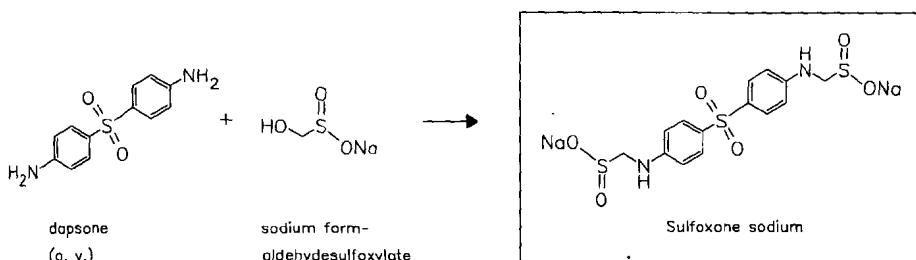
(Aldesulfon Natrium)

ATC: D08

Use: chemotherapeutic (leprosy)

RN: 144-75-2 MF: C₁₄H₁₄N₂Na₂O₆S₃ MW: 448.45LD₅₀: 10 g/kg (M, p.o.)

CN: [sulfonylbis(4,1-phenyleneimino)]bis[methanesulfinic acid] disodium salt

free acidRN: 144-76-3 MF: C₁₄H₁₆N₂O₆S₃ MW: 404.49

Reference(s):

US 2 234 981 (US-Secretary of the Treasury; 1941; appl. 1938).

Formulation(s): tabl. 330 mg

Trade Name(s):

J: Diazon (Joshitomi)

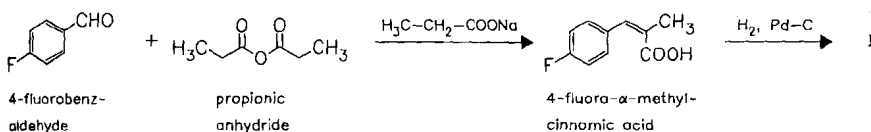
USA: Diasone Sodium (Abbott);
wfm**Sulindac**

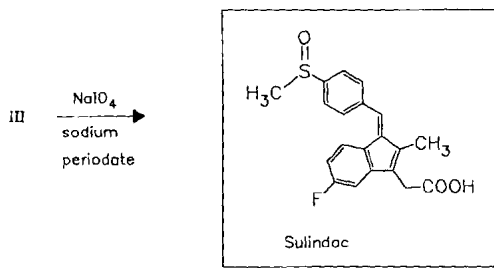
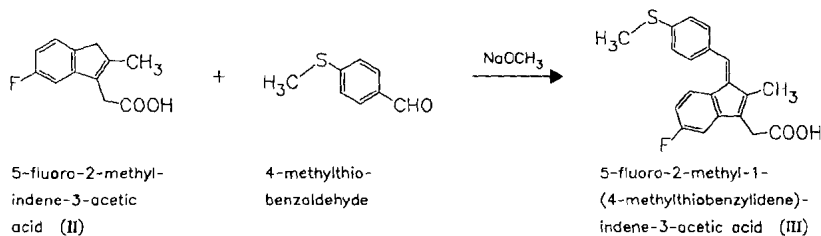
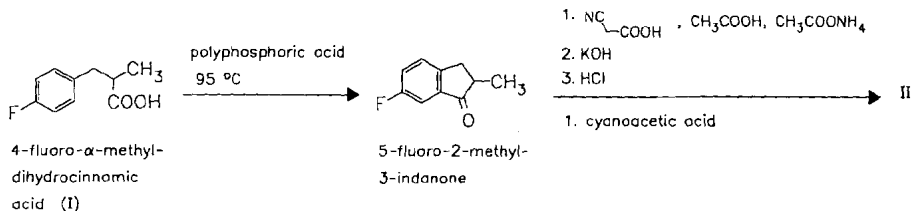
ATC: M01AB02

Use: anti-inflammatory, analgesic,
antipyreticRN: 38194-50-2 MF: C₂₀H₁₇FO₃S MW: 356.42 EINECS: 253-819-2LD₅₀: 507 mg/kg (M, p.o.);

264 mg/kg (R, p.o.)

CN: (Z)-5-fluoro-2-methyl-1-[4-(methylsulfinyl)phenyl]methylene]-1H-indene-3-acetic acid





Reference(s):

- DE 2 039 426 (Merck & Co.; appl. 7.8.1970; USA-prior. 8.8.1969, 1.5.1970).
- US 3 654 349 (Merck & Co.; 4.4.1972; prior. 8.8.1969, 1.5.1970).
- US 3 647 858 (Merck & Co.; 7.3.1972; prior. 19.11.1969, 1.5.1970).
- US 3 725 548 (Merck & Co.; 3.4.1973; prior. 6.10.1971).
- US 3 882 239 (Merck & Co.; 6.5.1975; prior. 21.1.1971, 6.9.1972, 13.6.1974).

Formulation(s): tabl. 150 mg, 200 mg

Trade Name(s):

D:	Imbaral (Merck Sharp & Dohme; 1977); wfm	Citereuma (CF)	Sulinol (ICT)
F:	Arthrocline (Merck Sharp & Dohme-Chibret; 1977)	Clinoril (Neopharmed)	J: Chinoril (Merck-Banyu)
GB:	Clinoril (Merck Sharp & Dohme; 1977)	Lyndac (Eurofarmaco)	USA: Clinoril (Merck Sharp & Dohme; 1978)
I:	Algoceetil (Francia Farm.)	Sulartrene (NGSN)	
		Sulen (Farmacologico Milanese)	
		Sulic (Crosara)	

Sulmetozin

(Trithiozine)

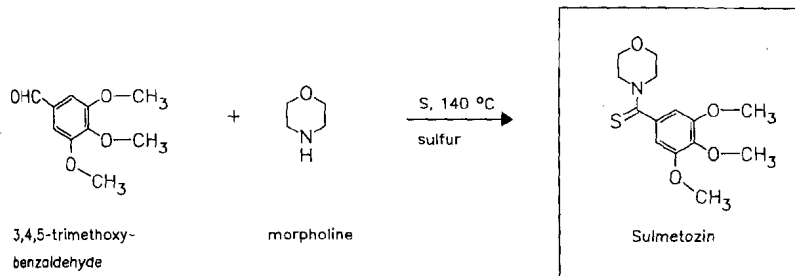
ATC: A02BX

Use: gastric acid secretion inhibitor, peptic ulcer therapeutic

RN: 35619-65-9 MF: C₁₄H₁₉NO₄S MW: 297.38 EINECS: 252-645-4

LD₅₀: 3 g/kg (M, p.o.);
670 mg/kg (R, p.o.)

CN: 4-[thioxo(3,4,5-trimethoxyphenyl)methyl]morpholine

**Reference(s):**

DOS 2 102 246 (ISF; appl. 19.1.1971; I-prior. 31.7.1970).
 Banfi, S. et al.: *Chim. Ther. (CHTPBA)* **4**, 462 (1973).

Trade Name(s):

I: Tresanil (Italseber); wfm

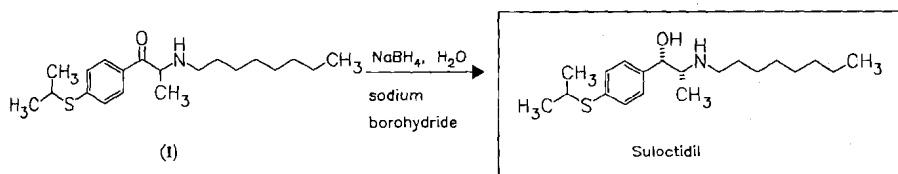
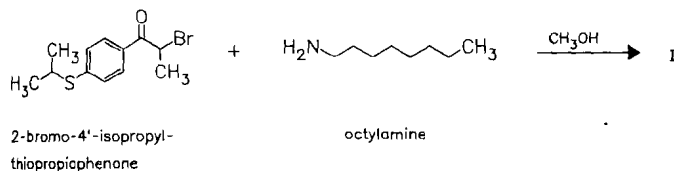
Suloctidil

ATC: C01DX

Use: vasodilator

RN: 54767-75-8 MF: C₂₀H₃₅NOS MW: 337.57 EINECS: 259-332-1

CN: (R*,S*)-4-[(1-methylethyl)thio]-α-[1-(octylamino)ethyl]benzenemethanol

**Reference(s):**

DOS 2 334 404 (Continental Pharma; appl. 6.7.1973; GB-prior. 9.4.1973).
 US 4 228 187 (Continental Pharma; 14.10.1980; appl. 30.8.1976; GB-prior. 9.4.1973).

alternative syntheses:

ES 460 766 (Lab. F. Bonet; appl. 14.7.1977).
 JP 54 005 928 (Mitsubishi; appl. 15.6.1977).
 JP 54 005 929 (Mitsubishi; appl. 15.6.1977).
 JP 54 005 930 (Mitsubishi; appl. 15.6.1977).
 JP 54 019 927 (Zambeletti; appl. 11.7.1977).

use as vasodilator:

JP 54 005 930 (Mitsubishi; appl. 1979).

Formulation(s): cps. 100 mg, tabl. 100 mg

Trade Name(s):

D:	Fluversin (Searle; 1980); wfm	Euvasal (Selvi); wfm Llangene (Farmochimica Ital.); wfm	Polivasol (Coli); wfm
GB:	Dulocitil (Searle); wfm		
I:	Cerebro (Sidus); wfm	Locton (Lepetit); wfm	

Sulpiride

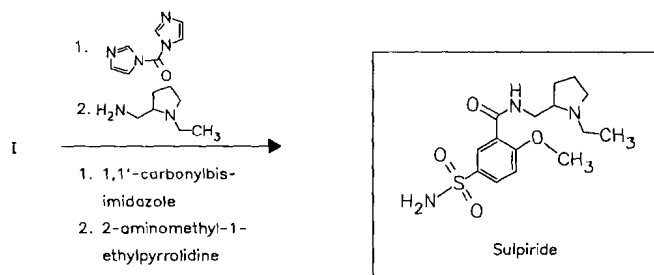
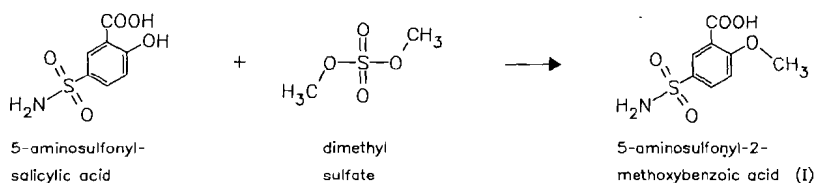
ATC: N05AL01

Use: psychotropic drug, antispasmodic,
anti-emetic, antidepressant,
antipsychoticRN: 15676-16-1 MF: C₁₅H₂₃N₃O₄S MW: 341.43 EINECS: 239-753-7LD₅₀: 48 mg/kg (M, i.v.); 1700 mg/kg (M, p.o.);

40 mg/kg (R, i.v.); 9800 mg/kg (R, p.o.);

137 mg/kg (dog, i.v.); 2 g/kg (dog, p.o.)

CN: 5-(aminosulfonyl)-N-[(1-ethyl-2-pyrrolidinyl)methyl]-2-methoxybenzamide



Reference(s):

DOS 1 595 915 (Soc. d'Etudes Scientif. et Ind. de l'Ile-de-France; appl. 8.1.1965; USA-prior. 13.1.1964).

DOS 1 795 723 (Soc. d'Etudes Scientif. et Ind. de l'Ile-de-France; appl. 8.1.1965; USA-prior. 13.1.1964).

US 3 342 826 (Soc. d'Etudes Scientif. et Ind. de l'Ile-de-France; 19.9.1967; appl. 13.1.1964).

alternative synthesis via the enamine from 2-aminomethyl-1-ethylpyrrolidine and acetylacetic acid methyl ester:
US 4 077 976 (Soc. d'Etudes Scientif. et Ind. de l'Ile-de-France; 7.3.1978; F-prior. 12.6.1975).

alternative synthesis:

GB 1 492 166 (Alkaloida Vegyeszetigyar; appl. 26.3.1976; H-prior. 28.3.1975).

preparation of 2-aminomethyl-1-ethylpyrrolidine from 1-ethyl- resp. 1-vinyl-2-pyrrolidinone via 1-ethyl-2-nitromethylpyrrolidine:

DAS 1 941 536 (Soc. d'Etudes Scientif. et Ind. de l'Ile-de-France; appl. 14.8.1969; J-prior. 19.8.1968, 20.5.1969, 9.6.1969).

DAS 1 966 195 (Soc. d'Etudes Scientif. et Ind. de l'Ile-de-France; appl. 14.8.1969; J-prior. 19.8.1968, 20.5.1969, 9.6.1969).

optically active "Levo"-sulpiride:

DOS 2 903 891 (Ravizza; appl. 1.2.1979; I-prior. 16.2.1978).

Formulation(s): amp. 100 mg/2 ml, 100 mg/3 ml; cps. 50 mg; tabl. 50 mg, 200 mg

Trade Name(s):

D: Arminol (Krewel Meuselbach)		vertigo-neogama (Hormosan)		Sulpitol (Pharmacia & Upjohn)
Desulpid (Desitin)	F:	Aiglonyl (Fumouze)	I:	Championyl (Synthelabo)
Dogmatil (Synthelabo; 1972)		Dogmatil (Synthelabo; 1969)		Dobren (Ravizza)
Meresa (Dolorgiet)		Synédil (Yamanouchi Pharma)	J:	Equilid (Bruno Farmaceutici)
Neogama (Hormosan)	GB:	Dolmatil (Delalande; 1983)		Ablit (Sumitomo)
Sulp (Neuro Hexal)		Sulparex (Bristol-Myers Squibb)		Coolspan (Hishiyama)
Sulpirid-ratiopharm (ratiopharm)				Dogmatyl (Fujisawa)
Sulpivert (Hennig)				Miradol (Mitsui)
				Omperan (Taiho)

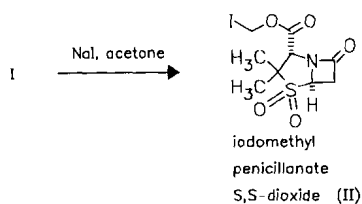
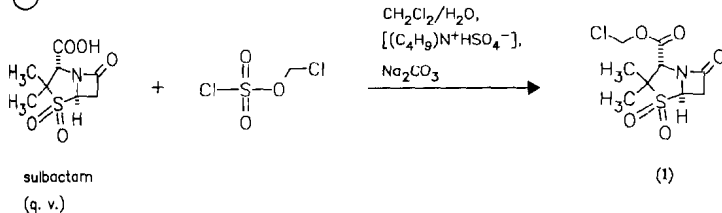
Sultamicillin

(CP-49952; VD-1827)

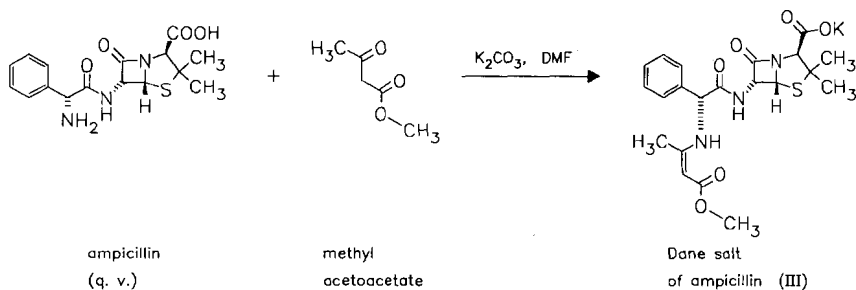
ATC: J01CR04

Use: antibacterial, semisynthetic β -lactam antibiotic (double ester of ampicillin and sulbactam)RN: 76497-13-7 MF: $C_{25}H_{30}N_4O_9S_2$ MW: 594.67CN: [2S-[2 α (2R*,5S*),5 α ,6 β (S*)]]-6-[(aminophenylacetyl)amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid [[(3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]hept-2-yl)carbonyl]oxy]methyl ester *S,S*-dioxide**monotosylate**RN: 83105-70-8 MF: $C_{25}H_{30}N_4O_9S_2 \cdot C_7H_8O_3S$ MW: 766.87

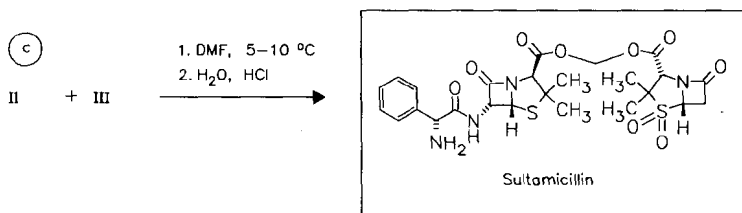
a



(b)



(c)

*Reference(s):*

Baltzer, B. et al.: J. Antibiot. (JANTAJ) **33**, 1183 (1980).
 US 4 342 772 (Leo; 3.8.1982; UK-prior. 13.2.1979, 19.6.1979, 9.8.1979, 14.11.1979).
 US 4 407 751 (Leo; 4.10.1983; UK-prior. 13.2.1979, 19.6.1979, 9.8.1979, 14.11.1979, 25.1.1980).
 DOS 3 005 164 (Leo; appl. 12.2.1980; UK-prior. 13.2.1979, 19.6.1979, 9.8.1979, 14.11.1979).

Formulation(s): f. c. tabl. 375 mg (as tosylate); vial 375 mg

Trade Name(s):

D: Unacid P Doral (Pfizer) J: Unasyn (Pfizer Taito; 1987) USA: Unasyn (Pfizer); wfm

Sultiamine

(Sulthiame)

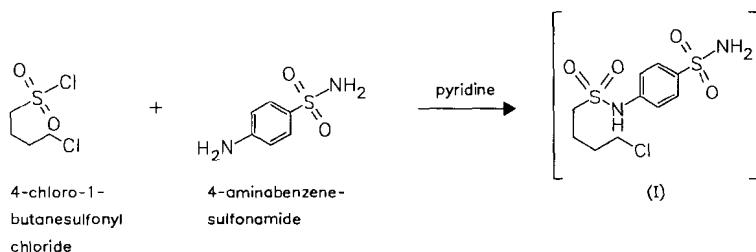
ATC: N03AX03

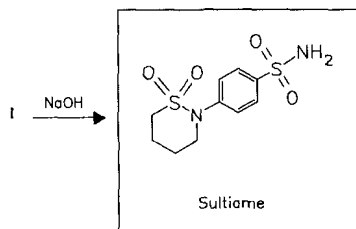
Use: anticonvulsant, antiepileptic

RN: 61-56-3 MF: C₁₀H₁₄N₂O₄S₂ MW: 290.36 EINECS: 200-511-0LD₅₀: 4852 mg/kg (M, p.o.);

>5 g/kg (R, p.o.)

CN: 4-(tetrahydro-2H-1,2-thiazin-2-yl)benzenesulfonamide S,S-dioxide



**Reference(s):**

DE 1 111 191 (Bayer; appl. 28.3.1959).

Formulation(s): f. c. tabl. 50 mg, 200 mg**Trade Name(s):**

D: Ospolot/mite (Bayer)

I: Ospolot (Bayer); wfm

J: Ospolot (Bayer)

F: Elisal (Specia); wfm

Ospolot (Bayropharm);

USA: Conadil (Riker); wfm

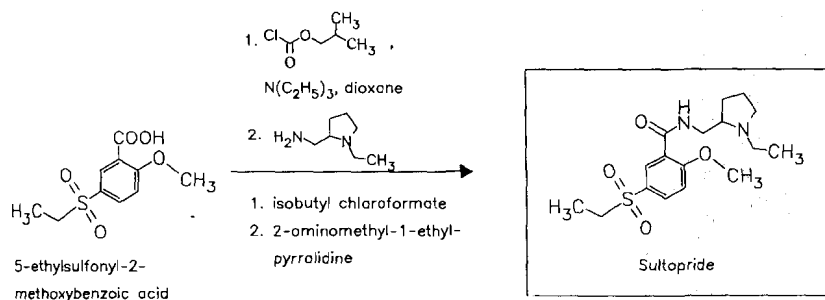
GB: Ospolot (Bayer); wfm

wfm

Trolone (Riker); wfm

Sultopride

ATC: N05AL02

Use: anti-emetic, psychotropic drug,
antidepressantRN: 53583-79-2 MF: $\text{C}_{17}\text{H}_{26}\text{N}_2\text{O}_4\text{S}$ MW: 354.47 EINECS: 258-641-9LD₅₀: 665 mg/kg (M, p.o.)CN: *N*-[(1-ethyl-2-pyrrolidinyl)methyl]-5-(ethylsulfonyl)-2-methoxybenzamide**hydrochloride**RN: 23694-17-9 MF: $\text{C}_{17}\text{H}_{26}\text{N}_2\text{O}_4\text{S} \cdot \text{HCl}$ MW: 390.93**Reference(s):**

DOS 2 327 192 (Soc. d'Etudes Scientifique et Industrielles de l'Ile-de-France; appl. 28.5.1973; F-prior. 1.6.1972, 12.6.1972, 3.4.1973).

DOS 2 327 193 (Soc. d'Etudes Scientifique et Industrielles de l'Ile-de-France; appl. 28.5.1973; F-prior. 1.6.1972, 2.6.1972).

FR 2 187 309 (Soc. d'Etudes Scientifique et Industrielles de l'Ile-de-France; appl. 1.6.1972).

Formulation(s): amp. 200 mg/2 ml; tabl. 400 mg (as hydrochloride)

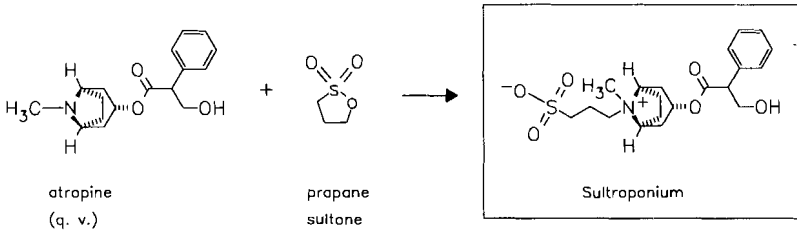
Trade Name(s):

F:	Barnétil (Synthélabo; as hydrochloride)	Sultopride Panpharma (Panpharma; as hydrochloride)	I:	Barnotil (Vita; as hydrochloride)
			J:	Barnetil (Mitsui)

Sultroponium

ATC: A03

Use: anticholinergic, antispasmodic

RN: 15130-91-3 MF: C₂₀H₂₉NO₆S MW: 411.52CN: *endo*-(±)-3-(3-hydroxy-1-oxo-2-phenylpropoxy)-8-methyl-8-(3-sulfopropyl)-8-azoniabicyclo[3.2.1]octane hydroxide inner salt

Reference(s):

GB 1 082 445 (J. P. M. Raudnitz, H. Wahl; appl. 2.12.1965; F-prior. 3.12.1964).

Formulation(s): amp. 5 mg; suppos. 25 mg; tabl. 15 mg

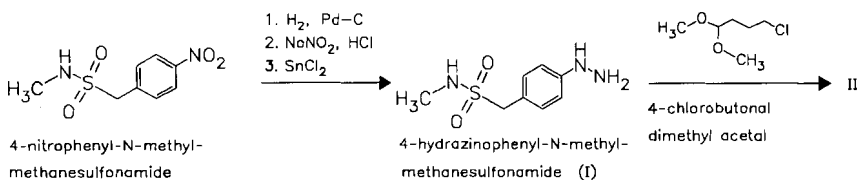
Trade Name(s):

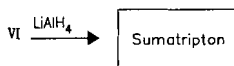
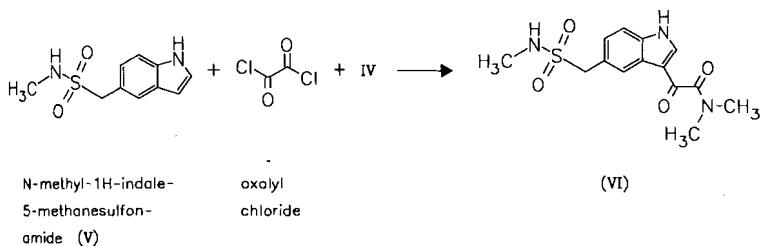
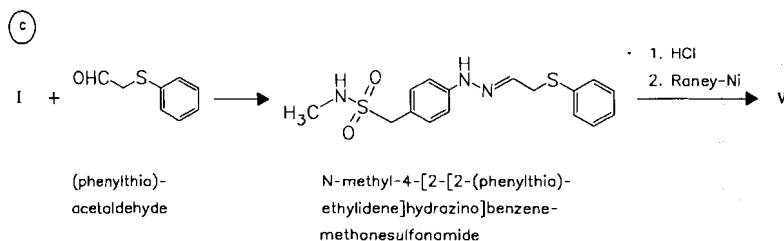
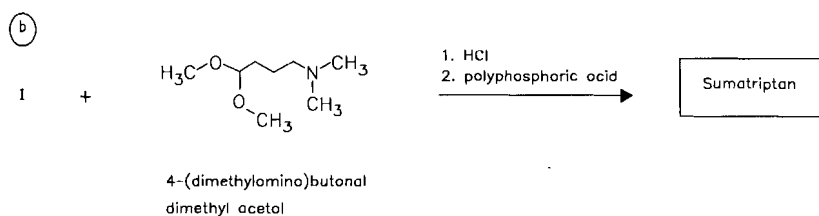
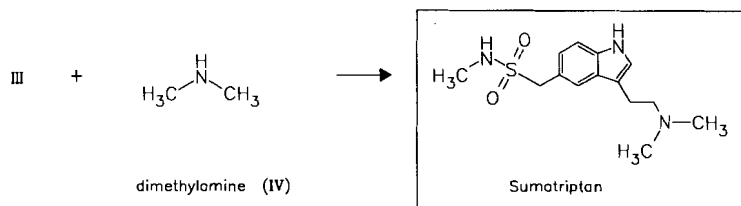
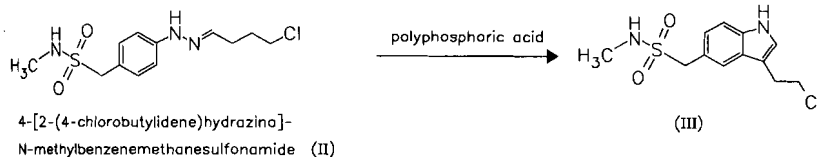
F: Sultroponium B
(Biothérax); wfm**Sumatriptan**

ATC: N02CC01

Use: antimigraine agent, selective 5-HT₁-receptor agonistRN: 103628-46-2 MF: C₁₄H₂₁N₃O₂S MW: 295.41CN: 3-[2-(dimethylamino)ethyl]-*N*-methyl-1*H*-indole-5-methanesulfonamide**succinate (1:1)**RN: 103628-48-4 MF: C₁₄H₂₁N₃O₂S · C₄H₆O₄ MW: 413.50LD₅₀: 43.112 mg/kg (R, i.v.); >2.939 g/kg (R, p.o.)

⊙





Reference(s):

- a DOS 3 320 521 (Glaxo; appl. 6.7.1983; GB-prior. 6.7.1982).
GB 2 124 210 (Glaxo; appl. 7-6-1982).
b,c DOS 3 527 648 (Glaxo; appl. 8.1.1985; GB-prior. 8.1.1984).
GB 2 162 522 (Glaxo; appl. 8.1.1984).

Formulation(s): f. c. tabl. 50 mg, 100 mg; nasal spray 10 mg/0.1 ml, 20 mg/0.1 ml; suppos. 25 mg; syringe 6 mg; tabl. 25 mg, 50 mg; vial 6 mg/0.5 ml (as succinate)

Trade Name(s):

D:	Imigran (Glaxo Wellcome/ Cascan)	Imijekt (Glaxo Wellcome)	USA: Imitrex (Glaxo Wellcome)
F:	Imigrane (Glaxo Wellcome)	GB: Imigran (Glaxo Wellcome; 1991)	
		I: Imigran (Glaxo Wellcome)	

Suplatast tosilate

(IPD-1151T)

ATC: R03

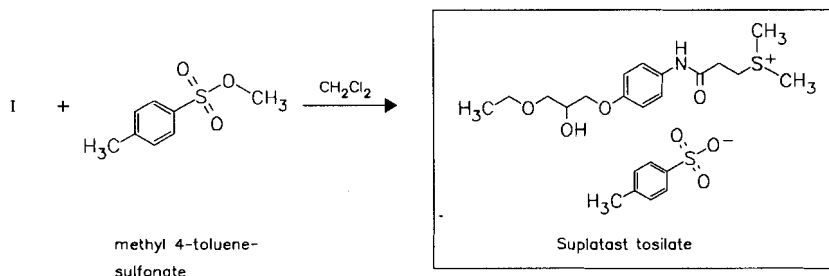
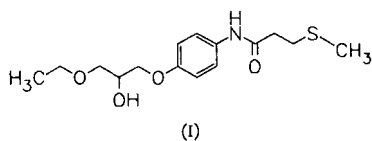
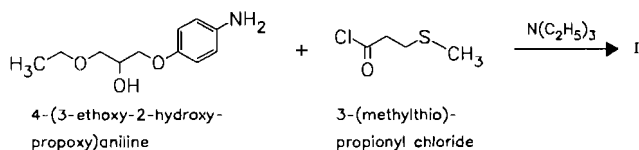
Use: antiallergic, antiasthmatic

RN: 94055-76-2 MF: $C_{16}H_{26}NO_4S \cdot C_7H_7O_3$ MW: 467.58LD₅₀: 81 mg/kg (M, i.v.); >12.5 g/kg (M, p.o.);

93 mg/kg (R, i.v.); >10 g/kg (R, p.o.);

2124 mg/kg (dog, p.o.)

CN: [3-[[4-(3-ethoxy-2-hydroxypropoxy)phenyl]amino]-3-oxopropyl]dimethylsulfonium p-toluenesulfonate (1:1)

*Reference(s):*

DE 3 408 708 (Taiho Pharm.; 13.9.1984; J-prior. 11.3.1983).

resolution:

JP 07 252 213 (Taiho Pharm. 3.1.1995; J-prior. 27.1.1994).

topical application:

EP 624 367 (Senju/Taiho Pharm.; 17.11.1994; J-prior. 14.5.1993).

Formulation(s): cps. 50 mg, 100 mg*Trade Name(s):*

J: IPD (Taiho)

MPD (Taiho)

Suprofen

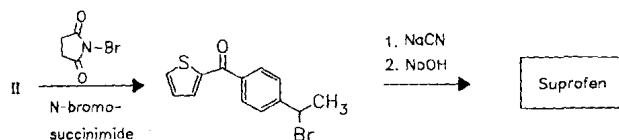
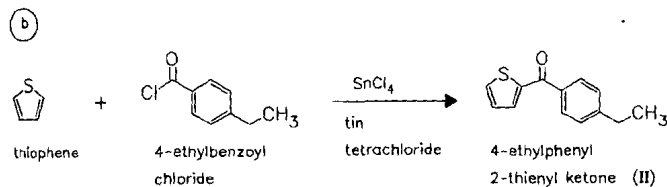
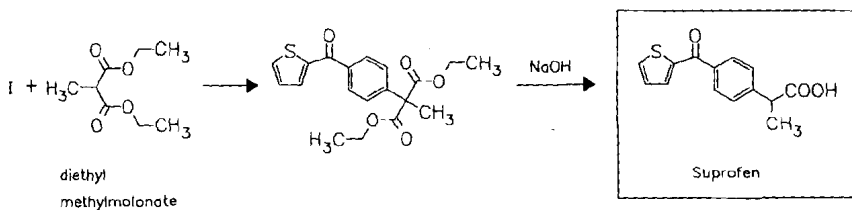
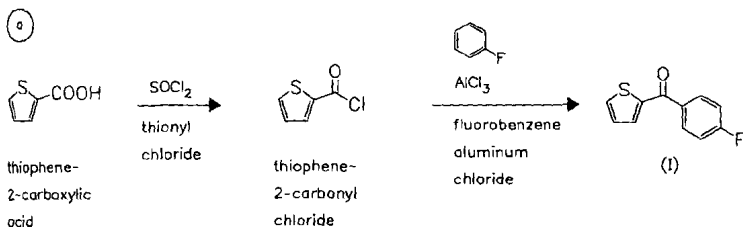
ATC: M01AE07

Use: anti-inflammatory, analgesic

RN: 40828-46-4 MF: C₁₄H₁₂O₃S MW: 260.31 EINECS: 255-096-9LD₅₀: 185 mg/kg (M, i.v.); 590 mg/kg (M, p.o.);

226 mg/kg (R, i.v.); 70.6 mg/kg (R, p.o.);

>160 mg/kg (dog, p.o.)

CN: α -methyl-4-(2-thienylcarbonyl)benzeneacetic acid

Reference(s):

DOS 2 353 357 (Janssen; appl. 24.10.1973; USA-prior. 24.10.1972, 10.9.1973, 23.3.1974).

Daele, P.G.H. van et al.: *Arzneim.-Forsch. (ARZNAD)* **25**, 1495 (1975).

Formulation(s): cps. 200 mg

Trade Name(s):

GB: Suprol (Cilag); wfm

I: Erdol (Herdel); wfm

Masterfin (Dompé); wfm

Sufenide (Italfarmaco);

wfm

Suprol (Cilag); wfm

J: Lindral (Taiho)

Lindrax (Taiho)

Mexaron (Toyo Yozo)

Sulplotin (Ichikawa Labs)

USA: Suprol (Ortho); wfm

Surfactant TA

(Beractant)

ATC: R07A

Use: surfactant (for treatment of respiratory distress syndrome)

RN: 108778-82-1 MF: unspecified MW: unspecified

LD₅₀: 2000 mg/kg (M, i.p.); 3000 mg/kg (M, p.o.)

CN: beractant

Production comprises (a) extracting mammalian lung slices with an electrolyte soln. (NaCl), (b) centrifuging the extract to collect a crude precipitation, (c) suspending the precipitate in water, adjusting specific gravity of the suspension with CaCl₂ and centrifuging the suspension to separate upper emulsion layer, (d) dialysing the emulsion and freeze-drying the dialysed soln., (e) treating the resultant powder with ethyl acetate, collecting the insoluble material and extracting the insoluble material with an organic solvent (CH₃OH, CHCl₃) and (f) concentrating the extract to give a solid.

Reference(s):

DE 3 021 006 (Tokyo Tanabe; appl. 30.5.1980; J-prior. 2.6.1979).

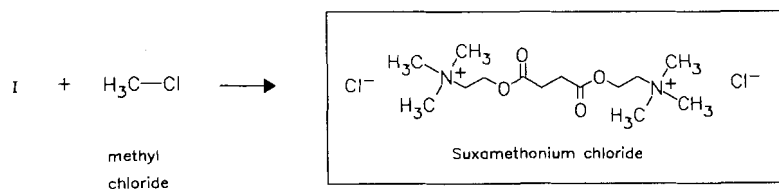
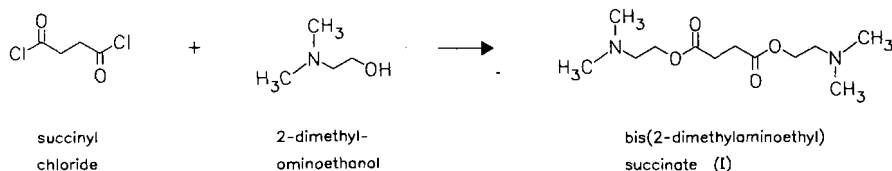
US 4 397 839 (Tokyo Tanabe; 9.8.1983; J-prior. 10.9.1981).

Formulation(s): vial 120 mg (lyo.)*Trade Name(s):*J: Surfacten (Tokyo Tanabe;
1987)**Suxamethonium chloride**

(Succinylcholine chloride)

ATC: M03AB01

Use: muscle relaxant

RN: 71-27-2 MF: C₁₄H₃₀Cl₂N₂O₄ MW: 361.31 EINECS: 200-747-4LD₅₀: 430 µg/kg (M, i.v.)CN: 2,2'-(1,4-dioxo-1,4-butanediyl)bis(oxy)]bis[*N,N,N*-trimethylethanaminium] dichloride*Reference(s):*

Tammelin, L.E.: Acta Chem. Scand. (ACHSE7) 7, 185 (1953).

Walker, J.: J. Chem. Soc. (JCSOA9) 1950, 193.

suxamethonium-chloride – dry ampules:

US 2 957 501 (Burroughs Wellcome; 1960; appl. 1958).

US 2 957 609 (Burroughs Wellcome; 1960; appl. 1958).

Formulation(s): amp. 50 mg/5 ml, 100 mg/5 ml; vial 100 mg/10 ml, 200 mg/10 ml

Trade Name(s):

D: Lysthenon (Nycomed)	GB: Anectine (Glaxo Wellcome)	J: Relaxin (Kyorin)
Pantolax (Schwabe-Curamed)	I: Midarine (Glaxo Wellcome)	Succin (Yamanouchi)
Succicuran (Rodleben)	USA: Anectine (Glaxo Wellcome)	
F: Célocurine (Pharmacia & Upjohn)	Myotenis (Pharmacia & Upjohn)	

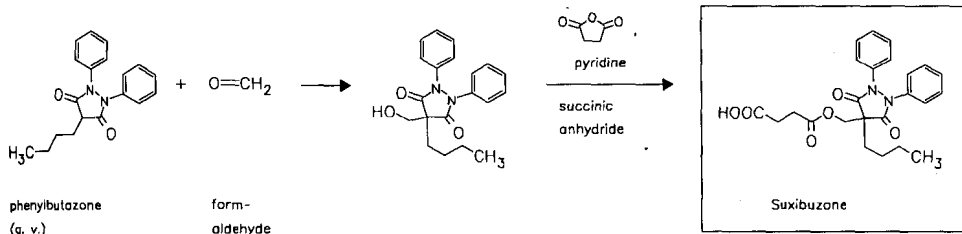
Suxibuzone

ATC: M02AA22
Use: antirheumatic

RN: 27470-51-5 MF: C₂₄H₂₆N₂O₆ MW: 438.48 EINECS: 248-477-6

LD₅₀: 285 mg/kg (M, i.v.); 1200 mg/kg (M, p.o.);
305 mg/kg (R, i.v.); 1700 mg/kg (R, p.o.);
373 mg/kg (dog, p.o.)

CN: butanedioic acid mono[(4-butyl-3,5-dioxo-1,2-diphenyl-4-pyrazolidinyl)methyl] ester



Reference(s):

DE 1 936 747 (Lab. Dr. Esteve; appl. 18.7.1969; E-prior. 20.7.1968).

Formulation(s): cream 7 %

Trade Name(s):

D: Solurol (Delalande); wfm	F: Calibene (Carrion); wfm	J: Danicon (Taiho-Fujisawa)
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Synephrine

(Oxedrine)

ATC: C01CA08
Use: sympathomimetic, adrenergic, vasopressor

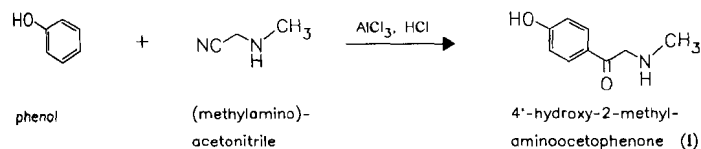
RN: 94-07-5 MF: C₉H₁₃NO₂ MW: 167.21 EINECS: 202-300-9

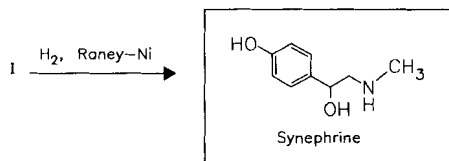
LD₅₀: 270 mg/kg (M, i.v.)

CN: 4-hydroxy- α -[(methylamino)methyl]benzenemethanol

tartrate (2:1)

RN: 16589-24-5 MF: C₉H₁₃NO₂ · 1/2C₄H₆O₆ MW: 484.50 EINECS: 240-647-8



*Reference(s):*

US 2 585 988 (Hartford Nat. Bank; 1952; NL-prior. 1948).

DRP 522 790 (H. Legerlotz; 1929).

DRP 566 578 (Boehringer Ing.; 1927).

DRP 569 149 (Boehringer Ing.; 1928).

Formulation(s): drg. 12.5 mg in comb.; eye drops 0.5 mg/ml, 1 mg/ml in comb.; nasal drops 1.5 mg/ml in comb.; sol. 100 mg/g

Trade Name(s):

D:	Corpivas (Pascoe)-comb.	F:	Antalyre (Boehringer Ing.)-comb.	Posine (Alcon)-comb.
	Dacrin (Chibret)-comb.		Dacryne (Martin-Johnson & Johnson-MSD)-comb.	Sédacollyre (Rhône-Poulenc Rorer Cooper)-comb.
	Ophthalmin (Winzer)-comb.		Dacryoboraline (Martin-Johnson & Johnson-MSD)-comb.	GB: Sympatol (Lewis); wfm
	Pasgensin (Pascoe)-comb.			I: Sympatol (Boehringer Ing.)-comb.
	Solupen (Winzer)			
	Sympatol (Boehringer Ing.)			

Syrosingopine

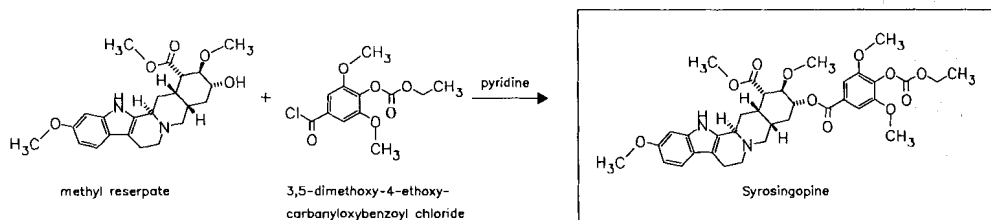
ATC: C02LA09

Use: antihypertensive

RN: 84-36-6 MF: C₃₅H₄₂N₂O₁₁ MW: 666.72 EINECS: 201-527-0LD₅₀: 1293 mg/kg (M, p.o.);

50 mg/kg (R, i.v.); >2 g/kg (R, p.o.)

CN: (3β,16β,17α,18β,20α)-18[[4-[(ethoxycarbonyloxy]-3,5-dimethoxybenzoyl]oxy]-11,17-dimethoxyyohimban-16-carboxylic acid methyl ester

*Reference(s):*

US 2 813 871 (Ciba 1957; appl. 1954).

Lucas, R.A. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 1928 (1959).

Formulation(s): tabl. 1 mg in comb. with hydrochlorothiazide (25 mg); tabl. 0.5 mg

Trade Name(s):

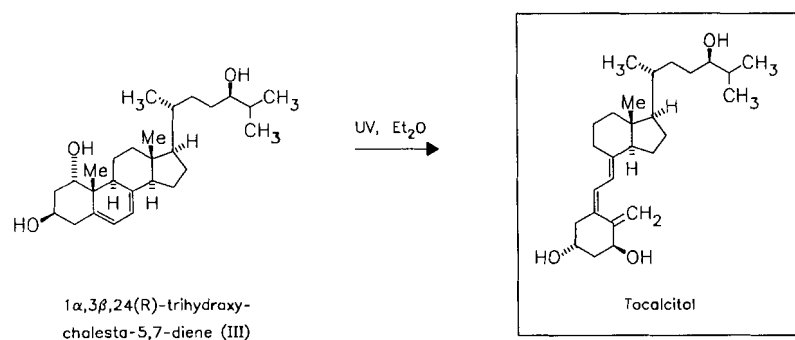
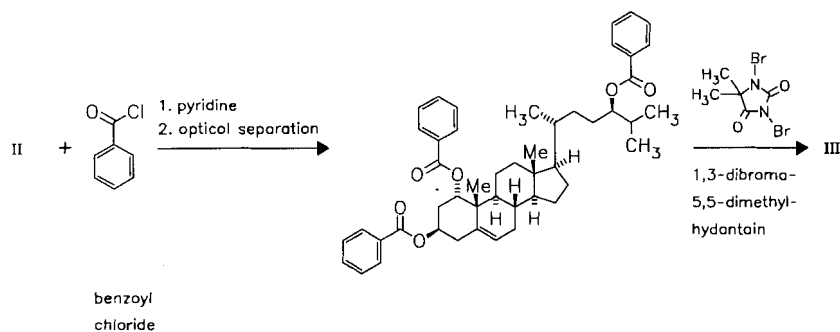
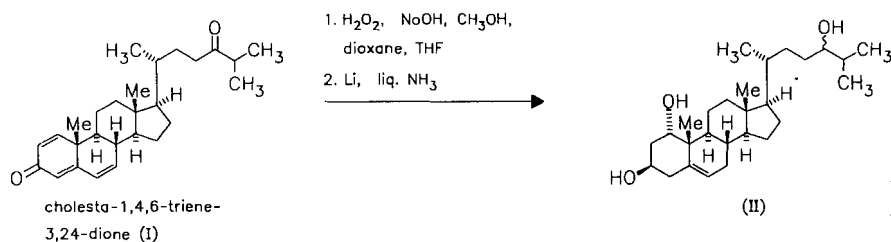
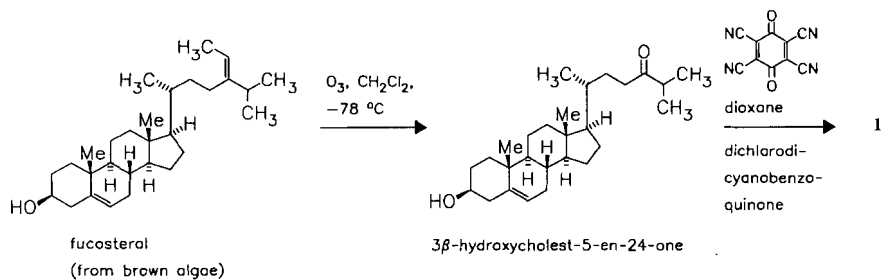
I: Flurizin (Savio IBN)- comb.; wfm	Novoserpina (Ghimas); wfm	Rosidil (Nippon Chemiphar)
Ipodiuril (Ceccarelli)- comb.; wfm	Raunova (Zambeletti); wfm	Tesamurin (Zensei)
Neoreserpan (Panthox & Burck); wfm	Raunova Plus (Zambeletti)- comb.; wfm	USA: Singoserp-Esidrix (Ciba); wfm
	J: Elumonon (Tatsumi)	

Tacalitol

(TV-02)

ATC: D05AX04

Use: antipsoriatic

RN: 57333-96-7 MF: C₂₇H₄₄O₃ MW: 416.65CN: (1 α ,3 β ,5Z,7E,24R)-9,10-Secocholesta-5,7,10(19)-triene-1,3,24-triol

Reference(s):

DE 2 526 981 (Teijin; 18.6.1975; J-prior. 18.6.1974).

Synform (SNFMDF) 5 (1), 1-8 (1987).

Morisaki, M. et al.: J. Chem. Soc., Perkin Trans. 1 (JCPRB4) 1975, 1421-1424.

Formulation(s): ointment 4.17 µg/g (as hydrate); ointment 0.0002%, 0.0004%**Trade Name(s):**

D: Curatoderm (Hermal)

J: Bonalfa (Teijin)

GB: Curatoderm (Merck)

Bonealfa (Fujisawa)

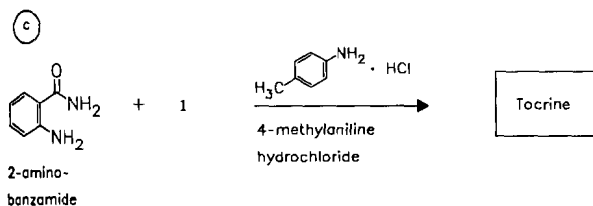
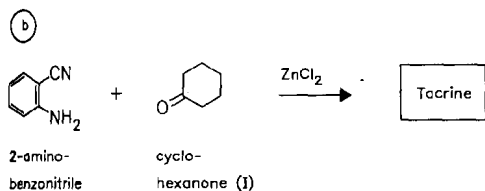
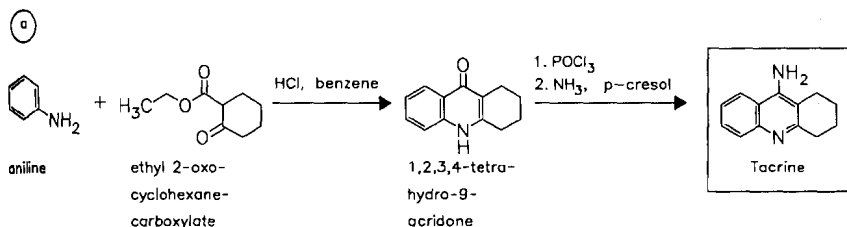
Tacrine

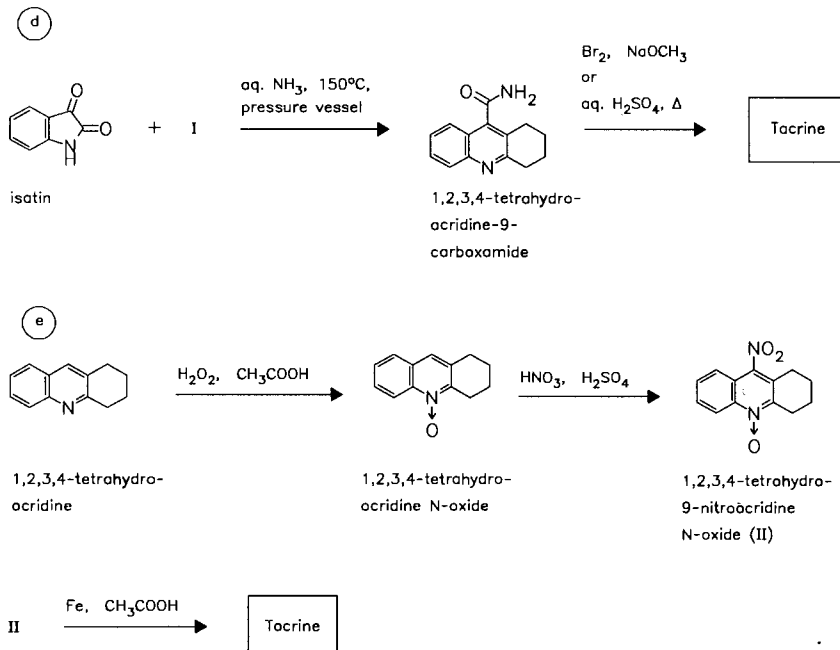
ATC: N06DA01

Use: acetylcholinesterase inhibitor,
nootropic, antidementiaRN: 321-64-2 MF: C₁₃H₁₄N₂ MW: 198.27 EINECS: 206-291-2LD₅₀: 20 mg/kg (R, i. v.); 70 mg/kg (R, p. o.);

39.8 mg/kg (M, p. o.); 25 mg/kg (M, s. c.)

CN: 1,2,3,4-Tetrahydro-9-acridinamine

hydrochlorideRN: 1684-40-8 MF: C₁₃H₁₄N₂ · HCl MW: 234.73 EINECS: 216-867-5**hydrochloride monohydrate**RN: 7149-50-0 MF: C₁₃H₁₄N₂ · HCl · H₂O MW: 252.75

**Reference(s):**

- a US 3 232 945 (S. E. Massengill Co.; 1.2.1966; USA-prior. 13.8.1962).
Albert; Gledhill: J. Soc. Chem. Ind., London (JSCI) **64**, 169 (1945).
- b Moore, J.A.; Kornreich, L.D.: Tetrahedron (TETRAB) **20**, 127 (1963).
Goncharenko, S.B; Kaganskii, M.M.; Portnov, Yu.N.; Granik V.G.: Pharm. Chem. J. (Engl. Transl.) (PCJOAU) **26**, 769 (1992).
- c Girgis, N.S.; Pedersen, E.B.: Synthesis (SYNTBF) **5**, 547 (1985).
- d Ettel, V.; Neumann: Collect. Czech. Chem. Commun. (CCCCAK) **23**, 1319 (1958).
- e SU 319 596 (Klimov, G.A.; Makar'eva, T.N.; Tilchenko, M.N.)

Formulation(s): cps. 10 mg, 20 mg, 30 mg, 40 mg (as hydrochloride)

Trade Name(s):

D: Cognex (Parke Davis) F: Cognex (Parke Davis) USA: Cognex (Parke Davis)

Tacrolimus

(FK-506; FR-900506; Fujimycin; L-679934)

ATC: L04AA05

Use: immunosuppressant

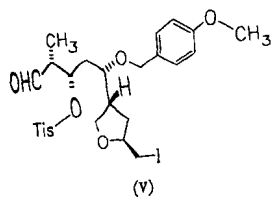
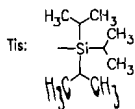
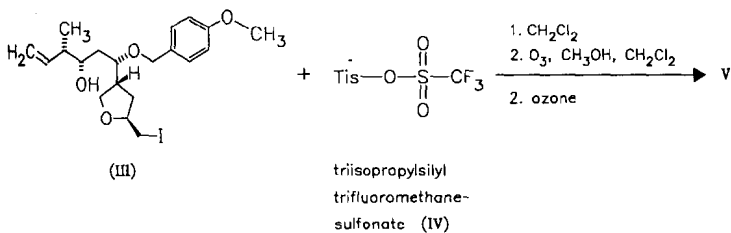
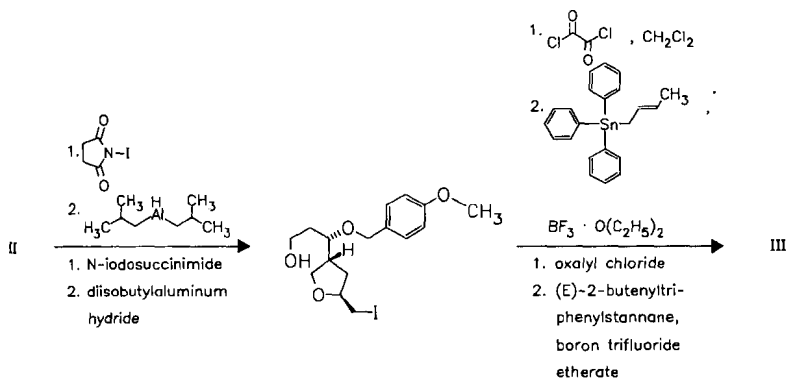
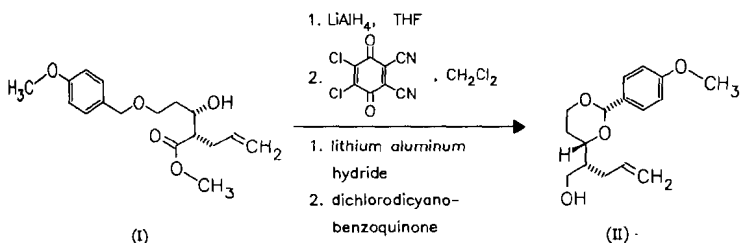
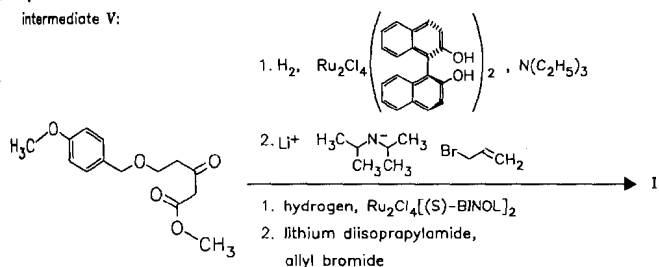
RN: 104987-11-3 MF: C₄₄H₆₉NO₁₂ MW: 804.03

CN: [3S-[3R*[E(1S*,3S*,4S*),4S*,5R*,8S*,9E,12R*,14R*,15S*,16R*,18S*,19S*,26aR*]]-5,6,8,11,12,13,14,15,16,17,18,19,24,25,26,26a-hexadecahydro-5,19-dihydroxy-3-[2-(4-hydroxy-3-methoxycyclohexyl)-1-methylethenyl]-14,16-dimethoxy-4,10,12,18-tetramethyl-8-(2-propenyl)-15,19-epoxy-3H-pyrido[2,1-c][1,4]oxaazacyclotricosine-1,7,20,21(4H,23H)-tetrone

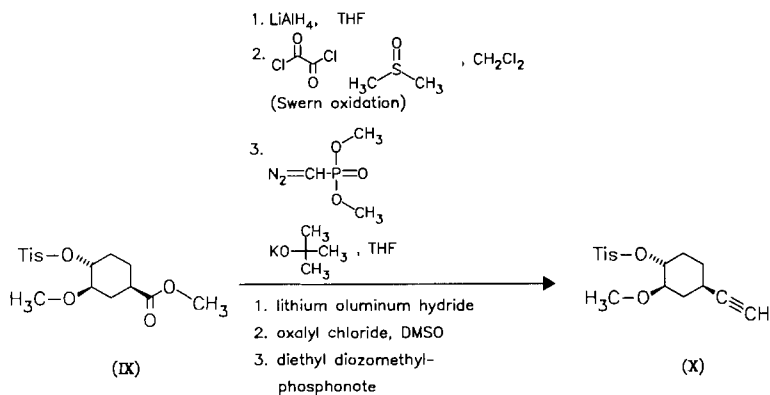
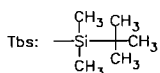
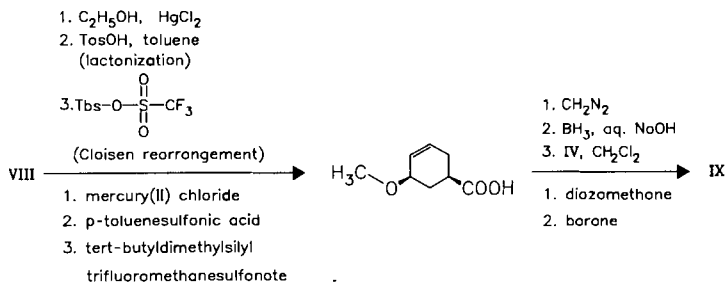
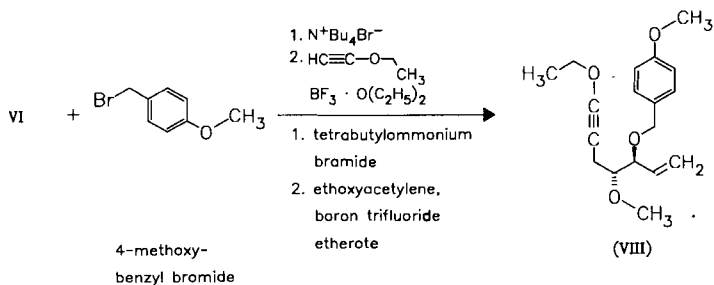
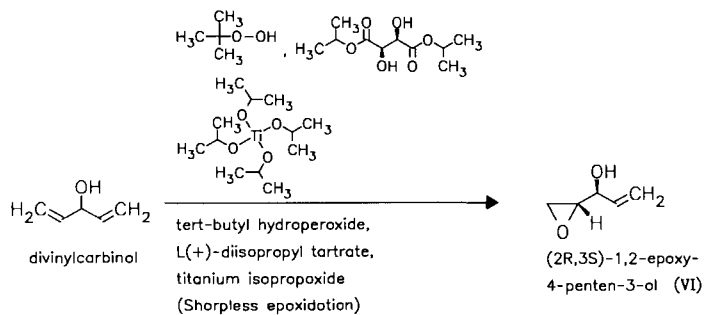
Isolation:

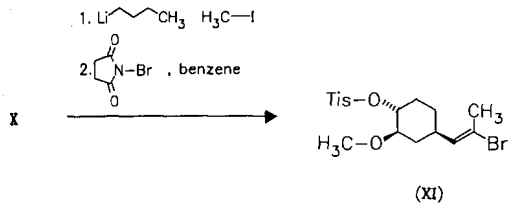
A fermentation broth of *Streptomyces tsukubaensis* No. 9993 is filtered and the mycelial cake is extracted with acetone. The filtrate is combined with the acetone extract and passed through a column of Diaion HP-20. The dilution with 75 % aqueous acetone, by evaporation gives an oily residue that is extracted with ethyl acetate and submitted to column chromatography over silica gel.

synthesis
intermediate V:

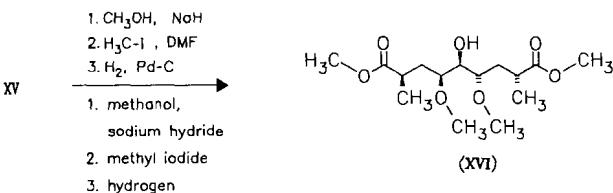
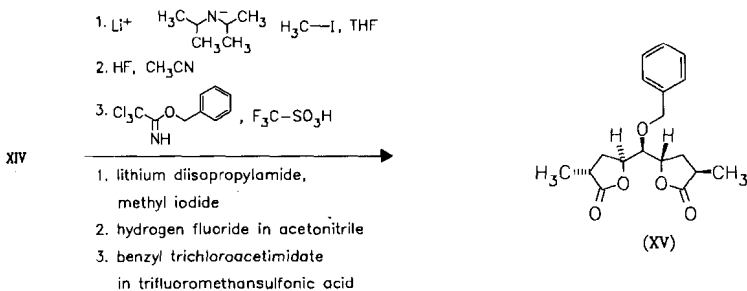
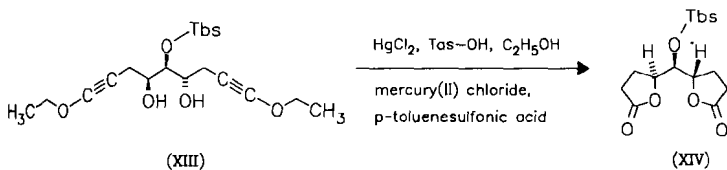
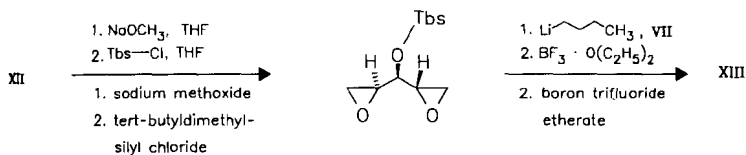
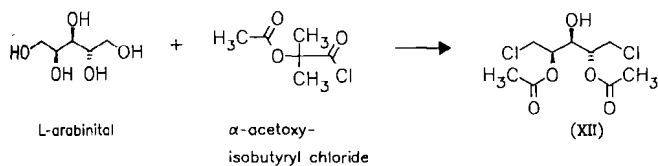


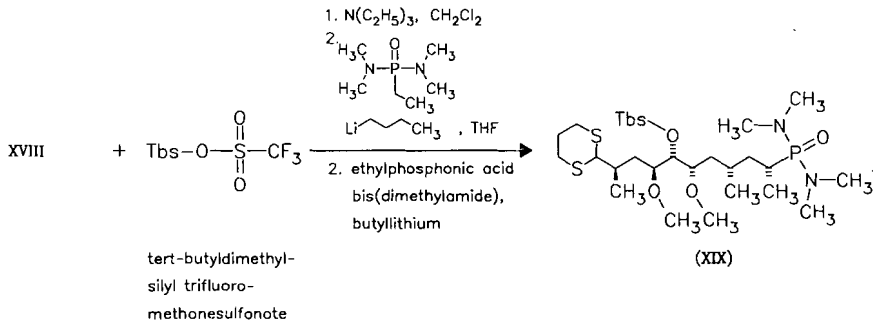
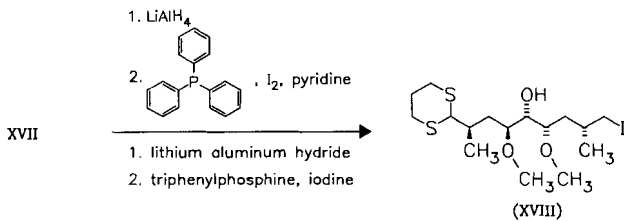
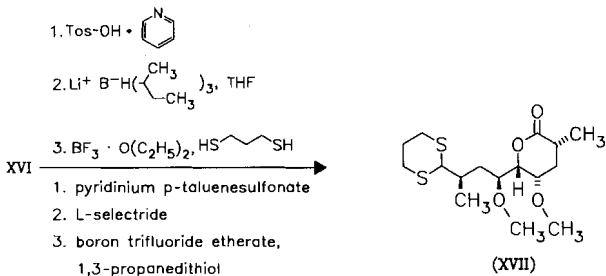
intermediate XI:



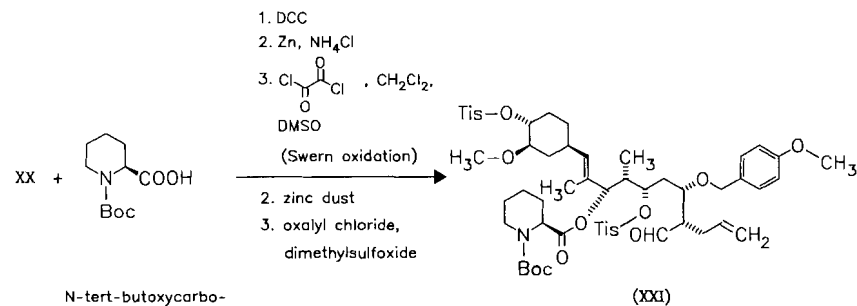
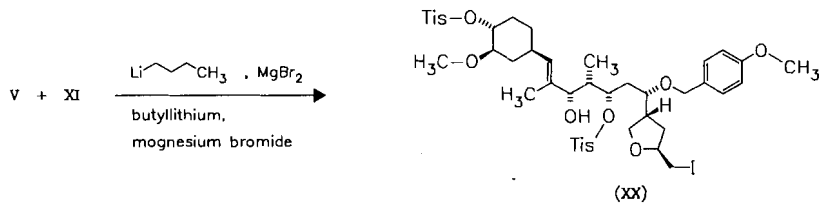


intermediate XIX:

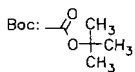


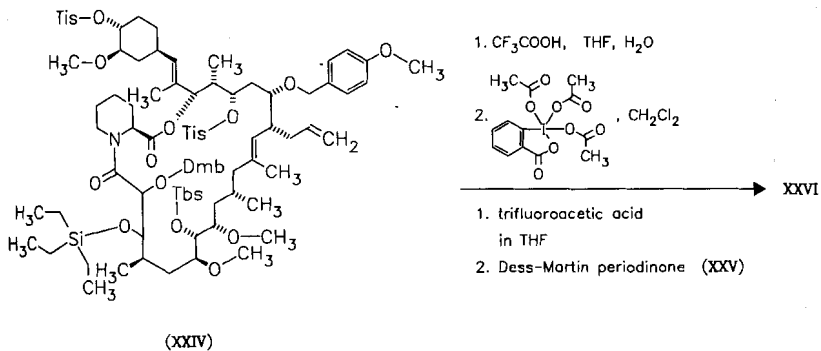
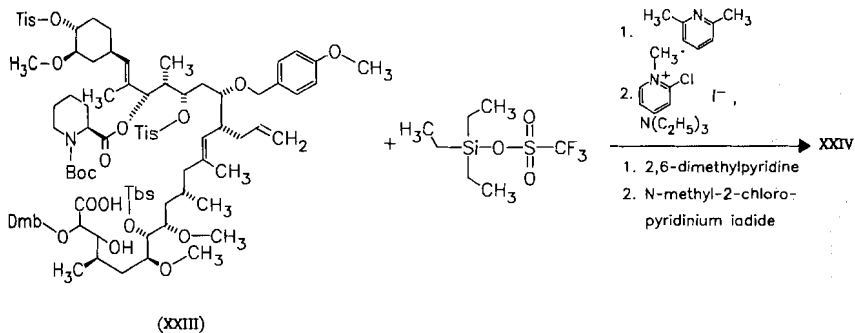
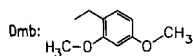
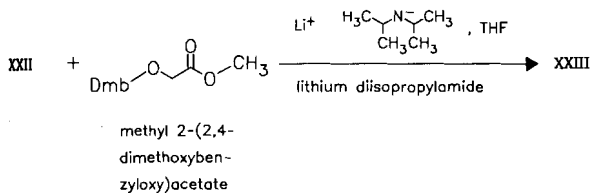
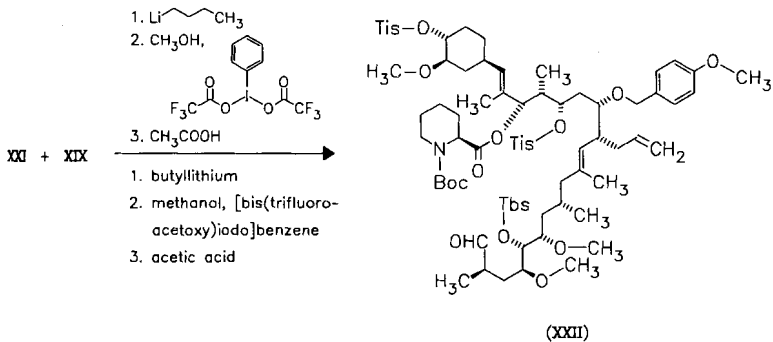


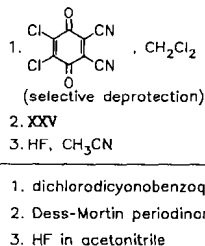
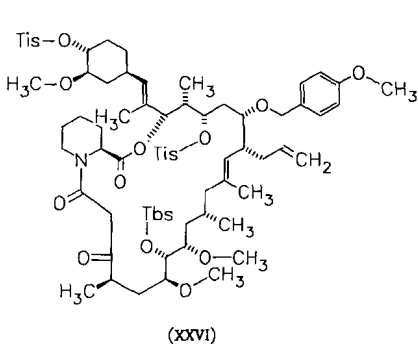
Tacrolimus:



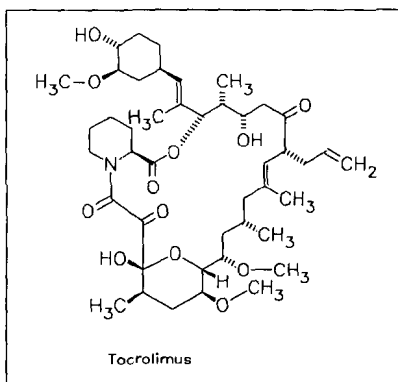
N-tert-butoxycarbonylpiperidine-2(S)-carboxylic acid







Tacrolimus



Reference(s):

production and a pharmaceutical composition; isolation:

EP 184 162 (Fujisawa Pharmaceutical; appl. 11.6.1986; GB-prior. 5.2.1985, 1.4.1985).

synthesis of FK-506:

EP 378 318 (Fujisawa Pharmaceutical; appl. 18.7.1990; USA-prior. 11.1.1989, 30.6.1989).

Ireland, R. et al.: *J. Org. Chem. (JOCEAH)* **61**, 6856 (1996).

synthesis of intermediates:

Danishefsky, S.J. et al.: *J. Org. Chem. (JOCEAH)* **55** (9), 2786 (1990).

Schreiber, S.L. et al.: *J. Am. Chem. Soc. (JACSAT)* **112** (4), 5583 (1990).

US 4 940 797 (Fujisawa Pharmaceutical; 10.7.1990; USA-prior. 23.3.1989).

alternative synthesis:

Shinkai, I. et al.: *J. Am. Chem. Soc. (JACSAT)* **111** (3), 1157 (1989).

Shinkai, I. et al.: *Tetrahedron Lett. (TELEAY)* **29** (3), 281 (1988).

Formulation(s): amp. 5 mg/ml; cps. 1 mg, 5 mg

Trade Name(s):

D: Prograf (Fujisawa)

GB: Prograf (Fujisawa)

USA: Prograf (Fujisawa)

F: Prograf (Fujisawa)

J: Prograf (Fujisawa)

Talampicillin

ATC: J01CA15

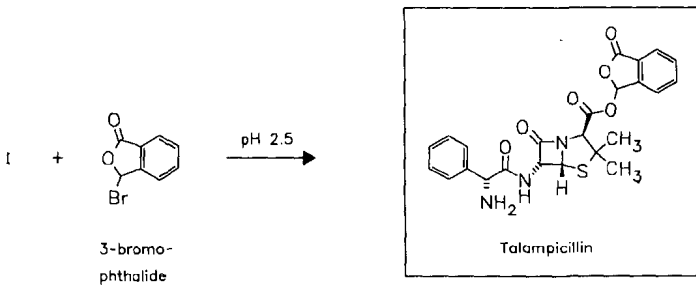
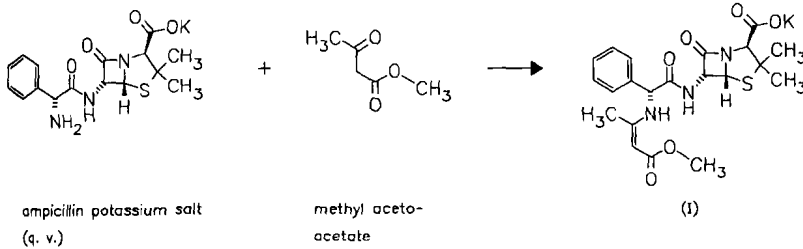
Use: antibiotic, antibacterial

RN: 47747-56-8 MF: C₂₄H₂₃N₃O₆S MW: 481.53 EINECS: 256-332-3

CN: [2S-[2α,5α,6β(S*)]]-6-[(aminophenylacetyl)amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid 1,3-dihydro-3-oxo-1-isobenzofuranyl ester

monohydrochlorideRN: 39878-70-1 MF: C₂₄H₂₃N₃O₆S · HCl MW: 517.99LD₅₀: >1 g/kg (M, i.v.); >4 g/kg (M, p.o.);

786 mg/kg (R, i.v.); >1 g/kg (R, p.o.)

**Reference(s):**

US 3 860 579 (Beecham; 14.1.1975; GB-prior. 9.6.1971).

DAS 2 228 012 (Beecham; appl. 8.6.1972; GB-prior. 9.6.1971).

DOS 2 228 255 (Beecham; appl. 9.6.1972; GB-prior. 9.6.1971).

US 3 951 954 (Yamanouchi; 20.4.1976; J-prior. 5.6.1971, 15.6.1971, 25.6.1971, 10.8.1971, 11.3.1972).

DOS 2 225 149 (Yamanouchi; appl. 24.5.1972; J-prior. 5.6.1971, 15.6.1971, 25.6.1971, 10.8.1971, 11.3.1972).

Formulation(s): cps. 125 mg, 250 mg; tabl. 250 mg, 500 mg, 750 mg, 1 g (as hydrochloride)**Trade Name(s):**

GB: Talpen (Beecham; 1975); wfm

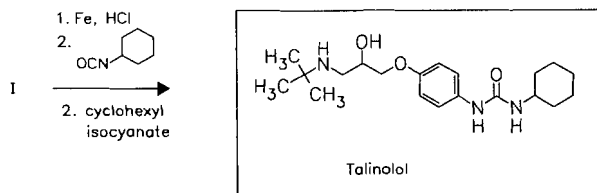
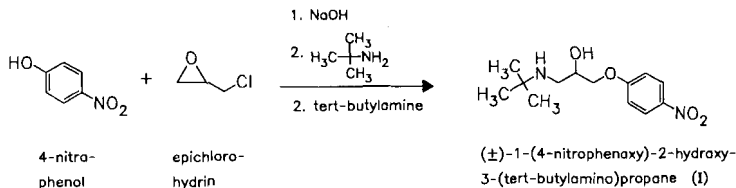
Precillin (Edmond); wfm
Talampicillina (Midy); wfmJ: Talat (Polifarma); wfm
Yamacillin (Beecham-Yamanouchi)

I: Ausotal (Ausonia); wfm

Talinolol

ATC: C07AA

Use: β -adrenoceptor antagonist,
antihypertensiveRN: 57460-41-0 MF: C₂₀H₃₃N₃O₃ MW: 363.50LD₅₀: 30 mg/kg (R, i.v.)CN: (\pm)-N-cyclohexyl-N'-[4-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]phenyl]urea**monohydrochloride**RN: 38652-10-7 MF: C₂₀H₃₃N₃O₃ · HCl MW: 399.96

**Reference(s):**

- DE 2 100 323 (VEB Arzneimittelwerk Dresden, Ciba-Geigy; appl. 5.1.1971; CH-prior. 8.10.1970, 13.11.1970).
 US 4 120 978 (VEB Arzneimittelwerk Dresden, Ciba-Geigy; 17.10.1978).
 DD 283 501 (VEB Arzneimittelwerk Dresden; appl. 29.7.1988).
 DD 283 499 (VEB Arzneimittelwerk Dresden; appl. 29.7.1988).
 DD 283 498 (VEB Arzneimittelwerk Dresden; appl. 29.7.1988).
 DD 283 496 (VEB Arzneimittelwerk Dresden; appl. 29.7.1988).
 DD 264 114 (VEB Arzneimittelwerk Dresden; appl. 25.5.1987).

synthesis of enantiomers:

- DD 285 343 (VEB Arzneimittelwerk Dresden; appl. 29.6.1989).

Formulation(s): amp. 10 mg/5 ml; drg. 50 mg, 100 mg

Trade Name(s):

D: Cordanum (ASTA Medica AWD)

Talipexole

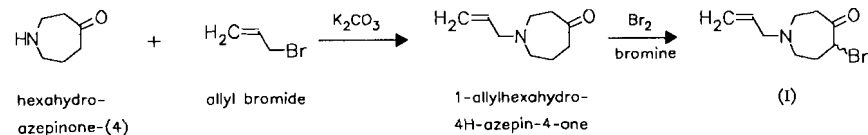
(B-HT-920)

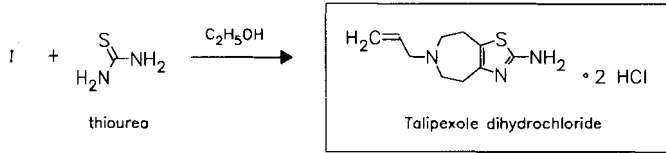
Use: antiparkinsonian

RN: 101626-70-4 MF: $\text{C}_{10}\text{H}_{15}\text{N}_3\text{S}$ MW: 209.32
 CN: 5,6,7,8-tetrahydro-6-(2-propenyl)-4H-thiazolo[4,5-d]azepin-2-amine

dihydrochloride

RN: 36085-73-1 MF: $\text{C}_{10}\text{H}_{15}\text{N}_3\text{S} \cdot 2\text{HCl}$ MW: 282.24
 LD₅₀: 455 mg/kg (M, p.o.);
 66 mg/kg (R, i.v.); 403 mg/kg (R, p.o.)





Reference(s):

EP 195 888 (Thomae GmbH; appl. 1.10.1986; D-prior. 25.1.1985).
 DE 2 040 510 (Thomae GmbH, prior. 14.8.1970).
 DE 3 642 066 (Boehringer Ing., appl. 19.6.1987; prior. 9.12.1986).
 Anden, N.-E.; Grabowska-Anden, M.: J. Neural. Transm. (JNTMAH) **79** (3), 209-214 (1990).

Formulation(s): tabl. 0.4 mg

Trade Name(s):

J: Domin (Boehringer Ing.)

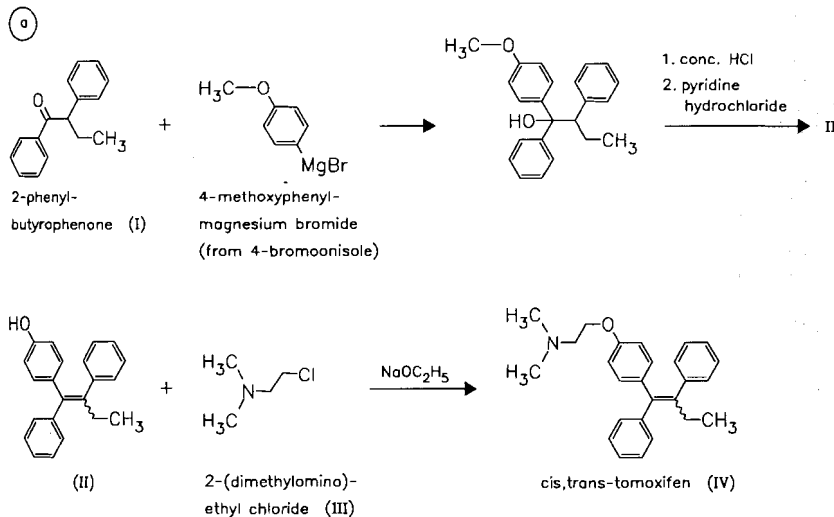
Tamoxifen

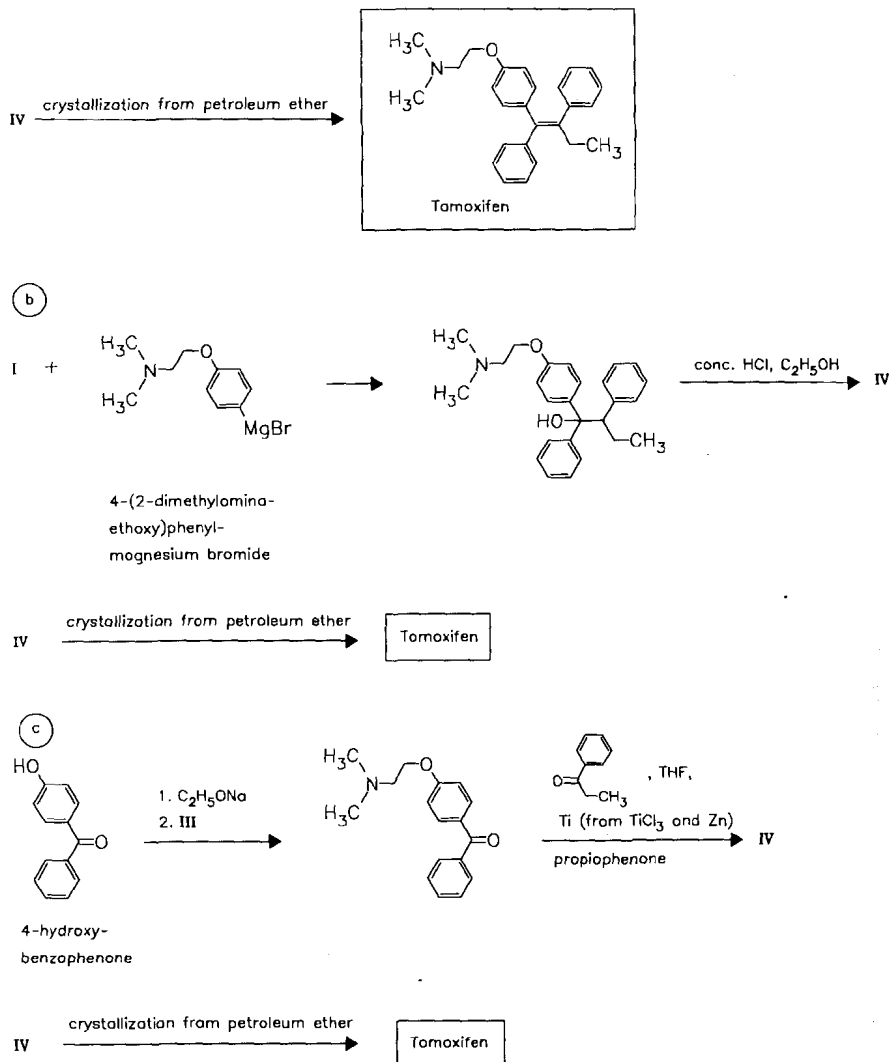
ATC: L02BA01
 Use: antineoplastic, antiestrogen
 (palliative treatment of breast cancer)

RN: 10540-29-1 MF: C₂₆H₂₉NO MW: 371.52 EINECS: 234-118-0
 LD₅₀: 2150 mg/kg (M, p.o.);
 4100 mg/kg (R, p.o.)
 CN: (Z)-2-[4-(1,2-diphenyl-1-butenyl)phenoxy]-N,N-dimethylethanamine

citrate (1:1)

RN: 54965-24-1 MF: C₂₆H₂₉NO · C₆H₈O₇ MW: 563.65 EINECS: 259-415-2
 LD₅₀: 62.5 mg/kg (M, i.v.); 3100 mg/kg (M, p.o.);
 62.5 mg/kg (R, i.v.); 1190 mg/kg (R, p.o.)



*Reference(s):*

US 4 536 516 (ICI)

a,b Harper, M.J.K.; Walpole, A.L.: *Nature (London) (NATUAS)* **212**, 87 (1966).

GB 1 013 907 (ICI; appl. 13.9.1962).

GB 1 064 629 (ICI; appl. 20.7.1965).

*separation of isomers:*Bedford, G.R.; Richardson, D.N.: *Nature (London) (NATUAS)* **212**, 733 (1966).

DE 1 468 088 (ICI; appl. 5.9.1963; GB-prior. 13.9.1962, 21.8.1963).

c EP 126 470 (Bristol-Myers; appl. 18.5.1984; USA-prior. 19.5.1983, 22.2.1984).

similar process:

EP 168 175 (Nat. Res. Dev. Corp.; appl. 19.11.1987; GB-prior. 12.6.1984, 11.6.1985).

*polymorphs of tamoxifen citrate:*Goldberg, I.; Becker, Y.: *J. Pharm. Sci. (JPMSAE)* **76**, 259 (1987).

percutaneous administration:

WO 85/03 228 (P. Mauvais-Jarvis and F. Kuttenn; appl. 21.12.1984; F-prior. 20.1.1984).

GB 1 013 907 (ICI; appl. 13.9.1962; valid from 21.8.1963).

GB 1 064 629 (ICI; appl. 20.7.1965; valid from 4.3.1966).

DE 1 468 088 (ICI; appl. 5.9.1963; GB-prior. 13.9.1962, 21.8.1963).

separation of isomers:

Bedford, G.R.; Richardson, D.N.: Nature (London) (NATUAS) **212**, 733 (1966).

Formulation(s): f. c. tabl. 10 mg, 20 mg, 30 mg, 40 mg; tabl. 10 mg, 20 mg, 30 mg, 40 mg (as citrate)

Trade Name(s):

D:	duratamoxifen (durachemie)	Tamoxasta (ASTA Medica AWD)	GB:	Nolvadex (Zeneca; 1973)
	Jenoxifen (Jenapharm)	Tamoxifen (Hexal;		Tamofen (Pharmacia & Upjohn; as citrate)
	Kessar (Farmitalia)	Heumann; ct-Arzneimittel;	I:	Nolvadex (Zeneca)
	Nolvadex (ICI-Pharma; 1976)	cell pharm; Aliud Pharma; biosyn; ratiopharm)	J:	Nolvadex (Zeneca- Sumitomo Chem.; 1981)
	Nourytan (Nourypharma)	F: Kessar (Pharmacia & Upjohn)	USA:	Kessar (Pharmacia & Upjohn)
	Tamobeta (betapharm)	Nolvadex (Zeneca; 1977)		Ledertam (Wyeth-Lederle)
	Tamofen (Rhône-Poulenc Rorer)	Oncotam (Mayoly- Spindler)		Nolvadex (Zeneca; 1978)
	Tamox-GRY (Gry)	Tamofine (Rhône-Poulenc Rorer)		
	Tamox-PUREN (Isis Puren)			

Tamsulosin hydrochloride

((-)-LY 253352; LY 253351; (-)-YM 12617; (R)-(-)-YM 12617)

ATC: G04BX08

Use: antihypertensive, BPH, α -blocker

RN: 106463-17-6 MF: $C_{20}H_{28}N_2O_5S \cdot HCl$ MW: 444.98

CN: (R)-5-[2-[[2-(2-Ethoxyphenoxy)ethyl]amino]propyl]-2-methoxybenzenesulfonamide monohydrochloride

base

RN: 106133-20-4 MF: $C_{20}H_{28}N_2O_5S$ MW: 408.52

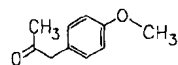
(+)-hydrochloride

RN: 106463-19-8 MF: $C_{20}H_{28}N_2O_5S \cdot HCl$ MW: 444.98

(±)-hydrochloride

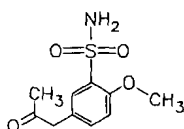
RN: 80223-99-0 MF: $C_{20}H_{28}N_2O_5S \cdot HCl$ MW: 444.98

a

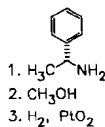


1. $ClSO_3H$
2. recrystallization,
benzene, ether
3. NH_3 , $CHCl_3$

1. chlorosulfonic
acid



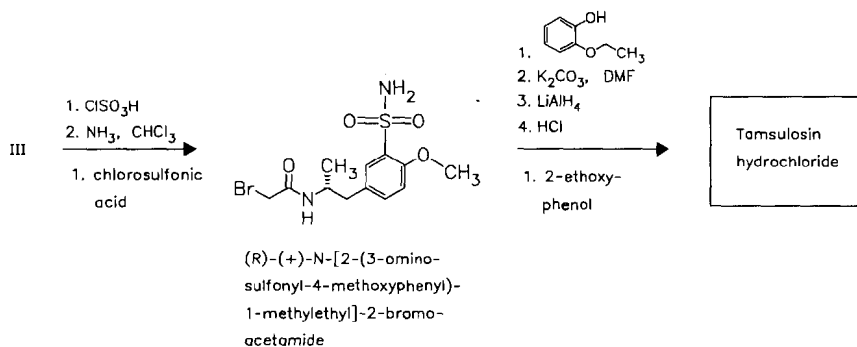
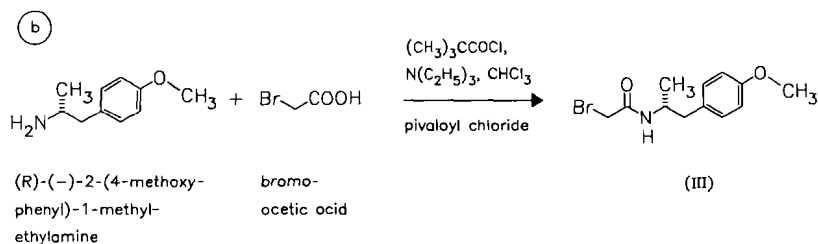
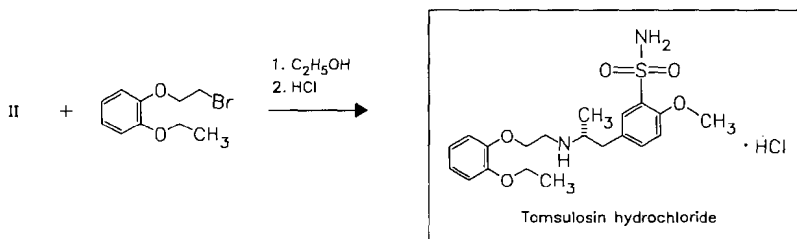
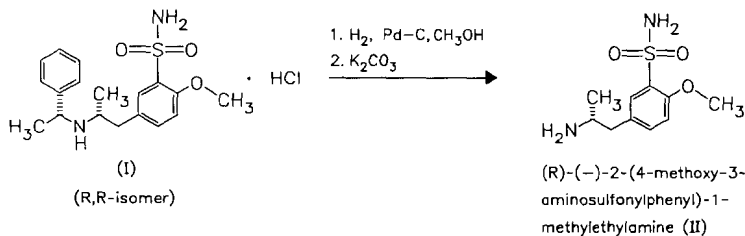
5-acetonyl-2-methoxy-
benzenesulfonamide



1. H_3C-NH_2
2. CH_3OH
3. H_2 , PtO_2
4. HCl

1. (R)-(+)- α -methyl-
benzylamine

4-methoxyphenyl-
acetone



Reference(s):

- a EP 257 787 (Yamanouchi; 2.3.1988; appl. 21.7.1987; J-prior. 21.7.1986)
- b JP 02 306 958 (Hokuriku; appl. 22.5.1988)

synthesis of racemic YM 12617:

EP 34 432 (Yamanouchi, 26.8.1981; appl. 2.2.1981; J-prior. 8.2.1980)

Formulation(s): cps. 0.1 mg, 0.2 mg, 0.4 mg

Trade Name(s):

D:	Alna (Boehringer Ingelheim) OMNIC (Yamanouchi)	F:	Josir (Boehringer Ingelheim) Omix (Yamanouchi)	GB:	Flomax (Boehringer Ingelheim)
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I: Omnic (Yamanouchi) USA: Flomax (Boehringer
 J: Harnal (Yamanouchi) Ingelheim; 1997)

Tandospirone

(SM-3997 (as citrate))

ATC: N05BX

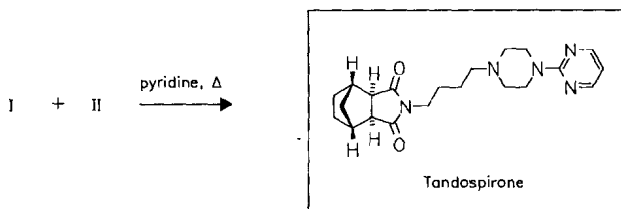
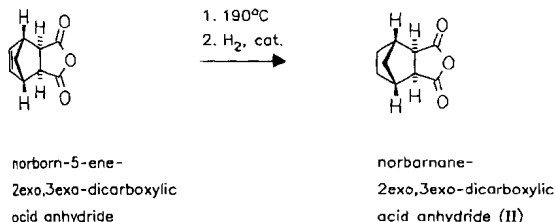
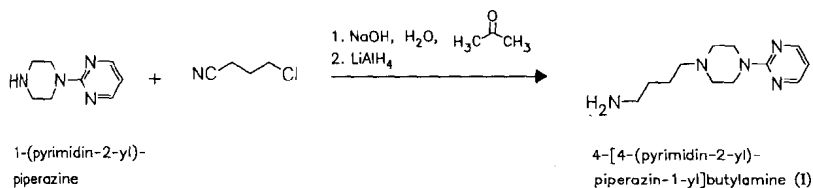
Use: anxiolytic, antidepressant

RN: 87760-53-0 MF: $C_{21}H_{29}N_5O_2$ MW: 383.50

CN: (3 α ,4 β ,7 β ,7 α)-hexahydro-2-[4-[4-(2-pyrimidinyl)-1-piperazinyl]butyl]-4,7-methano-1*H*-isoindole-1,3(2*H*)-dione

citrate

RN: 112457-95-1 MF: $C_{21}H_{29}N_5O_2 \cdot C_6H_8O_7$ MW: 575.62



Reference(s):

EP 82 402 (Sumitomo Chem.; appl. 29.6.1983; J-prior. 22.12.1981, 3.6.1982).

JP 60 087 262 (Sumitomo Chem.; appl. 16.5.1985; USA-prior. 19.1.1983).

JP 63 010 760 (Sumitomo Chem.; appl. 18.1.1988; J-prior. 1.7.1986).

use of tandospirone:

a) treating depression:

US 5 011 841 (Pfizer; appl. 30.4.1991; USA-prior. 14.11.1989).

b) as psychotropic agents:

US 5 521 313 (Bristol-Myers Squibb; appl. 28.5.1996; USA-prior. 5.5.1994).

c) as 5-HT_{1A}-receptor agonist:

WO 9 605 817 (Medinova SF; appl. 29.2.1996; GB-prior. 23.8.1994).

dosage forms:

US 5 330 762 (Alza Corp.; appl. 19.7.1994; USA-prior. 27.1.1993).
 US 5 246 711 (Alza Corp.; appl. 21.9.1993; USA-prior. 27.2.1992, 10.9.1992).
 US 5 246 710 (Alza Corp.; appl. 22.9.1993; USA-prior. 27.2.1992, 10.9.1992).
 US 5 185 158 (Alza Corp.; appl. 9.2.1993; USA-prior. 27.2.1992).

synergistic compositions with 8-hydroxy-2-(dipropylamino)tetraline and idazoxan:

US 5 124 346 (Pfizer; appl. 23.6.1992; USA-prior. 23.4.1991).

synthesis of I:

Kikuo, I. et al.: Chem. Pharm. Bull. (CPBTAL) **39**, 2288 (1991).

Wu et al.: J. Med. Chem. (JMCMAR) **15**, 477 (1972).

Formulation(s): tabl. 5 mg, 10 mg

Trade Name(s):

J: Sediel (Sumitomo)

Tazanolast

ATC: R03DX

Use: antiallergic, antiasthmatic

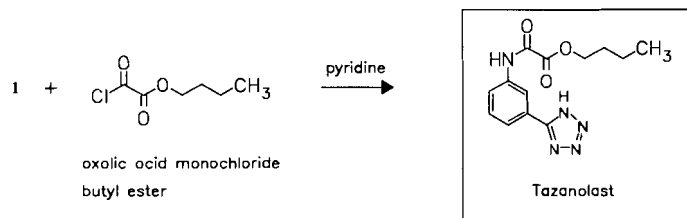
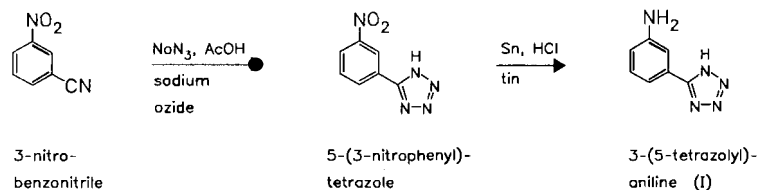
RN: 82989-25-1 MF: C₁₃H₁₅N₅O₃ MW: 289.30

LD₅₀: 1121 mg/kg (M, i.v.); >4 g/kg (M, p.o.);

1119 mg/kg (R, i.v.); >4 g/kg (R, p.o.);

>4 g/kg (dog, p.o.)

CN: oxo[[3-(1*H*-tetrazol-5-yl)phenyl]amino]acetic acid butyl ester

*Reference(s):*

JP 82 011 975 (Wakamoto; appl. 21.1.1982; J-prior. 25.6.1980).

JP 57 011 975 (Wakamoto; appl. 21.1.1982; J-prior. 21.1.1982; prior. 25.6.1980).

synthesis of 3-(5-tetrazolyl)aniline I:

McManus, J.M.; Herbst, R.M.: J. Org. Chem. (JOCEAH) **24**, 1044 (1959).

medical use as inhibitor of SRS-A-release:

DOS 3 530 780 (Wakamoto; appl. 28.8.1985; J-prior. 24.12.1984, 29.3.1985).

US 4 778 816 (Wakamoto; 18.10.1988; appl. 17.9.1985; J-prior. 24.12.1984, 29.3.1985).

Formulation(s): cps. 75 mg

Trade Name(s):

J: Tazalest (Wakamoto;
1990).

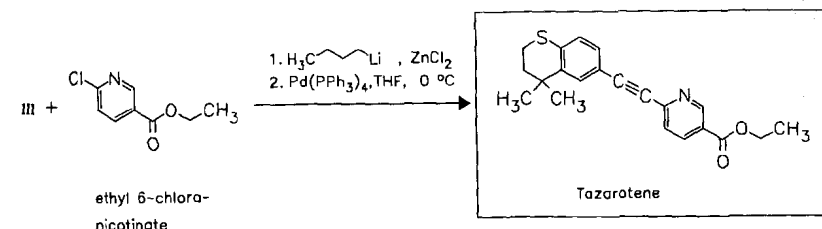
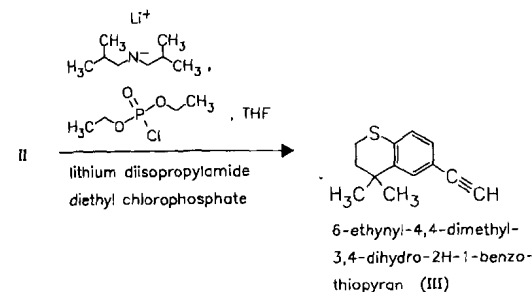
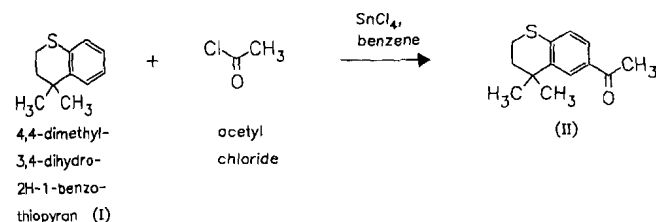
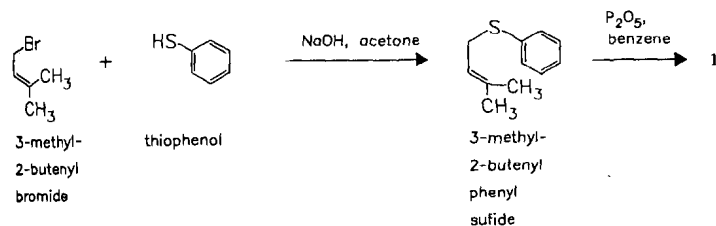
Tazanol (Torii; 1990).

Tazarotene
(AGN-190168)

ATC: D05B

Use: antipsoriatic, acne therapeutic,
retinoidRN: 118292-40-3 MF: C₂₁H₂₁NO₂S MW: 351.47

CN: 6-[(3,4-dihydro-4,4-dimethyl-2H-1-benzothiopyran-6-yl)ethynyl]-3-pyridinecarboxylic acid ethyl ester



Reference(s):

EP 284 261 (Allergan Inc.; USA-prior. 13.3.1987).

EP 284 288 (Allergan Inc.; USA-prior. 20.3.1987).

US 5 089 509 (Allergan Inc.; USA-prior. 20.3.1989).

Formulation(s): gel 0.5 mg/g, 1 mg/g

Trade Name(s):

D: Zorac (Pharm-Allergan)

GB: Zorac (Allergan)

USA: Tazorac (Allergan)

Teclotiazide

(Tetrachlormethiazide;

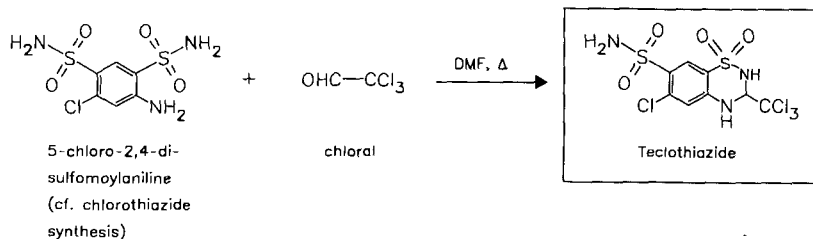
ATC: C03AX

Use: diuretic

Trichlormethylhydrochlorothiazide)

RN: 4267-05-4 MF: $C_8H_7Cl_4N_3O_4S_2$ MW: 415.11 EINECS: 224-253-3

CN: 6-chloro-3,4-dihydro-3-(trichloromethyl)-2H-1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide



Reference(s):

Novello, F.C. et al.: J. Org. Chem. (JOCEAH) **25**, 970 (1960).Close, W.J. et al.: J. Am. Chem. Soc. (JACSAT) **82**, 1132 (1960).

Formulation(s): tabl. 18 mg

Trade Name(s):

F: Chymodrex (Pharmuka)-
comb.; wfm**Tegafur**

(Ftorafur)

ATC: L01BC03

Use: antineoplastic

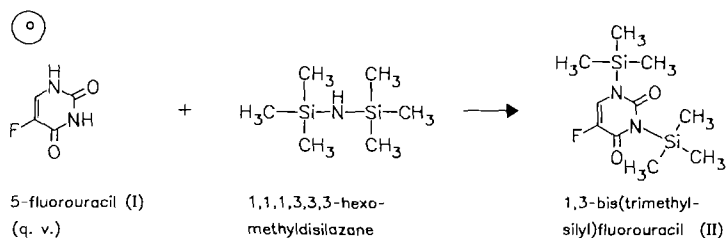
RN: 17902-23-7 MF: $C_8H_9FN_2O_3$ MW: 200.17 EINECS: 241-846-2LD₅₀: 800 mg/kg (M, i.v.); 775 mg/kg (M, p.o.);

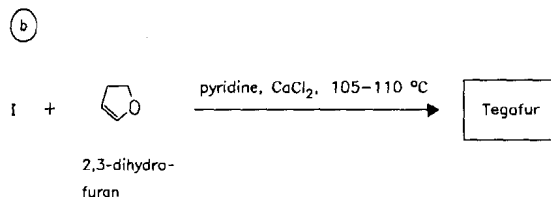
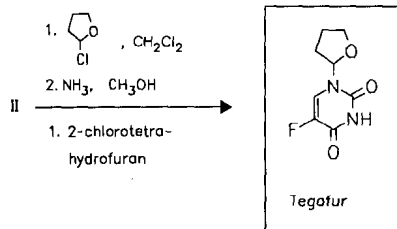
685 mg/kg (R, i.v.); 930 mg/kg (R, p.o.);

34 mg/kg (dog, p.o.)

CN: 5-fluoro-1-(tetrahydro-2-furanyl)-2,4(1H,3H)-pyrimidinedione

monosodium salt

RN: 28721-46-2 MF: $C_8H_8FN_2NaO_3$ MW: 222.15



Reference(s):

- a US 3 635 946 (S. A. Giller et al.; 18.1.1972; appl. 21.12.1967, 22.7.1969).
 US 3 912 734 (S. A. Giller et al.; 14.10.1975; appl. 1.6.1973; SU-prior. 20.11.1972).
 GB 1 168 391 (Inst. Organitschesk. sinteza, Riga; appl. 8.1.1968).
 DAS 1 695 297 (Inst. Organitschesk. sinteza, Riga; appl. 10.1.1968).
 US 4 039 546 (S. A. Giller et al.; 2.8.1977; appl. 28.4.1975).
 GB 1 503 614 (Univ. of Utah; appl. 14.4.1975; USA-prior. 6.5.1974).
 US 4 107 162 (Asahi; 15.8.1978; J-prior. 10.11.1975).
 with dimethyldichlorosilane:
 DOS 2 834 698 (Toshin Chemical; appl. 8.8.1978; J-prior. 19.9.1977, 14.12.1977).
- b DOS 2 653 398 (Takeda; appl. 24.11.1976; J-prior. 28.11.1975; 19.1.1976; 13.7.1976).
 DOS 2 657 709 (Takeda; appl. 20.12.1976; J-prior. 25.12.1975).
 DOS 2 709 838 (Nikken Chemical; appl. 7.3.1977; J-prior. 26.6.1976, 28.8.1976).
 US 4 121 037 (Nikken Chemical; 17.10.1978; J-prior. 26.6.1976, 28.8.1976).
 DOS 2 709 839 (Nikken Chemical; appl. 7.3.1977; J-prior. 23.6.1976).
 GB 1 522 860 (Mitsui Toatsu; appl. 7.12.1976; J-prior. 24.12.1975, 9.1.1976, 22.1.1976, 20.5.1976).
 DOS 2 744 956 (ABIC; appl. 6.10.1977; IL-prior. 12.10.1976).
 US 4 159 378 (Toshin Chemical; 26.6.1979; J-prior. 19.9.1977, 14.12.1977).

alternative synthesis (also suitable for optical antipodes):

DOS 2 723 450 (Roche; appl. 24.5.1977; A-prior. 28.5.1976).

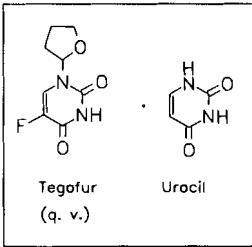
further syntheses:

Yasumoto, M. et al.: J. Med. Chem. (JMCMAR) **21**, 738 (1978).
 DOS 2 648 239 (Rikagaku Kenkyusho; appl. 25.10.1976; J-prior. 24.10.1975, 4.12.1975, 5.1.1976, 15.3.1976, 11.5.1976).

Formulation(s): tabl. 2.5 mg, 5 mg, 10 mg

Trade Name(s):

I:	Citofur (Lusofarmaco)	Franroze (Hishiyama)	Helpa (Teikoku)
J:	Coparogin (Nippon Chemiphar)	FTR (Tenyosha)	Helpa Taito (Pfizer)
	Daiyalose (Daito)	Fulaid (Takeda)	Icalus (Isei)
	Exonal (Toyama)	Fulfeel (Kyorin)	Lamar (Tokyo Tanabe)
	Fental (Kanebo)	Furofluor (Green Cross)	Natira U (Mohan)
	FH (Mitsui)	Furofutran (Taiyo)	Neberk (Fuji)
	Filacul (Torii)	Futol-P (Teisan)	Nitobanil (Kyowa)
	Flopholin (Tsuruhara)	Futraful (Taiho)	Pharmic (Toyo Pharmar)
		Geen (Tatumi)	Rescrel (Nikken)

Rial (Toa Eiyo)
Richina (Takata)Sinoflurol (Kaken)
Sunfural (Toyo Jozo)Tefsiel C (Towa)
Youfural (Showa)**Tegafur-Uracil**ATC: L01BC03
Use: antineoplasticRN: 74578-38-4 MF: $C_8H_9FN_2O_3 \cdot C_4H_4N_2O_2$ MW: 312.26LD₅₀: 1275 mg/kg (M, p.o.);
1580 mg/kg (R, p.o.);
150 mg/kg (dog, p.o.)CN: 5-fluoro-1-(tetrahydro-2-furanyl)-2,4(1*H*,3*H*)-pyrimidinedione mixt. with 2,4(1*H*,3*H*)-pyrimidinedione*Reference(s):*

JP 56 046 813 (Taiho; appl. 27.9.1979).

Yamamoto, J. et al.: *Arzneim.-Forsch. (ARZNAD)* **31**, 1276 (1981).*Formulation(s):* cps. 100 mg; drg. 100 mg in comb. with 224 mg uracil*Trade Name(s):*

J: UFT (Miguel-Otsuka)

Teicoplanin

(Teichomycin)

ATC: J01XA02
Use: antibacterial, antibioticRN: 61036-62-2 MF: $C_{41-43}H_{51-53}ClN_4O_{17}$ MW: unspecifiedLD₅₀: 715 mg/kg (M, i.v.);
160 mg/kg (R, i.v.);
>900 mg/kg (dog, i.m.); 750 mg/kg (dog, i.v.)

CN: teicoplanin

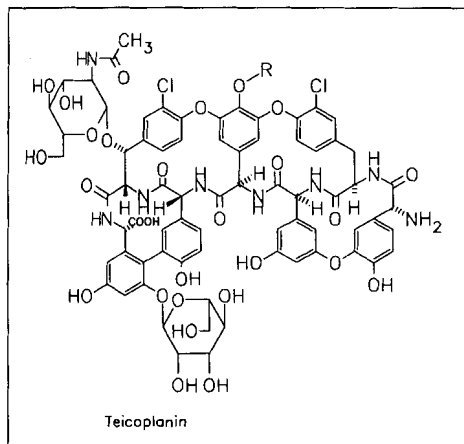
Teichomycin A₁

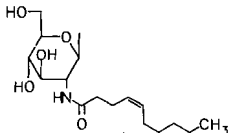
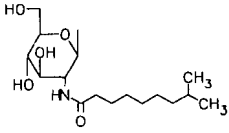
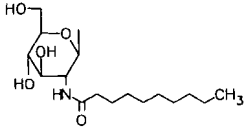
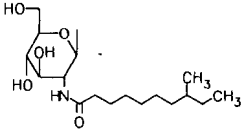
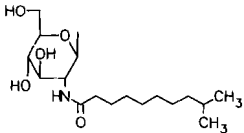
RN: 61036-63-3 MF: unspecified MW: unspecified

Teichomycin A₂

RN: 61036-64-4 MF: unspecified MW: unspecified

LD₅₀: 275 mg/kg (M, i.v.); >1 g/kg (M, p.o.)



compound	R	formula
Teicoplanin A 2-1		$C_{88}H_{95}Cl_2N_9O_{33}$
Teicoplanin A 2-2		$C_{88}H_{97}Cl_2N_9O_{33}$
Teicoplanin A 2-3		$C_{88}H_{97}Cl_2N_9O_{33}$
Teicoplanin A 2-4		$C_{89}H_{99}Cl_2N_9O_{33}$
Teicoplanin A 2-5		$C_{89}H_{99}Cl_2N_9O_{33}$

Reference(s):

- DE 2 608 216 (Lepetit; appl. 28.2.1976; GB-prior. 5.3.1975).
 US 4 239 751 (Lepetit; 16.12.1980; GB-prior. 5.3.1975).
 Parenti, F. et al.: J. Antibiot. (JANTAJ) **31**, 276 (1978).
 Bardone, M.R. et al.: J. Antibiot. (JANTAJ) **31**, 170 (1978).
 Coronelli, C. et al.: J. Antibiot. (JANTAJ) **37**, 621 (1984).
 Borghi, A. et al.: J. Antibiot. (JANTAJ) **37**, 615 (1984).

isolation of teichomycin A₂ factors:

US 4 542 018 (Lepetit; 17.9.1985; appl. 7.6.1983; GB-prior. 8.6.1982).

Formulation(s): vial 100 mg, 200 mg, 400 mg (Iyo.)*Trade Name(s):*

D: Targocid (Hoechst; 1989) GB: Targocid (Hoechst; 1990) I: Targosid (Hoechst Marion Roussel)
 F: Targocid (Marion Merrell)

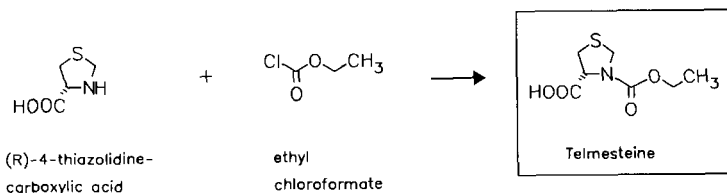
Telmesteine

ATC: R05CB

Use: mucolytic agent

RN: 122946-43-4 MF: C₇H₁₁NO₄S MW: 205.23LD₅₀: 415 mg/kg (R, i.p.); >4000 mg/kg (R, p.o.)

CN: (R)-3,4-thiazolidinedicarboxylic acid 3-ethyl ester

*Reference(s):*

US 4 874 776 (Yason; 17.10.1989; appl. 11.7.1988).

lysine salt:

EP 348 541 (Yason; appl. 29.6.1988).

Formulation(s): sachets 300 mg; syrup 3 %*Trade Name(s):*

I: Muconorm (Prospa Italia) Reolase (Pulitzer)

Telmisartan

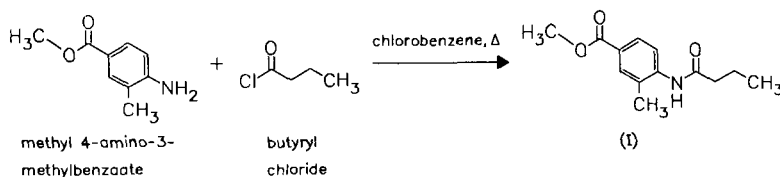
(BIBR 277; BIBR 277SE)

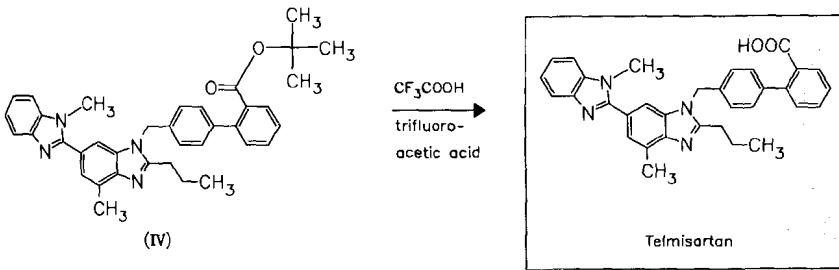
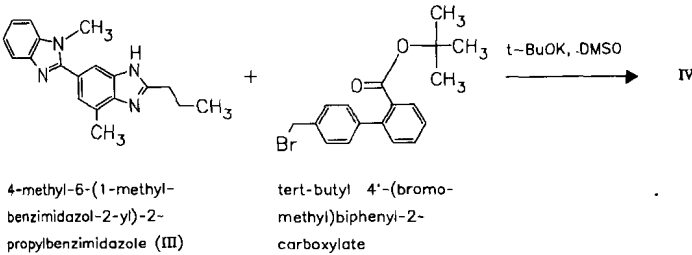
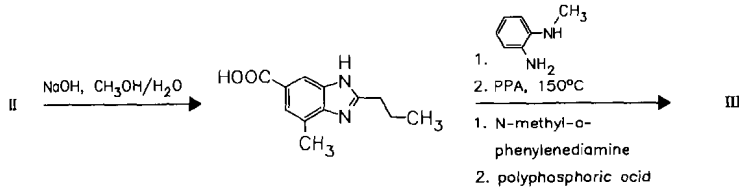
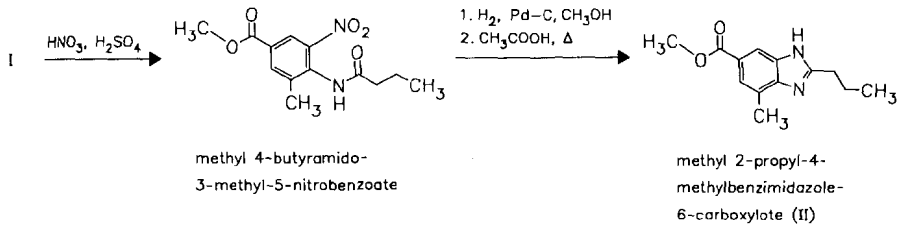
ATC: C09CA07

Use: antihypertensive, angiotensin II receptor blocker

RN: 144701-48-4 MF: C₃₃H₃₀N₄O₂ MW: 514.63

CN: 4'-[(1,4'-Dimethyl-2'-propyl[2,6'-bi-1H-benzimidazol]-1'-yl)methyl][1,1'-biphenyl]-2-carboxylic acid





Reference(s):

Ries, U. et al.: J. Med. Chem. (JMCMAR) 36, 4040-4051 (1993)
 EP 502 314 (Thomae; 9.9.1992; appl. 31.1.1992; D-prior. 6.2.1991)
 DE 4 408 497 (Thomae; 21.9.1995; appl. 14.3.1994; D-prior. 14.3.1994)

use for the treatment of a condition associated with hypoxia or unpaired metabolic function:
 WO 9 920 260 (Eurogene Ltd.; appl. 19.10.1998; GB-prior. 17.10.1997)

use to treat symptomatic heart failure:
 WO 9 830 216 (Merck + Co.; appl. 7.1.1998; USA-prior. 10.1.1997)

method to treat cardiofibrosis with a combination of an ATI-antagonist and spironolactone:
 WO 9 640 256 (G. D. Searle; appl. 5.6.1996; USA-prior. 7.6.1995)

Formulation(s): tabl. 40 mg, 80 mg

Trade Name(s):

D: Micardis (Boehringer
 Ingelheim; 1998)

Temafloxacin

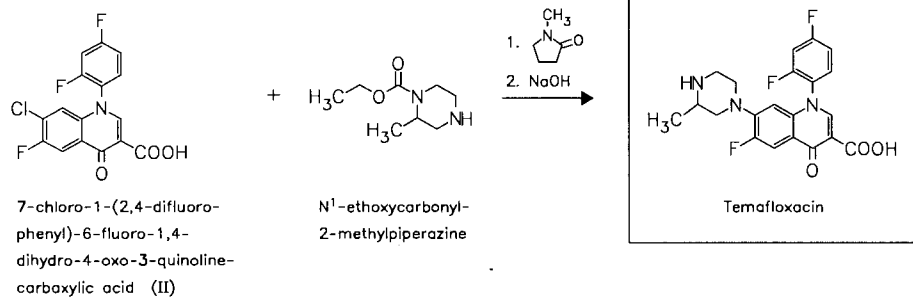
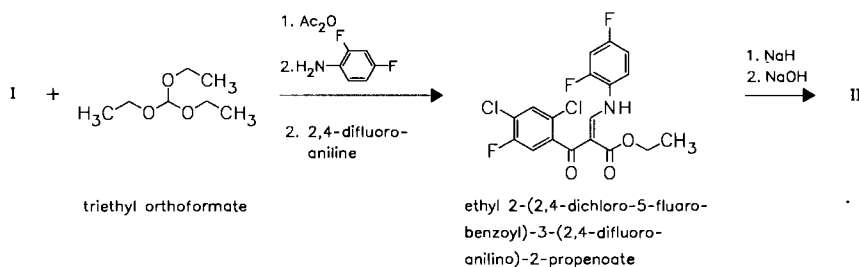
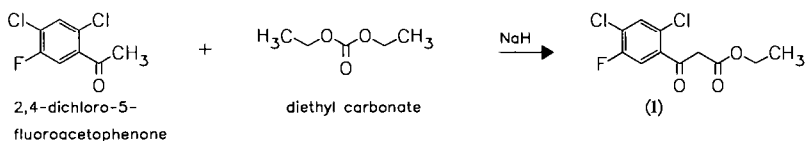
(TA-167)

ATC: J01MA05

Use: quinolone antibacterial, gyrase inhibitor

RN: 108319-06-8 MF: C₂₁H₁₈F₃N₃O₃ MW: 417.39

CN: 1-(2,4-difluorophenyl)-6-fluoro-1,4-dihydro-7-(3-methyl-1-piperazinyl)-4-oxo-3-quinolinecarboxylic acid

monohydrochlorideRN: 105784-61-0 MF: C₂₁H₁₈F₃N₃O₃ · HCl MW: 453.85**Reference(s):**

EP 131 839 (Abbott; appl. 3.7.1984; USA-prior. 18.7.1983).

US 4 730 000 (Abbott; 8.3.1988; prior. 18.7.1983; 9.4.1984, 6.12.1984, 7.10.1985, 4.8.1987).

EP 350 950 (Abbott; appl. 14.7.1989; USA-prior. 15.7.1988).

medical use for treatment of AIDS related infections:

EP 437 128 (Rhône-Poulenc; appl. 10.12.1990; F-prior. 11.12.1989).

i.v. formulation with improved tolerability:

WO 9 109 525 (Abbott; appl. 20.12.1990; USA-prior. 29.12.1989).

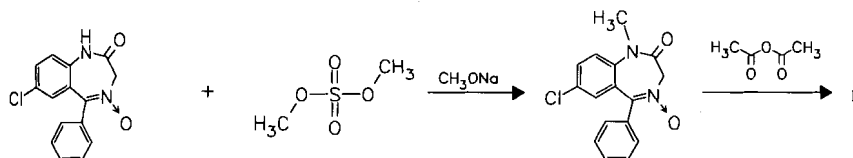
Formulation(s): tabl. 300 mg, 400 mg, 600 mg (as hydrochloride)**Trade Name(s):**

GB: Teflox (Abbott; ICI; 1991); USA: Omiflox (Abbott-Zeneca); wfm

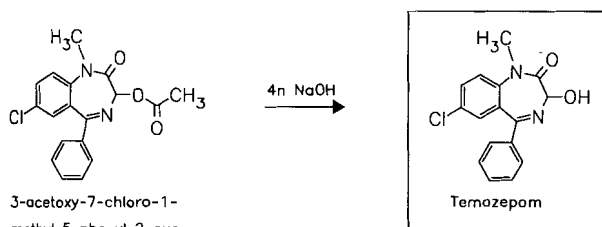
Temazepam
(Methyloxazepam)

ATC: N05CD07
Use: tranquilizer, anticonvulsant, sedative, hypnotic

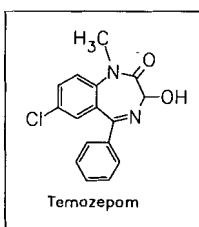
RN: 846-50-4 MF: C₁₆H₁₃ClN₂O₂ MW: 300.75 EINECS: 212-688-1
LD₅₀: 370 mg/kg (M, p.o.);
2 g/kg (R, p.o.);
3620 mg/kg (dog, p.o.)
CN: 7-chloro-1,3-dihydro-3-hydroxy-1-methyl-5-phenyl-2H-1,4-benzodiazepin-2-one



7-chloro-5-phenyl-
2-oxo-1,3-dihydro-
2H-1,4-benzodiazepine
4-oxide
(cf. oxazepam synthesis)



3-acetoxy-7-chloro-1-
methyl-5-phenyl-2-oxo-
1,3-dihydro-2H-1,4-
benzodiazepine (I)



Reference(s):

GB 1 022 642 (American Home; appl. 28.8.1962; USA-prior. 29.8.1961, 5.3.1962).
GB 1 022 645 (American Home; appl. 28.8.1962; USA-prior. 29.8.1961, 5.3.1962).

Formulation(s): cps. 7.5 mg, 10 mg, 15 mg, 20 mg, 30 mg

Trade Name(s):

D: Neodorm (Knoll)	Remestan /-mite (Wyeth)	I: Evipnos (Pharmacia & Upjohn)
Norkotral (Desitin)	temazep (ct-Arzneimittel)	Levanxol (Carlo Erba);
Planum /-mite (Pharmacia & Upjohn)	F: Normison (Wyeth)	wfm
Pronervon (Produpharm)	GB: Euhypnos (Montedison)	Normison (Wyeth-Lederle)
Lappe	Normison (Wyeth)	USA: Restoril (Novartis)

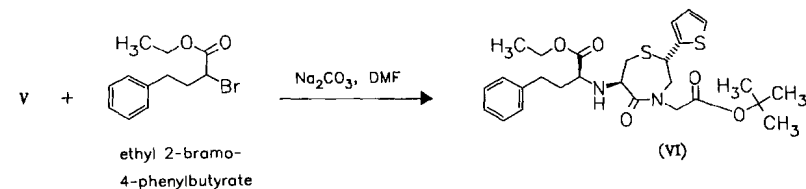
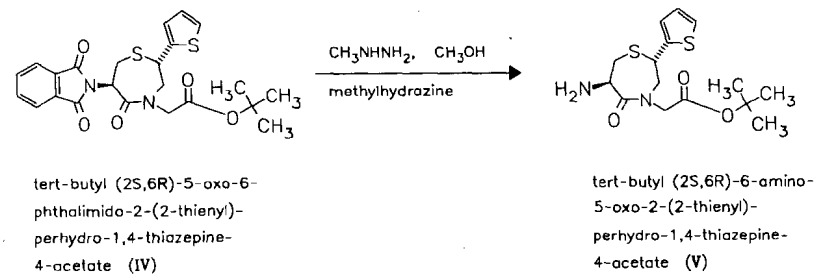
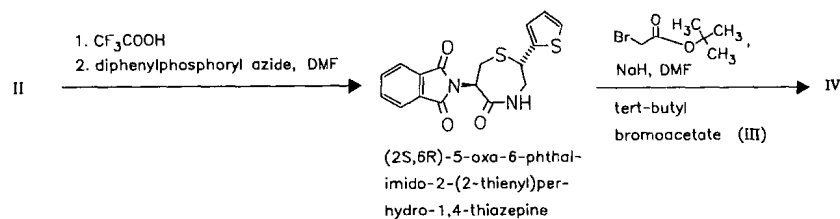
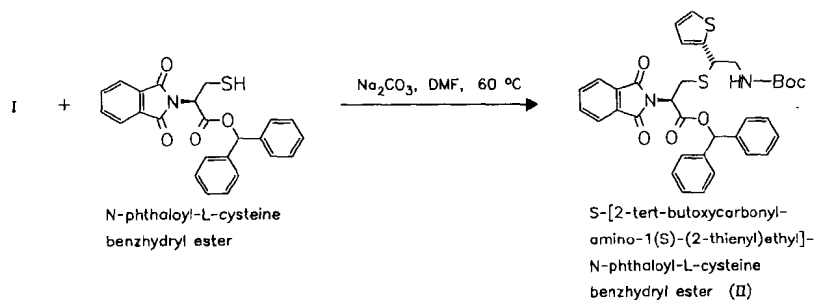
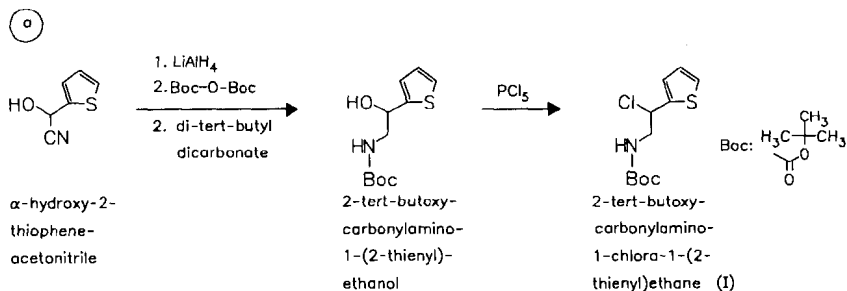
Temocapril
(RS-5142; CS 622)

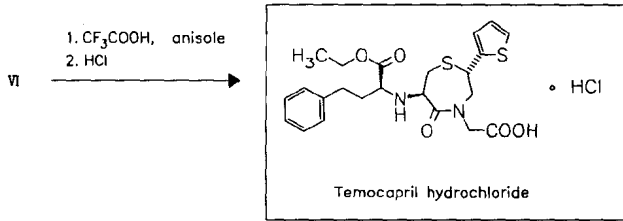
ATC: C09AA
Use: antihypertensive (ACE inhibitor)

RN: 111902-57-9 MF: C₂₃H₂₈N₂O₅S₂ MW: 476.62
CN: [2S-[2α,6β(R*)]]-6-[[1-(ethoxycarbonyl)-3-phenylpropyl]amino]tetrahydro-5-oxo-2-(2-thienyl)-1,4-thiazepine-4(5H)-acetic acid

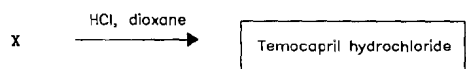
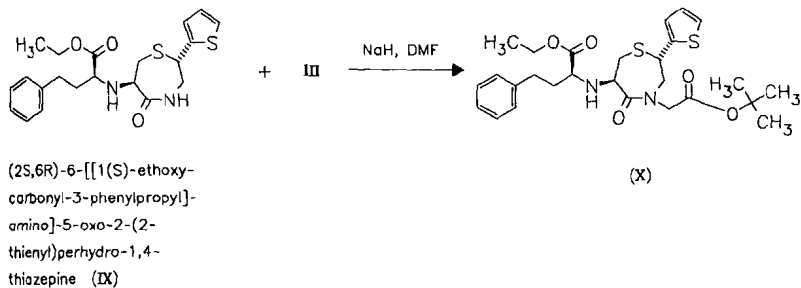
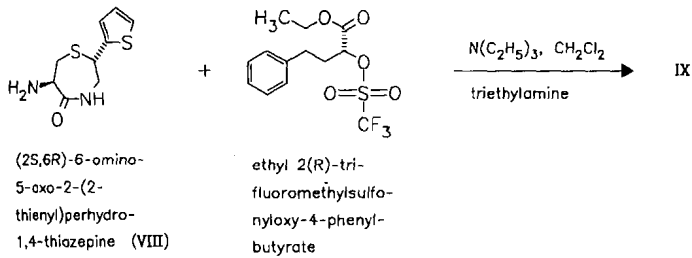
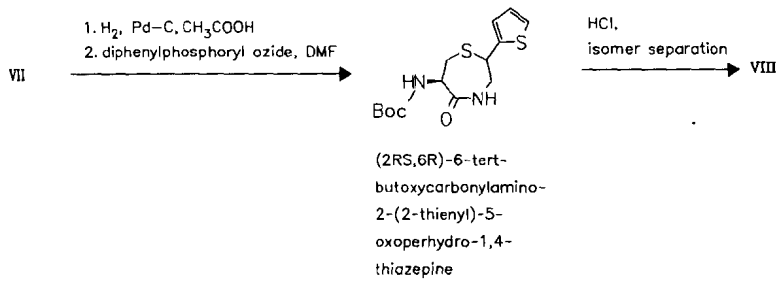
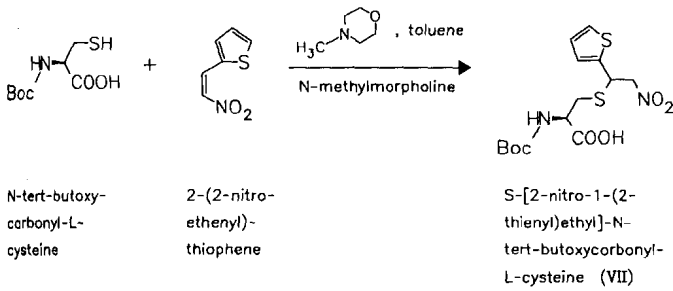
monohydrochlorideRN: 110221-44-8 MF: $C_{23}H_{28}N_2O_5S_2 \cdot HCl$ MW: 513.08LD₅₀: >5 g/kg (M, p.o.);

>5 g/kg (R, p.o.)





(b)



Reference(s):

Yanagisawa, H. et al.: J. Med. Chem. (JMCMAR) **30**, 1984-1991 (1987).
EP 161 801 (Sankyo; 21.11.1985; J-prior. 10.4.1984).

process patent:

JP 62 161 775 (Sankyo; 17.7.1987; J-prior. 12.9.1985).

synergistic combination with thromboxane A2 inhibitors:

WO 9 206 713 (Farmitalia; appl. 16.10.1991; I-prior. 16.10.1990).

combination with diuretics:

WO 9 317 685 (Merck & Co.; appl. 3.3.1993; USA-prior. 11.3.1992).

Formulation(s): tabl. 1 mg, 2 mg, 4 mg (as hydrochloride)

Trade Name(s):

J: Acecol (Sankyo/Nippon
Boehringer Ing.)

Temocillin

ATC: J01CA17

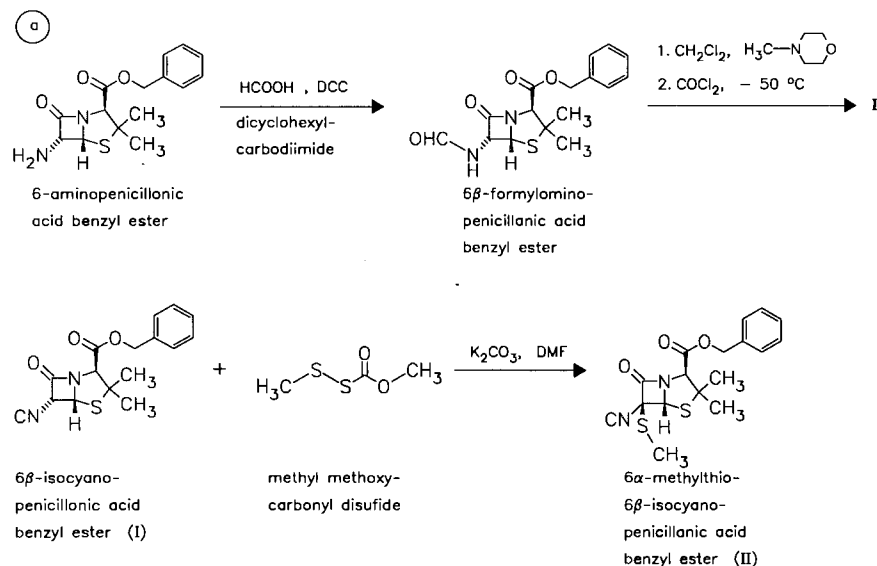
Use: β -lactam antibiotic (penicillin derivative)

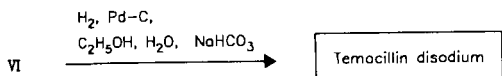
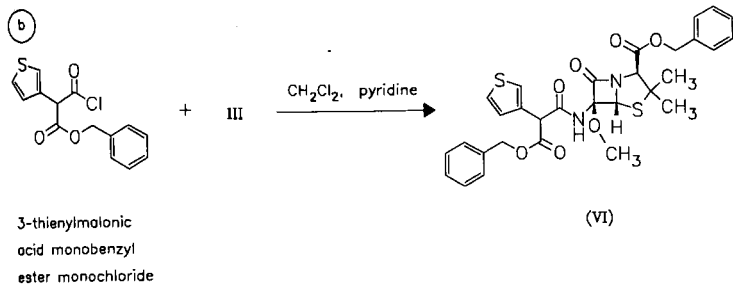
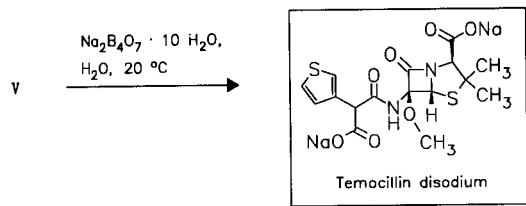
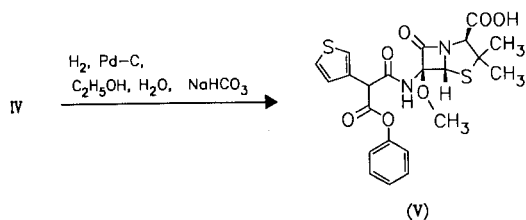
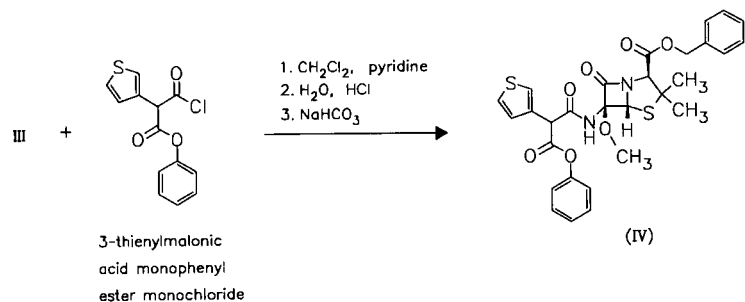
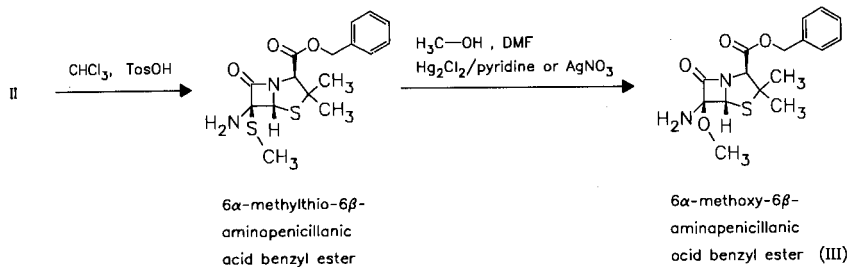
RN: 66148-78-5 MF: $C_{16}H_{18}N_2O_7S_2$ MW: 414.46 EINECS: 266-184-1

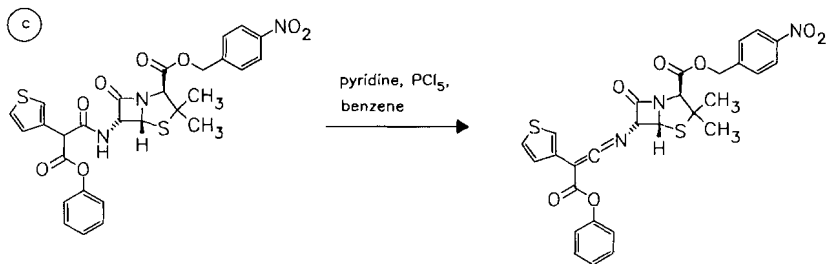
CN: [2S-(2 α ,5 α ,6 α)]-6-[(carboxy-3-thienylacetyl)amino]-6-methoxy-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

disodium salt

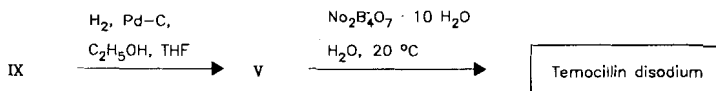
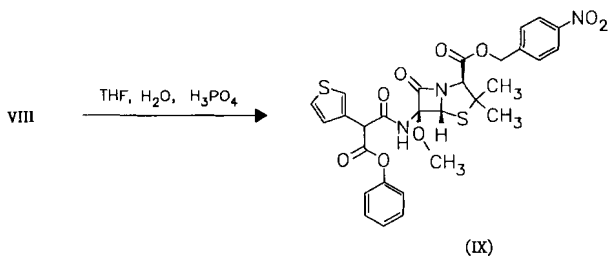
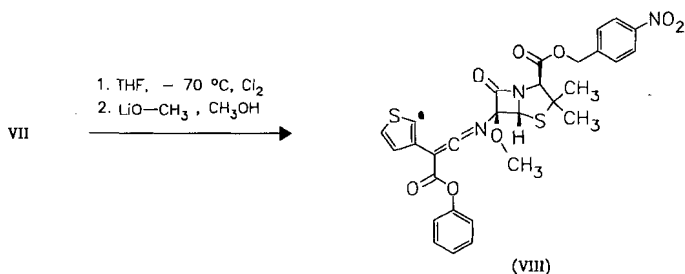
RN: 61545-06-0 MF: $C_{16}H_{16}N_2Na_2O_7S_2$ MW: 458.42 EINECS: 262-835-9







6 β -[2-(3-thienyl)-2-(phenoxy-carbonyl)acetamido]penicillanic acid 4-nitrobenzyl ester
(from Ticarcillin, q. v.)



Reference(s):

- a,b** DOS 2 600 866 (Beecham; appl. 12.1.1976; GB-prior. 17.1.1975, 17.6.1975, 16.8.1975).
US 4 048 320 (Beecham; 13.9.1977; GB-prior. 17.1.1975, 17.6.1975, 16.8.1975).
6 α -methylthio- resp. 6 α -methoxy-6 β -aminopenicillanic acid ester:
DOS 2 407 000 (Beecham; appl. 14.2.1974).
Jen, T. et al.: J. Org. Chem. (JOCEAH) **38**, 2857 (1973).
Slusarchyk, W.A. et al.: J. Org. Chem. (JOCEAH) **38**, 943 (1973).
Baldwin, J.E. et al.: J. Am. Chem. Soc. (JACSAT) **95**, 2401 (1973).
6-isocyanopenicillanic acid derivatives:
Bentley, P.H. et al.: J. Chem. Soc., Perkin Trans. 1 (JCPRB4) **1979**, 2455.
- c** DOS 2 728 601 (Beecham; appl. 24.8.1977; GB-prior. 26.6.1976).
US 41 82-710 (Beecham; 8.1.1980; GB-prior. 26.6.1976).
US 4 185 014 (Beecham; 22.1.1980; GB-prior. 26.6.1976).

Formulation(s): vial 500 mg, 1 g, 2 g (as disodium salt)

Trade Name(s):

D: Temopen (Beecham-Wülfig); wfm

GB: Temopen (Bencard)

Teniposide

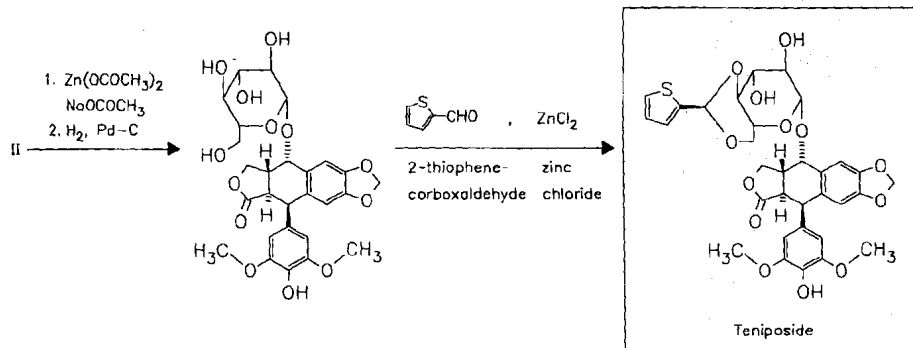
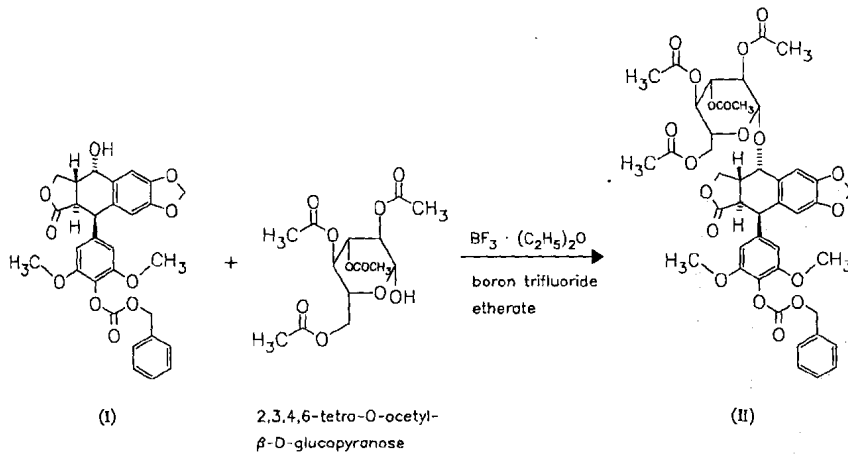
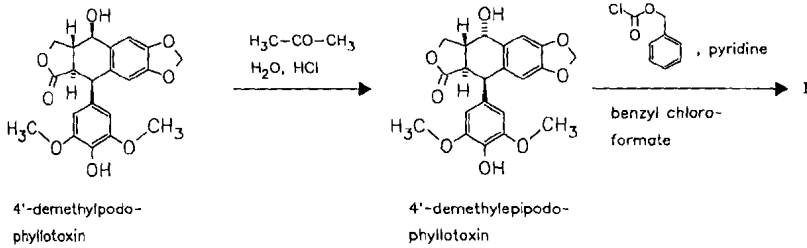
ATC: L01CB02

Use: antineoplastic (leucemia)

RN: 29767-20-2 MF: C₃₂H₃₂O₁₃S MW: 656.66 EINECS: 249-831-2

LD₅₀: 29.57 mg/kg (M, i.p.); 31.56 mg/kg (M, s.c.)

CN: [5*R*-[5α,5aβ,8α,9β(*R**)]]-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)-9-[[4,6-*O*-(2-thienylmethylene)-β-D-glucopyranosyl]oxy]furo[3',4':6,7]naphtho[2,3-*d*]-1,3-dioxol-6(5a*H*)-one



Reference(s):

DOS 1 543 890 (Sandoz; appl. 10.12.1966; CH-prior. 14.12.1966, 12.10.1966, 14.12.1965).
 Keller-Juslen, C. et al.: J. Med. Chem. (JMCMAR) **14**, 936 (1971).
 FR 1 518 706 (Sandoz AG; appl. 15.6.1967; CH-prior. 12.10.1966, 14.12.1965).

toxicity reduction by addition of lithium carbonate:

FR 2 320 104 (Sandoz; appl. 6.8.1975).

Formulation(s): amp. 50 mg

Trade Name(s):

D:	VM-26-Bristol (Bristol-Myers Squibb)	I:	Vumon (Bristol-Myers Squibb)	USA:	Vumon (Bristol-Myers Squibb)
F:	Véhem-Sandoz (Novartis)				

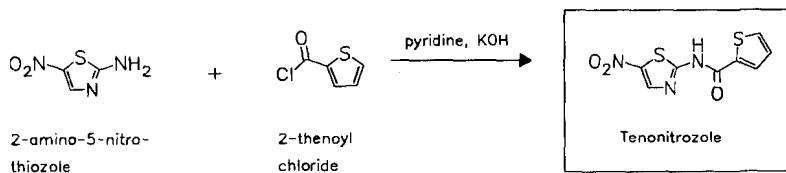
Tenonitroazole

(Thenitrazolum)

ATC: P01AX08

Use: antiparasitic agent, antifungal, chemotherapeutic (trichomonas), antiprotozoal

RN: 3810-35-3 MF: C₈H₅N₃O₃S₂ MW: 255.28 EINECS: 223-282-9
 CN: N-(5-nitro-2-thiazolyl)-2-thiophenecarboxamide

*Reference(s):*

FR-M 715 (H. R. Chantereau; appl. 1961).

Formulation(s): drg. 100 mg

Trade Name(s):

D:	Moniflagon (Schur); wfm	F:	Atrican (Innotech International)	I:	Atrican (Bouty); wfm
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Tenoxicam

ATC: M01AC02

Use: anti-inflammatory, analgesic analog of piroxicam

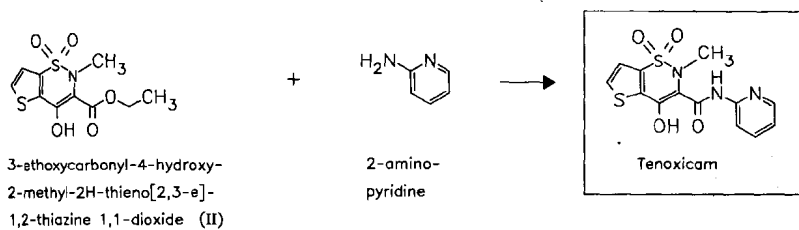
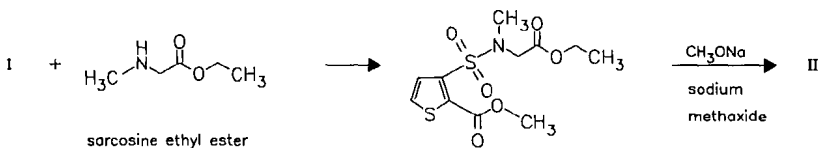
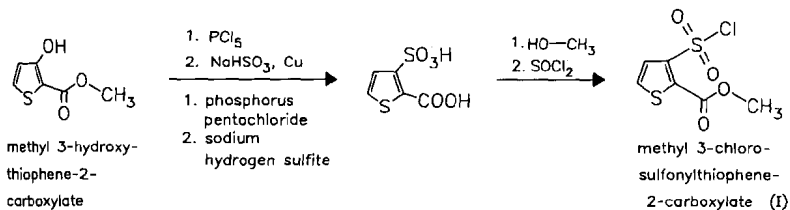
RN: 59804-37-4 MF: C₁₃H₁₁N₃O₄S₂ MW: 337.38

LD₅₀: 297 mg/kg (M, p.o.);

79 mg/kg (R, p.o.);

>128 mg/kg (dog, p.o.)

CN: 4-hydroxy-2-methyl-N-2-pyridinyl-2H-thieno[2,3-e]-1,2-thiazine-3-carboxamide 1,1-dioxide



Reference(s):

DOS 2 537 070 (Hoffmann-La Roche; appl. 20.8.1975; CH-prior. 26.8.1974, 9.9.1974).
 GB 1 519 812 (Hoffmann-La Roche; appl. 22.8.1975).
 GB 1 519 811 (Hoffmann-La Roche; appl. 22.8.1975; CH-prior. 9.9.1974).
 US 4 076 709 (Roche; 28.2.1978; appl. 21.8.1975; CH-prior. 9.9.1974).

Formulation(s): amp. 20 mg; powder 20 mg; suppos. 20 mg; tabl. 10 mg, 20 mg

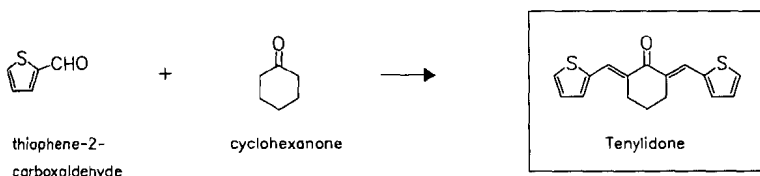
Trade Name(s):

D: Liman (Solvay Arzneimittel; 1990)	GB: Mobiflex (Roche; 1988)	J: Tilcotil (Nihon Roche-Kyorin)
Tilcotil (Roche; 1990)	I: Dolmen (Sigma-Tau; 1989)	Rexalgan (Dompé)
F: Tilcotil (Roche; 1988)	Tilcotil (Roche; 1989)	

Tenyolidone

ATC: A05BA
 Use: liver therapeutic

RN: 893-01-6 MF: C₁₆H₁₄OS₂ MW: 286.42 EINECS: 212-969-9
 CN: 2,6-bis(2-thienylmethylene)cyclohexanone



Reference(s):

FR-M 64 (R. Blaise; appl. 1960).

Formulation(s): gran. 50 %

Trade Name(s):

F: Margéryl (Marinier); wfm

Thiofantile (Ana); wfm

Vanitile (Ana); wfm

Terazosin

ATC: G04CA03

Use: antihypertensive, α -blocker

RN: 63590-64-7 MF: $C_{19}H_{25}N_5O_4$ MW: 387.44

CN: 1-(4-amino-6,7-dimethoxy-2-quinazoliny)-4-[(tetrahydro-2-furanyl)carbonyl]piperazine

hydrochloride

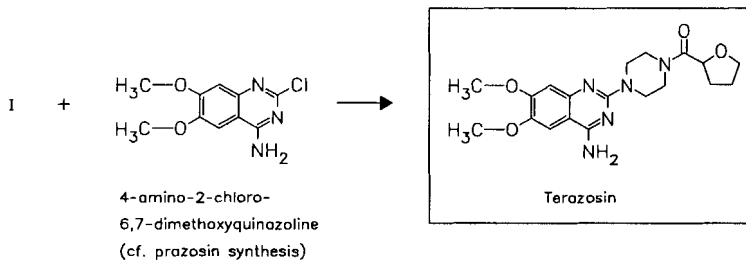
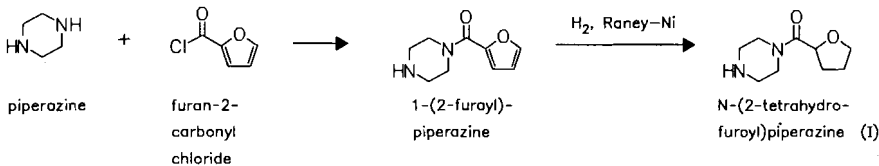
RN: 63074-08-8 MF: $C_{19}H_{25}N_5O_4 \cdot HCl$ MW: 423.90

monohydrochloride dihydrate

RN: 70024-40-7 MF: $C_{19}H_{25}N_5O_4 \cdot HCl \cdot 2H_2O$ MW: 459.93

LD₅₀: 237 mg/kg (M, i.v.); >8 g/kg (M, p.o.);

255 mg/kg (R, i.v.); 5500 mg/kg (R, p.o.)



Reference(s):

DOS 2 646 186 (Abbott; appl. 13.10.1976; USA-prior. 14.10.1975).

US 4 026 894 (Abbott; 31.5.1977; prior. 14.10.1975).

US 4 112 097 (Abbott; 5.9.1978; prior. 21.1.1977).

hydrochloride hydrate:

DOS 2 831 112 (Abbott; appl. 14.7.1978; USA-prior. 4.8.1977).

dihydrate via form IV:

US 5 504 207 (Abbott; 2.4.1996; USA-prior. 18.10.1994).

dihydrate:

WO 9 925 715 (Teva; appl. 12.11.1998; USA-prior. 14.11.1997).

manufacture of form I:

EP 845 461 (Alfa Chem; appl. 17.10.1997; I-prior. 29.11.1996).

EP 845 462 (Alfa Chem; appl. 17.10.1997; I-prior. 29.11.1996).

form III:

US 5 412 905 (Abbott; appl. 20.5.1994; USA-prior. 29.4.1993).

process for a polymorph:

CA 2 173 407 (Acic; appl. 3.4.1993).
 WO 9 721 705 (Uetikon; appl. 12.12.1996; D-prior. 13.12.1995).
 US 5 587 377 (Invamed; USA-prior. 24.10.1995).

capsules:

WO 9 805 308 (Novartis; appl. 31.7.1997; USA-prior. 1.8.1996).

pharmaceutical composition for treating glaucoma:

WO 9 531 200 (Senju Pharm.; appl. 15.5.1995; J-prior. 18.5.1994).

(R)-(+)-terazosin:

WO 9 200 073 (Abbott; appl. 26.6.1991; USA-prior. 29.6.1990).

Formulation(s): cps. (USA) 1 mg, 2 mg, 5 mg, 10 mg; tabl. 1 mg, 2 mg, 5 mg, 10 mg (as monohydrochloride dihydrate)

Trade Name(s):

D:	Flotrin Start (Abbott)	Hytrine (Abbott)	Vasomet (Mitsubishi)
	Heitrin (Abbott; 1985)	GB: Hytrin (Abbott; 1987)	USA: Hytrine (Abbott; 1987)
F:	Dysalfa (DÉbat)	J: Hytracin (Dainabot)	

Terbinafine

(SF-86327)

ATC: D01AE15; D01BA02; J02AX

Use: orally and topically active antifungal

RN: 91161-71-6 MF: C₂₁H₂₅N MW: 291.44

LD₅₀: 393 mg/kg (M, i.v.); 4000 mg/kg (M, p.o.); >2 g/kg (M, s.c.);

213 mg/kg (R, i.v.); 4000 mg/kg (R, p.o.); >2 g/kg (R, s.c.); >2 g/kg (R, skin)

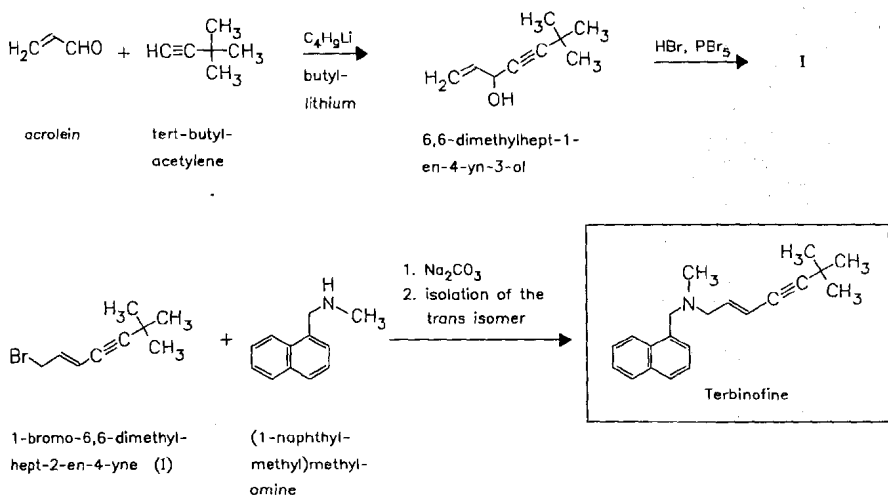
CN: (E)-N-(6,6-dimethyl-2-hepten-4-ynyl)-N-methyl-1-naphthalenemethanamine

hydrochloride

RN: 78628-80-5 MF: C₂₁H₂₅N · HCl MW: 327.90

LD₅₀: >2 g/kg (M, s.c.);

>2 g/kg (R, s.c.); >2 g/kg (R, skin)

*Reference(s):*

EP 24 587 (Sandoz; appl. 6.8.1980; CH-prior. 22.8.1979).

Stütz, A.; Petronyi, G.: J. Med. Chem. (JMCMAR) 27, 1539 (1984).

Formulation(s): cream 10 mg/g; tabl. 250 mg (as hydrochloride)

Trade Name(s):

D:	Lamisil (Novartis; 1991)	I:	Daskil (LPB)	J:	Lamisil (Toko Yakuhin-Sandoz)
F:	Lamisil (Novartis)		Lamisil (Novartis)		
GB:	Lamisil (Novartis; 1990)			USA:	Lamisil (Novartis)

Terbutaline

ATC: R03AC03; R03CC03
Use: bronchodilator, tocolytic

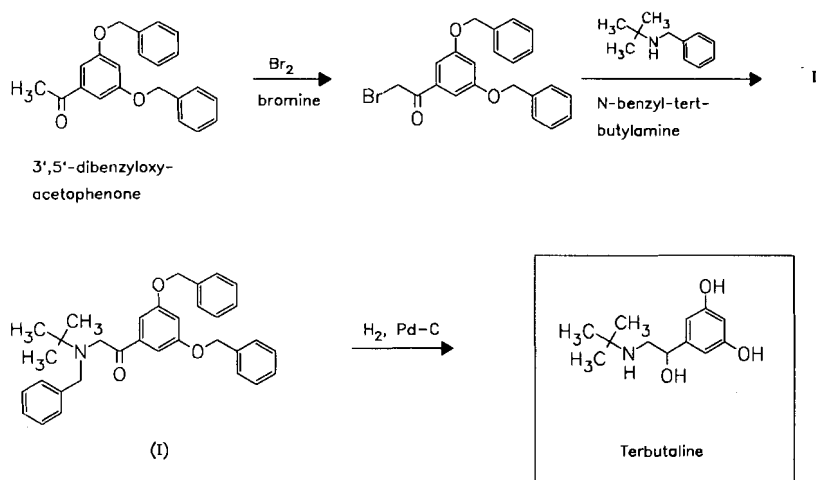
RN: 23031-25-6 MF: C₁₂H₁₉NO₃ MW: 225.29 EINECS: 245-385-8

CN: 5-[2-[(1,1-dimethylethyl)amino]-1-hydroxyethyl]-1,3-benzenediol

sulfate (2:1)

RN: 23031-32-5 MF: C₁₂H₁₉NO₃ · 1/2H₂SO₄ MW: 548.65 EINECS: 245-386-3

LD₅₀: 36 mg/kg (M, i.v.); 205 mg/kg (M, p.o.);
69 mg/kg (R, i.v.); 8700 mg/kg (R, p.o.);
116 mg/kg (dog, i.v.); 1520 mg/kg (dog, p.o.)



Reference(s):

DE 1 643 296 (Draco; prior. 17.10.1967).
GB 1 199 630 (Draco; Lund; appl. 18.10.1967; S-prior. 19.10.1966).
US 3 937 838 (Draco; 10.2.1976; prior. 18.10.1967).
US 4 011 258 (Draco; 8.3.1977; prior. 21.6.1973).

Formulation(s): amp. 0.5 mg/ml, 1 mg/ml; powder inhaler 0.5 mg/puff; sol. for inhalation 10 mg/ml (as sulfate); s. r. cps. 7.5 mg; s. r. tabl. 7.5 mg; tabl. 2.5 mg, 5 mg

Trade Name(s):

D:	Aerodur (Astra/pharma-stern)	Bricanyl (pharma-stern; 1971)	Terbul (Hexal)
	ARUBENDOL (Isis Pharma)	Bricanyl (Astra)-comb. with guaifenesin	Terbutalin (Mundipharma; Stada; Aluid Pharma; ratiopharm)
	Asthmo (Krewel Meuselbach)	Butaliret (Fatol)	Terbuturmant (Desitin)
	Asthmoprotect (Azupharma)	Butalitat (Fatol)Contimit (Lindopharm)	F: Bricanyl (Astra; 1973)
		Eudur (Astra)-comb. with theophyllin	GB: Bricanyl (Astra; 1971)
			I: Bricanyl (Astra)

J: Bricanyl (Astra-Fujisawa;
1974)

Bristurin (Bristol
USA: Brethine (Novartis; 1975)

Brinacyl (Hoechst Marion
Roussel; 1974)

Terconazole

(Triconazole)

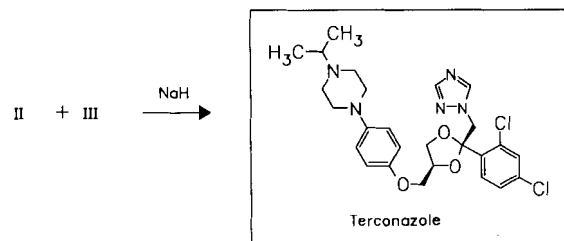
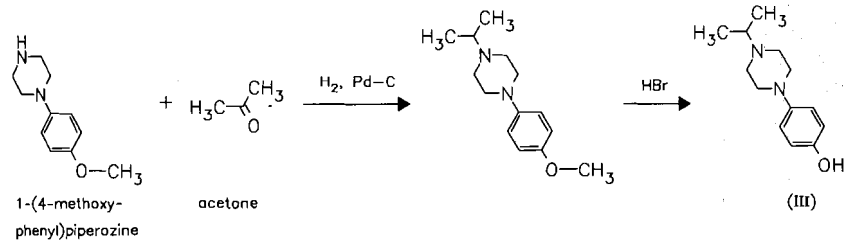
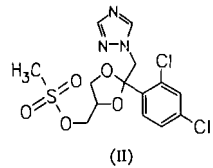
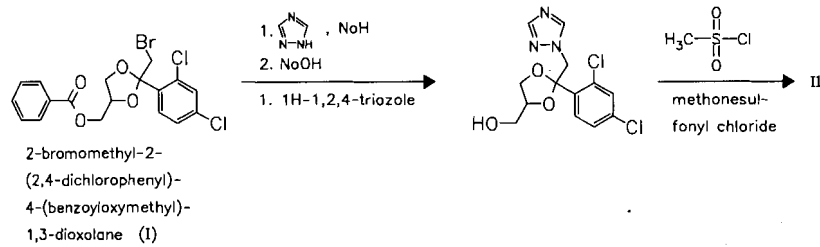
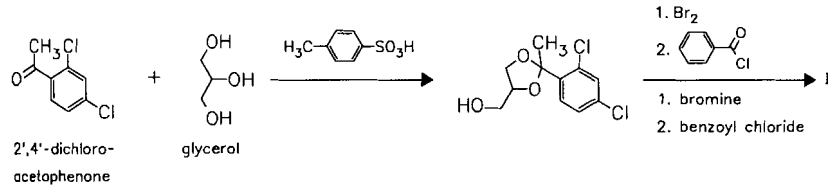
ATC: G01AG02

Use: antifungal

RN: 67915-31-5 MF: $C_{26}H_{31}Cl_2N_5O_3$ MW: 532.47 EINECS: 267-751-6

LD₅₀: 1741 mg/kg (Rm, p.o.); 849 mg/kg (Rf, p.o.)

CN: *cis*-1-[4-[[2-(2,4-dichlorophenyl)-2-(1*H*-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-4-(1-methylethyl)piperazine



Reference(s):

DE 2 804 096 (Janssen; appl. 3.8.1978; prior. 31.1.1978).
 US 4 358 449 (Janssen; 9.11.1982; prior. 21.11.1977).
 US 4 144 346 (Janssen; 13.3.1979; prior. 21.11.1977, 31.1.1977).
 US 4 223 036 (Janssen; 16.9.1980; prior. 8.1.1979, 21.11.1977, 31.1.1977).
 Heeres, J. et al.: J. Med. Chem. (JMCMAR) **26**, 611 (1983).

synthesis of 2-bromomethyl-2-(2,4-dichlorophenyl)-4-(benzoyloxymethyl)-1,3-dioxolane:

Heeres, J. et al.: J. Med. Chem. (JMCMAR) **22**, 1003 (1979).

Formulation(s): suppos. 80 mg; vaginal cream 0.4 %, 0.8 %; vaginal tabl. 80 mg

Trade Name(s):

D: Tercospor (Cilag; 1985); I: Terconal (Italchimici) USA: Terazol (Ortho-McNeil; 1988)
 wfm

Terfenadine

ATC: R06AX12

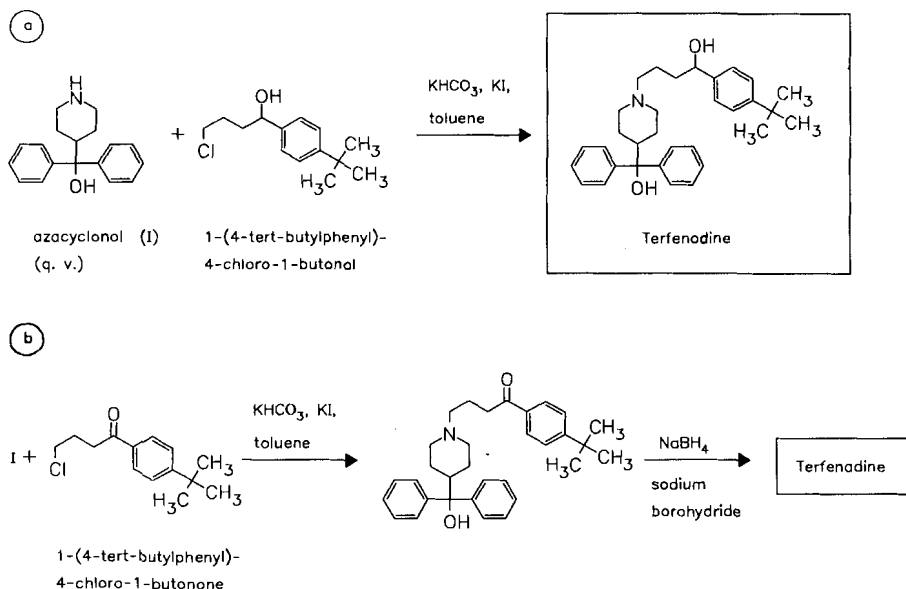
Use: antihistaminic, antiallergic

RN: 50679-08-8 MF: C₃₂H₄₁NO₂ MW: 471.69 EINECS: 256-710-8

LD₅₀: 5 g/kg (M, p.o.);

5 g/kg (R, p.o.)

CN: α-[4-(1,1-dimethylethyl)phenyl]-4-(hydroxydiphenylmethyl)-1-piperidinebutanol

*Reference(s):*

DOS 2 303 305 (Richardson-Merrell; appl. 24.1.1973; USA-prior. 28.1.1972).
 DOS 2 503 362 (Richardson-Merrell; appl. 28.1.1975; USA-prior. 8.2.1974).
 addition to DOS 2 303 306 (Richardson-Merrell; appl. 28.1.1975; USA-prior. 8.2.1974).
 GB 1 412 605 (Richardson-Merrell; valid from 15.12.1972; USA-prior. 28.1.1972).
 US 3 878 217 (Richardson-Merrell; 15.4.1975; appl. 12.7.1973; prior. 28.1.1972).

Formulation(s): susp. 30 mg/5 ml; s. r. tabl. 60 mg in comb. with pseudoephedrine.HCl; tabl. 60 mg, 120 mg

Trade Name(s):

D:	Balkis (Dologriet)	Terfium (Hexal)	J:	Triludan (Merrell Dow-Shionogi)
	Hisfedine (Wolff)	Vividrin (Mann)		
	Histaterfen (Azupharma)	F: Teldane (Merrell); wfm	USA:	Seldane (Hoechst Marion Roussel; 1985)
	Teldane (Hoechst; 1982)	Teldane (Richardson-Merrell); wfm		
	Terfedura (durachemie)			
	Terfemundin	GB: Triludan (Hoechst)		
	(Mundipharma)	I: Teldane (Lepetit); wfm		

Terodiline

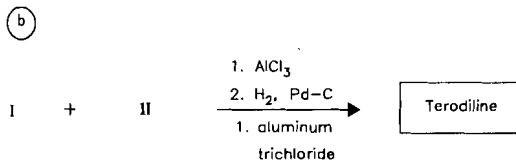
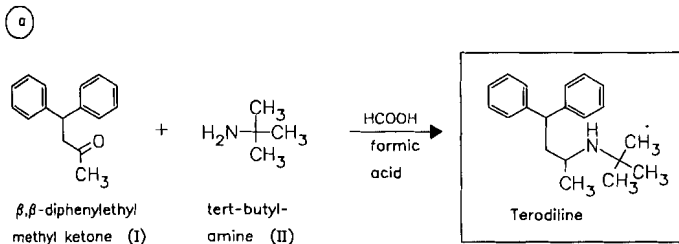
ATC: G04BD05

Use: antianginal, calcium antagonist, anticholinergic, treatment of urinary frequency and incontinence

RN: 15793-40-5 MF: C₂₀H₂₇N MW: 281.44CN: N-(1,1-dimethylethyl)- α -methyl- γ -phenylbenzenepropanamine**hydrochloride**RN: 7082-21-5 MF: C₂₀H₂₇N · HCl MW: 317.90LD₅₀: 28 mg/kg (M, i.v.); 330 mg/kg (M, p.o.); 170 mg/kg (M, s.c.)

27 mg/kg (R, i.v.); 465 mg/kg (R, p.o.); 370 mg/kg (R, s.c.)

63.3 g/kg (dog, p.o.)

**Reference(s):**

a DE 1 170 417 (Aktiebolaget Recip.; appl. 8.11.1961; GB-prior. 8.11.1960).

b HU T32 331 (Richter Gedeon Vegyeszeti Gyar; appl. 30.7.1984; HU-prior. 21.9.1982).

Formulation(s): f. c. tabl. 12.5 mg, 25 mg (as hydrochloride)**Trade Name(s):**

D:	Mictrol (Fresenius; 1990); wfm	GB:	Micturin (Pharmacia & Upjohn); wfm	J:	Midurin (Uabi; 1986); wfm Mictrol (Kissei; 1988)
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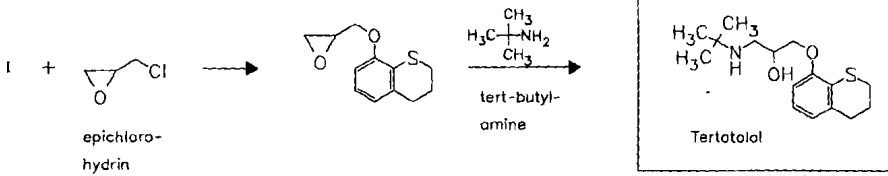
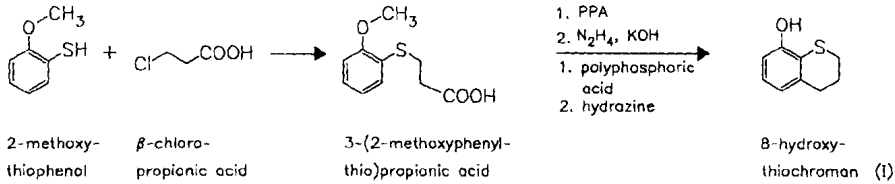
Tertatolol

ATC: C07AA16
 Use: β -adrenoceptor antagonist, antihypertensive

RN: 34784-64-0 MF: C₁₆H₂₅NO₂S MW: 295.45
 CN: (\pm)-1-[(3,4-dihydro-2H-1-benzothiopyran-8-yl)oxy]-3-[(1,1-dimethylethyl)amino]-2-propanol

hydrochloride

RN: 33580-30-2 MF: C₁₆H₂₅NO₂S · HCl MW: 331.91 EINECS: 251-578-8
 LD₅₀: 120 mg/kg (M, i.p.); 37 mg/kg (M, i.v.);
 90 mg/kg (R, i.p.); 40 mg/kg (R, i.v.)



Reference(s):

DE 2 115 201 (Science Union et Cie.; appl. 29.3.1971; GB-prior. 6.4.1970).
 US 3 960 891 (Science Union et Cie.; 1.6.1976; GB-prior. 6.4.1970).
 US 4 032 648 (Science Union et Cie.; 28.6.1977; GB-prior. 6.4.1970).

alternative synthesis:

GB 1 561 153 (Science Union et Cie.; appl. 23.8.1976).

Formulation(s): f. c. tabl. 5 mg (as hydrochloride)

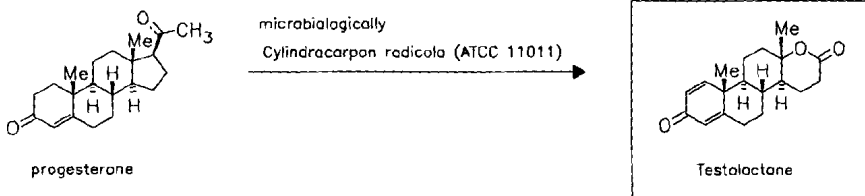
Trade Name(s):

D: Prenalex (Servier; 1990) F: Artex (Servier; Therval; 1990)

Testolactone

ATC: L02AX
 Use: antineoplastic (mamma carcinoma)

RN: 968-93-4 MF: C₁₉H₂₄O₃ MW: 300.40 EINECS: 213-534-6
 CN: D-homo-17a-oxaandrosta-1,4-diene-3,17-dione



Reference(s):

US 2 744 120 (Olin Mathieson; 1956; appl. 1953).

Formulation(s): tabl. 50 mg

Trade Name(s):

D: Fludestrin (Bristol-Myers Squibb) I: Teslac (Squibb); wfm USA: Teslac (Bristol-Myers Squibb)

Testosterone

ATC: G03BA03

Use: androgen

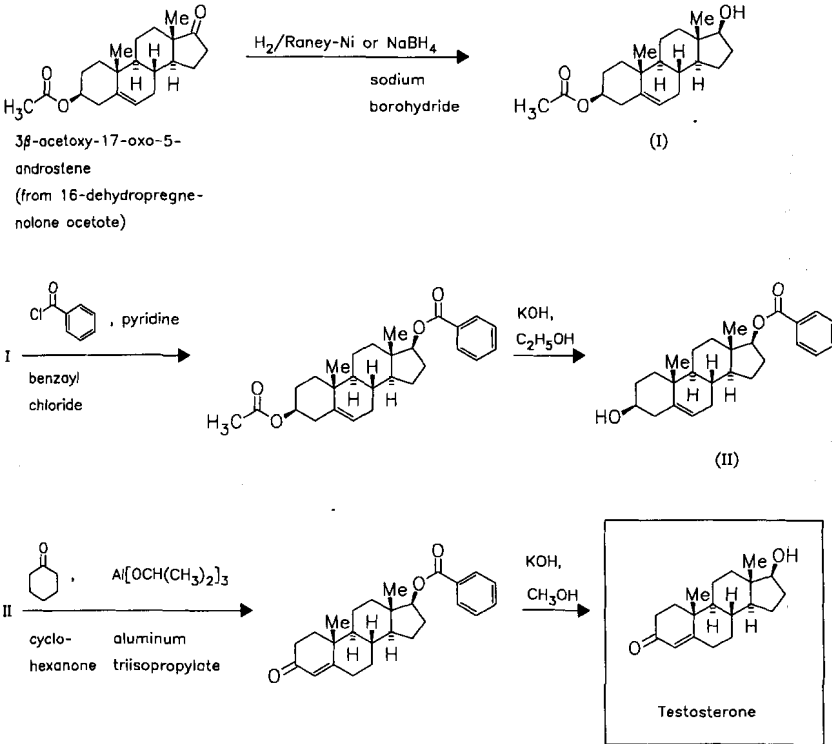
RN: 58-22-0 MF: C₁₉H₂₈O₂ MW: 288.43 EINECS: 200-370-5

LD₅₀: >5 g/kg (M, p.o.)

CN: (17β)-17-hydroxyandrost-4-en-3-one

undecanoate

RN: 5949-44-0 MF: C₃₀H₄₈O₃ MW: 456.71



Reference(s):

US 2 308 833 (Ciba; 1943; CH-prior. 1935).
 US 2 308 834 (Ciba; 1943; CH-prior. 1935).
 US 2 379 832 (Schering Corp.; D-prior. 1936).
 US 2 387 469 (Ciba; 1945; CH-prior. 1935).

starting material:

The Merck Index, 12th Ed., 1569 (1996).

alternative syntheses:

US 2 236 574 (Schering Corp.; 1941, D-prior. 1937).

US 2 341 110 (Schering Corp.; 1944, CS-prior. 1939).

Formulation(s): cps. 40 mg (as undecanoate); plaster 2.5 mg/37 cm², 4 mg/40 cm², 5 mg/44 cm², 6 mg/60 cm²*Trade Name(s):*

D:	Andriol (Organon)	I:	Mydrotest (Ayerst); wfm	Testoviron Depot (Nihon Schering)-comb.
F:	Pantestone (Organon SA)		Testosterone Tarrico (Mitim); wfm	USA: Androderm (SmithKline Beecham)
	Trotoseptine (Boehringer Ing.)-comb.	J:	Androgen Depot (Santen-Yamanouchi)	Testoderma (Alza)
GB:	Menopax (Nicholas)-comb.; wfm		Enarmon (Teikoku Zoki)	
	Testoral (Organon); wfm		Tes-Hol "Z" (Nippon Zoki)	

Testosterone cypionate

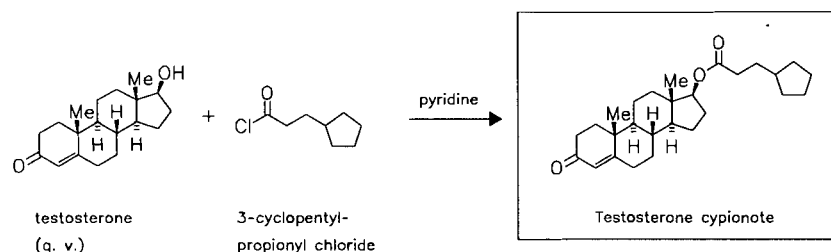
ATC: G03EA02

(Testosterone cyclopentylpropionate)

Use: depot androgen

RN: 58-20-8 MF: C₂₇H₄₀O₃ MW: 412.61 EINECS: 200-368-4LD₅₀: >1 g/kg (M, i.p.)

CN: (17β)-17-(3-cyclopentyl-1-oxopropoxy)androst-4-en-3-one

*Reference(s):*

US 2 566 358 (Upjohn; 1951; prior. 1949).

DE 896 805 (Upjohn; appl. 1951).

Gould, D. et al.: J. Am. Chem. Soc. (JACSAT) **79**, 4472 (1957).*alternative syntheses:*

US 2 625 556 (Upjohn; 1953; prior. 1949).

ES 241 206 (Alter; appl. 1958).

US 2 742 485 (Francesco Vismara; 1956; prior. 1954).

Formulation(s): vial 200 mg/ml (10 ml)*Trade Name(s):*

D:	Femovirin Amp. (Albert-Roussel)-comb.; wfm	Trioestrine-Retard	Clym depositum (Poli)-comb.
F:	Ch. P. T. Théramex (Théramex); wfm	Théramex (Théramex)-comb.; wfm	Ginandrolo Depositum (Lusofarmaco)-comb.
	Testostérone retard	Trioestrine-Retard	Pertestis-Dep. (Orma)
	Théramex (Théramex; as cyclohexylpropionate); wfm	Théramex (Théramex; as cyclohexylpropionate)-comb.; wfm	Testorit-Dep. (Gallo)
		I: Ciclostérone (Farmigea)	Testosterone Depositum (Lusofarmaco)

J: Depo Testosteron
(Upjohn); wfm

USA: Virilon (Star)

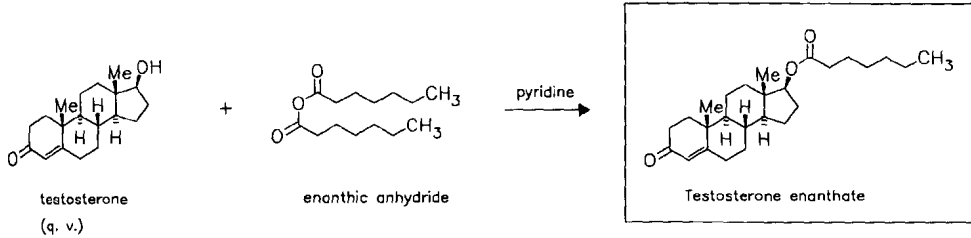
Testosterone enanthate

ATC: G03EB
Use: androgen

RN: 315-37-7 MF: C₂₆H₄₀O₃ MW: 400.60 EINECS: 206-253-5

LD₅₀: 4 mg/kg (M, i.p.);
2 g/kg (R, i.p.)

CN: (17β)-17-[(1-oxoheptyl)oxy]androst-4-en-3-one



Reference(s):

US 2 840 508 (Schering AG; 1958; D-prior. 1951).

Formulation(s): amp. 250 mg/ml; vial 200 mg/ml, 1 g/5 ml

Trade Name(s):

D: Testosteron-Depot Jenapharm (Jenapharm)	F: Androtardyl (Schering)	Primodian Depot (Nihon Schering)-comb.
Testosteron Depot- Rotexmedica	GB: Primoteston Depot (Schering Chemicals); wfm	Testoviron Depot (Nihon Schering)-comb.
(Rotexmedica)	I: Testo Enant (Geymonat)	USA: Delatestryl (Bio-Technology)
Testoviron Depot (Schering)-comb.	J: Enarmon Depot (Teikoku Zoki)	

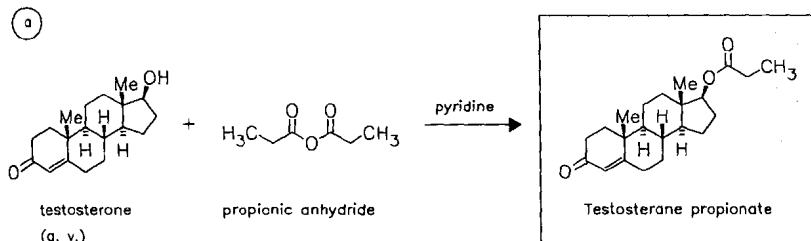
Testosterone propionate

ATC: G03BA03
Use: androgen

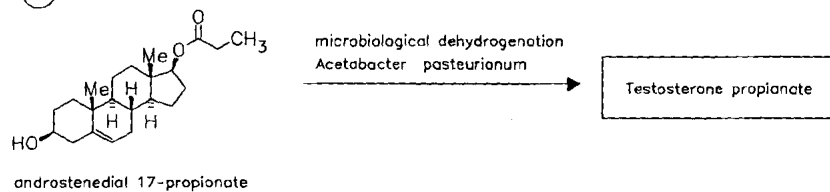
RN: 57-85-2 MF: C₂₂H₃₂O₃ MW: 344.50 EINECS: 200-351-1

LD₅₀: 1350 mg/kg (M, p.o.);
1 g/kg (R, p.o.)

CN: (17β)-17-(1-oxopropoxy)androst-4-en-3-one



(b)

*Reference(s):*

- a** CH 206 119 (Ciba; appl. 1936) addition to CH 203 257.
DRP 661 384 (Ciba; appl. 1936; CH-prior. 1935).
b US 2 236 574 (Schering Corp; 1941; D-prior. 1937).

starting material:

The Merck Index, 12th Ed., 107 (1996).

alternative syntheses:

- US 2 311 067 (Ciba; 1943; CH-prior. 1939).
US 2 374 369 (Ciba; 1945; CH-prior. 1939).
US 2 374 370 (Ciba; 1945; CH-prior. 1939).

Formulation(s): amp. 10 mg, 25 mg, 50 mg, 100 mg; amp. 50 mg/ml, 100 mg/ml (in comb.);
ointment 80 mg/100 mg (in comb.)

Trade Name(s):

D:	Tachynerg (Eberth)-comb. Testosteron Propionat "Eifelfango" (Eifelfango) Testoviron (Schering)- comb.		Primodian Inj. (Nihon Schering) Sonybod M Inj. (Sonybod- Torii) Testinon (Mochida)	Neutron (Myers-Carter)- comb.; wfm Oreton Propionate (Schering); wfm Synandrol (Pfizer); wfm
F:	Fadiamone (CS)-comb.	USA:	Androlan (Lannett); wfm	Synerone (Dow); wfm
GB:	Sustanon (Organon)-comb. Viormone (Ferring)		Androlin (Lincoln); wfm Andrusol-P (Smith, Miller & Patch); wfm	Testex (Pasadena Res.); wfm
I:	Testovis (SIT)		Gynetone (Schering)- comb.; wfm	Testodet (Merck Sharp & Dohme); wfm
J:	Enarmon Susp. (Teikoku Zoki) Forton (Shionogi)		Neo-Hombreol (Organon); wfm	Testonate (Kay); wfm

Tetracaine

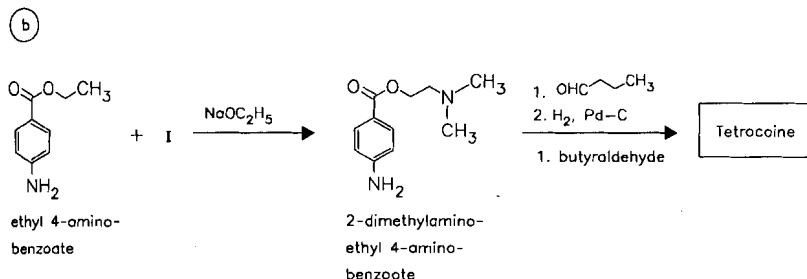
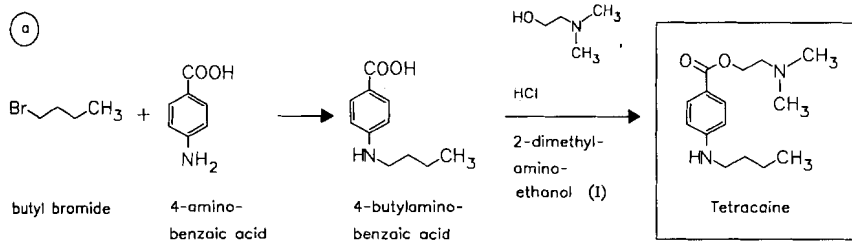
(Amethocaine)

ATC: C05AD02; D04AB06; N01BA03;
S01HA03
Use: local anesthetic

RN: 94-24-6 MF: C₁₅H₂₄N₂O₂ MW: 264.37 EINECS: 202-316-6
LD₅₀: 6 mg/kg (M, i.v.); 300 mg/kg (M, p.o.);
6 mg/kg (R, i.v.)
CN: 4-(butylamino)benzoic acid 2-(dimethylamino)ethyl ester

monohydrochloride

RN: 136-47-0 MF: C₁₅H₂₄N₂O₂ · HCl MW: 300.83 EINECS: 205-248-5
LD₅₀: 6600 µg/kg (M, i.v.); 160 mg/kg (M, p.o.);
4500 µg/kg (R, i.v.)

**Reference(s):**

US 1 889 645 (Winthrop; 1932; CH-prior. 1930).

Formulation(s): ear drops 5 mg/g; in combination preparations: eye drops 6 mg/g; sol. 1 g/100 g; spray 5 mg/ml, 2 % (as hydrochloride)

Trade Name(s):

D:	Acoïn (Combustinwerk)-comb. Gingicain M Spray (Hoechst)-comb. Herviros (Hermal)-comb. Ophtocain (Winzer)-comb. Oto-Flexiole (Mann)	I:	only combination preparations: Corizzina (SIT) Donalg (Dinacren)
F:	only combination preparations: Amygdospray (Merck-Clévenot) Broncorinol Maux de gorge (Roche Nicholas SA)	J:	Butylcain (Tanabe) Recto-reparil (Naturwaren Madaus) Ruscoroid (Inverni della Beffa) Tetocaine (Kyorin)
	GB:	USA:	Cetacaine (Cetylite)
	Cantalène (RPR Cooper) Eludril (Inava) Hexomédiine (Théraplix) Lysofon (L. Laton) Oromédiine (Sanofi Winthrop) Otylol (Bridoux) Solutricine Tétracaine (Théraplix SA) Tyrcline (Oberlin)		

Tetracycline

ATC: A01AB13; D06AA04; J01AA07; S01AA09; S02AA08; S03AA02

Use: antibiotic, antibacterial, antiamebic, antitrichettisal

RN: 60-54-8 MF: C₂₂H₂₄N₂O₈ MW: 444.44 EINECS: 200-481-9

LD₅₀: 157 mg/kg (M, i.v.); 678 mg/kg (M, p.o.);
129 mg/kg (R, i.v.); 807 mg/kg (R, p.o.)

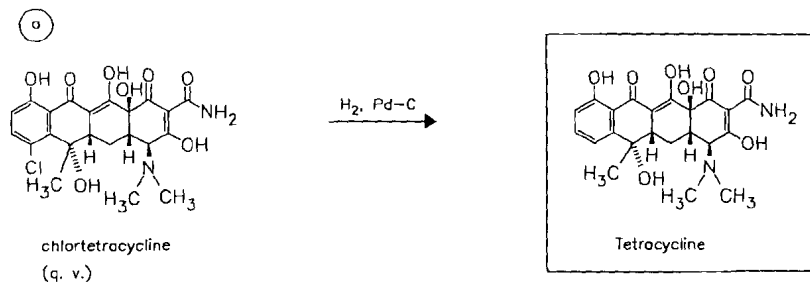
CN: [4S-(4 α ,4 α ,5 α ,6 β ,12 α)]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,6,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-2-naphthacene carboxamide

monohydrochlorideRN: 64-75-5 MF: $C_{22}H_{24}N_2O_8 \cdot HCl$ MW: 480.90 EINECS: 200-593-8LD₅₀: 157 mg/kg (M, i.v.); 2759 mg/kg (M, p.o.);

128 mg/kg (R, i.v.); 6443 mg/kg (R, p.o.)

phosphate

RN: 1336-20-5 MF: unspecified MW: unspecified EINECS: 215-646-0

b from fermentation solutions of *Streptomyces viridifaciens* or *aureofaciens***Reference(s):**

- a US 2 699 054 (L. H. Conover; 1955; prior. 1953).
US 3 005 023 (American Cyanamid; 17.10.1961; appl. 5.4.1957).
Boothe, J.H. et al.: J. Am. Chem. Soc. (JACSAT) **75**, 4621 (1953).
Conover, L.H. et al.: J. Am. Chem. Soc. (JACSAT) **75**, 4622 (1963).
- b US 2 734 018 (American Cyanamid; 1956; prior. 1953).
US 2 712 517 (Bristol; 1955; appl. 1954).
US 2 886 595 (Bristol; 1959; appl. 1958).
US 3 019 173 (American Cyanamid; 30.1.1962; appl. 4.6.1956).

purification:

US 3 301 899 (Bristol-Myers; 31.1.1967; appl. 27.11.1963).

synthesis of pure tetracycline hydrochloride:

DE 2 504 347 (DSO, Pharmachim, Sofia; appl. 3.2.1975).

complex with metaphosphoric acid:

US 3 053 892 (American Cyanamid; 11.9.1962; appl. 27.4.1960).

Formulation(s): cps. 250 mg, 500 mg; cream 30 mg/g; f. c. tabl. 500 mg; ointment 30 mg/g; vial 500 mg**Trade Name(s):**

D:	Achromycin (Lederle)		Tetralution (Merckle)		Detecto (Wyeth)-comb.
	Imex (Merz & Co.)	F:	Amphocycline (Squibb)-comb.		Topicycline (Monmouth)
	Mysteclin (Bristol-Myers Squibb)-comb. with amphotericine		Colicort (Merck Sharp & Dohme-Chibret)-comb.	I:	Ambramicina (Scharper)
	Polcorton (mephano)-comb. with triamcinolone acetoneide		Florocycline (SmithKline Beecham)-comb.		Calociclina (ISI)
	Supramycin N (Grünenthal)		Tétracycline Diamant (Diamant)	J:	Pensulvit (SIFI)-comb.
	Tefilin (Hermal)		numerous combination preparations		Spaciclina (SPA)
	Tetracyclin (Heyl; ratiopharm; Wolff)	GB:	Achromycin (Wyeth; as hydrochloride)		combination preparations
					Achromycin (Lederle)
					Cosa-Tetracyclin (Taito Pfizer)
					Cytome (Tokyo Tanabe)
					Junmycin V (Tanabe)
					Neocycline (Meiji)

USA: Achromycin (Lederle)

Helidac (Procter & Gamble)-comb.

Tetrazepam

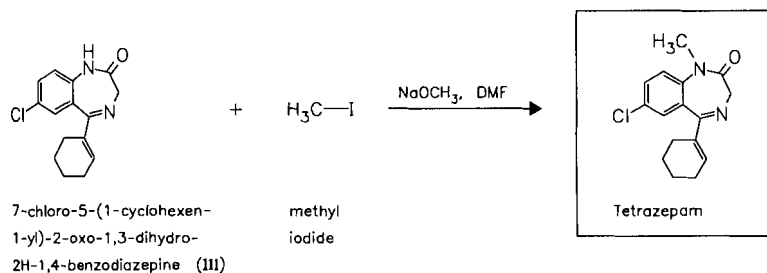
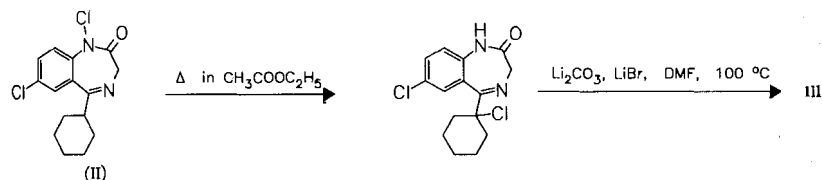
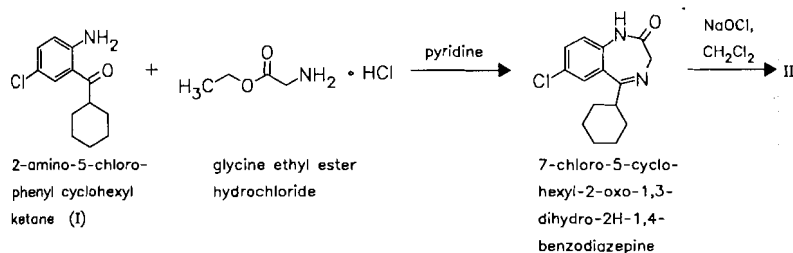
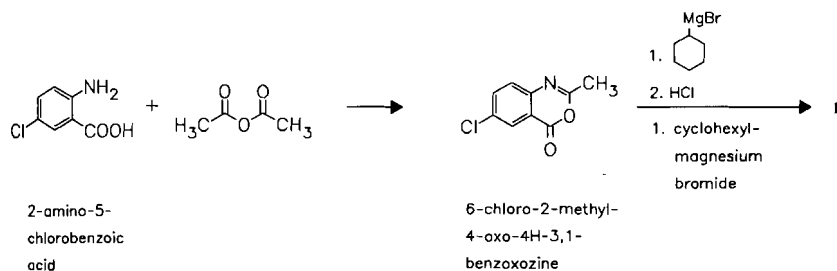
(Tetrahydrodiazepam)

ATC: M03BX07

Use: tranquilizer, skeletal muscle relaxant

RN: 10379-14-3 MF: C₁₆H₁₇ClN₂O MW: 288.78 EINECS: 233-837-7LD₅₀: 2 g/kg (M, p.o.)

CN: 7-chloro-5-(1-cyclohexen-1-yl)-1,3-dihydro-1-methyl-2H-1,4-benzodiazepin-2-one

**Reference(s):**

DE 1 670 620 (Clin-Byla; prior. 5.1.1966).

US 3 426 014 (Clin-Byla; 4.2.1969; F-prior. 9.1.1965, 9.4.1965).

US 3 551 412 (Clin-Byla; 29.12.1970; F-prior. 8.8.1967).

intermediate (7-chloro-5-cyclohexyl-2-oxo-1,3-dihydro-2H-1,4-benzodiazepine):
 US 3 268 586 (Roche; 23.8.1966; prior. 23.8.1960, 16.8.1961).

Formulation(s): f. c. tabl. 25 mg, 50 mg; tabl. 50 mg

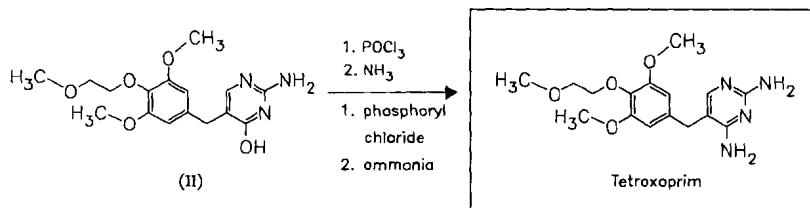
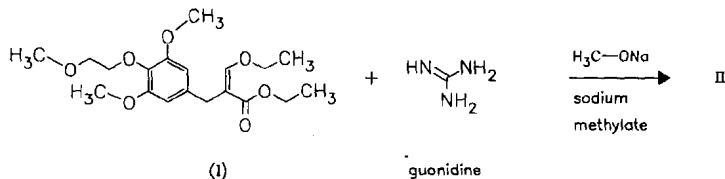
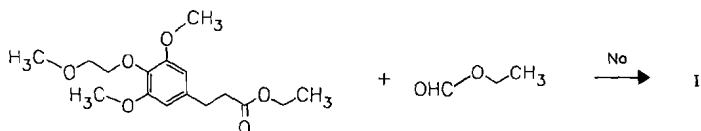
Trade Name(s):

D: Mobiforton (Sanofi Winthrop) Musapam (Krewel Meuselbach) Musaril (Sanofi Winthrop; 1981)	Muskelat (Azupharma) Myospasmal (TAD) Rilex (Lindopharm) Tepam-BASF (BASF) Tethexal (Hexal) Tetra-saar (Chephasaar)	F: Tetramdura (durachemie) tetrazep (ct-Arzneimittel) Myolastan (Sanofi Winthrop; 1969) Panos (Lederle)
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Tetroxoprim

ATC: J01
 Use: chemotherapeutic, antibacterial

RN: 53808-87-0 MF: C₁₆H₂₂N₄O₄ MW: 334.38 EINECS: 258-789-4
 LD₅₀: 192 mg/kg (M, i.v.); 1060 mg/kg (M, p.o.);
 300 mg/kg (R, i.v.); 1172 mg/kg (R, p.o.)
 CN: 5-[[3,5-dimethoxy-4-(2-methoxyethoxy)phenyl]methyl]-2,4-pyrimidinediamine



Reference(s):

DOS 2 313 361 (Heumann; appl. 17.3.1973).
 (also further methods)
 Liebenow, W.; Prikryl, J.: J. Antimicrob. Chemother. (JACHDX) 5, (Suppl. B), 15 (1979).

Formulation(s): sol. 25 mg/5 ml, 100 mg/5 ml; tabl. 100 mg (in comb. with sulfadiazine)

Trade Name(s):

D: Sterinor (Heumann)-comb.	I: Oxosint (Medivis)-comb.	Sterinor (ABC)-comb.
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Tetryzoline

(Tetrahydrozoline)

ATC: R01AA06; R01AB03; S01GA02

Use: vasoconstrictor

RN: 84-22-0 MF: C₁₃H₁₆N₂ MW: 200.29 EINECS: 201-522-3LD₅₀: 48.1 mg/kg (M, i.v.); 335 mg/kg (M, p.o.)

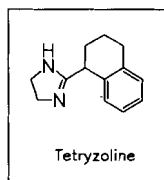
CN: 4,5-dihydro-2-(1,2,3,4-tetrahydro-1-naphthalenyl)-1H-imidazole

monohydrochlorideRN: 522-48-5 MF: C₁₃H₁₆N₂ · HCl MW: 236.75 EINECS: 208-329-3LD₅₀: 39 mg/kg (M, i.v.); 345 mg/kg (M, p.o.);

35 mg/kg (R, i.v.); 785 mg/kg (R, p.o.)

1-cyano-
tetralin

+

ethylene-
diamine

Tetryzoline

Reference(s):

US 2 731 471 (Sahyun Labs.; 1956; prior. 1954).

Formulation(s): eye drops 0.5 mg/ml; nasal drops/nasal spray 5 mg/10 ml, 10 mg/10 ml, 100 mg/100 ml**Trade Name(s):**

D:	Allergopos (Ursapharm)	Tetralin (MIP Pharma)	Visublefarite (Pharmec)- comb.
	Berberil (Mann)	Tyzine (Pfizer)	Visumetazone (Pharmec)- comb.
	Caltheon (Cephasaar)	Vasapos (Ursapharm)	Visumicina (Pharmec)- comb.
	Diabencil (Chauvin ankerpharm)	Vidiseptal (Mann)	Visustrin (Merck Sharp & Dohme)-comb.
	Efemolin (CIBA Vision)- comb. with fluometholone	Yxin (Pfizer)	Narbel (Chugai)
	Exrhinin (Pharma	F:	USA: Collirium Wyeth (Wyeth)- comb.; wfm
	Wernigerode)	I:	Murine (Ross)-comb.; wfm
	Rhinoprone Spray/ Nasentropfen (Mack, Illert.)	Constrilia (Alcon SA)	Tyzine (Key Pharm.); wfm
	Spersadeloxin (CIBA Vision)-comb.	Demetil (Farmila)-comb.	Tyzine (Pfizer); wfm
	Spersallerg (CIBA Vision)- comb. with antazoline hydrochloride	Flumetol (Farmila)-comb.	
		Ischemol A (Farmila)- comb.	
		Stilla (Angelini)	
		Tetramil (Farmigea)-comb.	
		Vasorinil (Farmila)	
		Vasosterone (Angelini)- comb.	
		Visine (Pfizer)	

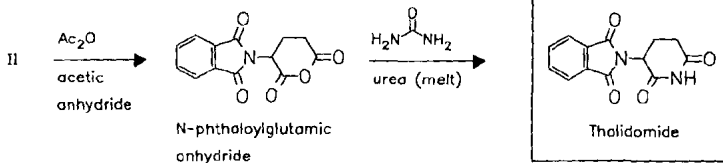
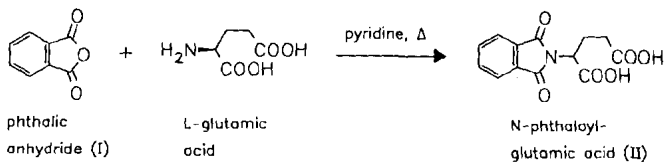
Thalidomide

(K-17; NSC-66847)

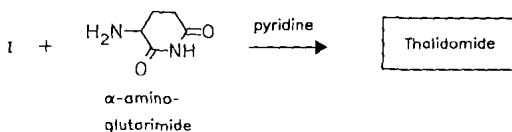
Use: anti-inflammatory,
immunomodulator, blocker of TNF-
production, sedative, treatment of
erythema nodosum leprosumRN: 50-35-1 MF: C₁₃H₁₀N₂O₄ MW: 258.23 EINECS: 200-031-1LD₅₀: >5000 mg/kg (M, p. o.)

CN: 2-(2,6-Dioxo-3-piperidinyl)-1H-isoindole-1,3(2H)-dione

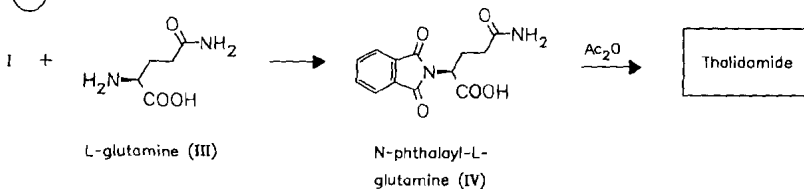
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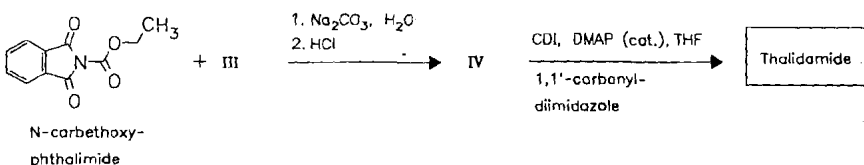
b



c



d

*Reference(s):*

- a GB 768 821 (Chemie Grünenthal; 20.2.1957).
 Kunz, W. et al.: *Arzneim.-Forsch. (ARZNAD)* **6**, 426-430 (1956).
 b JP 5 071 (Dainippon; 13.5.1960).
 c King, F.E. et al.: *J. Chem. Soc. (JCSOA9)* **1957**, 873-880
 d Muller, G.W. et al.: *Org. Process Res. Dev. (OPRDFK)* **3**, 139-140 (1999)

intravenous administration form for treatment of immunologic diseases:
 EP 908 176 (Grünenthal; appl. 18.9.1998; D-prior. 6.10.1997)

pharmaceutical comp. for the treatment of melanomas:
 US 5 731 325 (Andrulis Pharm.; 24.3.1998; USA-prior. 6.6.1995).

use for treating neurocognitive disorders:
 WO 9 517 154 (Andrulis Pharm.; appl. 22.12.1994; USA-prior. 23.12.1993).

treatment of rheumatoid arthritis:

WO 9 504 533 (Andrulix Pharm.; appl. 3.8.1994; USA-prior. 4.8.1993).

controlling abnormal concentration of TNF- α :

WO 9 214 455 (Rockefeller Univ.; appl. 14.2.1992; USA-prior. 14.2.1991).

Formulation(s): cps. 50 mg

Trade Name(s):

USA: Thalomid (Celgene; 1998)

Thebacon

(Acetyhydrocodone)

ATC: R05DA10

Use: narcotic, analgesic

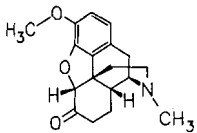
RN: 466-90-0 MF: C₂₀H₂₃NO₄ MW: 341.41 EINECS: 207-377-2

LD₅₀: 81 mg/kg (M, s.c.)

CN: (5 α)-6,7-didehydro-4,5-epoxy-3-methoxy-17-methylmorphinan-6-ol acetate (ester)

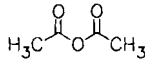
hydrochloride

RN: 20236-82-2 MF: C₂₀H₂₃NO₄ · HCl MW: 377.87 EINECS: 243-623-5



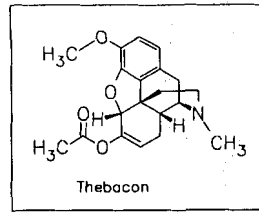
hydrocodone
(q. v.)

+



acetic anhydride

→



Thebacon

Reference(s):

a Ehrhart-Ruschig I, 120.

b US 1 731 152 (C. Schopf; 1929).

Formulation(s): tabl 5 mg (as hydrochloride)

Trade Name(s):

D: Acedicon (Boehringer
Ing.); wfm

I: Acedicon (Boehringer
Ing.); wfm

Thenalidine

(Thenaldine)

ATC: D04AA03; R06AX03

Use: antihistaminic

RN: 86-12-4 MF: C₁₇H₂₂N₂S MW: 286.44 EINECS: 201-651-5

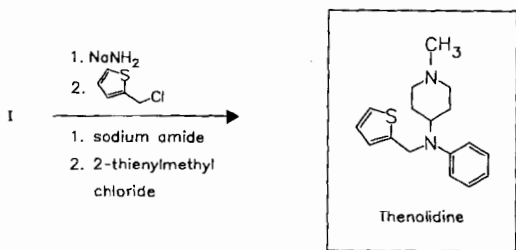
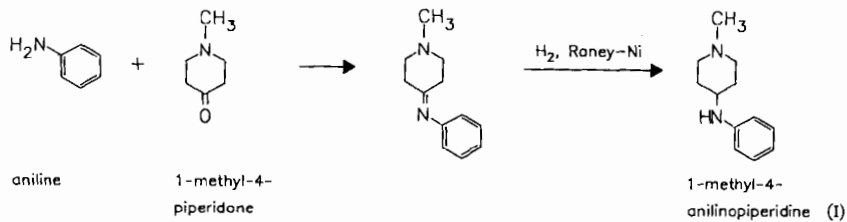
LD₅₀: 42 mg/kg (M, i.v.); 165 mg/kg (M, p.o.);

42 mg/kg (R, i.v.); 1060 mg/kg (R, p.o.)

CN: 1-methyl-N-phenyl-N-(2-thienylmethyl)-4-piperidinamine

tartrate (1:1)

RN: 2784-55-6 MF: C₁₇H₂₂N₂S · C₄H₆O₆ MW: 436.53 EINECS: 220-493-8



Reference(s):

US 2 717 251 (Sandoz; 1955; CH-prior. 1951).

Formulation(s): drg. 25 mg (as tartrate)

Trade Name(s):

D: Sandosten-Calcium (Sandoz); wfm

F: Sandosténe (Sandoz); wfm

Thenium closilate

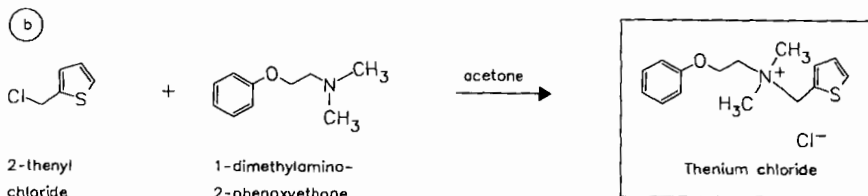
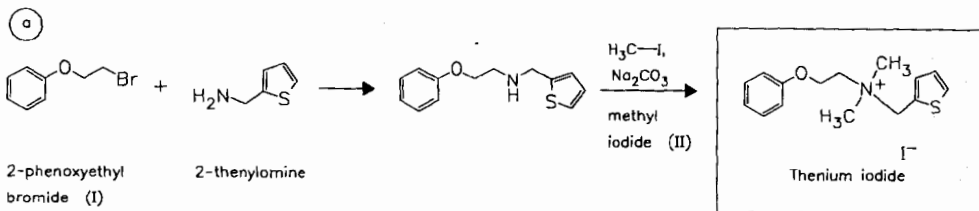
(Theniumclosylat)

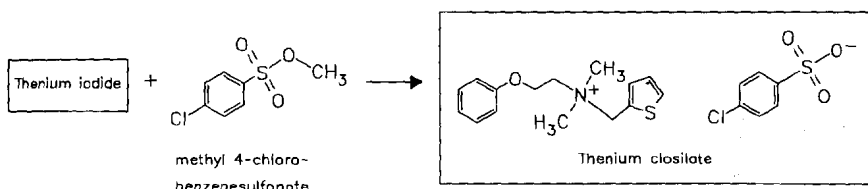
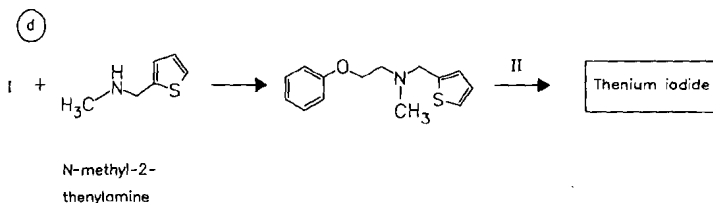
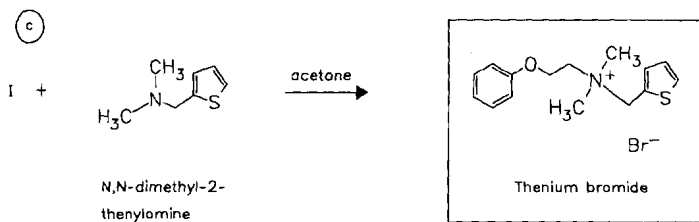
ATC: P02

Use: anthelmintic

RN: 4304-40-9 MF: $\text{C}_{15}\text{H}_{20}\text{NOS} \cdot \text{C}_6\text{H}_4\text{ClO}_3\text{S}$ MW: 454.01 EINECS: 224-318-6

CN: *N,N*-dimethyl-*N*-(2-phenoxyethyl)-2-thiophenemethanaminium salt with 4-chlorobenzenesulfonic acid (1:1)





Reference(s):

GB 864 885 (Wellcome Found.; valid from 1958; prior. 1957).

use:

GB 994 742 (Wellcome Found.; valid from 1961; prior. 1960).

Trade Name(s):

USA: Bancaris (Burroughs Wellcome); wfm

Thenyldiamine

ATC: R06
Use: antihistaminic

RN: 91-79-2 MF: C₁₄H₁₉N₃S MW: 261.39 EINECS: 202-098-2

LD₅₀: 77 mg/kg (M, i.p.)

CN: N,N-dimethyl-N'-2-pyridinyl-N'-(3-thienylmethyl)-1,2-ethanediamine

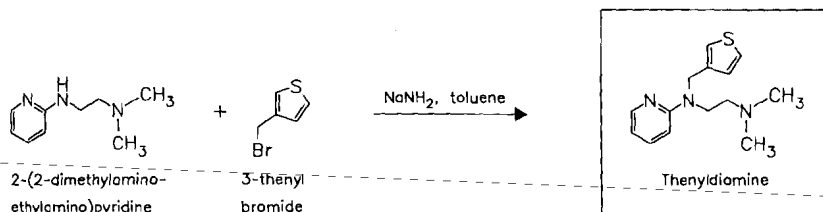
monohydrochloride

RN: 958-93-0 MF: C₁₄H₁₉N₃S · HCl MW: 297.85 EINECS: 213-490-8

LD₅₀: 12.2 mg/kg (M, i.v.); 277 mg/kg (M, p.o.);

15 mg/kg (R, i.v.); 525 mg/kg (R, p.o.);

10 mg/kg (dog, i.v.); 60 mg/kg (dog, p.o.)



Reference(s):

Campaigne, E.; Le Suer, W.M.: J. Am. Chem. Soc. (JACSAT) 71, 333 (1949).

starting material:

US 2 581 868 (Monsanto; 1952; prior. 1946).

Formulation(s): drops 1 mg/ml (as hydrochloride)

Trade Name(s):

D:	Nebdosator (Winthrop); wfm	GB:	Bronchilator (Izal)-comb.; wfm	I:	N.T.R. (Teofarma)-comb.
F:	Arhumyl (Sterling Winthrop)-comb.; wfm		Haphryn (Winthrop)- comb.; wfm	USA:	Thenfadil (Winthrop Stearns); wfm

Theodrenaline

ATC: C01CA23

Use: circulatory analeptic, diuretic,
cardiotonic

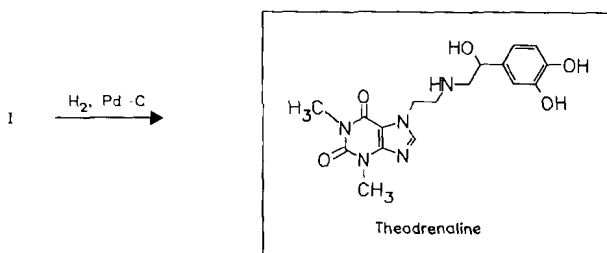
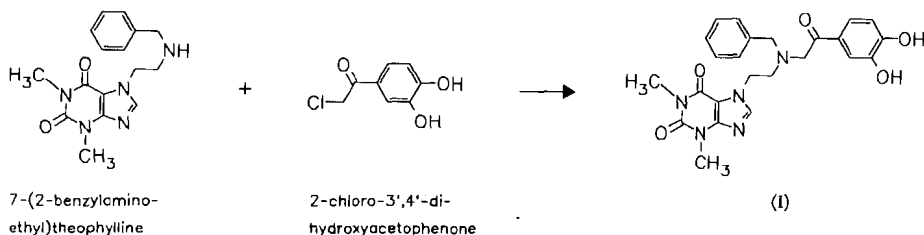
RN: 13460-98-5 MF: $C_{17}H_{21}N_5O_5$ MW: 375.39

LD₅₀: 1140 mg/kg (M, i.p.)

CN: 7-[2-[[2-(3,4-dihydroxyphenyl)-2-hydroxyethyl]amino]ethyl]-3,7-dihydro-1,3-dimethyl-1*H*-purine-2,6-dione

monohydrochloride

RN: 2572-61-4 MF: $C_{17}H_{21}N_5O_5 \cdot HCl$ MW: 411.85 EINECS: 219-920-0

*Reference(s):*

DE 1 119 868 (Degussa; appl. 5.5.1959).

US 3 112 313 (Degussa; 26.11.1963; D-prior. 5.5.1959).

Formulation(s): amp. 10 mg/2 ml, 50 mg/10 ml; f. c. tabl. 5 mg (as hydrochloride in comb. with cafedrine hydrochloride)

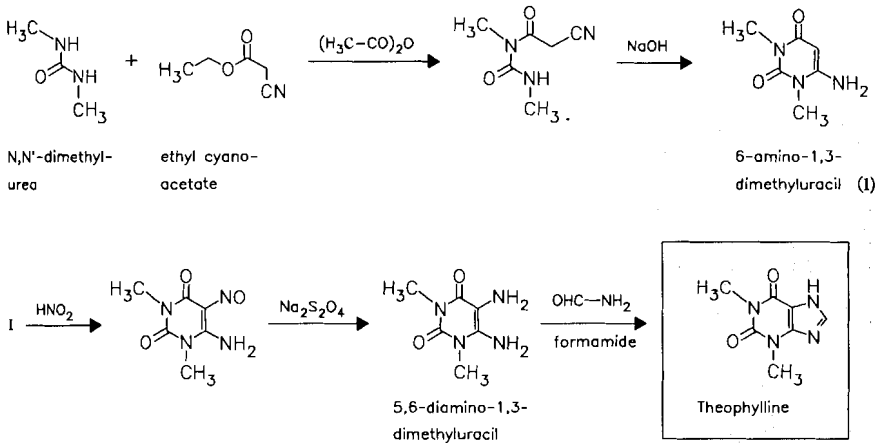
Trade Name(s):

D: Akrinor (ASTA Medica AWD)-comb. with cafedrine
 F: Praxinor (Lipha Santé)-comb. with cafedrine
 I: Akrinor (Sir)-comb.; wfm

Theophylline

ATC: R03DA04

Use: cardiotonic, diuretic

RN: 58-55-9 MF: C₇H₈N₄O₂ MW: 180.17 EINECS: 200-385-7LD₅₀: 136 mg/kg (M, i.v.); 235 mg/kg (M, p.o.);
225 mg/kg (R, p.o.)CN: 3,7-dihydro-1,3-dimethyl-1*H*-purine-2,6-dione**monohydrate**RN: 5967-84-0 MF: C₇H₈N₄O₂ · H₂O MW: 198.18**Reference(s):**

DE 834 105 (Boehringer Ing.; appl. 1949).

Formulation(s):

amp. 104 mg/ml, 200 mg/10 ml, 208 mg/5 ml, 420 mg/60 ml, 500 mg/20 ml;
 drops 104 mg/ml; s. r. cps. 125 mg, 200 mg, 250 mg, 300 mg, 375 mg, 400 mg, 500 mg;
 s. r. tabl. 200 mg, 300 mg, 600 mg; suppos. 50 mg

Trade Name(s):

D: Aerobin (Farmasan)	Neobiphyllin-Clys (Trommsdorff)-comb.	Unilair (3M Medica)
Afonilum (Knoll)	Perasthman (Polypharm)	Uniphyllin (Mundipharma)
Afpred (Hefa Pharma)	Pulmidur (pharma-stern)	F: Dilatrane (Labomed)
Broncho-Euphyllin (Byk Gulden)-comb. with ambroxol hydrochloride	Pulmo-Timelets (Temmler)	Euphylline L.A. (Byk France SA)
Bronchoretard (Klinge)	Solosin (Hoechst)	Hypnasmine (Elercé)-comb.
Contiphyllin (Lindopharm)	theo (ct-Arzneimittel)	Pneumogéine (Labomed)-comb.
Cronasma (Orion Pharma)	Theolair (3M Medica)	Tédralan (Labomed)-comb.
Duraphyllin (durachemie)	Theophyllard (OPW)	Théolair (3M Pharma)
Eudur (Astra)-comb. with terbutaline sulfate	Theophyllin (Heumann; Stada)	Théostat (Inava)
Euphyllin (Byk Gulden)	Theophyllin retard	Uromil (Iprad)-comb.
Euphyllong (Byk Gulden)	ratiopharm (ratiopharm)	Xanthium (Galephar)
Flui-Theophyllin (Zambon)	Tromphyllin (Trommsdorff)	generic

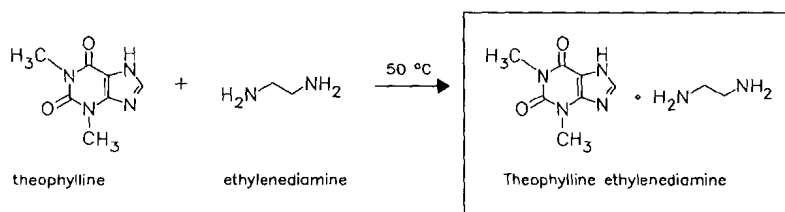
GB:	Franol (Sanofi Winthrop)- comb. Labophylline (Labs. for Applied Biology) Lasma (Pharmax) Nuelin (3M Health Care) Slo-Phyllin (Lipha) Theo-Dur (Astra) Uniphyllin Continus (Napp)	I:	numerous combination preparations Aminomal (Malesci) Diffumal (Malesci) Euphyllina (Byk Gulden) Respicur (Byk Gulden) Tefamin (Recordati) Teobid (Vita) Teonova (Camillo Corvi) Theo-dur (Recordati)	J:	Theolair (Synthelabo) Theophyllol (Sanko) generic and numerous combination preparations	USA:	Aerolate (Fleming) Elixophyllin (Forest) Theolair (3M)
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Theophylline ethylenediamine

(Aminophylline; Teofyllamin; Theophyllamin)

ATC: R03DA04

Use: cardiotonic, diuretic, bronchodilator

RN: 317-34-0 MF: $C_7H_8N_4O_2 \cdot 1/2C_2H_8N_2$ MW: 420.43 EINECS: 206-264-5LD₅₀: 125 mg/kg (M, i.v.); 150 mg/kg (M, p.o.);
104 mg/kg (R, i.v.); 243 mg/kg (R, p.o.)CN: 3,7-dihydro-1,3-dimethyl-1*H*-purine-2,6-dione compd. with 1,2-ethanediamine (2:1)**dihydrate**RN: 5897-66-5 MF: $C_{14}H_{16}N_4O_2 \cdot C_6H_8N_2 \cdot 2H_2O$ MW: 416.48**Reference(s):**

DRP 223 695 (Byk; appl. 1907).

stabilized solutions:

US 4 073 907 (Abbott; 14.2.1978; appl. 1.6.1976).

Formulation(s): amp. 120 mg/ml, 240 mg/10 ml; s. r. tabl. 225 mg, 350 mg; tabl. 125 mg (as dihydrate)**Trade Name(s):**

D:	Afonilum (Knoll) Aminophyllin (OPW) Limptar (Cassella-med)- comb. Phyllotemp (Mundipharma) Theophyllin- Aethylendiamin ratiopharm (ratiopharm)		Cardiophylline (Lefranca)- comb.; wfm Inophylline (Millot); wfm Eusédyl aminophylline (Chanteau)-comb.; wfm Inophylline (Millot-Solac); wfm Planphylline (Plantier); wfm		Delaminoph (BM Labs.); wfm Phyllocontin (Napp); wfm Theodrox (Riker)-comb.; wfm
F:	Aminophylline Lobica (Opodex); wfm Campho-pneumine aminophylline (Merrell)- comb.; wfm		Sédo-caréna (Delagrangé)- comb.; wfm combination preparations; wfm	I:	Aminomal (Malesci); wfm Amminophylline (Farber- Ref); wfm Asmarectal (Serpero)- comb.; wfm Euphyllina (Byk Gulden); wfm Tefamin (Recordati); wfm numerous combination preparations; wfm
		GB:	Cardophyllin (Fisons); wfm		

J: Kyophyllin (Kyorin)
Neophyllin (Eisai)

Novophyllin (Torii)
generic preparations

USA: Aminophylline (Roxane)

Thevetin A

(Tevosid)

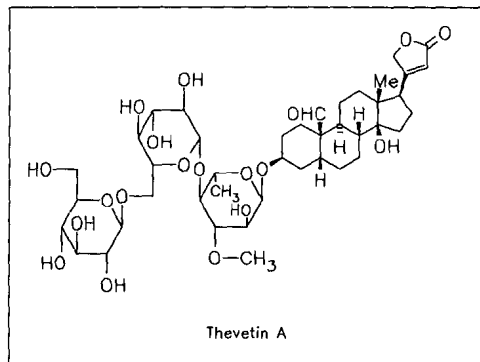
ATC: C01A

Use: cardiac glycoside

RN: 37933-66-7 MF: $C_{42}H_{64}O_{19}$ MW: 872.96 EINECS: 253-722-5

LD₅₀: 85 µg/kg (cat, i.v.)

CN: (3β,5β)-3-[(*O*-β-D-glucopyranosyl-(1→6)-*O*-D-glucopyranosyl(1→4)-6-deoxy-3-*O*-methyl-α-L-glucopyranosyl)oxy]-14-hydroxy-19-oxocard-20(22)-enolide



From *Thevetia nerifolia* Juss., *Apocynaceae*, separation from thevetin B by extraction.

Reference(s):

Bloch, R. et al.: *Helv. Chim. Acta (HCACAV)* **43**, 652 (1960).

US 3 030 355 (M. Delalande, J. Baisse; 17.4.1962; prior. 16.5.1960).

US 3 043 829 (M. Delalande, J. Baisse; 10.7.1962; prior. 31.5.1960).

Trade Name(s):

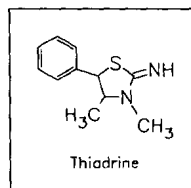
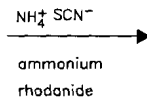
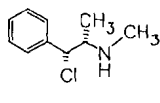
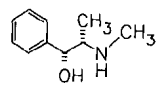
I: Tevosid (Zanardi); wfm

Thiadrine

Use: antitussive

RN: 14007-67-1 MF: $C_{11}H_{14}N_2S$ MW: 206.31

CN: 3,4-dimethyl-5-phenyl-2-thiazolidinimine



Reference(s):

US 2 558 068 (Knoll; 1951; prior. 1949).

GB 690 238 (Knoll; appl. 1950; USA-prior. 1949).

Formulation(s): tabl.

Trade Name(s):

D: Priatan (Minden)-comb.;
wfm

Thiamazole

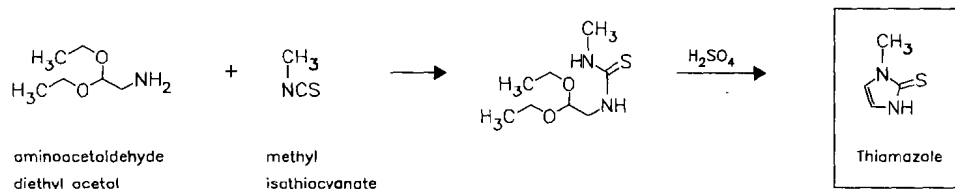
(Methimazole)

ATC: H03BB02
Use: thyrostatic, antihyperthyroid

RN: 60-56-0 MF: C₄H₆N₂S MW: 114.17 EINECS: 200-482-4

LD₅₀: 860 mg/kg (M, p.o.);
2250 mg/kg (R, p.o.)

CN: 1,3-dihydro-1-methyl-2H-imidazole-2-thione

*Reference(s):*

Wohl, A. et al.: Ber. Dtsch. Chem. Ges. (BDCGAS) **22**, 1354 (1889).

Jones, R.G. et al.: J. Am. Chem. Soc. (JACSAT) **71**, 4000 (1949).

Formulation(s): amp. 40 mg/ml; tabl. 5 mg, 10 mg, 20 mg

Trade Name(s):

D: Favistan (ASTA Medica AWD)
Methizol (Philopharm)
Thiamazol-Henning (Henning Berlin)

F: Thyrozol (Merck)
Basolan (Diamant); wfm
I: Bromazolo (Baldacci)-comb.
J: Mercazole (Chugai)

USA: Tapazole (Jones Medical Industries)

Thiamine

(Aneurine; Vitamin B₁)

ATC: A11DA01
Use: vitamin

RN: 59-43-8 MF: C₁₂H₁₇ClN₄OS MW: 300.81 EINECS: 200-425-3

LD₅₀: 301 mg/kg (M, s.c.)

CN: 3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-5-(2-hydroxyethyl)-4-methylthiazolium chloride

monohydrochloride

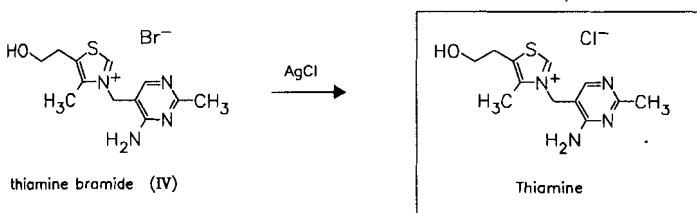
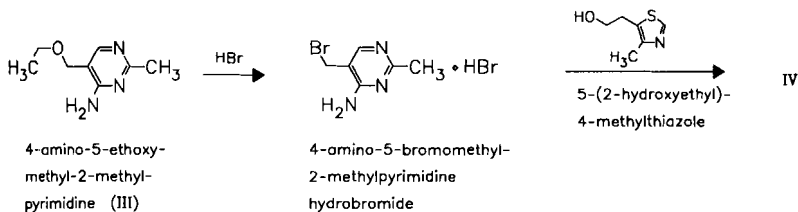
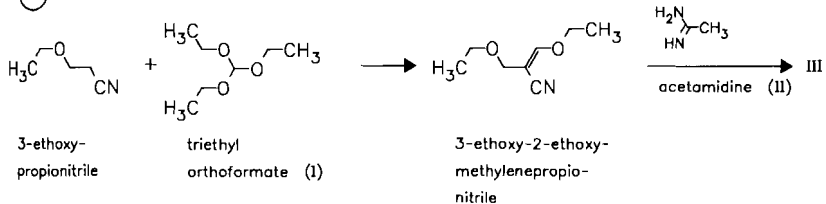
RN: 67-03-8 MF: C₁₂H₁₇ClN₄OS · HCl MW: 337.28 EINECS: 200-641-8

LD₅₀: 74 mg/kg (M, i.v.); 8224 mg/kg (M, p.o.);
118 mg/kg (R, i.v.); 3710 mg/kg (R, p.o.)

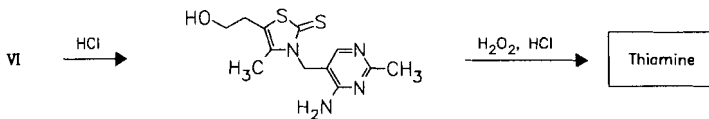
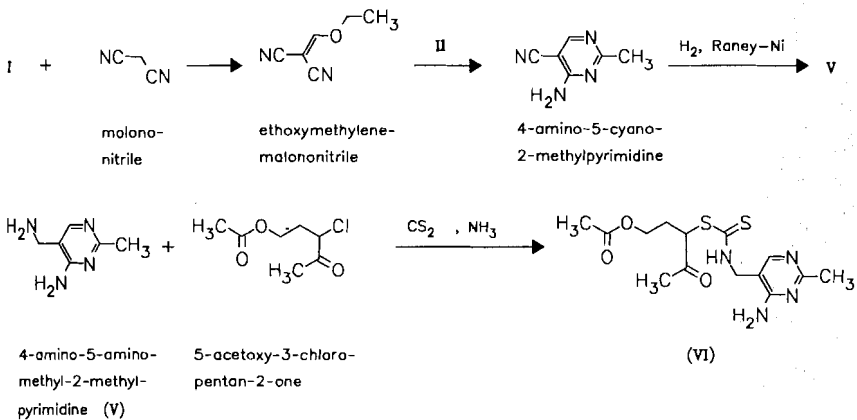
nitrate

RN: 532-43-4 MF: C₁₂H₁₆N₄OS · HNO₃ MW: 327.37

a



b



Reference(s):

- a Williams, R.R.; Cline, J.K.: J. Am. Chem. Soc. (JACSAT) **58**, 1504 (1936).
 US 2 216 574 (Research Corp.; 1938).
 US 2 166 233 (Research Corp.; 1938).
 US 2 184 964 (Research Corp.; 1937).
- b Grewe, R.: Hoppe-Seyler's Z. Physiol. Chem. (HSZPAZ) **242**, 89 (1936).
 DRP 671 787 (I. G. Farben; appl. 1936).
 US 2 592 930 (Takeda; 1952; J-prior. 1950).

synthesis of 5-(2-hydroxyethyl)-4-methylthiazole and 5-acetoxy-3-chloropentan-2-one:

Buchman, E.R.: J. Am. Chem. Soc. (JACSAT) **58**, 1803 (1936).
 DRP 678 153 (Roche; appl. 1938; CH-prior. 1937).

full review of patent literature up to 1952 for thiamine synthesis:

Vogel, H.: Chemie und Technik der Vitamine, 3. Aufl., Vol. 2, I. Part, p. 96 ff; F. Enke Verlag, Stuttgart 1955.

Formulation(s): amp. 25 mg/2 ml, 25 mg/ml, 100 mg/ml, 100 mg/2 ml, 200 mg/2 ml; drg. 100 mg; f. c. tabl. 500 mg; tabl. 10 mg, 250 mg, 300 mg (as hydrochloride); tabl. 100 mg (as nitrate)

Trade Name(s):

D:	Aneurin A.S. (A.S.)		numerous combination preparations	Fosfoutipi Vit. (Terapeutico M.R.)-comb.
	Betabion (Merck)			
	Lophakomp (Lomapharm)	F:	Bénerva (Roche)	Neurobionta (Bracco)-comb.
	Vitamin B ₁ Hevert (Hevert)		Bévitine (Specia)	
	Vitamin B ₁ -Injektopas (Pascoe)		and circa 70 combination preparations	Neuroftal (Alfa Intes)-comb.
	Vitamin B ₁ JENAPHARM (Jenapharm)	GB:	Benerva (Roche)	Triferon (Salus)-comb.
	Vitamin B ₁ Kattwiga (Kattwiga)		numerous combination preparations: multivitamins	Trinevrina (Guidotti)-comb.
	Vitamin B ₁ -ratiopharm (ratiopharm)	I:	Benexol B ₁₂ (Roche)-comb.	USA: Mega-B (Arco; as mononitrate)-comb.
			Dobetin (Angelini)-comb.	
			Fibronevrina (Ceccarelli)-comb.	

Thiamphenicol

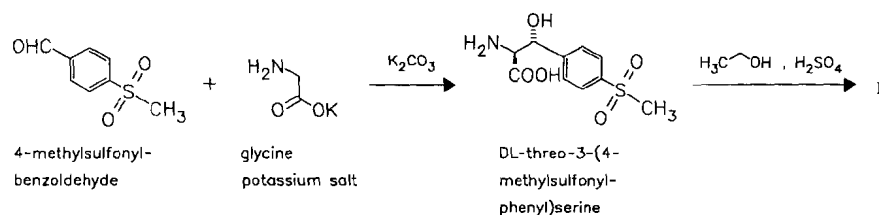
ATC: J01BA02; J01BA52

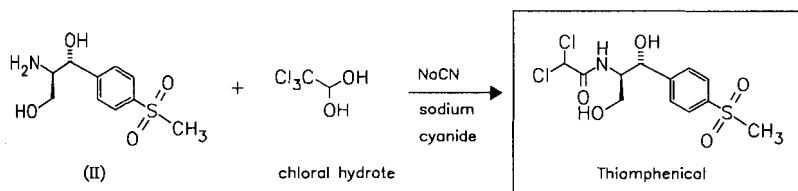
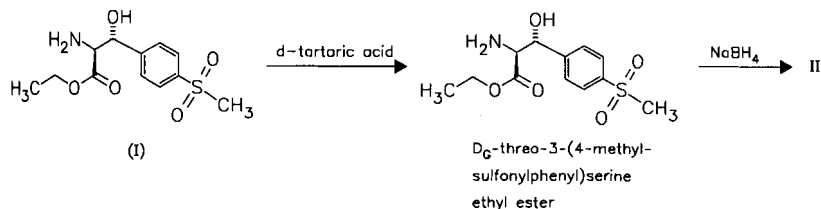
Use: antibiotic

RN: 15318-45-3 MF: C₁₂H₁₅Cl₂NO₃S MW: 356.23 EINECS: 239-355-3LD₅₀: 368 mg/kg (M, i.v.); >7 g/kg (M, p.o.);

339 mg/kg (R, i.v.); >7 g/kg (R, p.o.)

CN: [R-(R*,R*)]-2,2-dichloro-N-[2-hydroxy-1-(hydroxymethyl)-2-[4-(methylsulfonyl)phenyl]ethyl]acetamide

glycinate hydrochlorideRN: 2611-61-2 MF: C₁₄H₁₈Cl₂NO₆S · HCl MW: 435.73

**Reference(s):**

DE 1 938 513 (Sumitomo; appl. 29.7.1969) - only methods.

older methods:

- US 2 721 207 (Parke Davis; 1955; prior. 1952).
 US 2 726 266 (Du Pont; 1955; prior. 1951).
 US 2 759 927 (Sterling Drug; 1956; prior. 1951, 1955).
 US 2 759 970 (Sterling Drug; 1956; appl. 1956).
 US 2 759 971 (Sterling Drug; 1956; appl. 1951).
 US 2 816 915 (Du Pont; 1957; prior. 1951).
 Cutler, R.A. et al.: J. Am. Chem. Soc. (JACSAT) **74**, 5475 (1952).
 Suter, C.M. et al.: J. Am. Chem. Soc. (JACSAT) **75**, 4330 (1953).

Formulation(s): amp. 500 mg, 750 mg; cps. 125 mg, 250 mg, 500 mg; suppos. 125 mg, 250 mg, 500 mg; vial 500 mg (as glycinate hydrochloride)

Trade Name(s):

D:	Urfamicina (Inpharzam); wfm	J:	Chlomic S (Kowa Shinyaku)	Roseramin (Takata)
F:	Fluimucil antibiotic 750 (Zambon)		Efnicol (Nichizo)	Synticol (Nissin)
	Thiophénicol (Sanofi)		Fricol (SS)	Thiamcol (Morishita)
	Winthrop)		Hyrazin (Kowa Yakuhin)	Thiancol (Kakenyaku)
I:	Flogotisol (Zambon)		Igralin (Kotobuki Seiyaku-Zeria)	Thiofact (Showa Yakuhin)
	Fluimucil Antib. (Zambon)-comb.		Neomyson (Eisai)	Thionicol (Mohan)
	Glitisol (Zambon)		Racenicol (Kissei)	Thiotal (Sumitomo)
			Rigelon (Dojin)	Tiozon (Mitsui)
			Rincrol (Tokyo Tanabe)	Unaseran-D (Isei)
				Urophenil (Iwaki)

Thiamylal

ATC: N01AF

Use: ultrashort narcotic, anesthetic (intravenous)

RN: 77-27-0 MF: C₁₂H₁₈N₂O₂S MW: 254.35 EINECS: 201-018-3

CN: dihydro-5-(1-methylbutyl)-5-(2-propenyl)-2-thioxo-4,6(1*H*,5*H*)-pyrimidinedione

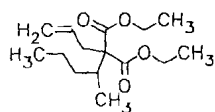
monosodium salt

 RN: 337-47-3 MF: C₁₂H₁₇N₂NaO₂S MW: 276.34 EINECS: 206-415-5

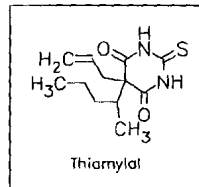
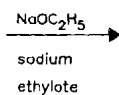
 LD₅₀: 85 mg/kg (M, i.v.); 180 mg/kg (M, p.o.);

51 mg/kg (R, i.v.);

32 mg/kg (dog, i.v.); 134 mg/kg (dog, p.o.)


 diethyl allyl-
(1-methylbutyl)-
malonate


thiourea



Thiarnylal

Reference(s):

US 2 153 729 (Abbott; 1939; prior. 1934).

US 2 876 225 (Abbott; 1959; appl. 1956).

Formulation(s): vial 1 g, 5 g (as sodium salt)

Trade Name(s):

J: Citosol (Kyorin)

Isozol (Yoshitomi)

USA: Surital (Parke Davis); wfm

Thiethylperazine

ATC: R06AD03

Use: anti-emetic, antivertiginosant

 RN: 1420-55-9 MF: C₂₂H₂₉N₃S₂ MW: 399.63 EINECS: 215-819-0

 LD₅₀: 71.6 mg/kg (M, i.v.); 680 mg/kg (M, p.o.)

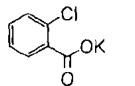
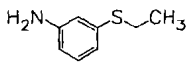
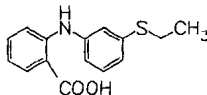
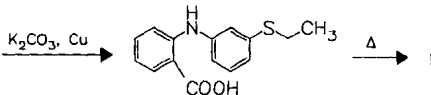
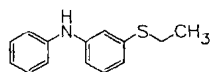
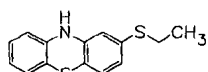
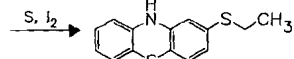
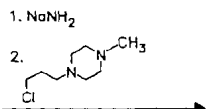
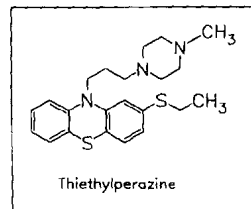
CN: 2-(ethylthio)-10-[3-(4-methyl-1-piperazinyl)propyl]-10H-phenothiazine

dimaleate

 RN: 1179-69-7 MF: C₂₂H₂₉N₃S₂ · 2C₄H₄O₄ MW: 631.77 EINECS: 214-648-9

 LD₅₀: 93 mg/kg (M, i.v.); 680 mg/kg (M, p.o.);

90 mg/kg (R, i.v.); 1260 mg/kg (R, p.o.)


 2-chlorobenzoic
acid potassium
salt

 3-ethylthio-
aniline

 N-(3-ethylthiophenyl)-
anthranilic acid

 3-ethylthiodiphenyl-
amine (I)

 2-ethylthio-
phenothiazine

 1. sodium amide
2. 1-(3-chloropropyl)-
4-methylpiperazine


Thiethylperazine

Reference(s):

US 3 336 197 (Sandoz; 15.8.1967; CH-prior. 19.4.1956).

Bourquin, J.P. et al.: *Helv. Chim. Acta (HCACAV)* **41**, 1072 (1958).*Formulation(s):* amp. 10 mg/2 ml; drg. 6.5 mg; tabl. 10 mg (as dimaleate)*Trade Name(s):*

D:	Torecan (Novartis Pharma)	GB:	Torecan (Sandoz); wfm	J:	Toresten (Sandoz-Sankyo)
F:	Torécan (Sandoz); wfm	I:	Torecan (Lpd)	USA:	Torecan (Roxane)

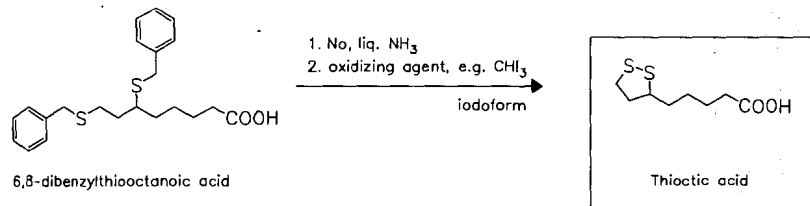
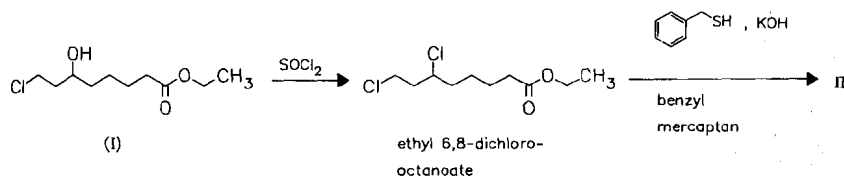
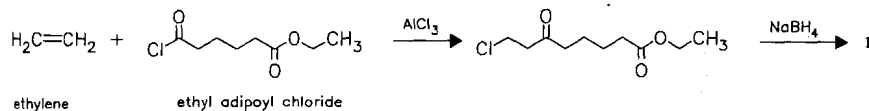
Thioctic acid(Thioctacid; α -Lipoic acid)

ATC: N07XX

Use: detoxicant, liver protective drug,
lipotropic, growth factorRN: 62-46-4 MF: $C_8H_{14}O_2S_2$ MW: 206.33 EINECS: 200-534-6LD₅₀: 197 mg/kg (M, i.v.); 502 mg/kg (M, p.o.);

180 mg/kg (R, i.v.); 1130 mg/kg (R, p.o.)

CN: 1,2-dithiolane-3-pentanoic acid

sodium saltRN: 2319-84-8 MF: $C_8H_{13}NaO_2S_2$ MW: 228.31LD₅₀: 197 mg/kg (M, i.v.)*Reference(s):*Bullock et al.: *J. Am. Chem. Soc. (JACSAT)* **74**, 3455 (1952).

US 2 980 716 (Research Corp.; 1961; appl. 1954).

alternative method:

US 2 752 373 (Du Pont; 1956; appl. 1952).

US 2 752 374 (Du Pont; 1956; appl. 1952).

US 2 792 406 (Du Pont; 1957; appl. 1954).

US 3 049 549 (Research Corp. ert. 1962; appl. 1954).

US 3 223 712 (Yamanouchi; 14.12.1965; J-prior. 18.7.1960, 25.7.1960, 29.7.1960, 18.8.1960, 1.9.1960, 12.10.1960, 26.12.1960, 12.6.1961).

Tsuji, J. et al.: J. Org. Chem. (JOCEAH) **43**, 3606 (1978).Bullock et al.: J. Am. Chem. Soc. (JACSAT) **74**, 1868 (1952).*Formulation(s):* amp. 150 mg, 300 mg, 600 mg; cps. 200mg, 250 mg, 300 mg; drg. 20 mg, 25 mg; f. c. tabl. 100 mg, 200 mg, 300 mg, 600 mg*Trade Name(s):*

D:	Alpha-Lipon Stada (Stada)	Liponsäure-ratiopharm	Hepatosten
	alpha-Vibolex	(ratiopharm)	(Chimipharma); wfm
	(Chephasaar)	Neurium (Hexal)	Lipoatox (Salus); wfm
	Azulipont (Azupharma)	Pleomix-Alpha (Illa)	Piruvasi (Bruco)-comb.;
	Berlithion (Berlin-Chemie)	Thioctacid (ASTA Medica	wfm
	biomolipon (biomo)	AWD)	Tioctamina (Morgan); wfm
	duralipon (durachemie)	Thiogamma (Wörwag)	Tioctidasi (ISI); wfm
	espalipon (esparma)	Verla-Lipon (Verla)	Trofepar (Malesci)-comb.;
	Fenint (Pharmacia &	Zeel (Heel)-comb.	wfm
	Upjohn)	I: Atoxan (Lagap)-comb.;	J: Thioctsan (Otsuka)
		wfm	

Thiomersal

(Mercuriothiolate sodique; Thimerosal)

ATC: D08AK06

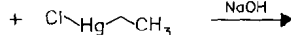
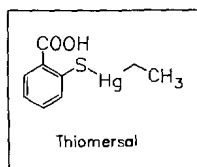
Use: antiseptic

RN: 148-61-8 MF: C₉H₁₀HgO₂S MW: 382.83 EINECS: 205-719-5

CN: ethyl(2-mercaptopbenzoato-S)mercury

sodium saltRN: 54-64-8 MF: C₉H₉HgNaO₂S MW: 404.82 EINECS: 200-210-4LD₅₀: 45 mg/kg (M, i.v.); 91 mg/kg (M, p.o.);

75 mg/kg (R, p.o.)

thiosalicylic
acidethylmercury
chloride

Thiomersal

Reference(s):

US 1 672 615 (M. S. Kharasch; 1928; appl. 1927).

stabilization:

US 1 862 896 (M. S. Kharasch; 1932; appl. 1931).

US 2 012 820 (Lilly; 1935; appl. 1934).

with EDTA:

US 2 864 844 (Lilly; 1958; appl. 1955).

use in ophthalmic preparations:

US 3 767 788 (Burton, Parsons Chemicals; 23.10.1973; prior. 6.11.1968, 1.12.1969, 8.6.1970).

topical use for herpes infections:

US 4 083 991 (Burton, Parsons & Comp.; 11.4.1978; appl. 6.5.1977).

Formulation(s): sol. 0.01 mg/ml*Trade Name(s):*

D:	Oxysept (Pharm-Allergan)- comb.	Dermachrome (Synthelabo)-comb.	GB:	Merthiolate (Lilly); wfm Otopred (Typharm); wfm
F:	Collyrex (SmithKline Beecham)-comb. Constrilia (Alcon SA)- comb.	Polyclean (Alcon SA)- comb. Soaclens (Alcon SA) Vitaseptol (CIBA Vital Ophthalmics)	I:	Lacrigel (Farmigea)-comb.
			J:	Merzonin (Takeda)
			USA:	Merthiolate (Lilly); wfm

Thiopental

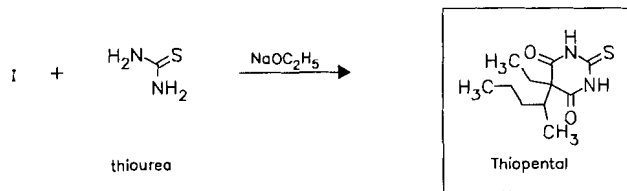
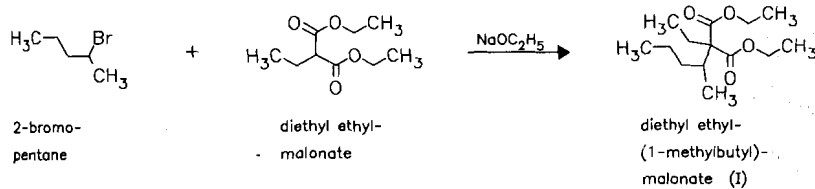
ATC: N01AF03; N05CA19

Use: narcotic

RN: 76-75-5 MF: C₁₁H₁₈N₂O₂S MW: 242.34 EINECS: 200-984-3LD₅₀: 70 mg/kg (M, i.v.); 600 mg/kg (M, p.o.)CN: 5-ethylidihydro-5-(1-methylbutyl)-2-thioxo-4,6(1*H*,5*H*)-pyrimidinedione**monosodium salt**RN: 71-73-8 MF: C₁₁H₁₇N₂NaO₂S MW: 264.33 EINECS: 200-763-1LD₅₀: 57 mg/kg (M, i.v.); 208 mg/kg (M, p.o.);

43.6 mg/kg (R, i.v.); 117 mg/kg (R, p.o.);

36 mg/kg (dog, i.v.)

*Reference(s):*

US 2 153 729 (Abbott; 1939; appl. 1934).

US 2 876 225 (Abbott; 1959; appl. 1956).

Formulation(s): vial 0.5 g/20 ml, 1 g/20 ml, 2.5 g/100 ml, 5 g/200 ml*Trade Name(s):*

D:	Thiopental "Hycomed" (Hycomed) Trapanal (Byk Gulden)	Penthiobarbital Sodique Adrian (Adrian-Marinier); wfm	GB:	Intraval (May & Baker); wfm Pentothal (Abbott); wfm
F:	Nesdonal (Specia); wfm	Pentothal (Abbott); wfm	I:	Farmotal (Pharmacia & Upjohn; as sodium salt)

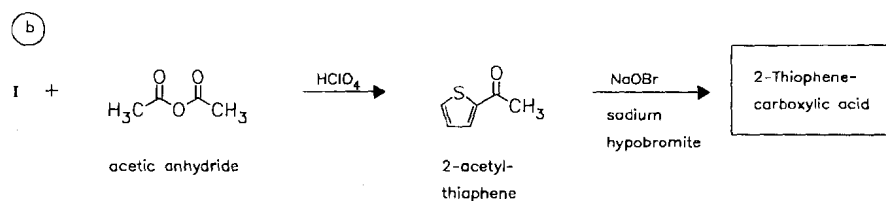
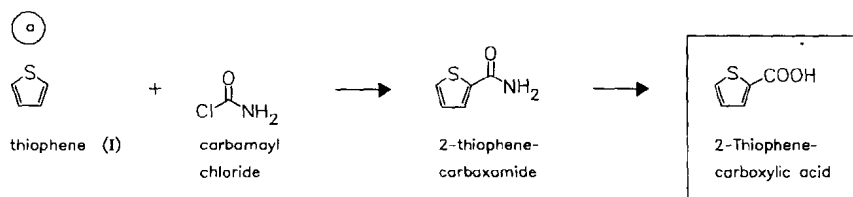
Pentothal (Abbott; as sodium salt)

J: Ravonal (Tanabe)
Thiobal (Daiichi)

USA: Pentothal Sodium (Ohmeda)

2-Thiophenecarboxylic acidATC: R01AX10
Use: antiallergicRN: 527-72-0 MF: C₅H₄O₂S MW: 128.15 EINECS: 208-423-4LD₅₀: 1670 mg/kg (M, i.v.)

CN: 2-thiophenecarboxylic acid

lithium saltRN: 59753-16-1 MF: C₅H₃LiO₂S MW: 134.08 EINECS: 261-914-5**sodium salt**RN: 25112-68-9 MF: C₅H₃NaO₂S MW: 150.13**potassium salt**RN: 33311-43-2 MF: C₅H₃KO₂S MW: 166.24**magnesium salt**RN: 36292-28-1 MF: C₁₀H₆MgO₄S₂ MW: 278.59**Reference(s):****a** DD 13 495 (VEB Hydrierwerk Zeitz; appl. 15.7.1957).**b** Sy, M.; de Malleray, B.: Bull. Soc. Chim. Fr. (BSCFAS) **1963**, 1276.**alternative syntheses:**Gross, H. et al.: Chem. Ber. (CHBEAM) **96**, 1382 (1963).

DE 1 146 055 (Deutsche Akademie der Wissenschaft; appl. 10.3.1961; DDR-prior. 10.3.1961).

Voerman, M.G.L.: Recl. Trav. Chim. Pays-Bas (RTCPA3) **26**, 293 (1907).**use of the magnesium salt as liver protective drug:**

FR 2 043 477 (Invest. Scientif. Pharmac.; appl. 20.5.1969).

Formulation(s): cps. 300 mg (as sodium salt); nasal drops 2.3 % (as sodium salt); tabl. 200 mg (as lithium salt)**Trade Name(s):**F: Soufrane (Roland-Marie)-
comb.; wfmThiophéol (Biogalénique);
wfm
Thiophéol (Inava); wfmTrophirés (Roland-Marie)-
comb.; wfm

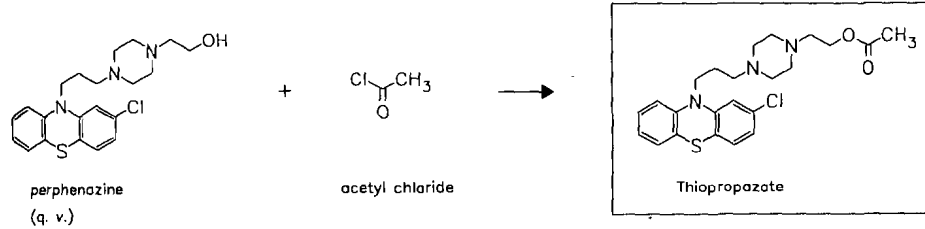
Thiopropazate

ATC: N05AB05

Use: neuroleptic

RN: 84-06-0 MF: $C_{23}H_{28}ClN_3O_2S$ MW: 446.02 EINECS: 201-513-4LD₅₀: 1100 mg/kg (M, s.c.)

CN: 4-[3-(2-chloro-10H-phenothiazin-10-yl)propyl]-1-piperazineethanol acetate (ester)

dihydrochlorideRN: 146-28-1 MF: $C_{23}H_{28}ClN_3O_2S \cdot 2HCl$ MW: 518.94 EINECS: 205-666-8LD₅₀: 279 mg/kg (M, p.o.)**Reference(s):**

US 2 766 235 (J. W. Cusic; 1956; prior. 1956).

Formulation(s): tabl. 5 mg, 10 mg (as dihydrochloride)**Trade Name(s):**D: Vesitan (Boehringer
Mannh.); wfm

GB: Dartalan (Searle); wfm

Thiopropazine

(Thiopropazine)

ATC: N05AB08

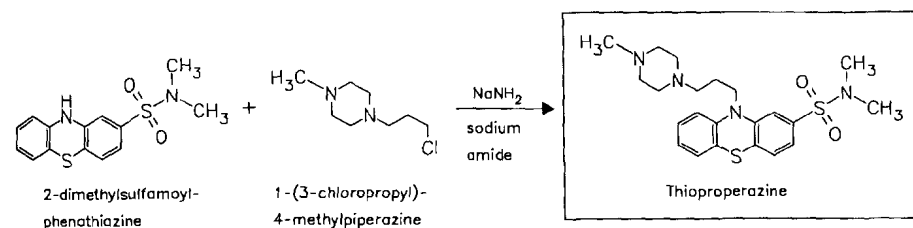
Use: neuroleptic, anti-emetic

RN: 316-81-4 MF: $C_{22}H_{30}N_4O_2S_2$ MW: 446.64 EINECS: 206-262-4LD₅₀: 70 mg/kg (M, i.v.); 830 mg/kg (M, p.o.);

25 mg/kg (R, i.v.)

CN: *N,N*-dimethyl-10-[3-(4-methyl-1-piperazinyl)propyl]-10H-phenothiazine-2-sulfonamide**dimesylate**RN: 2347-80-0 MF: $C_{22}H_{30}N_4O_2S_2 \cdot 2CH_4O_3S$ MW: 638.85 EINECS: 219-074-2LD₅₀: 70 mg/kg (M, i.v.); 800 mg/kg (M, p.o.);

45 mg/kg (R, i.v.); 750 mg/kg (R, p.o.)



Reference(s):

GB 814 512 (Rhône-Poulenc; appl. 15.7.1957; F-prior. 1.8.1956, 18.12.1956).
 DE 1 088 964 (Rhône-Poulenc; appl. 17.7.1957; F-prior. 1.8.1956, 18.12.1956).

Formulation(s): drops 1 mg/drop; tabl. 10 mg, 25 mg (as bismethanesulfonate)

Trade Name(s):

D:	Mayeptil (Rhodia Pharma); wfm	GB:	Majeptil (May & Baker); wfm	USA:	Vontil (Smith Kline & French); wfm
F:	Majeptil (Rhône-Poulenc Rorer Specia)	J:	Cephalmin (Shionogi)		

Thioridazine

ATC: N05AC02
 Use: neuroleptic

RN: 50-52-2 MF: C₂₁H₂₆N₂S₂ MW: 370.59 EINECS: 200-044-2

LD₅₀: 385 mg/kg (M, p.o.);
 71 mg/kg (R, i.v.); 995 mg/kg (R, p.o.)

CN: 10-[2-(1-methyl-2-piperidinyl)ethyl]-2-(methylthio)-10H-phenothiazine

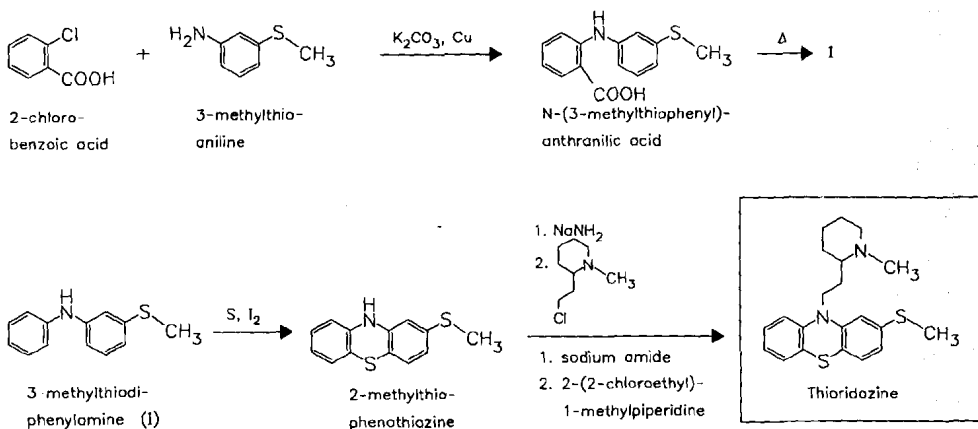
monohydrochloride

RN: 130-61-0 MF: C₂₁H₂₆N₂S₂ · HCl MW: 407.05 EINECS: 204-992-8

LD₅₀: 33 mg/kg (M, i.v.); 360 mg/kg (M, p.o.);
 71 mg/kg (R, i.v.); 1060 mg/kg (R, p.o.);
 160 mg/kg (dog, p.o.)

tartrate

RN: 1257-76-7 MF: C₂₁H₂₆N₂S₂ · xC₄H₆O₆ MW: unspecified

*Reference(s):*

US 3 239 514 (Sandoz; 8.3.1966; CH-prior. 19.4.1956).
 Bourquin, J.P. et al.: *Helv. Chim. Acta (HCACAV)* **41**, 1072 (1958).

Formulation(s): drg. 10 mg, 25 mg, 100 mg; f. c. tabl. 100 mg, 200 mg; s. r. tabl. 30 mg, 200 mg (as hydrochloride); USA: sol. 30 mg/ml (as free base); tabl. 10 mg, 15 mg, 25 mg, 50 mg, 100 mg, 150 mg, 200 mg (as hydrochloride)

Trade Name(s):

D:	Melleretten (ASTA Medica AWD)	Melleril (Novartis Pharma)	Thioridazine-neuraxpharm (neuraxpharm)
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F: Melleril (Sandoz)
GB: Melleril (Novartis)

I: Mellerette (Novartis)
Melleril (Novartis)

J: Melleril (Sandoz-Sankyo)
USA: Thioridazine HCl (Geneva)

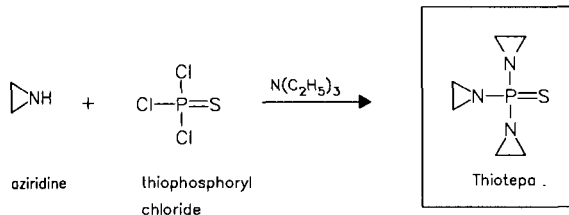
Thiotepa

ATC: L01AC01
Use: antineoplastic

RN: 52-24-4 MF: C₆H₁₂N₃PS MW: 189.22 EINECS: 200-135-7

LD₅₀: 14500 µg/kg (M, i.v.); 38 mg/kg (M, p.o.);
9400 µg/kg (R, i.v.)

CN: 1,1',1''-phosphinthioylidynetrisaziridine



Reference(s):

US 2 670 347 (American Cyanamid; 1954; prior. 1952).

Formulation(s): vial 15 mg

Trade Name(s):

D: Thiotepa "Lederle"
(Lederle)

GB: Thio-Tepa (Lederle); wfm

J: Tespamin (Sumitomo)

I: Onco-Tiotepa (Simes);

USA: Thioplex (Immunex)

F: Thiotépa Lederle (Lederle)

wfm

Tiabendazole

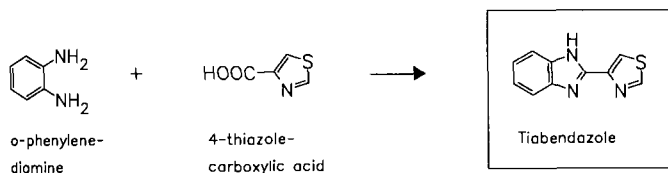
(Thiabendazole)

ATC: D01AC06; P02CA02
Use: anthelmintic

RN: 148-79-8 MF: C₁₀H₇N₃S MW: 201.25 EINECS: 205-725-8

LD₅₀: 1300 mg/kg (M, p.o.);
2080 mg/kg (R, p.o.)

CN: 2-(4-thiazolyl)-1H-benzimidazole



Reference(s):

US 3 017 415 (Merck & Co.; 16.1.1962; prior. 18.1.1960).

alternative methods:

US 3 262 939 (Merck & Co.; 26.7.1966; prior. 2.8.1961, 4.6.1965).

US 3 274 208 (Merck & Co.; 20.9.1966; prior. 18.7.1961, 17.1.1964, 30.8.1965).

use as fungicide:

US 3 370 957 (Merck & Co.; 27.2.1968; prior. 23.5.1963, 12.5.1964).

hypophosphite salt:

US 3 535 331 (Merck & Co.; 20.10.1970; appl. 26.7.1967).

lactate salt:

US 3 658 827 (Merck Sharp & Dohme; 25.4.1972; prior. 26.6.1967, 15.6.1970).

glycolate:

US 4 160 029 (Merck & Co.; 3.7.1979; NL-prior. 10.5.1976).

thiazole-4-carboxylic acid:

US 3 274 207 (Merck & Co.; 20.9.1966; appl. 2.10.1961).

Formulation(s): chewing tabl. 500 mg; susp. 500 mg/5 ml*Trade Name(s):*

D: Minzolum (Sharp & Dohme); wfm

GB: Mintezol (Merck Sharp & Dohme)

J: Mintezol (Banyu)

USA: Mintezol (Merck Sharp & Dohme)

I: Tiabendazolo (IFI)

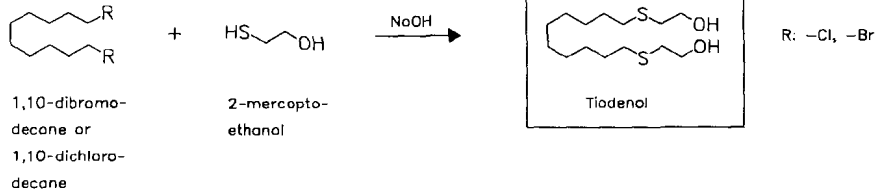
Tiadenol

ATC: C10AX03

Use: antihyperlipidemic

RN: 6964-20-1 MF: C₁₄H₃₀O₂S₂ MW: 294.52 EINECS: 230-165-6

CN: 2,2'-[1,10-decanediylbis(thio)]bis[ethanol]

*Reference(s):*

DOS 2 038 836 (Orsymonde; appl. 5.8.1970; GB-prior. 8.8.1969).

Formulation(s): tabl. 400 mg, 600 mg, 800 mg*Trade Name(s):*

F: Fonlipol (Lafon)

Tiabrenolo (NCSN)

I: Eulip (SIT)

Tiaden (Malesci)

Tiagabine

(ABT-569; NO-05-0328)

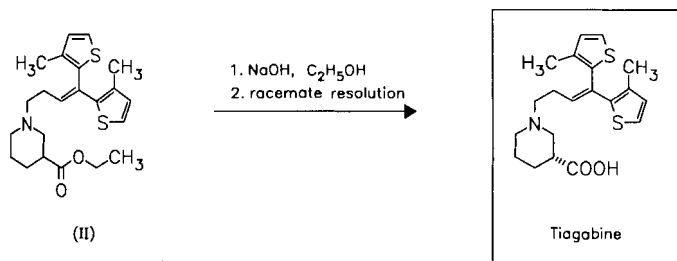
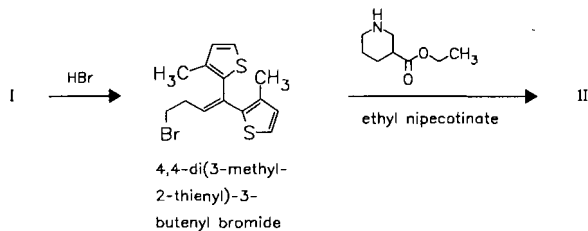
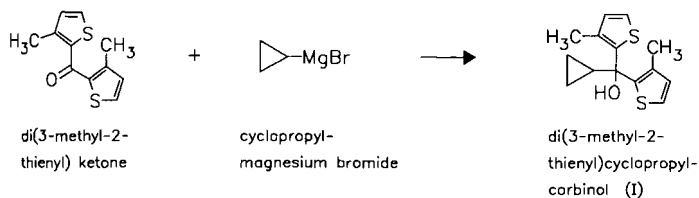
ATC: N03AG06

Use: anticonvulsant, GABA uptake inhibitor

RN: 115103-54-3 MF: C₂₀H₂₅NO₂S₂ MW: 375.56

CN: (R)-1-[4,4-bis(3-methyl-2-thienyl)-3-butenyl]-3-piperidinecarboxylic acid

hydrochlorideRN: 145821-59-6 MF: C₂₀H₂₅NO₂S₂ · HCl MW: 412.02**hydrochloride monohydrate**RN: 145821-57-4 MF: C₂₀H₂₅NO₂S₂ · HCl · H₂O MW: 430.03**S-enantiomer**RN: 115103-55-4 MF: C₂₀H₂₅NO₂S₂ MW: 375.56

S-enantiomer hydrochlorideRN: 145264-34-2 MF: $C_{20}H_{25}NO_2S_2 \cdot HCl$ MW: 412.02**racemate**RN: 127254-36-8 MF: $C_{20}H_{25}NO_2S_2$ MW: 375.56**Reference(s):**

WO 8 700 171 (Novo Industri; appl. 26.6.1986; DK-prior. 26.6.1985).

preparation of crystalline R-isomer:

WO 9 217 473 (Novo Nordisk; appl. 23.3.1992; DK-prior. 4.2.1991).

composition with improved stability:

WO 96 344 606 (Novo Nordisk; appl. 29.4.1996; DK-prior. 5.5.1995).

transdermal delivery system:

WO 9 531 976 (Novo Nordisk; appl. 17.5.1995; DK-prior. 20.5.1994).

slow release formulation:

WO 9 529 665 (Alza Corp.; appl. 14.4.1995; USA-prior. 28.4.1994).

Formulation(s): cps. 4 mg, 12 mg, 16 mg, 20 mg; tabl. 5 mg, 10 mg, 15 mg (as hydrochloride)**Trade Name(s):**

D: Gabitril (Novo Nordisk) F: Gabitril (Novo Nordisk) USA: Gabitril (Abbott)

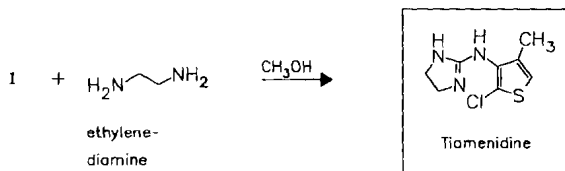
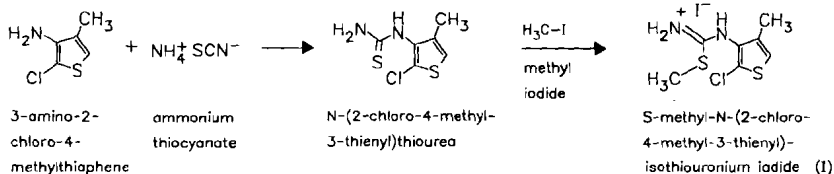
Tiamenidine

ATC: C02AC

Use: antihypertensive

RN: 31428-61-2 MF: C₈H₁₀ClN₃S MW: 215.71CN: *N*-(2-chloro-4-methyl-3-thienyl)-4,5-dihydro-1*H*-imidazol-2-amine**monohydrochloride**RN: 51274-83-0 MF: C₈H₁₀ClN₃S · HCl MW: 252.17 EINECS: 257-100-4LD₅₀: 45 mg/kg (M, i.v.); 400 mg/kg (M, p.o.); 170 mg/kg (M, s.c.);

40 mg/kg (R, i.v.)

**Reference(s):**

DE 1 941 761 (Hoechst AG; appl. 16.8.1969).

US 3 758 476 (Hoechst AG; 11.9.1973; D-prior. 16.8.1969).

Formulation(s): tabl. 0.5 mg, 1 mg (as hydrochloride)**Trade Name(s):**

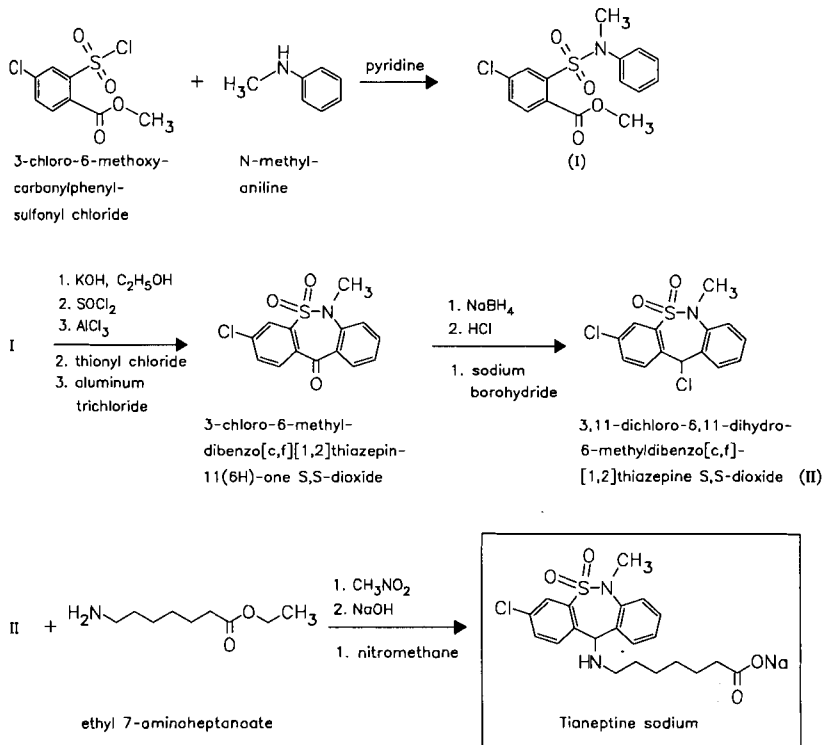
D: Sundralen (Delalande; 1988)

Tianeptine sodium

ATC: N06AX14

Use: tricyclic antidepressant

RN: 30123-17-2 MF: C₂₁H₂₄ClN₂NaO₄S MW: 458.94 EINECS: 250-059-3LD₅₀: 450 mg/kg (M, i.p.); 900 mg/kg (M, p.o.)CN: 7-[(3-chloro-6,11-dihydro-6-methyl-5,5-dioxidodibenzo[*c,f*][1,2]thiazepin-11-yl)amino]heptanoic acid monosodium salt**free acid**RN: 66981-73-5 MF: C₂₁H₂₃ClN₂O₄S MW: 436.96

**Reference(s):**

DOS 2 011 806 (Science Union et Cie.; appl. 12.3.1970; GB-prior. 27.3.1969).
 DE 2 065 635 (Science Union et Cie.; appl. 12.3.1970; GB-prior. 27.3.1969).
 US 3 758 528 (Science Union et Cie.; 11.9.1973; appl. 13.3.1970; GB-prior. 27.3.1969).
 DE 2 065 636 (Science Union et Cie.; appl. 12.3.1970; GB-prior. 27.3.1969).
 US 3 821 249 (Science Union et Cie.; 28.6.1974; appl. 30.10.1972).

synthesis of 3-chloro-6-methyldibenzo[c,f][1,2]thiazepin-11(6H)-one S,S-dioxide:
 GB 1 179 109 (Science Union et Cie.; appl. 19.12.1966).

medical use for treatment of stress:

FR 2 635 461 (ADIR; appl. 18.8.1988).

Formulation(s): tabl. 12.5 mg

Trade Name(s):

F: Stablon (Ardix; 1988)

Tiapride

ATC: N05AL03

Use: anti-emetic, neuroleptic,
antidyskinetic

RN: 51012-32-9 MF: C₁₅H₂₄N₂O₄S MW: 328.43 EINECS: 256-907-9

CN: N-[2-(diethylamino)ethyl]-2-methoxy-5-(methylsulfonyl)benzamide

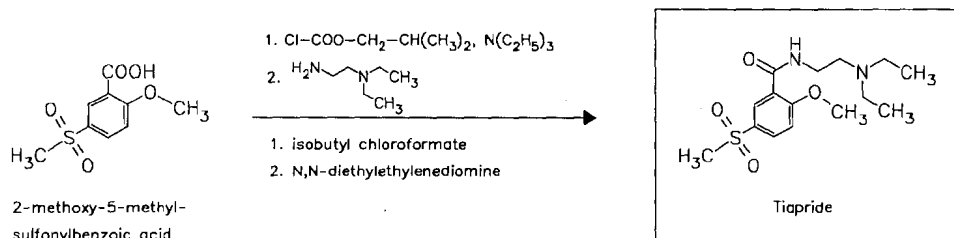
monohydrochloride

RN: 51012-33-0 MF: C₁₅H₂₄N₂O₄S · HCl MW: 364.89 EINECS: 256-908-4

LD₅₀: 189 mg/kg (M, i.v.); 1340 mg/kg (M, p.o.);

254 mg/kg (R, i.v.); 4840 mg/kg (R, p.o.);

240 mg/kg (dog, p.o.)

**Reference(s):**

DOS 2 327 192 (Soc. d'Etudes Scientif. et Industrielle de l'Ile-de-France; appl. 28.5.1973; F-prior. 1.6.1972, 12.6.1972, 3.4.1973).

DOS 2 327 193 (Soc. d'Etudes Scientif. et Industrielle de l'Ile-de-France; appl. 28.5.1973; F-prior. 1.6.1972, 2.6.1972).

FR 2 188 601 (Soc. d'Etudes Scientif. et Industrielle de l'Ile-de-France; appl. 2.6.1972).

2-methoxy-5-methylsulfonylbenzoic acid:

US 3 342 826 (Soc. d'Etudes Scientif. et Industrielle d'Ile-de-France; 19.9.1967; appl. 13.1.1964).

Formulation(s): amp. 100 mg/2 ml; tabl. 100 mg (as hydrochloride)

Trade Name(s):

D: Tiapridex (Synthelabo; 1978)

Tiapridal (Synthelabo; 1977)

Luxoben (ASTA Medica)
Sereprile (Synthelabo)

F: Equilium (Fumouze)

I: Italprid (Teofarma)

J: Gramalil (Fujisawa)

Tiaprofenic acid

ATC: M01AE11

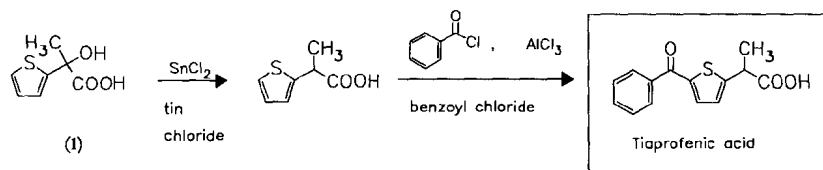
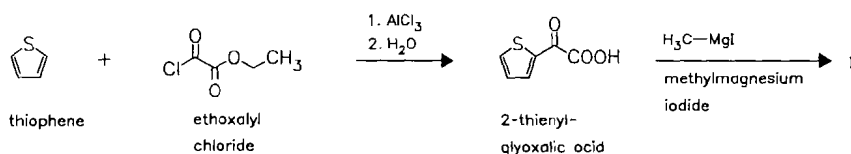
Use: anti-inflammatory

RN: 33005-95-7 MF: $\text{C}_{14}\text{H}_{12}\text{O}_3\text{S}$ MW: 260.31 EINECS: 251-329-3

LD₅₀: 690 mg/kg (M, p.o.);

181 mg/kg (R, p.o.)

CN: 5-benzoyl- α -methyl-2-thiopheneacetic acid

**Reference(s):**

DOS 2 055 264 (Roussel-Uclaf; appl. 10.11.1970; F-prior. 12.11.1969).

BE 758 741 (Roussel-Uclaf; appl. 10.5.1971; F-prior. 12.11.1969).

FR 2 112 111 (Roussel-Uclaf; appl. 4.11.1970).

US 4 159 986 (Roussel-Uclaf; 3.7.1979; prior. 25.2.1972).

calcium salt:

FR 2 268 522 (Roussel-Uclaf; appl. 12.11.1969).

Clémence, F. et al.: Eur. J. Med. Chem. (EJMCA5) **9**, 390 (1974).*salt with dibasic amino acids:*

ES 460 926 (Lab. Cusi; appl. 21.7.1977).

Formulation(s): s. r. cps. 300 mg; suppos. 300 mg; tabl. 200 mg, 300 mg*Trade Name(s):*

D: Surgam (Albert-Roussel, Hoechst; 1981)	GB: Surgam (Florizel; 1982)	J: Tioprofen (Scharper); wfm Surgam (Roussel)
F: Surgam (Roussel; 1975)	I: Surgamyl (Roussel-Maestretti); wfm	

Tiaramide

ATC: M01; N02

Use: anti-inflammatory, analgesic, antipyretic

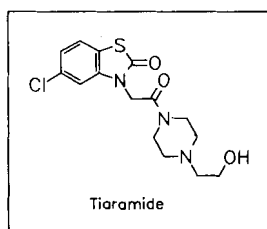
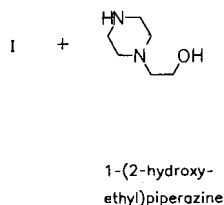
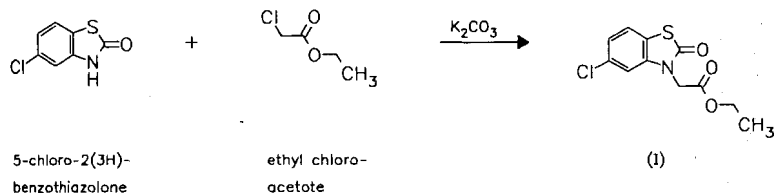
RN: 32527-55-2 MF: C₁₅H₁₈ClN₃O₃S MW: 355.85 EINECS: 251-083-7LD₅₀: 564 mg/kg (M, p.o.);

3600 mg/kg (R, p.o.)

CN: 4-[[5-chloro-2-oxo-3(2*H*)-benzothiazolyl]acetyl]-1-piperazineethanol**monohydrochloride**RN: 35941-71-0 MF: C₁₅H₁₈ClN₃O₃S · HCl MW: 392.31 EINECS: 252-802-7LD₅₀: 178 mg/kg (M, i.v.); 564 mg/kg (M, p.o.);

203 mg/kg (R, i.v.); 2300 mg/kg (R, p.o.);

157 mg/kg (dog, i.v.); >4 g/kg (dog, p.o.)

*Reference(s):*

DE 1 770 571 (Fujisawa; prior. 5.6.1968).

US 3 661 921 (Fujisawa; 9.5.1972; J-prior. 5.6.1967, 30.9.1967).

US 3 755 327 (Fujisawa; 28.8.1973; J-prior. 5.6.1967).

Formulation(s): tabl. 50 mg, 100 mg (as hydrochloride)

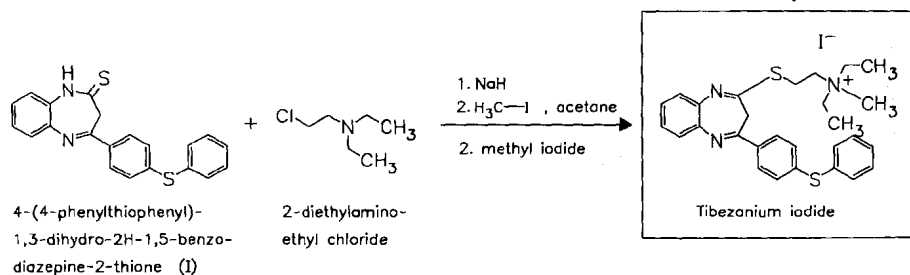
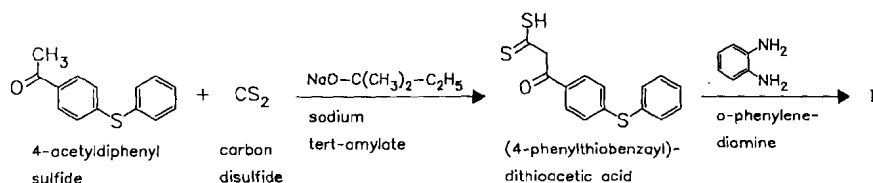
Trade Name(s):

I: Ventaval (Crinos); wfm J: Solantal (Fujisawa; 1975)

Tibezonium iodide

(Tiabenzazoniumjodid)

ATC: A01AB15

Use: chemotherapeutic, antiseptic,
antibacterialRN: 54663-47-7 MF: C₂₈H₃₂IN₃S₂ MW: 601.62 EINECS: 259-284-1LD₅₀: 9 g/kg (M, p.o.);
>10 g/kg (R, p.o.)CN: *N,N*-diethyl-*N*-methyl-2-[[4-[4-(phenylthio)phenyl]-3*H*-1,5-benzodiazepin-2-yl]thio]ethanaminium
iodide

Reference(s):

US 3 933 793 (Recordati; 20.1.1976; I-prior. 19.10.1971, 18.5.1972).

GB 1 412 008 (Recordati; valid from 11.10.1972; I-prior. 19.10.1971, 18.5.1972).

GB 1 412 009 (Recordati; valid from 11.10.1972; I-prior. 19.10.1971, 18.5.1972), (addition to GB 1 412 008).

Formulation(s): collutorium 0.05 %; lozenge 5 mg

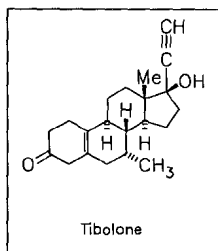
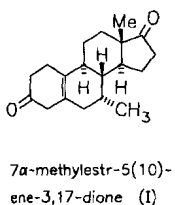
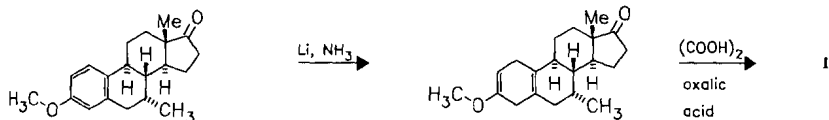
Trade Name(s):

I: Antoral (Recordati)

Tibolone

ATC: G03DC05

Use: anabolic, immunomodulating steroid,
treatment of postmenopausal
vasomotor symptomsRN: 5630-53-5 MF: C₂₁H₂₈O₂ MW: 312.45 EINECS: 227-069-1CN: (7 α ,17 α)-17-hydroxy-7-methyl-19-norpregn-5(10)-en-20-yn-3-one



Reference(s):

DOS 1 618 747 (Organon; appl. 23.6.1967; NL-prior. 24.6.1966).
US 3 340 279 (Organon; 5.9.1967; NL-prior. 16.6.1964).
US 3 475 465 (Organon; 28.10.1969; NL-prior. 24.6.1966).

alternative synthesis:

DE 1 543 273 (Organon; appl. 15.6.1965; NL-prior. 16.6.1964).

synthesis of 7 α -methylestr-5(10)-ene-3,17-dione:

Anner, G. et al.: *Chimia (CHIMAD)* **20**, 434 (1966).

medical use as immunomodulator:

EP 159 739 (Akzo; appl. 20.3.1985; NL-prior. 21.3.1984).

combination with fluoride salts:

WO 8 909 058 (Akzo; appl. 17.3.1989; NL-prior. 25.3.1988).

Formulation(s): tabl 2.5 mg

Trade Name(s):

GB: Livial (Organon; 1991) I: Livial (Organon)

Ticarcillin

ATC: J01CA13

Use: antibiotic, antibacterial

RN: 34787-01-4 MF: C₁₅H₁₆N₂O₆S₂ MW: 384.43 EINECS: 252-213-5

CN: [2S-(2 α ,5 α ,6 β (S*))]-6-[(carboxy-3-thienylacetyl)amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid

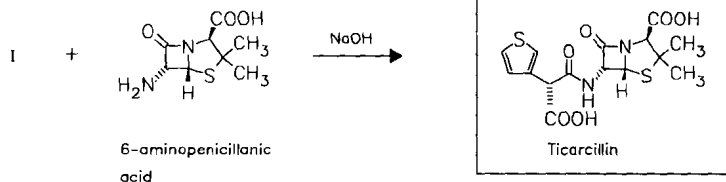
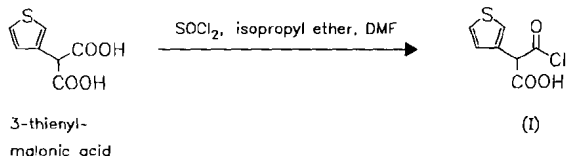
disodium salt

RN: 29457-07-6 MF: C₁₅H₁₄N₂Na₂O₆S₂ MW: 428.40 EINECS: 249-642-5

LD₅₀: 5200 mg/kg (M, i.v.); >16 g/kg (M, p.o.);

5350 mg/kg (R, i.v.); 16 g/kg (R, p.o.);

>4 g/kg (dog, i.v.)

**Reference(s):**

DE 1 295 558 (Beecham; appl. 23.4.1964; GB-prior. 23.4.1963).
 US 3 282 926 (Beecham; 1.11.1966; GB-prior. 23.4.1963).
 GB 1 004 670 (Beecham; appl. 23.4.1963; valid from 20.4.1964).
 US 3 492 291 (Beecham; 27.1.1970; prior. 17.4.1964, 3.5.1966).
 GB 1 197 973 (Beecham; appl. 18.4.1967; valid from 18.4.1968).
 DAS 2 244 556 (Pfizer; appl. 11.9.1972; USA-prior. 1.10.1971).

ticarcillin α -benzyl ester *from the monobenzyl ester of 3-thienylmalonic acid (can be hydrogenated on Pd-C to ticarcillin):*

DAS 1 670 222 (Beecham; appl. 12.5.1967; GB-prior. 13.5.1966).
 GB 1 125 557 (Beecham; appl. 13.5.1966; valid from 9.5.1967).

acylation via 3-thienylmalonic acid monophenyl ester monochloride:

GB 1 133 886 (Beecham; appl. 5.11.1966, 27.1.1967; valid from 30.10.1967).

alternative method (via 2,2-dimethyl-5-(3-thienyl)-1,3-dioxan-4,6-dione):

US 4 066 664 (Recherche et Industrie Thérapeutiques, Belg.; 3.1.1978; prior. 8.4.1975, 27.9.1976).

new method for 3-thienylmalonic acid (resp. 3-thienylacetic acid) based on 2,5-dichlorothiophene:

DOS 2 157 540 (Beecham; appl. 19.11.1971; GB-prior. 25.11.1970).

synthesis of 3-thienylmalonic acid monoalkyl esters by carboxylation of 3-thienylacetic acid esters:

GB 1 426 557 (Beecham; appl. 5.10.1972; valid from 10.9.1973).
 DOS 2 348 473 (Beecham; appl. 26.9.1973; GB-prior. 5.10.1972).

from aliphatic precursors:

EP-appl. 633 (Beecham; appl. 12.7.1978; GB-prior. 23.7.1977).

from 3-halothiophenes:

GB 2 009 158 (Oce-Andeno; appl. 6.12.1977).

Formulation(s): amp. 1.5 g, 3 g, 5 g; vial 1 g, 3 g, 6 g

Trade Name(s):

D:	Betabactyl (SmithKline Beecham)-comb.	GB:	Ticar (Beecham) Timentin (SmithKline Beecham)-comb.	USA:	Ticar (SmithKline Beecham) Timentin (SmithKline Beecham)-comb.
F:	Claventin (SmithKline Beecham)-comb. Ticarpen (SmithKline Beecham)	J:	Monapen (FujiSawa) Ticarpenin (Beecham-Meiji Seika)		

Ticlopidine

ATC: B01AC05

Use: platelet aggregation inhibitor

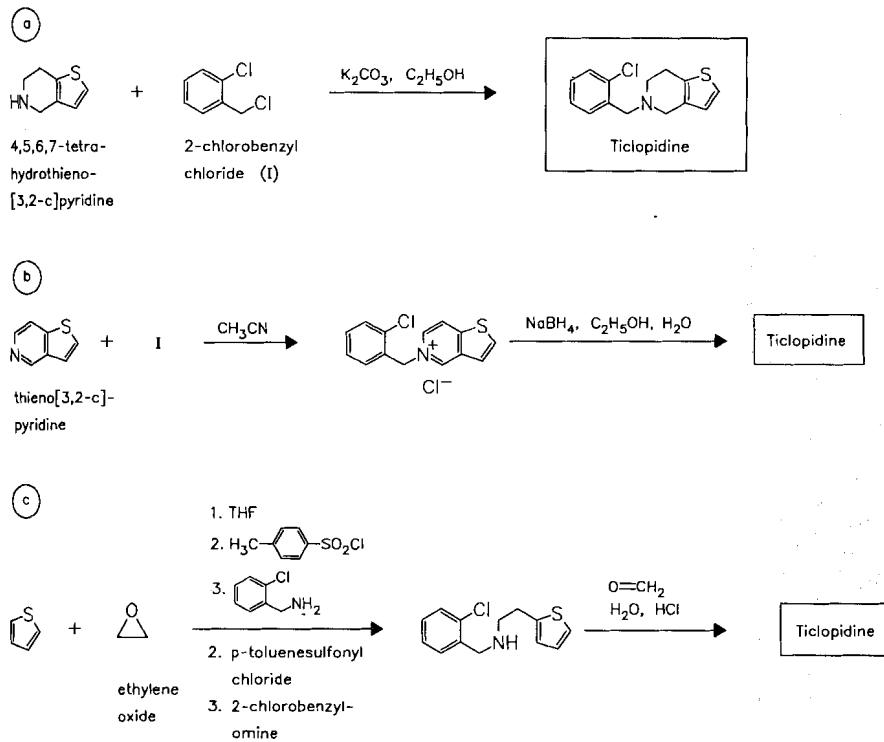
RN: 55142-85-3 MF: C₁₄H₁₄ClNS MW: 263.79 EINECS: 259-498-5LD₅₀: 88 mg/kg (M, i.v.); 600 mg/kg (M, p.o.);

70 mg/kg (R, i.v.); 1780 mg/kg (R, p.o.)

CN: 5-[(2-chlorophenyl)methyl]-4,5,6,7-tetrahydrothieno[3,2-c]pyridine

hydrochlorideRN: 53885-35-1 MF: C₁₄H₁₄ClNS · HCl MW: 300.25 EINECS: 258-837-4LD₅₀: 55 mg/kg (M, i.v.); 600 mg/kg (M, p.o.);

70 mg/kg (R, i.v.); 1780 mg/kg (R, p.o.)

**Reference(s):**

DE 2 404 308 (Centre Etud. Ind. Pharm.; prior. 30.1.1974).

US 4 051 141 (Centre Etud. Ind. Pharm.; 27.9.1977; F-prior. 1.2.1973).

a,b Maifrand, J.P.; Eloy, F.; Eur. J. Med. Chem. (EJMCA5) **9**, 483 (1974).**starting material:**

DOS 2 530 516 (Parcor; appl. 9.7.1975; F-prior. 16.7.1974).

c US 4 127 580 (Parcor; 28.11.1978; F-prior. 30.7.1975, 7.2.1975).**alternative syntheses:**

US 4 174 448 (Parcor; 13.11.1979; F-prior. 6.6.1978).

use as cytostatic:

BE 873 326 (Sopharma; appl. 5.1.1979; J-prior. (Daiichi Seiyaku) 6.1.1978).

ticlopidine-aspirin-combination:

US 4 080 447 (Cent. Etud. Ind. Pharm.; 21.3.1978; F-prior. 29.3.1976).

use as antithrombotic:

JP 54 086 626 (Sopharma; appl. 21.12.1977).

JP 54 105 236 (Sopharma; appl. 6.2.1978).

Formulation(s): cps. 250 mg; drg. 250 mg; f. c. tabl. 250 mg (as hydrochloride); tabl. 250 mg

Trade Name(s):

D:	Tiklyd (Sanofi Winthrop; 1980)	Clox (Caber)	Ticlopidine Dorom (Dorom)
F:	Ticlid (Sanofi Winthrop; 1978)	Fluilast (Boniscontro & Gazzone)	Ticloproge (Proge Farm)
I:	Anagregal (Gentili)	Klodin (Savio IBN)	Tiklid (Sanofi Winthrop)
	Antigreg (Piam)	Opteron (Therabel Pharma)	J: Panaldin (Daiichi)
	Aplaket (Rottapharm)	Parsilid (Crinos)	USA: Ticlid (Roche)
		Ticlodone (Sigma-Tau)	

Tiemonium iodide

ATC: A03AB17

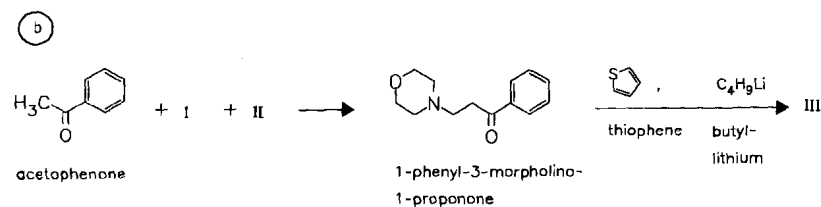
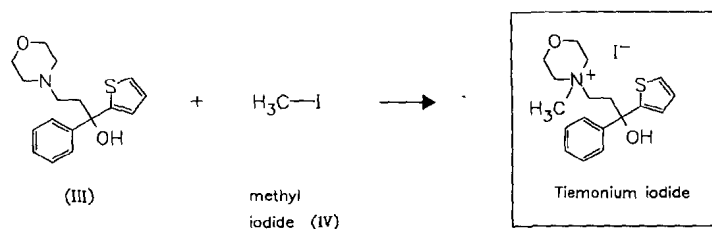
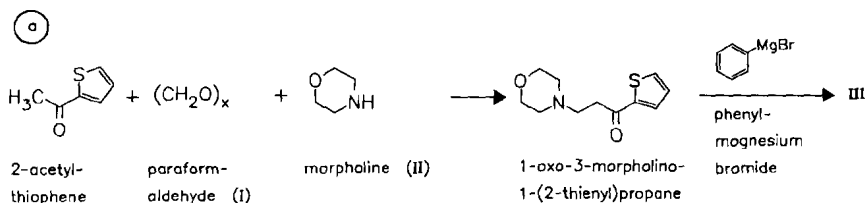
Use: antispasmodic, analgesic, anticholinergic

RN: 144-12-7 MF: C₁₈H₂₄INO₂S MW: 445.37 EINECS: 205-616-5

LD₅₀: 30 mg/kg (M, i.v.); 1800 mg/kg (M, p.o.);

30 mg/kg (R, i.v.); 2295 mg/kg (R, p.o.)

CN: 4-[3-hydroxy-3-phenyl-3-(2-thienyl)propyl]-4-methylmorpholinium iodide



Reference(s):

- a GB 953 386 (Mauvernay; appl. 3.3.1961; F-prior. 17.8.1960).
FR-M 387 (Mauvernay; appl. 17.8.1960; prior. 4.3.1960).
b DOS 2 609 923 (Ravensberg; appl. 10.3.1976).

Formulation(s): syrup 0.2 %; tabl. 5 mg as combination preparation

Trade Name(s):

D:	Coffalon (Stark, Konstanz)- comb.	I:	Viscéralgine (Riom) combination preparations	J:	Ottimal (ICT-Lodi); wfm Visceralgina (Lirca); wfm Visceralgina (SIT); wfm Visceralgine (Nippon Zoki)
F:	Colchimax (Houdé)-comb. with colchicine		Ottimal (Fardeco; as methyl sulfate); wfm		

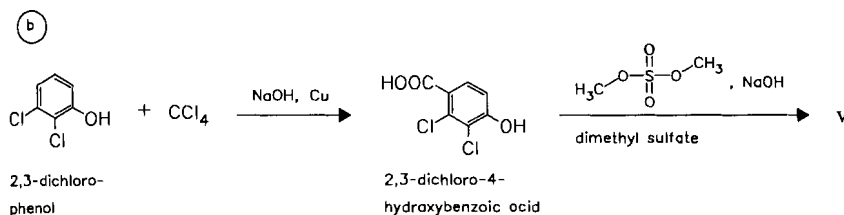
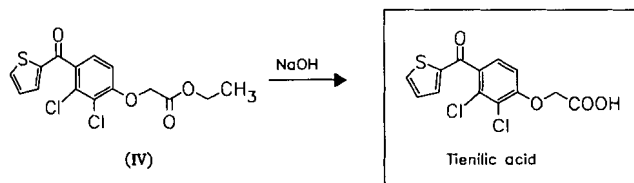
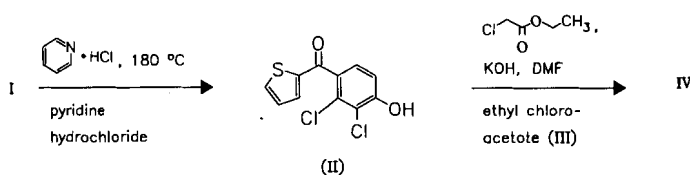
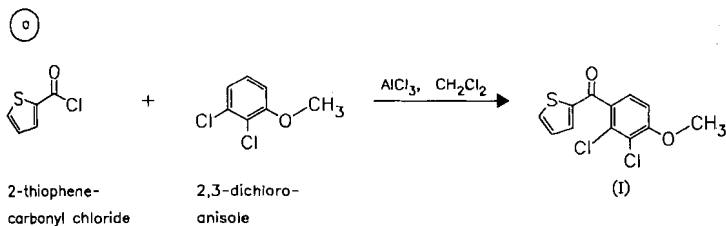
Tienilic acid

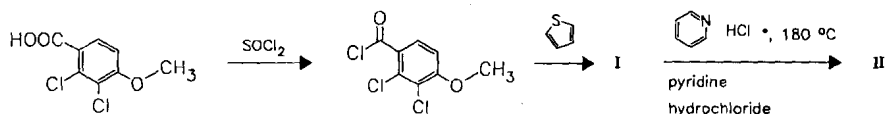
ATC: C03CC02

Use: diuretic, uricosuric agent

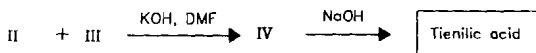
RN: 40180-04-9 MF: C₁₃H₈Cl₂O₄S MW: 331.18 EINECS: 254-826-3LD₅₀: 225 mg/kg (M, i.v.); 1275 mg/kg (M, p.o.)

CN: [2,3-dichloro-4-(2-thienylcarbonyl)phenoxy]acetic acid





2,3-dichloro-4-methoxybenzoic acid (V)



Reference(s):

- a DE 2 048 372 (CERPHA; appl. 1.10.1970; F-prior. 10.10.1969).
 US 3 758 506 (CERPHA; 11.9.1973; F-prior. 10.10.1969).
 US 4 107 179 (Smith Kline; 15.8.1978; prior. 22.8.1977).
 Thuillier, G. et al.: Eur. J. Med. Chem. (EJMCA5) **9**, 625 (1974).
new method for 2,3-dichloroanisole:
 FR-appl. 2 363 539 (Albert Rolland; appl. 31.8.1976).
- b DOS 2 743 469 (Smith Kline; appl. 27.9.1977; USA-prior. 4.10.1976).
 GB 1 545 639 (Smith Kline; appl. 26.9.1977; USA-prior. 4.10.1976).

acylation of thiophene with 4-carboxy-2,3-dichlorophenoxyacetic acid ethyl ester in presence of polyphosphoric acid:

BE 858 848 (Albert Rolland; appl. 19.9.1977; F-prior. 21.9.1976).

alternative syntheses:

FR 2 407 925 (Smith Kline; appl. 27.9.1978; USA-prior. 2.11.1977).
 US 4 166 061 (Smith Kline; 28.8.1979; appl. 2.11.1977).

use as antihyperlipidemic:

US 3 969 508 (Smith Kline Corp.; 13.7.1976; appl. 27.11.1974).

Formulation(s): tabl. 250 mg

Trade Name(s):

F: Diflurex (Anphar); wfm

Tilidine

(Tilidate)

ATC: N02AX01

Use: analgesic, narcotic

RN: 51931-66-9 MF: C₁₇H₂₃NO₂ MW: 273.38 EINECS: 243-774-7

CN: *trans*-2-(dimethylamino)-1-phenyl-3-cyclohexene-1-carboxylic acid ethyl ester

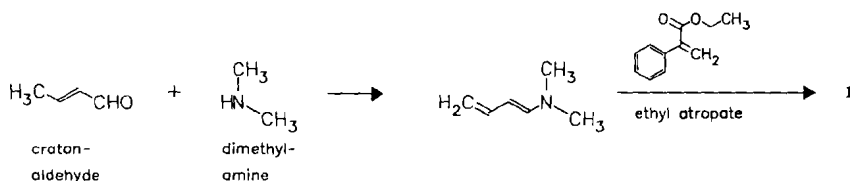
hydrochloride

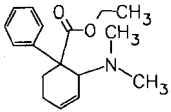
RN: 27107-79-5 MF: C₁₇H₂₃NO₂ · HCl MW: 309.84 EINECS: 248-226-0

LD₅₀: 52 mg/kg (M, i.v.); 437 mg/kg (M, p.o.);

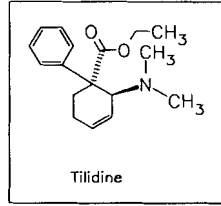
74 mg/kg (R, i.v.); 418 mg/kg (R, p.o.);

500 mg/kg (dog, p.o.)





"cis,trans-tilidine" (I)

separation of isomers via $ZnCl_2$ complexes

Tilidine

Reference(s):

- DE 1 518 959 (Gödecke; appl. 19.11.1965).
 DE 1 618 476 (Gödecke; appl. 3.6.1967).
 DE 1 618 482 (Gödecke; appl. 23.6.1967).
 DE 1 768 704 (Gödecke; appl. 21.6.1968).
 DAS 1 793 571 (Gödecke; appl. 19.11.1965).
 DAS 1 907 909 (Gödecke; appl. 17.2.1969).
 DOS 1 907 911 (Gödecke; appl. 17.2.1969).
 DE 1 923 620 (Gödecke; appl. 8.5.1969).
 US 3 557 126 (Warner-Lambert; 19.1.1971; D-prior. 19.11.1965, 8.6.1967, 23.6.1967, 21.6.1968, 17.2.1969).
 Satzinger, G.: Justus Liebigs Ann. Chem. (JLACBF) **728**, 64 (1962).

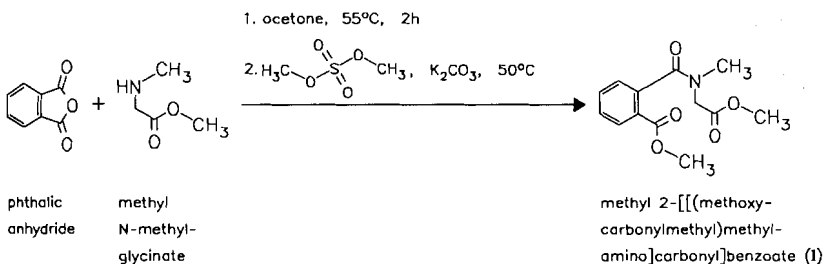
Formulation(s): cps. 50 mg; inj. sol. 100 mg; sol./drops 50 mg/0.72 ml; suppos. 75 mg (as hydrochloride in comb. with naloxone)

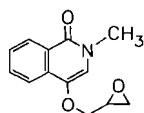
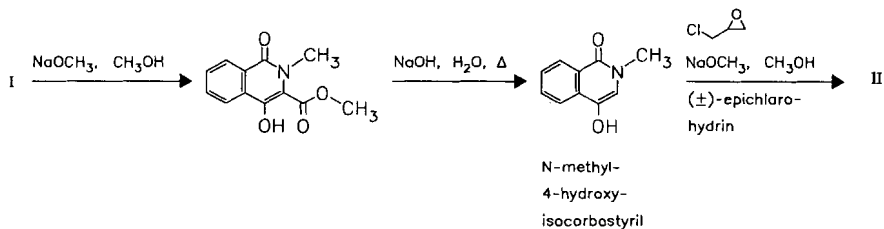
Trade Name(s):

D:	Findol (Mundipharma)- comb. Grüntin (Grünenthal)- comb. Tilidalor (Hexal)-comb.	Tiligetic-saar (Azupharma)-comb. TIW-Puren (Isis Puren)- comb. Valomerck (Merck Generika)-comb.	I:	Valoron N (Gödecke)- comb. with naloxone Analgesic (Isom); wfm Lucayan (Corvi); wfm
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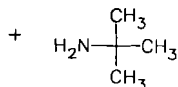
Tilisolol hydrochloride

(N-696)

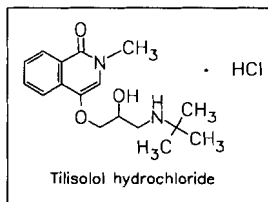
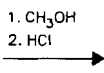
Use: antihypertensive and antiangina, β -
adrenergic blockerRN: 155346-82-0 MF: $C_{17}H_{24}N_2O_3 \cdot HCl$ MW: 340.85CN: (\pm)-4-[3-[(1,1-Dimethylethyl)amino]-2-hydroxypropoxy]-2-methyl-1(2H)-isoquinolinone hydrochloride**(\pm)-base**RN: 85136-71-6 MF: $C_{17}H_{24}N_2O_3$ MW: 304.39



4-(2,3-epoxypropyl)-
N-methylisocorbostyryl (III)



tert-butylamine



Reference(s):

GB 1 501 150 (Nisshin Flour Milling Co.; GB-prior. 11.7.1975)
DE 2 631 080 (Nisshin Flour Milling Co.; appl. 9.7.1976; GB-prior. 11.7.1975).

synthetic preparation of N-methyl-4-hydroxyisocorbostyryl:

Lombardino, J.G.: J. Heterocycl. Chem. (JHTCAD) 7 (5), 1057 (1970).

synthetic preparation of phthalic acid monoamide diethyl esters:

JP 57 054 152 (Nisshin Flour Milling Co.; J-prior. 18.9.1980).
JP 0 108 595 (Nisshin Flour Milling Co.; J-prior. 2.9.1988).

Formulation(s): tabl. 10 mg, 20 mg (as hydrochloride)

Trade Name(s):

J: Daim (Nisshin Flour Milling/Maruo) Selecal (Toyama)

Tiludronate disodium

(CI-TMBP; ME-3737; SR-41319; SR-41319B)

ATC: M05BA05

Use: calcium regulator, antiarthritic, treatment of osteoporosis, bisphosphonate bone resorption inhibitor

RN: 149845-07-8 MF: $C_7H_7ClNa_2O_6P_2S$ MW: 362.57

CN: [[(4-chlorophenyl)thio]methylene]bis [phosphonic acid] disodium salt

monohydrate

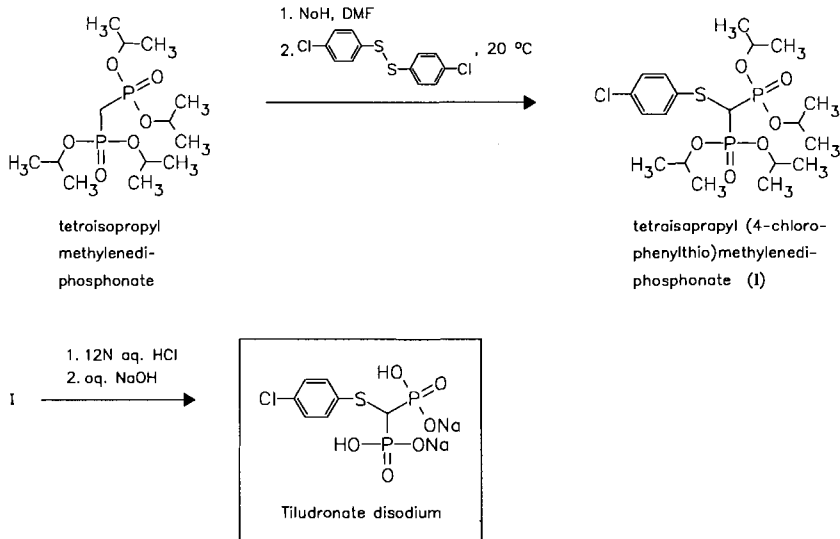
RN: 155453-09-1 MF: $C_7H_7ClNa_2O_6P_2S \cdot H_2O$ MW: 380.59

hemihydrate

RN: 155453-10-4 MF: $C_7H_7ClNa_2O_6P_2S \cdot 1/2H_2O$ MW: 743.16

free acid

RN: 89987-06-4 MF: $C_7H_9ClO_6P_2S$ MW: 318.61

**Reference(s):**

Ohnishi, H.; Nakamura, T.; Tsurukami, H.; Murakami, H.; Abe, M.; Barbier, A.: Bone Miner. (BOMIET) 25 (Suppl. 1), Abstr. 11 (1994).

synthesis:

EP 100 718 (Sanofi; appl. 25.7.1983; F-prior. 29.7.1982).

monohydrate of the disodium salt:

EP 582 515 (Elf Sanofi; appl. 3.8.1993; F-prior. 5.8.1992).

pharmaceutical preparations:

WO 9 617 616 (Sanofi; appl. 5.12.1995; F-prior. 6.12.1994).

WO 9 641 618 (Sanofi Winthrop; appl. 4.6.1996; USA-prior. 8.6.1995).

pharmaceutical compositions:

WO 9 530 421 (Ciba-Geigy AG; appl. 16.11.1995; GB-prior. 4.5.1994).

JP 05 105 632 (Meiji Seika Kaisha; appl. 27.4.1993; J-prior. 6.6.1991).

EP 336 851 (Sanofi; appl. 11.10.1989; F-prior. 7.4.1988).

combinations:**with estrogens for treatment of osteoporosis:**

WO 9 214 474 (Norwich Easton Pharmaceuticals; appl. 3.9.1992; USA-prior. 26.2.1991).

WO 9 414 455 (Merck & Co.; appl. 7.7.1994; USA-prior. 23.12.1992).

with parathyroid hormone for treatment of osteoporosis:

WO 9 607 418 (Procter and Gamble Company; appl. 14.3.1996; USA-prior. 9.9.1994).

WO 9 607 417 (Procter and Gamble Company; appl. 14.3.1996; USA-prior. 9.9.1994).

with growth hormone secretagogues for treatment of osteoporosis:

WO 9 511 029 (Merck & Co.; appl. 27.4.1995; USA-prior. 19.10.1993).

Formulation(s): tabl. 200 mg, 240 mg (as sodium salt hemihydrate)

Trade Name(s):

D: Skelid (Sanofi Winthrop)

F: Skelid (Sanofi Winthrop)

USA: Skelid (Sanofi)

Timepidium bromide

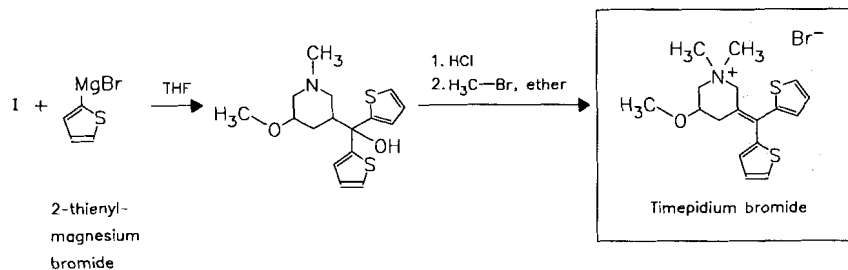
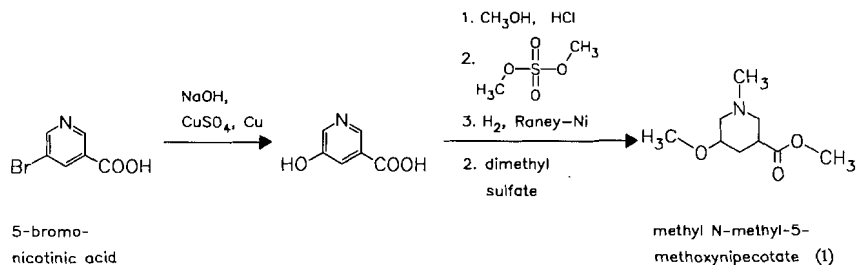
ATC: A03

Use: antispasmodic, anticholinergic

RN: 35035-05-3 MF: C₁₇H₂₂BrNOS₂ MW: 400.41LD₅₀: 12 mg/kg (M, i.v.); 713 mg/kg (M, p.o.);

7 mg/kg (R, i.v.); 1213 mg/kg (R, p.o.)

CN: 3-(di-2-thienylmethylene)-5-methoxy-1,1-dimethylpiperidinium bromide

**Reference(s):**

US 3 764 607 (Tanabe Seiyaku; 9.10.1973; appl. 3.6.1971; J-prior. 11.6.1970).

FR 2 100 750 (Tanabe Seiyaku; appl. 28.4.1972; J-prior. 11.6.1970).

DOS 2 128 808 (Tanabe Seiyaku; appl. 9.6.1971; J-prior. 11.6.1970).

Kawazu, M. et al.: J. Med. Chem. (JMCMAR) **15**, 914 (1972).**Formulation(s):** cps. 30 mg; vial 7.5 mg**Trade Name(s):**I: Mepidium (Recordati;
1987); wfmJ: Sesden (Tanabe Seiyaku;
1976)**Timiperone**

ATC: N05AK

Use: neuroleptic, antipsychotic

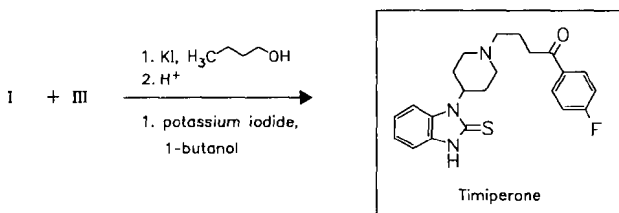
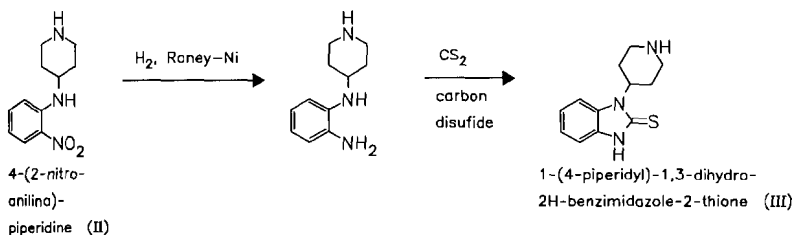
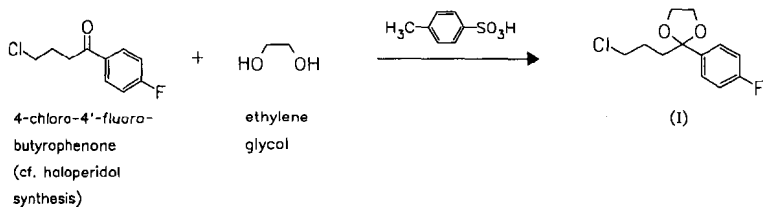
RN: 57648-21-2 MF: C₂₂H₂₄FN₃OS MW: 397.52 EINECS: 260-880-9LD₅₀: 500 mg/kg (M, p.o.);

>12.1 mg/kg (R, i.v.); 232 mg/kg (R, p.o.);

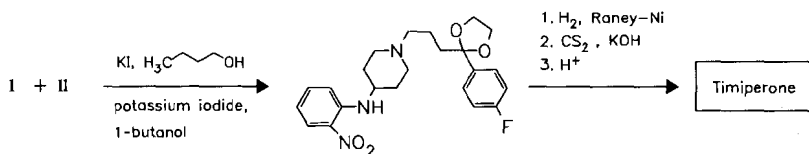
20 mg/kg (dog, i.v.); 85 mg/kg (dog, p.o.)

CN: 4-[4-(2,3-dihydro-2-thioxo-1H-benzimidazol-1-yl)-1-piperidiny]-1-(4-fluorophenyl)-1-butanone

(a)



(b)

**Reference(s):**

- DOS 2 526 393 (Daiichi Seiyaku; appl. 13.6.1975).
US 3 963 727 (Daiichi Seiyaku; 15.6.1976; J.-prior. 6.6.1975).
Sato, M. et al.: J. Med. Chem. (JMCMAR) **21**, 1116 (1978).

alternative syntheses:

- Sato, M.; Arimoto, M.: Chem. Pharm. Bull. (CPBTAL) **30**, 719 (1982).

Trade Name(s):

- J: Tolopelon (Daiichi Seiyaku; 1984)

Timolol

ATC: C07AA06; C07BA06; C07DA06; S01ED01

Use: beta blocking agent, antiglaucoma agent, antianginal, antiarrhythmic

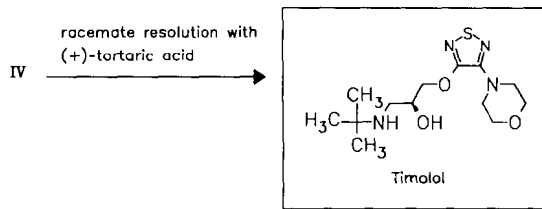
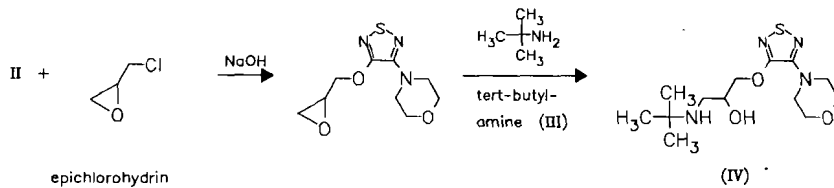
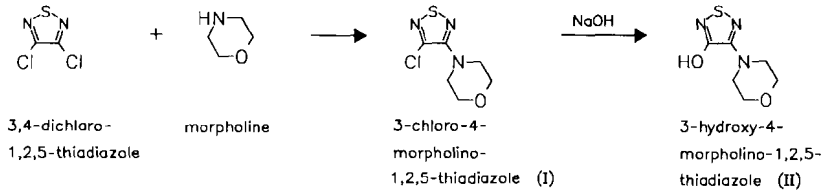
RN: 26839-75-8 MF: $\text{C}_{13}\text{H}_{24}\text{N}_4\text{O}_3\text{S}$ MW: 316.43 EINECS: 248-032-6

CN: (S)-1-[(1,1-dimethylethyl)amino]-3-[[4-(4-morpholinyl)-1,2,5-thiadiazol-3-yl]oxy]-2-propanol

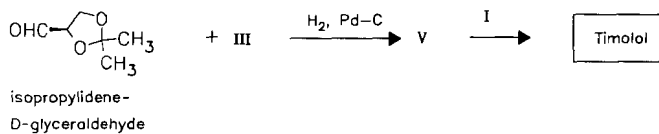
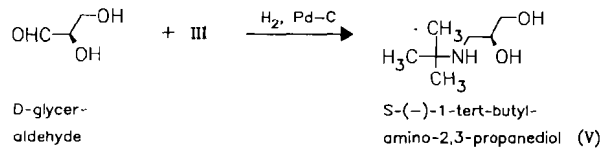
maleate

RN: 26921-17-5 MF: $C_{13}H_{24}N_4O_3S \cdot C_4H_4O_4$ MW: 432.50

a



b



Reference(s):

- US 3 619 370 (C. E. Frosst & Co.; 9.11.1971; appl. 21.4.1969).
 DOS 1 925 956 (C. E. Frosst & Co.; appl. 21.5.1969; USA-prior. 21.4.1969).
 DOS 1 925 954 (C. E. Frosst & Co.; appl. 21.5.1969; USA-prior. 21.4.1969).
 US 3 655 663 (C. E. Frosst & Co.; 11.4.1972; appl. 21.4.1969; prior. 22.5.1968).
 DAS 1 925 956 (C. E. Frosst & Co.; appl. 21.5.1969; USA-prior. 22.5.1968, 21.4.1969).
 DOS 1 925 955 (C. E. Frosst & Co.; appl. 21.5.1969; USA-prior. 21.4.1969).
 US 3 657 237 (C. E. Frosst & Co.; 18.4.1972; appl. 21.4.1969).
 US 3 718 647 (C. E. Frosst & Co.; 27.2.1973; USA-prior. 21.4.1969, 16.8.1971).
 US 3 729 469 (C. E. Frosst & Co.; 24.4.1973; prior. 22.5.1968, 21.4.1969, 9.9.1971).
 US 3 812 182 (C. E. Frosst & Co.; 21.5.1974; prior. 21.4.1969, 16.8.1971, 18.6.1973).

alternative synthesis:

US 4 145 550 (Merck Sharp & Dohme; 20.3.1979; prior. 7.8.1975, 8.2.1977, 21.9.1977).

O-acyl-derivatives:

US 3 891 639 (Merck Sharp & Dohme; 24.6.1975; appl. 19.4.1973).

US 4 011 217 (Merck Sharp & Dohme; 8.3.1977; appl. 26.2.1975; prior. 19.4.1973).

combinations with diuretics:

US 4 178 374 (Merck & Co.; 11.12.1979; prior. 16.8.1974, 3.3.1975, 21.10.1976, 10.4.1978).

GB 1 495 034 (Merck & Co.; appl. 11.8.1975; USA-prior. 16.8.1974, 3.3.1975).

medical use for treatment of glaucoma:

GB 1 524 405 (Merck & Co.; appl. 23.9.1976; USA-prior. 26.9.1975).

Formulation(s): eye drops 1 mg/ml, 2.5 mg/ml, 5 mg/ml, 1 mg/ml (as maleate); tabl. 5 mg, 10 mg, 20 mg (as maleate); tabl. 25 mg in comb. with hydrochlorothiazide

Trade Name(s):

<p>D: Arutimol (Chauvin ankerpharm) Chibro-Timoptol (Chibret; 1979) dispatim (CIBA Vision) duratimol (durachemie) Moducrin (Merck Sharp & Dohme; 1978)-comb. Timo-COMOD (Ursapharm) Timo EDO (Mann) Timohexal (Hexal) Timolol-ratiopharm (ratiopharm) Timomann (Mann) Tim-Ophthal (Winzer) Timosine (Chibret) Timo-Stulln (Pharma Stulln)</p> <p>F: Digaol (Leurquin) Gaoptol (Eurphta)</p>	<p>GB: Betim (Leo; as maleate) Blocadren (Merck Sharp & Dohme; 1974) Glaucol (Baker Norton) Moducrin (Morson)-comb. Prestim (Leo)-comb. Timoptol (Merck Sharp & Dohme)</p>	<p>I: Blocadren (Merck Sharp & Dohme) Cusimolol (Alcon) Droptimol (Farmigea) Equiton (Bruschettini)-comb. Oftimolo (Farmila) Timicon (Merck Sharp & Dohme)-comb. Timoptol (Merck Sharp & Dohme)</p> <p>J: Timoptol (Merck-Banyu)</p> <p>USA: Blocadren (Merck Sharp & Dohme; 1983) Timolide (Merck Sharp & Dohme; 1981) Timoptic (Merck Sharp & Dohme; 1978) generics</p>
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Timonacic

(Thiazolidincarbonsäure)

ATC: A05

Use: liver therapeutic, choleric

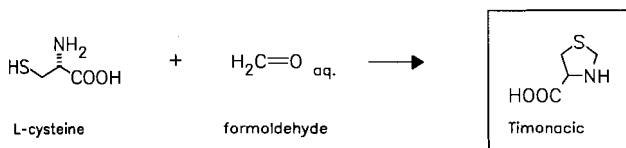
RN: 444-27-9 MF: C₄H₇NO₂S MW: 133.17 EINECS: 207-146-6

LD₅₀: 400 mg/kg (M, p.o.);
875 mg/kg (R, p.o.)

CN: 4-thiazolidinecarboxylic acid

arginine salt

RN: 57631-15-9 MF: C₄H₇NO₂S · C₆H₁₄N₄O₂ MW: 307.38



Reference(s):

FR-M 3 184 (Sogespar; appl. 4.2.1963).

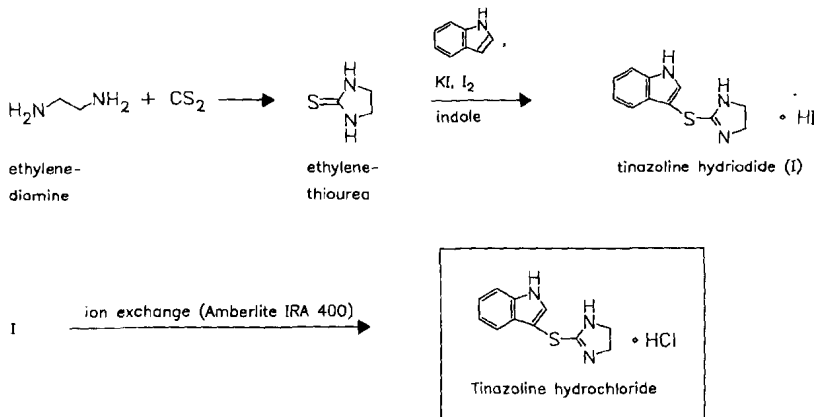
Formulation(s): drinking amp. 100 mg (as arginine salt); tabl. 400 mg*Trade Name(s):*

F:	Hépalidine (Riker-Mediarik)	Tiadilon (Dexo; as arginine salt)	Tiazolidin (Solvay Pharma)
	Thiobiline (Riker); wfm	I: Sulfile (Poli)	

Tinazoline hydrochloride

ATC: R01A

Use: vasoconstrictor, nasal decongestant

RN: 55107-60-3 MF: C₁₁H₁₁N₃S · HCl MW: 253.76CN: 3-[4,5-dihydro-1*H*-imidazol-2-yl)thio]-1*H*-indole monohydrochloride**tinazoline**RN: 62882-99-9 MF: C₁₁H₁₁N₃S MW: 217.30*Reference(s):*

DOS 2 427 207 (Ciba-Geigy; appl. 6.5.1974; CH-prior. 14.6.1973).

Nagarajan, N. et al.: Indian J. Chem. (IJOCAP) **20B**, 672 (1981).*synthesis of ethylenethiourea:*

DOS 2 703 312 (Bayer, appl. 27.1.1977).

Trade Name(s):

IN: Varsyl (Ciba-Geigy; 1988)

Timidazole

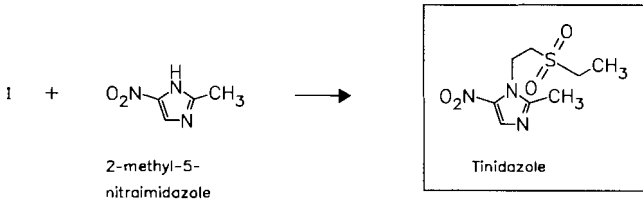
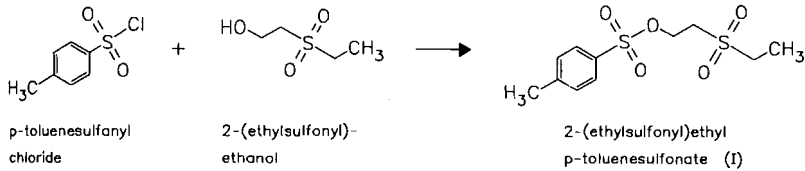
ATC: J01XD02; P01AB02

Use: chemotherapeutic (trichomonas), antiprotozoal, antiamebia

RN: 19387-91-8 MF: C₈H₁₃N₃O₄S MW: 247.28 EINECS: 243-014-4LD₅₀: >250 mg/kg (M, i.v.); 3200 mg/kg (M, p.o.);

>250 mg/kg (R, i.v.); 2710 mg/kg (R, p.o.)

CN: 1-[2-(ethylsulfonyl)ethyl]-2-methyl-5-nitro-1*H*-imidazole

**Reference(s):**

US 3 376 311 (Pfizer; 2.4.1968; appl. 5.8.1966; prior. 26.10.1964).
 DAS 1 745 780 (Pfizer; appl. 8.2.1967; USA-prior. 5.8.1966).
 Miller, M.W. et al.: J. Med. Chem. (JMCMAR) **13**, 849 (1970).

Formulation(s): f. c. tabl. 1 g

Trade Name(s):

D:	Simplotan (Pfizer; 1971)	I:	Fasigin N (Pfizer)	USA:	Fasigyn (Pfizer); wfm
F:	Fasigyne 500 (Pfizer)		Trimonase (Tosi-Novara)		Simplotan (Pfizer); wfm
GB:	Fasigyn (Pfizer; 1982)	J:	Fasigyn (Pfizer Taito)		

Tinoridine

ATC: M01; N02

Use: analgesic, anti-inflammatory

RN: 24237-54-5 MF: C₁₇H₂₀N₂O₂S MW: 316.43 EINECS: 246-102-0

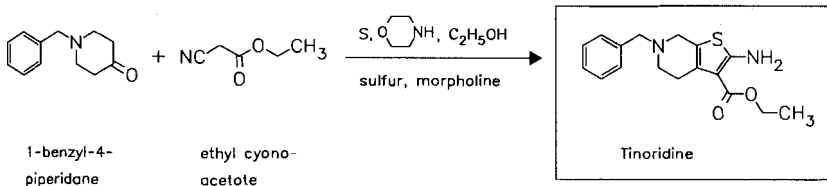
LD₅₀: 5.4 g/kg (M, p.o.);
 >10.2 g/kg (R, p.o.)

CN: 2-amino-4,5,6,7-tetrahydro-6-(phenylmethyl)thieno[2,3-c]pyridine-3-carboxylic acid ethyl ester

monohydrochloride

RN: 25913-34-2 MF: C₁₇H₂₀N₂O₂S · HCl MW: 352.89 EINECS: 247-342-9

LD₅₀: 1601 mg/kg (M, p.o.);
 1200 mg/kg (R, p.o.)

**Reference(s):**

DE 1 812 404 (Yoshitomi; appl. 3.12.1968; J-prior. 4.12.1967).
 US 3 563 997 (Yoshitomi; 16.2. 1971; J-prior. 4.12.1967).

Formulation(s): cps. 50 mg, 100 mg (as hydrochloride)

Trade Name(s):

J: Nonflamin (Yoshitomi)

Tiocarlide

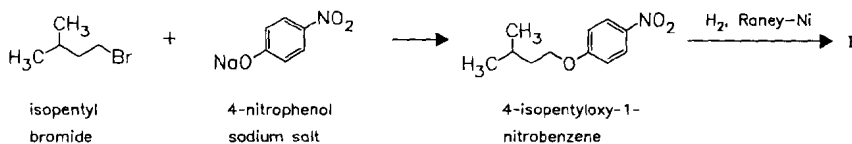
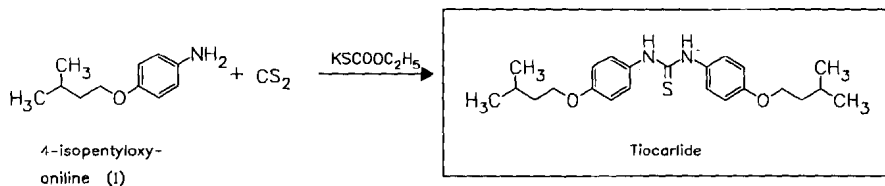
(Thiocarlide)

ATC: J04AD02

Use: tuberculostatic, leprostatic

RN: 910-86-1 MF: C₂₃H₃₂N₂O₂S MW: 400.59 EINECS: 213-006-5

CN: N,N'-bis[4-(3-methylbutoxy)phenyl]thiourea

H₂, Raney-Ni → I

Reference(s):

US 2 703 815 (Ciba; 1955; appl. 1951).

Formulation(s): tabl. 500 mg

Trade Name(s):

GB: Isoxyl (Continental Pharma); wfm

I: Isoxyl (Lusofarmaco); wfm

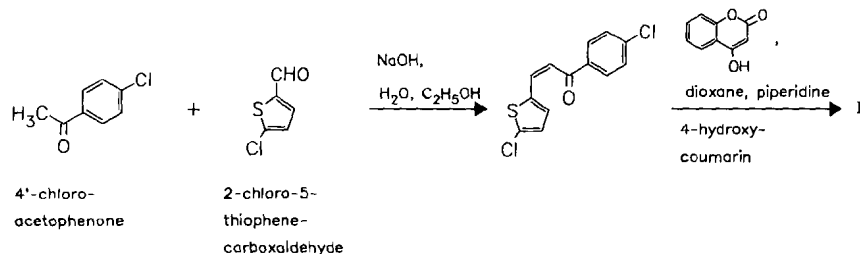
Tiocloमारol

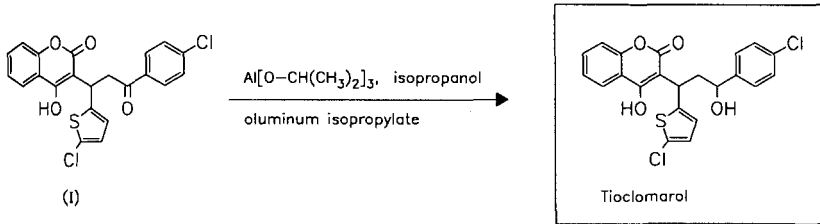
ATC: B01AA11

Use: anticoagulant

RN: 22619-35-8 MF: C₂₂H₁₆Cl₂O₄S MW: 447.34 EINECS: 245-132-1

CN: 3-[3-(4-chlorophenyl)-1-(5-chloro-2-thienyl)-3-hydroxypropyl]-4-hydroxy-2H-1-benzopyran-2-one



**Reference(s):**

ZA 6 707 267 (Lipha; appl. 7.8.1968; F-prior. 13.11.1967; 13.12.1966).

Formulation(s): tabl. 4 mg

Trade Name(s):

F: Apegmone (Lipha Santé)

Tioconazole

ATC: D01AC07; G01AF08

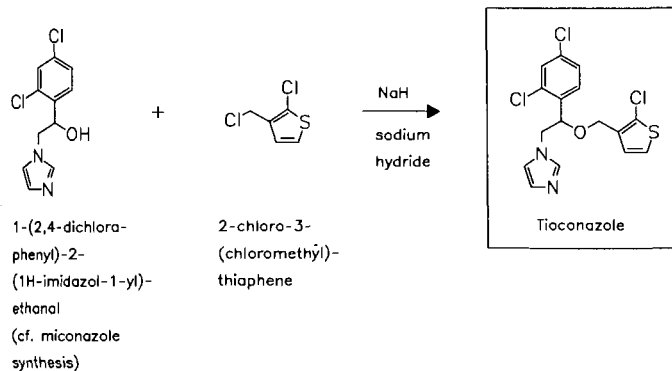
Use: antimycotic, topical antifungal

RN: 65899-73-2 MF: C₁₆H₁₃Cl₃N₂OS MW: 387.72 EINECS: 265-973-8

LD₅₀: 1870 mg/kg (M, p.o.);

770 mg/kg (R, p.o.)

CN: 1-[2-[(2-chloro-3-thienyl)methoxy]-2-(2,4-dichlorophenyl)ethyl]-1H-imidazole

**Reference(s):**

DE 2 619 381 (Pfizer; appl. 30.4.1976; GB-prior. 30.4.1975).

US 4 062 996 (Pfizer; 13.12.1977; appl. 30.4.1976; GB-prior. 30.4.1975).

Formulation(s): cream 10 mg/g; lotion 10 mg/g; ointment vaginal 6.5 %; powder 1 g/100g; spray 1 g/100g

Trade Name(s):

D: Mykonal (LAW)

Trosyl (Pfizer); wfm

F: Gyno-Trosyd (Pfizer; 1986)

Trosyd (Pfizer; 1986)

GB: Trosyl (Pfizer; 1988)

I: Trosyd (Roerig) (Irbi)

J: Trosy (Taito Pfizer; 1984)

USA: Vagistat (Bristol-Myers

Squibb)

Tioguanine

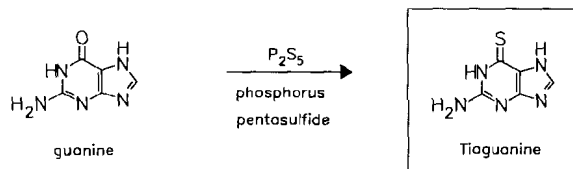
(Thioguanine)

ATC: L01BB03

Use: antineoplastic

RN: 154-42-7 MF: C₅H₅N₅S MW: 167.20 EINECS: 205-827-2LD₅₀: 160 mg/kg (M, p.o.)

CN: 2-amino-1,7-dihydro-6H-purin-6-thione

*Reference(s):*

US 2 697 709 (Burroughs Wellcome; 1954; GB-prior. 1951).

US 2 884 667 (Burroughs Wellcome; 1959; prior. 1955).

US 2 800 473 (Burroughs Wellcome; 1957; appl. 1955).

US 3 019 224 (Burroughs Wellcome; 1962; appl. 1955).

US 3 132 144 (Burroughs Wellcome; 5.5.1964; appl. 10.7.1959).

Elion, G.B.; Hitchings, G.H.: J. Am. Chem. Soc. (JACSAT) **77**, 1676 (1955).*Formulation(s):* tabl. 40 mg*Trade Name(s):*D: Thioguanin-Wellcome
(Glaxo Wellcome)I: Thioguanine Wellcome
(Glaxo Wellcome)USA: Thioguanine Tabloid
(Glaxo Wellcome)

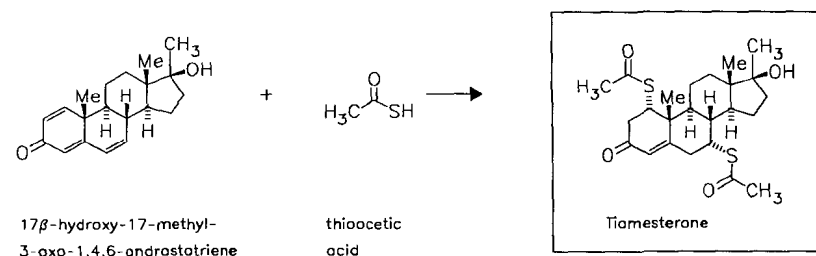
GB: Lanvis (Glaxo Wellcome)

Tiomesterone

(Thiomesterone)

ATC: A14

Use: anabolic, androgen

RN: 2205-73-4 MF: C₂₄H₃₄O₄S₂ MW: 450.66 EINECS: 218-614-4CN: (1 α ,7 α ,17 β)-1,7-bis(acetylthio)-17-hydroxy-17-methylandroster-4-en-3-one*Reference(s):*

US 3 087 942 (Merck AG; 30.4.1963; D-prior. 29.10.1960).

Kramer, J.M. et al.: Chem. Ber. (CHBEAM) **96**, 2803 (1963).*starting material:*

GB 854 343 (British Drug Houses; valid from 4.3.1959; prior. 13.3.1958).

Formulation(s): 15 mg, 30 mg

Trade Name(s):

D: Emdabol (Merck); wfm

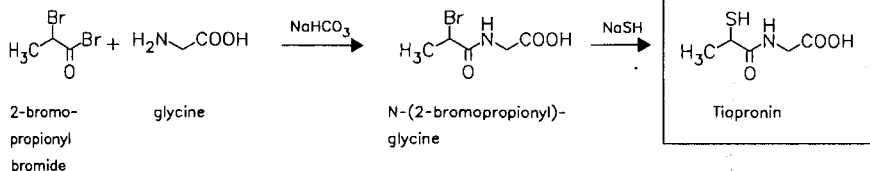
Gerantabol (Merck)-comb.;
wfm**Tiopronin**
(Mercamidum)

ATC: R05CB12

Use: detoxicant, liver therapeutic,
hepatoprotectant, mucolyticRN: 1953-02-2 MF: C₅H₉NO₃S MW: 163.20 EINECS: 217-778-4LD₅₀: 1733 mg/kg (M, i.v.); 2330 mg/kg (M, p.o.);

1300 mg/kg (R, p.o.)

CN: N-(2-mercapto-1-oxopropyl)glycine

monosodium saltRN: 2015-25-0 MF: C₅H₈NNaO₃S MW: 185.18LD₅₀: 2100 mg/kg (M, i.v.)**Reference(s):**

FR 1 491 204 (Santen; appl. 10.8.1962; J-prior. 2.11.1961).

FR-M 3 081 (Santen; appl. 22.10.1962; J-prior. 2.11.1961).

GB 1 023 003 (Santen; appl. 14.9.1962).

use as mucolytic agent:

GB 1 482 651 (Lab. Cassenne; appl. 16.9.1974; USA-prior. 14.9.1973).

US 3 857 951 (Lab. Cassenne; 31.12.1974; appl. 14.9.1973).

against nosotoxicosa:

US 3 897 480 (Santen; 29.7.1975; J-prior. 3.10.1972, 11.5.1973).

sodium salt:

DOS 2 924 231 (P. Gargani; appl. 15.6.1979; I-prior. 16.6.1978).

Formulation(s): amp. 100 mg, 250 mg; drg. 100 mg, 250 mg; gran. 150 mg, 350 mg; tabl. 100 mg**Trade Name(s):**

D: Captimer (Fresenius)

Thiola (Coop. Farm.)

USA: Thiola (Mission)

F: Acadione (Cassenne)

Thiosol (Coop. Farm.)

I: Mucolysin (Farmila)

J: Thiola (Santen)

Tiotixene

(Thiothixene)

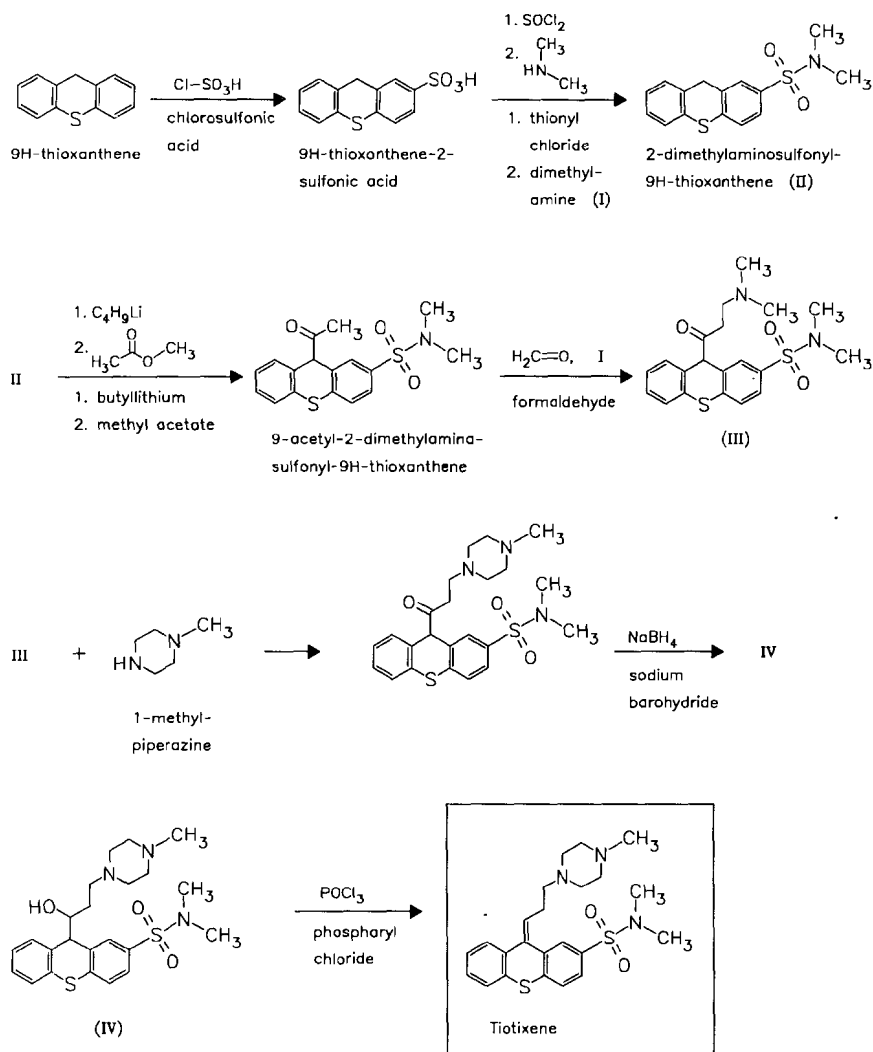
ATC: N05AF04

Use: neuroleptic

RN: 3313-26-6 MF: C₂₃H₂₉N₃O₂S₂ MW: 443.64LD₅₀: 100 mg/kg (M, i.p.);

55 mg/kg (R, i.p.)

CN: (Z)-N,N-dimethyl-9-[3-(4-methyl-1-piperazinyl)propylidene]-9H-thioxanthene-2-sulfonamide

dihydrochloride dihydrateRN: 22189-31-7 MF: $C_{23}H_{29}N_3O_2S_2 \cdot 2HCl \cdot 2H_2O$ MW: 552.59**Reference(s):**

US 3 310 553 (Pfizer; 21.3.1967; appl. 26.4.1963; prior. 25.9.1962).
 DE 1 470 157 (Pfizer; appl. 24.9.1963; USA-prior. 25.9.1962; 26.4.1963).
 Muren, J.F.; Bloom, B.M.: J. Med. Chem. (JMCMAR) **13**, 17 (1970).

Formulation(s): cps. 1 mg, 2 mg, 4 mg, 5 mg, 10 mg; tabl. 10 mg; vial 4 mg, 10 mg (as hydrochloride)

Trade Name(s):

D: Orbinamon (Pfizer); wfm I: Navane (Pfizer); wfm USA: Navane (Pfizer); wfm
 GB: Navane (Pfizer); wfm J: Navane (Taito Pfizer)

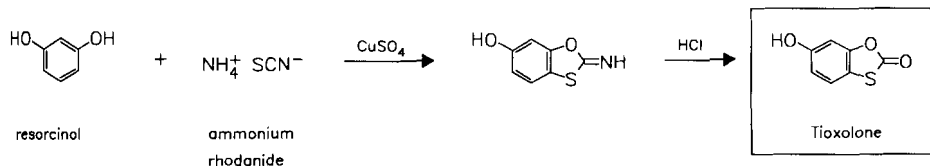
Tioxolone

ATC: D10AB03

Use: antiseborrheic

RN: 4991-65-5 MF: C₇H₄O₃S MW: 168.17 EINECS: 225-653-0

CN: 6-hydroxy-1,3-benzoxathiol-2-one

**Reference(s):**

US 2 332 418 (Winthrop; 1943; D-prior. 1938).

use:

US 2 886 488 (Thomae; 12.5.1959; D-prior. 2.7.1955).

Formulation(s): sol. 200 mg/100 g in comb. with 100 mg benzoxonium chloride**Trade Name(s):**

D:	Loscon (Galderma)-comb.	I:	Wasacne (IFI); wfm	J:	Vikura (Eisai)
F:	Gélacnine (Lab. du D'Furt); wfm		Wasacne (Wassermann); wfm		

Tipepidine

ATC: R05DB24

Use: antitussive

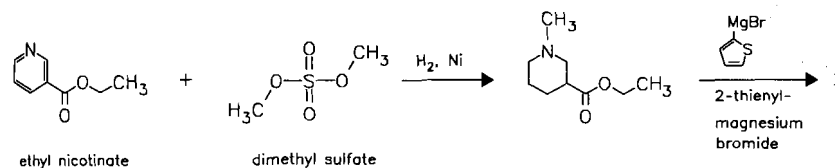
RN: 5169-78-8 MF: C₁₅H₁₇NS₂ MW: 275.44LD₅₀: 55 mg/kg (M, i.v.); 867 mg/kg (M, p.o.);

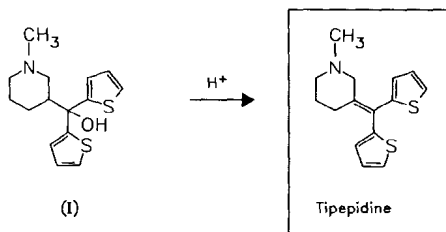
44 mg/kg (dog, i.v.)

CN: 3-(di-2-thienylmethylene)-1-methylpiperidine

4'-hydroxybenzophenone 2-carboxylate (1:1)RN: 31139-87-4 MF: C₁₅H₁₇NS₂ · C₁₄H₁₀O₄ MW: 517.67 EINECS: 250-481-8LD₅₀: 10 g/kg (M, p.o.);

10 g/kg (R, p.o.)

citrateRN: 5169-77-7 MF: C₁₅H₁₇NS₂ · xC₆H₈O₇ MW: unspecified

**Reference(s):**

ES 272 195 (A. Gallardo; appl. 20.11.1961).

(also citrate)

further literature see under citrate below

4'-hydroxybenzophenone-2-carboxylate (hibenzate):

JP 17 591 (62') (Tanabe Seiyaku; appl. 27.10.1962; prior. 19.10.1960).

GB 924 544 (Tanabe Seiyaku; valid from 7.12.1961; J-prior. 19.12.1960).

citrate:Ponomarev, A.A.; Martemjanova, N.I.: *Khim. Geterotsikl. Soedin. (KGSSAQ)* **1957**, 174.

SU 176 903 (Ponomarev, Martemjanova; appl. 27.10.1962).

Formulation(s): powder 10 %; syrup 25 mg (as hibenzate); tabl. 10 mg (as citrate)**Trade Name(s):**

I: Asverin (ISF); wfm

Asverin-H (Tanabe; as
hibenzate)Hustopan-Syr. (Ohta)-
comb.

Asverin (Searle); wfm

J: Asverine (Tanabe Seiyaku)

Hustopan (Ohta)-comb.

Tiquizium bromide

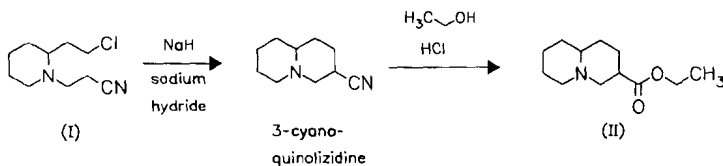
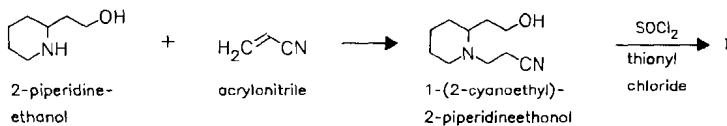
ATC: A03

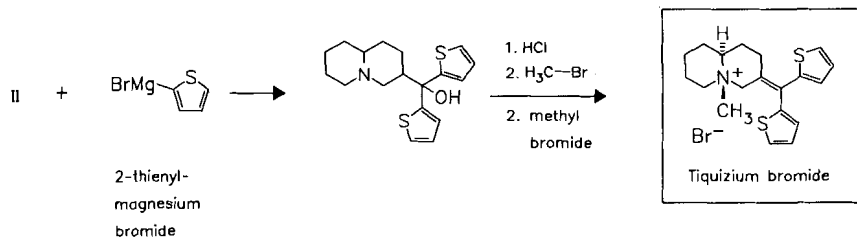
Use: antispasmodic

RN: 71731-58-3 MF: C₁₉H₂₄BrNS₂ MW: 410.44LD₅₀: 10.3 mg/kg (M, i.v.); 578 mg/kg (M, p.o.);

11.4 mg/kg (R, i.v.); 1177 mg/kg (R, p.o.);

14.2 mg/kg (dog, i.v.); 662 mg/kg (dog, p.o.)

CN: *trans*-3-(di-2-thienylmethylene)octahydro-5-methyl-2*H*-quinolizinium bromide

**Reference(s):**

US 4 205 074 (Hokuriku; 27.5.1980; appl. 1.3.1979; prior. 10.5.1978).
 DOS 2 820 687 (Hokuriku Pharm.; appl. 11.5.1978; J-prior. 16.5.1977, 9.11.1977, 8.12.1977, 21.12.1977, 28.2.1978).
 Koshinaka, E. et al.: Chem. Pharm. Bull. (CPBTAL) **27**, 1454 (1979).

Trade Name(s):

J: Thiaton (Hokuriku; 1984)

Tiracizine

ATC: C01EB11

Use: antiarrhythmic

RN: 83275-56-3 MF: $\text{C}_{21}\text{H}_{25}\text{N}_3\text{O}_3$ MW: 367.45

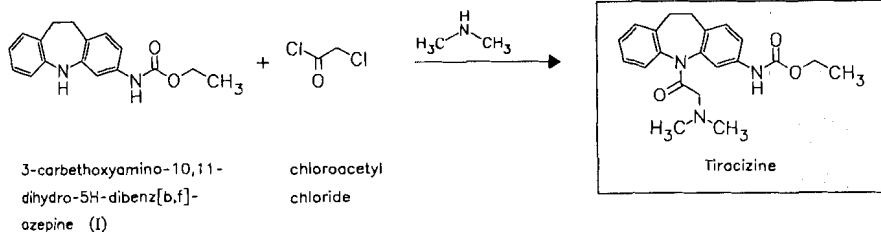
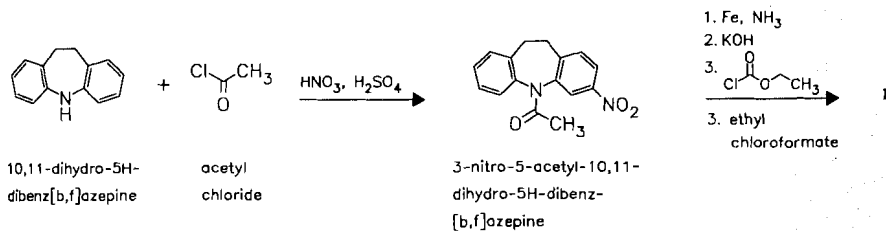
CN: [5-[(dimethylamino)acetyl]-10,11-dihydro-5H-dibenz[b,f]azepin-3-yl]carbamic acid ethyl ester

monohydrochloride

RN: 78816-67-8 MF: $\text{C}_{21}\text{H}_{25}\text{N}_3\text{O}_3 \cdot \text{HCl}$ MW: 403.91

LD_{50} : 5.4 mg/kg (M, i.v.); 48 mg/kg (M, p.o.);

10.9 mg/kg (R, i.v.); 78 mg/kg (R, p.o.)

**Reference(s):**

DE 3 040 085 (VEB Arzneimittelwerk Dresden; appl. 24.10.1980; DDR-prior. 5.11.1971).
 FR 2 493 314 (VEB Arzneimittelwerk Dresden; appl. 5.11.1980).
 DD 258 224 (VEB Arzneimittelwerk Dresden; appl. 5.3.1987).
 Skoldinov, A.P. et al.: Khim. Farm. Zh. (KHFZAN) **24**, 51 (1990).
 DD 267 630 (VEB Arzneimittelwerk Dresden; appl. 25.5.1987).

alternative synthesis of 3-amino-5-acetyl-10,11-dihydro-5H-dibenz[*b,f*]azepine:
US 3 056 774 (Geigy; 1962; appl. 1959; ClI-prior. 1958).

Formulation(s): f. c. tabl. 50 mg, 100 mg

Trade Name(s):

D: Bonnecor
(Arzneimittelwerk
Dresden; 1990); wfm

Tirilazad mesilate

(U-74006)

ATC: N07XX01

Use: lipid peroxidation inhibitor

RN: 110101-67-2 MF: $C_{38}H_{52}N_6O_2 \cdot CH_4O_3S$ MW: 720.98

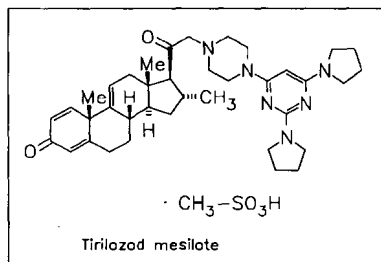
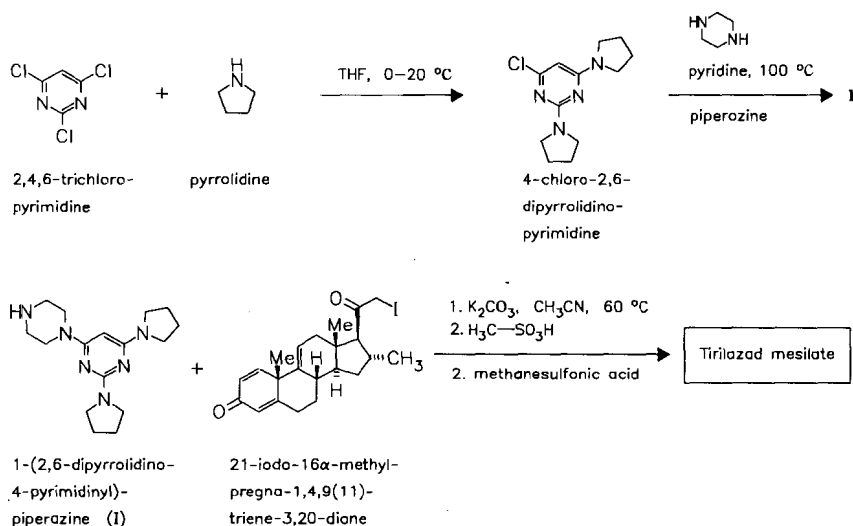
CN: (16 α)-21-[4-(2,6-di-1-pyrrolidinyl-4-pyrimidinyl)-1-piperazinyl]-16-methylpregna-1,4,9(11)-triene-3,20-dione monomethanesulfonate

hydrate

RN: 111793-42-1 MF: $C_{38}H_{52}N_6O_2 \cdot CH_4O_3S \cdot H_2O$ MW: 739.00

tirilazad

RN: 110101-66-1 MF: $C_{38}H_{52}N_6O_2$ MW: 624.87



Reference(s):

WO 8 701 706 (Upjohn Co.; appl. 28.8.1986; USA-prior. 29.7.1986, 12.9.1985).

use in the treatment of ischemic diseases:

WO 9 412 185 (Upjohn Co.; appl. 2.12.1993; J-prior. 3.12.1992).

use for chemotherapy:

WO 9 218 089 (Upjohn Co.; appl. 27.3.1992; USA-prior. 9.4.1991).

use for treatment ophthalmic disorders:

WO 9 119 482 (Upjohn Co.; appl. 26.12.1991; USA-prior. 12.6.1990).

Formulation(s): amp. 45 mg/30 ml, 105 mg/70 ml; vial 45 mg, 105 mg (as hydrate)

Trade Name(s):

AU: Freedox (Pharmacia & Upjohn)

Tirofiban hydrochloride

(L 700462; MK 383)

ATC: B01AC17

Use: platelet aggregation inhibitor, GPIIb/IIIa receptor antagonist

RN: 142373-60-2 MF: $C_{22}H_{36}N_2O_5S \cdot HCl$ MW: 477.07

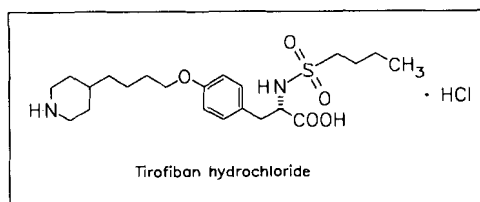
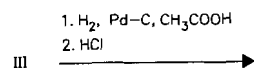
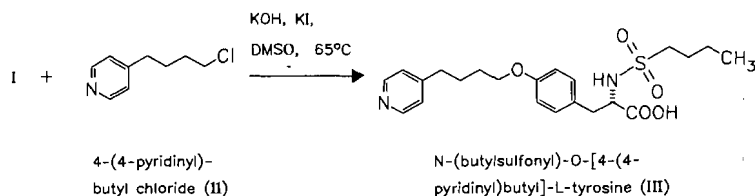
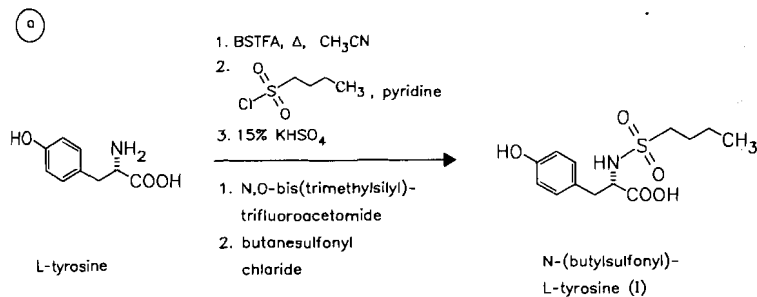
CN: N-(Butylsulfonyl)-O-[4-(4-piperidinyl)butyl]-L-tyrosine hydrochloride

monohydrate

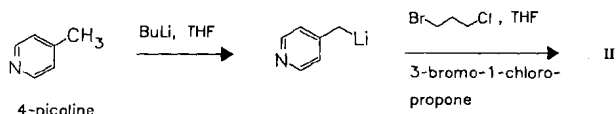
RN: 150915-40-5 MF: $C_{22}H_{36}N_2O_5S \cdot HCl \cdot H_2O$ MW: 495.08

base

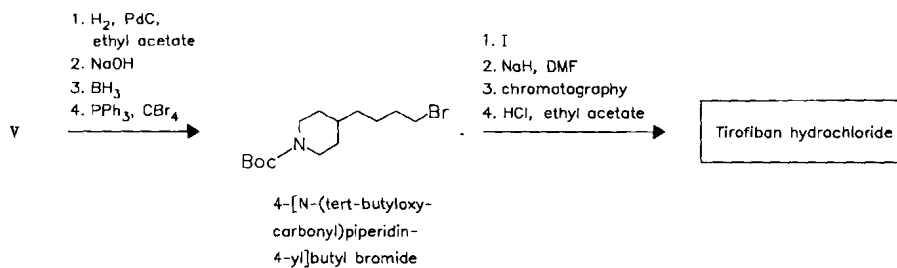
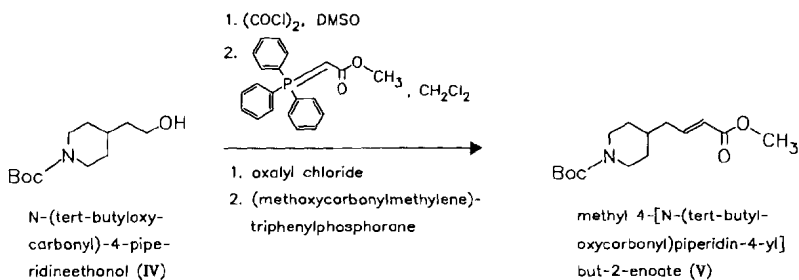
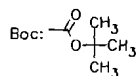
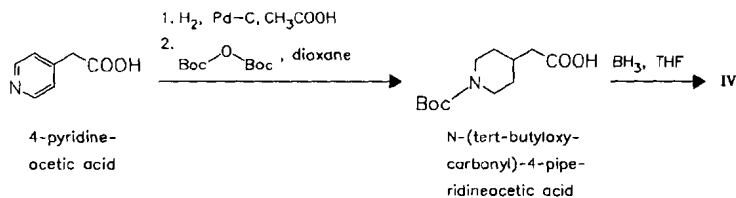
RN: 144494-65-5 MF: $C_{22}H_{36}N_2O_5S$ MW: 440.61



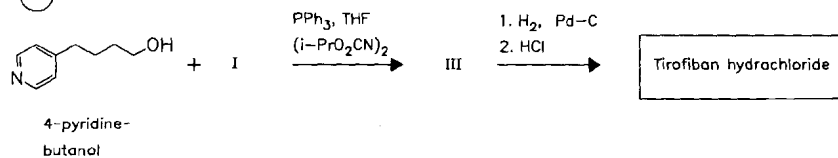
aa) synthesis of intermediate II:



b)



c)



Reference(s):

- US 5 206 373 (Merck + Co.; 1.9.1993; USA-prior. 28.2.1992).
Chung, J.Y. et al.: Tetrahedron (TETRAB) **49** (26), 5767 (1993).
- EP 478 363 (Merck + Co.; appl. 27.9.1991; USA-prior. 30.8.1990).
Egbertson, M.S. et al.: J. Med. Chem. (JMCMAR) **37**, 2537 (1994).
- WO 9 316 994 (Merck + Co.; appl. 24.2.1993; USA-prior. 28.2.1992).

alternative synthesis:

US 5 292 756 (Merck + Co.; 8.3.1994; USA-prior. 30.8.1991, 27.9.1990).

pharmaceutical compositions:

US 5 733 919 (Merck + Co.; 31.3.1998; USA-prior. 23.10.1996).

WO 9 715 328 (Merck + Co.; appl. 23.10.1996; USA-prior. 27.10.1995).

Formulation(s): sol. for inj. 0.05 mg/ml, 0.25 mg/ml; vial 50 ml, 0,25 mg/ml

Trade Name(s):

D: Aggrastat (Merck Sharp & Dohme; 1998) USA: Aggrastat (Merck Sharp & Dohme; 1998)

Tiropramide

ATC: A03AC05

Use: antispasmodic

RN: 55837-29-1 MF: $C_{28}H_{41}N_3O_3$ MW: 467.65

LD₅₀: 40.5 mg/kg (M, i.v.); 550 mg/kg (M, p.o.);

33.9 mg/kg (R, i.v.); 800 mg/kg (R, p.o.)

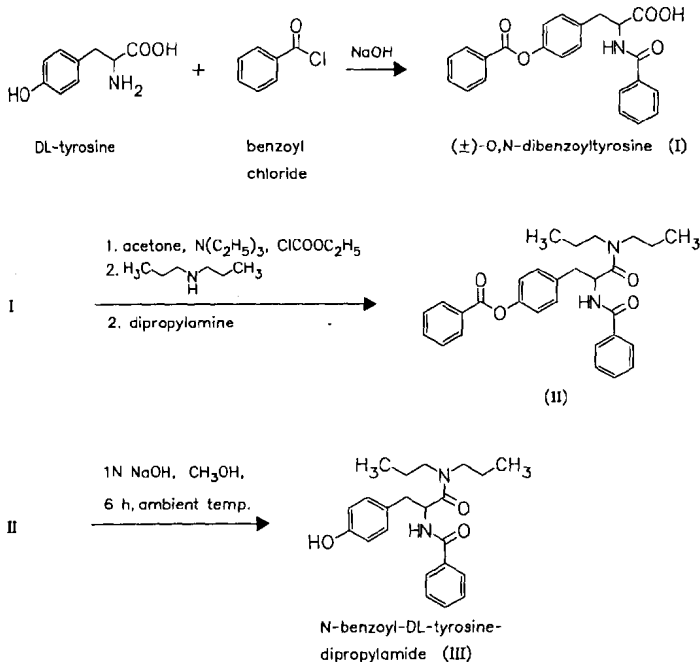
CN: (±)-α-(benzoylamino)-4-[2-(diethylamino)ethoxy]-*N,N*-dipropylbenzenepropanamide

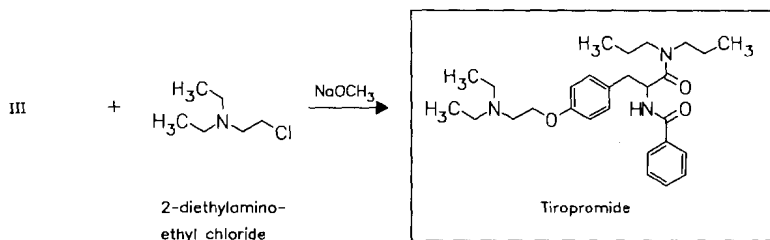
hydrochloride

RN: 57227-16-4 MF: $C_{28}H_{41}N_3O_3 \cdot xHCl$ MW: unspecified EINECS: 260-634-0

LD₅₀: 28 mg/kg (M, i.v.); 639 mg/kg (M, p.o.);

32 mg/kg (R, i.v.); 1074 mg/kg (R, p.o.)



*Reference(s):*

DOS 2 503 992 (Rotta Research; appl. 31.1.1975; I-prior. 1.2.1974).

US 4 004 008 (Rotta Research; 18.1.1977; I-prior. 1.2.1974).

Formulation(s): amp. 50 mg/3 ml; s. r. cps. 200 mg; suppos. 200 mg; tabl. 100 mg (as hydrochloride)*Trade Name(s):*

D: Alfospas (Opfermann)

I: Alfospas (Rottapharm)

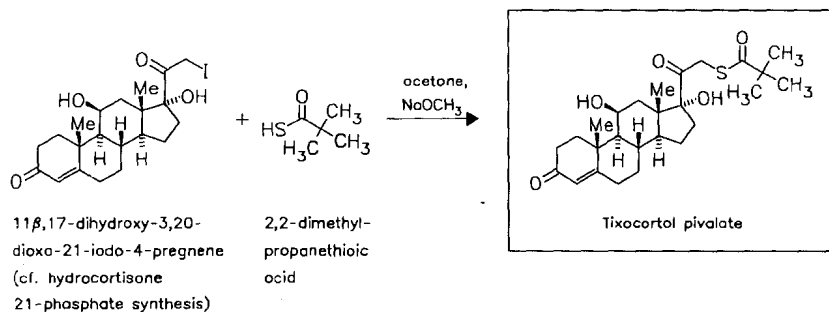
Maiorad (Rotta Research)

Tixocortol pivalate

ATC: A07EA05; R01AD07

(Tiocortisol pivalate; Tixocortol trimethylacetate)

Use: glucocorticoid

RN: 55560-96-8 MF: $\text{C}_{26}\text{H}_{38}\text{O}_5\text{S}$ MW: 462.65 EINECS: 259-706-4CN: (11 β)-21-[(2,2-dimethyl-1-oxopropyl)thio]-11,17-dihydroxypregn-4-ene-3,20-dione**tixocortol**RN: 61951-99-3 MF: $\text{C}_{21}\text{H}_{30}\text{O}_4\text{S}$ MW: 378.53*Reference(s):*

DOS 2 357 778 (Jouveinal; appl. 20.11.1973; F-prior. 30.5.1973).

*synthesis of tixocortol:*Schaub, R.E.; Weiss, M.J.: J. Org. Chem. (JOCEAH) **26**, 1223 (1961).*Formulation(s):* clysmas 250 mg; nasal spray 1g/100 g; susp. 1 g/100 g*Trade Name(s):*

D: Tiovalon (Intersan; 1986); wfm

Oropivalone-Bacitracine (Jouveinal)-comb.

Pivalone Néomycine (Jouveinal)-comb.

F: Dontopivalone (Jouveinal)-comb.

Pivalone Nasale (Jouveinal; 1978)

Rectovalone (Jouveinal)
Thiovalone (Eurorga)-comb.

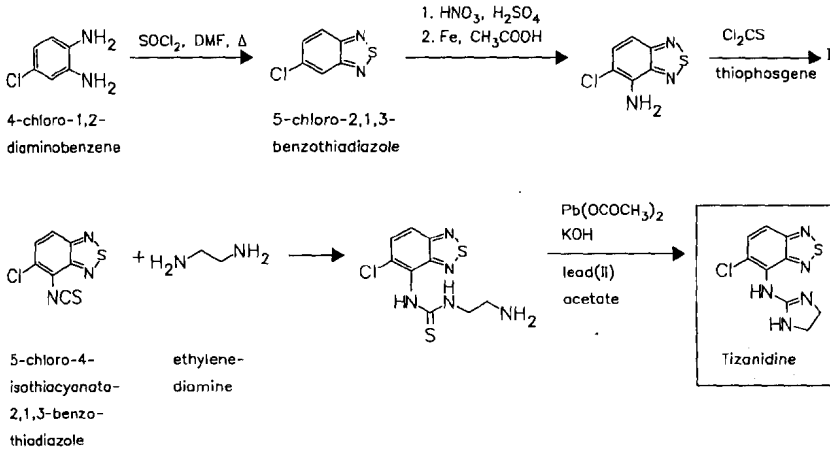
Tizanidine

ATC: M03BX02

Use: skeletal muscle relaxant

RN: 51322-75-9 MF: C₉H₈ClN₅S MW: 253.72LD₅₀: 235 mg/kg (M, p.o.);

600 mg/kg (R, p.o.)

CN: 5-chloro-*N*-(4,5-dihydro-1*H*-imidazol-2-yl)-2,1,3-benzothiadiazol-4-amine**hydrochloride**RN: 64461-82-1 MF: C₉H₈ClN₅S · HCl MW: 290.18**Reference(s):**

DE 2 322 880 (Sandoz; appl. 22.11.1973; prior. 7.5.1973).

US 3 843 668 (Sandoz; 22.10.1974; appl. 8.5.1973; CH-prior. 9.5.1972).

CH 579 565 (Sandoz; appl. 15.3.1973).

synthesis of 4-amino-5-chloro-2,1,3-benzothiadiazole:Pesin, V.G.; Khaletskii, A.M.: Zh. Obshch. Khim. (ZOKHA4) **27**, 2599 (1957).C.A. (CHABA8) **52**, 7292.Smith, W.T.; Chen, W.-Y.: J. Org. Chem. (JOCEAH) **27**, 676 (1962).**Formulation(s):** tabl. 2 mg, 4 mg, 6 mg (as hydrochloride)**Trade Name(s):**D: Sirdalud (Sanofi Winthrop;
1985)GB: Zanaflex (Athena)
J: Teonelin (Sandoz)

USA: Zanaflex (Athena)

Tobramycin

ATC: J01GB01; S01AA12

Use: antibiotic

RN: 32986-56-4 MF: C₁₈H₃₇N₅O₉ MW: 467.52 EINECS: 251-322-5LD₅₀: 72.5 mg/kg (M, i.v.); >11500 mg/kg (M, p.o.);

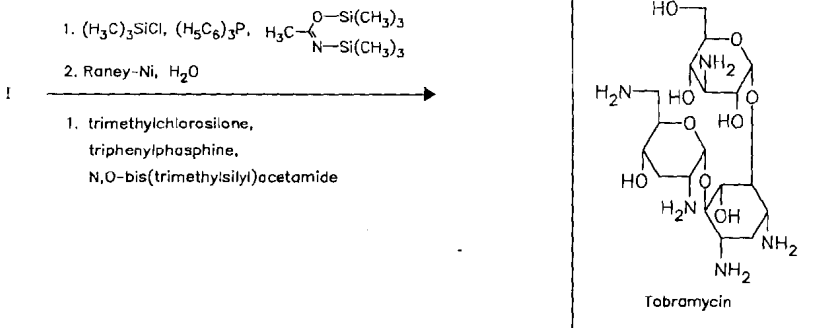
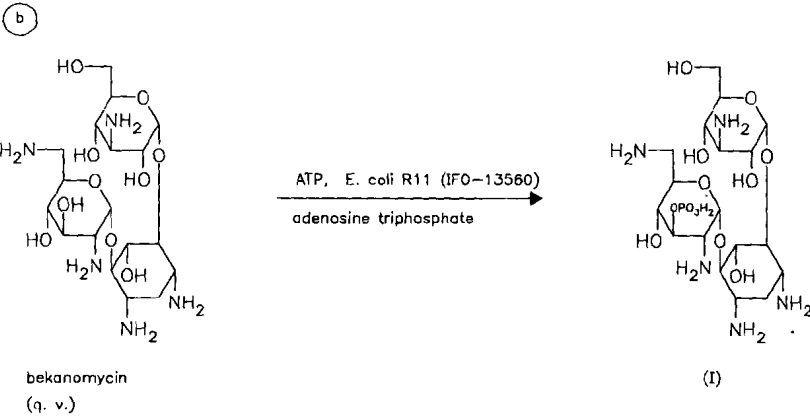
104 mg/kg (R, i.v.); >7500 mg/kg (R, p.o.)

CN: *O*-3-amino-3-deoxy- α -D-glucopyranosyl-(1 \rightarrow 6)-*O*-[2,6-diamino-2,3,6-trideoxy- α -D-ribo-hexopyranosyl-(1 \rightarrow 4)]-2-deoxy-D-streptomine

sulfateRN: 49842-07-1 MF: $C_{18}H_{37}N_5O_9 \cdot xH_2SO_4$ MW: unspecified EINECS: 256-499-2LD₅₀: 77 mg/kg (M, i.v.); >10500 mg/kg (M, p.o.);

126 mg/kg (R, i.v.)

(a) from fermentation solutions of *Streptomyces tenebrarius* (ATCC 17920) or (ATCC 17921)

**Reference(s):**

- a** US 3 691 279 (Lilly; 12.9.1972; prior. 15.4.1970, 12.2.1969, 17.9.1965).
DE 1 792 819 (Lilly).
- b** DOS 2 514 985 (Takeda; appl. 5.4.1975; J-prior. 10.4.1974, 25.6.1974).
Okutani, T. et al.: *J. Am. Chem. Soc. (JACSAT)* **99**, 1278 (1977).

alternative syntheses:

- DOS 2 361 159 (Zaidan Hojin Biseibutsu Kagaku Kenkyu Kai; appl. 7.12.1973; J-prior. 8.12.1972).
DOS 2 533 985 (Meiji Seika Kaisha; appl. 30.7.1975; J-prior. 1.8.1974).
Tagaki, Y. et al.: *J. Antibiot. (JANTAJ)* **26**, 403 (1973).

total synthesis:

Tanabe, M. et al.: *Tetrahedron Lett. (TELEAY)* **1977**, 3607.

Formulation(s): amp. 40 mg, 80 mg (as sulfate); eye drops 3 mg/ml; ointment 3 mg/g; vial 20 mg, 40 mg, 80 mg (as sulfate)

Trade Name(s):

D:	Burlamycin (medphano)	Tobrex (Alcon)	J:	Tobracin (Shionogi Seiyaku)
	Gernebcin (Lilly; 1975)	GB: Nebcin (King)		
	TOBRA-cell (cell pharm)	I: Nebicina (Lilly)	USA:	Nebcin (Lilly; 1975)
	Tobramaxin (Alcon; 1982)	Tobrex (Firma)		TobraDex (Alcon)
F:	Nebcine (Lilly)			Tobrex (Alcon)

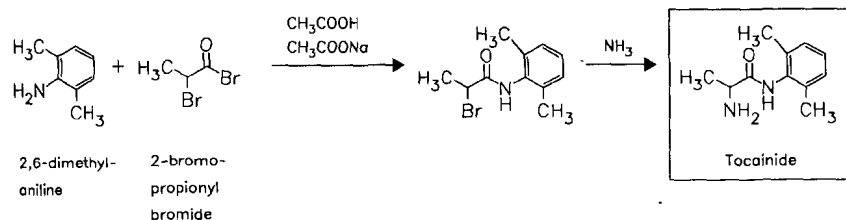
Tocainide

ATC: C01BB03
Use: antiarrhythmic

RN: 41708-72-9 MF: C₁₁H₁₆N₂O MW: 192.26 EINECS: 255-505-0

LD₅₀: 94 mg/kg (M, i.v.)

CN: 2-amino-N-(2,6-dimethylphenyl)propanamide

*Reference(s):*

US 4 218 477 (Astra; 19.8.1980; prior. 28.7.1971).

US 4 237 068 (Astra; 2.12.1980; prior. 8.1.1973).

DE 2 235 745 (Astra; appl. 21.7.1972; USA-prior. 28.7.1971).

enantiomers:

DOS 2 400 540 (Astra; appl. 7.1.1974; USA-prior. 8.1.1973).

GB 1 461 602 (Astra; appl. 7.1.1974; USA-prior. 8.1.1973).

Formulation(s): f. c. tabl. 400 mg, 600 mg (as hydrochloride)

Trade Name(s):

D:	Xylotocan (Astra; 1982)	GB: Tonocard (Astra; 1981); wfm	USA: Tonocard (Astra Merck; 1984)
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 α -Tocopherol

(Vitamin E)

ATC: A11HA03
Use: antisterility vitamin

RN: 10191-41-0 MF: C₂₉H₅₀O₂ MW: 430.72 EINECS: 233-466-0

CN: 3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-1-benzopyran-6-ol

D-compound

RN: 59-02-9 MF: C₂₉H₅₀O₂ MW: 430.72 EINECS: 200-412-2

 α -Tocopherol acetate

(Vitamin E acetate)

RN: 7695-91-2 MF: C₃₁H₅₂O₃ MW: 472.75 EINECS: 231-710-0

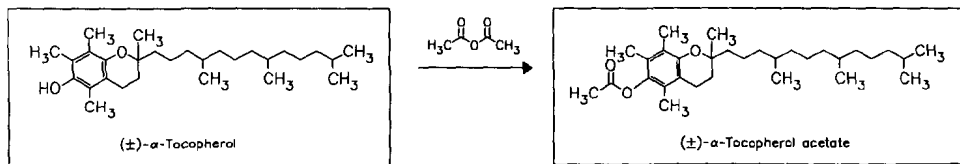
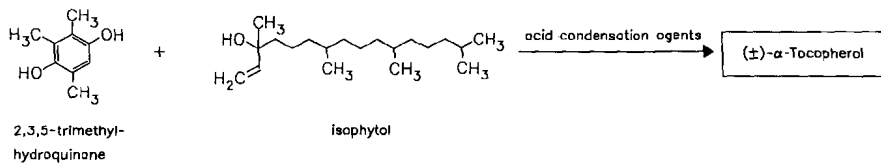
CN: 3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-1-benzopyran-6-ol acetate

D-6-acetate

RN: 58-95-7 MF: C₃₁H₅₂O₃ MW: 472.75 EINECS: 200-405-4

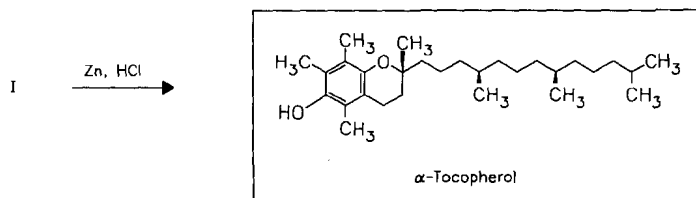
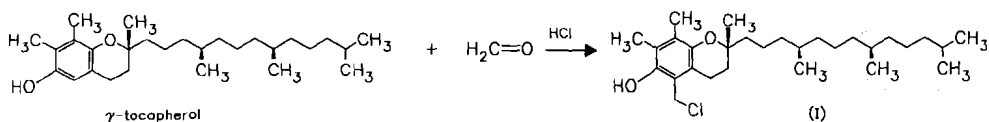
(a)

total synthesis



(b)

partial synthesis

(from β -, γ -, and δ -tocopherols, occurring in vegetable oils together with α -tocopherol), e.g. from γ -tocopherol*Reference(s):*

- a** DRP 713 749 (Roche; appl. 1939; CH-prior. 1938).
 DRP 731 972 (Roche; appl. 1938; CH-prior. 1938).
 DE 960 720 (Roche; appl. 1955; USA-prior. 1954).
 DAS 1 909 164 (Roche; appl. 24.2.1969; USA-prior. 27.2.1968, 19.11.1968).
 DAS 2 208 795 (Diamond Shamrock; appl. 24.2.1972; USA-prior. 25.2.1971).
 DOS 2 743 920 (Nisshin Flour Milling; appl. 29.9.1977; J-prior. 29.9.1976).
 US 4 055 575 (SCM Corp.; 25.10.1977; prior. 20.3.1975).
 US 4 115 466 (SCM Corp.; 19.9.1978; prior. 20.3.1975, 16.10.1975, 6.10.1977).
- b** US 2 519 863 (Eastman Kodak; 1950; appl. 1949).
 DE 909 095 (Eastman Kodak; appl. 1950; USA-prior. 1946).
 DE 911 732 (Eastman Kodak; appl. 1950; USA-prior. 1945).
 DE 1 056 143 (Eastman Kodak; appl. 1956; USA-prior. 1955).
 US 2 592 531 (Eastman Kodak; 1952; appl. 1949).
 US 2 592 628 (Eastman Kodak; 1952; appl. 1949).
 US 2 592 630 (Eastman Kodak; 1952; appl. 1949).
 US 4 122 094 (Lever Brothers; 24.10.1978; prior. 9.6.1976, 13.5.1977).
 DOS 2 606 830 (BASF; appl. 20.2.1976).

Formulation(s): amp. 100 mg/2 ml, 100 mg/ml; cps. 100 iu, 200 iu, 300 iu, 400 iu, 500 iu; drg. 100 mg (as tartrate)

Trade Name(s):

<p>D: Biopto-E (Jenapharm) Equiday (Solvay Arzneimittel) Evit-Geritan (Chefaro) Malton-E (Sertiürner) Optovit/-forte/fortissimum (Hermes) Pexan (Wörwag) Puncto E (ASTA Medica AWD) Tocorell (Sanorell) Vitamin E-Dragees (Wiedemann) Vit. E Stada (Stada) numerous combination preparations</p> <p>F: Alvity (Solvay Pharma)-comb. Capsules Pharmaton (Boehringer Ing.)-comb. Carencyl (Riom)-comb. Cirkan suppositoires (Sinbio)-comb. Difrarel E (Leurquin)-comb. Hydrosol polyvitaminé B.O.N. (Doms-Adrian)-comb.</p>	<p>Hydrosol polyvitaminé Roche (Roche)-comb. Lofenalac Mead Johnson (Bristol-Myers Squibb)-comb. Nutrigéne (GNR-pharma)-comb. Survitine (Roche Nicholas)-comb. Toco 500 (Pharma 2000) Tocogestan (Théramex)-comb. Tocomine (Eurorga) Uvéstérol (Crinex)-comb. Vélitén (Wyeth-Lederle)-comb. Vivamyne (Whitehall)-comb. numerous combination preparations</p> <p>GB: Ketovite (Paines & Byrne)-comb.</p> <p>I: E-Vitum (Lipha) Ephynal (Roche) Evion (Bracco) Evion Forte (Bracco) Evitina (CT) Midium (Teofarma)-comb. Rovigon (Roche)-comb.</p>	<p>Salonpas (Farmila)-comb. Tocalfa (ASTA Medica)-comb. J: Ephelon (Kowa) Ephynal (Roche) Eseblon (Seiko-Fuso) Esuverol (Sanko) Euvel (Nippon Chemiphar) Inazin (Tanabe) Ivet (Kuroishi-Nippon Shinyaku) Juvelux (Eisai) Juvevitan (Toyo Jozo) Kenton (Sawai) Magiron E (Choseido) Nichivita E (Nichiiiko) Sunfull S (Maruishi) Takaran (Shiki) Tocophal (Chugai) Tocorol (Daigo Eiyō) Tokobera (Nakano) Tokos-E (Nippon Shoji) Welvin-E (Ono) Yurica (Kobayashi Kako) USA: Cefol (Abbott)-comb. Materna (Lederle)-comb. Megadose (Arco)-comb. combination preparations and generics</p>
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Todralazine

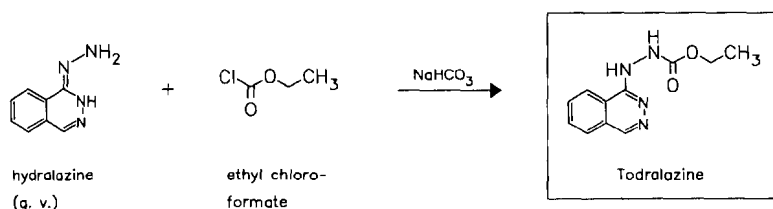
(Ecarazine)

ATC: C02
Use: antihypertensive

RN: 14679-73-3 MF: C₁₁H₁₂N₄O₂ MW: 232.24
LD₅₀: 60 mg/kg (M, i.v.); 110 mg/kg (R, i.v.); 318 mg/kg (R, p.o.)
CN: 2-(1-phthalazinyl)hydrazinecarboxylic acid ethyl ester

monohydrochloride

RN: 3778-76-5 MF: C₁₁H₁₂N₄O₂ · HCl MW: 268.70
LD₅₀: 300 mg/kg (M, i.v.); 516 mg/kg (M, p.o.); 240 mg/kg (R, i.v.); 598 mg/kg (R, p.o.)



Reference(s):

BE 647 722 (Polfa; appl. 11.5.1964; P-prior. 11.5.1963, 9.12.1963).

Formulation(s): powder 10 % (as hydrochloride); tabl. 10 mg, 30 mg*Trade Name(s):*

J:	Aperdor (Tokyo Tanabe)	Dypirecohl (Daito Koeki)	Hydrapron (Isei)
	Apiracohl (Kyowa)	Ecara (Toyo Pharmar)	Marukunan (Zensei)
	Atapren (Sumitomo)	Ecarocohl (Nihon)	Mohazorin (Mohan)
	Bihyst (Ohta)	Iyakuhin)	Seirof (Maruko)
	Deprezid (Ono)	Ekahain (Towa)	

Tofenacin

ATC: N04; N06A

Use: antiparkinsonian, antidepressant

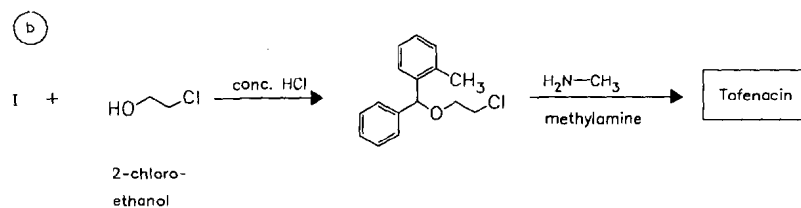
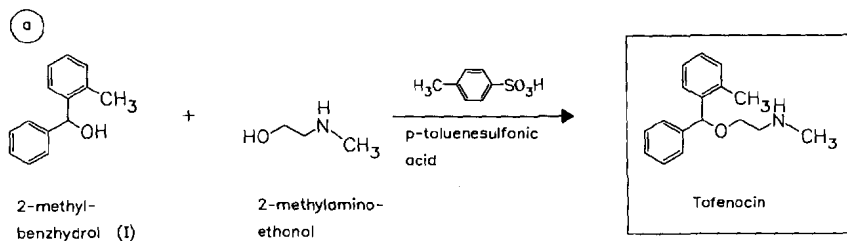
RN: 15301-93-6 MF: C₁₇H₂₁NO MW: 255.36 EINECS: 239-338-0

CN: N-methyl-2-[(2-methylphenyl)phenylmethoxy]ethanamine

hydrochlorideRN: 10488-36-5 MF: C₁₇H₂₁NO · HCl MW: 291.82 EINECS: 234-011-9LD₅₀: 32 mg/kg (M, i.v.); 182 mg/kg (M, p.o.);

15 mg/kg (R, i.v.); 400 mg/kg (R, p.o.);

90 mg/kg (dog, p.o.)

*Reference(s):*

US 3 407 258 (Brocades-Stheeman; 22.10.1968; GB-prior. 30.11.1962).

Trade Name(s):

GB: Elamol (Brocades); wfm

Tofisopam

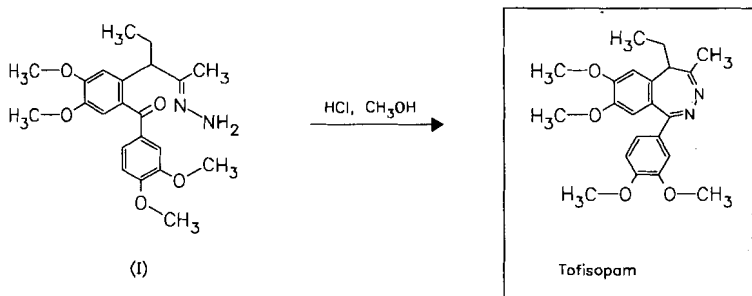
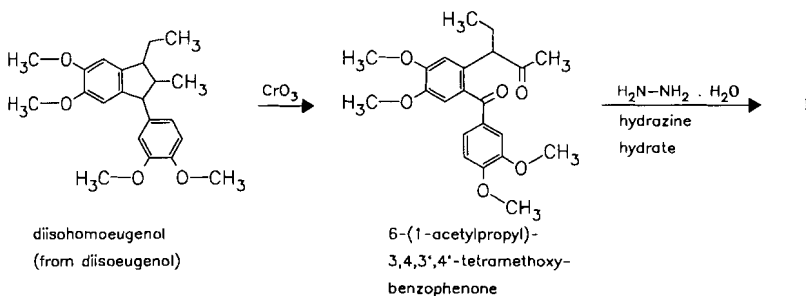
ATC: N05BA23

Use: tranquilizer, anxiolytic

RN: 22345-47-7 MF: C₂₂H₂₆N₂O₄ MW: 382.46 EINECS: 244-922-3LD₅₀: 415 mg/kg (M, i.v.); 3800 mg/kg (M, p.o.);

103 mg/kg (R, i.v.); 825 mg/kg (R, p.o.)

CN: 1-(3,4-dimethoxyphenyl)-5-ethyl-7,8-dimethoxy-4-methyl-5H-2,3-benzodiazepine

**Reference(s):**

DAS 1 670 642 (Egypt; appl. 8.12.1967; H-prior. 9.12.1966).

educt:Doering, W. v. E.; Berson, J.A.: J. Am. Chem. Soc. (JACSAT) **72**, 1118 (1950).**Formulation(s):** tabl. 50 mg**Trade Name(s):**F: Grandaxine (Ozothine);
wfmJ: Seriel (Sinbio); wfm
Grandaxin (Mochida)**Tolazamide**

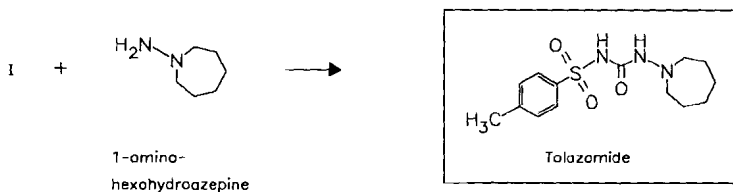
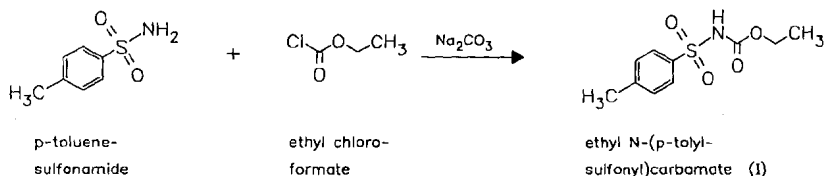
ATC: A10BB05

Use: antidiabetic

RN: 1156-19-0 MF: C₁₄H₂₁N₃O₃S MW: 311.41 EINECS: 214-588-3LD₅₀: 1 g/kg (M, p.o.);

>5 g/kg (R, p.o.)

CN: N-[[hexahydro-1H-azepin-1-yl]amino]carbonyl]-4-methylbenzenesulfonamide

**Reference(s):**

US 3 063 903 (Upjohn; 13.11.1962; appl. 29.3.1961; prior. 9.6.1959).

GB 887 886 (Upjohn; appl. 29.9.1960).

DE 1 196 200 (Hoechst; appl. 27.12.1961).

Wright, J.B.; Willette, R.E.: J. Med. Chem. (JMCMAR) 5, 815 (1962).

Formulation(s): tabl. 250 mg, 500 mg**Trade Name(s):**

D: Norglycin (Upjohn); wfm

I: Diabewas (IBI); wfm

J: Tolinase (Upjohn)

GB: Tolanase (Pharmacia & Upjohn)

Diabewas (Wassermann); wfm

USA: Tolazamide (Mylan)

Tolinase (Upjohn); wfm

Tolazoline

ATC: C04AB02; M02AX02

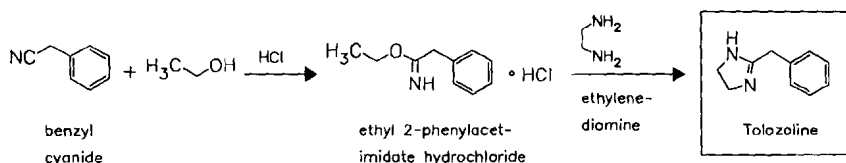
Use: vasodilator, antiadrenergic

RN: 59-98-3 MF: $\text{C}_{10}\text{H}_{12}\text{N}_2$ MW: 160.22 EINECS: 200-448-9LD₅₀: 40 mg/kg (M, i.v.); 350 mg/kg (M, p.o.)

CN: 4,5-dihydro-2-(phenylmethyl)-1H-imidazole

monohydrochlorideRN: 59-97-2 MF: $\text{C}_{10}\text{H}_{12}\text{N}_2 \cdot \text{HCl}$ MW: 196.68 EINECS: 200-447-3LD₅₀: 56.7 mg/kg (M, i.v.); 400 mg/kg (M, p.o.);

85 mg/kg (R, i.v.); 1200 mg/kg (R, p.o.)

**Reference(s):**

US 2 161 938 (Ciba; 1939; D-prior. 1934).

DRP 615 227 (A. Sonn; 1934).

alternative syntheses:

DRP 687 196 (Ciba; appl. 1938; CH-prior. 1937).

DE 842 063 (Ciba; CH-prior. 1945).

Formulation(s): amp. 10 mg/ml

Trade Name(s):

D:	Priscol (CIBA Vision)	J:	Benzolin(Nissin)	USA:	Priscoline (Ciba); wfm
GB:	Priscol (Ciba); wfm		Imidalin (Yamanouchi)		
I:	Priscofen (Ciba)-comb.; wfm		Priscol (Ciba-Geigy-Takeda)		

Tolbutamide

ATC: A10BB03; V04CA01

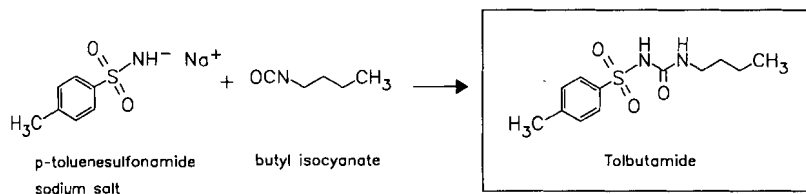
Use: antidiabetic

RN: 64-77-7 MF: C₁₂H₁₈N₂O₃S MW: 270.35 EINECS: 200-594-3

LD₅₀: 770 mg/kg (M, i.v.); 490 mg/kg (M, p.o.);

700 mg/kg (R, i.v.); 2490 mg/kg (R, p.o.)

CN: N-[(butylamino)carbonyl]-4-methylbenzenesulfonamide



Reference(s):

US 2 968 158 (Hoechst; Upjohn; 17.1.1961; D-prior. 8.8.1955).

DE 974 062 (Hoechst; appl. 9.8.1955).

alternative method:

DAS 2 053 740 (Brunnengraber; appl. 2.11.1970).

Ruschig, H. et al.: *Arzneim.-Forsch. (ARZNAD)* **8**, 448 (1958).

Formulation(s): tabl. 500 mg, 1 g

Trade Name(s):

D:	Artosin (Boehringer Mannh.)	GB:	Rastinon (Hoechst)	Nigloid (Universal)
	Orabet (Berlin-Chemie)	I:	Glucosulfa (Lipha)-comb.	Rankmin (Maruishi)
	Rastinon (Hoechst)	J:	Abeformin T (Maruko)	Rastinon (Hoechst)
	Tolbutamid R.A.N. (R.A.N.)		Diabex-T (Funai)	Unimide 500 (Sanko)
			Dibetos (Kodama)	Urerubon (Seiko)
F:	Dolipol (Hoechst)		Insilange-D (Horita)	USA: Tolbutamide Tablets (Mylan)
			Mellitros D (Ono)	

Tolcapone

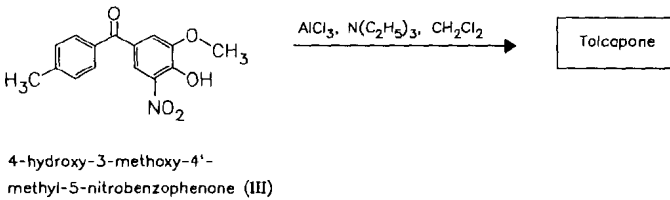
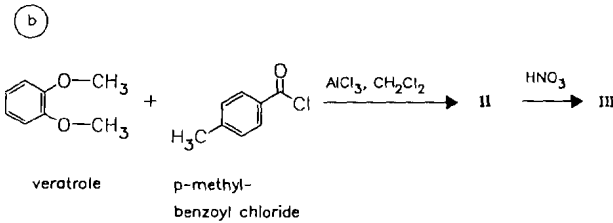
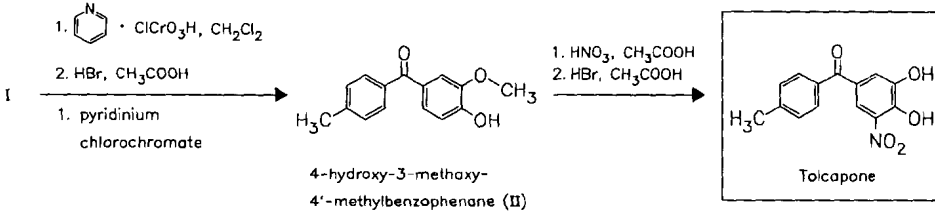
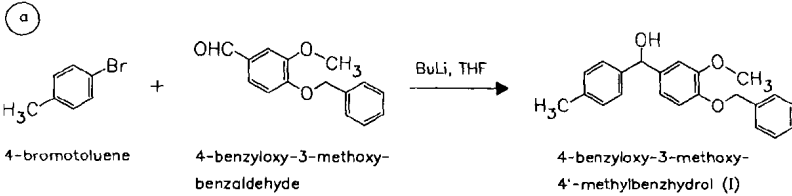
(Ro-40-7592)

ATC: N04BX01

Use: antiparkinsonian, COMT inhibitor

RN: 134308-13-7 MF: C₁₄H₁₁NO₅ MW: 273.24

CN: (3,4-Dihydroxy-5-nitrophenyl)(4-methylphenyl)methanone

**Reference(s):**

- a EP 237 929 (Hoffmann-La Roche; appl. 11.3.1987; CH-prior. 11.3.1986; 9.1.1987).
b EP 855 379 (Hoffmann-La Roche; appl. 15.1.1998; EP-prior. 22.1.1997).

process for the manufacture of a powdery preparation:

WO 9 816 204 (Hoffmann-La Roche; appl. 13.10.1997; EP-prior. 14.10.1996; CH-prior. 25.11.1996).

pharmaceutical composition for treating Parkinson's disease:

WO 9 831 355 (Britannia Pharm.; appl. 14.1.1998; GB-prior. 16.1.1997).

Formulation(s): tabl. 100 mg, 200 mg

Trade Name(s):

D:	Tasmar (Hoffmann-La Roche; 1997); wfm	GB:	Tasmar (Roche); wfm	USA:	Tasmar (Roche; 1998); wfm
I:	Tasmar (Roche); wfm				

Tolfenamic acid

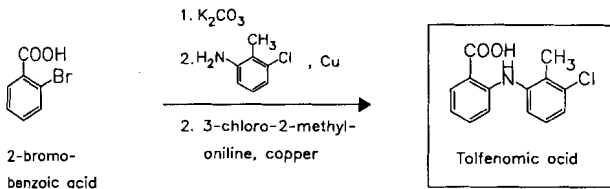
ATC: M01AG02

Use: anti-inflammatory, analgesic

RN: 13710-19-5 MF: C₁₄H₁₂ClNO₂ MW: 261.71 EINECS: 237-264-3

LD₅₀: 280 mg/kg (M, p.o.);
225 mg/kg (R, p.o.)

CN: 3-[(3-chloro-2-methylphenyl)amino]benzoic acid

**Reference(s):**

US 3 313 848 (Parke Davis; 11.4.1967; prior. 18.6.1964).

Formulation(s): cps. 100 mg, 200 mg; s. r. tabl. 300 mg

Trade Name(s):

J: Clotam (Tobishi Shingaku).

Toliprolol

ATC: C07AA

Use: antiarrhythmic, antihypertensive,
 antianginal

RN: 2933-94-0 MF: $C_{13}H_{21}NO_2$ MW: 223.32 EINECS: 220-905-6

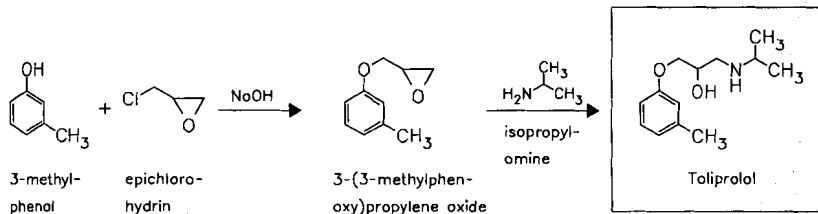
LD₅₀: 28.2 mg/kg (M, i.v.)

CN: 1-[(1-methylethyl)amino]-3-(3-methylphenoxy)-2-propanol

hydrochloride

RN: 306-11-6 MF: $C_{13}H_{21}NO_2 \cdot HCl$ MW: 259.78 EINECS: 206-177-2

LD₅₀: 40 mg/kg (M, i.v.)

**Reference(s):**

DOS 1 493 454 (Boehringer Ing.; appl. 26.8.1963).

NL-appl. 6 409 883 (Boehringer Ing.; appl. 26.8.1963).

Formulation(s): tabl. 10 mg, 50 mg

Trade Name(s):

D: Doberol (Boehringer Ing.);
 wfm

Tolmetin

ATC: M01AB03; M02AA21

Use: anti-inflammatory

RN: 26171-23-3 MF: $C_{15}H_{15}NO_3$ MW: 257.29 EINECS: 247-497-2

LD₅₀: 680 mg/kg (M, i.v.); 914 mg/kg (M, p.o.);

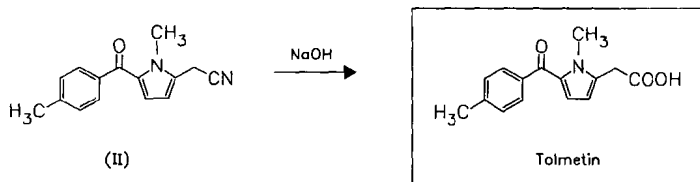
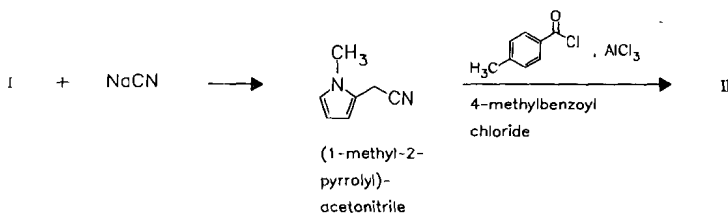
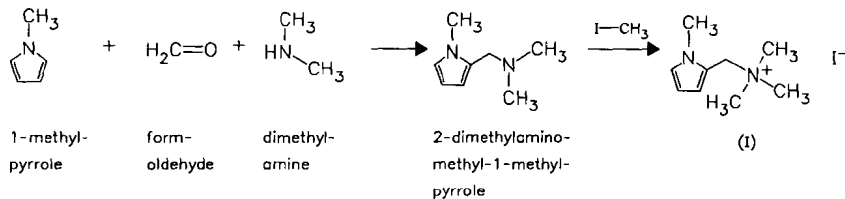
293 mg/kg (R, p.o.)

CN: 1-methyl-5-(4-methylbenzoyl)-1H-pyrrole-2-acetic acid

sodium saltRN: 35711-34-3 MF: C₁₅H₁₄NNaO₃ MW: 279.27 EINECS: 252-687-3LD₅₀: >622 mg/kg (M, i.v.); 899 mg/kg (M, p.o.);

>724 mg/kg (R, i.v.); 914 mg/kg (R, p.o.);

>800 mg/kg (dog, p.o.)

sodium salt dihydrateRN: 64490-92-2 MF: C₁₅H₁₄NNaO₃ · 2H₂O MW: 315.30**Reference(s):**

- US 3 752 826 (McNeil; 14.8.1973; prior. 26.7.1967, 1.7.1968).
 DAS 1 770 984 (McNeil; appl. 25.7.1968; USA-prior. 26.7.1967, 1.7.1968).
 Carson, J.R. et al.: J. Med. Chem. (JMCMAR) **14**, 646 (1971).
 GB 1 428 272 (McNeil; appl. 12.7.1973; USA-prior. 3.8.1972).
 DOS 2 102 746 (McNeil; appl. 21.1.1971; USA-prior. 26.1.1970).
 DOS 2 339 140 (McNeil; appl. 2.8.1973; USA-prior. 3.8.1972).

Friedel-Crafts-synthesis without use of AlCl₃:

- DAS 2 511 256 (Ethyl Corp.; appl. 14.3.1975; USA-prior. 18.3.1974).
 GB 1 503 205 (Ethyl Corp.; appl. 19.5.1975; USA-prior. 17.6.1974).
 GB 1 503 221 (Ethyl Corp.; appl. 6.3.1975; USA-prior. 18.3.1974).
 GB 1 503 222 (Ethyl Corp.; appl. 6.3.1975; USA-prior. 18.3.1974).

alternative syntheses:

- US 4 111 954 (McNeil; 5.9.1978; prior. 20.4.1977).
 US 4 119 639 (McNeil; 10.10.1978; appl. 27.6.1977).
 US 4 125 537 (McNeil; 14.11.1978; appl. 7.2.1977).
 DOS 2 552 975 (Sagami; appl. 7.12.1978; J-prior. 8.12.1977).
 ES 456 334 (Lab. Estedi S. L.; appl. 26.2.1977).

combination with acetaminophen or acetylsalicylic acid:

- US 4 132 788 (McNeil; 2.1.1979; prior. 4.5.1976).

Formulation(s): cps. 200 mg, 400 mg; tabl. 200 mg, 600 mg (as sodium salt)

Trade Name(s):

D:	Tolectin (Cilag-Chemie; 1977); wfm	Reutol (Errekappa Euroter.); wfm	Tolmex (Biopharma); wfm
GB:	Tolectin (Ortho; 1979); wfm	Tolectin (Cilag); wfm	J: Tolectin (Dainippon)
I:	Index (Edmond); wfm	Tolectin (Cilag-Chemie); wfm	USA: Tolectin (Ortho-McNeil; 1976)

Tolnaftate

ATC: D01AE18
Use: antimycotic, fungicide

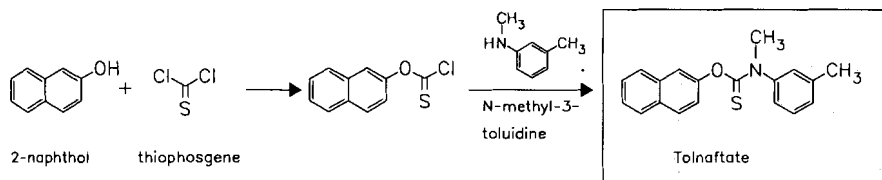
RN: 2398-96-1 MF: C₁₉H₁₇NOS MW: 307.42 EINECS: 219-266-6

LD₅₀: 4800 mg/kg (M, i.v.); 10 g/kg (M, p.o.);

>6 g/kg (R, p.o.);

>14 g/kg (dog, p.o.)

CN: methyl (3-methylphenyl)carbamoithioic acid-*O*-2-naphthalenyl ester



Reference(s):

US 3 334 126 (Nippon Soda; 1.8.1967; J-prior. 21.6.1961, 25.8.1961, 9.4.1962, 13.4.1962).

GB 967 897 (Nippon Soda; appl. 31.5.1962; J-prior. 21.6.1961, 25.8.1961, 9.4.1962, 13.4.1962).

Formulation(s): cream 10 mg/g; powder 5 mg/g; sol. 10 mg/ml

Trade Name(s):

D:	Sorgoa (Scheurich)	F:	Sporiline (Schering-Plough)	J:	Alarzin "Strong" (Yamanouchi)
	Tinatox (Brenner-Efeka)	GB:	Tinaderm-M (Schering-Plough)		Hi-Alarzin (Yamanouchi)-comb.
	Tolnaftat (Pharma Wernigerode)	I:	Tinaderm (Schering-Plough)	USA:	Separin T (Sumitomo)
	Tonoftal (Essex Pharma)				Tinactin (Schering); wfm

Tolonidine

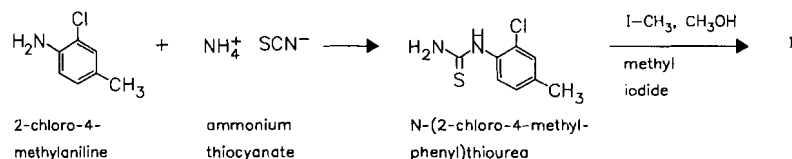
ATC: C02AC04
Use: antihypertensive

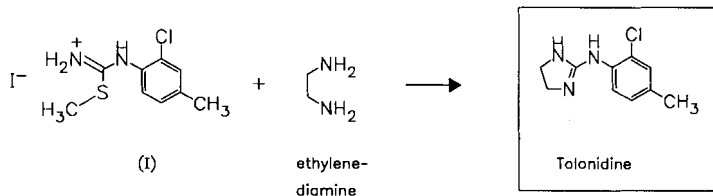
RN: 4201-22-3 MF: C₁₀H₁₂ClN₃ MW: 209.68

CN: *N*-(2-chloro-4-methylphenyl)-4,5-dihydro-1*H*-imidazol-2-amine

nitrate

RN: 4201-23-4 MF: C₁₀H₁₂ClN₃ · xHNO₃ MW: unspecified EINECS: 224-105-8



*Reference(s):*

GB 1 034 938 (Boehringer Ing.; valid from 28.9.1964; D-prior. 4.10.1963).
(also further methods)

Formulation(s): vial 0.5 mg/ml (as nitrate)

Trade Name(s):

F: Euctan (Delalande); wfm

Toloxatone

ATC: N06AG03

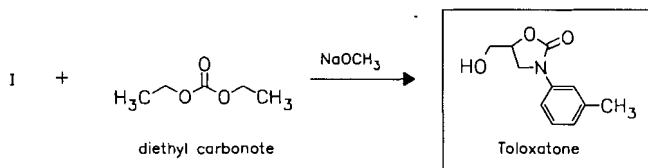
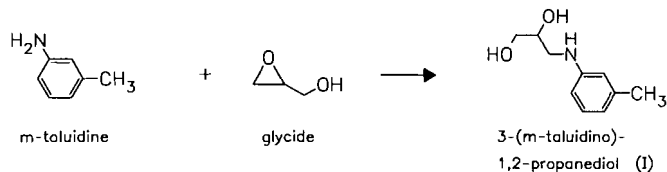
Use: antidepressant, monoaminoxidase inhibitor

RN: 29218-27-7 MF: C₁₁H₁₃NO₃ MW: 207.23 EINECS: 249-522-2

LD₅₀: 1300 mg/kg (M, p.o.);

1225 mg/kg (R, p.o.)

CN: 5-(hydroxymethyl)-3-(3-methylphenyl)-2-oxazolidinone

*Reference(s):*

DOS 2 011 333 (Delalande; appl. 10.3.1970; GB-prior. 18.3.1969).

DOS 2 012 120 (Delalande; appl. 13.13.1970; GB-prior. 18.3.1969).

Fauvan, C.; Douzon, C.: Chim. Ther. (CHTPBA) 3, 324 (1973).

Formulation(s): cps. 200 mg

Trade Name(s):

F: Humoryl (Synthelabo;
1985)

I: Umoril (Synthelabo)

Tolperisone

ATC: M03BX04

Use: vasodilator, antispasmodic, skeletal muscle relaxant

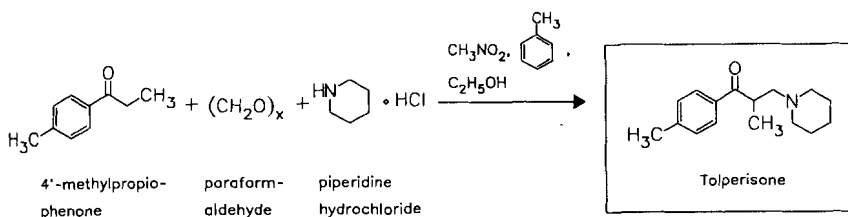
RN: 728-88-1 MF: C₁₆H₂₃NO MW: 245.37 EINECS: 222-876-5

CN: 2-methyl-1-(4-methylphenyl)-3-(1-piperidiny)-1-propanone

hydrochlorideRN: 3644-61-9 MF: C₁₆H₂₃NO · HCl MW: 281.83LD₅₀: 34 mg/kg (M, i.v.); 358 mg/kg (M, p.o.);

1450 mg/kg (R, p.o.);

45 mg/kg (dog, i.v.)

**Reference(s):**

JP 203 90/65 (Eisai; appl. 4.11.1961).

Ruddy, A.W.; Buckley, J.S.: J. Am. Chem. Soc. (JACSAT) **72**, 718 (1950).**injection solution:**

DOS 2 362 337 (Gedeon Richter; appl. 14.12.1973; H-prior. 15.1.1973).

Formulation(s): amp. 100 mg; drg. 50 mg, 150 mg; tabl. 50 mg, 100 mg, 500 mg (as hydrochloride)**Trade Name(s):**

D:	Mydocalm (Strathmann)	Kineore (Showa)	Nichiperizone (Nissin)
F:	Mydocalm (Richter); wfm	Lasmon (Tanabe)	Roystajin (Zensei)
J:	Abbsa (Sanko)	Magnine (Toyo)	Sinorum (Towa)
	Atmosgen (Maruko)	Menopatul (Nippon)	
	Besnoline (Kotobuki)	Chemiphar	
	Kanebo	Muscalm (Nippon Kayaku)	

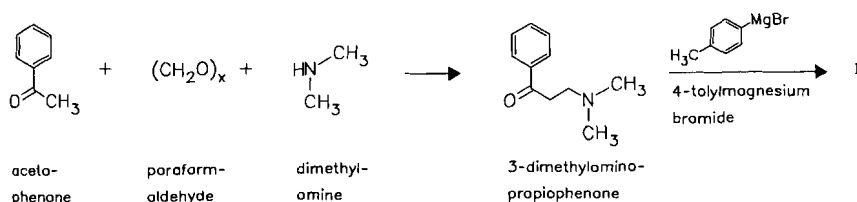
Tolpropamine

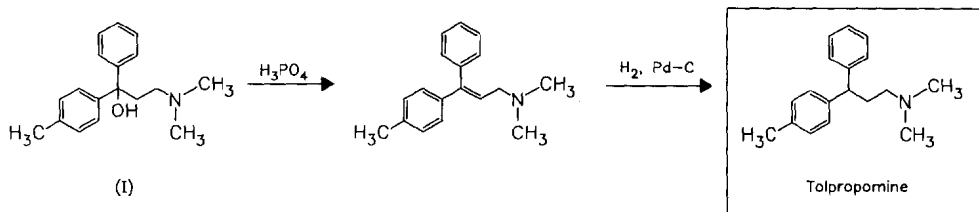
ATC: D04AA12

Use: antihistaminic, antiallergic

RN: 5632-44-0 MF: C₁₈H₂₃N MW: 253.39 EINECS: 227-071-2

CN: N,N,4-trimethyl-γ-phenylbenzenepropanamine

hydrochlorideRN: 3339-11-5 MF: C₁₈H₂₃N · HCl MW: 289.85 EINECS: 222-082-9

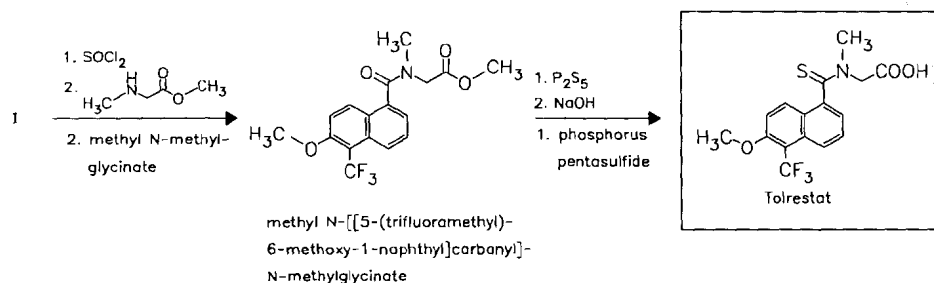
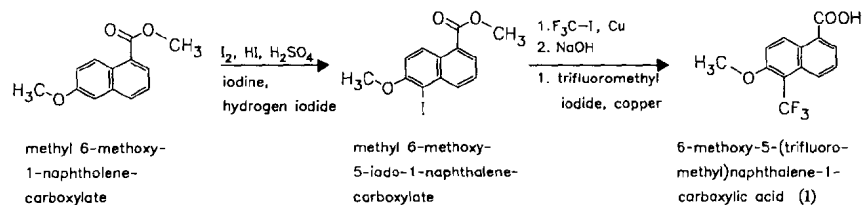
**Reference(s):**

DE 925 468 (Hoechst; appl. 1941).

Formulation(s): gel 1 %**Trade Name(s):**D: Brondilat (Albert-Roussel)-
comb.; wfmBrondiletten (Albert-
Roussel)-comb.; wfmI: Pragman-Gelee (Albert-
Roussel); wfmPragman Gelee (Albert-
Farma); wfmPragman Gelee (Albert-
Roussel); wfmJ: Pragman Jelly (Tokyo
Tanabe)**Tolrestat**

(Tolrestatin)

ATC: A10XA01

Use: aldose reductase inhibitor
(prophylaxis of diabetic neuropathy,
retinopathy, cataract)RN: 82964-04-3 MF: $\text{C}_{16}\text{H}_{14}\text{F}_3\text{NO}_3\text{S}$ MW: 357.35CN: *N*-[[6-methoxy-5-(trifluoromethyl)-1-naphthalenyl]thioxomethyl]-*N*-methylglycine

Reference(s):

EP 59 596 (Ayerst; appl. 24.2.1982; CND-prior. 15.10.1981).
 US 4 391 825 (Ayerst; appl. 5.7.1983; prior. 13.11.1981; CND-prior. 15.10.1981).
 US 4 568 693 (Ayerst; 4.2.1986; appl. 9.9.1983; prior. 13.11.1981; CND-prior. 2.3.1981).
 US 4 600 724 (Ayerst; 15.7.1986; appl. 17.7.1985; prior. 13.11.1981, 9.9.1983; CND-prior. 2.3.1981).
 US 4 705 882 (Ayerst; 10.11.1987; appl. 28.3.1986; prior. 13.11.1981, 9.9.1983, 17.7.1985; CND-prior. 2.3.1981).
 US 4 946 987 (Ayerst; 7.8.1990; appl. 20.6.1988; prior. 13.11.1981, 9.9.1983, 17.7.1985, 28.3.1986; CND-prior. 2.3.1981).
 Sestanj, K. et al.: J. Med. Chem. (JMCMAR) **27**, 255 (1984).

synthesis of methyl 6-methoxy-1-naphthalenecarboxylate:

Price, C.C. et al.: J. Am. Chem. Soc. (JACSAT) **69**, 2261 (1947).

synthesis of 6-methoxy-5-(trifluoromethyl)naphthalene-1-carboxylic acid:

EP 245 679 (Ethyl Corp.; appl. 24.4.1987; USA-prior. 12.5.1986).
 US 4 629 808 (Ethyl Corp.; 16.12.1986; appl. 20.6.1985).
 US 4 590 010 (Ethyl Corp.; 20.5.1986; appl. 18.4.1985).
 US 4 562 286 (Occidental Chem. Corp.; 31.12.1985; appl. 1.11.1984).
 US 4 560 794 (Occidental Chem. Corp.; 24.12.1985; appl. 1.11.1984).
 US 4 408 077 (Ayerst; 4.10.1983; appl. 13.11.1981).
 EP 59 596 (Ayerst; appl. 24.2.1982; CND-prior. 15.10.1981, 2.3.1981).
 Sestanj, K. et al.: J. Med. Chem. (JMCMAR) **27**, 255 (1984).

pharmaceutical composition for treatment of diabetic complications:

JP 61 078 725 (American Home; appl. 17.9.1985; USA-prior. 20.9.1984).

medical use to improve hearing in diabetics:

US 4 783 486 (American Home; 8.11.1988; appl. 6.11.1987).

medical use to improve wound healing:

US 4 751 243 (American Home; 14.6.1988; appl. 18.6.1986).

medical use for treatment of periodontal disease:

US 4 731 380 (American Home; 15.3.1988; appl. 26.8.1986).

medical use for stimulation of immune response:

EP 256 629 (American Home; appl. 9.6.1987; USA-prior. 12.6.1986).

medical use as antihypertensive in diabetics:

EP 245 951 (American Home; appl. 9.4.1987; USA-prior. 17.4.1986).

Formulation(s): cps. 200 mg; tabl. 200 mg

Trade Name(s):

I:	Alredase (Wyeth; 1990); wfm	J:	Tolrestat (Wyeth-Ayerst); wfm
	Lorestat (Recordati; 1990); wfm	USA:	Alredase (Wyeth-Ayerst); wfm

Tolterodine

(Kabi 2234; PNU-200583)

ATC: G04BD07

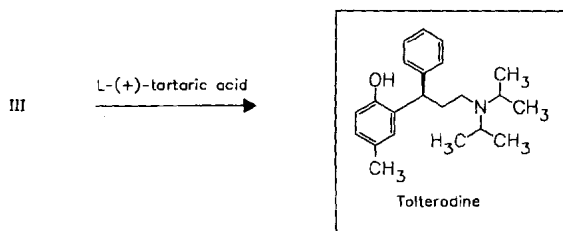
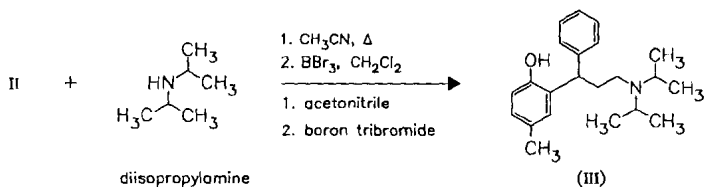
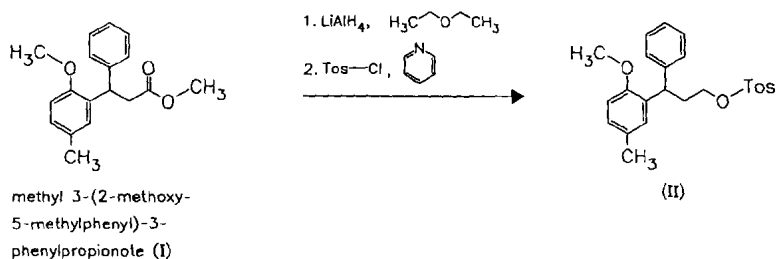
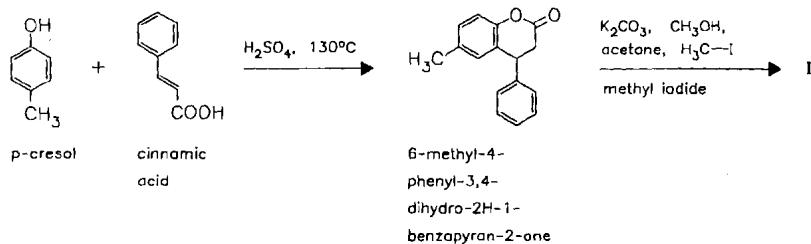
Use: agent for urinary incontinence,
muscarinic receptor antagonist

RN: 124937-51-5 MF: C₂₂H₃₁NO MW: 325.50

CN: (R)-2-[3-[Bis(1-methylethyl)amino]-1-phenylpropyl]-4-methylphenol

tartrate

RN: 124937-52-6 MF: C₂₂H₃₁NO · C₄H₆O₆ MW: 475.58

**Reference(s):**

EP 325 571 (Kabi Vitrum; appl. 20.1.1989; S-prior. 22.1.1988).

pharmaceutical compositions containing anti-incontinence agents:

WO 9 811 888 (American Home Products Corp.; appl. 17.9.1997; USA-prior. 19.9.1996).

Formulation(s): f. c. tabl. 1 mg, 2 mg (as maleate)**Trade Name(s):**

D: Detrusitol (Pharmacia & Upjohn; 1998)

GB: Detrusitol (Pharmacia & Upjohn)

USA: Detrol (Pharmacia & Upjohn)

F: Detrusitol (Pharmacia & Upjohn)

I: Detrusitol (Pharmacia & Upjohn)

Tolycaine

ATC: N01BB

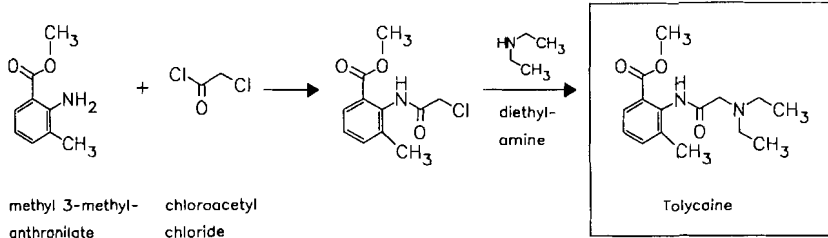
Use: local anesthetic

RN: 3686-58-6 MF: $C_{15}H_{22}N_2O_3$ MW: 278.35 EINECS: 222-976-9

CN: 2-[[[(diethylamino)acetyl]amino]-3-methylbenzoic acid methyl ester

monohydrochlorideRN: 7210-92-6 MF: $C_{15}H_{22}N_2O_3 \cdot HCl$ MW: 314.81 EINECS: 230-590-7LD₅₀: 60 mg/kg (M, i.v.);

44 mg/kg (R, i.v.)

**Reference(s):**

DE 1 018 070 (Bayer; appl. 26.9.1955).

Formulation(s): vial 0.08/4 ml (as hydrochloride)**Trade Name(s):**

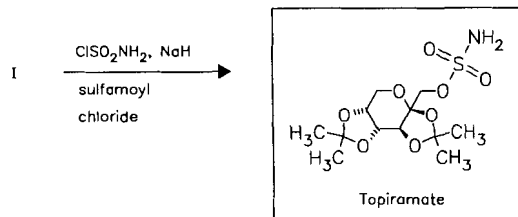
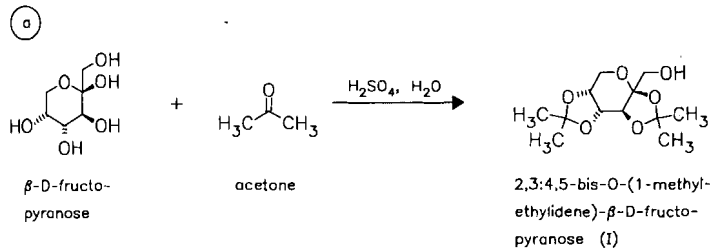
D: Baycain (Bayer); wfm F: Campovit (Bayer-Pharma)-comb.; wfm J: Baycain (Bayer)
 Tardocillin (Bayer)-comb.

Topiramate

(KW-6485; McN-4853; RWJ-17021-000)

ATC: N03AX11

Use: anticonvulsant

RN: 97240-79-4 MF: $C_{12}H_{21}NO_8S$ MW: 339.37LD₅₀: >1500 mg/kg (R, i.p.)CN: 2,3:4,5-bis-*O*-(1-methylethylidene)- β -D-fructopyranose sulfamate

(b)

1. SO_2Cl_2 , pyridine
2. NaN_3 , acetonitrile
3. Cu, CH_3OH

t

Topiramate

Reference(s):

- a Maryanoff, B.E. et al.: J. Med. Chem. (JMCMAR) **30**, 880-887 (1987).
EP 138 441 (McNeillab Inc.; appl. 25.9.1984; USA-prior. 26.9.1983, 11.2.1985).
- b EP 533 483 (McNeillab Inc.; appl. 18.9.1992; USA-prior. 19.9.1991, 5.8.1992).

Formulation(s): tabl. 50 mg, 100 mg, 200 mg*Trade Name(s):*

GB: Topamate (Janssen-Cilag) USA: Topamax (Ortho-McNeil)

Topotecan

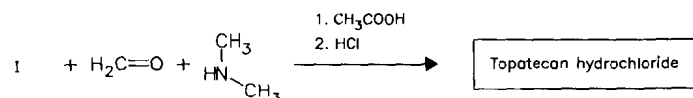
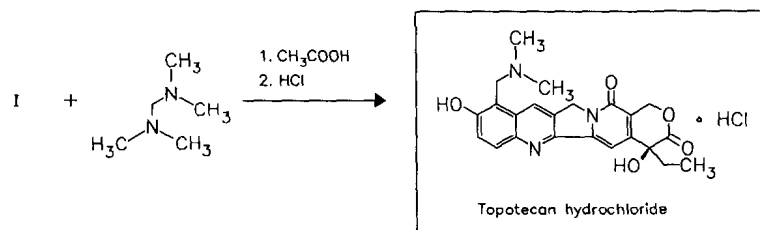
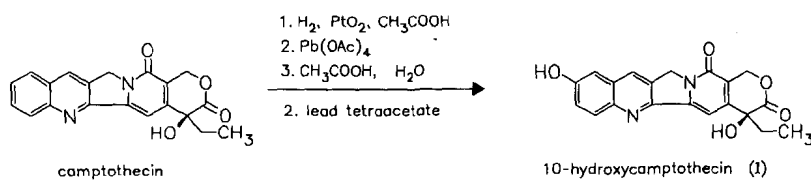
(NSC-609669; SK&F-S 104864-A)

ATC: L01XX17

Use: antineoplastic, topoisomerase I-inhibitor

RN: 123948-87-8 MF: $\text{C}_{23}\text{H}_{23}\text{N}_3\text{O}_5$ MW: 421.45

CN: (S)-10-[(dimethylamino)methyl]-4-ethyl-4,9-dihydroxy-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinoline-3,14(4H,12H)-dione

monohydrochlorideRN: 119413-54-6 MF: $\text{C}_{23}\text{H}_{23}\text{N}_3\text{O}_5 \cdot \text{HCl}$ MW: 457.91**acetate**RN: 123948-88-9 MF: $\text{C}_{23}\text{H}_{23}\text{N}_3\text{O}_5 \cdot \text{C}_2\text{H}_4\text{O}_2$ MW: 481.51**dihydrochloride**RN: 123949-07-5 MF: $\text{C}_{23}\text{H}_{23}\text{N}_3\text{O}_5 \cdot 2\text{HCl}$ MW: 494.38

Reference(s):

Kingsbury, W.D. et al.: J. Med. Chem. (JMCMAR) **34** (1), 98 (1991).
 EP 321 122 (SmithKline Beecham; appl. 30.11.1988; USA-prior. 1.12.1987).
 WO 9 205 785 (SmithKline Beecham; appl. 23.9.1991; USA-prior. 28.9.1990).

Formulation(s): vial 4 mg (as hydrochloride)

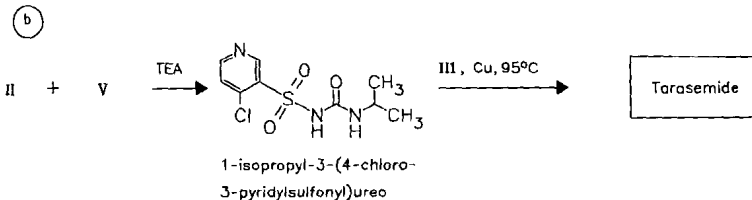
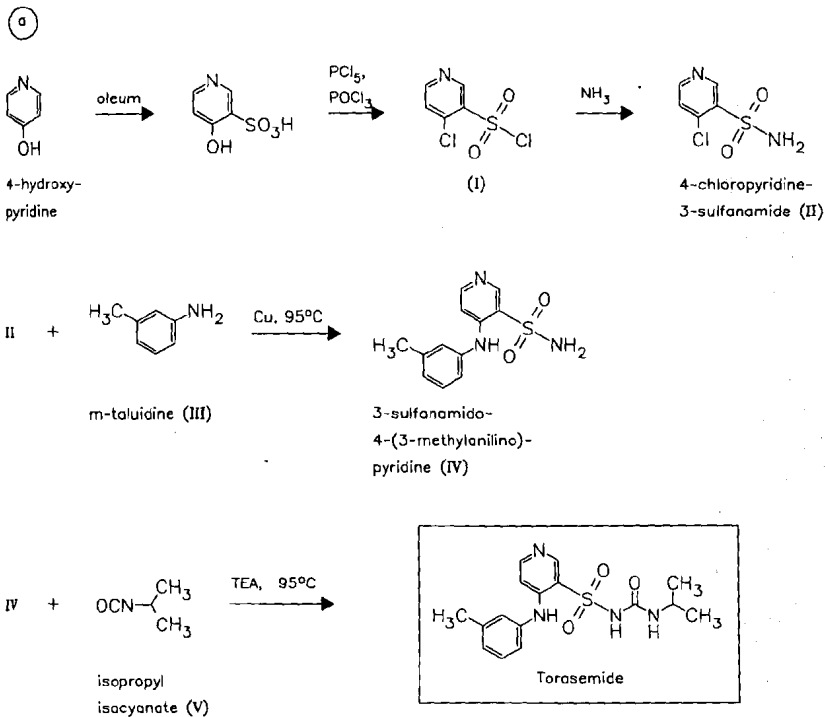
Trade Name(s):

D:	Hycamtin (SmithKline Beecham)	GB:	Hycamtin (SmithKline Beecham)	USA:	Hycamtin (SmithKline Beecham)
F:	Hycamtin (SmithKline Beecham)	I:	Hycamtin (SmithKline Beecham)		

Torasemide

Use: antihypertensive, loop diuretic

(AC 4464; BM 02015)

RN: 56211-40-6 MF: $C_{16}H_{20}N_4O_3S$ MW: 348.43CN: *N*-[[*(1-Methylethyl)amino*]carbonyl]-4-[(3-methylphenyl)amino]-3-pyridinesulfonamide**sodium salt**RN: 72810-59-4 MF: $C_{16}H_{20}N_4O_3S \cdot xNa$ MW: unspecified

Reference(s):

a,b Delarge, J.: *Arzneim.-Forsch. (ARZNAD)* **38** (I), 1a (1988).

DE 2 516 025 (A. Christiaens; appl. 12.4.1975; GB-prior. 17.4.1974).

stable crystalline modification:

DE 3 623 620 (Boehringer Mannheim; appl. 17.8.1985; D-prior. 17.8.1985).

injections containing torasemide:

DE 3 623 620 (Boehringer Mannheim; D-prior. 12.7.1986).

rapidly disintegrating pellets:

WO 09 810 754 (Boehringer Mannheim; appl. 9.9.1997; D-prior. 12.9.1996).

polymorphism and control of the serum solubility of orally administered torasemide:

US 5 914 336 (Boehringer Mannheim; 22.6.1999; USA-prior. 2.6.1998).

tablets containing torasemide:

WO 9 300 097 (Boehringer Mannheim; appl. 25.6.1992; J-prior. 25.6.1991).

use for treatment of brain edema:

DE 4 113 820 (Boehringer Mannheim; D-prior. 27.4.1991).

Formulation(s): amp. 10.631 mg/2 ml, 21.262 mg/4 ml, 212.62 mg/20 ml (as sodium salt); tabl 2.5 mg, 5mg, 10 mg

Trade Name(s):

D: Torem (Berlin-Chemie)

Unat (Roche; 1999)

Toremifene

(FC-1157a)

ATC: L02BA02

Use: antiestrogen, antineoplastic

RN: 89778-26-7 MF: $C_{26}H_{28}ClNO$ MW: 405.97

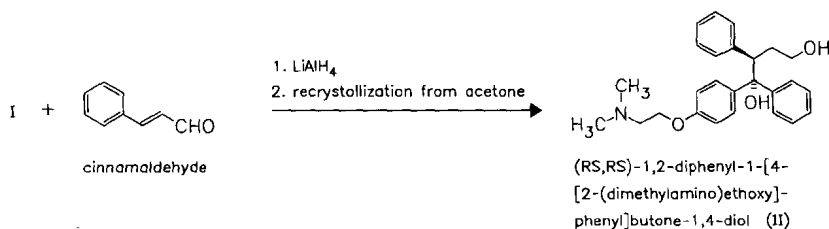
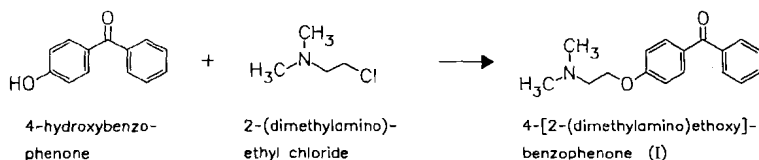
LD₅₀: 1700 mg/kg (R, p.o.)

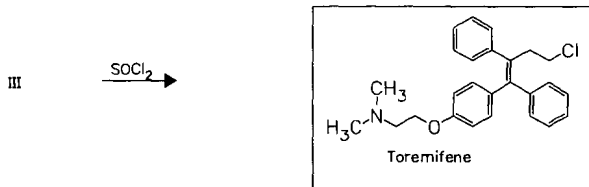
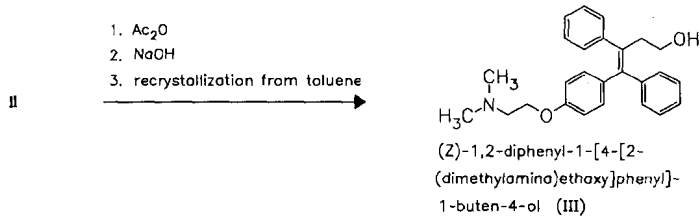
CN: (Z)-2-[4-(4-chloro-1,2-diphenyl-1-butenyl)phenoxy]-N,N-dimethylethanamine

citrate (1:1)

RN: 89778-27-8 MF: $C_{26}H_{28}ClNO \cdot C_6H_8O_7$ MW: 598.09

LD₅₀: 3 g/kg (R, p.o.)



**Reference(s):**

EP 95 875 (Farmos; appl. 20.5.1983; SF-prior. 27.5.1982).

US 4 696 949 (Farmos; 29.9.1987; appl. 29.1.1986; SF-prior. 27.5.1982, 9.5.1983).

Formulation(s): tabl. 20 mg, 60 mg (as citrate)

Trade Name(s):

D: Fareston (ASTA Medica
AWD)

I: Fareston (Schering-Plough)
J: Fareston (Nippon Kayaku;

USA: Fareston (Schering-Plough)

GB: Fareston (Orion)

as citrate)

Tosufloxacin

Use: quinolone antibacterial, gyrase inhibitor

RN: 108138-46-1 MF: $\text{C}_{19}\text{H}_{15}\text{F}_3\text{N}_4\text{O}_3$ MW: 404.35

CN: (\pm)-7-(3-amino-1-pyrrolidinyl)-1-(2,4-difluorophenyl)-6-fluoro-1,4-dihydro-4-oxo-1,8-naphthyridine-3-carboxylic acid

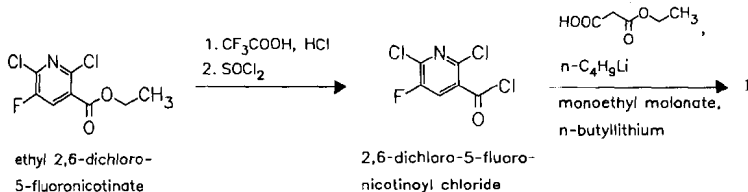
monotosylate

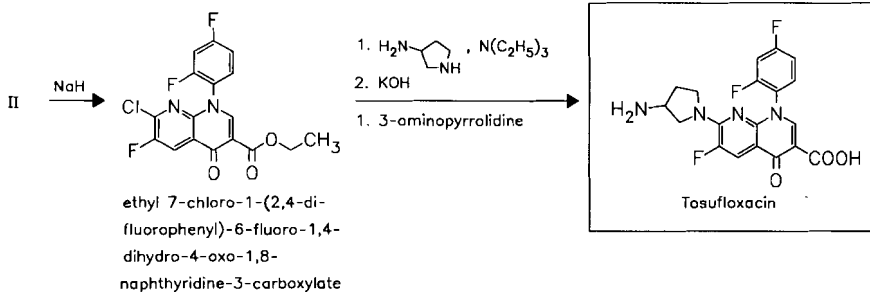
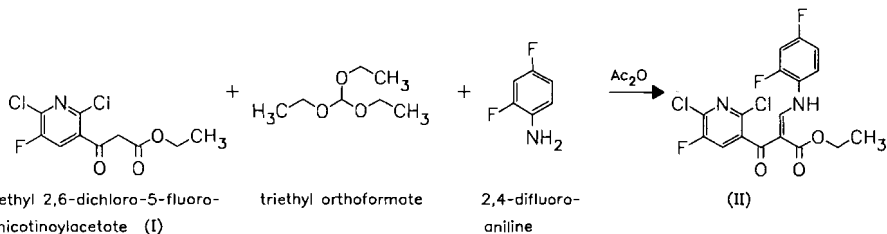
RN: 115964-29-9 MF: $\text{C}_{19}\text{H}_{15}\text{F}_3\text{N}_4\text{O}_3 \cdot \text{C}_7\text{H}_8\text{O}_3\text{S}$ MW: 576.55

LD_{50} : 196 mg/kg (M, i.v.); >6 g/kg (M, p.o.);

270 mg/kg (R, i.v.); >6 g/kg (R, p.o.);

>3 g/kg (dog, p.o.)



**Reference(s):**

DE 3 514 076 (Toyama; appl. 31.10.1985; J-prior. 26.4.1984).

US 4 704 459 (Toyama; 3.11.1987; appl. 17.1.1986; J-prior. 23.1.1985, 18.2.1985, 7.3.1985, 3.4.1985, 8.5.1985, 14.6.1985).

Chu, D.T.W. et al.: J. Med. Chem. (JMCMAR) **29**, 2363 (1986).Narita, H. et al.: Yakugaku Zasshi (YKKZAJ) **106**, 802 (1986).**synthesis of ethyl 2,6-dichloro-5-fluoronicotinate:**

JP 82/72 981 (H. Matsumoto et al.; appl. 7.5.1982).

alternative synthesis:

EP 302 372 (Abbott; appl. 8.2.1989; USA-prior. 4.8.1987).

BE 904 086 (Toyama; appl. 14.6.1985; J-prior. 23.1.1985).

Formulation(s): tabl. 75 mg, 150 mg (as tosylate) ·**Trade Name(s):**

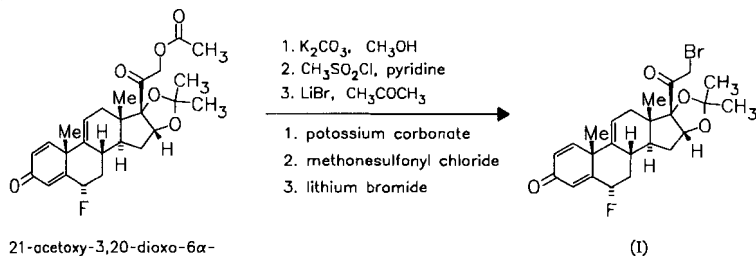
J: Osex (Toyama; 1990)

Tosuxacin (Dainabot;
1990)**Tralonide**

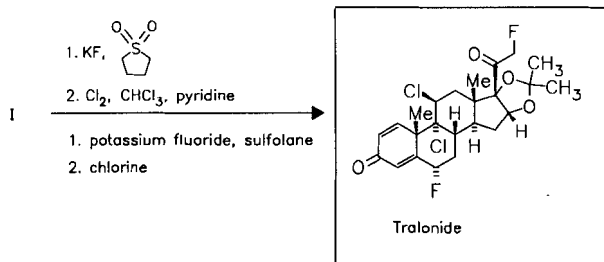
ATC: H02AB; R03BA

Use: glucocorticoid

RN: 21365-49-1 MF: $\text{C}_{24}\text{H}_{28}\text{Cl}_2\text{F}_2\text{O}_4$ MW: 489.39CN: (6 α ,11 β ,16 α)-9,11-dichloro-6,21-difluoro-16,17-[(1-methylethylidene)bis(oxy)]pregna-1,4-diene-3,20-dione



21-acetoxy-3,20-dioxo-6α-fluoro-16α,17-isopropylidene-dioxy-1,4,9(11)-pregnatriene
 (from fludroxycortide, q. v.)



Reference(s):

DOS 2 225 324 (Syntex; appl. 25.5.1972; USA-prior. 26.5.1971).

starting material:

US 3 282 929 (American Cyanamid; 1.11.1966; prior. 6.7.1964).

alternative synthesis:

US 3 409 613 (Syntex; 5.11.1968; prior. 28.7.1966).

ZA 680 282 (Syntex; appl. 15.1.1968).

medical use:

US 3 934 013 (Syntex; 20.1.1976; prior. 21.2.1975).

Trade Name(s):

USA: Talidan (Lilly); wfm

Tramadol

ATC: N02AX02

Use: analgesic

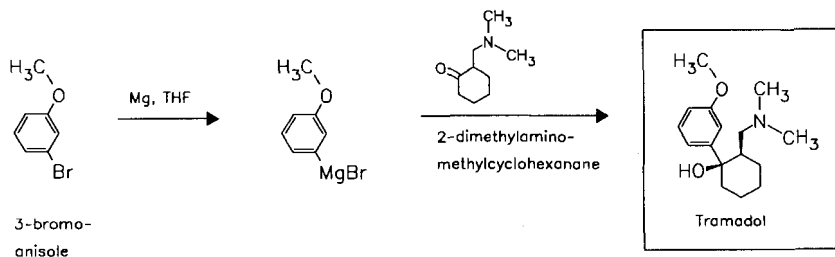
RN: 27203-92-5 MF: $C_{16}H_{25}NO_2$ MW: 263.38 EINECS: 248-319-6

LD₅₀: 228 mg/kg (R, p.o.)

CN: *cis*-(±)-2-[(dimethylamino)methyl]-1-(3-methoxyphenyl)cyclohexanol

hydrochloride

RN: 36282-47-0 MF: $C_{16}H_{25}NO_2 \cdot HCl$ MW: 299.84 EINECS: 252-950-2

**Reference(s):**

GB 997 399 (Grünenthal; appl. 1.4.1964; D-prior. 2.4.1963).

Formulation(s): amp. 50 mg/ml, 100 mg/2 ml; cps. 50 mg; drops 100 mg/ml; eff. tabl. 50 mg; s. r. tabl. 100 mg, 150 mg, 200 mg; suppos. 100 mg; tabl. 50 mg (as hydrochloride)

Trade Name(s):

D:	Amadol (TAD)	Tramadura (durachemie)	F:	Topalgic (Hoechst Houdé)
	TRADOL-PUREN (Isis Puren)	Tramagetic (Azupharma)	GB:	Tramake (Galen)
	Trama (Kade)	Tramagit (Krewel Meuselbach)		Zamadol SR (ASTA Medica)
	Trama AbZ (AbZ-Pharma)	Tramal (Grünenthal)		Zyndol SR (Searle)
	Trama beta (betapharm)	Trama-Sanorania (Sanorania)	I:	Contramol (Formenti)
	Tramadol (ASTA Medica)	Tramdolar (Hexal)		Fortradol (Bayer)
	AWD; Dolorgiet; ratiopharm; Stada; ct-Arzneimittel)	Tramedphano (medphano)	J:	Crispin (Kowa)
		Tramundin (Mundipharma)	USA:	Ultram (Ortho-McNeil)

Tramazoline

ATC: R01AA09

Use: vasoconstrictor, rhinological therapeutic

RN: 1082-57-1 MF: C₁₃H₁₇N₃ MW: 215.30 EINECS: 214-105-6

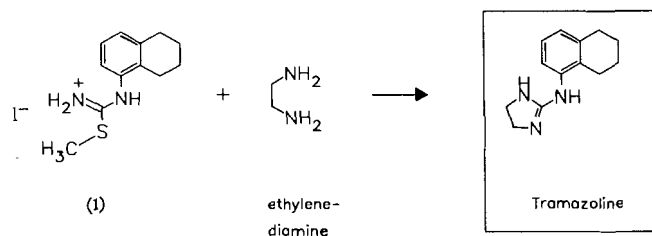
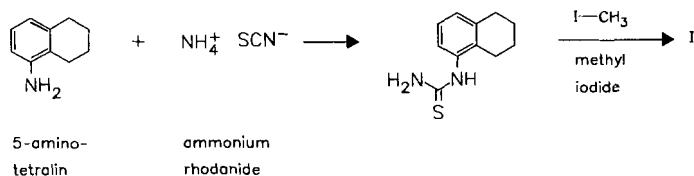
CN: 4,5-dihydro-N-(5,6,7,8-tetrahydro-1-naphthalenyl)-1H-imidazol-2-amine

monohydrochloride

RN: 3715-90-0 MF: C₁₃H₁₇N₃ · HCl MW: 251.76 EINECS: 223-064-3

LD₅₀: 11.6 mg/kg (M, i.v.); 130 mg/kg (M, p.o.);

190 mg/kg (R, p.o.)



Reference(s):

DE 1 173 904 (Thomae; appl. 5.8.1961).

DE 1 191 381 (Thomae; appl. 24.6.1963; addition to DE 1 173 904).

DE 1 195 323 (Thomae; appl. 24.6.1963; addition to DE 1 173 904).

Formulation(s): eye drops 0.6 mg/ml; nasal spray/drops 1.2 mg/ml

Trade Name(s):

D:	Biciron Augentropfen (Alcon)	Rhinospray (Boehringer Ing.)	I:	Rinogutt Spray (Fher)
	Ellatun Nasentropfen (Alcon)	GB: Dexa-Rhinspray (Boehringer Ing.)-comb.	J:	Towk (Tanabe)

Trandolapril

(RU-44570)

ATC: C09AA10

Use: antihypertensive (ACE inhibitor)

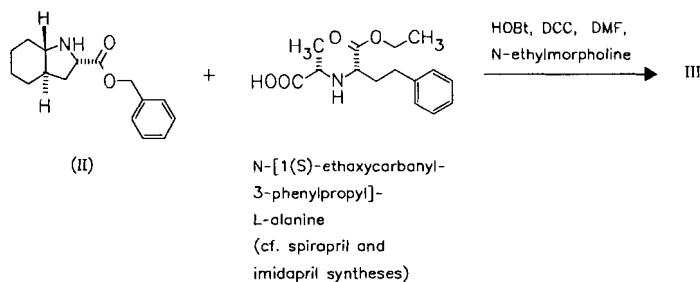
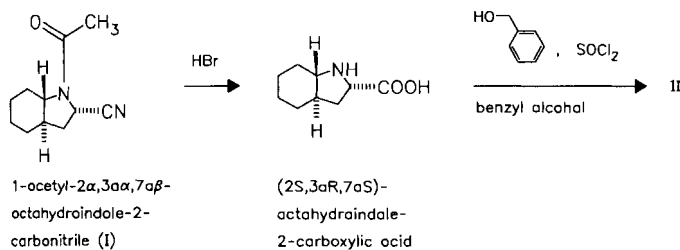
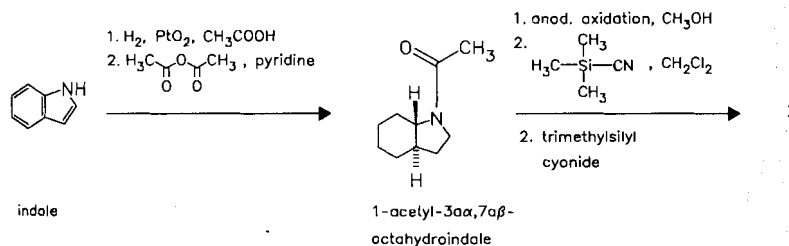
RN: 87679-37-6 MF: $C_{24}H_{34}N_2O_5$ MW: 430.55LD₅₀: >2 g/kg (R, i. v.); >5 g/kg (R, p. o.);

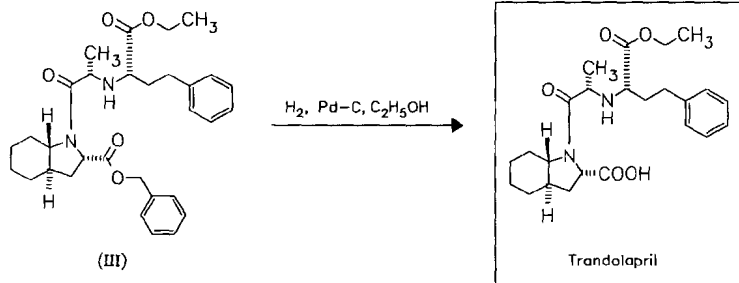
3 g/kg (M, i. v.); 3.99 g/kg (M, p. o.);

2 g/kg (dog, p. o.)

CN: [2*S*-[1[*R**(*R**),2 α ,3 α ,7 α \beta]]-1-[2-[[1-(Ethoxycarbonyl)-3-phenylpropyl]amino]-1-oxopropyl]octahydro-1*H*-indole-2-carboxylic acid

hydrochloride

RN: 87725-72-2 MF: $C_{24}H_{34}N_2O_5 \cdot HCl$ MW: 467.01

**Reference(s):**

DE 3 151 690 (Hoechst AG; appl. 29.12.1981; D-prior. 29.12.1981)

Formulation(s): cps. 0.5 mg, 1 mg, 2 mg; tabl. 2 mg, 4 mg**Trade Name(s):**

D: Gopten (Knoll) Tarka (Knoll)-comb. with verapamil hydrochloride Udramil (Hoechst Marion Roussel; Pohl-Boskamp)-comb. with verapamil hydrochloride	F: Gopten (Ebewe, A; Knoll) Odrlik (Roussel)	GB: Gopten (Ebewe, A; Knoll) Odrlik (Roussel)	I: Gopten (Ebewe, A; Knoll)	Udrlik (Hoechst Marion Roussel; Pohl-Boskamp)	Zeddan (Mediolanum) J: Preran (Hoechst) USA: Mavik (Knoll Pharmac.) Tarka (Knoll Pharmac.)
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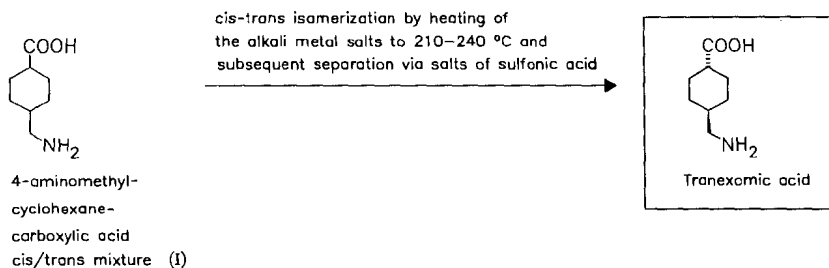
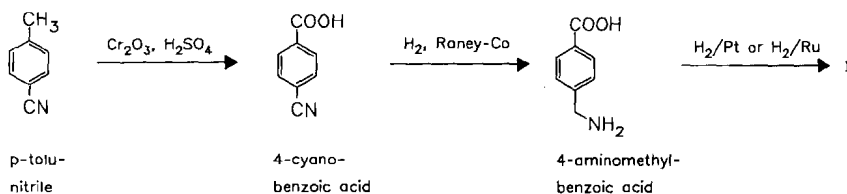
Tranexamic acid

(Acide tranexamique)

ATC: B02AA02**Use:** antifibrinolytic, hemostatic**RN:** 1197-18-8 **MF:** C₈H₁₅NO₂ **MW:** 157.21 **EINECS:** 214-818-2**LD₅₀:** 1350 mg/kg (M, i.v.); >10 g/kg (M, p.o.);

1200 mg/kg (R, i.v.);

1110 mg/kg (dog, i.v.); >5 g/kg (dog, p.o.)

CN: *trans*-4-(aminomethyl)cyclohexanecarboxylic acid

Reference(s):**syntheses:**

Einhorn, A.; Ladisch, C.: Justus Liebigs Ann. Chem. (JLACBF) **310**, 194 (1900).
 Levine, M.; Sedlecky, R.: J. Org. Chem. (JOCEAH) **24**, 115 (1959).
 DAS 1 443 755 (Daiichi Seiyaku; appl. 23.12.1964; J-prior. 24.12.1963).
 DAS 1 793 841 (Daiichi Seiyaku; appl. 23.12.1964; J-prior. 24.12.1963).
 GB 1 202 189 (Kureha; appl. 13.6.1969; J-prior. 14.6.1968, 12.9.1968, 28.12.1968, 17.2.1969).
 US 3 499 925 (Daiichi Seiyaku; 10.3.1970; J-prior. 23.3.1964, 6.7.1964).
 DOS 1 568 379 (Daiichi Seiyaku; appl. 13.4.1966; J-prior. 13.4.1965).
 DOS 2 227 504 (Kowa; appl. 6.6.1972).
 DAS 2 344 043 (Teijin; appl. 31.8.1973; J-prior. 7.9.1972, 30.3.1973).
 GB 1 409 938 (Asahi; appl. 29.11.1973; J-prior. 29.11.1972).
 DAS 2 359 251 (Asahi; appl. 28.11.1973; J-prior. 29.11.1972).
 GB 1 410 108 (Asahi; appl. 2.10.1973; J-prior. 2.10.1972).
 DAS 2 623 130 (Kureha; appl. 22.5.1976; J-prior. 27.5.1975).

Formulation(s): amp. 250 mg/5 ml, 500 mg/5 ml; cps. 250 mg, 500 mg; f. c. tabl. 500 mg; tabl. 250 mg

Trade Name(s):

D:	Anvitoff (Knoll)	I:	Amcacid (Bonomelli); wfm	J:	Carxamin (Sankyo Zoki)
	Cyklokapron (Pharmacia & Upjohn)		Amcacid (Bonomelli-Hommel); wfm		Hexatron (Nihon Shinyaku)
	Ugurol (Bayer)		Emorhalt (Sigurtà); wfm		Rikavarin (Toyo)
F:	Exacyl (Sanofi Winthrop)		Tranex (Malesci); wfm		Spiramin (Mitsui)
	Spotof (CCD)		Transil (Malesci)-comb.; wfm		Tranexamic Acid (Mohan)
GB:	Cyklokapron (Pharmacia & Upjohn)		Ugurol (Bayer); wfm	USA:	Cyklokapron (Pharmacia & Upjohn); wfm

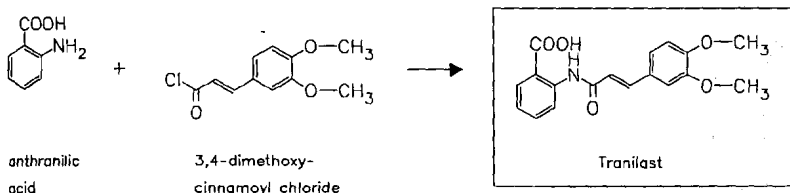
Tranilast

ATC: R06
 Use: antiallergic

RN: 53902-12-8 MF: C₁₈H₁₇NO₅ MW: 327.34

LD₅₀: 680 mg/kg (M, p.o.);
 1100 mg/kg (R, p.o.);
 660 mg/kg (dog, p.o.)

CN: 2-[[3-(3,4-dimethoxyphenyl)-1-oxo-2-propenyl]amino]benzoic acid

**Reference(s):**

DOS 2 402 398 (Kissei; appl. 18.1.1974; J-prior. 18.1.1973).
 US 3 940 422 (Kissei; 24.2.1976; appl. 17.1.1974; J-prior. 18.1.1973).
 US 4 070 484 (Kissei; 24.1.1978; prior. 18.1.1973).

Formulation(s): cps. 100 mg, eye drops 0.5 %; gran. 10 %

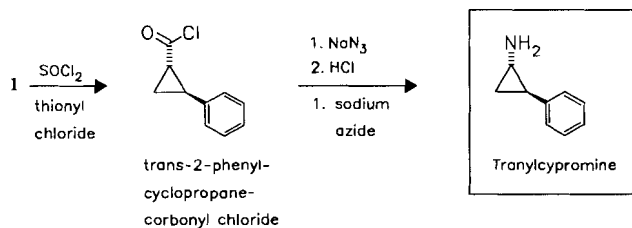
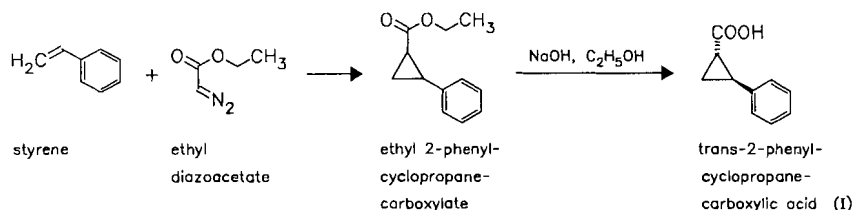
Trade Name(s):

J: Rizaben (Kissei; 1982)

Tranylcypromine

ATC: N06AF04

Use: psychoanaleptic, antidepressant

RN: 155-09-9 MF: C₉H₁₁N MW: 133.19 EINECS: 205-841-9LD₅₀: 64 mg/kg (M, p.o.)CN: *trans*-(±)-2-phenylcyclopropanamine**sulfate (2:1)**RN: 13492-01-8 MF: C₉H₁₁N · 1/2H₂SO₄ MW: 364.47 EINECS: 236-807-1LD₅₀: 37 mg/kg (M, i.v.); 38 mg/kg (M, p.o.)**Reference(s):**

US 2 997 422 (Smith Kline & French; 22.8.1961; prior. 9.1.1959).

DOS 2 649 700 (Nelson Res. & Dev.; appl. 29.10.1976; USA-prior. 31.10.1975).

US 4 016 204 (Nelson Res. & Dev.; 5.4.1977; appl. 31.10.1975).

Burger, A.; Yost, W.L.: J. Am. Chem. Soc. (JACSAT) **70**, 2198 (1948).**Formulation(s):** drg. 10 mg; tabl. 10 mg (as sulfate)**Trade Name(s):**

D:	Jatrosom (Procter & Gamble)	GB:	Parnate (SmithKline Beecham)	I:	Parmodalin (Sanofi Winthrop)-comb.
F:	Tylciprine (Théraplax); wfm		Parstelin (SmithKline Beecham)-comb.	USA:	Parnate (SmithKline Beecham)

Trazodone

ATC: N06AX05

Use: antidepressant, anxiolytic

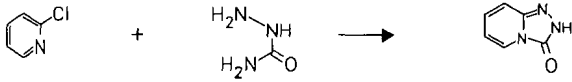
RN: 19794-93-5 MF: C₁₉H₂₂ClN₅O MW: 371.87 EINECS: 243-317-1LD₅₀: 91 mg/kg (M, i.v.); 610 mg/kg (M, p.o.);

91 mg/kg (R, i.v.); 690 mg/kg (R, p.o.)

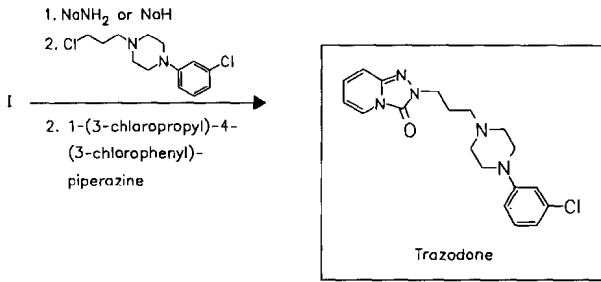
CN: 2-[3-[4-(3-chlorophenyl)-1-piperazinyl]propyl]-1,2,4-triazolo[4,3-*a*]pyridin-3(2*H*)-one**monohydrochloride**RN: 25332-39-2 MF: C₁₉H₂₂ClN₅O · HCl MW: 408.33 EINECS: 246-855-7LD₅₀: 91 mg/kg (M, i.v.); 584 mg/kg (M, p.o.);

91 mg/kg (R, i.v.); 690 mg/kg (R, p.o.);

>40 mg/kg (dog, i.v.); 500 mg/kg (dog, p.o.)



2-chloro-pyridine + semicarbazide → 1,2,4-triazolo[4,3-a]pyridin-3(2H)-one (I)



Reference(s):

US 3 381 009 (Angelini Francesco; 30.4.1968; I-prior. 15.12.1965).
 DE 1 645 947 (Angelini Francesco; appl. 13.12.1966; I-prior. 15.12.1965, 3.8.1966).

Formulation(s): cps. 25 mg, 50 mg; f. c. tabl. 100 mg; tabl. 50 mg, 100 mg, 150 mg, 300 mg (as hydrochloride)

Trade Name(s):

D:	Thombran (Boehringer Ing.; 1977)	I:	Trittico (Angelini)	Restin (Kanebo)
F:	Pragmarel (UPSA); wfm	J:	Desyrel (Pharmacia & Upjohn)	USA: Desyrel (Apothecon; 1982)

Trenbolone acetate

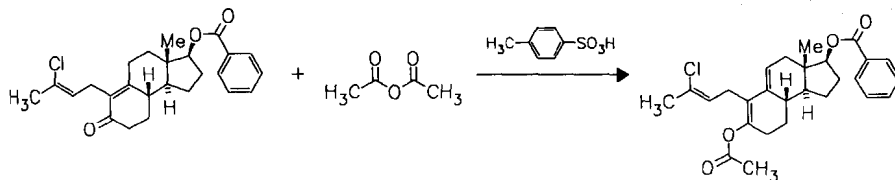
(Trenbolone acetate)

ATC: A14
 Use: anabolic

RN: 10161-34-9 MF: C₂₀H₂₄O₃ MW: 312.41 EINECS: 233-432-5
 CN: (17β)-17-(acetyloxy)estra-4,9,11-trien-3-one

trenbolone

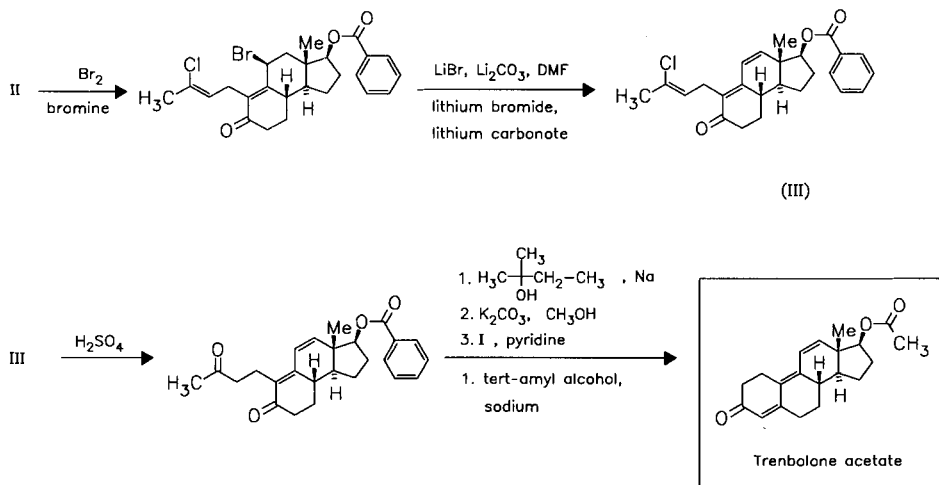
RN: 10161-33-8 MF: C₁₈H₂₂O₂ MW: 270.37



17β-benzoyloxy-3-chloro-5-oxo-4,5-seco-2,9(10)-estradiene

acetic anhydride (I)

(II)

**Reference(s):**

FR-M 1 958 (Roussel-Uclaf; appl. 13.7.1962).

GB 1 035 683 (Roussel-Uclaf; valid from 19.4.1963; F-prior. 20.4.1962).

Velluz, L. et al.: C. R. Hebd. Seances Acad. Sci. (COREAF) **257**, 569 (1963).**starting material:**Velluz, L. et al.: C. R. Hebd. Seances Acad. Sci. (COREAF) **250**, 1084 (1960).**alternative syntheses:**Heker, M. et al.: Steroids (STEDAM) **10**, 211 (1967).

US 3 453 267 (Roussel-Uclaf; 1.7.1969; F-prior. 31.12.1964, 25.2.1965, 24.3.1965, 14.6.1965, 3.9.1965, 17.9.1965).

use for treatment of varicose wounds:

DOS 2 119 096 (Roussel-Uclaf; appl. 20.4.1971).

Formulation(s): pellet 300 mg**Trade Name(s):**

F: Finaject (Distrivet); wfm

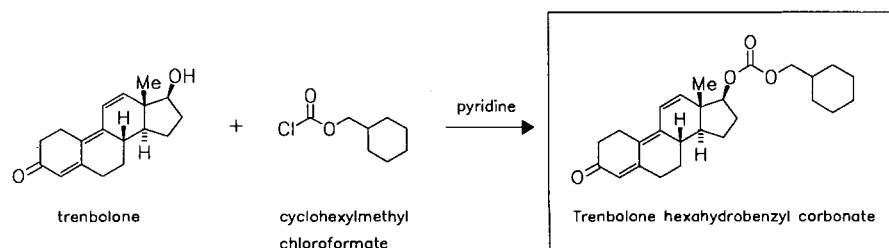
Finaplix (Distrivet); wfm

Parabolan (Negma); wfm

Trenbolone hexahydrobenzyl carbonate

ATC: A14

Use: anabolic

RN: 23454-33-3 MF: C₂₆H₃₄O₄ MW: 410.55 EINECS: 245-669-1CN: (17 β)-17-[(cyclohexylmethoxy)carbonyl]oxy]estra-4,9,11-trien-3-one

Reference(s):

FR-M 5 979 (Roussel-Uclaf; appl. 17.11.1966).

Formulation(s): amp. 50 mg

Trade Name(s):

F: Hexabolan (Phartec); wfm

Parabolan (Negma); wfm

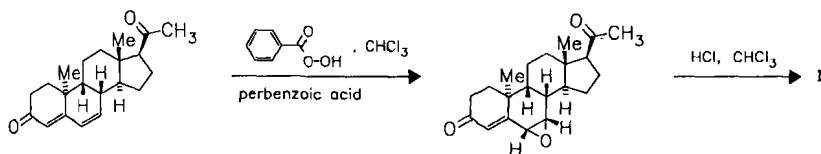
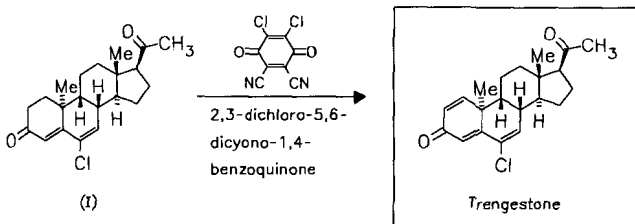
Trenigestone

ATC: G03

Use: progestogen

RN: 5192-84-7 MF: C₂₁H₂₅ClO₂ MW: 344.88 EINECS: 225-978-8

CN: (9β,10α)-6-chloropregna-1,4,6-triene-3,20-dione

3,20-dioxo-9β,10α-
pregna-4,6-diene

(I)

Trenigestone

Reference(s):

US 3 422 122 (North American Philips; 14.1.1969; prior. 7.10.1966, 25.9.1964, 12.6.1962; GB-prior. 29.6.1964).
BE 652 597 (Philips Gloeilampenfabrieken; appl. 2.12.1964; GB-prior. 29.6.1964).

Trade Name(s):

USA: Retrone (Hoffmann-La
Roche); wfm**Tretinoin**

(Retinoic acid; Vitamin-A acid)

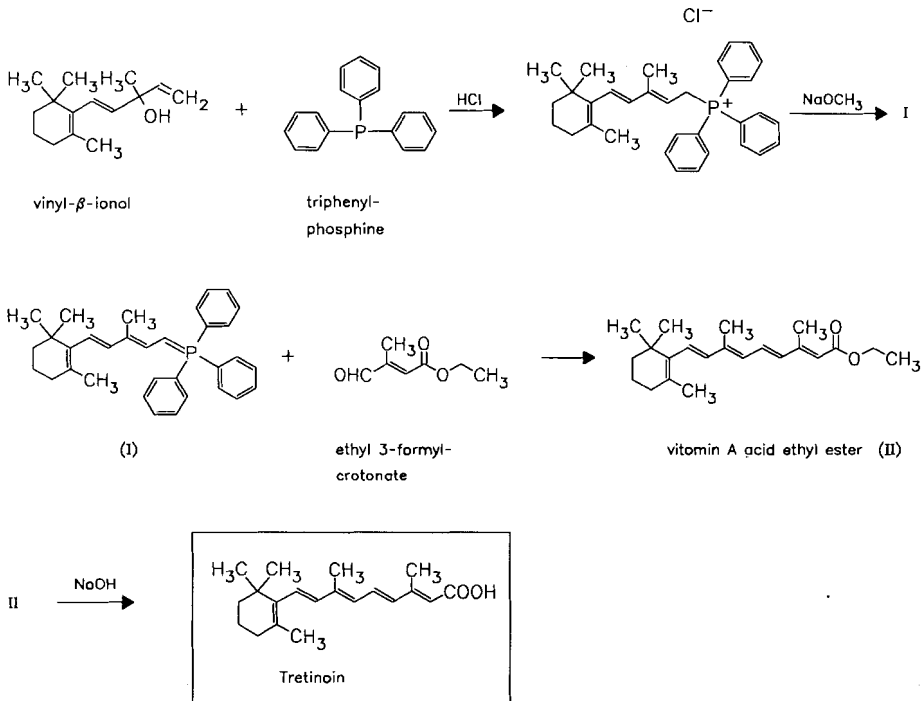
ATC: D10AD01; L01XX14

Use: acne therapeutic, keratolytic

RN: 302-79-4 MF: C₂₀H₂₈O₂ MW: 300.44 EINECS: 206-129-0LD₅₀: 92 mg/kg (M, i.v.); 780 mg/kg (M, p.o.);

78 mg/kg (R, i.v.); 1960 mg/kg (R, p.o.)

CN: (*all-E*)-3,7-dimethyl-9-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2,4,6,8-nonatetraenoic acid



(cf. retinol synthesis according to BASF)

Reference(s):

DE 1 035 647 (BASF; appl. 17.1.1957).
 US 3 006 939 (BASF; 31.10.1961; D-prior. 17.1.1957).
 Pommer, H.: *Angew. Chem. (ANCEAD)* **72**, 811 (1960); **89**, 437 (1977).
 König, H. et al.: *Arzneim.-Forsch. (ARZNAD)* **24**, 1184 (1974).

Formulation(s): cream 25 mg/100 g, 50 mg/100g, 100 mg/100 g; cps. 10 mg; gel 25 mg/100 g, 50 mg/100 g; sol. 50 mg/100 ml, 100 mg/100 ml

Trade Name(s):

D:	Cordes VAS (Ichthyol)	Locacid (Pierre Fabre Dermatologie)	I:	Airol (Roche)
	Epi-Aberel (Janssen-Chemie)	Retacnyl (Galderma)		Apsor (IDI)-comb.
	Eudyna (Knoll)	Retin A (Janssen-Cilag)		Retin-A (Janssen-Cilag)
	Vesanoid (Roche)	Retinova (Roc)		Tretionina (Savoma)
F:	Abérel (Janssen-Cilag)	Retitop (La Roche-Posay)	J:	Vesanoid (Nippon Roche)
	Antibio-aberel (Janssen-Cilag)-comb.	Roaccutane (Roche)	USA:	Avita (Penederm)
	Effederm (CS)	Trétinoïne Kéfrane (Roc)		Renova (Ortho Dermatological)
	Isotrex (Stiefel)	Vesanoid (Roche)		Retin-A (Ortho Dermatological)
	Kerlocal (Pierre Fabre)	GB: Retin-A (Janssen-Cilag)		Vesanoid (Roche)
	Kétrél (Biorga)	Retinova (Janssen-Cilag)		
		Vesanoid (Roche)		

Tretoquinol
 (Trimethoquinol)

ATC: R03AC09; R03CC09
 Use: bronchodilator

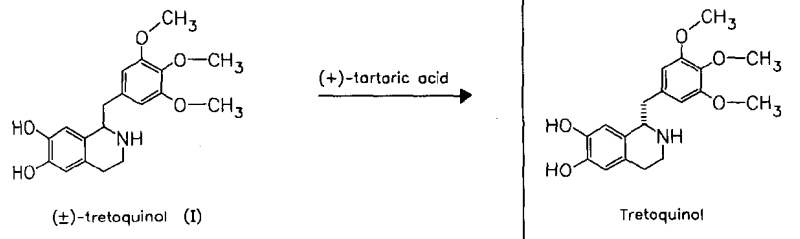
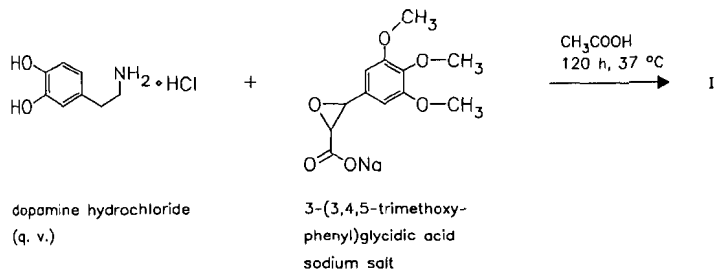
RN: 30418-38-3 MF: C₁₉H₂₃NO₅ MW: 345.40

CN: (S)-1,2,3,4-tetrahydro-1-[(3,4,5-trimethoxyphenyl)methyl]-6,7-isoquinolinediol

hydrochlorideRN: 18559-59-6 MF: C₁₉H₂₃NO₅ · HCl MW: 381.86 EINECS: 242-423-5LD₅₀: 120 mg/kg (M, i.v.); 2250 mg/kg (M, p.o.);

164 mg/kg (R, i.v.); 2 g/kg (R, p.o.);

160 mg/kg (dog, i.v.)

**Reference(s):**

GB 1 114 660 (Tanabe Seiyaku; appl. 5.12.1966; I-prior. 8.12.1965, 9.6.1966, 22.7.1966).

ZA 6 802 416 (Tanabe Seiyaku; 11.9.1968; J-prior. 27.4.1967).

Formulation(s): powder 1 %, tabl. 3 mg; vial 0.1 mg (as hydrochloride)**Trade Name(s):**

I: Vems (ISF); wfm

Vems (Searle); wfm

J: Inolin (Tanabe)

TriamcinoloneATC: A01AC01; D07AB09; D07BB03;
D07CB01; D07XB02; H02AB08;
S01BA05; S02CA04

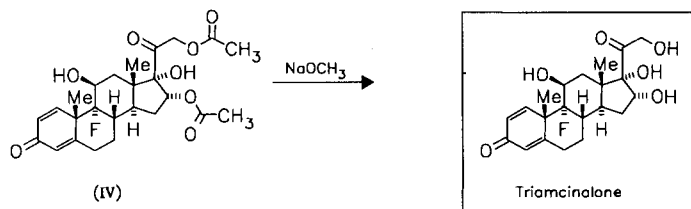
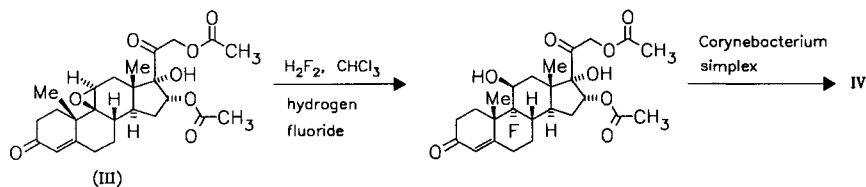
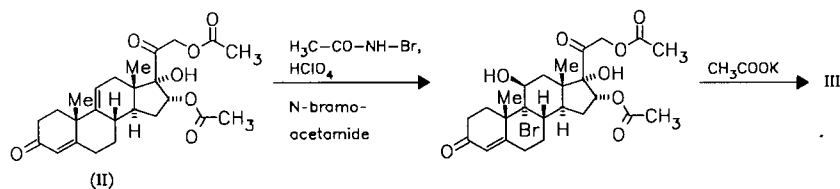
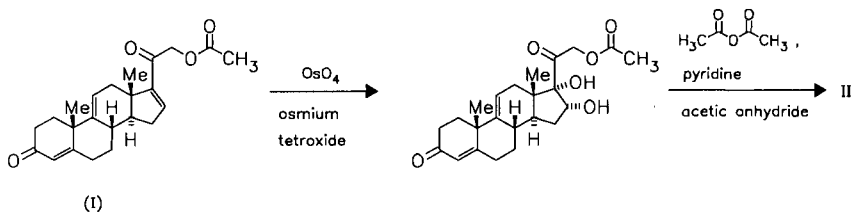
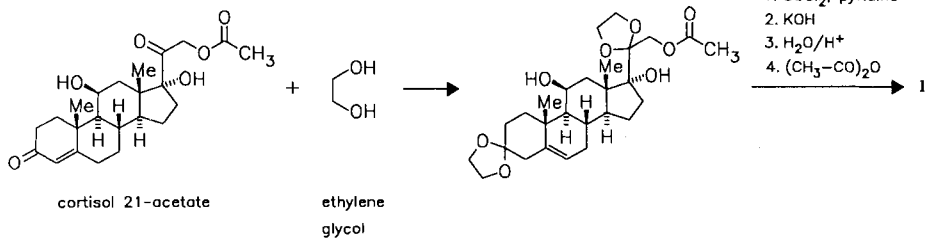
Use: glucocorticoid

RN: 124-94-7 MF: C₂₁H₂₇FO₆ MW: 394.44 EINECS: 204-718-7LD₅₀: >4 g/kg (M, s.c.);

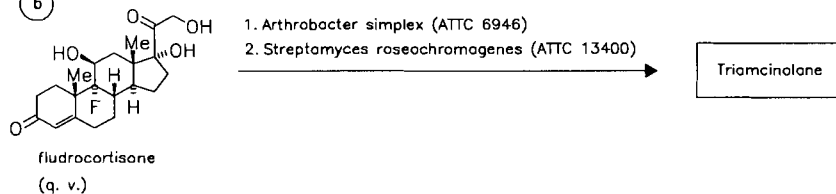
99 mg/kg (R, s.c.)

CN: (11β,16α)-9-fluoro-11,16,17,21-tetrahydroypregna-1,4-diene-3,20-dione

(a)



(b)



Reference(s):

- a US 2 789 118 (American Cyanamid; 16.4.1957; prior. 30.3.1956).
Bernstein, S. et al.: J. Am. Chem. Soc. (JACSAT) **78**, 5693 (1956).
Bernstein, S. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 1689 (1959).
- b US 3 536 586 (Squibb; 27.10.1970; prior. 25.1.1958).

Formulation(s): tabl. 2 mg, 4 mg, 8 mg, 16 mg

Trade Name(s):

D:	Berlicort (Berlin-Chemie)	Ipercortis (AGIPS)	Ledercort P8 (Wyeth-Lederle)
	Delphicort Tabl. (Lederle)	Kenacort-A Retard (Bristol-Myers Squibb)	combination preparations
	Triam-oral 4 (Sanorania)	Ledercort (Wyeth-Lederle)	J: Kenacort (Squibb-Sankyo)
	Volon Tabl. (Bristol-Myers Squibb)	Ledercort A/10 (Wyeth-Lederle)	Ledercort (Lederle)
GB:	Ledercort (Lederle); wfm	Lederle)	USA: Aristocort (Fujisawa)
I:	Dirahist (Teofarma)-comb.		

Triamcinolone acetonide

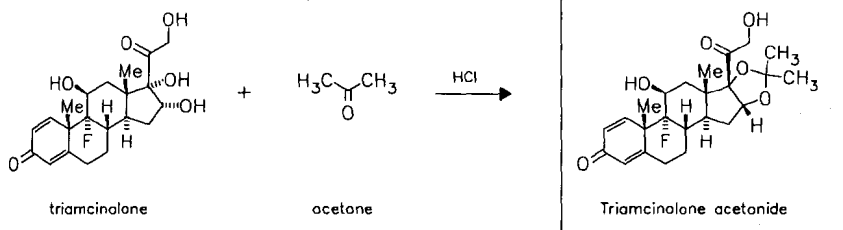
ATC: D07AB09

Use: glucocorticoid

RN: 76-25-5 MF: C₂₄H₃₁FO₆ MW: 434.50 EINECS: 200-948-7

LD₅₀: 5 g/kg (M, p.o.)

CN: (11β,16α)-9-fluoro-11,21-dihydroxy-16,17-[(1-methylethylidene)bis(oxy)]pregna-1,4-diene-3,20-dione

*Reference(s):*

- US 2 990 401 (American Cyanamid; 27.6.1961; appl. 18.6.1958; prior. 11.3.1958).
Bernstein, S. et al.: J. Am. Chem. Soc. (JACSAT) **81**, 1689 (1959).
Heller, M. et al.: J. Org. Chem. (JOCEAH) **26**, 5044 (1961).
Fried, J. et al.: J. Am. Chem. Soc. (JACSAT) **80**, 2338 (1958).

Formulation(s): amp. 40 mg/ml; cream 1 mg/g; ointment 1 mg/g; spray 3 mg/25 g; susp. 10 mg/ml, 40 mg/ml

Trade Name(s):

D:	Arutrin (Chauvin ankerpharm)	Triam Creme Lichtenstein (Lichtenstein)	Corticotulle Lumière (Solvay Pharma)-comb.
	Berlicort (Berlin-Chemie)	Triamgalen (Pharmagalen)	Kenacort-retard (Bristol-Myers Squibb)
	Delphicort Creme/Salbe (Lederle)	Triamhexal (Hexal)	Kenalcol (Bristol-Myers Squibb)-comb.
	Extracort Creme (Galderma)	Triam-Injekt (Sanorania)	Localone (Pierre Fabre Dermatologie)-comb.
	Kenalog (Bristol-Myers Squibb)	Tri-Anemul (Medopharm)	Mycolog (Bristol-Myers Squibb)-comb.
	Korticoid ratiopharm (ratiopharm)	Volon (Bristol-Myers Squibb)	Nasacort (Specia)
	Triamcinolon Wolff (Wolff)	Volonimat (Bristol-Myers Squibb)	Pevisone (Janssen-Cilag)-comb.
F:		combination preparations	
		Cidermex (Evans Medical)-comb.	

GB: Adcortyl (Bristol-Myers Squibb) Audicort (Wyeth)-comb. Aureocort (Wyeth)-comb. Kenalog (Bristol-Myers Squibb) Nasacort (Rhône-Poulenc Rorer) Nystadermal (Bristol-Myers Squibb)-comb. Pevaryl TC (Janssen-Cilag)-comb. Tri-adcortyl (Bristol-Myers Squibb)-comb.	I: Assocort (Bristol-Myers Squibb)-comb. Aureocort (Wyeth-Lederle)-comb. Kataval (Wyeth-Lederle)-comb. Kenacort A Retard (Bristol-Myers Squibb) Lederkort A/10 (Wyeth-Lederle) Neo-audicort (Wyeth-Lederle)-comb. Pevisone (Janssen-Cilag)-comb.	J: Kenacort-A (Squibb-Sankyo) Lederkort N (Lederle) Rineton (Sanwa) Tricinolon (Toko Yakuhin Osaka) USA: Aristocort (Fujisawa) Mycotriacet (Teva)-comb. Myrtrex F (Savage) Nasacort (Rhône-Poulenc Rorer) Tac-3 (Parnell) Triacet (Teva)
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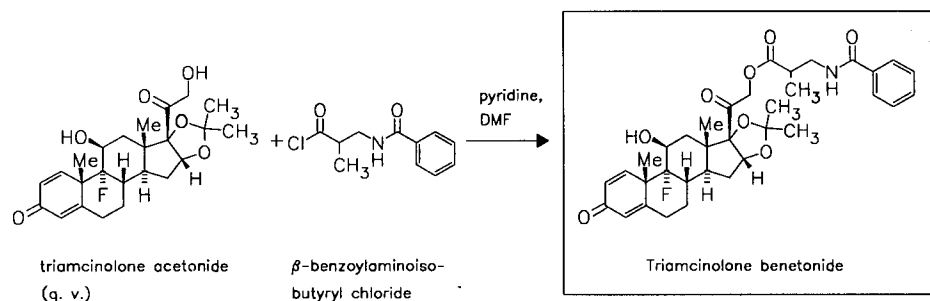
Triamcinolone benetonide

ATC: D07AB09; D07CB01

Use: glucocorticoid

RN: 31002-79-6 MF: C₃₅H₄₂FNO₈ MW: 623.72 EINECS: 250-427-3

CN: (11β,16α)-21-[3-(benzoylamino)-2-methyl-1-oxopropoxy]-9-fluoro-11-hydroxy-16,17-[(1-methylethylidene)bis(oxy)]pregna-1,4-diene-3,20-dione

**Reference(s):**

DOS 2 047 218 (Sigma-Tau; appl. 25.9.1970; I-prior. 31.10.1969).

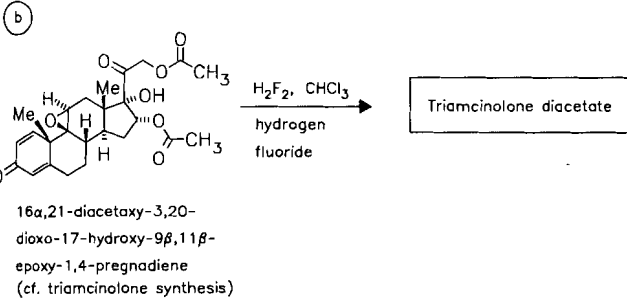
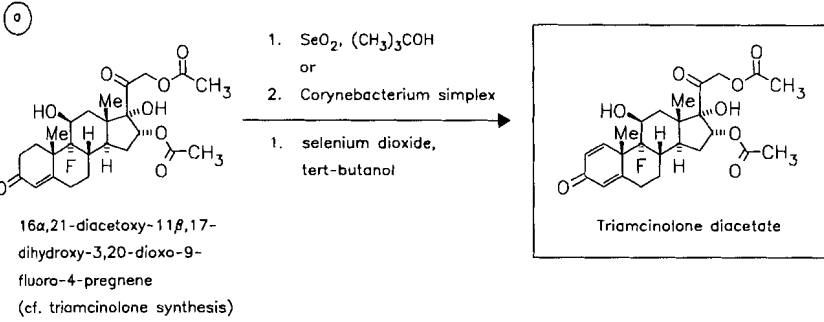
Formulation(s): cream 0.075 %**Trade Name(s):**
F: Tibicorten (Stiefel); wfm **I:** Tibicorten F (Sigma-Tau)-comb.; wfm
Triamcinolone diacetate

ATC: A01AC01; H02AB08

Use: glucocorticoid

RN: 67-78-7 MF: C₂₅H₃₁FO₈ MW: 478.51 EINECS: 200-669-0

CN: (11β,16α)-16,21-bis(acetyloxy)-9-fluoro-11,17-dihydroxypregna-1,4-diene-3,20-dione



Reference(s):

- a1 DE 1 096 900 (American Cyanamid; appl. 1959; USA-prior. 1958).
GB 835 836 (American Cyanamid; valid from 1958; USA-prior. 1957).
- a2 GB 824 351 (American Cyanamid; valid from 1956; USA-prior. 1956).
- b GB 851 501 (American Cyanamid; valid from 1958; USA-prior. 1957).

Formulation(s): amp. 25 mg, 40 mg; susp.. 25 mg/ml, 40 mg/ml

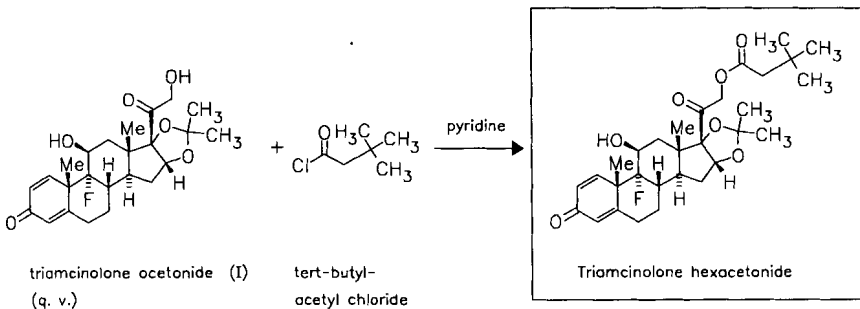
Trade Name(s):

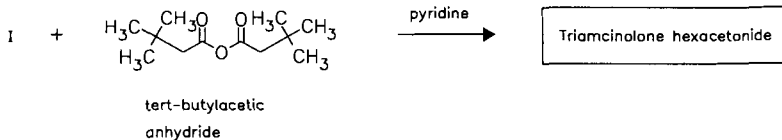
D: Delphicort (Lederle)	F: Tédarol (Specia); wfm	J: Ledercort inj. (Lederle)
Delphimix (Lederle)-comb.	I: Ledercort (Cyanamid)	USA: Aristocorte (Fujisawa)

Triamcinolone hexacetonide

ATC: A01AC01
Use: glucocorticoid

RN: 5611-51-8 MF: $\text{C}_{30}\text{H}_{41}\text{FO}_7$ MW: 532.65 EINECS: 227-031-4
CN: (11 β ,16 α)-21-(3,3-dimethyl-1-oxobutoxy)-9-fluoro-11-hydroxy-16,17-[(1-methylethylidene)bis(oxy)]pregna-1,4-diene-3,20-dione



*Reference(s):*

DOS 2 317 954 (J. Zaklady Farm. "Polfa"; appl. 10.4.1973; P-prior. 21.4.1972).

injection suspension:

US 3 457 348 (American Cyanamid; 22.7.1969; prior. 27.6.1966).

review:

Zbinovsky, V.; Chrekian, G.P.: Anal. Profiles Drug Subst. (APDSB7) **6**, 579 (1977).

Formulation(s): amp. 5 mg/ml, 20 mg/ml

Trade Name(s):

D: Lederlon 5/20 (Lederle) F: Hexatrione longue durée (Wyeth-Lederle) GB: Lederspan (Wyeth)
USA: Aristospan (Fujisawa)

Triamterene

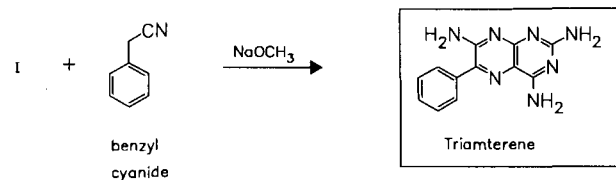
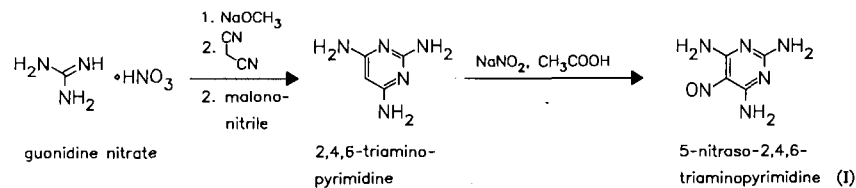
ATC: C03DB02

Use: diuretic

RN: 396-01-0 MF: C₁₂H₁₁N₇ MW: 253.27 EINECS: 206-904-3

LD₅₀: 25.077 mg/kg (M, i.v.); 285 mg/kg (M, p.o.);
400 mg/kg (R, p.o.)

CN: 6-phenyl-2,4,7-pteridinetriamine

*Reference(s):*

US 3 081 230 (Smith Kline & French; 12.3.1963; prior. 8.9.1960).

Spickett, R.G.W.; Timmis, G.M.: J. Chem. Soc. (JCSOA9) **1954**, 2887.

FR-M 1 014 (Smith Kline & French; appl. 5.11.1960).

5-nitroso-2,4,6-triaminopyrimidine:

Sato et al.: Nippon Kagaku Zasshi (NPKZAZ) **72**, 866 (1951).

improved method:

US 4 145 548 (Henkel; 20.3.1979; D-prior. 12.11.1976).

DOS 2 651 794 (Henkel; appl. 12.11.1976).

combination with cyclothiazide:

GB 1 547 826 (Roussel-Uclaf; appl. 31.3.1976; F-prior. 11.4.1975).

combination with verapamil:

DOS 2 658 500 (Röhm Pharma; appl. 23.12.1976).

US 4 157 394 (Röhm Pharma; 5.6.1979; D-prior. 23.12.1976).

Formulation(s): cps. 50 mg, 100 mg; drg. 50 mg; tabl. 50 mg, 75 mg

Trade Name(s):

D:	Diutensat (Azupharma)-comb.	Triarese (Hexal)-comb.	Triam Co (Baker Norton)-comb.
	Diuretikum Verla (Verla)-comb.	Triazid (ct-Arzneimittel)-comb.	I: Fluss 40 (Hoechst Marion Roussel)-comb.
	duradiuret (durachemie)-comb.	Tri-Thiazid Stada (Stada)	J: Amteren (Sanko)
	Dytide (Procter & Gamble)-comb.	Turfa-BASF (BASF Generics)-comb.	Diarrol (Nippon Shoji)
	Esiteren (Novartis Pharma)-comb.	numerous combination preparations	Diucelpin (Eisai)
	Hypertorr (Henning Berlin)-comb.	F: Cyclotériam (Roussel)-comb.	Diurene (Hokuriku)
	Jatropur (Röhm Pharma)	Isobar (Jacques Logeais)-comb.	Diuterer (Showa)
	Jenateren (Jenapharm)-comb.	Prestole (Pharmafarm)-comb.	Hidiurese (Nichiiko)
	Nephral (Pfleger)-comb.	GB: Dyazide (SmithKline Beecham)-comb.	Masuharmin (Fuso)
	SALI-PUREN (Isis Puren)-comb.	Dytac (Pharmark)	Reviten (Tokyo Tanabe)
	Thiazid-Wolff (Wolff)-comb.	Dytide (Pharmark)-comb.	Tricilone (Vanguard)-comb.
	Triampur (ASTA Medica AWD)-comb.	Frusene (Orion)-comb.	Trispan (Yamanouchi)
		Kalspare (Dominion)-comb.	Triteren (Sumitomo)
			USA: Dyazide (SmithKline Beecham)
			Dyrenium (SmithKline Beecham)
			Maxzide (Bertek) generics

Triaziquone

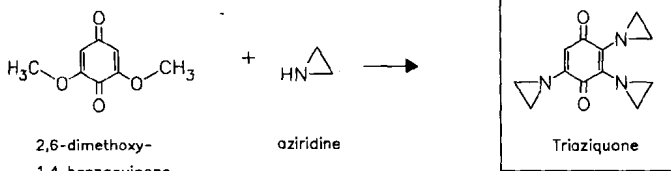
ATC: L01AC02

Use: antineoplastic

RN: 68-76-8 MF: C₁₂H₁₃N₃O₂ MW: 231.26 EINECS: 200-692-6

LD₅₀: 500 µg/kg (R, i.v.)

CN: 2,3,5-tris(1-aziridinyl)-2,5-cyclohexadiene-1,4-dione



Reference(s):

US 2 976 279 (Schenley Ind.; 21.3.1961; D-prior. 14.3.1957).

Trade Name(s):

D: Trenimon (Bayer); wfm

GB: Trenimon (Bayer); wfm

Triazolam

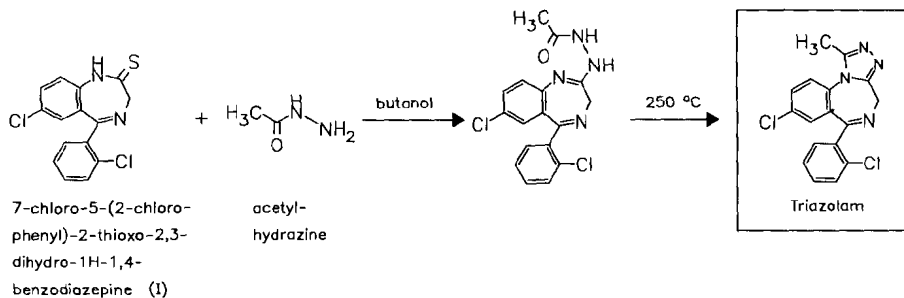
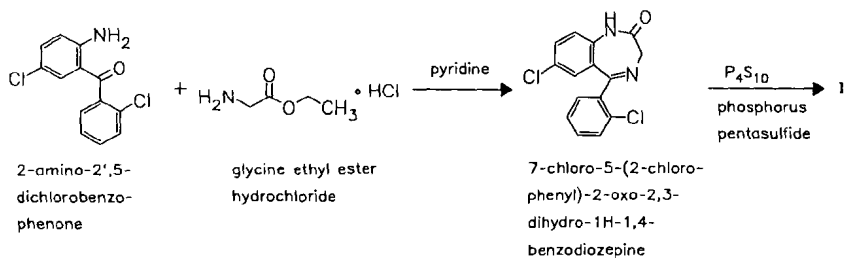
ATC: N05CD05

Use: hypnotic, sedative

RN: 28911-01-5 MF: C₁₇H₁₂Cl₂N₄ MW: 343.22 EINECS: 249-307-3LD₅₀: 1080 mg/kg (M, p.o.);

>7500 mg/kg (R, p.o.)

CN: 8-chloro-6-(2-chlorophenyl)-1-methyl-4H-[1,2,4]triazolo[4,3-a][1,4]benzodiazepine

*Reference(s):*

DOS 2 012 190 (Upjohn; appl. 14.3.1970; USA-prior. 17.3.1969, 29.10.1969).

US 3 987 052 (Upjohn; 19.10.1976; prior. 17.3.1969, 29.10.1969).

US 3 980 790 (Upjohn, 14.9.1976; appl. 4.8.1972; prior. 29.3.1971).

*thiono-intermediate:*Archer, G.A.; Sternbach, L.H.: J. Org. Chem. (JOCEAH) **29**, 231 (1964).

US 3 422 091 (Roche; 14.1.1969; prior. 21.6.1962, 10.7.1962).

alternative syntheses:

DOS 2 203 782 (Upjohn; appl. 27.1.1972; USA-prior. 9.2.1971).

DOS 2 302 525 (Upjohn; appl. 19.1.1973; USA-prior. 31.1.1972).

Formulation(s): tabl. 0.125 mg, 0.25 mg*Trade Name(s):*

D: Halcion (Pharmacia & Upjohn; 1979)

GB: Halcion (Upjohn); wfm
I: Halcion (Pharmacia & Upjohn)

J: Halcion (Upjohn-Sumitomo)

F: Halcion (Pharmacia & Upjohn; 1980)

Songar (Valeas)

USA: Halcion (Pharmacia & Upjohn; 1982)

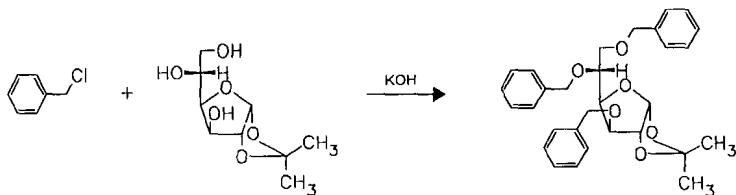
Tribenoside

ATC: C05AX05; C05CX01

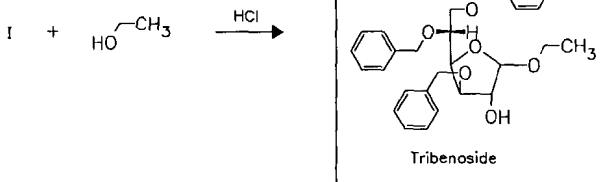
Use: vein therapeutic, sclerosing agent

RN: 10310-32-4 MF: C₂₉H₃₄O₆ MW: 478.59 EINECS: 233-687-2LD₅₀: >30 g/kg (M, p.o.);

>20 g/kg (R, p.o.)

CN: ethyl 3,5,6-tris-*O*-(phenylmethyl)-*D*-glucofuranosidebenzyl
chloride1,2-*O*-isopropylidene-
α-*D*-glucofuranose

(I)



Tribenoside

Reference(s):

US 3 157 634 (Ciba; 17.11.1964; CH-prior. 10.1.1959, 6.11.1959, 30.11.1959).

Formulation(s): cps. 400 mg; cream 5 %; drg. 200 mg; suppos. 400 mg**Trade Name(s):**

D: Glyvenol (Ciba); wfm

J: Glurenol (Ciba-Geigy)

USA: Glyvenol (Ciba-Geigy);

F: Glycénol (Ciba); wfm

Hemocuron (Takeda)

wfm

I: Venalisin (AGIPS)

Trichlormethiazide

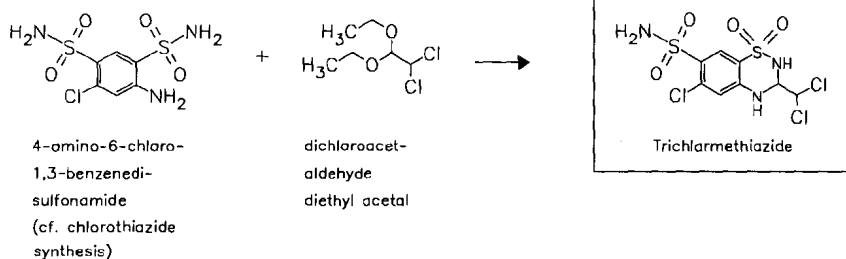
ATC: C03AA06

Use: diuretic, antihypertensive

RN: 133-67-5 MF: C₈H₈Cl₃N₃O₄S₂ MW: 380.66 EINECS: 205-118-8LD₅₀: 750 mg/kg (M, i.v.); 2600 mg/kg (M, p.o.);

920 mg/kg (R, i.v.); 5600 mg/kg (R, p.o.)

CN: 6-chloro-3-(dichloromethyl)-3,4-dihydro-2*H*-1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide

*Reference(s):*

GB 949 373 (Schерico; appl. 2.3.1960; USA-prior. 2.3.1959, 15.7.1959).
 DAS 1 147 233 (Ciba; appl. 4.10.1960; USA-prior. 8.10.1959, 16.10.1959).
 BE 576 304 (Ciba; appl. 3.3.1959; USA-prior. 3.3.1958).

alternative syntheses:

US 3 264 292 (Abbott; 2.8.1966; appl. 3.11.1958).
 GB 954 023 (Schерico; appl. 11.5.1960; USA-prior. 25.4.1960).
 Sherlock, M.H. et al.: *Experientia (EXPEAM)* **16**, 184 (1960).
 Stevens, G. de et al.: *Experientia (EXPEAM)* **16**, 113 (1960).

Formulation(s): tabl. 2 mg, 4 mg in comb. with amiloride hydrochloride

Trade Name(s):

D:	Esmalorid (Merck)-comb.	Fluitran (Shionogi)	Metatensin (Merrell Dow)-comb.; wfm
I:	Fluitran (Essex); wfm	Intromene (Teikoku)	Metatensin (Merrell-National)-comb.; wfm
	Fluitran (Sca); wfm	Sanamiron (Zensei)	Naqua (Schering); wfm
	Triclordiuride (Formenti); wfm	Tachionin (San-a)	Naquival (Schering)-comb.; wfm
J:	Achletin (Toyama)	USA: Metahydrin (Merrell Dow); wfm	Triazide (Lcgere); wfm
	Anatran (Tobishi)	Metahydrin (Merrell-National); wfm	
	Anistadin (Maruko)		
	Carvacron (Taiyo)		

Triclocarban

(Trichlorcarbanilide)

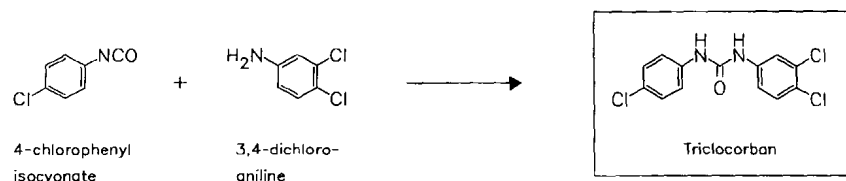
ATC: D08AX

Use: bacteriostatic, cutaneous antiseptic, germicidal agent, disinfectant

RN: 101-20-2 MF: C₁₃H₉Cl₃N₂O MW: 315.59 EINECS: 202-924-1

LD₅₀: >34.6 g/kg (R, p.o.)

CN: N-(4-chlorophenyl)-N'-(3,4-dichlorophenyl)urea

*Reference(s):*

US 2 818 390 (Monsanto; 1957; appl. 1954).

Formulation(s): emulsion 250 mg/100 ml; powder 1 %

Trade Name(s):

D: Ansudor (Galderma)-comb.
 F: Cutisan (Boots Healthcare)
 Nobacter (Boots Healthcare)

Septivon (Chefaro-Ardeval)-comb.
 Solubacter (Boots Healthcare)

GB: Cutisan (Dales); wfm
 I: Citrosil (Manetti Roberts)
 Sangen (Boots H.M. VITI)

Triclofos

ATC: N05CM07

Use: hypnotic

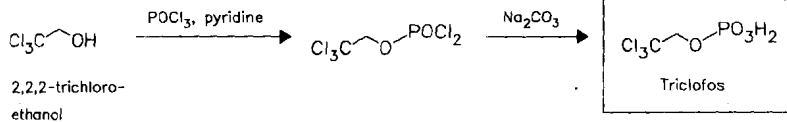
RN: 306-52-5 MF: $C_2H_4Cl_3O_4P$ MW: 229.38 EINECS: 206-185-6

LD₅₀: 850 mg/kg (M, p.o.);
 850 mg/kg (R, p.o.)

CN: 2,2,2-trichloroethanol dihydrogen phosphate

monosodium saltRN: 7246-20-0 MF: $C_2H_3Cl_3NaO_4P$ MW: 251.37 EINECS: 230-652-3

LD₅₀: 1400 mg/kg (M, p.o.);
 1900 mg/kg (R, p.o.)

**Reference(s):**

BE 623 216 (Glaxo; appl. 4.10.1962; GB-prior. 5.10.1961).

Formulation(s): syrup 500 mg/5 ml

Trade Name(s):

GB: Tricloryl (Glaxo); wfm
 J: Tricloryl (Torii)

USA: Triclos (Lakeside); wfm

Triclos (Merrell Dow);
 wfm

Triclosan

(Cloxifenol)

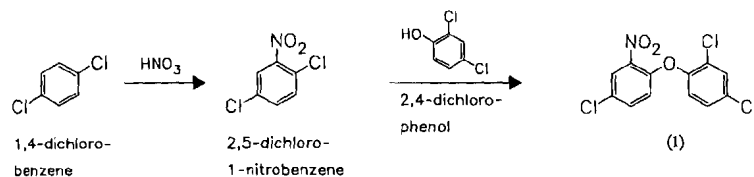
ATC: D08AE04; D09AA06

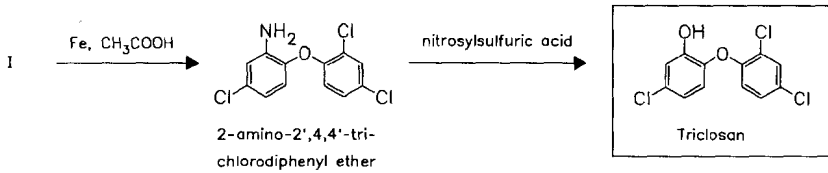
Use: antiseptic

RN: 3380-34-5 MF: $C_{12}H_7Cl_3O_2$ MW: 289.55 EINECS: 222-182-2

LD₅₀: 4530 mg/kg (M, p.o.);
 29 mg/kg (R, i.v.); 3700 mg/kg (R, p.o.)

CN: 5-chloro-2-(2,4-dichlorophenoxy)phenol





Reference(s):

US 3 506 720 (Geigy; 14.4.1970; CH-prior. 22.2.1963).

Formulation(s): cream 10 mg/gsol. 0.1 g/100 g

Trade Name(s):

D:	Rutisept (Henkel)-comb. Sicorten Creme (Novartis Pharma)-comb.	Oilatium Plus (Stiefel)-comb. Ster-Zac Bath Conc. (Seton)	Irgaman (Hoechst Marion Merrell)
GB:	Aquasept (Seton) Manusept (Seton)	I: Dopo Pik (Tipomark) Gampphen (Ethicon)	USA: Clearasil Antibac. Soap (Vicks); wfm Sulfur-8 Shampoo (Plough); wfm

Tridihexethyl chloride

ATC: A03AB08

Use: anticholinergic, antispasmodic

RN: 4310-35-4 MF: C₂₁H₃₆ClNO MW: 353.98 EINECS: 224-323-3

LD₅₀: 103 mg/kg (M, i.p.)

CN: γ -cyclohexyl-*N,N,N*-triethyl- γ -hydroxybenzenepropanaminium chloride

iodide

RN: 125-99-5 MF: C₂₁H₃₆INO MW: 445.43 EINECS: 204-762-7

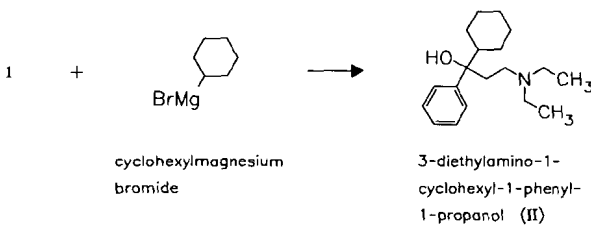
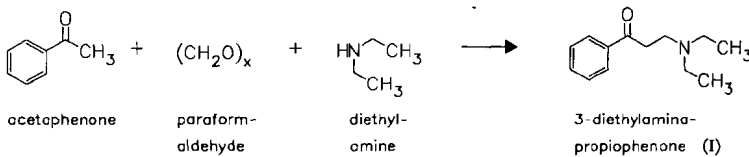
LD₅₀: 18 mg/kg (M, i.v.); 570 mg/kg (M, p.o.);

27 mg/kg (R, i.v.); 1100 mg/kg (R, p.o.)

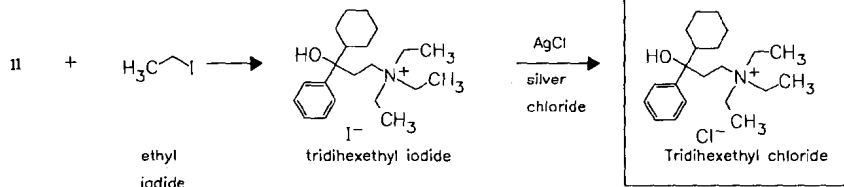
hydroxide

RN: 511-43-3 MF: C₂₁H₃₇NO₂ MW: 335.53

⊙ part 1 (Burroughs Wellcome):



(b) part 2 (American Cyanamid):



Reference(s):

- a US 2 698 325 (Burroughs Wellcome; 1954; prior. 1948).
- b US 2 913 494 (American Cyanamid; 17.11.1959; prior. 2.10.1957).

Formulation(s): tabl. 25 mg (as chloride)

Trade Name(s):

I: Duoasetil (Dessy); wfm USA: Pathibamate (Lederle)- Pathilon (Lederle); wfm
 J: Pathilon (Lederle) comb.; wfm

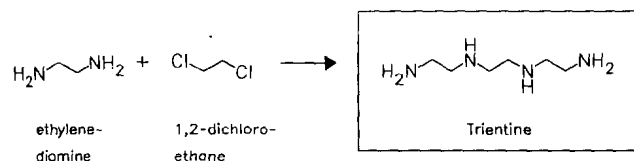
Trientine
 (TECZA; TETA)

ATC: V03A
 Use: chelating agent for treatment of
 Wilson's disease

RN: 112-24-3 MF: C₆H₁₈N₄ MW: 146.24 EINECS: 203-950-6
 LD₅₀: 350 mg/kg (M, i.v.); 1600 mg/kg (M, p.o.);
 2500 mg/kg (R, p.o.)
 CN: N,N'-bis(2-aminoethyl)-1,2-ethanediamine

dihydrochloride

RN: 38260-01-4 MF: C₆H₁₈N₄ · 2HCl MW: 219.16 EINECS: 253-854-3
 LD₅₀: 2285 mg/kg (R, p.o.)



Reference(s):

- Alphen, J. van: Recl. Trav. Chim. Pays-Bas (RTCPA3) **55**, 412 (1936).
- Hoffmann, A.W. von: Chem. Ber. (CHBEAM) **23**, 3711 (1890).
- Jones, G.D. et al.: J. Org. Chem. (JOCEAH) **9**, 125 (1944).

Formulation(s): cps. 250 mg (as dihydrochloride)

Trade Name(s):

J: Metalite (Tsumura USA: Syprine (Merck)
 Juntendo)

Trifluoperazine

ATC: N05AB06

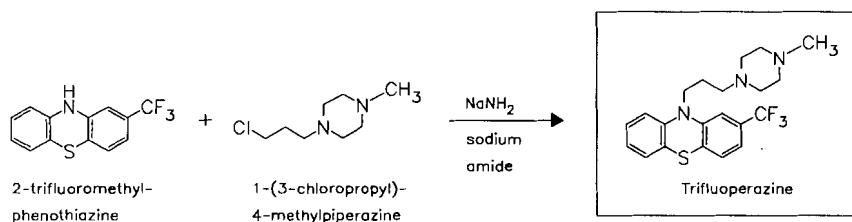
Use: neuroleptic

RN: 117-89-5 MF: C₂₁H₂₄F₃N₃S MW: 407.50 EINECS: 204-219-4LD₅₀: 29 mg/kg (M, i.v.); 1350 mg/kg (M, p.o.)

CN: 10-[3-(4-methyl-1-piperazinyl)propyl]-2-(trifluoromethyl)-10H-phenothiazine

dihydrochlorideRN: 440-17-5 MF: C₂₁H₂₄F₃N₃S · 2HCl MW: 480.43 EINECS: 207-123-0LD₅₀: 82 mg/kg (M, i.v.); 424 mg/kg (M, p.o.);

543 mg/kg (R, p.o.)

**Reference(s):**

US 2 921 069 (Smith Kline & French; 12.1.1960; prior. 9.4.1956).

DE 1 095 836 (Squibb; appl. 8.12.1956; USA-prior. 23.12.1955, 12.7.1956).

Craig, P.N. et al.: J. Org. Chem. (JOCEAH) **22**, 709 (1959).

DE 1 165 034 (Smith Kline & French; appl. 29.9.1956; USA-prior. 9.4.1956).

Formulation(s): cps. 2.36 mg; f. c. tabl. 1 mg, 2 mg, 5 mg, 10 mg; vial 2 mg/ml, 10 mg/ml (as dihydrochloride)**Trade Name(s):**

D: Jatroneural (Procter & Gamble)

F: Terfluzine (Spécia)

GB: Parstelin (SmithKline Beecham)-comb.

Stelazine (SmithKline Beecham)

I: Modalina (Sanofi

Winthrop)

Parmodalina (Sanofi Winthrop)-comb.

J: Normaln P (Sawai)

Tranquis (Sumitomo)

Trifluoperazine (Yoshitomi)

USA: Stelazine (SmithKline Beecham)

Trifluoperidol

ATC: N05AD02

Use: neuroleptic

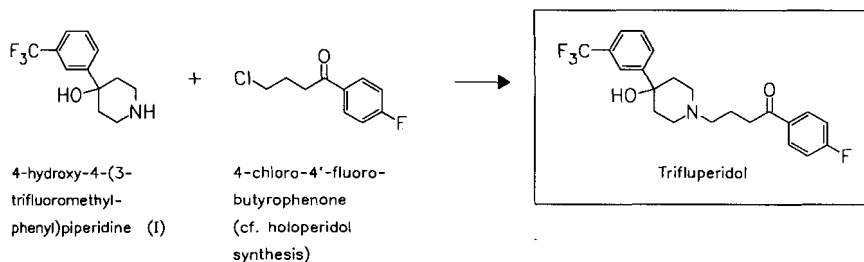
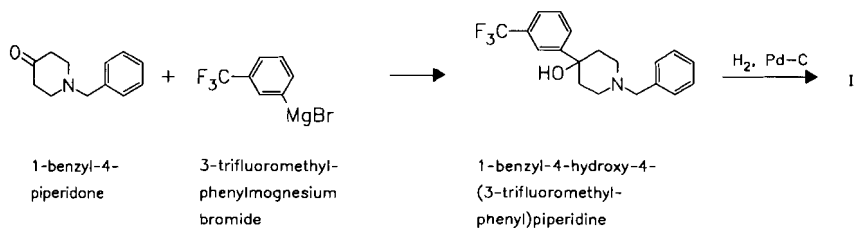
RN: 749-13-3 MF: C₂₂H₂₃F₄NO₂ MW: 409.42LD₅₀: 26 mg/kg (M, i.v.); 110 mg/kg (M, p.o.);

14 mg/kg (R, i.v.); 140 mg/kg (R, p.o.)

CN: 1-(4-fluorophenyl)-4-[4-hydroxy-4-[3-(trifluoromethyl)phenyl]-1-piperidinyl]-1-butanone

hydrochlorideRN: 2062-77-3 MF: C₂₂H₂₃F₄NO₂ · HCl MW: 445.88 EINECS: 218-170-1LD₅₀: 17.4 mg/kg (M, i.v.); 99 mg/kg (M, p.o.);

14 mg/kg (R, i.v.)

**Reference(s):**

GB 895 309 (Janssen; appl. and prior. 18.11.1959; valid from 17.11.1960).

Formulation(s): amp. 2.5 mg; drops 1 mg/ml (as hydrochloride)

Trade Name(s):

D:	Triperidol (Janssen-Cilag)	I:	Psicoperidol	USA:	Triperidol (McNeil); wfm
F:	Triperidol (Janssen-Cilag)		(Lusofarmaco)		
GB:	Triperidol (Janssen); wfm	J:	Triperidol (Yoshitomi)		

Triflupromazine

(Fluopromazine)

ATC: N05AA05

Use: neuroleptic

RN: 146-54-3 MF: $C_{18}H_{19}F_3N_2S$ MW: 352.42 EINECS: 205-673-6

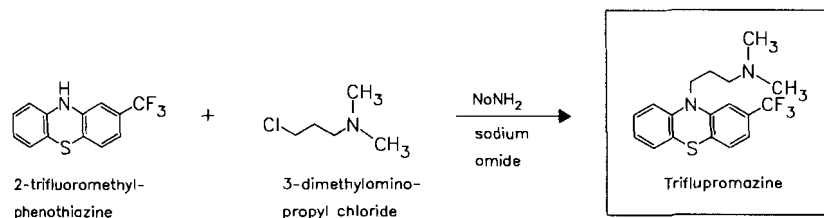
LD₅₀: 34 mg/kg (M, i.v.); 245 mg/kg (M, p.o.);
185 mg/kg (R, p.o.)

CN: *N,N*-dimethyl-2-(trifluoromethyl)-10*H*-phenothiazine-10-propanamine

monohydrochloride

RN: 1098-60-8 MF: $C_{18}H_{19}F_3N_2S \cdot HCl$ MW: 388.89 EINECS: 214-149-6

LD₅₀: 34 mg/kg (M, i.v.); 254 mg/kg (M, p.o.);
17 mg/kg (dog, i.v.)



Reference(s):

DE 1 095 836 (Squibb; appl. 8.12.1956; USA-prior. 23.12.1955, 12.7.1956).

US 2 921 069 (Smith Kline & French; 12.1.1960; prior. 9.4.1956).

Duhm, B. et al.: Z. Naturforsch. Teil B: Anorg. Chem., Org. Chem., Biochem., Biophys., Biol. (ZENBAX) **13**, 756 (1958).Craig, P.N. et al.: J. Org. Chem. (JOCEAH) **22**, 709 (1959).*Formulation(s):* amp. 10 mg/ml, 20 mg/ml; drg. 10 mg, 25 mg; suppos. 70 mg (as hydrochloride)*Trade Name(s):*

D:	Psyquil (Sanofi Winthrop)	I:	Vesprin (Squibb); wfm	USA:	Vesprin (Squibb; as hydrochloride); wfm
F:	Psyquil (Squibb); wfm	J:	Vesprin (Squibb-Showa)		

Trifluridine

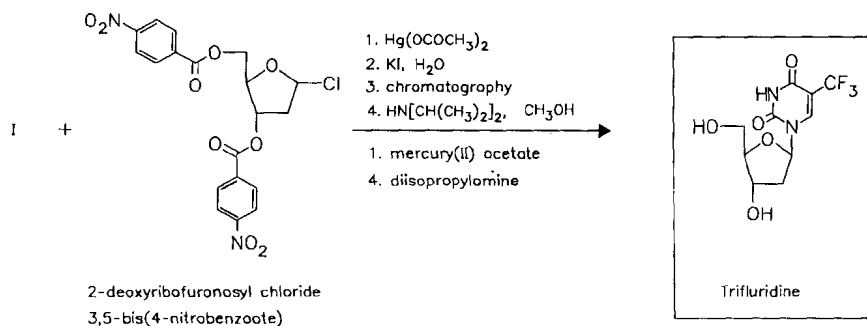
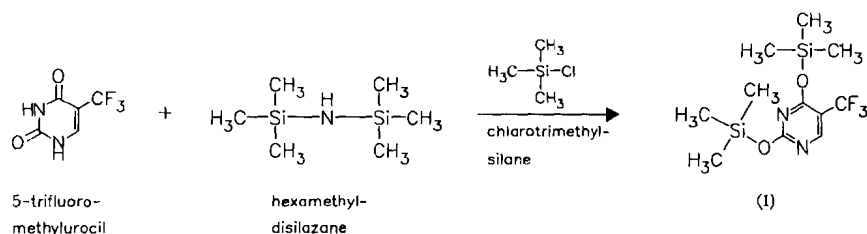
ATC: S01AD02

Use: antiviral

RN: 70-00-8 MF: C₁₀H₁₁F₃N₂O₅ MW: 296.20 EINECS: 200-722-8LD₅₀: 3381 mg/kg (M, i.v.);

2946 mg/kg (R, i.v.)

CN: α,α,α-trifluorothymidine

*Reference(s):*

US 3 531 464 (Seer. Dept. of Health Educ. and Welfare; 29.9.1970; prior. 21.10.1966).

starting material:

DD 119 423 (L. Hein, D. Cech, C. Liebenthal; appl. 17.4.1975).

US 3 201 387 (Seer. Dept. of Health Educ. and Welfare; 17.8. 1965; appl. 18.9.1963).

Formulation(s): eye ointment 20 mg/g; eye drops 10 mg/ml, sol. 1 %*Trade Name(s):*

D:	TFT Thilo 1 %	Triflumann (Mann)	I:	Triherpine (CIBA Vision)	
	Augentropfen (Alcon)	F:	Virophtha (Allergan)	USA:	Viroptic (Monarch)

Trihexyphenidyl

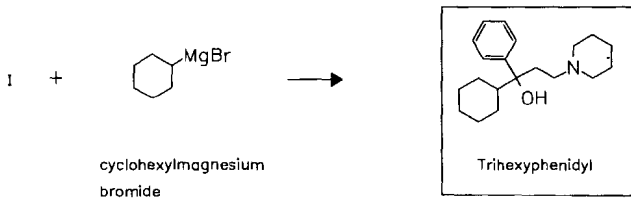
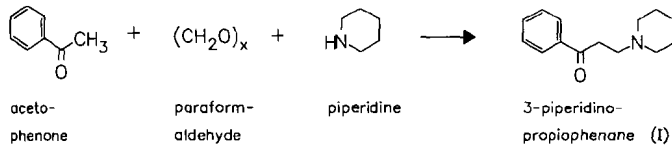
(Benzhexol)

ATC: N04AA01

Use: antiparkinsonian

RN: 144-11-6 MF: C₂₀H₃₁NO MW: 301.47 EINECS: 205-614-4LD₅₀: 41 mg/kg (M, i.v.); 335 mg/kg (M, p.o.)CN: α -cyclohexyl- α -phenyl-1-piperidinepropanol**hydrochloride**RN: 52-49-3 MF: C₂₀H₃₁NO · HCl MW: 337.94 EINECS: 200-142-5LD₅₀: 39 mg/kg (M, i.v.); 217 mg/kg (M, p.o.);

30 mg/kg (R, i.v.); 1630 mg/kg (R, p.o.)

**Reference(s):**

US 2 680 115 (Winthrop-Stearns; 1954; prior. 1949).

US 2 716 121 (American Cyanamid; 1955; prior. 1946, 1949).

alternative synthesis:

US 2 682 543 (Burroughs Wellcome; 1954; appl. 1951).

Formulation(s): amp. 10 mg/5 ml; elixir 2 mg/5 ml; tabl. 2 mg, 5 mg, 15 mg (as hydrochloride)**Trade Name(s):**

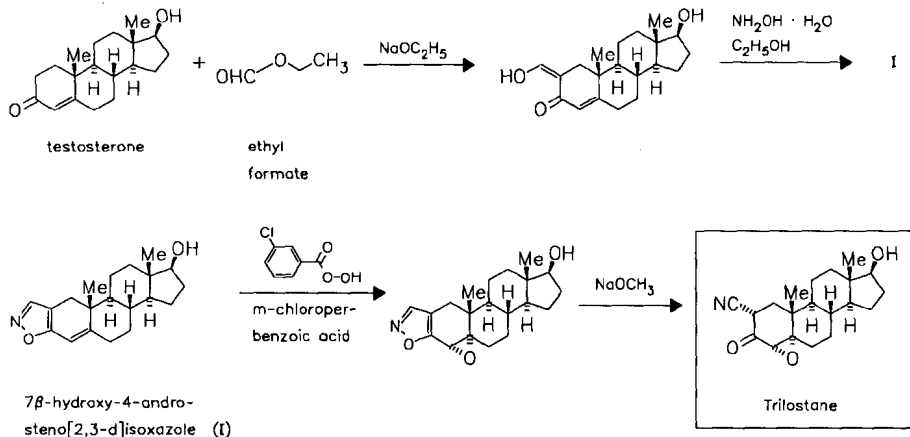
D:	Artane (Lederle)	GB:	Broflex (Bioglan)	Pyramistin (Yamanouchi)
	Parkopan (Neuro Hexal)	I:	Artane (Wyeth-Lederle)	Tremin (Schering-Shionogi)
F:	Artane (Spécia)	J:	Artane (Lederle)	Triphedionon (Toho)
	Parkinane retard (Wyeth-Lederle)		Arten (Lederle-Takeda; as hydrochloride)	USA: Artane (Lederle)

Trilostane

ATC: H02CA01

Use: adrenocortical suppressant

RN: 13647-35-3 MF: C₂₀H₂₇NO₃ MW: 329.44 EINECS: 237-133-0CN: (2 α ,4 α ,5 α ,17 β)-4,5-epoxy-17-hydroxy-3-oxoandrostane-2-carbonitrile

**Reference(s):**

US 3 296 255 (Sterling Drug; 3.1.1967; USA-prior. 23.6.1958, 29.6.1960, 29.11.1963).
 Neumann, H.C. et al.: J. Med. Chem. (JMCMAR) **13**, 948 (1970).

intermediates:

US 3 135 743 (Sterling Drug; 2.6.1964; appl. 29.6.1960).

Formulation(s): cps. 60 mg; tabl. 60 mg

Trade Name(s):

GB: Modrenal (Wanskerne) USA: Modrastane (Winthrop-Breon); wfm
 J: Desopane (Mochida)

Trimazosin

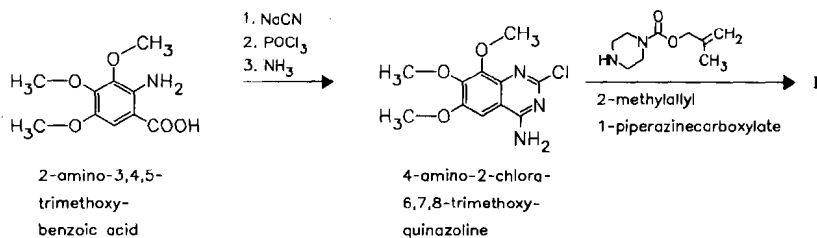
ATC: C02CA03
 Use: antihypertensive

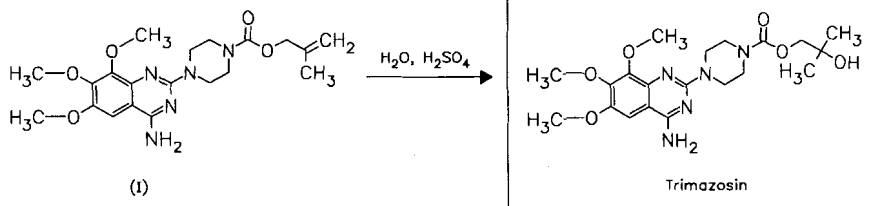
RN: 35795-16-5 MF: $\text{C}_{20}\text{H}_{29}\text{N}_5\text{O}_6$ MW: 435.48 EINECS: 252-732-7

CN: 4-(4-amino-6,7,8-trimethoxy-2-quinazoliny)-1-piperazinecarboxylic acid 2-hydroxy-2-methylpropyl ester

monohydrochloride monohydrate

RN: 53746-46-6 MF: $\text{C}_{20}\text{H}_{29}\text{N}_5\text{O}_6 \cdot \text{HCl} \cdot \text{H}_2\text{O}$ MW: 489.96





Reference(s):

DOS 2 120 495 (Pfizer; appl. 27.4.1971; USA-prior. 21.5.1970).
 US 3 669 968 (Pfizer; 13.6.1972; prior. 21.5.1970).

Formulation(s): tabl. 100 mg

Trade Name(s):

D: Supres (Pfizer); wfm

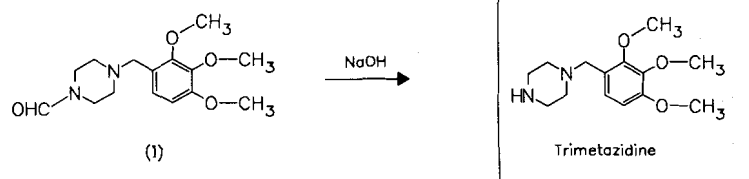
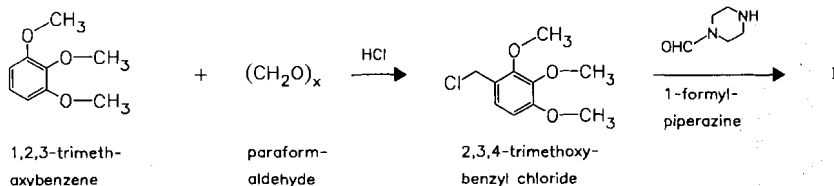
Trimetazidine

ATC: C01EB15
 Use: vasodilator

RN: 5011-34-7 MF: C₁₄H₂₂N₂O₃ MW: 266.34 EINECS: 225-690-2
 CN: 1-[(2,3,4-trimethoxyphenyl)methyl]piperazine

dihydrochloride

RN: 13171-25-0 MF: C₁₄H₂₂N₂O₃ · 2HCl MW: 339.26 EINECS: 236-117-0
 LD₅₀: 125 mg/kg (M, i.v.); 1550 mg/kg (M, p.o.);
 1700 mg/kg (R, p.o.)



Reference(s):

FR 1 302 958 (Science Union; appl. 21.3.1961).

Formulation(s): tabl. 3 mg, 20 mg (as hydrochloride)

Trade Name(s):

D: Anaprel F (Servier)-comb.; wfm	Vastarel Fort (Servier); wfm	I: Vastarel (Stroder)
Diviator (Servier)-comb.; wfm	F: Vastarel (Biopharma)	J: Cartoma (Ohta)
	GB: Vastarel (Servier); wfm	Coronanyl (Toho Shinyaku)
		Hiwell (Toa Eiyo)

Lubomanil (Maruko)
Sainosine (Chemiphar)
Trimeperad (Kotobuki-
Kanebo)

Vassarin-F (Taiyo)
Vastarel (Kyoto)
Vastazin (Takeda-Nippon
Kayaku)

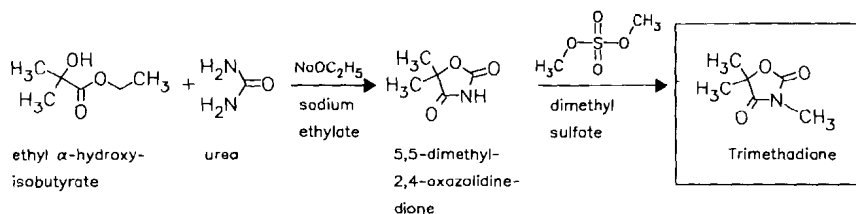
Yosimilon (Kowa Yakuhin)

Trimethadione

(Troxidone)

ATC: N03AC02
Use: antiepileptic

RN: 127-48-0 MF: C₆H₉NO₃ MW: 143.14 EINECS: 204-845-8
LD₅₀: 2 g/kg (M, i.v.); 2100 mg/kg (M, p.o.);
2140 mg/kg (R, p.o.)
CN: 3,5,5-trimethyl-2,4-oxazolidinedione



Reference(s):

US 2 559 011 (British Schering; 1951; GB-prior. 1946).
US 2 575 692 (Abbott; 1951; appl. 1947).

Formulation(s): cps. 300 mg

Trade Name(s):

D:	Tridione (Abbott); wfm	Triméthadione Abbott (Abbott); wfm	J:	Mino-Aleviatin (Dainippon)
F:	Epidione (Roger Bellon); wfm	GB: Tridione (Abbott); wfm		Tendal (Shionogi)
			USA:	Tridione (Abbott); wfm

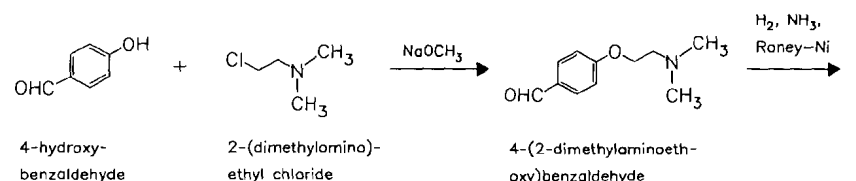
Trimethobenzamide

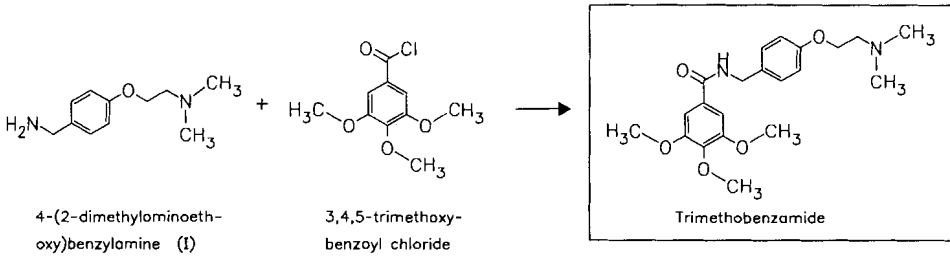
ATC: A04AD
Use: anti-emetic

RN: 138-56-7 MF: C₂₁H₂₈N₂O₅ MW: 388.46 EINECS: 205-332-1
CN: *N*-[[4-[2-(dimethylamino)ethoxy]phenyl]methyl]-3,4,5-trimethoxybenzamide

monohydrochloride

RN: 554-92-7 MF: C₂₁H₂₈N₂O₅ · HCl MW: 424.93 EINECS: 209-075-6
LD₅₀: 122 mg/kg (M, i.v.); 1600 mg/kg (M, p.o.)



**Reference(s):**

US 2 879 293 (Hoffmann-La Roche; 24.3.1959; prior. 19.2.1957).

Formulation(s): amp. 100 mg/ml; cps. 100 mg, 250 mg; suppos. 100 mg, 200 mg; vial 100 mg/ml (as hydrochloride)

Trade Name(s):

D: Anaus (Molteni); wfm I: Anaus (Molteni); wfm USA: Tigan (Roberts)
 Ibikin (IBP); wfm Ibikin (IBP); wfm

Trimethoprim

ATC: J01EA01

Use: chemotherapeutic, antibacterial

RN: 738-70-5 MF: $C_{14}H_{18}N_4O_3$ MW: 290.32 EINECS: 212-006-2

LD₅₀: 132 mg/kg (M, i.v.); 2764 mg/kg (M, p.o.);
 200 mg/kg (R, p.o.)

CN: 5-[(3,4,5-trimethoxyphenyl)methyl]-2,4-pyrimidinediamine

cotrimoxazole (comb. with sulfamethoxazole)

RN: 8064-90-2 MF: $C_{14}H_{18}N_4O_3 \cdot C_{10}H_{11}N_3O_3S$ MW: 543.61

LD₅₀: 3740 mg/kg (M, p.o.);
 5350 mg/kg (R, p.o.)

comb. with sulfamoxole

RN: 57197-43-0 MF: $C_{14}H_{18}N_4O_3 \cdot C_{11}H_{13}N_3O_3S$ MW: 557.63

LD₅₀: >12 g/kg (M, p.o.);
 14 g/kg (R, p.o.);
 >1 g/kg (dog, p.o.)

comb. with sulfamerazine

RN: 54242-77-2 MF: $C_{14}H_{18}N_4O_3 \cdot C_{11}H_{12}N_4O_2S$ MW: 554.63

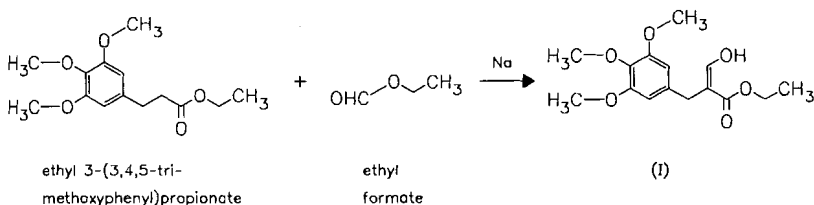
comb. with sulfamethoxypyridazine

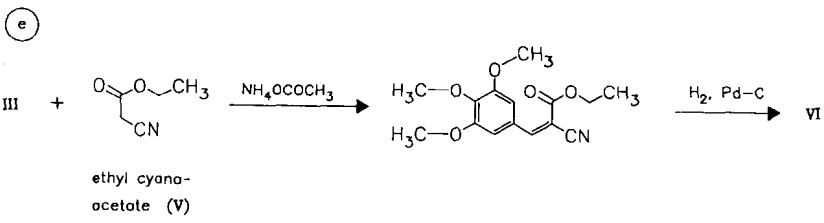
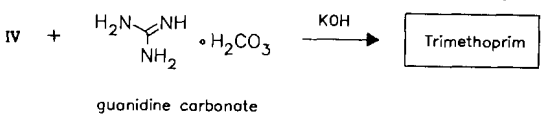
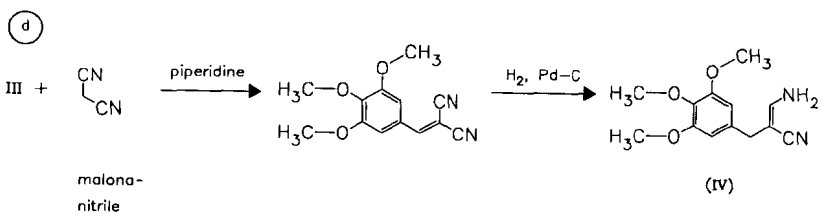
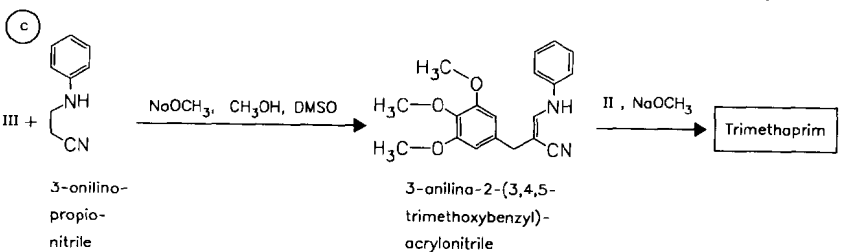
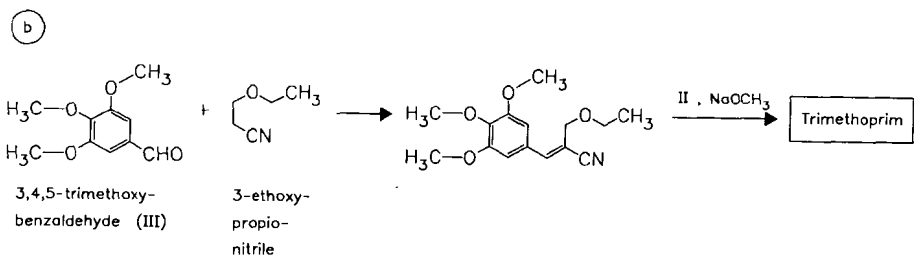
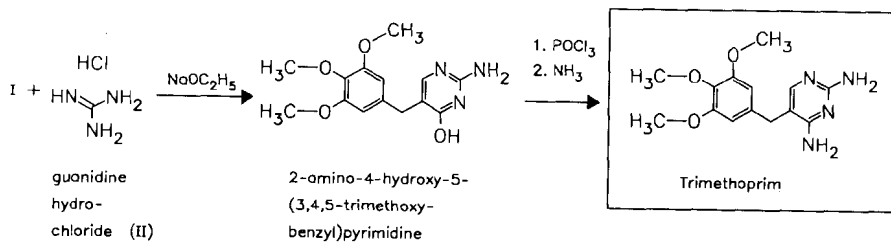
RN: 54242-78-3 MF: $C_{14}H_{18}N_4O_3 \cdot C_{11}H_{12}N_4O_3S$ MW: 570.63

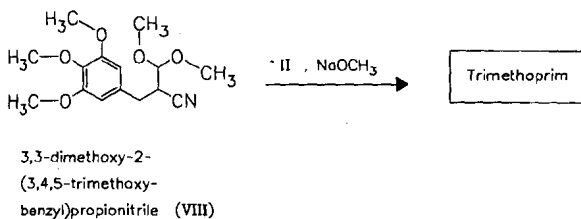
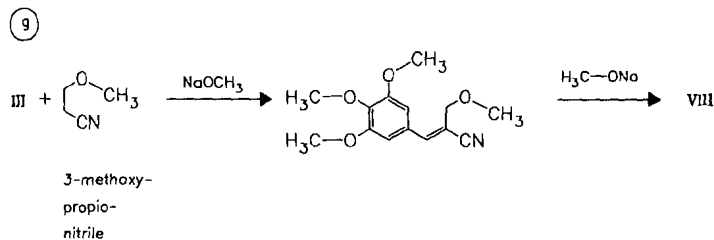
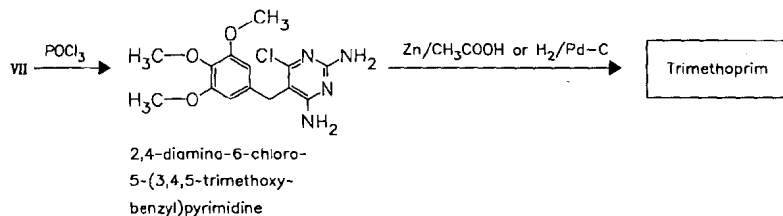
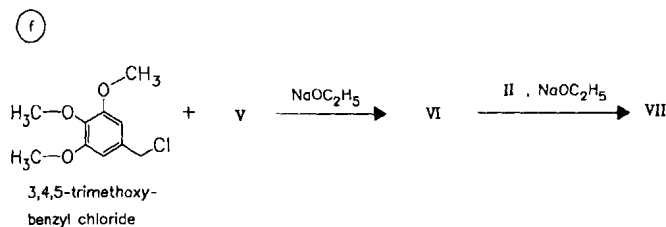
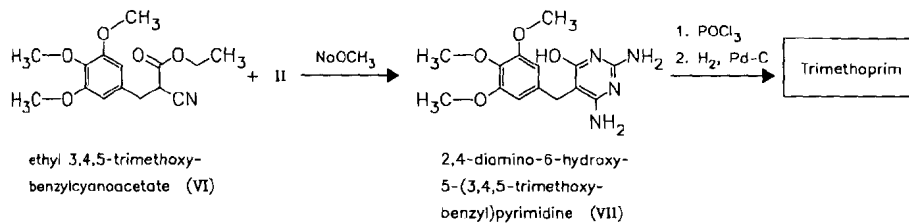
comb. with sulfadiazine

RN: 39474-58-3 MF: $C_{14}H_{18}N_4O_3 \cdot C_{10}H_{10}N_4O_2S$ MW: 540.61

⊙







Reference(s):

- a** DE 1 103 931 (Wellcome Found.; appl. 19.2.1958; GB-prior. 21.2.1957).
 US 2 909 522 (Burroughs Wellcome; 20.10.1959, GB-prior. 21.2.1957).
 GB 875 562 (Wellcome Foundation; appl. 21.2.1957; valid from 21.2.1958).
- b** US 3 049 544 (Burroughs Wellcome; 14.8.1962; GB-prior. 3.9.1959).
 DAS 1 303 727 (Wellcome Found.; appl. 12.8.1960; GB-prior. 3.9.1959, 20.11.1959, 11.7.1960).
 DAS 1 445 176 (Wellcome Found.; appl. 12.8.1960; GB-prior. 3.9.1959, 20.11.1959, 11.7.1960).
 DAS 1 795 586 (Wellcome Found.; appl. 12.8.1960; GB-prior. 3.9.1959, 20.11.1959, 11.7.1960).
similar process (condensation of 3,4,5-trimethoxybenzaldehyde with 3-(methoxyethoxy)propionitrile):
 DAS 2 635 765 (Heumann; appl. 9.8.1976).

condensation with monoacetylguanidine:

GB 1 518 075 (Industria Chimica Prodotti Francis S. P. A.; appl. 3.5.1977; I-prior. 27.1.1977).

- c DAS 2 010 166 (Wellcome Found.; appl. 4.3.1970; GB-prior. 6.3.1969, 16.5.1969, 13.6.1969).
 DOS 2 065 367 (Wellcome Found.; appl. 4.3.1970; GB-prior. 6.3.1969, 16.5.1969, 13.6.1969).
 DAS 2 066 039 (Wellcome Found.; appl. 4.3.1970; GB-prior. 6.3.1969, 16.5.1969, 13.6.1969).
 US 3 956 327 (Burrroughs Wellcome; 11.5.1976; GB-prior. 6.3.1963, 16.5.1969, 13.6.1969).

analogous method:

condensation of 3,4,5-trimethoxybenzaldehyde with piperazine-1,4-dipropionitrile:

DOS 2 612 891 (Smith Kline, Dauelsberg; appl. 26.3.1976).

condensation of 3,4,5-trimethoxybenzaldehyde with 3-(1-imidazolyl)propionitrile:

DOS 2 617 967 (Nordmark-Werke; appl. 24.4.1976).

- d DAS 2 443 080 (GEA; appl. 9.9.1974; DK-prior. 10.9.1973).

GB 1 445 254 (GEA; appl. 6.9.1974; DK-prior. 10.9.1973).

- e DOS 2 165 362 (Nisshin Flour Milling; appl. 29.12.1971; J-prior. 29.12.1970).

DOS 2 258 238 (Plantex; appl. 28.11.1972; IL-prior. 1.12.1971).

modified analogous method (reaction of 3,4,5-trimethoxybenzylcyanoacetic acid with DMF and phosgene and following reaction with guanidine directly to trimethoprim):

DAS 2 341 214 (Nordmark-Werke; appl. 16.8.1973).

GB 1 413 459 (Nordmark-Werke; appl. 26.7.1974; D-prior. 16.8.1973).

improved method for reaction of 2,4-diamino-6-hydroxy-5-(3,4,5-trimethoxybenzyl)pyrimidine to trimethoprim:

DOS 2 343 419 (Grünenthal; appl. 29.8.1973).

US 3 980 649 (Grünenthal; 14.9.1976; D-prior. 29.8.1973).

- f DAS 2 003 578 (Egypt; appl. 27.1.1970; H-prior. 27.1.1969).

- g DE 1 545 966 (Roche; appl. 20.10.1965; USA-prior. 12.11.1964, 7.5.1965, 9.7.1965).

DAS 1 793 647 (Roche; appl. 20.10.1965; USA-prior. 12.11.1964, 7.5.1965, 9.7.1965).

DOS 1 620 729 (Wellcome Found.; appl. 6.7.1966; USA-prior. 8.7.1965).

similar processes:

reaction of 3,4,5-trimethoxybenzaldehyde with 3,3-dimethoxypropionitrile and catalytic hydrogenation to 3,3-dimethoxy-2-(3,4,5-trimethoxybenzyl)propionitrile:

DAS 1 593 723 (Wellcome Found.; appl. 26.10.1966; GB-prior. 28.10.1965).

DAS 1 793 767 (Wellcome Found.; appl. 26.10.1966; GB-prior. 28.10.1965).

condensation of 3,4,5-trimethoxybenzaldehyde with cyanoacetaldehyde obtained by thermolysis of isoxazole:

DOS 2 623 169 (BASF; appl. 22.5.1976).

other methods:

reaction of the Mannich-compound from 2,6-dimethoxyphenol, formaldehyde and dimethylamine with 2,4-diaminopyrimidine and subsequent methylation of 2,4-diamino-5-(3,5-dimethoxy-4-hydroxybenzyl)pyrimidine with methyl iodide:

DAS 1 720 012 (Wellcome Found.; appl. 17.2.1967; GB-prior. 19.2.1966).

DAS 1 795 635 (Wellcome Found.; appl. 17.2.1967; GB-prior. 19.2.1966).

DAS 1 795 851 (Wellcome Found.; appl. 17.2.1967; GB-prior. 19.2.1966).

condensation of the Mannich-compound mentioned above with 2,4-diamino-6-methylthiopyrimidine to 2,4-diamino-5-(3,5-dimethoxy-4-hydroxybenzyl)-6-methylthiopyrimidine, methylation with methyl iodide and desulfurization with Raney nickel:

DAS 2 218 221 (Wellcome Found.; appl. 14.4.1972; GB-prior. 16.4.1971).

condensation of 3,4,5-trimethoxybenzaldehyde with 2,4-diamino-6-hydroxypyrimidine to 2,4-diamino-6-oxo-5-(3,4,5-trimethoxybenzylidene)pyrimidine, hydrogenation with Pd-C to 2,4-diamino-6-hydroxy-5-(3,4,5-trimethoxybenzyl)pyrimidine and further reaction of the latter analogously to method f:

DOS 2 546 510 (Astra; appl. 17.10.1975; S-prior. 21.10.1974).

from 3,4,5-trimethoxybenzoic acid methyl ester (condensation with DMSO, reduction with NaBH₄, reaction with 3-anilinopropionitrile to 3-anilino-2-(3,4,5-trimethoxybenzyl)acrylonitrile, cf. method c):

DOS 2 051 871 (Wellcome Found.; appl. 15.5.1970; GB-prior. 16.5.1969).

DOS 2 023 977 (Wellcome Found.; appl. 15.5.1970; GB-prior. 16.5.1969).

condensation of 3,4,5-trimethoxybenzyl chloride with 2,4-diamino-6-hydroxypyrimidine, reaction with phosphorous oxychloride and reductive dehalogenation:

DAS 2 530 814 (Lentia; appl. 10.7.1975).

review:

Schliemann, W.: Pharmazie (PHARAT) 31, 140 (1976).

Formulation(s): syrup 50 mg/5 ml, 100 mg/5 ml; tabl. 50 mg, 100 mg, 120 mg, 150 mg, 200 mg, 300 mg

Trade Name(s):

<p>D: Bactrim forte/Sirolin (Roche)-cotrimoxazole-comb. Drylin (Merckle)-comb. with sulfamethoxazole Eusaprim (Wellcome)-comb. with sulfamethoxazole Eusaprim forte/Pyridium (Wellcome)-comb. with sulfamethoxazole Infectotrimet (Infectopharm) Kepinol (Pfleger)-comb. with sulfamethoxazole Microtrim (Chephasaar)-comb. with sulfamethoxazole Sigaprim (Siegfried)-comb. with sulfamethoxazole Sulfacet (Schwarzhaupt)-cotrimoxazole Supracombin (Grünenthal)-comb. with sulfamethoxazole TMP-ratiopharm (ratiopharm) TMS (TAD)-comb. with sulfamethoxazole Triglobe (Astra)-comb. with sulfadiazine Trimono (Procter & Gamble)</p>	<p>F: Uretrim (TAD) Antrima (Doms-Adrian)-comb. Bactrim (Roche)-comb. Eusaprim (Lipha Santr�-comb. Wellcoprim (Glaxo Wellcome) GB: Chemotrim (Rosemont)-comb. Ipral (Squibb) Monotrim (Solvay) Polytrim (Dominion)-comb. with polymyxin B Septrin (Glaxo Wellcome)-comb. Trimopan (Berk) I: Abacin (Benedetti)-cotrimoxazole Abaprim (Gentili) Bacterial (CT)-comb. Bactrim (Domp�-comb. Chemitrim (Biomedica Foscoma)-comb. Eusaprim (Glaxo Wellcome)-comb. Gantrim (Geymonat)-comb. Isotrim (Ghimas)-comb. Kelfiprim (Pharmacia & Upjohn)-comb. with sulfametyopyrazine Kombinax (Bracco)-comb. with sulfadiazine</p>	<p>J: Lidaprim (Lisapharma)-comb. Medixin (Pierrel)-comb. Streptoplus (Molteni)-comb. Velaten (Camillo Corvi)-comb. with sulfamethoxypridazine Bacta (Nippon Roche)-comb. Bacta (Nippon Roche)-cotrimoxazole Bactramin (Nippon Roche)-comb. Bactramin (Nippon Roche)-cotrimoxazole Baktar (Wellcome) Septerin (Tanabe) Septrim (Shionogi)-comb. Septrim (Shionogi)-cotrimoxazole USA: Bactrim (Roche)-comb. Proloprim (Glaxo Wellcome) Septra (Glaxo Wellcome)-comb. Trimpex (Roche) combination preparations and generics</p>
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Trimetozine

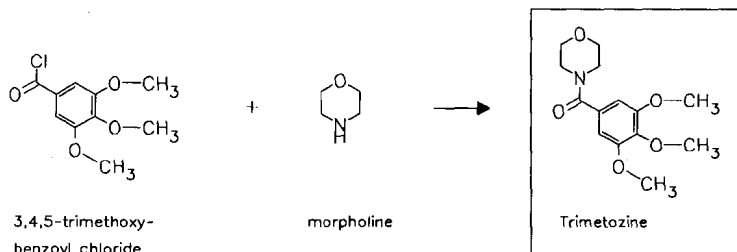
ATC: C01AA05; C08DA01

Use: neurosedative

RN: 635-41-6 MF: C₁₄H₁₉NO₅ MW: 281.31 EINECS: 211-236-0

LD₅₀: 960 mg/kg (M, i.v.); 2400 mg/kg (M, p.o.);
1800 mg/kg (R, p.o.)

CN: 4-(3,4,5-trimethoxybenzoyl)morpholine

**Reference(s):**

DE 1 164 412 (Egyesült Gyógyszer-és Tápszergyár; appl. 16.1.1960; H-prior. 23.1.1959, 2.11.1959).

Formulation(s): drg. 150 mg**Trade Name(s):**

D: Gradulon (Minden)-comb.; F: Opalene (Théraplix)-comb.; wfm I: Trioxazina (Importex); wfm
 Seda-Miroton (Minden); Trioxazine (Adrian-Marinier); wfm

Trimetrexate glucuronate

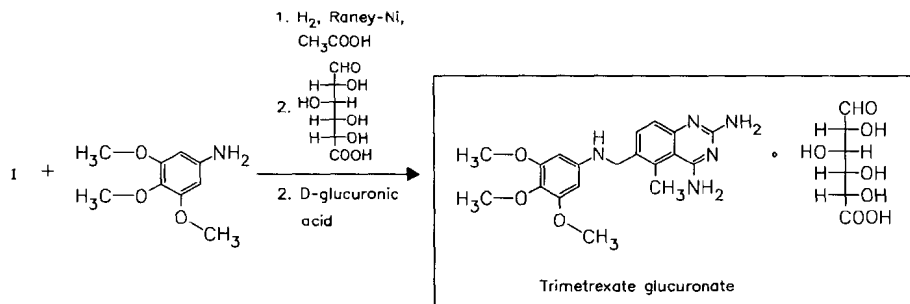
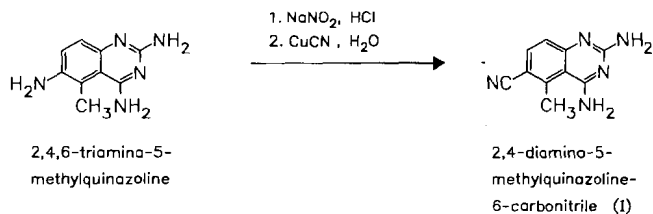
(CI-898; JB-11; NSC-249008/352122)

ATC: P01AX07

Use: antineoplastic

RN: 82952-64-5 MF: $C_{19}H_{23}N_5O_3 \cdot C_6H_{10}O_7$ MW: 563.56

CN: D-glucuronic acid compd. with 5-methyl-6-[[[(3,4,5-trimethoxyphenyl)amino]methyl]-2,4-quinazolinediamine (1:1)

trimetrexateRN: 52128-35-5 MF: $C_{19}H_{23}N_5O_3$ MW: 369.43**monoacetate**RN: 52128-36-6 MF: $C_{19}H_{23}N_5O_3 \cdot C_2H_4O$ MW: 413.48

Reference(s):

GB 1 345 502 (Parke Davis & Co.; appl. 6.7.1972; GB-prior. 6.7.1972).
 EP 5 145 (Warner-Lambert Co.; appl. 26.10.1981; USA-prior. 29.1.1982).

lyophilic formulation:

JP 06 172 177 (Dainippon Pharm.; appl. 10.12.1992; J-prior. 10.12.1992).

Formulation(s): vial 25 mg

Trade Name(s):

F: Neutrexin (Ipsen/Biotech) I: Neutrexin (Ipsen)
 GB: Neutrexin (Speywood) USA: Neutrexin (US Bioscience)

Trimipramine

ATC: N06AA06
 Use: antidepressant

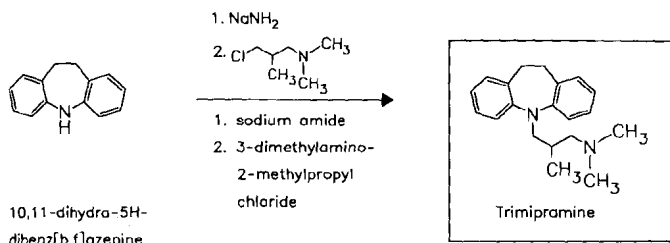
RN: 739-71-9 MF: $C_{20}H_{26}N_2$ MW: 294.44 EINECS: 212-008-3
 LD₅₀: 42 mg/kg (M, i.v.); 250 mg/kg (M, p.o.)
 CN: 10,11-dihydro-*N,N*, β -trimethyl-5*H*-dibenz[*b,f*]azepine-5-propanamine

maleate (1:1)

RN: 521-78-8 MF: $C_{20}H_{26}N_2 \cdot C_4H_4O_4$ MW: 410.51 EINECS: 208-318-3
 LD₅₀: 40 mg/kg (M, i.v.); 425 mg/kg (M, p.o.);
 38 mg/kg (R, i.v.); 800 mg/kg (R, p.o.)

monomesylate

RN: 25332-13-2 MF: $C_{20}H_{26}N_2 \cdot CH_4O_3S$ MW: 390.55 EINECS: 246-852-9

**Reference(s):**

FR 1 172 014 (Rhône-Poulenc; appl. 14.12.1955).
 Jacob, R.M.; Messer, M.: C. R. Hebd. Seances Acad. Sci. (COREAF) **252**, 2117 (1961).

Formulation(s): amp. 25 mg/ml; cps. 25 mg, 50 mg, 100 mg; drops 5.3 g/100 ml (as monomesylate); f. c. tabl. 25 mg; tabl. 25 mg, 100 mg (as maleate)

Trade Name(s):

D:	Hexphonal (ASTA Medica AWD)	F:	Surmontil (Specia)	Surmontil (Rhône-Poulenc Rorer)	
	Stangyl (Rhône-Poulenc Rorer)	GB:	Surmontil (Rhône-Poulenc Rorer)	J:	Surmontil (Shionogi)
	Trimipramin-neuraxpharm (neuraxpharm)	I:	Surmontil (Rhône-Poulenc Rorer)	USA:	Surmontil (Wyeth-Ayerst)

Tripamide

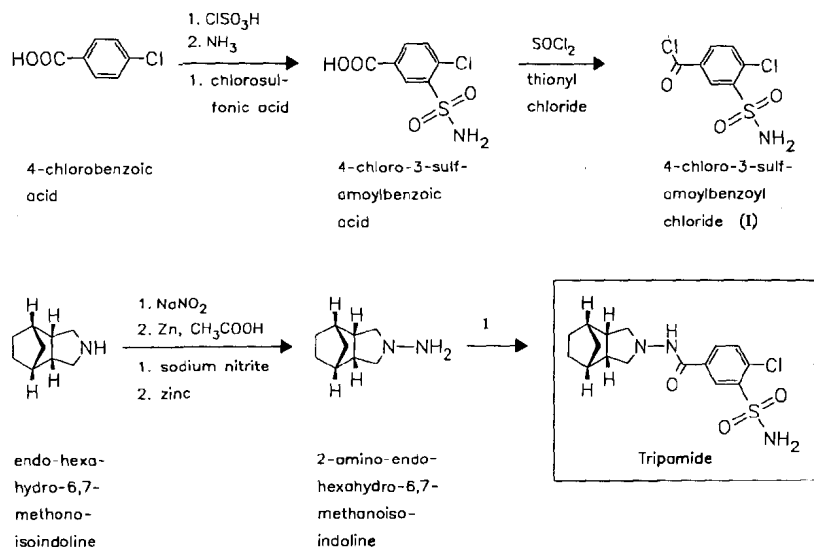
ATC: C02

Use: antihypertensive, diuretic

RN: 73803-48-2 MF: C₁₆H₂₀ClN₃O₃S MW: 369.87LD₅₀: >5 g/kg (M, p.o.);

>8 g/kg (R, p.o.);

>2 g/kg (dog, p.o.)

CN: (3 α ,4 α ,7 α ,7 α')-3-(aminosulfonyl)-4-chloro-*N*-(octahydro-4,7-methano-2*H*-isoindol-2-yl)benzamide**Reference(s):**

US 3 787 440 (Eisai; 22.1.1974; appl. 9.11.1971; J-prior. 9.11.1970).

DOS 2 155 660 (Eisai; appl. 9.11.1971; J-prior. 9.11.1970).

Nakamura, T. et al.: J. Labelled Compd. Radiopharm. (JLCRD4) **14**, 191 (1978).*synthesis of 2-amino-endo-hexahydro-4,7-methanoisoindoline:*

JP 7 121 708 (Eisai; appl. 17.8.1967).

Formulation(s): tabl. 15 mg**Trade Name(s):**

J: Normonal (Eisai; 1982)

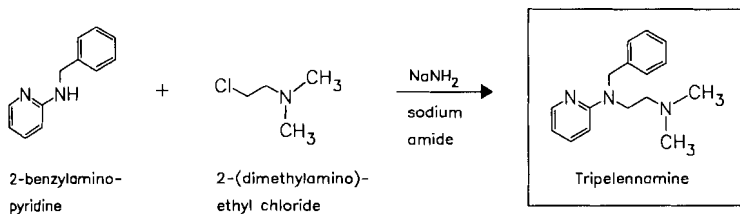
Tripelennamine

ATC: D04AA04; R06AC04

Use: antihistaminic

RN: 91-81-6 MF: C₁₆H₂₁N₃ MW: 255.37 EINECS: 202-100-1LD₅₀: 23 mg/kg (M, i.v.); 152 mg/kg (M, p.o.)CN: *N,N*-dimethyl-*N'*-(phenylmethyl)-*N'*-2-pyridinyl-1,2-ethanediamine**monohydrochloride**RN: 154-69-8 MF: C₁₆H₂₁N₃ · HCl MW: 291.83 EINECS: 205-833-5LD₅₀: 9 mg/kg (M, i.v.); 97 mg/kg (M, p.o.);

12 mg/kg (R, i.v.); 469 mg/kg (R, p.o.)



Reference(s):

US 2 406 594 (Ciba; 1946; prior. 1943).
 US 2 502 151 (Rhône-Poulenc; 1950; F-prior. 1943).

Formulation(s): stick 115 mg/5.75 g (as hydrochloride)

Trade Name(s):

D: Azaron Stift (Chefaro)	I: Sedilene (Montefarmaco); wfm	USA: PBZ-SR (Geigy); wfm
F: Anachoc (Lipha)-comb; wfm	J: Pyribenzamin (Ciba-Geigy-Takeda)	Pyribenzamine (Ciba); wfm
		Tripelennamine HCl Tablets (Danbury); wfm

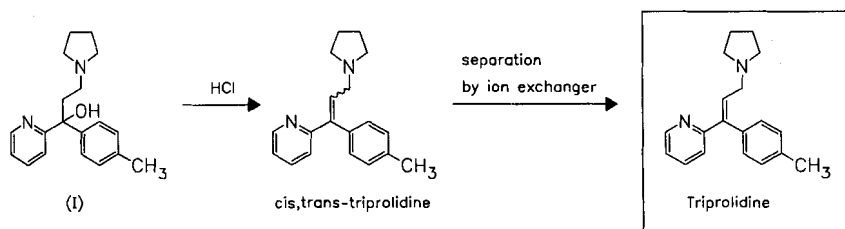
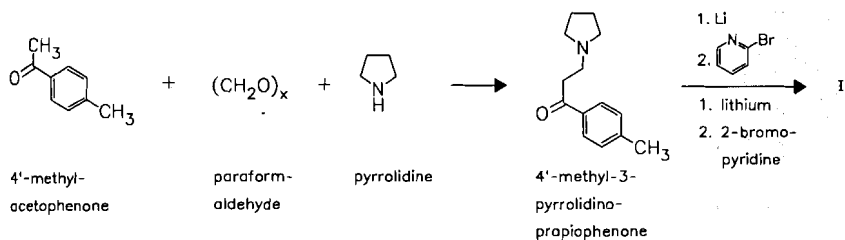
Triprolidine

ATC: R06AX07
 Use: antihistaminic

RN: 486-12-4 MF: C₁₉H₂₂N₂ MW: 278.40 EINECS: 207-627-0
 CN: (E)-2-[1-(4-methylphenyl)-3-(1-pyrrolidiny)-1-propenyl]pyridine

monohydrochloride

RN: 550-70-9 MF: C₁₉H₂₂N₂ · HCl MW: 314.86 EINECS: 208-985-0
 LD₅₀: 21 mg/kg (M, i.v.); 495 mg/kg (M, p.o.);
 840 mg/kg (R, p.o.)



Reference(s):

US 2 712 020 (Burroughs Wellcome; 1955; GB-prior. 1948).
 US 2 712 023 (Burroughs Wellcome; 1955; GB-prior. 1948).

Formulation(s): syrup 1.25 mg/5 ml; tabl. 1.25 mg, 2.5 mg (as hydrochloride)

Trade Name(s):

D:	Actifed (Warner-Lambert)- comb.	I:	Actidil (Warner-Lambert)	USA:	Actifed (Warner-Lambert)- comb.
F:	Actifed (Warner-Lambert)	J:	Entra (Wellcome-Tanabe)		
GB:	Sudafed (Warner-Lambert)- comb.		Pro-Entra (Wellcome- Tanabe)		
			Venen (Tanabe)		

Tritoqualine

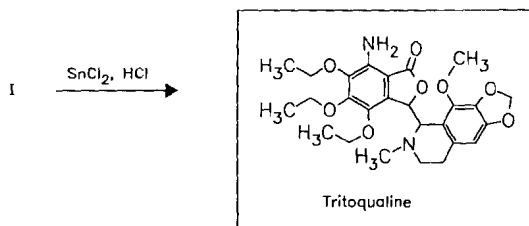
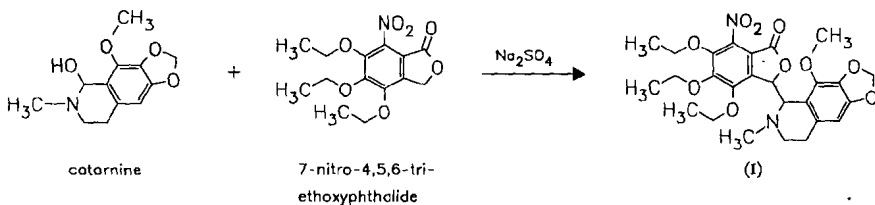
ATC: R06AX21

Use: antiallergic

RN: 14504-73-5 MF: C₂₆H₃₂N₂O₈ MW: 500.55LD₅₀: >15 g/kg (M, p.o.);

>15 g/kg (R, p.o.)

CN: 7-amino-4,5,6-triethoxy-3-(5,6,7,8-tetrahydro-4-methoxy-6-methyl-1,3-dioxolo[4,5-g]isoquinolin-5-yl)-1(3H)-isobenzofuranone



Reference(s):

DE 1 206 909 (M. Jeanson, Paris; appl. 14.8.1959).

Formulation(s): drops 180 mg; tabl. 100 mg

Trade Name(s):

D:	Inhibostamin (Swiss- Pharma); wfm	I:	Hypostamin (SIT); wfm
F:	Hypostamin (Zyma); wfm		Hypostamine (Promedica)
			Hypostamine (Zyma); wfm

Trofosfamide

(Trophosphamide)

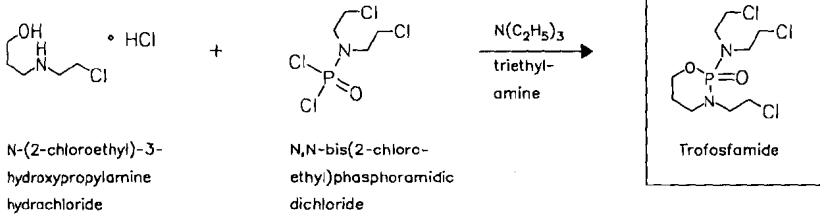
ATC: L01AA07

Use: antineoplastic

RN: 22089-22-1 MF: C₉H₁₈Cl₃N₂O₂P MW: 323.59 EINECS: 244-770-8LD₅₀: 157 mg/kg (M, i.v.); 464 mg/kg (M, p.o.);

90 mg/kg (R, i.v.); 202 mg/kg (R, p.o.)

CN: N,N,3-tris(2-chloroethyl)tetrahydro-2H-1,3,2-oxazaphosphorin-2-amine 2-oxide

**Reference(s):**

DOS 1 645 921 (ASTA-Werke; appl. 11.7.1966).
 GB 1 188 159 (ASTA-Werke; appl. 11.7.1967; D-prior. 11.7.1966).
 US 3 732 340 (ASTA-Werke; 8.5.1973; prior. 30.6.1967, 11.9.1970, 14.1.1971).

Formulation(s): f. c. tabl. 50 mg

Trade Name(s):

D: Ixoten (ASTA Medica AWD) I: Ixoten (Schering; wfm)

Troglitazone

(CI-991; CS 045; GR-92132X)

ATC: A10BG01

Use: antidiabetic, insulin enhancer, antioxidant

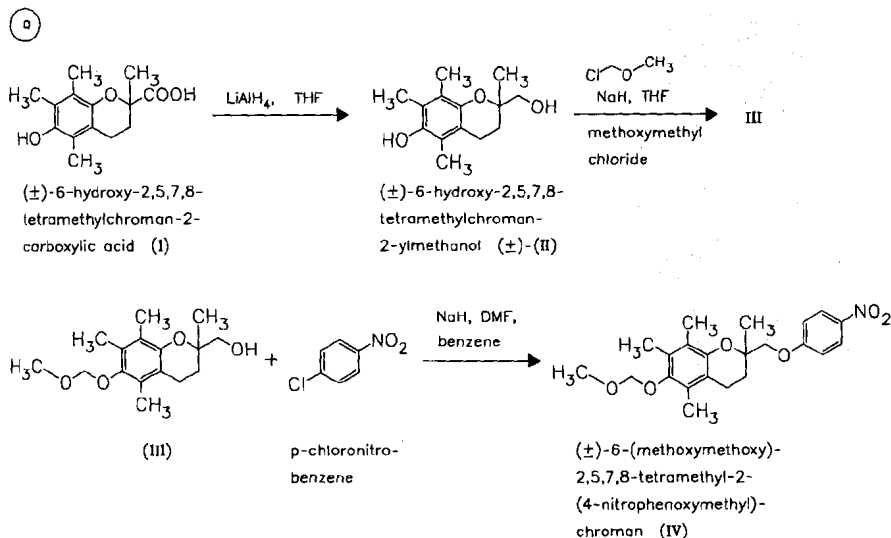
RN: 97322-87-7 MF: C₂₄H₂₇NO₅S MW: 441.55

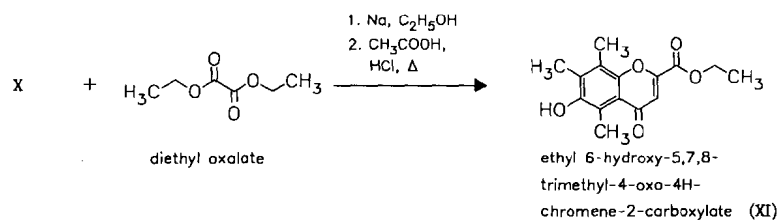
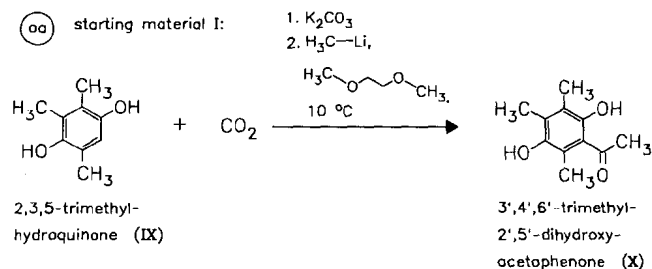
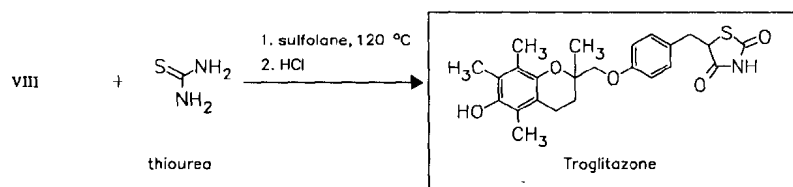
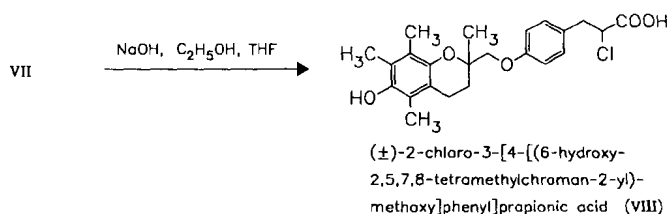
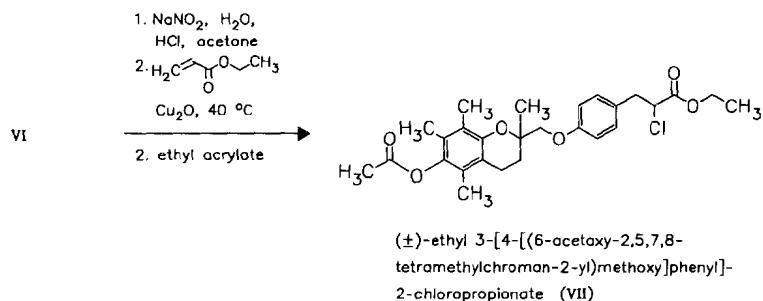
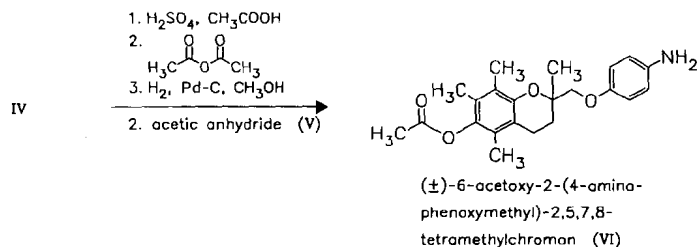
LD₅₀: >5 g/kg (R, p.o.)

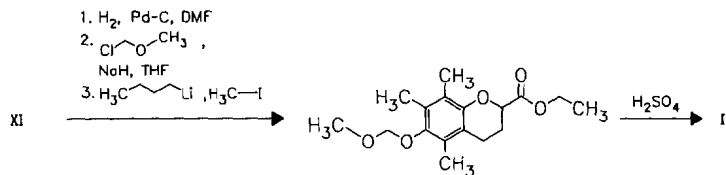
CN: 5-[[[4-(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methoxy]phenyl]methyl-2,4-thiazolidinedione

monosodium salt

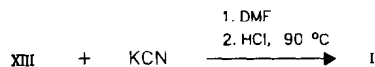
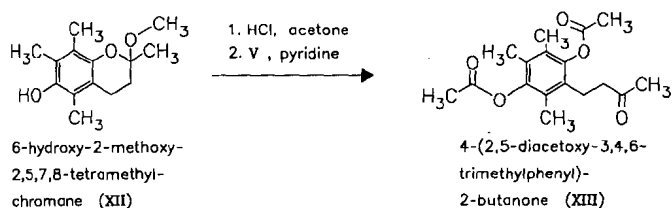
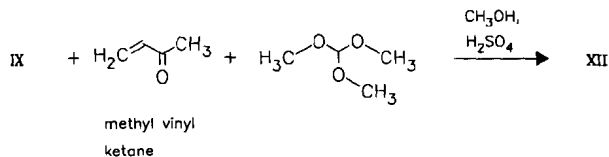
RN: 97323-06-3 MF: C₂₄H₂₆NNaO₅ MW: 431.46



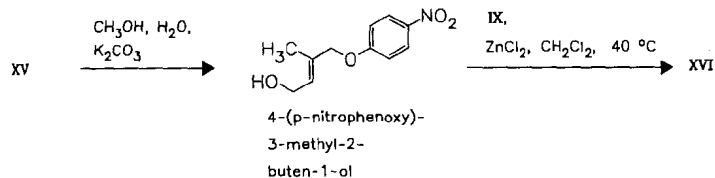
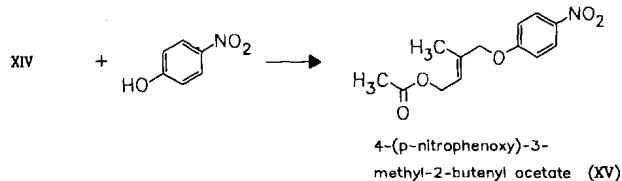
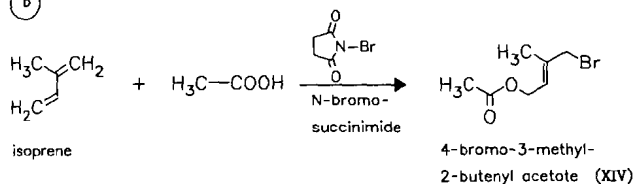


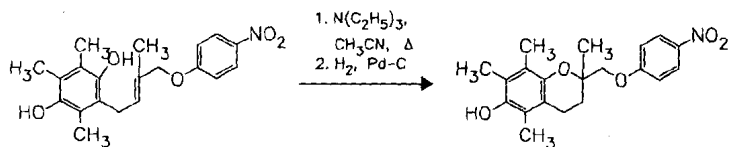


(ab)



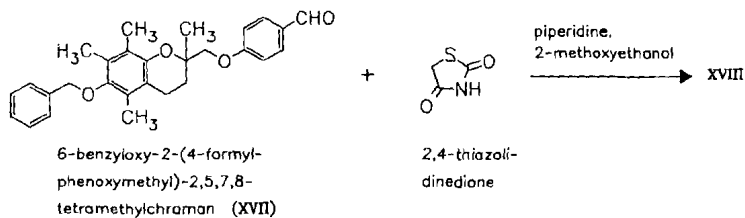
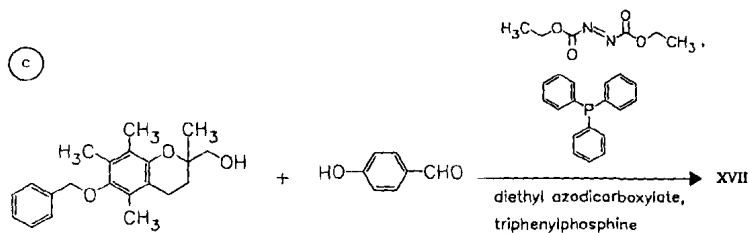
(b)





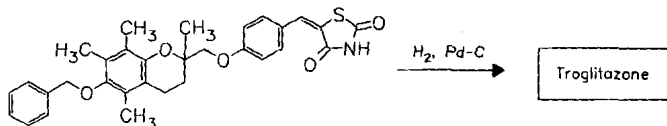
2-[4-(p-nitrophenoxy)-3-methyl-2-butenyl]-3,5,6-trimethylhydroquinone (XVI)

(unprotected IV)



6-benzyloxy-2-(4-formylphenoxy)methyl)-2,5,7,8-tetramethylchroman (XVII)

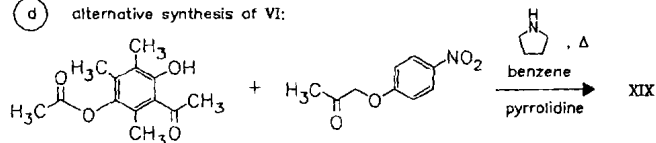
2,4-thiazolidinedione



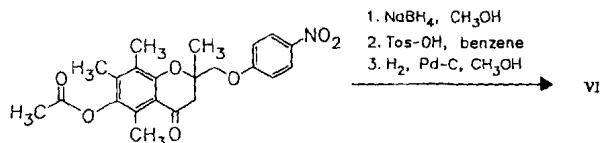
5-[4-(6-benzyloxy-2,5,7,8-tetramethylchroman-2-ylmethoxy)-benzylidene]-2,4-thiazolidinedione (XVIII)

Troglitazone

(d) alternative synthesis of VI:



5'-acetoxy-2'-hydroxy-3',4',6'-trimethylacetophenone

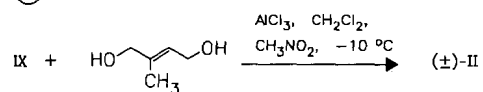


6-acetoxy-2,5,7,8-tetramethyl-2-(4-nitrophenoxymethyl)-4-chromonone (XIX)

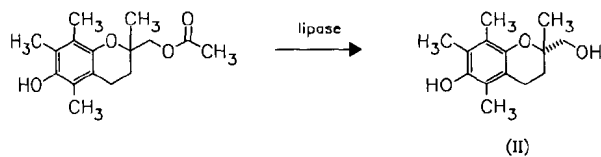
VI

e intermediate II:

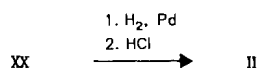
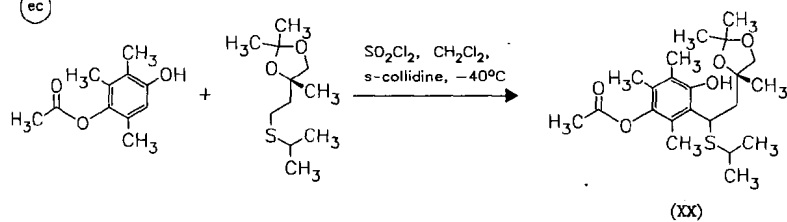
ea



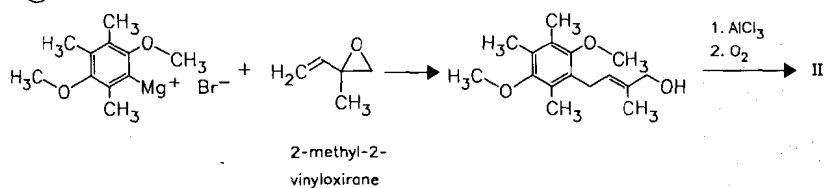
eb)



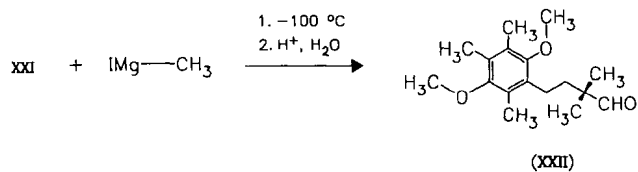
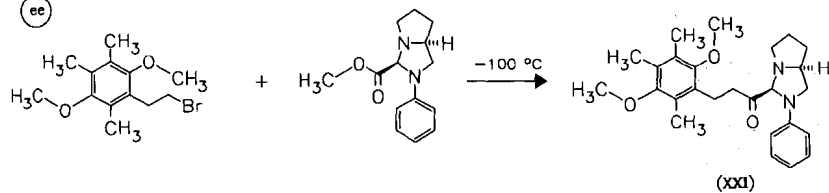
ec)



ed)



ee)



1. NaBH_4
2. $\text{Ce}(\text{NH}_4)_2(\text{NO}_3)_6$
3. H_2

XXII \longrightarrow II*Reference(s):*

- a** Yoshioka, T. et al.: J. Med. Chem. (JMCMAR) **32**, 421 (1989).
EP 207 581 (Sankyo Co.; appl. 26.2.1986; J-prior. 26.2.1985).
- aa** Witiak, D.T. et al.: J. Med. Chem. (JMCMAR) **18** (9), 934 (1975).
EP 139 421 (Sankyo Co.; appl. 28.8.1984; prior. 30.8.1983).
US 4 572 912 (Sankyo; 25.2.1986, J-prior. 30.8.1983).
- ab** Scott, J.W. et al.: J. Am. Chem. Soc. (JACSAT) **51**, 200 (1974).
- b** EP 670 300 (Eisai Chem. Co.; appl. 1.3.1995; J-prior. 2.3.1994).
EP 543 346 (Lonza/Sankyo; appl. 17.11.1992; CH-prior. 20.11.1991).
- c** EP 454 501 (Sankyo Co.; appl. 29.4.1991; J-prior. 27.4.1990).
- ea** DE 3 010 504 (BASF AG; appl. 19.3.1980).
- eb** JP 08 119 958 (Kwaray Co.; appl. 18.10.1994).
JP 08 119 957 (Kwaray Co.; appl. 18.10.1994).
- ec** JP 01 068 366 (Eisai Co.; appl. 9.9.1987).
- ed** Tanabe, K. et al.: Chem. Lett. (CMLTAG) **5**, 561 (1985).
- ef** Sakito, Y. et al.: Tetrahedron Lett. (TELEAY) **23** (47), 4953 (1982).
EP 65 368 (Sumitomo Chem.; appl. 28.4.1982; J-prior. 30.4.1981).

*kinetic resolution of intermediate II:*Hyatt, J.A.; Skelton, C.: Tetrahedron: Asymmetry (TASYE3) **8** (4), 523 (1997).*preparation of (+)-enantiomer by yeast reductase:*

WO 9 310 254 (SmithKline Beecham; appl. 19.11.1992; GB-prior. 19.11.1991).

Formulation(s): tabl. 100 mg, 200 mg, 300 mg, 400 mg*Trade Name(s):*

J: Noscil (Sankyo) USA: Rezulin (Parke Davis;
Warner-Lambert); wfm

Trolnitrate

ATC: C01DA09

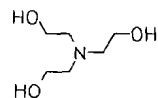
Use: coronary vasodilator

RN: 7077-34-1 MF: $\text{C}_6\text{H}_{12}\text{N}_4\text{O}_9$ MW: 284.18 EINECS: 230-376-3

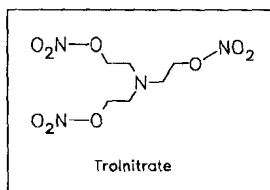
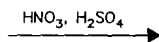
CN: 2,2',2''-nitrolotrisethanol trinitrate (ester)

diphosphateRN: 588-42-1 MF: $\text{C}_6\text{H}_{12}\text{N}_4\text{O}_9 \cdot 2\text{H}_3\text{PO}_4$ MW: 480.17 EINECS: 209-617-1LD₅₀: 100 mg/kg (M, i.v.); 330 mg/kg (M, p.o.);

130 mg/kg (R, p.o.)



triethanolamine



Trolnitrate

Reference(s):

FR 984 523 (J. Metadier; appl. 1949).

Trade Name(s):

D: Angitrit (Nordmark); wfm
J: Amitolen (Hokuriku)

Etamin (Zeria)
Sedalis (Kayaku)

USA: Metamine (Pfizer); wfm

Tromantadine

ATC: D06BB02; J05AC03

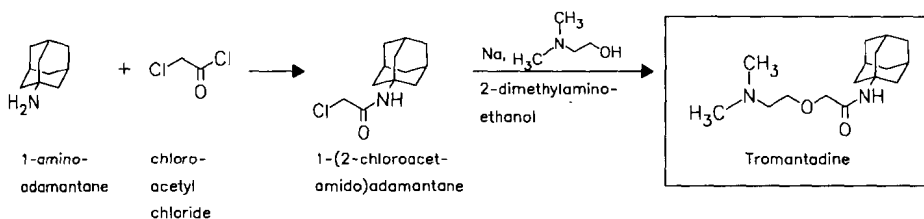
Use: antiviral

RN: 53783-83-8 MF: $C_{16}H_{28}N_2O_2$ MW: 280.41 EINECS: 258-770-0

CN: 2-[2-(dimethylamino)ethoxy]-*N*-tricyclo[3.3.1.1^{3,7}]dec-1-ylacetamide

monohydrochloride

RN: 41544-24-5 MF: $C_{16}H_{28}N_2O_2 \cdot HCl$ MW: 316.87 EINECS: 255-434-5

**Reference(s):**

DOS 1 941 218 (Merz & Co.; appl. 13.8.1969).

Peteri, D.; Sterner, W.: *Arzneim.-Forsch. (ANCEAD)* **23**, 577 (1973).

Formulation(s): cream 10 mg, 100 mg/10 g; gel 10 mg, 100 mg/10 g; ointment 1 % (as monohydrochloride)

Trade Name(s):

D: Viru-"Merz" (Merz & Co.)

Viru-"Merz" Serol (Merz & Co.)

I: Viruserol (Novartis Consumer Health)

Trometamol

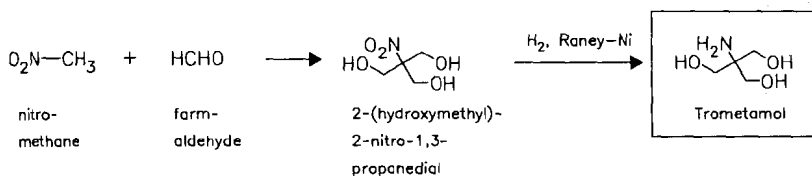
(Tromethamine)

ATC: B05BB03; B05XX02

Use: osmotic diuretic

RN: 77-86-1 MF: $C_4H_{11}NO_3$ MW: 121.14 EINECS: 201-064-4

CN: 2-amino-2-(hydroxymethyl)-1,3-propanediol

**Reference(s):**

US 2 174 242 (Purdue Res. Found.; 1939; appl. 1937).

electrolytic reduction:

US 2 485 982 (Commercial Solvents Corp.; 1949; appl. 1944).

Formulation(s): amp. 7.3 g/20 ml, sol. 34.36 g/100 ml

Trade Name(s):

D: Elektrolyt-Konzentrat Tris
(THAM) pfrimmer
(Pfrimmer)
THAM-Köhler 3 M
(Köhler)

F: TRIS 36.34 % Braun (B/
Braun)
Almide (Alcon)
Monuril (Zambon)

I: Thamacétat (Bellon;
Rhône-Poulenc Rorer)
Thamesol (Diac)
Ulcotris (ISF)-Comb.
J: Tham-Set (Otsuka)-comb.

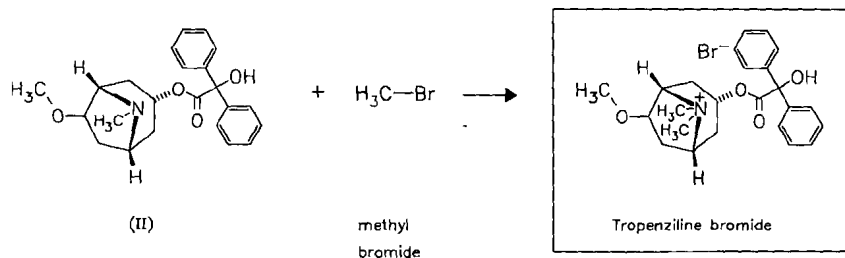
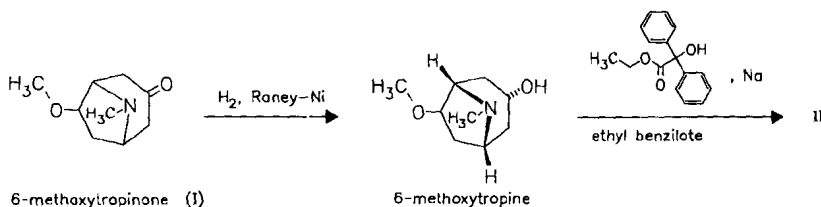
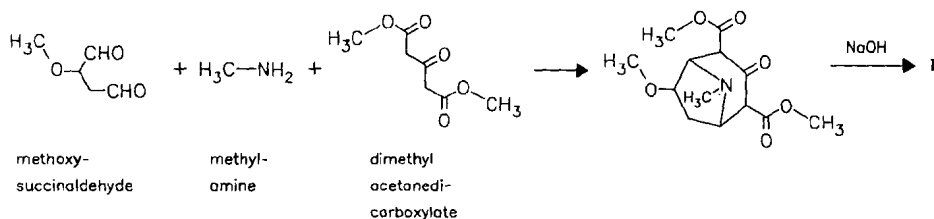
Tropenziline bromide

ATC: A03; N07

Use: antispasmodic, parasympathomimetic

RN: 143-92-0 MF: C₂₄H₃₀BrNO₄ MW: 476.41 EINECS: 205-612-3

CN: 3-[(hydroxydiphenylacetyl)oxy]-6-methoxy-8,8-dimethyl-8-azoniabicyclo[3.2.1]octane bromide



Reference(s):

CH 325 296 (Sandoz; appl. 1954).

Stoll, A. et al.: *Helv. Chim. Acta (HCACAV)* **37**, 495 (1954); **38**, 571 (1955).

Trade Name(s):

D: Pelerol (Sandoz)-comb.;
wfm

F: Palerol (Salvoxyll-Wander);
wfm

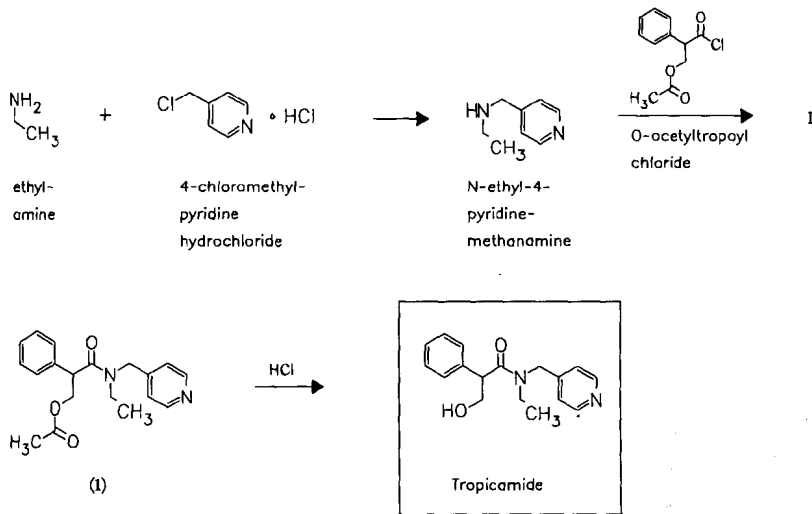
Tropicamide

ATC: S01FA06

Use: parasympatholytic, mydriatic

RN: 1508-75-4 MF: C₁₇H₂₀N₂O₂ MW: 284.36 EINECS: 216-140-2LD₅₀: 565 mg/kg (M, p.o.);

865 mg/kg (R, p.o.)

CN: *N*-ethyl- α -(hydroxymethyl)-*N*-(4-pyridinylmethyl)benzeneacetamide**Reference(s):**

US 2 726 245 (Hoffmann-La Roche; 1955; CH-prior. 1952).

Formulation(s): eye drops 5 mg/ml, 5 mg/0.5 ml**Trade Name(s):**

D:	Aroclunin (Chauvin ankerpharm)	Tropicamide Faure (Schering)	Visumidriatic Antif. (Merck Sharp & Dohme)-comb.
	Mydriaticum Stulln (Pharma Stulln)	GB: Minims Tropicamide (Chauvin)	Visumidriatic Fenil (Pharmec)-comb.
	Mydrum (Chauvin ankerpharm)	Mydriacyl (Alcon)	J: Mydrin (Santen)
F:	Mydriaticum (Merck Sharp & Dohme-Chibret)	I: Tropimil (Farmigea)	USA: Tryptar (Armour); wfm
		Visumidriatic (Pharmec)	

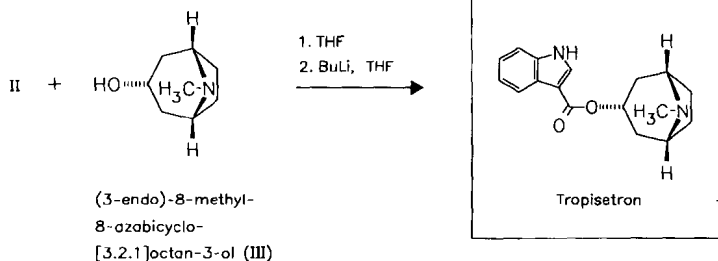
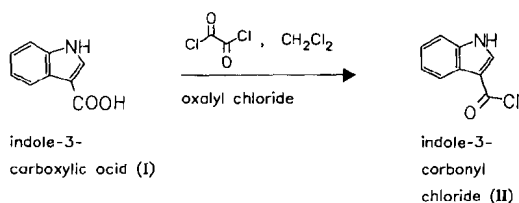
Tropisetron

(ICS-205930)

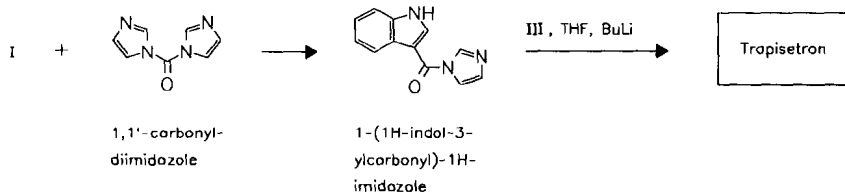
ATC: A04AA03

Use: antiemetic, antimigraine, 5-HT₃-antagonistRN: 89565-68-4 MF: C₁₇H₂₀N₂O₂ MW: 284.36CN: *1H*-Indole-3-carboxylic acid endo-8-methyl-8-azabicyclo[3.2.1]oct-3-yl ester

a



b

*Reference(s):*

a DE 3 322 574 (Novartis; appl. 23.6.1983; CH-prior. 29.6.1982).

a,b BE 901 274 (Sandoz A. G.; appl. 14.12.1984; CH-prior. 23.12.1983)

use of serotonin-5-HT-antagonists:

DE 3 724 059 (Sandoz-Patent GmbH; appl. 21.7.1987; D-prior. 7.8.1986).

b DE 3 445 377 (Sandoz-Patent GmbH; appl. 13.12.1984; CH-prior. 23.12.1983).

Langlois, M. et al.: Eur. J. Med. Chem. (EJMCA5) **28**, 869 (1993).*Formulation(s):* amp. 2 mg/2 ml, 5 mg/5 ml; cps. 5 mg*Trade Name(s):*

D: Navoban (ASTA Medica AWD; Novartis Pharma) GB: Navoban (Novartis Pharma)

F: Navoban (Novartis Pharma) I: Navoban (Novartis Pharma)

Trospium chloride

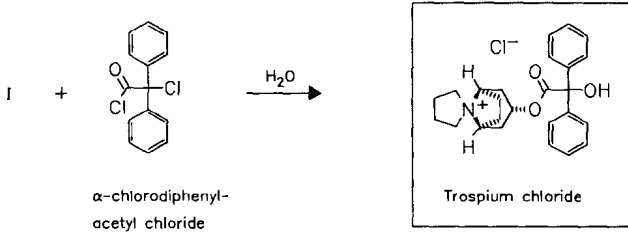
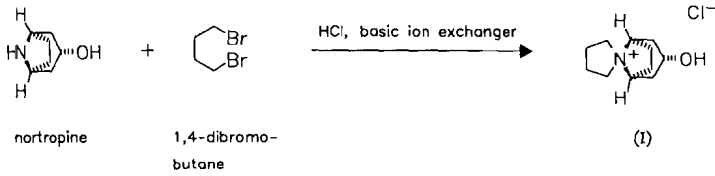
ATC: A03AB20

Use: anticholinergic, antispasmodic

RN: 10405-02-4 MF: C₂₅H₃₀ClNO₃ MW: 427.97 EINECS: 233-875-4LD₅₀: 11.2 mg/kg (M, i.v.); 812 mg/kg (M, p.o.);

15.5 mg/kg (R, i.v.); 1510 mg/kg (R, p.o.)

CN: (1 α ,3 β ,5 α)-3-[(hydroxydiphenylacetyl)oxy]spiro[8-azoniabicyclo[3.2.1]octane-8,1'-pyrrolidinium] chloride

**Reference(s):**

DE 1 194 422 (Pfleger; appl. 5.3.1963).

Formulation(s): amp. 1.2 mg/2 ml, 2 mg/2 ml; drg. 15 mg, 20 mg, 30 mg; f. c. tabl. 5 mg; suppos. 0.75 mg, 1 mg

Trade Name(s):

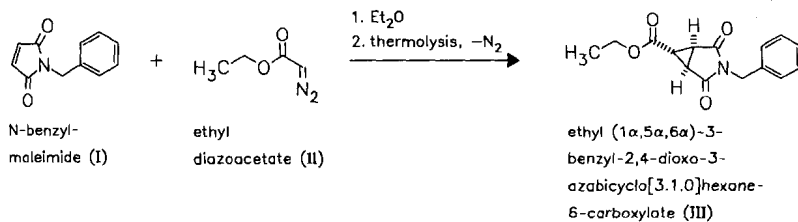
D:	Spasmex (Pfleger)	Spasmo-Urgeniñ
	Spasmo-Fyt (Madaus)	(Madaus)-comb.
	Spasmo-Rhoival (Byk Gulden/Byk Tosse)	Trospi-forte (medac)
J:		Spasmex (Nikken)

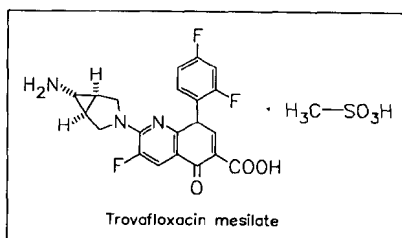
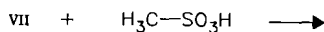
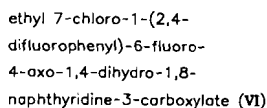
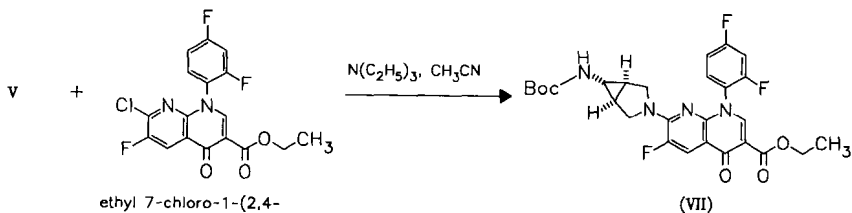
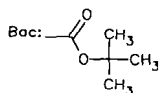
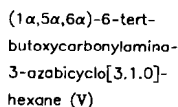
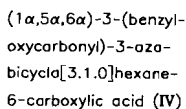
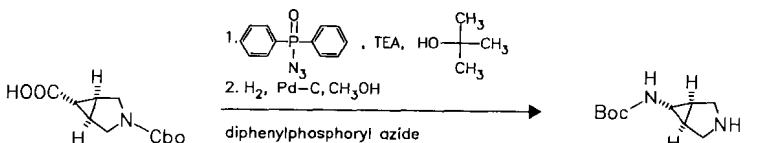
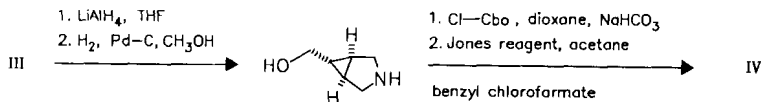
Trovafloracin mesilate

(CP-99219; CP-99219-27)

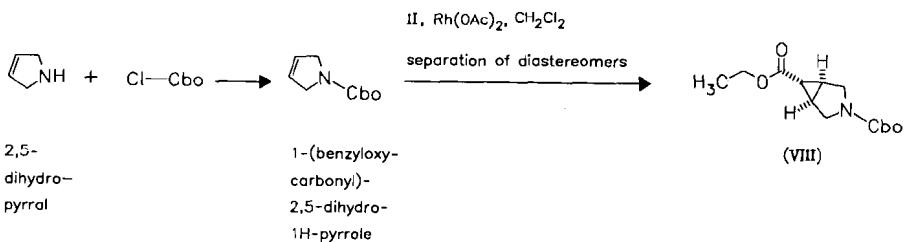
ATC: J01MA13

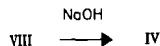
Use: antibacterial

RN: 147059-75-4 MF: $\text{C}_{20}\text{H}_{15}\text{F}_3\text{N}_4\text{O}_3 \cdot \text{CH}_4\text{O}_3\text{S}$ MW: 512.47CN: (1 α ,5 α ,6 α)-7-(6-Amino-3-azabicyclo[3.1.0]hex-3-yl)-1-(2,4-difluorophenyl)-6-fluoro-1,4-dihydro-4-oxo-1,8-naphthyridine-3-carboxylic acid**monohydrate**RN: 193478-08-9 MF: $\text{C}_{20}\text{H}_{15}\text{F}_3\text{N}_4\text{O}_3 \cdot \text{CH}_4\text{O}_3\text{S} \cdot \text{H}_2\text{O}$ MW: 530.48**base**RN: 147059-72-1 MF: $\text{C}_{20}\text{H}_{15}\text{F}_3\text{N}_4\text{O}_3$ MW: 416.36**hydrochloride**RN: 146961-34-4 MF: $\text{C}_{20}\text{H}_{15}\text{F}_3\text{N}_4\text{O}_3 \cdot \text{HCl}$ MW: 452.82

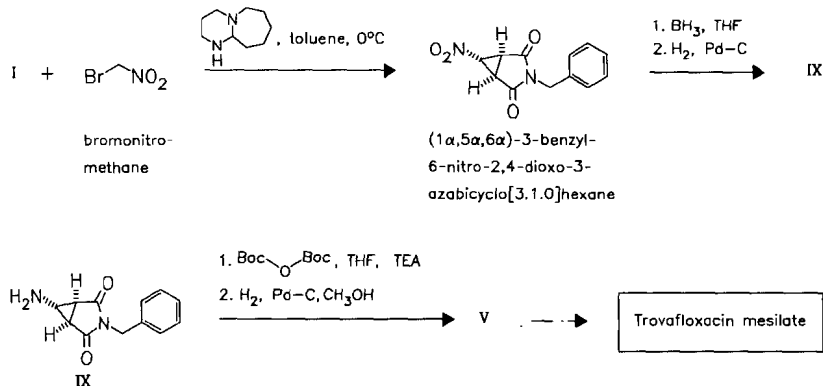


∞ alternative synthesis of IV





(ab) alternative synthesis of V



Reference(s):

route for trovaflloxacin 6 β -diastereomer:

Vilsmaier, E.; Goerz: Synthesis (SYNTBF) 739 (1998).

a US 5 164 402 (Pfizer Inc., 17.11.1992; USA-prior. 11.7.1990).

Brighty, K.E. et al.: Synlett (SYNLES) 1996, 1097.

JP 09 012 546 (Chisso Corp.; appl. 23.6.1995).

aa Braish, T.F. et al.: Synlett (SYNLES) 1996, 1100

Stille, J.K. et al.: J. Org. Chem. (JOCEAH) 45 (11), 2139-2145 (1980).

ES 2 095 809 (Química Synth.; appl. 27.7.1995).

ab EP 818 445 (Pfizer Inc.; appl. 1.7.1997; USA-prior. 9.7.1996).

starting material VI:

US 4 571 396 (Warner Lambert Co.; 18.2.1986; USA-prior. 16.4.1984).

US 4 775 668 (Pfizer Inc.; 4.10.1988; USA-prior. 19.8.1986).

novel crystal forms:

WO 9 639 406 (Pfizer Inc.; USA-prior. 6.6.1995).

WO 9 707 800 (Pfizer Inc.; appl. 29.7.1996; USA-prior. 29.8.1995).

polymorphs of the prodrug:

WO 9 708 191 (Pfizer Inc.; appl. 5.7.1996; USA-prior. 29.8.1995).

suspension for oral administration:

DE 19 706 978 (U. Posanski; appl. 5.1.1998; D-prior. 21.2.1997).

use for treatment of Helicobacter pylori infections:

EP 676 199 (Pfizer Inc.; appl. 23.3.1995; USA-prior. 7.4.1994).

Formulation(s): tabl. 100 mg, 200 mg (as mesylate); vials, 40 ml, 60 ml with 5 mg/ml

Trade Name(s):

D: Trovan (Pfizer); wfm

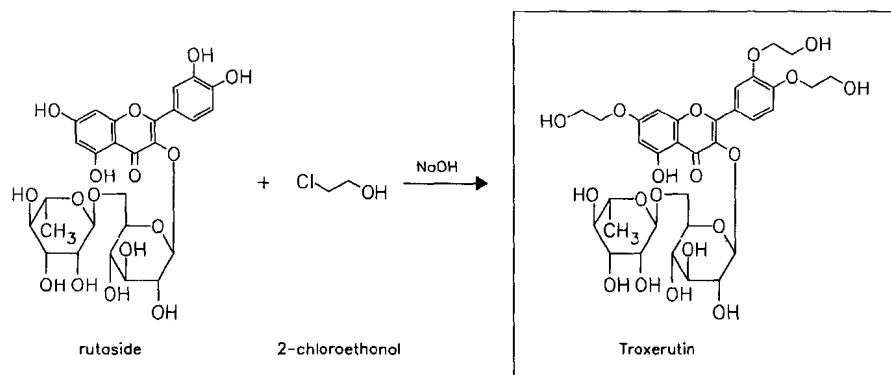
Turvel (Pfizer); wfm

USA: Trovan (Pfizer; 1998); wfm

Troxerutin

ATC: C05CA04

Use: vein therapeutic

RN: 7085-55-4 MF: C₃₃H₄₂O₁₉ MW: 742.68 EINECS: 230-389-4LD₅₀: 27.16 g/kg (R, i.p.)CN: 2-[3,4-bis(2-hydroxyethoxy)phenyl]-3-[[6-O-(6-deoxy- α -L-mannopyranosyl)- β -D-glucopyranosyl]oxy]-5-hydroxy-7-(2-hydroxyethoxy)-4H-1-benzopyran-4-one**Reference(s):**

DAS 1 061 327 (Zyma; appl. 30.12.1957; CH-prior. 4.7.1957).

GB 833 174 (Zyma S.A.; appl. 27.6.1958; CH-prior. 4.7.1957).

synthesis with ethylene oxide:

DAS 1 543 974 (Zyma; appl. 8.10.1966; F-prior. 25.10.1965; CH-prior. 9.3.1966).

DAS 1 793 746 (Zyma; appl. 8.10.1966; F-prior. 25.10.1965).

Formulation(s): cps. 300 mg; eye drops 50 mg/ml; f. c. drg 300 mg; f. c. tabl. 250 mg, 300 mg; s. r. tabl. 300 mg**Trade Name(s):**

D:	Drisi-Ven (Sertürner)	numerous combination preparations	I:	Dermoangiopan (Abiogen Pharma)-comb.
	Pherarutin (Kanoldt)			Emorril (Poli)-comb.
	Posorutin (Ursapharm)	F:	Ginkor (Beaufour)-comb.	Flebil (Molteni)
	Troxerutin-ratiopharm (ratiopharm)		Rhéobral (Niverpharm)	Premium (Synthelabo)-comb.
	Troxeven (Kreussler)		Rhéoflux (Niverpharm)	Venolen (Farmacologico Milanese)
	Vastribil (Farmasan)		Veinamitol (Negma)	
	Veno SL 300 (Ursapharm)		Vivéne (Labs. de L'Aérocid)	
		GB:	Paroven (Zyma); wfm	

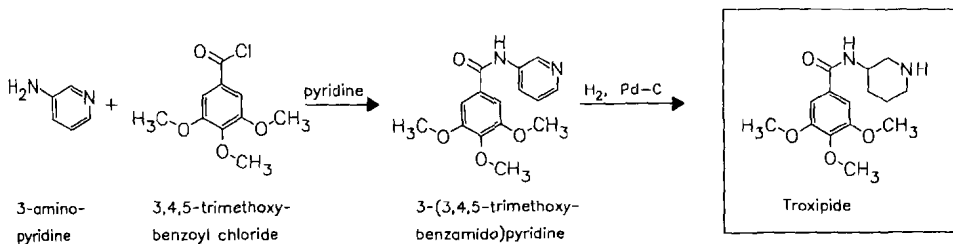
Troxipide

ATC: A02BX11

Use: ulcer therapeutic

RN: 99777-81-8 MF: C₁₅H₂₂N₂O₄ MW: 294.35CN: (\pm)-3,4,5-trimethoxy-N-3-piperidinylbenzamide**base**RN: 30751-05-4 MF: C₁₅H₂₂N₂O₄ MW: 294.35LD₅₀: 100 mg/kg (M, i.v.); 2 g/kg (M, p.o.);

2100 mg/kg (R, p.o.)

monohydrochlorideRN: 30751-03-2 MF: $C_{15}H_{22}N_2O_4 \cdot HCl$ MW: 330.81LD₅₀: 300 mg/kg (M, i.p.); 2000 mg/kg (M, p.o.); 1550 mg/kg (M, s.c.);
340 mg/kg (R, i.p.); 2100 mg/kg (R, p.o.)**Reference(s):**

DOS 1 938 512 (Kyorin; J-prior. 30.6.1969).

DOS 1 967 324 (Kyorin; J-prior. 30.6.1969).

US 3 647 805 (Kyorin; 7.3.1972; appl. 11.7.1969).

Irikura, T. et al.: J. Med. Chem. (JMCMAR), **14**, 357 (1971).**medical use for treatment of gastritis:**

EP 254 068 (Kyorin; appl. 25.6.1987; J-prior. 26.6.1986).

Formulation(s): tabl. 50 mg, 100 mg**Trade Name(s):**

J: Aplace (Kyorin; 1986)

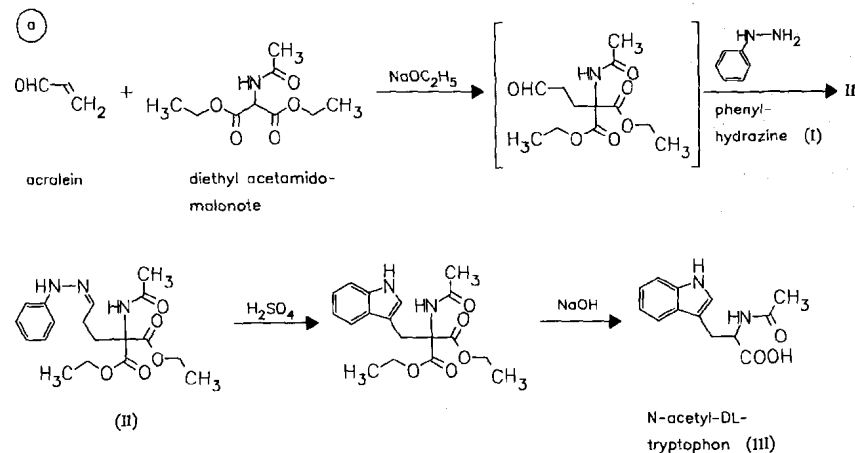
L-Tryptophan

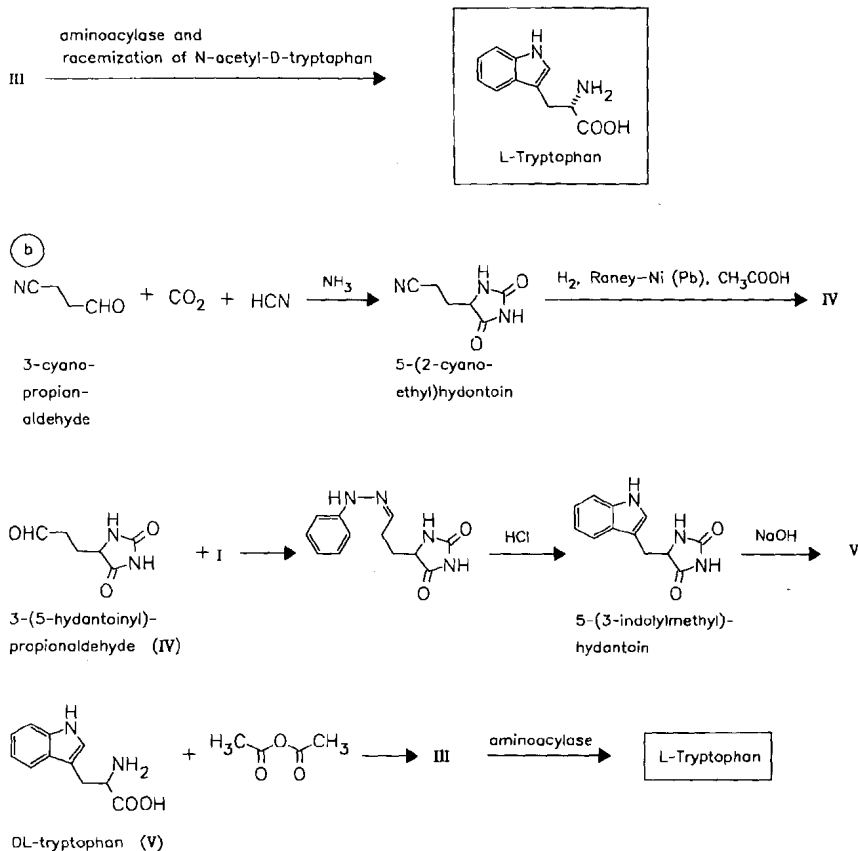
ATC: N06AX02

Use: antidepressant, essential amino acid

RN: 73-22-3 MF: $C_{11}H_{12}N_2O_2$ MW: 204.23 EINECS: 200-795-6LD₅₀: >16 g/kg (R, p.o.)

CN: L-tryptophan



**Reference(s):**

a Warner, O.T.; Moe, O.A.: J. Am. Chem. Soc. (JACSAT) **70**, 2765 (1948).

b Komachiya, Y. et al.: Nippon Kagaku Kaishi (NKAKB8) **86**, 856 (1965).

enzymatic racemate resolution:

Chibata, I. et al.: Bull. Agric. Chem. Soc. Jpn. (BACOAV) **21**, 58, 304 (1957).

purification:

US 5 057 615 (Mitsui Toatsu; 15.10.1991; J-prior. 27.6.1989).

combination with beta blocking agents:

US 4 161 530 (Ciba-Geigy; 17.7.1979; CH-prior. 6.1.1975).

GB 1 531 091 (Ciba-Geigy; appl. 5.1.1976; CH-prior. 6.1.1975).

Volk, W. et al.: Arzneim.-Forsch. (ANCEAD) **28** (II), 1798 (1978).

newer syntheses for DL-tryptophan:

Hengartner, M. et al.: J. Org. Chem. (JOCEAH) **44**, 3748 (1979).

Formulation(s): f. c. tabl. 500 mg; tabl. 500 mg

Trade Name(s):

D: Ardeytopin (Ardeypharm)
Kalma (Fresenius-Praxis)
Lypharm (esparma)
numerous combination
preparations

F: Actitonic (Amido; as DL-
form)-comb.; wfm

Actitonic (Reygagne)-
comb.; wfm
GB: Optimax (Merck)-comb.
J: Eltrip (Ono)
Tryptan (Daigo Eiyo)
USA: Trofan (Upsher-Smith);
wfm

Tryptacin (Arther); wfm
Tryptacin (Nutrition
Control Products); wfm
Tryptophane (Nature's
Bounty); wfm
Tryptophane (Solgar); wfm
Tryptoplex (Tyson); wfm

Tyson L-Tryptophan U.S.P.
(Tyson); wfm

Tuaminoheptane

(Heptylamine)

ATC: R01AA11; R01AB08

Use: sympathomimetic, vasoconstrictor

RN: 123-82-0 MF: C₇H₁₇N MW: 115.22 EINECS: 204-655-5

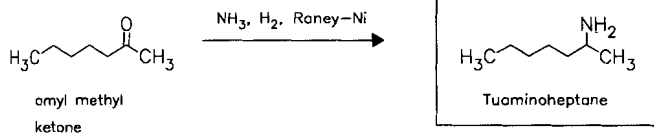
LD₅₀: 60 mg/kg (M, i.p.); 115 mg/kg (M, s.c.);
130 mg/kg (R, s.c.)

CN: 2-heptanamine

sulfate (2:1)

RN: 6411-75-2 MF: C₇H₁₇N · 1/2H₂O₄S MW: 328.52 EINECS: 229-113-5

LD₅₀: 16.3 mg/kg (M, i.v.);
47.3 mg/kg (R, i.v.)



Reference(s):

Norton, D.G. et al.: J. Org. Chem. (JOCEAH) **19**, 1054 (1954).

Formulation(s): nasal spray 50 mg/10 ml

Trade Name(s):

D:	Rinofluimucil-S (Inpharzam)-comb.	F:	Rhinofluimucil (Zambon)- comb.	Rinofluimucil (Zambon Italia)-comb.
I:	Otomicitina (Deca)-comb.			

Tubocurarine chloride

ATC: M03AA02

Use: muscle relaxant

RN: 6989-98-6 MF: C₃₇H₄₁ClN₂O₆ · HCl · 5H₂O MW: 771.73

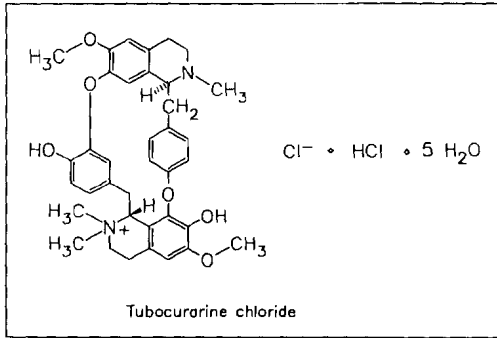
LD₅₀: 130 µg/kg (M, i.v.); 150 mg/kg (M, p.o.)

CN: 7',12'-dihydroxy-6,6'-dimethoxy-2,2',2'-trimethyltubocuraranium chloride hydrochloride pentahydrate

anhydrous

RN: 57-94-3 MF: C₃₇H₄₁ClN₂O₆ · HCl MW: 681.66 EINECS: 200-356-9

LD₅₀: 97 µg/kg (M, i.v.); 33 mg/kg (M, p.o.);
66 µg/kg (R, i.v.); 28 mg/kg (R, p.o.)



By extraction from *Chondrodendron tomentosum* (Ampi Huasca) and purification via the picrate.

Reference(s):

- US 2 409 241 (Squibb; 1946; prior. 1944).
 US 2 600 539 (Parke Davis; 1952; appl. 1947).
 Everett, A J. et al.: J. Chem. Soc. D (CCJDAO) **1970**, 1020.
 Coddington, P.W.; James, M.N.G.: J. Chem. Soc. D (CCJDAO) **1972**, 1.

Formulation(s): amp. 3 mg/ml

Trade Name(s):

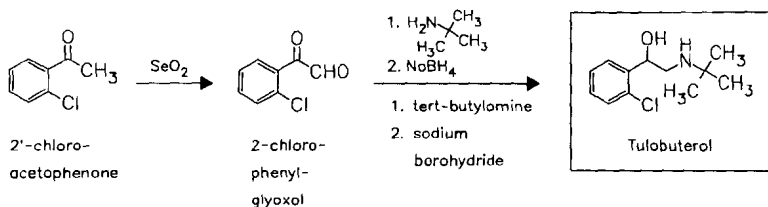
D:	Curarin Asta (ASTA); wfm Curarin HAF (Ethicon); wfm	GB:	Jexin (Duncan, Flockhart); wfm Tubarine (Calmic); wfm	J:	Tubarine (Wellcome); wfm Amelizol (Yoshitomi)
F:	D-Tubocurarine Abbott (Abbott); wfm	I:	Curarin (Schering); wfm Intocortrin T (Squibb); wfm	USA:	Tubocurarine Chloride (Lilly)

Tulobuterol

ATC: R03AC11; R03CC11

Use: bronchodilator

RN: 41570-61-0 MF: $\text{C}_{12}\text{H}_{18}\text{ClNO}$ MW: 227.74
 CN: 2-chloro- α -[[[(1,1-dimethylethyl)amino]methyl]benzenemethanol



Reference(s):

DOS 2 244 737 (Hokuriku; appl. 12.9.1972; J-prior. 13.9.1971).

Formulation(s): sol. 1 mg/5 ml; syrup 1 mg/5 ml; tabl. 2 mg (as hydrochloride)

Trade Name(s):

D:	Atenos (UCB; 1985) Brelomax (Abbott; 1985)	GB:	Respascal (UCB) Berachin (Tokyo Tanabe)	Hokunalin (Hokuriku)
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Tybamate

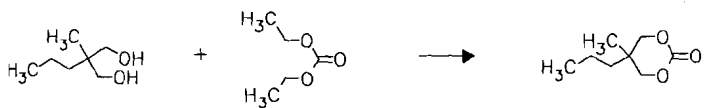
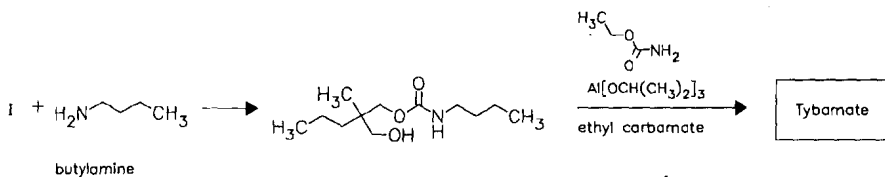
ATC: M03

Use: tranquilizer, skeletal muscle relaxant

RN: 4268-36-4 MF: $C_{13}H_{20}N_2O_4$ MW: 274.36 EINECS: 224-254-9LD₅₀: 254 mg/kg (M, i.v.); 800 mg/kg (M, p.o.);

1040 mg/kg (R, p.o.)

CN: butylcarbamic acid 2-[[aminocarbonyloxy]methyl]-2-methylpentyl ester

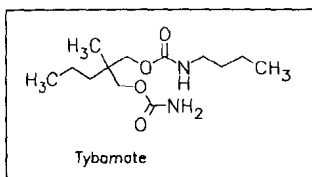
2-methyl-2-propyl-
1,3-propanedioldiethyl
carbonate5-methyl-5-propyl-
1,3-dioxan-2-one (I)(cf. meprobamate
synthesis)

butylamine

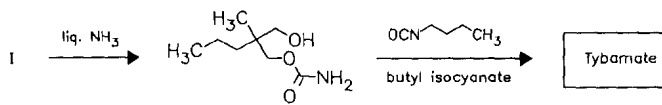
 $Al[OCH(CH_3)_2]_3$

ethyl carbamate

Tybamate



Tybamate

**Reference(s):**

US 2 937 119 (Carter Products; 17.5.1960; prior. 11.6.1959).

alternative synthesis:

DE 1 196 638 (Orgamol; appl. 27.2.1962; CH-prior. 2.3.1961).

Trade Name(s):

USA: Solacen (Wallace); wfm

Tybatran (Robins); wfm

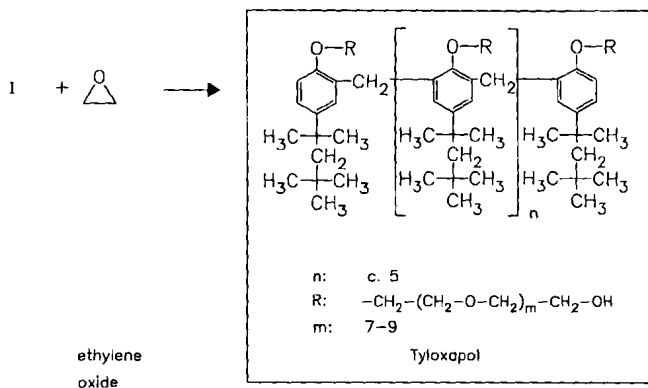
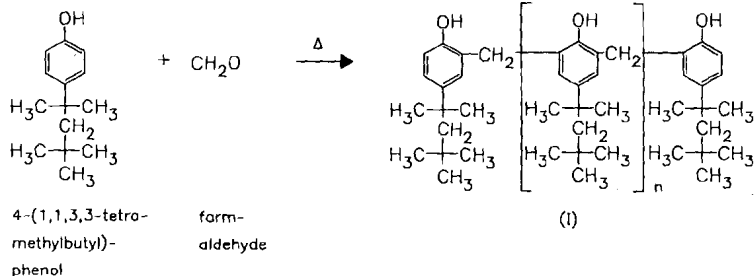
Tyloxapol

ATC: R05CA01

Use: tenside, mucolytic agent

RN: 25301-02-4 MF: $[C_{14}H_{22}O \cdot C_2H_4O \cdot CH_2O]_x$ MW: unspecified

CN: formaldehyde polymer with oxirane and 4-(1,1,3,3-tetramethylbutyl)phenol

**Reference(s):**

US 2 454 541 (Rohm & Haas; 1948; appl. 1944).

Formulation(s): eye drops 2.5 mg/ml, 10 mg/ml; intratracheal susp. 8 mg/10 ml; sol. 0.25 mg/ml, 1.25 mg/ml; vial 0.25 mg/ml

Trade Name(s):

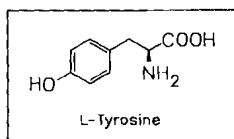
D:	Complete (Pharm-Allergan)-comb.	Tacholiquin (bene-Arzneimittel)-comb.	GB:	Alevaire (Winthrop); wfm	
	Enoclen (Alcon)-comb.	F:	Contactol (Merck Sharp & Dohme-Chibret)-comb.; wfm	J:	Alevaire (Nippon Shoji)
	Exosurf (Glaxo Wellcome)-comb.			USA:	Exosurf Neonatal (Glaxo Wellcome)-comb.

L-Tyrosine

Use: non-essential proteinogenic amino acid (for infusion solution)

RN: 60-18-4 MF: $\text{C}_9\text{H}_{11}\text{NO}_3$ MW: 181.19 EINECS: 200-460-4LD₅₀: >1450 mg/kg (M, i.p.)

CN: L-tyrosine



Preparation by acidic proteine hydrolysis (e. g. of keratines) with following fractionated crystallization (obtained in commonly with L-cystine).

Reference(s):

Ullmann's Encyclopedia of Industrial Chemistry, 5th Ed., Vol. A2, 74.

Formulation(s): sol. 2.5 %, 3 %, 3.5 %, 4.5 %, 6 %, 10 %, 15 %; tabl. 30 mg

Trade Name(s):

D: numerous combination
preparations

I: Alfa Kappa (Farma-
Biagini)-comb.

ISI F/2/st (ISI)-comb.
USA: Catemine (Tyson)-comb.

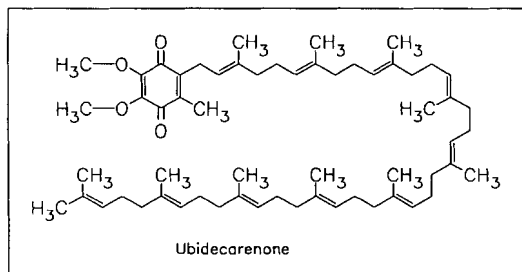
Ubidecarenone

(Coenzyme Q; Ubiquinone-10)

ATC: C01EB09

Use: cardiovascular agent,
antihypertensiveRN: 303-98-0 MF: C₅₉H₉₀O₄ MW: 863.37 EINECS: 206-147-9

CN: 2-(3,7,11,15,19,23,27,31,35,39-decamethyl-2,6,10,14,18,22,26,30,34,38-tetracontadecaenyl)-5,6-dimethoxy-3-methyl-2,5-cyclohexadiene-1,4-dione



From culture of *Sporidiobolus johnsonii* (ATCC 20490), *Sporidiobolus ruinenii* (ATCC-20489), *Oosporidium margaritifera* (ATCC 10676), *Rhodotorula muciladinosa* (AHM 3946), *Xanthomonas stewartii* (Pasteur-No. 1035 and 1036).

Reference(s):

US 4 070 244 (Takeda; 24.1.1978; J-prior. 27.2.1976).
 DOS 2 740 614 (Kanegafuchi; appl. 9.9.1977; J-prior. 14.9.1976).
 DOS 2 834 952 (Lab. Bellon; appl. 10.8.1978; GB-prior. 17.8.1977).

synthesis from 2-methyl-4,5,6-trimethoxyphenol and decaprenol:

US 3 068 295 (Merck & Co.; 11.12.1962; appl. 3.9.1958).
 US 3 896 153 (Eisai; 22.7.1975; J-prior. 6.4.1973).
 US 4 062 879 (Eisai; 13.12.1977; J-prior. 29.9.1975).

medical use as antihypertensive:

US 3 808 330 (Eisai; 30.4.1974; J-prior. 13.7.1972).

medical use for improvement of hearing:

US 4 073 883 (Eisai; 14.2.1978; J-prior. 5.3.1976).

medical use as gerontherapeutic:

US 4 156 718 (The New England Institute; 29.5.1979; prior. 19.11.1976, 12.12.1977).

Formulation(s): amp. 50 mg; cps. 50 mg; drg. 50 mg; tabl. 10 mg, 25 mg, 50 mg, 60 mg, 200 mg

Trade Name(s):

I:	Caomet (Astra Farmaceutici)	Miotyn (Ibirm)	Inokiten (Nippon Yakuhin)
	Coedieci (Mitim)	Mitocor (Zambon Italia)	Neuquinon (Eisai)
	Decafar (Lafare)	Roburis (Ripari-Gero)	Yubekinin (Hishiyama)
	Decorenone (Italfarmaco)	Ubifactor (Sancarlo)	USA: Coenzyme Q10 (Vitaline)
	Dymion (Pulitzer)	Ubimaior (Master Pharma)	Co-Q-10 (Tyson)
	Iuvacor (Scharper)	Ubiten (Zilliken)	Co-Q 10 (Carlson)
	Miodene (Bioprogress)	generics	
		J: Heartcin (Ohta)	

Ulobetasol propionate

ATC: D07A
Use: topical corticosteroid

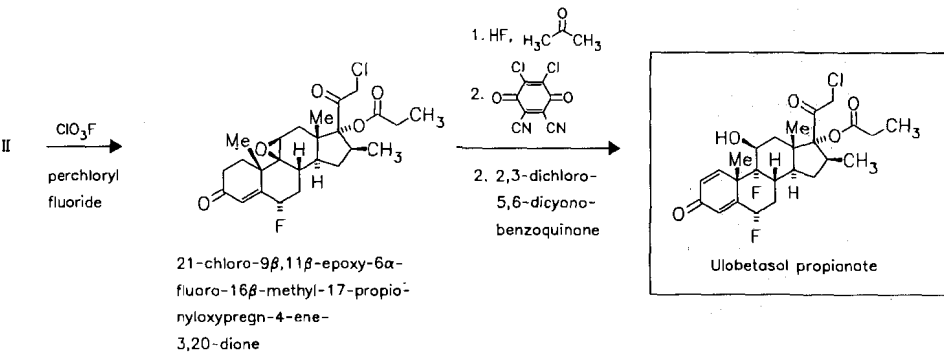
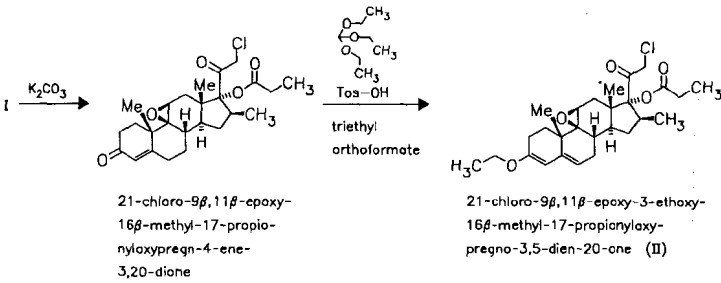
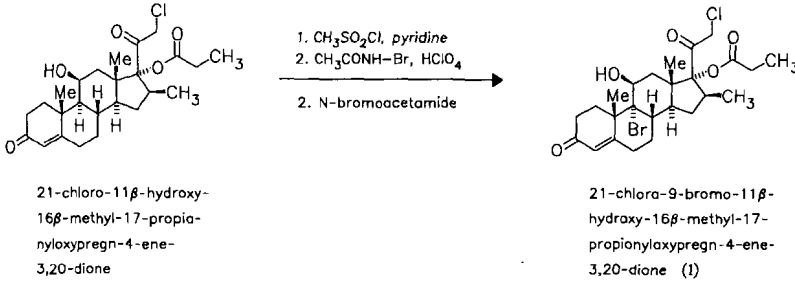
RN: 66852-54-8 MF: C₂₅H₃₁ClF₂O₅ MW: 484.97

LD₅₀: >15 ml/kg (R, p.o.)

CN: (6 α ,11 β ,16 β)-21-chloro-6,9-difluoro-11-hydroxy-16-methyl-17-(1-oxopropoxy)pregna-1,4-diene-3,20-dione

halobetasol

RN: 98651-66-2 MF: C₂₂H₂₇ClF₂O₄ MW: 428.90



Reference(s):

- CH 631 185 (Ciba-Geigy; appl. 1.1.1978).
- DE 2 743 069 (Ciba-Geigy; appl. 24.9.1977; LUX-prior. 29.9.1976).
- BE 849 268 (Ciba-Geigy; appl. 28.9.1977; LUX-prior. 29.9.1976).
- GB 1 537 130 (Ciba-Geigy; appl. 27.9.1977; LUX-prior. 29.9.1976).

synthesis of 21-chloro-11 β -hydroxy-16 β -methyl-17-propionyloxypregna-4-ene-3,20-dione:
GB 898 293 (Upjohn; appl. 14.3.1960; USA-prior. 18.3.1959).

Formulation(s): cream 0.05 %; ointment 0.05 %

Trade Name(s):

USA: Ultravate (Westwood-Squibb)

Undecylenic acid

(10-Undecensäure; Undecenoic acid)

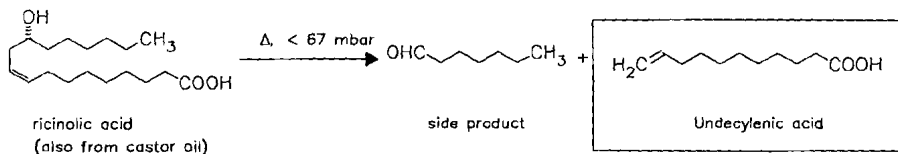
ATC: D01AE04

Use: antifungal

RN: 112-38-9 MF: C₁₁H₂₀O₂ MW: 184.28 EINECS: 203-965-8LD₅₀: 8150 mg/kg (M, p.o.);

2500 mg/kg (R, p.o.)

CN: 10-undecenoic acid

*Reference(s):*Krafft, F.: Ber. Dtsch. Chem. Ges. (BDCGAS) **10**, 2034 (1877).Perkins, G.A.; Cruz, A.O.: J. Am. Chem. Soc. (JACSAT) **49**, 1070 (1927).*Formulation(s):* cream 43 mg; liquid 30 mg; ointment 43 mg; powder 53 mg; soap 1 g; sol. 0.1 g/100 g*Trade Name(s):*

D: Skinman soft (Hentzel)

Micofoot Zeta (Zeta)-comb.

USA: Breezee Mist Foot Powder (Pedinol)-comb.

GB: Ceanel (Quinoderm)-comb.

I: Foot Zeta (Zeta)-comb.

J: Andecin (Fuji Seiaku)

Unoprostone isopropyl

(UF-021)

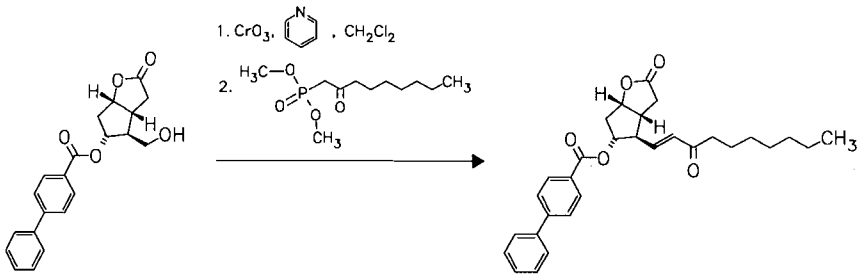
ATC: G02AD

Use: ocular antihypertensive, antiglaucoma, prostaglandin derivative

RN: 120373-24-2 MF: C₂₅H₄₄O₅ MW: 424.62

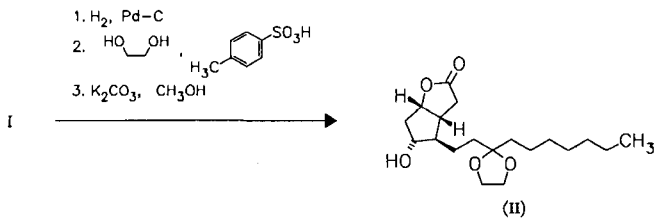
CN: [1R-[1α(Z),-2β,3α,5α]]-7-[3,5-dihydroxy-2-(3-oxodecyl)cyclopentyl]-5-heptenoic acid 1-methylethyl ester

unoprostoneRN: 120373-36-6 MF: C₂₂H₃₈O₅ MW: 382.54



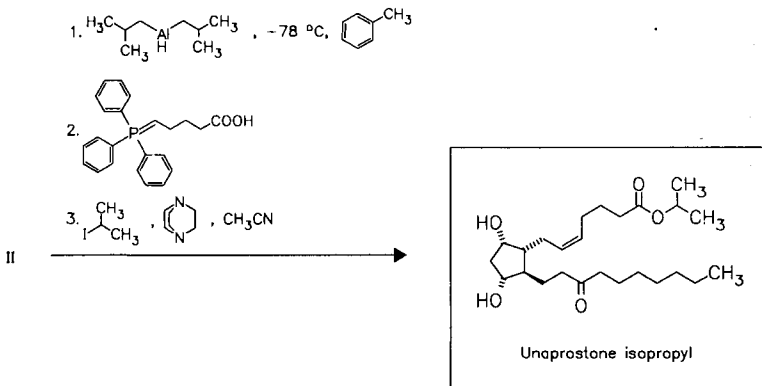
(-)-Corey lactone
(cf. dinaprost)

(I)



I

(II)



II

Unoprostone isopropyl

Reference(s):

Ueno, R.; Kuno, S.; Miwa, N.; Takase, M.: 7th Int. Conf. Prostagland. Relat. Compound (May 28-June 1, Florence) 1990, 28.

EP 289 349 (Kabushiki Kaisha Keno Seiyaku Oyo Kenkyusho; appl. 2.11.1988; J-prior. 30.4.1987, 18.9.1987, 29.12.1987, 30.4.1987, 17.9.1987).

EP 308 135 (Kabushiki Kaisha Keno Seiyaku Oyo Kenkyusho; appl. 8.9.1988; J-prior. 18.9.1987; 29.12.1987).

preparation of prostaglandin intermediates:

EP 532 218 (R-Tech Keno Ltd; appl. 2.9.1992; J-prior. 3.9.1991).

use of unoprostone isopropyl:

EP 308 135 (Kabushiki Kaisha Keno Seiyaku Oyo Kenkyusho; appl. 22.3.1989; J-prior. 18.9.1988, 29.12.1987).

EP 561 073 (R-Tech Keno; appl. 22.9.1993; J-prior. 19.3.1992).

EP 501 678 (Keno Seiyaku Oyo Kenkyujo; appl. 2.9.1992; J-prior. 1.3.1991).

EP 458 589 (Kabushiki Kaisha Keno Seiyaku Oyo Kenkyusho; appl. 27.11.1991; 22.5.1990).

pharmaceutical compositions:

CA 2 065 889 (R-Tech Keno; appl. 3.4.1993; J-prior. 2.10.1991).

EP 330 511 (Kabushiki Kaisha Keno Seiyaku Oyo Kenkyusho; appl. 30.8.1989; J-prior. 26.2.1989).

EP 668 076 (R-Tech Keno; appl. 15.3.1994; J-prior. 26.8.1992; EP-prior. 16.2.1994; CA-prior. 17.2.1994; USA-prior. 25.2.1994).

Formulation(s): eye drops 6 mg/5 ml

Trade Name(s):

I: Rescula (Ueno/Fujisawa)

Uramustine

(Chlorethaminacil; Uracil-Mustard)

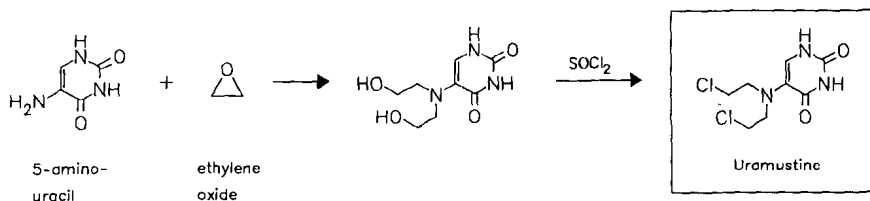
ATC: L01

Use: antineoplastic

RN: 66-75-1 MF: $C_8H_{11}Cl_2N_3O_2$ MW: 252.10 EINECS: 200-631-3

LD₅₀: 3550 μ g/kg (R, p.o.)

CN: 5-[bis(2-chloroethyl)amino]-2,4(1*H*,3*H*)-pyrimidinedione



Reference(s):

US 2 969 364 (Upjohn; 24.1.1961; appl. 26.12.1957).

Formulation(s): cps. 1 mg

Trade Name(s):

GB: Uracil Mustard (Upjohn);
wfm

USA: Uracil Mustard (Upjohn);
wfm

Urapidil

ATC: C02CA06

Use: antihypertensive

RN: 34661-75-1 MF: $C_{20}H_{29}N_5O_3$ MW: 387.48 EINECS: 252-130-4

LD₅₀: 203 mg/kg (M, i.v.); 508 mg/kg (M, p.o.);

140 mg/kg (R, i.v.); 520 mg/kg (R, p.o.);

357 mg/kg (dog, p.o.)

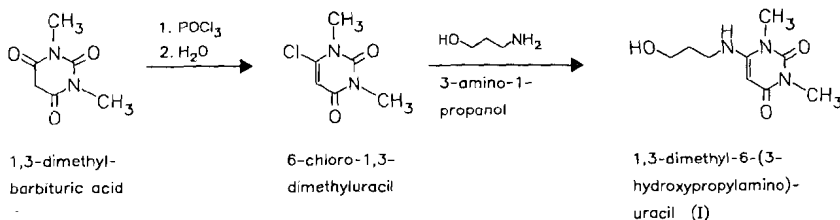
CN: 6-[[3-[4-(2-methoxyphenyl)-1-piperazinyl]propyl]amino]-1,3-dimethyl-2,4(1*H*,3*H*)-pyrimidinedione

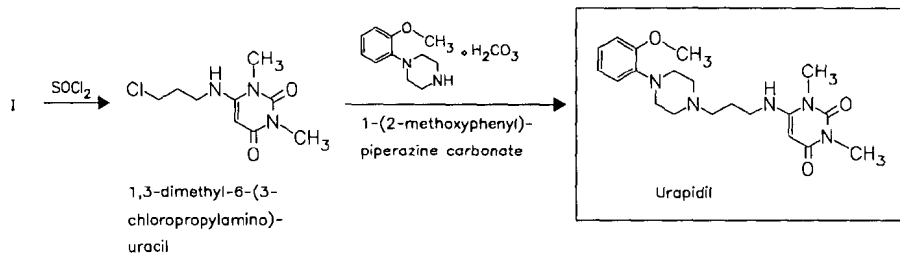
hydrochloride

RN: 64887-14-5 MF: $C_{20}H_{29}N_5O_3 \cdot HCl$ MW: 423.95

fumarate

RN: 102411-11-0 MF: $C_{20}H_{29}N_5O_3 \cdot xC_4H_2O_4$ MW: unspecified



**Reference(s):**

- DE 1 942 405 (Byk Gulden; appl. 20.8.1969).
 US 3 957 786 (Byk Gulden; 18.5.1976; D-prior. 20.8.1969).
 US 4 067 982 (Byk Gulden; 10.1.1978; prior. 20.8.1970, 8.4.1976).

addition compound with furosemide:

- GB 1 512 771 (Byk Gulden; appl. 7.2.1977; L-prior. 9.2.1976).

Formulation(s): amp. 27.35 mg, 54.7 mg (as hydrochloride); amp. 25 mg, 50 mg; cps. 30 mg, 60 mg (as fumarate); s. r. cps. 30 mg, 60 mg, 90 mg

Trade Name(s):

- | | | | | |
|----|--|---|----|---|
| D: | Alpha-Depressan (OPW)
Ebrantil (Byk Gulden) | Eupressyl gél (Byk)
Mediatensyl gél (Débat cardio) | I: | Ebrantil-30/-60 (Byk Gulden; as fumarate)
Ebrantil-50 (Byk Gulden) |
| F: | Eupressyl (Byk; as hydrochloride) | | J: | Ebrantil (Kaken) |

Urokinase

ATC: B01AD04

Use: plasminogen activator, fibrinolytic

RN: 9039-53-6 MF: unspecified MW: unspecified EINECS: 232-917-9

LD₅₀: >3000000 iu/kg (M, i.v.); >2.727 mg/kg (M, p.o.);

>3000000 iu/kg (R, i.v.); >2.727 mg/kg (R, p.o.);

>909 µg/kg (dog, i.v.)

CN: urokinase (enzyme-activating)

a From human urine.

b From culture of renal cells. Enrichment and purification occurs via combined adsorption and elution processes, e. g. on BaSO₄, silica gels, DEAE-cellulosis, ion-exchange resins (e. g. Amberlite-IRC-50).

Reference(s):

- a Sobal et al.: Am. J. Physiol. (AJPHAP) **171**, 768 (1952).
 US 2 961 382 (Ortho; 1960; appl. 1957).
 US 2 983 647 (Leavens; 1961; GB-prior. 1955).
 US 2 989 440 (Ortho; 1961; appl. 1959).
 US 3 081 236 (Warner-Lambert; 12.3.1963; appl. 26.4.1961).
 DAS 2 616 761 (Hitachi Chemical; appl. 15.4.1976; J-prior. 18.4.1975).
 DAS 2 629 886 (Asahi; appl. 2.7.1976; J-prior. 4.7.1975).
 DAS 2 632 212 (Hitachi Chemical; appl. 16.7.1976; J-prior. 16.7.1975).
 b DAS 2 551 017 (Abbott; appl. 13.11.1975; USA-prior. 31.3.1975).

purification:

White et al.: *Biochemistry (BICHAW)* **5**, 2160 (1966).
 US 3 256 158 (Abbott; 14.6.1966; appl. 22.3.1963).
 US 3 542 646 (Green Cross; 24.11.1970; J-prior. 22.11.1966).
 DOS 2 143 815 (Mochida; appl. 1.9.1971; J-prior. 5.9.1970).
 DOS 2 143 816 (Mochida; appl. 1.9.1971; J-prior. 4.9.1970).
 DOS 2 246 969 (Choay; appl. 25.9.1972; F-prior. 24.9.1971, 30.6.1972).
 US 3 723 251 (Mochida; 27.3.1972; J-prior. 4.9.1970).
 DAS 2 502 095 (Green Cross; appl. 20.1.1975; J-prior. 22.1.1974, 28.1.1974).
 GB 1 498 018 (Abbott; appl. 3.10.1975; USA-prior. 20.11.1974).
 DOS 2 809 330 (Sumitomo; appl. 3.3.1978; J-prior. 10.3.1977).
 DOS 2 823 353 (Sumitomo; appl. 29.5.1978; J-prior. 3.6.1977).
 US 4 160 697 (Tanabe Seiyaku; 10.7.1979; J-prior. 9.4.1977, 28.4.1977, 30.9.1977).
 US 4 169 764 (Ajinomoto; 2.10.1979; J-prior. 13.8.1975).

stabilization in aqueous solution:

US 3 950 223 (Ajinomoto; 13.4.1976; J-prior. 7.12.1972).

crystallized urokinase:

Lesuk et al.: *Science (Washington, D.C.) (SCIEAS)* **147**, 880 (1965).

Formulation(s): vial 5000 iu/ml, 250000 iu/5 ml, 2500 iu, 50000 iu, 100000 iu, 250000 iu, 500000 iu, 600000 iu.

Trade Name(s):

D:	Actosolv (Hoechst)	Urokinase Choay (Sanofi)	Persolv (Lepetit)
	Alphakinase (Alpha)	Winthrop)	Purochin (Sclavo Pharma)
	Corase (medac)	GB: Ukidan (Serono)	Ukidan (Serono)
	Rheotromb (curasan)	I: Actosolv (Hoechst Marion)	Urochinase (Crinos; Sanofi)
	Urokinase-medac (medac)	Roussel)	Winthrop)
F:	Actosolv urokinase	Alfakinasi (Alfa)	J: Urokinase (Green Cross)
	(Hoechst Houdé)	Wassermann)	USA: Abbokinase (Abbott)
		Kisolv (Ecupharma)	

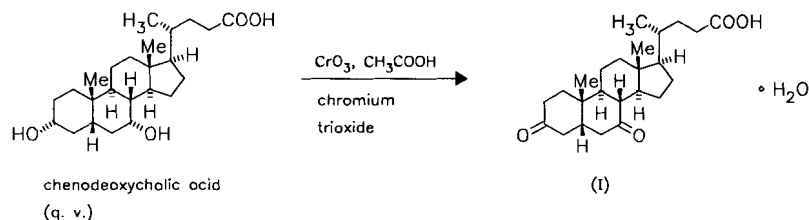
Ursodeoxycholic acid

ATC: A05AA02

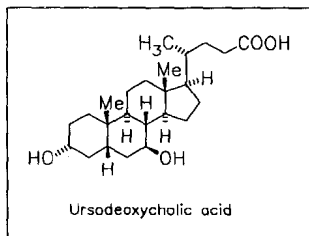
Use: choleric

RN: 128-13-2 MF: C₂₄H₄₀O₄ MW: 392.58 EINECS: 204-879-3

CN: (3 α ,5 β ,7 β)-3,7-dihydroxycholan-24-oic acid



1. azeotropic distillation with toluene
2. C_4H_9OH , Na



Reference(s):

FR 1 372 109 (Tanabe; appl. 23.9.1963; J-prior. 31.10.1962).

Formulation(s): cps. 225 mg, 250 mg, 300 mg; f. c. tabl. 250 mg, 400 mg; gran. 5 %; tabl. 150 mg

Trade Name(s):

D:	Cholit-Ursan (Fresenius) Cholofalk (Falk) Peptarom (Fresenius) UDC (Hexal) Urso (Heumann) Ursochol (Inpharzam) Ursofalk (Falk)	GB:	Combidol (CD Pharm.)- comb. Destolit (Hoechst) Ursofalk (Thames)	Ursacol (Zambon Italia) Ursilon (IBI) Ursobil (ABC-Torino) Ursoflor (So. se Pharm.) Ursolisin (Magis) generics
F:	Arsacol (Zambon) Délursan (Hoechst Houdé) Destolit (Marion Merrell) Ursolvan (Synthélabo)	I:	Biliepar (Ibirm) Desocol (Campugnani) Deursil (Sanofi Winthrop) Fraurs (Francia Farm.) Galmax (Max Farmà) Lentorsil (Italfarmaco) Litoff (Caber) Litursol (Crinos)	J: Like (SS Seiyaku)-comb. Urso (Tanabe) Urso 100 (Tanabe) Zeria Ichoyaku (Zeria Shinyaku Kogyo)-comb.
				USA: Actigall (Novartis)

Valaciclovir

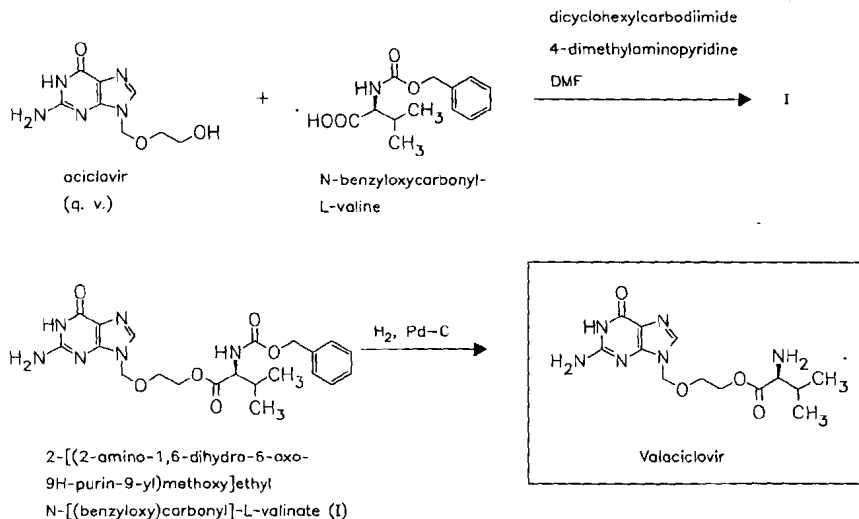
(BW-256U; 256 U 87)

ATC: J05AB11

Use: antiviral, prodrug of aciclovir

RN: 124832-26-4 MF: $C_{13}H_{20}N_6O_4$ MW: 324.34

CN: L-valine 2-[(2-amino-1,6-dihydro-6-oxo-9H-purin-9-yl)methoxy]ethyl ester

monohydrochlorideRN: 124832-27-5 MF: $C_{13}H_{20}N_6O_4 \cdot HCl$ MW: 360.80**Reference(s):**

EP 308 065 (Wellcome Found. Ltd; appl. 12.8.1988; GB-prior. 15.8.1987, 5.11.1987).

combination with lamotrigine:

WO 9 505 179 (Wellcome Found. Ltd; appl. 17.8.1994; GB-prior. 18.8.1993).

water-dispersible tablets:

WO 9 213 527 (Wellcome Found. Ltd; appl. 29.1.1992; GB-prior. 30.1.1991, 22.11.1991, 25.11.1991).

medical use for preventing post herpetic neuralgia:

GB 2 282 759 (SmithKline Beecham; appl. 14.10.1994; GB-prior. 16.10.1993).

Formulation(s): f. c. tabl. 500 mg; tabl. 500 mg, 1 g (as hydrochloride)**Trade Name(s):**

D:	Valtrex (Glaxo Wellcome)	GB:	Valtrex (Glaxo Wellcome; as hydrochloride)	USA:	Valtrex (Glaxo Wellcome; as hydrochloride)
F:	Zéitrex (Glaxo Wellcome; as hydrochloride)				

Valdetamide

(Novonal; Diethylpentenamide)

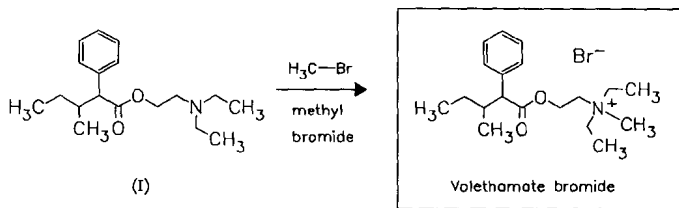
ATC: N05C

Use: hypnotic

RN: 512-48-1 MF: $C_9H_{17}NO$ MW: 155.24 EINECS: 208-143-2LD₅₀: 400 mg/kg (R, p.o.);

300 mg/kg (dog, p.o.)

CN: 2,2-diethyl-4-pentenamide

**Reference(s):**

DE 969 245 (Kali-Chemie; appl. 1953).

DE 971 136 (Kali-Chemie; appl. 1953).

Formulation(s): amp. 8 mg; drg. 10 mg; suppos. 20 mg**Trade Name(s):**

D:	Epidosin (Kali-Chemie); wfm	Epidosin (Toyo Jozo) Funapan (Funai)	Shinmetane (Towa) Study (Toyo Pharmar)
I:	Epidosin (Sir); wfm	Kaichyl (Samoa)	Ulban-Q (Toho)
J:	Barespan Tab. (Hishiyama)	Letamate (Mohan)	Valate (Marishita)
	Baretaval (Shin Fuso)	Pastan (Maruko)	Valemate (Taiho)
	Beruhgen (Nissin)	Release V (Mochida)	Valemeton (Sanko)
	Cranfupan (Nichiiko)	Resitan (Grelan)	Valethalin (Hokuriku)
	Elist (Sana-Torii)	Shikitan (Shiki)	Valethamin (Sawai)

Valproic acid

ATC: N03AG01

Use: anticonvulsant, antiepileptic

RN: 99-66-1 MF: C₈H₁₆O₂ MW: 144.21 EINECS: 202-777-3LD₅₀: 1098 mg/kg (M, p.o.);

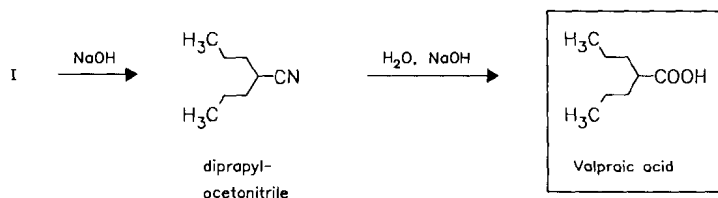
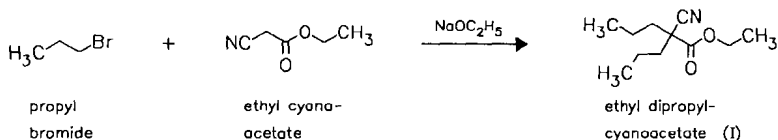
670 mg/kg (R, p.o.)

CN: 2-propylpentanoic acid

sodium saltRN: 1069-66-5 MF: C₈H₁₅NaO₂ MW: 166.20 EINECS: 213-961-8LD₅₀: 750 mg/kg (M, i.v.); 977 mg/kg (M, p.o.);

509 mg/kg (R, i.v.); 670 mg/kg (R, p.o.);

1420 mg/kg (dog, p.o.)

calcium salt dihydrateRN: 138995-18-3 MF: C₁₆H₃₀CaO₄ · 2H₂O MW: 362.52

Reference(s):

FR-M 2 442 (H. E. J.-M. Meunier; appl. 17.10.1962).
 GB 980 279 (H. E. J.-M. Meunier; appl. 14.10.1963; F-prior. 17.10.1962).
 US 3 325 361 (Chemetron Corp.; 13.6.1967; F-prior. 17.10.1962).

methods:

GB 1 522 450 (Labaz; appl. 3.6.1977; F-prior. 15.3.1977).
 GB 1 529 786 (Labaz; appl. 3.6.1977; F-prior. 15.3.1977).
 US 4 155 929 (Labaz; 22.5.1979; prior. 25.5.1977, 10.5.1978).

Formulation(s): amp. 300 mg/3 ml; cps. 150 mg, 300 mg, 500 mg (as free acid); sol. 300 mg/ml;
 s. r. drg. 300 mg (as sodium salt); syrup 250 mg/5 ml, 300 mg/5 ml; tabl. 250 mg, 333 mg
 (as calcium salt dihydrate); tabl. 150 mg, 300 mg

Trade Name(s):

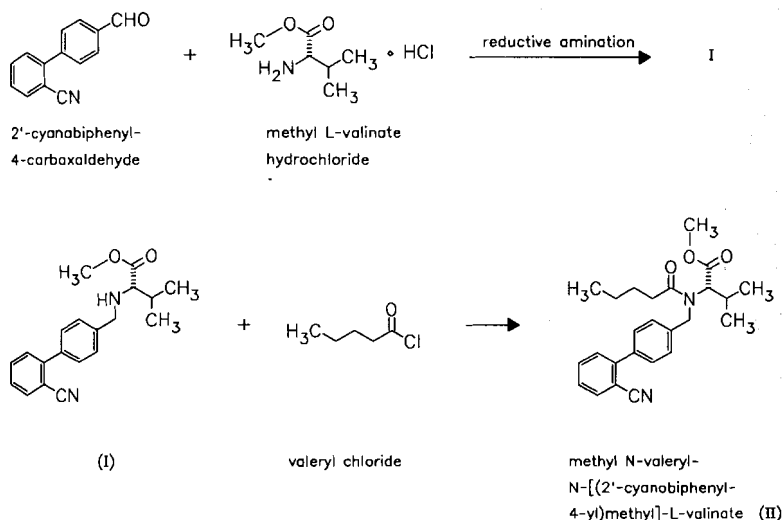
D:	Convulex (Byk Gulden)	Leptilan (Geigy)	GB:	Convulex (Pharmacia & Upjohn)	
	Convulex (Promonta)	Orfiril (Desitin)			
	Convulsofin (ASTA	F:	Dépakine (Sanofi	I:	Depakin (Sanofi Winthrop)
	Medica AWD; Boehringer		Winthrop)	J:	Depaken (Kyowa Hakko)
	Mannh.)		Dépakine Chrono (Sanofi	USA:	Depakene (Abbott)
	Ergenyl (Labaz)		Winthrop)		

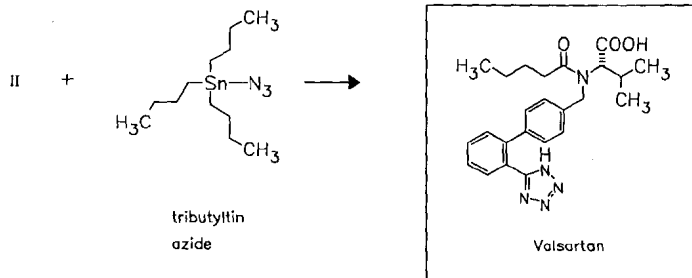
Valsartan

(CGP-48933)

ATC: C09CA03

Use: antihypertensive, angiotensin II blocker

RN: 137862-53-4 MF: C₂₄H₂₉N₅O₃ MW: 435.53CN: *N*-(1-oxopentyl)-*N*-[[2'-(1*H*-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-*L*-valine

**Reference(s):**

US 5 399 578 (Ciba-Geigy; 21.3.1995; appl. 29.12.1992; CH-prior. 19.2.1990, 5.7.1990).

EP 443 983 (Ciba-Geigy; appl. 12.2.1991; CH-prior. 19.2.1990).

Bühlmayer, P. et al.: Bioorg. Med. Chem. Lett. (BMCLE8) **1994**, 4 (1), 29.

use for treating diabetic nephropathy:

WO 9 524 901 (Ciba-Geigy; appl. 7.3.1995; CH-prior. 17.3.1994).

use to treat post-ischaemic renal failure:

WO 9 713 513 (Novartis; appl. 24.9.1996; CH-prior. 6.10.1995).

WO 9 702 032 (MSD-Chibret; appl. 26.6.1996; GB-prior. 13.2.1996; USA-prior. 30.6.1995).

combination with aldosterone antagonists:

WO 9 640 256 (Searle; appl. 5.6.1996; USA-prior. 7.6.1995).

WO 9 640 255 (Searle; appl. 5.6.1996; USA-prior. 7.6.1995).

WO 9 640 257 (Searle; appl. 5.6.1996; USA-prior. 7.6.1995).

WO 9 640 258 (Searle; appl. 5.6.1996; USA-prior. 7.6.1995).

combination with benazepril:

WO 9 631 234 (Ciba-Geigy; appl. 2.4.1996; CH-prior. 7.4.1995).

use for treatment of glaucoma and neurodegeneration:

WO 9 521 609 (Ciba-Geigy; appl. 26.1.1995; EP-prior. 8.2.1994).

Formulation(s): cps. 80 mg, 160 mg; tabl. 40 mg, 80 mg, 160 mg

Trade Name(s):

D: Diovan (Novartis)

GB: Diovan (Ciba)

USA: Diovan (Novartis)

F: Tareg (Novartis)

I: Tareg (Novartis Farma)

Vancomycin

ATC: A07AA09; J01XA01

Use: antibiotic

RN: 1404-90-6 MF: C₆₆H₇₅Cl₂N₉O₂₄ MW: 1449.27 EINECS: 215-772-6

LD₅₀: 430 mg/kg (M, i.v.)

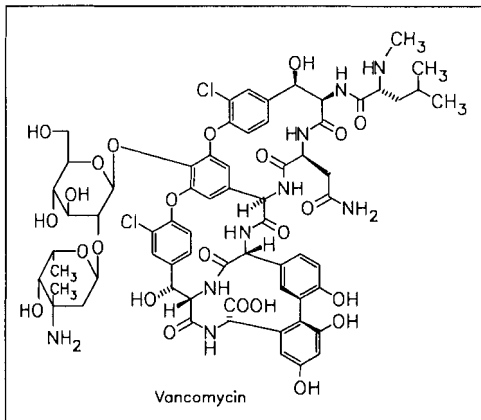
CN: [3S-[3R*,6S*(S*),7S*,22S*,23R*,26R*,36S*,38aS*]]-3-(2-amino-2-oxoethyl)-44-[[[2-O-(3-amino-2,3,6-trideoxy-3-C-methyl- α -L-lyxo-hexopyranosyl)- β -D-glucopyranosyl]oxy]-10,19-dichloro-2,3,4,5,6,7,23,24,25,26,36,37,38,38a-tetradecahydro-7,22,28,30,32-pentahydroxy-6-[[4-methyl-2-(methylamino)-1-oxopentyl]amino]-2,5,24,38,39-pentaoxo-22H-8,11:18,21-dietheno-23,36-(iminomethano)-13,16:31,35-dimetheno-1H,16H-[1,6,9]oxadiazacyclohexadecino[4,5-m][[10,2,16]benzoxadiazacyclotetracosine-26-carboxylic acid

hydrochloride

RN: 1404-93-9 MF: C₆₆H₇₅Cl₂N₉O₂₄ · xHCl MW: unspecified

LD₅₀: 489 mg/kg (M, i.v.); >5 g/kg (M, p.o.);

319 mg/kg (R, i.v.); >10 g/kg (R, p.o.)



Amphoteric glycopeptid antibiotic from *Nocardia orientalis* (NRRL 2450, 2451, 2452).

Reference(s):

US 3 067 099 (Eli Lilly; 4.12.1962; appl. 16.9.1955).

purification via the diphosphate:

EP 145 484 (Eli Lilly; appl. 11.12.1984; USA-prior. 12.12.1983).

structure:

Williamson, M.P.; Williams, D.H.: J. Am. Chem. Soc. (JACSAT) **103**, 6580 (1981).

Formulation(s): cps. 250 mg; vial 500 mg/g, 500 mg/10 ml, 500 mg/15 ml, 1 g/15 ml, 10 g/100 ml (as hydrochloride)

Trade Name(s):

D:	AB-Vancomycin (Astrapin)	F:	Vancocine (Lilly)	I:	Vancocina (Lilly)
	VANCO (Reusch)		Vancomycine Dakota	J:	Vancomycin (Shionogi)
	Vancomycin CP (Lilly)		Pharm (Dakota)	USA:	Vancocin (Lilly)
	Vancomycin "Lederle"		Vancomycine Lederle		generic
	(Lederle)		(Wyeth-Lederle)		
	Vanco-saar (Chephasaar)	GB:	Vancocin (Eli Lilly)		

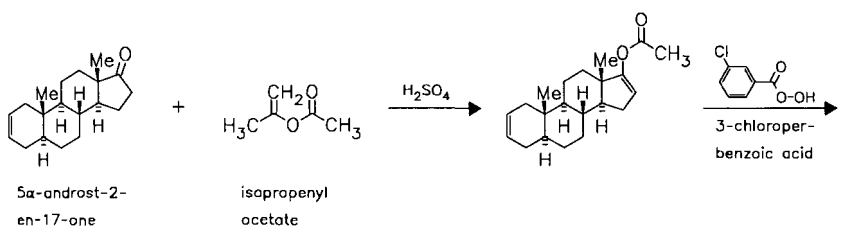
Vecuronium bromide

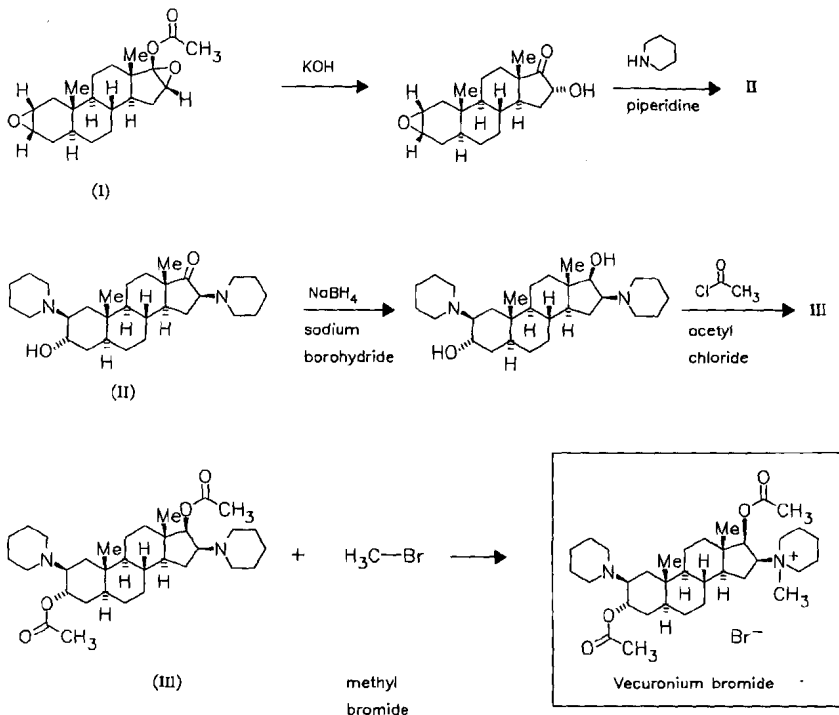
ATC: M03AC03

Use: muscle relaxant

RN: 50700-72-6 MF: $C_{34}H_{57}BrN_2O_4$ MW: 637.74 EINECS: 256-723-9

CN: 1-[(2 β ,3 α ,5 α ,16 β ,17 β)-3,17-bis(acetyloxy)-2-(1-piperidiny)androstan-16-yl]-1-methylpiperidinium bromide



**Reference(s):**

US 4 237 126 (Akzo; 2.12.1980; appl. 20.8.1979; GB-prior. 5.9.1978).

US 4 297 351 (Akzo; 2.12.1980; appl. 20.8.1979; GB-prior. 5.9.1978).

Buckett, W.R. et al.: J. Med. Chem. (JMCMAR) **16**, 116 (1973).

injection solution:

EP 8 824 (Akzo; appl. 15.8.1979; GB-prior. 5.9.1978).

Formulation(s): amp. 4 mg/ml; vial 10 mg

Trade Name(s):

D:	Norcuron (Organon; 1983)	I:	Norcuron (Organon)
F:	Norcuron (Organon); wfm		Teknika)
GB:	Norcuron (Organon	J:	Masculax (Organon)
	Teknika); 1983	USA:	Norcuron (Organon; 1984)

Venlafaxine

(Wy-45030)

ATC: N06AA22

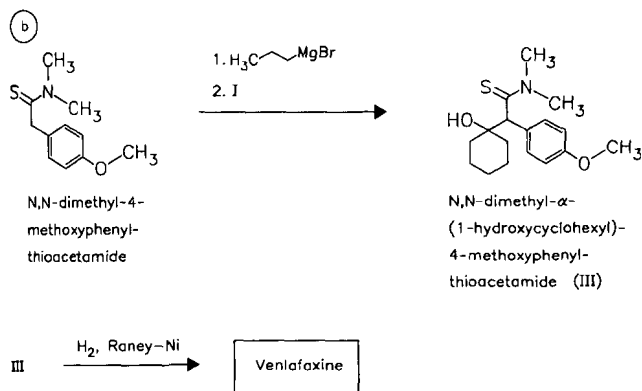
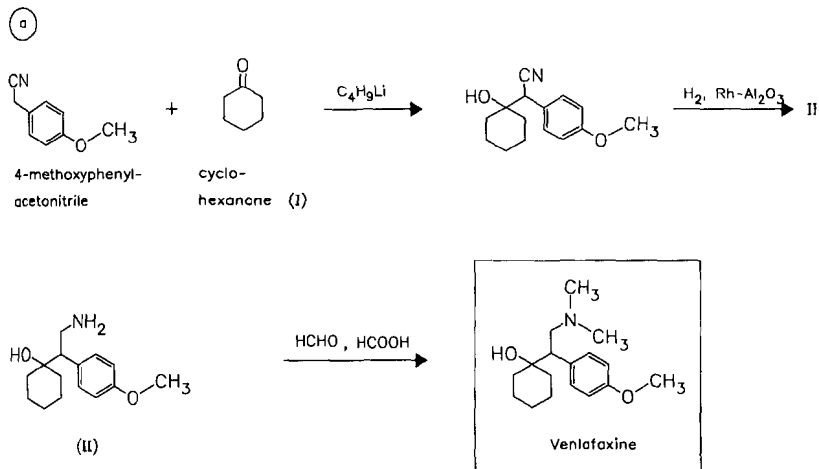
Use: antidepressant, norephedrine uptake inhibitor

RN: 93413-69-5 MF: $\text{C}_{17}\text{H}_{27}\text{NO}_2$ MW: 277.41

CN: (\pm) -1-[2-(dimethylamino)-1-(4-methoxyphenyl)ethyl]cyclohexanol

monohydrochloride

RN: 99300-78-4 MF: $\text{C}_{17}\text{H}_{27}\text{NO}_2 \cdot \text{HCl}$ MW: 313.87



Reference(s):

- a EP 112 669 (American Home Products; 4.7.1984; USA-prior. 13.12.1982).
 b GB 2 227 743 (Wyeth & Brother Ltd; 8.8.1990; GB-prior. 1.2.1989).

combination with opioid antagonists:

WO 9 609 047 (Du Pont Merck Pharm. Co.; 28.3.1996; USA-prior. 19.9.1994).

combination with β -blockers:

EP 687 472 (Eli Lilly & Co.; 20.2.1995; USA-prior. 19.7.1994).

controlled release formulation:

WO 9 427 589 (Alza Corp.; 8.12.1994; USA-prior. 27.5.1993).

Formulation(s): tabl. 25 mg, 37.5 mg, 50 mg, 75 mg, 100 mg (as hydrochloride)

Trade Name(s):

D: Trevilor (Wyeth) I: Efexor (Wyeth-Lederle)
 GB: Efexor (Wyeth) USA: Effexor (Wyeth-Ayerst)

Verapamil

(Iproveratriol)

ATC: C08DA01

Use: coronary vasodilator

RN: 52-53-9 MF: C₂₇H₃₈N₂O₄ MW: 454.61 EINECS: 200-145-1LD₅₀: 1520 µg/kg (M, i.v.); 130 mg/kg (M, p.o.);

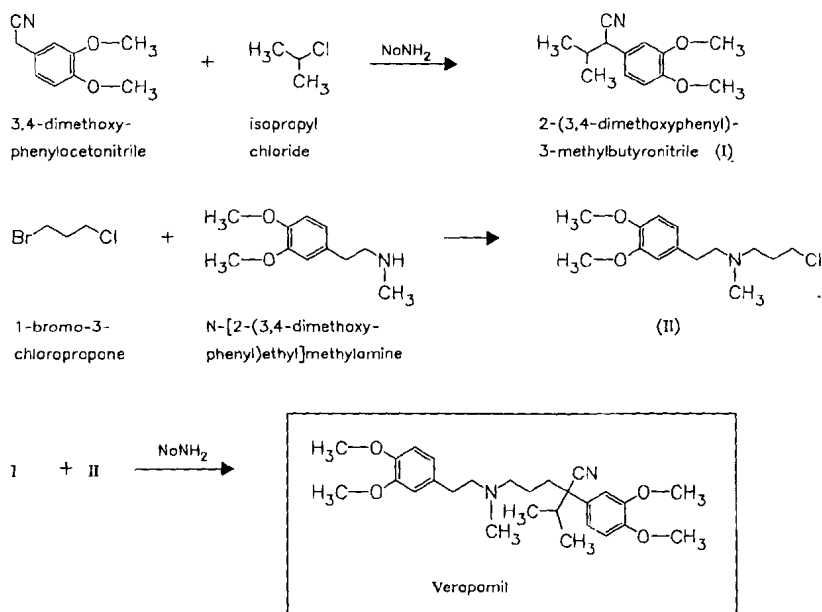
7250 µg/kg (R, i.v.); 163 mg/kg (R, p.o.)

CN: α-[3-[[2-(3,4-dimethoxyphenyl)ethyl]methylamino]propyl]-3,4-dimethoxy-α-(1-methylethyl)benzeneacetonitrile

monohydrochlorideRN: 152-11-4 MF: C₂₇H₃₈N₂O₄ · HCl MW: 491.07 EINECS: 205-800-5LD₅₀: 5795 µg/kg (M, i.v.); 163 mg/kg (M, p.o.);

16 mg/kg (R, i.v.); 108 mg/kg (R, p.o.);

>400 mg/kg (dog, p.o.)

**Reference(s):**

DE 1 154 810 (Knoll; appl. 28.4.1961).

DE 1 158 083 (Knoll; appl. 19.12.1962).

US 3 261 859 (Knoll; 19.7.1966; D-prior. 28.4.1961).

alternative synthesis:

DAS 2 263 527 (Teikoku Hormaone Mfg.; appl. 27.12.1972; J-prior. 25.12.1971).

DAS 2 631 222 (Knoll; appl. 12.7.1976).

US 4 115 432 (Knoll; 19.9.1978; D-prior. 12.7.1976).

(-)-verapamil:

DAS 2 059 923 (Knoll; appl. 5.12.1970).

Formulation(s): amp. 5 mg/2 ml; drg. 40 mg, 80 mg, 120 mg; f. c. tabl. 40 mg, 80 mg, 120 mg; s. r. cps. 120 mg, 180 mg, 240 mg; s. r. tabl. 120 mg, 240 mg; vial 5 mg/2 ml (as hydrochloride)

Trade Name(s):

D: Azupamil (Azupharma)

Cardioprotect (Kytta-Siegfried)

Dignover (Sankyo)
Durasoptin (durachemie)

Elthon (Knoll)-comb. with diazepam		Verasal (TAD)		Cordilox (Baker Norton)
Falicard (ASTA Medica AWD)		Vera-Sanorania (Sanorania)		Securon (Knoll)
Isoptin (Knoll); as hydrochloride	F:	Veroptinstada (Stadapharm)		Tarka (Knoll)-comb.
Isoptin S (Knoll)-comb.		Isoptine (Knoll)	I:	Univex (RPR)
Jenapamil (Jenapharm)		Isoptine LP (Knoll)		Isoptin (Knoll)
Tarka (Knoll)-comb.		Novapamyl LP (Wycth-Lederle)	J:	Quasar (Ravizza)
vera (ct-Arzneimittel)		Verapamil Bayer (Bayer Classics)	USA:	Vasolan (Eisai)
Verabeta (betapharm)		Verapamil MSD LP (Merck Sharp & Dohme-Chibret)		Isoptin (Knoll)
Verahexal (Hexal)				Tarka (Knoll)
Veramex (Sanofi Winthrop)	GB:	Berkatens (Berk)		Verelan (Lederle) generics

Vesnarinone

(OPC-8212)

ATC: C01CX

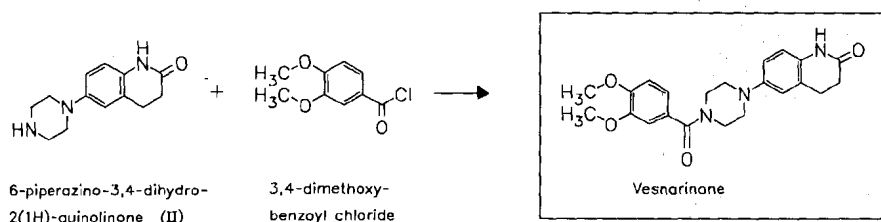
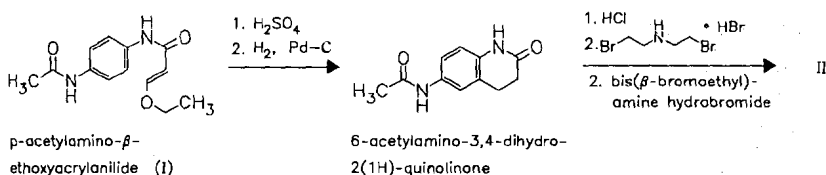
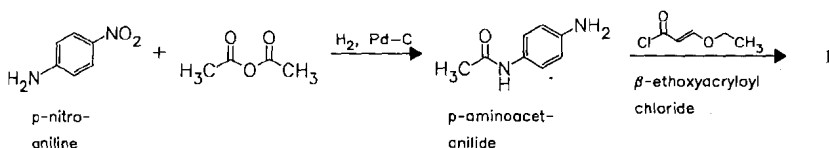
Use: cardiotonic

RN: 81840-15-5 MF: C₂₂H₂₅N₃O₄ MW: 395.46LD₅₀: >1200 mg/kg (M, i.p.); 56.3 mg/kg (M, i.v.); >7594 mg/kg (M, p.o.); >1200 mg/kg (M, s.c.);

>1200 mg/kg (R, i.p.); 79.3 mg/kg (R, i.v.); >7594 mg/kg (R, p.o.);

63.3 mg/kg (dog, i.v.); >3 g/kg (dog, p.o.)

CN: 1-(3,4-dimethoxybenzoyl)-4-[1,2,3,4-tetrahydro-2-oxo-6-quinoliny]piperazine

**Reference(s):**

DE 3 142 982 (Otsuka; appl. 29.10.1981; J-prior. 31.10.1980).

Tominaga, M. et al.: Chem. Pharm. Bull. (CPBTAL) **32**, 2100 (1984).**alternative synthesis:**

DE 3 153 260 (Otsuka; appl. 29.10.1981; J-prior. 31.10.1980).

Formulation(s): 60 mg

Trade Name(s):

J: Arkin-Z (Otsuka; 1990)

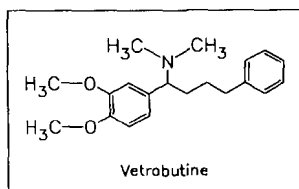
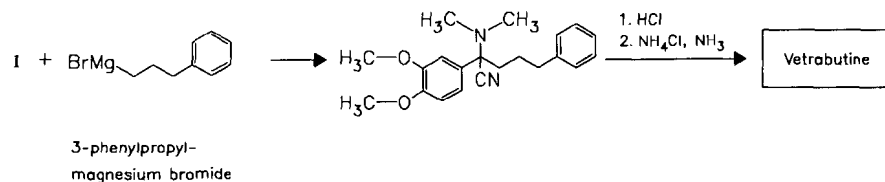
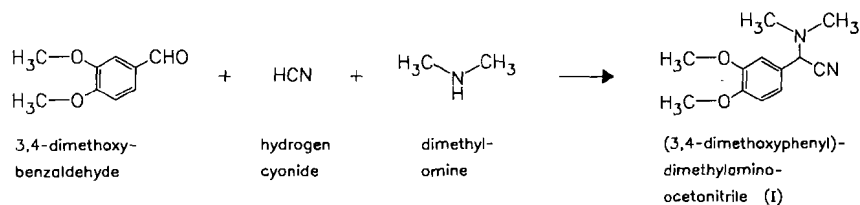
USA: Arkin (Otsuka); wfm

Vetrabutine

(Profenveramine; Revatrine)

ATC: A03

Use: uterus relaxant

RN: 3735-45-3 MF: C₂₀H₂₇NO₂ MW: 313.44CN: α -(3,4-dimethoxyphenyl)-*N,N*-dimethylbenzenebutanamine**hydrochloride**RN: 5974-09-4 MF: C₂₀H₂₇NO₂ · HCl MW: 349.90 EINECS: 227-771-8LD₅₀: 500 mg/kg (R, p.o.)**Reference(s):**

DE 963 424 (Thomae; appl. 1954).

Formulation(s): amp. 50 mg**Trade Name(s):**

D: Monzal (Thomae); wfm

Vidarabine

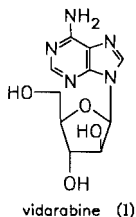
ATC: J05AB03; S01AD06

Use: antiviral

RN: 5536-17-4 MF: C₁₀H₁₃N₅O₄ MW: 267.25 EINECS: 226-893-9LD₅₀: 442 mg/kg (M, i.v.); 7800 μ g/kg (M, p.o.);

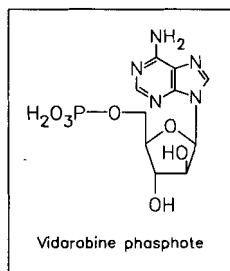
302 mg/kg (R, i.v.); >5 g/kg (R, p.o.)

CN: 9- β -D-arabinofuranosyl-9H-purine-6-amine

monohydrateRN: 24356-66-9 MF: $C_{10}H_{13}N_5O_4 \cdot H_2O$ MW: 285.26LD₅₀: >7950 µg/kg (M, p.o.)**5'-dihydrogen phosphate**RN: 29984-33-6 MF: $C_{10}H_{14}N_5O_7P$ MW: 347.22 EINECS: 249-990-8LD₅₀: 1200 mg/kg (R, i.v.)**5'-dihydrogen phosphate disodium salt**RN: 71002-10-3 MF: $C_{10}H_{12}N_5Na_2O_7P$ MW: 391.19fermentation of
Streptomyces antibioticus NRRL 3238

I

1. $POCl_3$, NaOH
 2. NH_3
 3. ion exchange on Dowex 1-X₂
1. phosphoryl chloride →

**Reference(s):****fermentation:**

GB 1 159 290 (Parke Davis; appl. 29.12.1967; USA-prior. 30.12.1966, 29.9.1967).

dihydrogen phosphate:

DOS 2 047 368 (Parke Davis; appl. 25.9.1970; USA-prior. 26.9.1969).

US 3 703 507 (Parke Davis; 21.11.1972; prior. 26.9.1969).

alternative synthesis from adenosine monophosphate:Kaneka, M. et al.: Chem. Pharm. Bull. (CPBTAL) **25**, 1892 (1977).**total synthesis of vidarabine:**Lee et al.: J. Am. Chem. Soc. (JACSAT) **82**, 2648 (1960).Reist et al.: J. Org. Chem. (JOCEAH) **27**, 3274 (1962); **29**, 3725 (1964).**Formulation(s):** ointment 3 %**Trade Name(s):**D: Vidarabin 3 % Thilo Salbe
(Alcon)F: Vira-MP (Pierre Fabre
Dermatologie)

GB: Vira-A (Parke Davis)

J: Arasena-A (Mochida)
Vitarabine (Ajinomoto)

USA: Vira-A (Parke Davis); wfm

Vigabatrin $(\gamma$ -Vinyl-Gaba)

ATC: N03AG04

Use: anticonvulsant, irreversible inhibitor of GABA transaminase

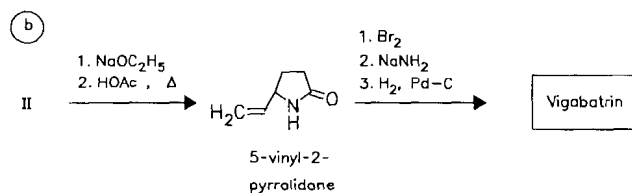
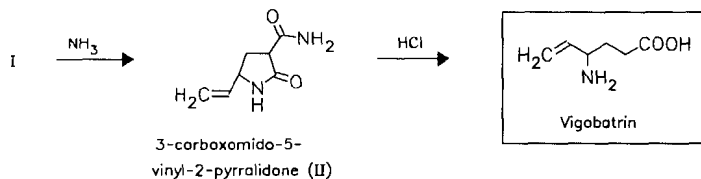
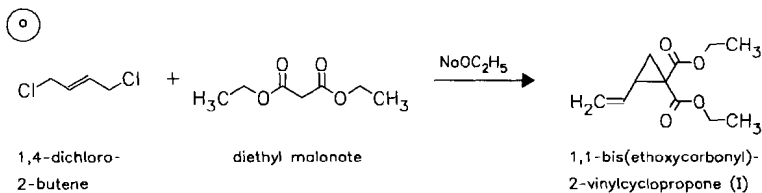
RN: 60643-86-9 MF: $C_6H_{11}NO_2$ MW: 129.16LD₅₀: 3 g/kg (M, p.o.);

3 g/kg (R, p.o.)

CN: 4-amino-5-hexenoic acid

(±)-formRN: 68506-86-5 MF: $C_6H_{11}NO_2$ MW: 129.16 EINECS: 270-929-6LD₅₀: >2500 mg/kg (M, i.p.); >3000 mg/kg (M, p.o.);

>3000 mg/kg (R, p.o.)

**Reference(s):**

DOS 2 607 620 (Richardson-Merrell; appl. 25.2.1976; USA-prior. 18.3.1975).

DE 2 902 438 (Merrell-Toraude; appl. 23.1.1979; USA-prior. 30.1.1978).

US 4 235 778 (Merrell-Toraude; 25.11.1980; appl. 14.1.1980; prior. 4.6.1979, 30.1.1978).

US 4 254 284 (Merrell-Toraude; 3 3.1981; appl. 14.1.1980; prior. 4.6.1979, 30.1.1978).

Wei, Z.-Y.; Knaus, E.E.: J. Org. Chem. (JOCEAH) **58**, 1586 (1993).**combination with glycine:**

EP 124 091 (Merrell-Toraude; appl. 26.4.1984; GB-prior. 29.4.1983).

Formulation(s): f. c. tabl. 500 mg; gran. 500 mg; powder 500 mg**Trade Name(s):**

D: Sabril (Hoechst)

GB: Sabril (Hoechst)

F: Sabril (Hoechst; 1990)

I: Sabril (Camillo Corvi)

Viloxazine

ATC: N06AX09

Use: antidepressant, psychostimulant

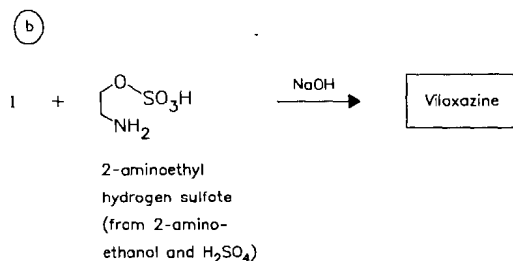
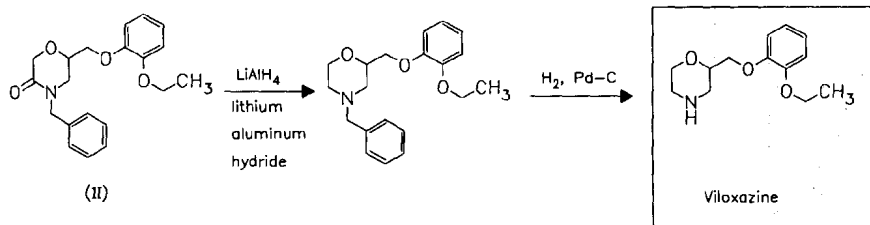
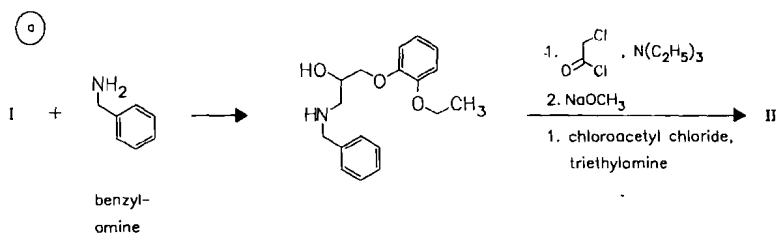
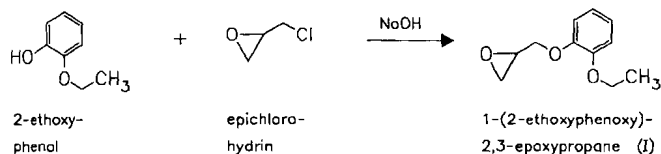
RN: 46817-91-8 MF: $C_{13}H_{19}NO_3$ MW: 237.30 EINECS: 256-281-7LD₅₀: 60 mg/kg (M, i.v.); 552 mg/kg (M, p.o.);

60 mg/kg (R, i.v.); 2 g/kg (R, p.o.)

CN: 2-[(2-ethoxyphenoxy)methyl]morpholine

hydrochlorideRN: 35604-67-2 MF: $C_{13}H_{19}NO_3 \cdot HCl$ MW: 273.76 EINECS: 252-638-6LD₅₀: 60 mg/kg (M, i.v.); 480 mg/kg (M, p.o.);

60 mg/kg (R, i.v.); 2 g/kg (R, p.o.)



Reference(s):

- a GB 1 138 405 (ICI; appl. 28.12.1966; valid from 13.11.1967).
 US 3 714 161 (ICI; 30.1.1973; GB-prior. 28.12.1966).
 US 3 876 769 (ICI; 8.4.1975; prior. 24.11.1967).
 DOS 1 695 295 (ICI; appl. 24.11.1967; GB-prior. 28.12.1966).
- b US 3 857 839 (ICI; 31.12.1974; GB-prior. 20.6.1969, 13.10.1969).
 US 3 712 890 (ICI; 23.1.1973; GB-prior. 20.6.1969; 13.10.1969).
 Greenwood, D.T. et al.: J. Med. Chem. (JMCMAR) **18**, 573 (1975).

Formulation(s): amp. 100 mg/5 ml; f. c. tabl. 100 mg; s. r. tabl. 300 mg; tabl. 50 mg, 100 mg

Trade Name(s):

D:	Vivalan (Zeneca; 1977)	Vivalan LP (Zeneca)	I:	Vicilan (ICI-Pharma)
F:	Vivalan (Zeneca; 1977)	GB: Vivalan (Zeneca; 1974)	J:	Vicilan (Jcpharma)

Viminol

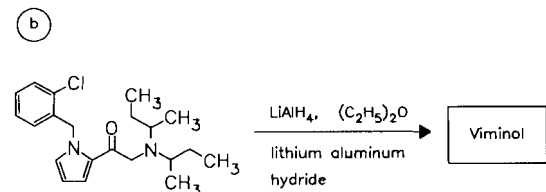
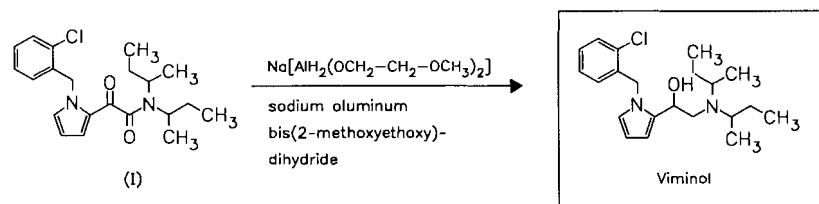
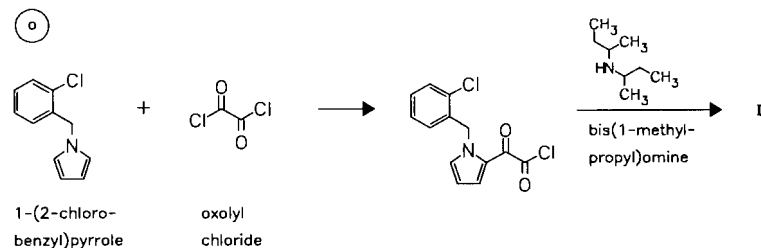
(Diviminol)

ATC: N06AX09

Use: analgesic

RN: 21363-18-8 MF: $C_{21}H_{31}ClN_2O$ MW: 362.95 EINECS: 244-347-8LD₅₀: 325 mg/kg (M, p.o.)CN: α -[[bis(1-methylpropyl)amino]methyl]-1-[(2-chlorophenyl)methyl]-1H-pyrrole-2-methanol

p-hydroxybenzoate (1:1)

RN: 23784-10-3 MF: $C_{21}H_{31}ClN_2O \cdot C_7H_6O_3$ MW: 501.07LD₅₀: 206 mg/kg (R, i.p.)

Reference(s):

- a BE 790 747 (Whitefin Holding; appl. 30.10.1972; I-prior. 4.7.1972; 30.10.1971).
 b US 3 539 589 (Whitefin Holding; 10.11.1970; GB-prior. 17.5.1966).

starting material:

DAS 1 795 841 (Whitefin Holding; appl. 10.11.1970; F-prior. 12.11.1969).

review:

Chiarino, D. et al.: *Arzneim.-Forsch. (ARZNAD)* **28** (II), 1554 (1978).

stereoisomers:

BE 790 747 (Whitefin Holding; appl. 30.10.1972; I-prior. 30.10.1971; 4.7.1972).
 DOS 2 253 149 (Whitefin Holding; appl. 30.10.1972; I-prior. 30.10.1971).

Formulation(s): tabl. 50 mg

Trade Name(s):

D: Lenigesial (Inpharzam); I: Dividol (Zambon Italia; as
 wfm hydrochloride)

Vinblastine

(Vincal leukoblastine)

ATC: L01CA01

Use: antineoplastic

RN: 865-21-4 MF: $C_{46}H_{58}N_4O_9$ MW: 810.99 EINECS: 212-734-0

LD₅₀: 2 mg/kg (R, i.v.)

CN: [3aR-[3α,4β,5β,5aβ,9(3R*,5S*,7R*,9S*),10bR*,13α]]-methyl 4-(acetyloxy)-3a-ethyl-9-[5-ethyl-1,4,5,6,7,8,9,10-octahydro-5-hydroxy-9-(methoxycarbonyl)-2H-3,7-methanoazacycloundecino[5,4-b]indol-9-yl]-3a,4,5,5a,6,11,12,13a-octahydro-5-hydroxy-8-methoxy-6-methyl-1H-indolizino[8,1-c]carbazole-5-carboxylate

sulfate (1:1)

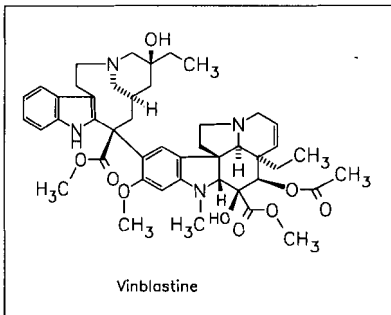
RN: 143-67-9 MF: $C_{46}H_{58}N_4O_9 \cdot H_2SO_4$ MW: 909.07 EINECS: 205-606-0

LD₅₀: 9500 μg/kg (M, i.v.); 423 mg/kg (M, p.o.);

37 mg/kg (R, i.v.); 305 mg/kg (R, p.o.)

sulfate monohydrate

RN: 6449-03-2 MF: $C_{46}H_{58}N_4O_9 \cdot H_2SO_4 \cdot H_2O$ MW: 927.08



By extraction from leaves of *Vinca rosea*.

Reference(s):

Svoboda, G.H. et al.: J. Pharm. Sci. (JPMSAE) **51**, 707 (1962).
 US 3 097 137 (CDN-P. and Dev.; 9.7.1963; appl. 19.5.1960; prior. 2.12.1958).
 US 3 225 030 (Eli Lilly; 21.12.1965; appl. 15.2.1965; prior. 25.8.1958).
 US 4 070 358 (Richter Gedeon; 24.1.1978; H-prior. 28.10.1975).
 DOS 2 648 284 (Richter Gedeon; appl. 25.10.1976; H-prior. 28.10.1975).
 DOS 2 823 461 (Richter Gedeon; appl. 30.5.1978; H-prior. 31.5.1977).

synthesis from catharanthin:

DOS 2 614 863 (Dr. Rahman; appl. 6.4.1976).

Formulation(s): amp. 10 mg/10 ml (as sulfate); vial 10 mg (as sulfate monohydrate)

Trade Name(s):

D:	cellblastin (cell pharm)	Vinblastinesulfat-GRY	I:	Velbe (Lilly)
	Velbe (Lilly)	(Gry)	J:	Exal (Shionogi)
	Vinblastin R.P. (Rhône-Poulenc)	F:	Velbé (Lilly)	USA: Velban (Lilly)
		GB:	Velbe (Lilly)	

Vinburnine

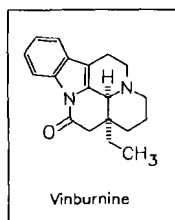
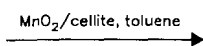
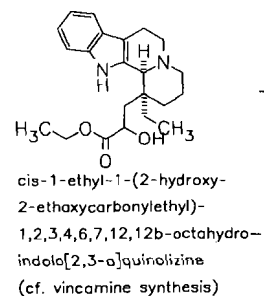
(Vincamon)

ATC: C04AX17

Use: cerebral vasodilator

RN: 474-00-0 MF: C₁₉H₂₂N₂O MW: 294.40 EINECS: 207-476-0

CN: cburnamenin-14(15H)-one

*Reference(s):*

GB 1 440 634 (Richter Gedeon; valid from 7.12.1973; H-prior. 8.12.1972).

starting material:

DOS 2 931 295 (Richter Gedeon; appl. 1.8.1979; H-prior. 1.8.1978).

alternative syntheses:

DOS 2 323 423 (Richter Gedeon; appl. 9.5.1973; H-prior. 17.5.1972).

US 3 888 865 (Richter Gedeon; 10.6.1975; appl. 14.3.1973).

FR 2 268 016 (Omnium; appl. 17.4.1974).

isolation from Hunteria eburnea:

DOS 1 932 245 (L. Olivier; appl. 25.6.1969; F-prior. 25.6.1968).

total synthesis:

Bartlett, M.F.; Taylor, W.I.: J. Am. Chem. Soc. (JACSAT) **82**, 5941 (1960).

Werkert, E.; Wickberg, B.: J. Am. Chem. Soc. (JACSAT) **87**, 1580 (1965).

BE 776 337 (Roussel-Uclaf; appl. 7.12.1971; F-prior. 6.1.1971).

BE 802 913 (Roussel-Uclaf; appl. 27.7.1973; F-prior. 31.7.1972).

Hugel, G. et al.: Tetrahedron Lett. (TELEAY) **1974**, 1597.

combination with glucose 1-phosphate:
BE 874 154 (E. Corvi Mora; appl. 14.2.1979).

quaternary ammonium salts:
DE 1 244 794 (Richter Gedeon; appl. 16.12.1963; H-prior. 19.12.1962).

Formulation(s): amp. 15 mg/1 ml, 20 mg; cps. 20 mg, 60 mg

Trade Name(s):

F: Cervoxan (SmithKline Beecham) I: Eburnal (Chiesi) Scleramin (Ibirm) Tensiplex (Francia Farm.)

Vincamine

ATC: C04AX07
Use: vasodilator, antihypertensive, cerebrotonic

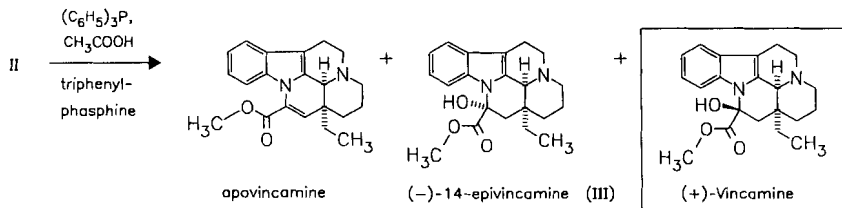
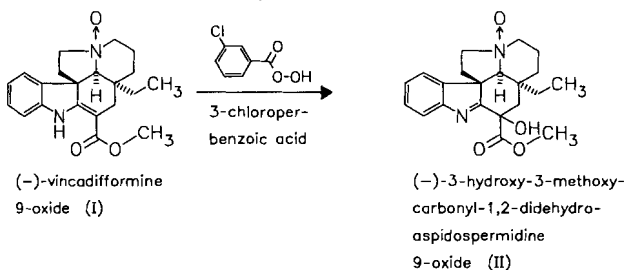
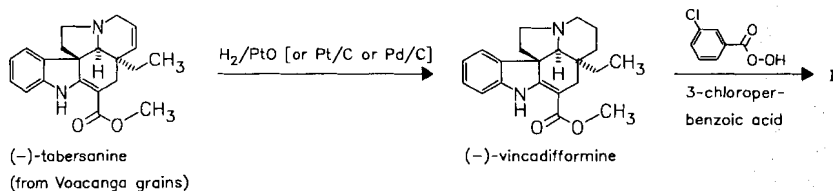
RN: 1617-90-9 MF: C₂₁H₂₆N₂O₃ MW: 354.45 EINECS: 216-576-3

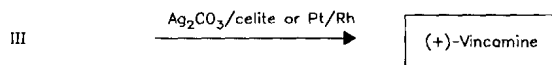
LD₅₀: 47.74 mg/kg (M, i.v.); 460 mg/kg (M, p.o.);
1200 mg/kg (R, p.o.)

CN: (3 α ,14 β ,16 α)-14,15-dihydro-14-hydroxyeburnamenine-14-carboxylic acid methyl ester

a) by extraction of pulverized and NH₃-solution treated plant material of *Vinca minor* L. (myrtle) with toluene and column chromatographic separation of numerous (c. 30 biogenetic related) by-alkaloids (indole alkaloids)

b) partial synthesis (Omnium process)

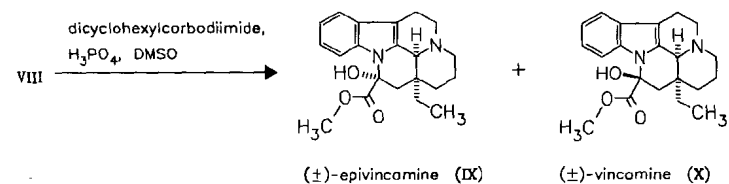
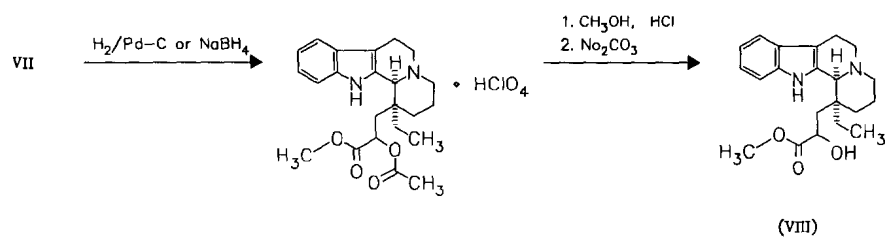
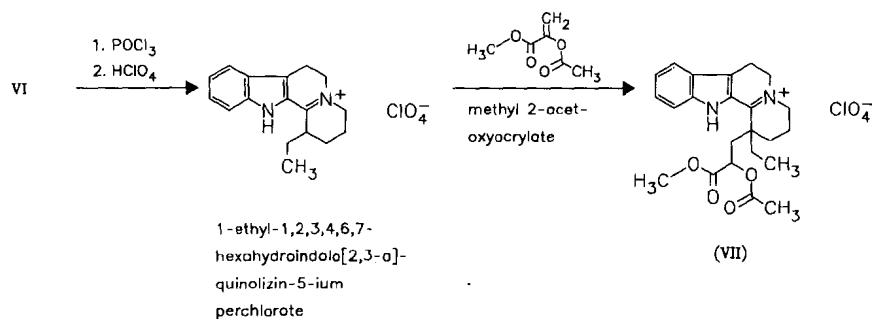
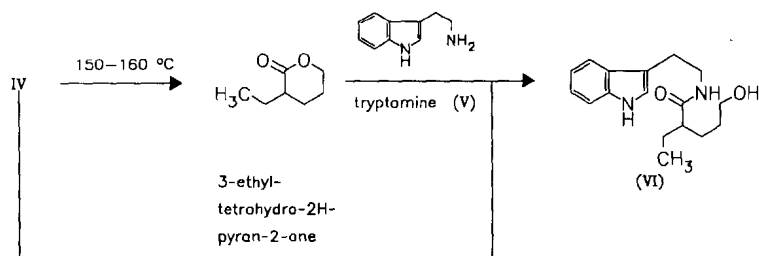
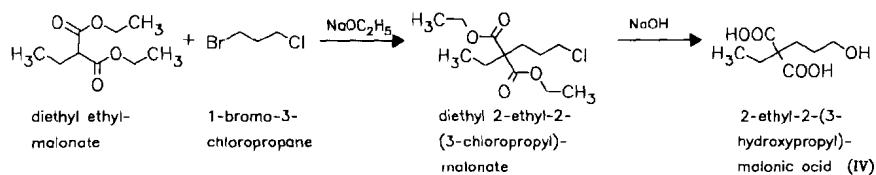


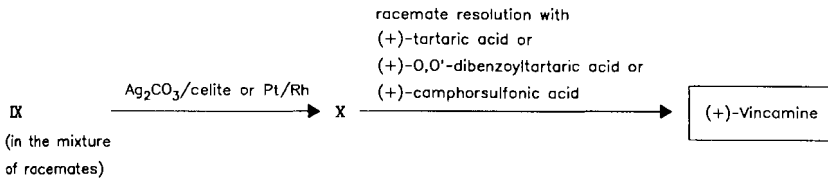


(in the product mixture)

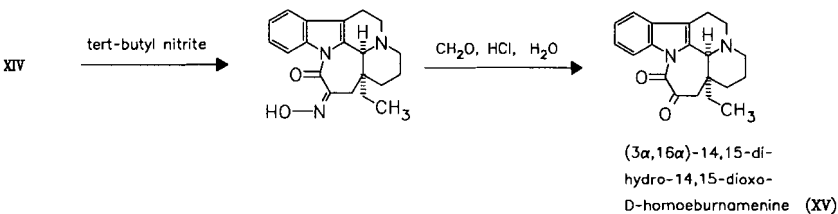
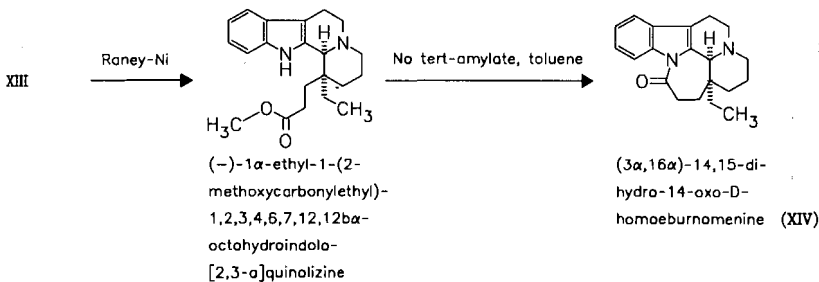
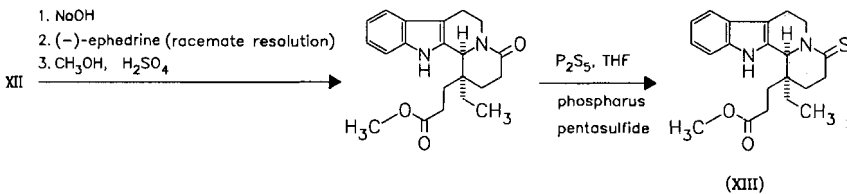
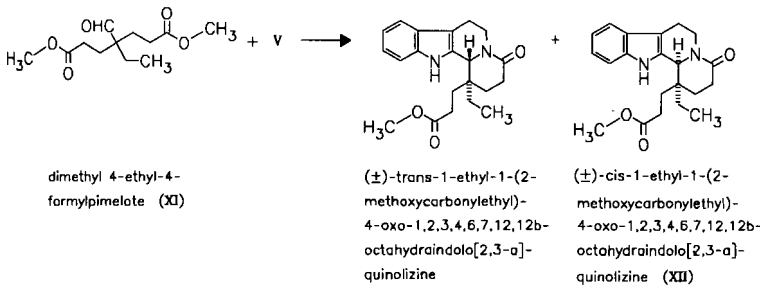
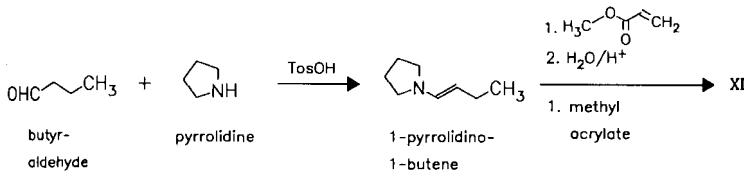
(c) total synthesis

(c1) Richter Gedeon synthesis:





c2 Roussel-Uclaf synthesis:



*Reference(s):*

- a** Schlittler, E. et al.: *Helv. Chim. Acta (HCACAV)* **36**, 2017 (1953).
 HU 147 282 (Richter Gedeon; appl. 30.7.1960).
 Trojanek, J. et al.: *Collect. Czech. Chem. Commun. (CCCCAK)* **26**, 867 (1961); **27**, 2801 (1962).
- b** DAS 2 201 795 (Omnium Chimique; appl. 14.1.1972; B-prior. 15.1.1971, 3.3.1971).
 DOS 2 652 165 (Omnium Chimique; appl. 16.11.1976; F-prior. 20.11.1975).
similar processes from (-)-vincadifformine:
 GB 1 514 337 (Buskine S.A.; appl. 22.7.1975; CH-prior. 9.8.1974).
 US 4 145 552 (Parcor; 20.3.1979; F-prior. 13.7.1976).
 DOS 2 731 480 (Parcor; appl. 12.7.1977; F-prior. 13.7.1976).
 DOS 2 745 415 (Boehringer Mannh.; appl. 8.10.1977).
synthesis of vincadifformine:
 DOS 2 758 896 (M. E. Kuehne; appl. 30.12.1977).
- c1** DAS 2 222 186 (Richter Gedeon; appl. 5.5.1972; H-prior. 7.5.1971).
 US 3 755 333 (Richter Gedeon; 28.8.1973; H-prior. 7.5.1971).
 Szántay, Cs. et al.: *Tetrahedron Lett. (TELEAY)* **1973**, (3), 191.
precursors:
 DOS 2 345 068 (Richter Gedeon; appl. 6.9.1973; H-prior. 6.9.1972).
rearrangement epi-vincamine → vincamine:
 DAS 2 203 655 (Richter Gedeon; appl. 26.1.1972; H-prior. 29.1.1971).
 DOS 2 807 912 (Boehringer Mannh.; appl. 24.2.1978).
- c2** DAS 2 115 718 (Roussel-Uclaf; appl. 31.3.1971; F-prior. 31.3.1970, 10.9.1970).

further syntheses:

- Kuehne, E.: *J. Am. Chem. Soc. (JACSAT)* **86**, 2946 (1964).
 US 3 454 583 (US-Secret. of Health; 8.7.1969; prior. 19.7.1965).
 Gibson, K.H.; Saxton, J.E.: *Chem. Commun. (CCOMA8)* **1969**, 1490.
 Pfaffli, P. et al.: *Helv. Chim. Acta (HCACAV)* **58**, 1131 (1975).
 DOS 2 314 876 (Sandoz; appl. 26.3.1973; CH-prior. 29.3.1972, 20.4.1972, 17.5.1972, 2.2.1973).
 DOS 2 330 990 (Anvar; appl. 18.6.1973; F-prior. 19.6.1972).
 GB 1 450 198 (Synthelabo; appl. 14.12.1973; F-prior. 15.12.1972).
 US 3 925 392 (Synthelabo; 9.12.1975; F-prior. 15.12.1972).
 US 4 001 251 (Synthelabo; 4.1.1977; F-prior. 15.12.1972).
 DOS 2 752 776 (ELMU; appl. 25.11.1977; E-prior. 27.4.1977).

lyophilisate of vincamine with glycine:

FR-M 7 222 (L. O. Olivier; appl. 6.2.1968).

vincamine pamoate:

NL-appl. 7 304 654 (Merrell-Toraude; appl. 4.4.1973; F-prior. 11.4.1972).

combination with ergot alkaloids:

GB 1 494 625 (Unilever; appl. 4.2.1974; valid from 4.2.1975).

combination with rutin, hesperidin, eriodictin or esculoside:

DOS 2 337 202 (Centre d'Etudes pour l'Industrie Pharmaceutique; appl. 21.7.1973; F-prior. 24.7.1972).

5-bromonicotinate of vincamine:

DOS 2 714 486 (Ferrer Internat.; appl. 31.3.1977; F-prior. 31.3.1976).

vincamine 5-pyridoxalphosphate:

DAS 2 721 171 (Soc. d'Etudes de Produits Chimiques; appl. 11.5.1977; GB-prior. 11.5.1976).

diverse salts:

US 4 122 179 (E. Corvi Mora; 24.10.1979; CH-prior. 3.6.1976).

Formulation(s): amp. 15 mg; cps. 30 mg; s. r. cps. 30 mg, 60 mg; tabl. 10 mg

Trade Name(s):

D:	Cetal (Parke Davis)	Vincafor (Pharmafarm)	Vincari (Alfa Intes; as hydrochloride)
	Vincamin-retard-ratiopharm (ratiopharm)	Vincarutine (Pharbiol)	Vincatreis (Ecobi)
F:	Pervincamine (Synthélabo)	I: Anasclerol (Stallergenes; as hydrochloride)	Vinsal (Salus Research)
	Rhéobal (Niverpharm)	Vasonett (Alfa Intes)	Vraap (Inverni della Beffa) generics
	Vinca (Substipharm)	Vincadar (Hoechst Marion Roussel)	
	Vinca Retard (Substipharm)		

Vincristine

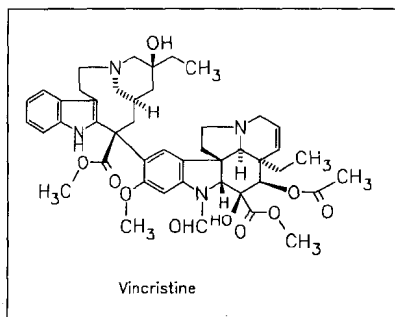
(Leurocristine)

ATC: L01CA02

Use: antineoplastic

RN: 57-22-7 MF: $C_{46}H_{56}N_4O_{10}$ MW: 824.97 EINECS: 200-318-1LD₅₀: 3990 µg/kg (M, i.v.);
1 mg/kg (R, i.v.)

CN: 22-oxovincalcaleukoblastine

sulfate (1:1)RN: 2068-78-2 MF: $C_{46}H_{56}N_4O_{10} \cdot H_2SO_4$ MW: 923.05 EINECS: 218-190-0LD₅₀: 1700 µg/kg (M, i.v.);
1010 µg/kg (R, i.v.)By extraction from leaves of *Vinca rosea*.**Reference(s):**

BE 867 670 (Richter Gedeon; appl. 31.5.1978; H-prior. 31.5.1977).

FR 2 210 392 (Richter Gedeon; appl. 19.12.1972).

DOS 2 259 388 (Richter Gedeon; appl. 5.12.1972).

DOS 2 124 023 (Richter Gedeon; appl. 14.5.1971; H-prior. 27.5.1970).

DAS 1 445 689 (Eli Lilly; appl. 23.10.1962).

GB 1 382 460 (Richter Gedeon; valid from prior. 4.12.1972).

purification:

DOS 2 442 245 (Eli Lilly; appl. 4.9.1974; USA-prior. 24.10.1973).

total synthesis:

DOS 2 614 863 (A. Rahman; appl. 6.4.1976).

DOS 2 622 894 (United States Dep. of Commerce; appl. 21.5.1976; USA-prior. 30.5.1975).

semisynthetic preparation:

DOS 2 259 447 (Richter Gedeon; appl. 5.12.1972).

CA 989 829 (Richter Gedeon; appl. 4.12.1972).

BE 823 560 (Richter Gedeon; appl. 19.12.1974; H-prior. 20.12.1973).

US 3 899 493 (Richter Gedeon; 12.8.1975; prior. 22.12.1972).

FR 2 210 392 (Richter Gedeon; appl. 19.12.1972).

ZA 7 208 535 (Richter Gedeon; appl. 1.12.1972).

complex formation with tubulin for treatment of leucemia:

BE 854 053 (Inst. Intern. de Pathologic Cell. et Mol.; appl. 18.4.1977; F-prior. 28.4.1976).

use for treatment of psoriasis:

US 3 749 784 (Eli Lilly; 31.7.1973; prior. 26.10.1970, 3.5.1972).

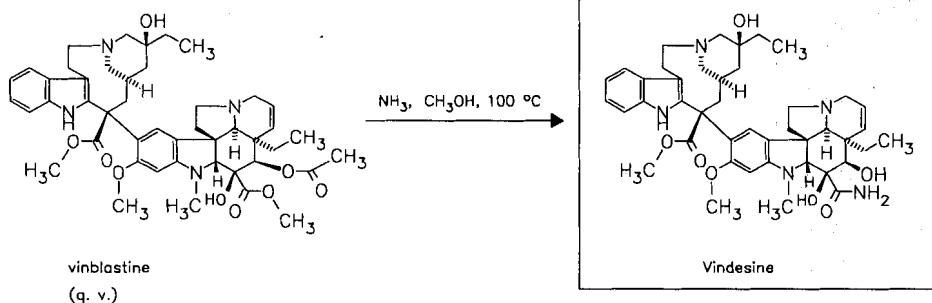
Formulation(s): vial 1 mg/ml, 1 mg/10 ml, 2 mg/ml, 5 mg/ml (as sulfate)*Trade Name(s):*

D:	cellcristine (cell pharm)	Vincristin liquid Lilly	GB:	Oncovin (Lilly)	
	FARMISTIN (Pharmacia & Upjohn)	(Lilly)	I:	Vincristina (Lilly)	
	Vincristin (biosyn)	Vincristinsulfat-GRY (Gry)	J:	Oncovin (Shionogi)	
	Vincristin Bristol (Bristol-Myers Squibb)	F:	Oncovin (Lilly)	USA:	Oncovin (Lilly)
					Vincristina Tera (Tera)
					Vincristine Pierre Fabre (Pierre Fabre Oncologie)

Vindesine

ATC: L01CA03

Use: antineoplastic

RN: 53643-48-4 MF: C₄₃H₅₅N₅O₇ MW: 753.94 EINECS: 258-682-2LD₅₀: 13.8 mg/kg (M, i.v.)CN: 3-(aminocarbonyl)-O⁴-deacetyl-3-de(methoxycarbonyl)vincal leukoblastine*Reference(s):*

US 4 203 898 (Lilly, 20.5.1980; prior. 29.8.1977).

US 4 479 957 (Lilly; 30.10.1984; prior. 2.4.1973).

DOS 2 415 980 (Eli Lilly; appl. 2.4.1974; USA-prior. 2.4.1973).

Formulation(s): amp. 5 mg/5 ml, 1 mg, 4 mg, 5 mg*Trade Name(s):*

D:	Eldisine (Lilly; 1980)	GB:	Eldisine (Lilly; 1980)	J:	Fildesin (Shionogi; 1985)
F:	Eldisine (Lilly)	I:	Eldisine (Lilly)		

Vinorelbine

(5'-Noranhydrovinblastine; PM259)

ATC: L01CA04

Use: antineoplastic (non small cell lung cancer)

RN: 71486-22-1 MF: C₄₅H₅₄N₄O₈ MW: 778.95

LD₅₀: 26 mg/kg (M, i.p.)

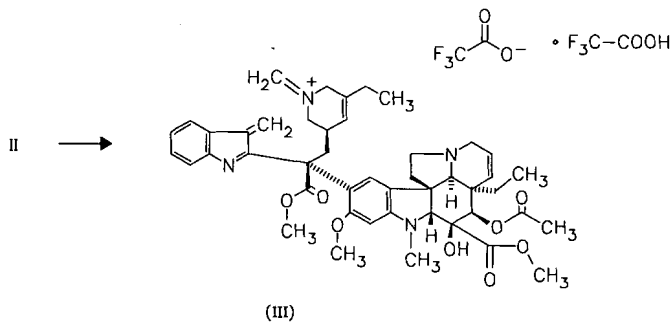
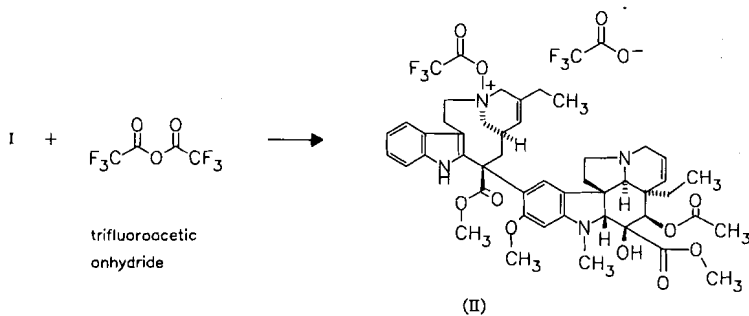
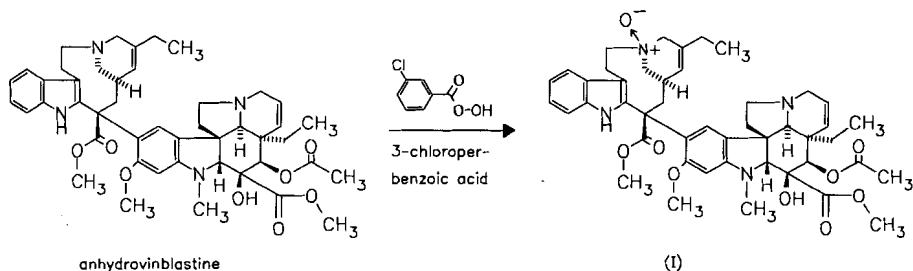
CN: 3',4'-didehydro-4'-deoxy-C'-norvincalcoloblastine

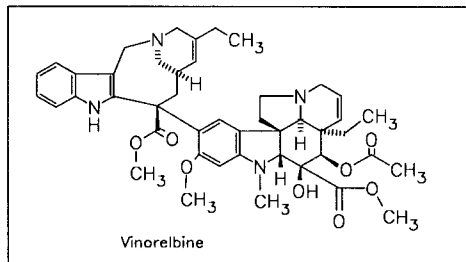
hydrogen tartrate (1:1)

RN: 105661-07-2 MF: C₄₅H₅₄N₄O₈ · C₄H₆O₆ MW: 929.03

tartrate

RN: 125317-39-7 MF: C₄₅H₅₄N₄O₈ · 2C₄H₆O₆ MW: 1079.12



iii $\xrightarrow{\text{THF, H}_2\text{O}}$ *Reference(s):*

- EP 10 458 (ANVAR Agence Nat. Valorisation; F-prior. 24.8.1978, 6.2.1979).
 Andriamialisoa, R.Z. et al.: Tetrahedron (TETRAB) **36**, 20 (1980).
 Mangeney, P. et al.: Tetrahedron (TETRAB) **35**, 2175 (1979); J. Org. Chem. (JOCEAH) **44**, 3765 (1979).
 Gueritte, F. et al.: Eur. J. Med. Chem. (EJMCA5) **18**, 419 (1983).
 Potier, P.: Semin. Oncol. (SOLGAV) **16**, (2. Suppl. 4), 2 (1989); J. Nat. Prod. (JNPRDF) **43**, 72 (1980).

pharmaceutical formulation for parenteral administration:

EP 317 401 (PierreFabre; appl. 10.11.1988; F-prior. 13.11.1987).

synthesis of anhydrovinblastine:

- EP 354 778 (Mitsui Petrochem.; appl. 9.8.1989; J-prior. 11.8.1988).
 DOS 3 826 412 (Univ. of British Columbia; appl. 6.8.1988; CND-prior. 6.8.1987).
 FR 2 544 319 (Pierre Fabre; appl. 14.4.1983).
 HU 20 601 (Richter Gedeon; appl. 17.3.1977).
 WO 8 802 002 (Mitsui Petrochem.; appl. 16.9.1987; USA-prior. 18.9.1986).
 JP 63 119 690 (Mitsui Petrochem.; appl. 4.8.1987; USA-prior. 4.8.1986).
 Kutney, J.P. et al.: Helv. Chim. Acta (HCACAV) **58**, 1690, 1711 (1975); **59**, 2858 (1976).
 Raucher, S. et al.: J. Am. Chem. Soc. (JACSAT) **109**, 442 (1987).
 Kutney, J.P. et al.: Heterocycles (HTCYAM) **27**, 621, 1845 (1988).
 Goodbody, A.E. et al.: Planta Med. (PLMEAA) **54**, 136, 210 (1988).
 Vokovic, J. et al.: Tetrahedron (TETRAB) **44**, 325 (1988).
 Atta-Ur-Rahman, P.S.: J. Nat. Prod. (JNPRDF) **51**, 1275 (1988).
 Bray, B.L.: Dissertation Univ. Washington (Seattle), Diss. Abstr. Int. B 1988, 48 (12), Pt. 1, 3567.

Formulation(s): amp. 10 mg/ml, 50 mg/5 ml (as base); vial 10 mg/ml, 50 mg/5 ml (as tartrate)

Trade Name(s):

F:	Navelbine (Pierre Fabre; 1988)	GB:	Navelbine (Pierre Fabre; as tartrate)	USA:	Navelbine (Glaxo Wellcome; as tartrate)
		I:	Navelbine (Pierre Fabre)		

Vinpocetine

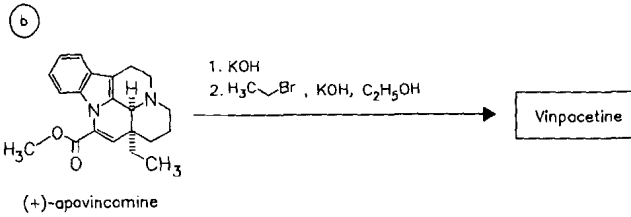
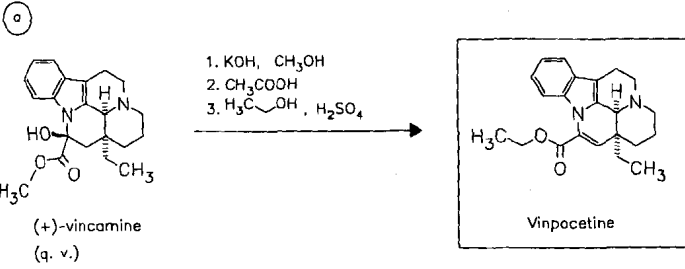
ATC: N06BX18

Use: vasodilator, cerebrostimulant

RN: 42971-09-5 MF: C₂₂H₂₆N₂O₂ MW: 350.46 EINECS: 256-028-0LD₅₀: 45 mg/kg (M, i.v.); 534 mg/kg (M, p.o.);

32 mg/kg (R, i.v.); 503 mg/kg (R, p.o.)

CN: (3 α ,16 α)-eburnamenine-14-carboxylic acid ethyl ester



Reference(s):

US 4 035 370 (Richter Gedeon; 12.7.1977; prior. 11.10.1972).
DAS 2 253 750 (Richter Gedeon; appl. 2.11.1972; H-prior. 3.11.1971).
Lőrincz, C. et al.: *Arzneim.-Forsch. (ARZNAD)* **26**, 1907 (1976).

citrate phosphate:

EP 154 756 (Covex; appl. 21.3.1984; E-prior. 29.2.1984).

Formulation(s): tabl. 5 mg

Trade Name(s):

D: Cavinton (Thiemann) J: Calan (Takeda; 1984)

Vinylbital

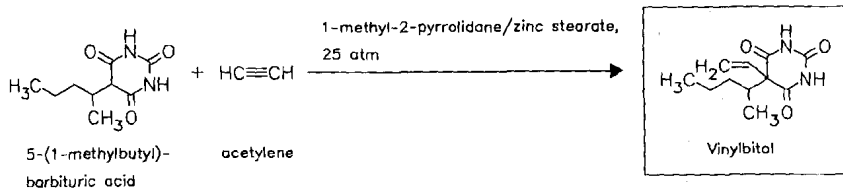
(Butylvinal)

ATC: N05CA08

Use: hypnotic

RN: 2430-49-1 MF: C₁₁H₁₆N₂O₃ MW: 224.26 EINECS: 219-395-8

CN: 5-ethenyl-5-(1-methylbutyl)-2,4,6(1*H*,3*H*,5*H*)-pyrimidinetrione



Reference(s):

FR 11 825 256 (BASF; appl. 9.9.1957).
FR-M 896 (BASF; appl. 4.1.1961).

Formulation(s): tabl. 150 mg

Trade Name(s):

D:	Speda (Byk Gulden); wfm	Optanox (Valpan); wfm	Suppoptanox (Valpan); wfm
F:	Optanox (Delagrange); wfm	Suppoptanox (Delagrange); wfm	

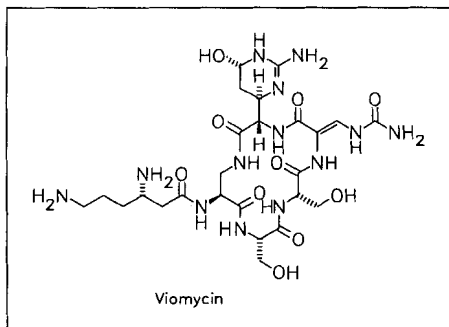
Viomycin

ATC: J04A
Use: antibiotic

RN: 32988-50-4 MF: $C_{25}H_{43}N_{13}O_{10}$ MW: 685.70 EINECS: 251-323-0
CN: stereoisomer of 3,6-diamino-*N*-[6-[[aminocarbonyl]amino]methylene]-3-(2-amino-1,4,5,6-tetrahydro-6-hydroxy-4-pyrimidinyl)-9,12-bis(hydroxymethyl)-2,5,8,11,14-pentaoxo-1,4,7,10,13-pentaazacyclohexadec-15-yl]hexanamide

sulfate

RN: 37883-00-4 MF: $C_{25}H_{43}N_{13}O_{10} \cdot xH_2SO_4$ MW: unspecified
LD₅₀: 112 mg/kg (M, i.v.);
340 mg/kg (R, i.v.)



From fermentation solutions of *Streptomyces floridae* or *Streptomyces puniceus*.

Reference(s):

US 2 633 445 (Ciba; 1953; prior. 1947).
US 2 828 245 (Commerc Solvents; 1958; prior. 1954).

Formulation(s): amp. 1 g

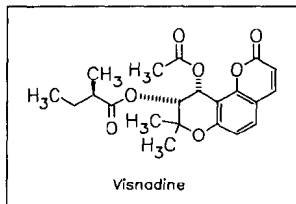
Trade Name(s):

D:	Viocin (Pfizer); wfm	J:	Viomicin (Parke Davis-Sankyo)	Viomycin Pfizer (Taito Pfizer)
F:	Panto-Viocine (Pfizer); wfm			USA: Viocin (Pfizer); wfm

Visnadine

ATC: C04AX24
Use: coronary vasodilator

RN: 477-32-7 MF: $C_{21}H_{24}O_7$ MW: 388.42 EINECS: 207-515-1
LD₅₀: 2240 mg/kg (M, p.o.);
1213 mg/kg (R, p.o.)
CN: [9*R*-[9*α*(*R**),10*α*]]-2-methylbutanoic acid 10-(acetyloxy)-9,10-dihydro-8,8-dimethyl-2-oxo-2*H*,8*H*-benzo[1,2-*b*:3,4-*b'*]dipyran-9-yl ester



By extraction from *Ammi visnaga* L. (Umbelliferae) and chromatographic purification.

Reference(s):

US 2816 118 (S. B. Penick & Co.; 10.12.1957; prior. 12.11.1953).

US 2980 699 (S. B. Penick & Co.; 18.4.1961; prior. 20.12.1957).

Formulation(s): cps. 70 mg

Trade Name(s):

D: Carduben (Madaus); wfm

F: Vibeline (Roger Bellon);
wfm

J: Visnamine (Chinoin)

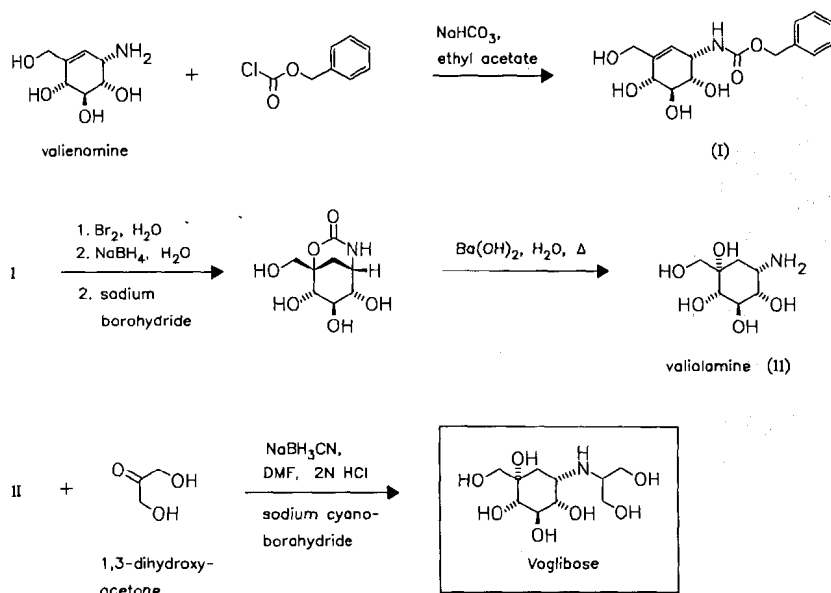
Voglibose

ATC: A10

Use: antidiabetic, antiobesity, α -glucosidase inhibitor

RN: 83480-29-9 MF: C₁₀H₂₁NO₇ MW: 267.28

CN: 3,4-dideoxy-4-[[2-hydroxy-1-(hydroxymethyl)ethyl]amino]-2-C-(hydroxymethyl)-D-*epi*-inositol



Reference(s):

EP 56 194 (Takeda Chem.; appl. 24.12.1984; J-prior. 5.1.1981, 6.10.1981).

Hori, S. et al.: J. Med. Chem. (JMCMAR) **29**, 1038 (1986).

EP 260 121 (Takeda Chem.; appl. 9.9.1987; J-prior. 9.9.1986, 5.11.1986, 6.1.1987).

EP 240 175 (Takeda Chem.; appl. 5.3.1987; J-prior. 21.5.1986, 5.3.1986, 4.3.1987).

uncoated tablets with improved resistance:

EP 610 854 (Takeda Chem.; appl. 7.2.1994; J-prior. 10.2.1993).

composition for promoting calcium absorption:

EP 364 696 (Takeda Chem.; appl. 21.8.1989; J-prior. 22.8.1988).

EP 197 661 (Takeda Chem.; appl. 10.3.1986; J-prior. 11.3.1985).

EP 194 794 (Takeda Chem.; appl. 4.3.1986; WO-prior. 8.3.1985, 30.4.1985).

combination for obesity treatment:

WO 8 605 094 (Takeda Chem.; appl. 8.3.1985; WO-prior. 8.3.1985, 30.4.1985).

EP 638 317 (Hoffmann-La Roche; appl. 22.7.1994; CH-prior. 5.8.1993).

Formulation(s): tabl. 0.2 mg, 0.3 mg

Trade Name(s):

J: Basen (Takeda)

Glustat (Takeda)

Warfarin

ATC: B01AA03
Use: anticoagulant

RN: 81-81-2 MF: C₁₉H₁₆O₄ MW: 308.33 EINECS: 201-377-6

LD₅₀: 165 mg/kg (M, i.v.); 3 mg/kg (M, p.o.);

1600 µg/kg (R, p.o.);

3 mg/kg (dog, p.o.)

CN: 4-hydroxy-3-(3-oxo-1-phenylbutyl)-2H-1-benzopyran-2-one

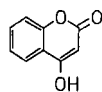
sodium salt

RN: 129-06-6 MF: C₁₉H₁₅NaO₄ MW: 330.32 EINECS: 204-929-4

LD₅₀: 160 mg/kg (M, i.v.); 374 mg/kg (M, p.o.);

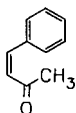
25 mg/kg (R, i.v.); 8700 µg/kg (R, p.o.);

200 mg/kg (dog, i.v.); 200 mg/kg (dog, p.o.)



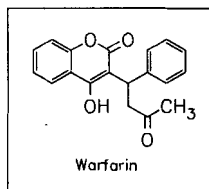
4-hydroxy-
coumarin

+



benzal-
acetone

pyridine
→



Warfarin

Reference(s):

US 2 427 578 (Wisconsin Alumni Res. Found.; 1947; prior. 1945).

sodium salt:

US 2 777 859 (Wisconsin Alumni Res. Found.; 1957; prior. 1953).

US 2 765 321 (Wisconsin Alumni Res. Found.; 1956; appl. 1955).

US 3 077 481 (Wisconsin Alumni Res. Found.; 12.2.1963; appl. 21.2.1961)

Formulation(s): amp. 2 mg/ml; tabl. 1 mg, 2 mg, 2.5 mg, 3 mg, 4 mg, 5 mg, 6 mg, 7.5 mg, 10 mg (as sodium salt)

Trade Name(s):

D: Coumadin (Du Pont)

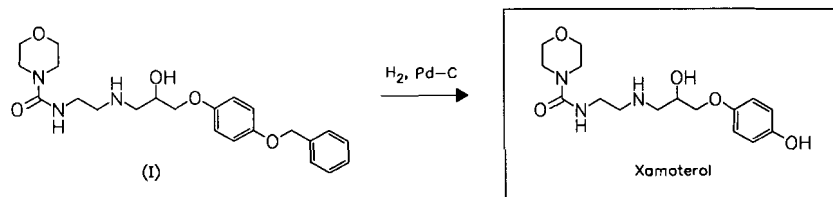
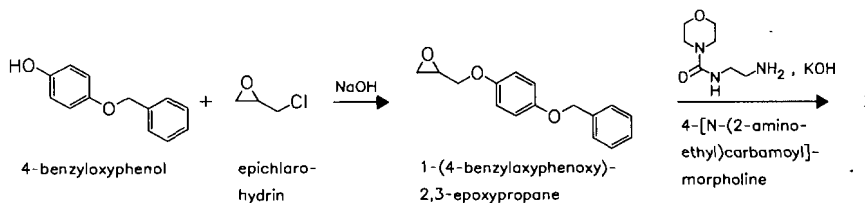
GB: Marevan (Goldshield)

J: Warfarin (Eisai)

F: Coumadine (Du Pont)

I: Coumadin Endo (Du Pont)

USA: Coumadin (Du Pont)

Xamoterol
(ICI-118587)ATC: C01CA; C01CX07
Use: cardiac stimulant, β -antagonistRN: 81801-12-9 MF: $C_{16}H_{25}N_3O_5$ MW: 339.39CN: (\pm)-N-[2-[[2-hydroxy-3-(4-hydroxyphenoxy)propyl]amino]ethyl]-4-morpholinecarboxamide**fumarate**RN: 69630-19-9 MF: $C_{16}H_{25}N_3O_5 \cdot C_4H_4O_4$ MW: 455.46**(\pm)-monohydrochloride**RN: 112008-18-1 MF: $C_{16}H_{25}N_3O_5 \cdot HCl$ MW: 375.85**(\pm)-fumarate (2:1)**RN: 90730-93-1 MF: $C_{16}H_{25}N_3O_5 \cdot 1/2C_4H_4O_4$ MW: 794.86**fumarate (2:1)**RN: 73210-73-8 MF: $C_{16}H_{25}N_3O_5 \cdot 1/2C_4H_4O_4$ MW: 794.86 EINECS: 277-319-9**Reference(s):**

DOS 2 822 473 (ICI; appl. 23.5.1978; GB-prior. 23.5.1977).

US 4 143 140 (ICI; 6.3.1979; GB-prior. 23.5.1977).

Barlow, J.J. et al.: J. Med. Chem. (JMCMAR) **24**, 315 (1981).**Formulation(s):** tabl. 200 mg**Trade Name(s):**

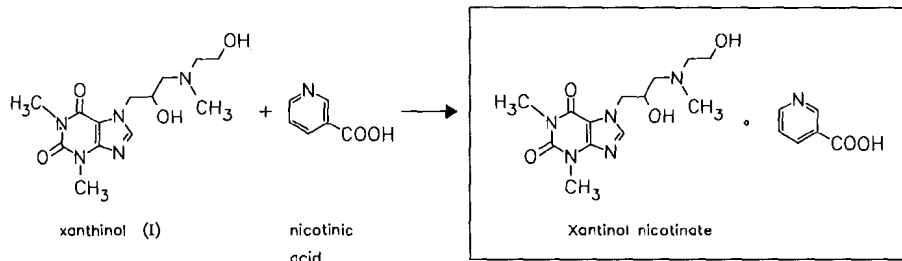
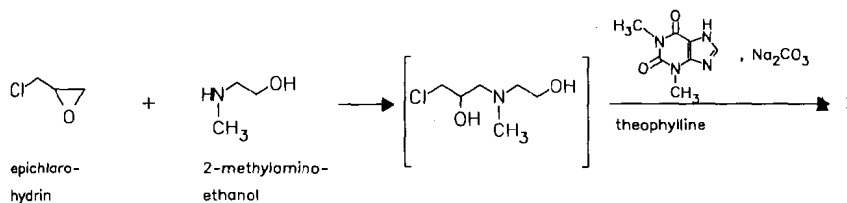
GB: Corwin (Zeneca)

J: Sepan (Yamanouchi)

USA: Corwin (Zeneca)

Xantinol nicotinate
(Xanthinol-Niacinate)ATC: C04AD02
Use: vasodilatorRN: 437-74-1 MF: $C_{13}H_{21}N_5O_4 \cdot C_6H_5NO_2$ MW: 434.45 EINECS: 207-115-7LD₅₀: 673 mg/kg (M, i.v.); 17350 mg/kg (M, p.o.);
690 mg/kg (R, i.v.); 14130 mg/kg (R, p.o.)

CN: 3-pyridinecarboxylic acid compd. with 3,7-dihydro-7-[2-hydroxy-3-[(2-hydroxyethyl)methylamino]propyl]-1,3-dimethyl-1H-purine-2,6-dione (1:1)

*Reference(s):*

US 2 924 598 (J. A. Wülfing; 9.2.1960; D-prior. 26.10.1957).

Formulation(s): amp. 300 mg; s. r. cps. 500 mg; s. r. tabl. 150 mg, 300 mg, 1000 mg; tabl. 150 mg, 300 mg, 1000 mg

Trade Name(s):

D: Complamin (SmithKline
Beecham)
Theonikol (medpharm)

Xantinol-nicotinat retard-
ratiopharm (ratiopharm)
F: Complamine (Latéma);
wfm

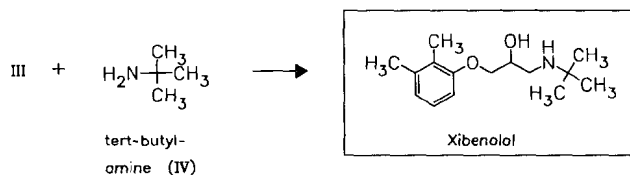
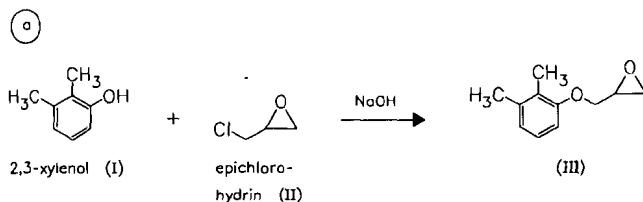
GB: Complamex (Gemini); wfm
I: Complamin (Italchimici)
USA: Complamin (Riker); wfm

Xibenolol

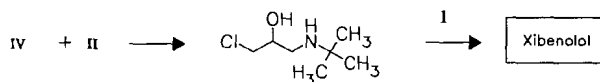
Use: beta blocking agent

RN: 30187-90-7 MF: $\text{C}_{15}\text{H}_{25}\text{NO}_2$ MW: 251.37

CN: 1-[(1,1-dimethylethyl)amino]-3-(2,3-dimethylphenoxy)-2-propanol



(b)

*Reference(s):*

JP 7 029 294 (Teikoku; appl. 17.8.1968).

JP 6 041 623 (Teikoku; appl. 17.8.1968).

alternative synthesis:

JP 4 033 185 (Teikoku; appl. 5.8.1969).

DOS 2 058 532 (Teikoku; appl. 27.11.1970; J-prior. 28.11.1969, 31.3.1970, 21.7.1970, 13.11.1970).

DOS 2 065 365 (Teikoku; appl. 27.11.1970; J-prior. 28.11.1969, 31.3.1970, 21.7.1970, 13.11.1970).

medical use:

GB 1 422 046 (Teikoku; appl. 19.1.1973).

Trade Name(s):

J: Rythminal (Teikoku)

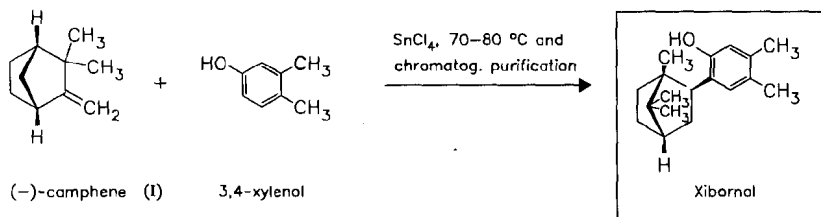
Xibornol

ATC: J01XX02

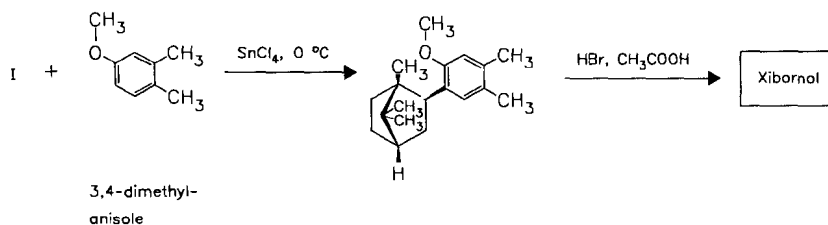
Use: bronchochemotherapeutic

RN: 13741-18-9 MF: C₁₈H₂₆O MW: 258.41 EINECS: 237-312-3CN: *exo*-4,5-dimethyl-2-(1,7,7-trimethylbicyclo[2.2.1]hept-2-yl)phenol

(a)



(b)

*Reference(s):*

a GB 1 206 774 (Mar-Pha; appl. 23.10.1967).

b DOS 2 032 170 (Mar-Pha; appl. 30.6.1970; GB-prior. 4.7.1969).

alternative process:

DOS 2 912 762 (Farmatis; appl. 30.3.1979).

Formulation(s): cps. 250 mg; spray 3 %; susp. 100 mg

Trade Name(s):

F: Nanbacine (Bellon Groupe Rhône-Poulenc Rorer) I: Bracen (Zyma); wfm Xibor (Benedetti); wfm

Xipamide

ATC: C03BA10

Use: diuretic

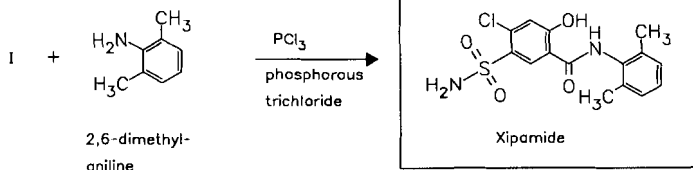
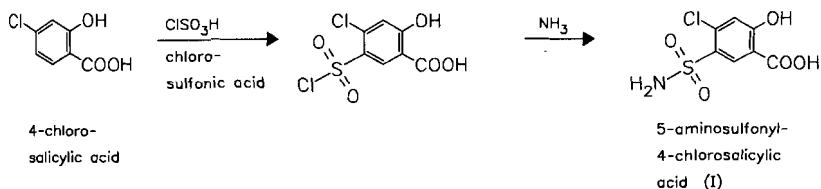
RN: 14293-44-8 MF: C₁₅H₁₅ClN₂O₄S MW: 354.81 EINECS: 238-216-4

LD₅₀: 1810 mg/kg (M, p.o.);

1640 mg/kg (R, p.o.);

>50 mg/kg (dog, i.v.); >1500 mg/kg (dog, p.o.)

CN: 5-(aminosulfonyl)-4-chloro-N-(2,6-dimethylphenyl)-2-hydroxybenzamide



Reference(s):

US 3 567 777 (Beiersdorf; 2.3.1971; D-prior. 19.6.1965).

DE 1 270 544 (Beiersdorf; appl. 19.6.1965).

Formulation(s): tabl. 10 mg, 20 mg, 40 mg

Trade Name(s):

D:	Aquaphor (Beiersdorf-Lilly/Lilly)	Neotri (Beiersdorf-Lilly/Lilly)-comb. with triamterene	Lumitens (Solvay Pharma)
	Durotan (Beiersdorf-Lilly)-comb. with reserpine	F: Chronexan (ASTA Medica)	GB: Diurexan (ASTA Medica)
			I: Aquafor (ASTA Medica AWD)

Xylometazoline

ATC: R01AA07; R01AB06; S01GA03

Use: vasoconstrictor, rhinological therapeutic

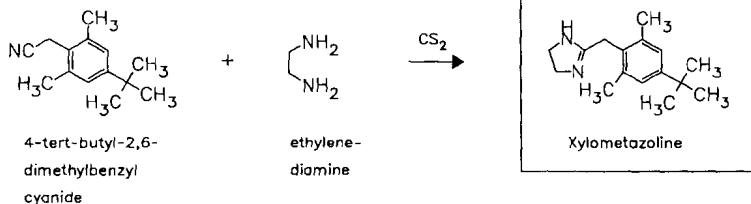
RN: 526-36-3 MF: C₁₆H₂₄N₂ MW: 244.38 EINECS: 208-390-6

LD₅₀: 215 mg/kg (M, p.o.)

CN: 2-[4-(1,1-dimethylethyl)-2,6-dimethylphenyl]methyl]-4,5-dihydro-1H-imidazole

monohydrochloride

RN: 1218-35-5 MF: C₁₆H₂₄N₂·HCl MW: 280.84 EINECS: 214-936-4

*Reference(s):*

US 2 868 802 (Ciba; 13.1.1959; CH-prior. 10.7.1956).

DE 1 049 387 (Ciba; appl. 3.7.1957; CH-prior. 10.7.1956).

Formulation(s): drops 0.5 mg/ml, 1 g/ml; eye drops 1 mg/ml; gel 1 mg/g; sol. 0.25 mg/ml, 0.5 mg/ml, 1 mg/ml; spray 0.5 mg/ml, 1mg/ml (as hydrochloride)

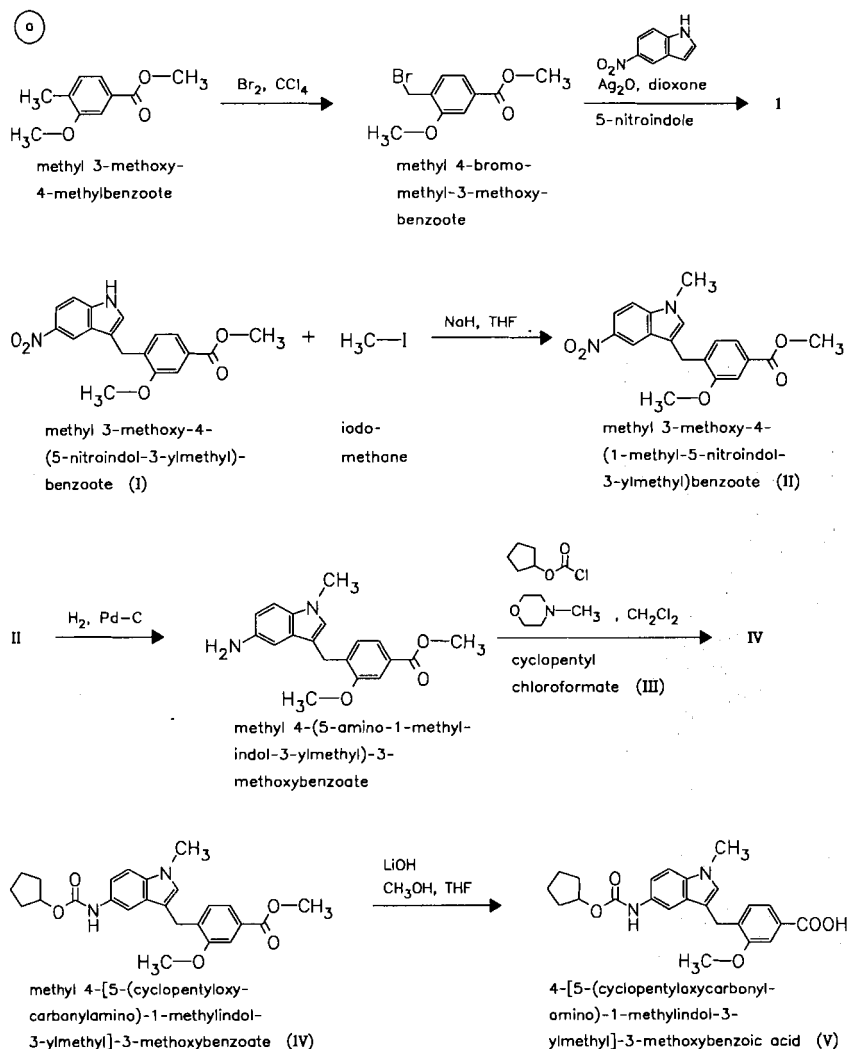
Trade Name(s):

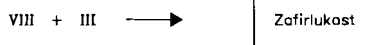
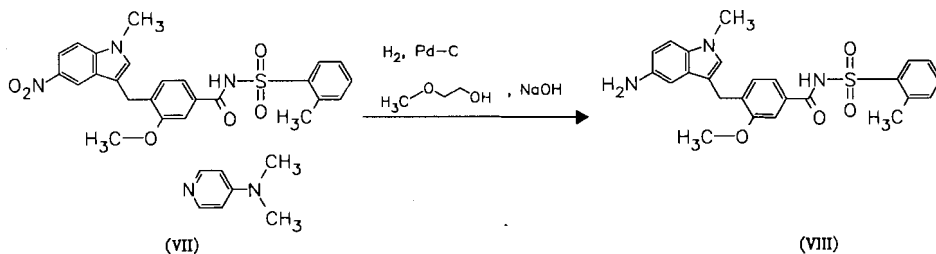
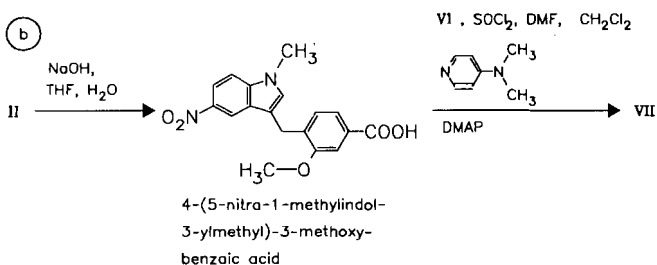
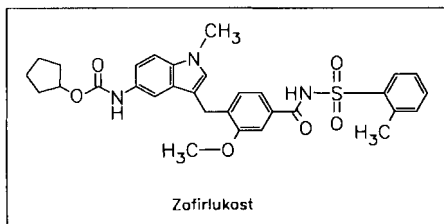
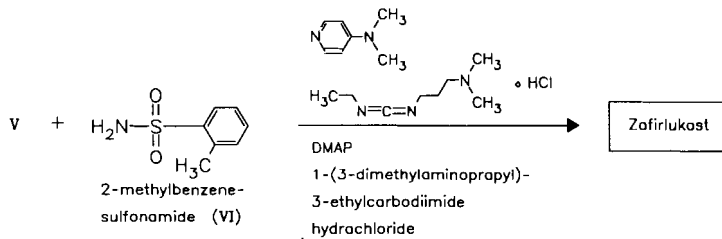
D:	Balkis (Dolorgiet)	Nasentropfen K-ratiopharm (ratiopharm)	Otrivine-Antistin (CIBA Vision)-comb. with antazoline
	Dorenasin (Rentschler)	Olynth (Warner-Lambert)	Rynacrom compound (Rhône-Poulenc Rorer)
	Gelonasal (Pohl)	Otriven (Novartis)	I: Neorinoleina (Synthelabo)
	Imidin (Pharma Wernigerode)	Otriven (CIBA Vision)	Otrivin (CIBA Vision)
	Lomupren comp. (Fisons)-comb.	Pertix Hommel (Hommel)	Respiro (Byk Gulden)-comb.
	mentopin (Hermes)	Rapako (Truw)	Rinos (Molteni)-comb.
	Nasan (Hexal)	schnupfen endrine (Asche)	USA: Otrivin (Geigy); wfm
	Nasengel-ratiopharm (ratiopharm)	stas Nasenspray (Stada)	
	Nasenspray-ratiopharm (ratiopharm)	Xylo-COMOD (Ursapharm)	
		Xylo-E (ct-Arzneimittel)	
		GB: Otrivine (Novartis)	

Zafirlukast

(ICI-204219)

ATC: R03DC01

Use: antiasthmatic, LTD₄-antagonistRN: 107753-78-6 MF: C₃₁H₃₃N₃O₆S MW: 575.69CN: [3-[[2-methoxy-4-[[[(2-methylphenyl)sulfonyl]amino]carbonyl]phenyl]methyl]-1-methyl-1*H*-indol-5-yl]carbamic acid cyclopentyl ester**monohydrate**RN: 143052-93-1 MF: C₃₁H₃₃N₃O₆S · H₂O MW: 593.70**calcium salt (2:1)**RN: 107753-86-6 MF: C₆₂H₆₄CaN₆O₁₂S₂ MW: 1189.43



Reference(s):

- a EP 199 543 (ICI, Zeneca; appl. 16.4.1986; GB-prior. 17.4.1985).
crystalline form suitable for inhalation:
- b EP 490 649 (ICI, Zeneca; 11.12.1991; GB-prior. 12.12.1990).
Matassa, G. et al.: J. Med. Chem. (JMCMAR) 33, 1781 (1990).

Formulation(s): tabl. 20 mg

Trade Name(s):

USA: Accolate (Zeneca)

Zalcitabine

(ddCyd; Dideoxycytidine; Ro-24-2027)

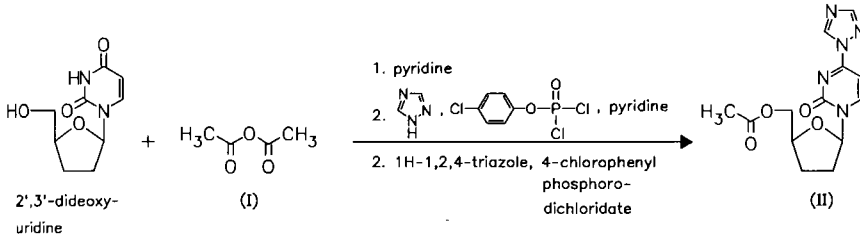
ATC: J05AF03

Use: anti-AIDS therapeutic

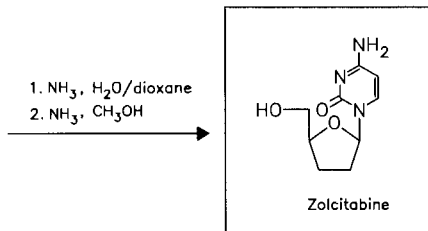
RN: 7481-89-2 MF: C₉H₁₃N₃O₃ MW: 211.22

CN: 2',3'-dideoxycytidine

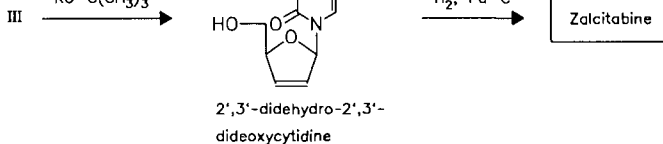
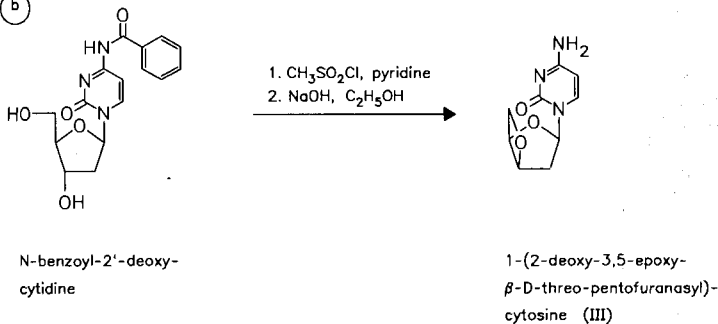
a

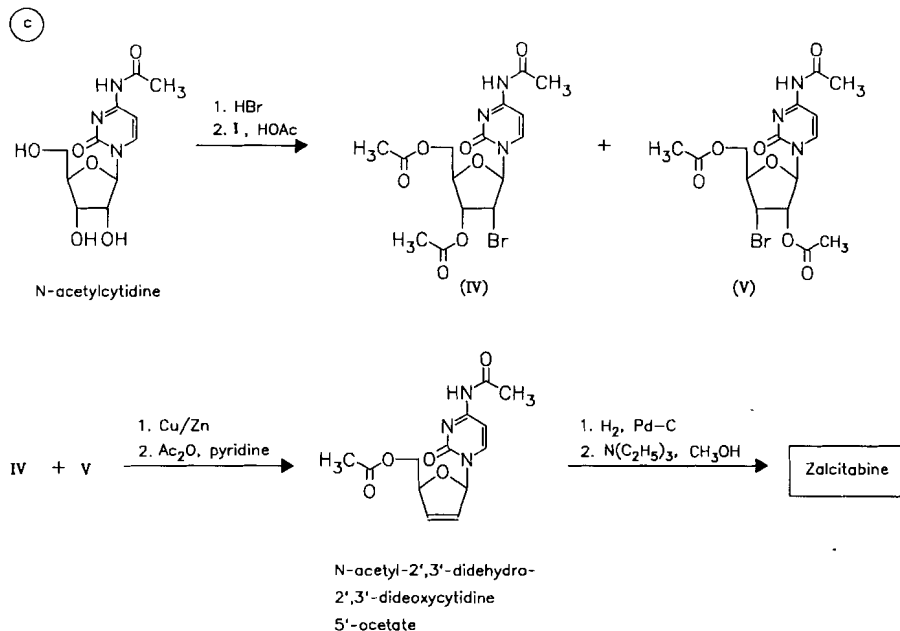


II



b



*Reference(s):*

- a Lin, T.-S. et al.: J. Med. Chem. (JMCMAR) **30**, 440 (1987).
synthesis of 2',3'-dideoxyuridine:
Horwitz, J.P. et al.: J. Org. Chem. (JOCEAH) **32**, 817 (1967).
- b Horwitz, J.P. et al.: J. Org. Chem. (JOCEAH) **32**, 817 (1967).
synthesis of N-benzoyl-2'-deoxycytidine:
Benz, E. et al.: J. Org. Chem. (JOCEAH) **30**, 3067 (1965).
- c EP 341 704 (Hoffmann-La Roche; appl. 10.5.1989; USA-prior. 12.5.1988).

alternative synthesis:

- JP 63 275 597 (Ajinomoto; appl. 7.5.1987).
JP 64 003 194 (Japan Tobacco; appl. 23.6.1987).
JP 64 003 196 (Japan Tobacco; appl. 23.6.1987).
JP 01 060 396 (Ajinomoto; appl. 28.8.1987).
EP 285 884 (Bristol-Myers; appl. 18.3.1988; USA-prior. 20.3.1987).

medical use for treatment of AIDS:

US 4 879 277 (United States Dep. of Health and Human Services; 7.11.1989; appl. 11.8.1987; prior. 26.8.1985, 4.12.1986, 13.1.1987).

synergistic antiviral combination:

EP 361 831 (Wellcome; appl. 25.9.1989; GB-prior. 26.9.1988).

pharmaceutical tablet formulation:

EP 307 914 (Hoffmann-La Roche; appl. 15.9.1988; USA-prior. 18.9.1987).

Formulation(s): f. c. tabl. 0.375 mg, 0.750 mg

Trade Name(s):

D:	Hivid (Roche)	GB:	Hivid (Roche)	J:	Hivid (Roche)
F:	Hivid (Roche)	I:	Hivid (Roche)	USA:	Hivid (Roche; 1992)

Zaleplon

(L-846; CL-284846; LJC 10846)

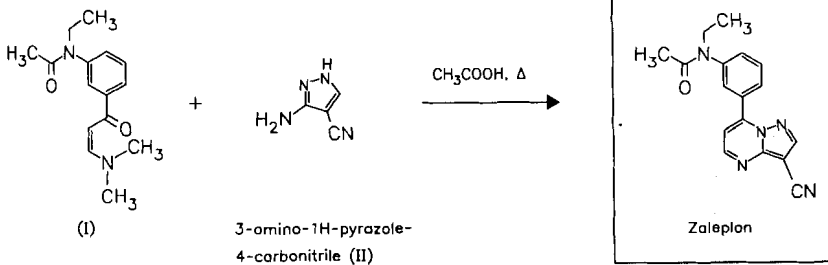
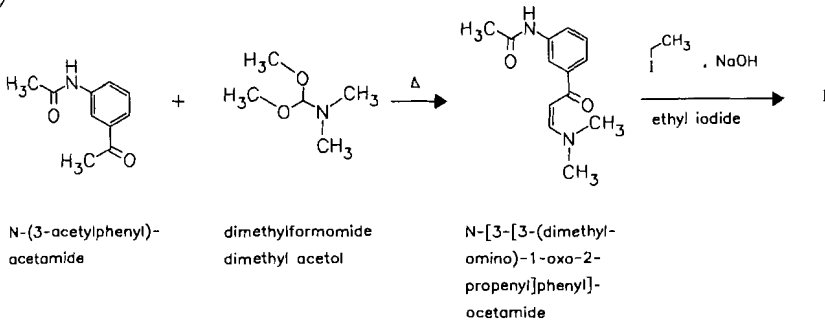
ATC: N05CF03

Use: sedative, hypnotic, GABA agonist

RN: 151319-34-5 MF: C₁₇H₁₅N₅O MW: 305.34

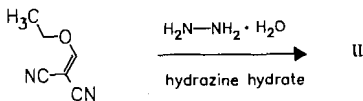
CN: N-[3-(3-Cyanopyrazolo[1,5-a]pyrimidin-7-yl)phenyl]-N-ethylacetamide

a



aa

synthesis of 3-amino-1H-pyrazole-4-carbonitrile (II):

ethoxymethylene-
malononitrile**Reference(s):**

- a US 5 714 607 (American Cyanamid; 3.2.1998; USA-prior. 1.12.1995).
EP 776 898 (American Cyanamid; appl. 28.11.1996; USA-prior. 1.12.1995).
aa Robins: J. Am. Chem. Soc. (JACSAT) **78**, 784 (1956)

Formulation(s): cps. 5 mg, 10 mg**Trade Name(s):**

D: Sonata (Wyeth)

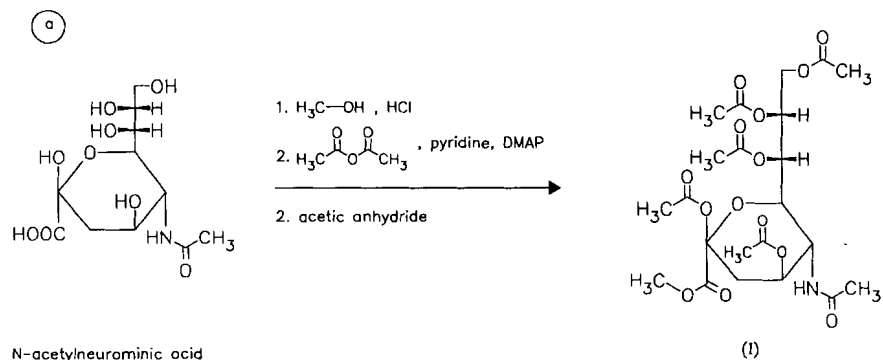
USA: Sonata (Wyeth Ayerst;
1999)

Zanamivir

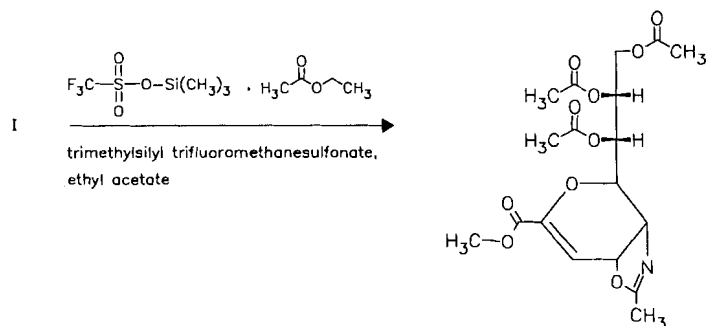
(GG167; GR-121167X; 4-Guanidino-Neu5Ac2en)

ATC: J05AH01

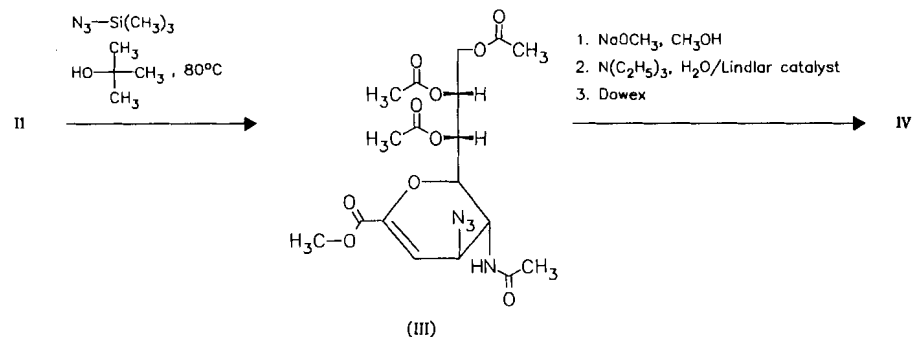
Use: antiviral, influenza neuraminidase inhibitor

RN: 139110-80-8 MF: C₁₂H₂₀N₄O₇ MW: 332.31CN: 5-(Acetylamino)-4-[(aminoiminomethyl)amino]-2,6-anhydro-3,4,5-trideoxy-D-glycero-D-galacto-non-2-
enonic acid

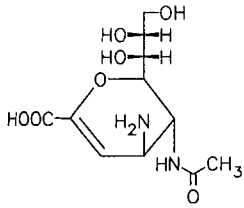
N-acetylneuraminic acid



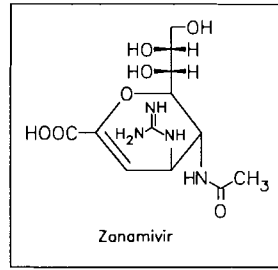
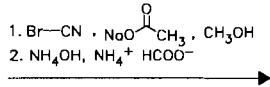
methyl (3aR,4R,7aR)-2-methyl-4-[(1S,2R)-1,2,3-triacetoxypropyl]-3o,7a-dihydro-4H-pyrano[3,4-d]oxazole-6-carboxylate (II)



(III)

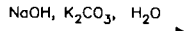
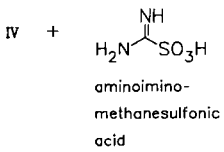


N-acetyl-4-amino-2,4-dideoxy-2,3-didehydro-neuraminic acid (IV)



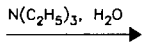
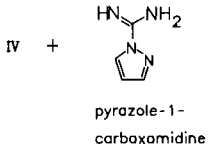
Zanamivir

(b)



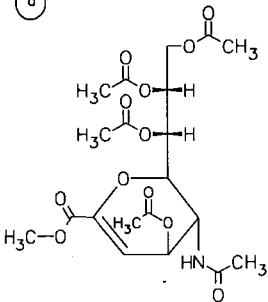
Zanamivir

(c)

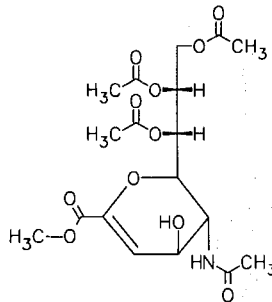
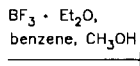


Zanamivir

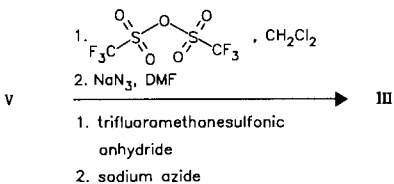
(d)



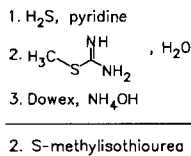
4-O,5-N,7-O,8-O,9-O-pentaacetyl-2,3-didehydro-2-deoxyneuraminic acid methyl ester



(V)



III



Zanamivir

Reference(s):

- a Chandler, M. et al.: J. Chem. Soc., Perkin Trans. 1 (JCPRB4) **1995**, 1173.
 WO 9 407 885 (Glaxo; appl. 23.9.1993; GB-prior. 25.9.1992).
 b Itzstein, M. von et al.: Carbohydr. Res. (CRBRAT) **259**, 301 (1994)
 c WO 9 407 886 (Glaxo; appl. 23.9.1993; GB-prior. 25.9.1992).
 d WO 9 116 320 (Biota; appl. 24.4.1991; AU-prior. 24.4.1990).
 Scheiget, J. et al.: Org. Prep. Proced. Int. (OPPIAK) **27**, 637 (1995).

preparation of different crystalline forms:

WO 9 516 680 (Glaxo; appl. 23.9.1993; GB-prior. 25.9.1992).

compounds and compositions for oral inhalation:

WO 9 532 712 (Glaxo; appl. 24.5.1995; GB-prior. 28.5.1994).

combination with an influenza vaccine:

GB 2 292 081 (Glaxo; appl. 1.8.1995; GB-prior. 12.8.1994).

Formulation(s): powder for inhalation dischaler 5 mg

Trade Name(s):

D: Relenza (Glaxo Wellcome) USA: Relenza (Glaxo Wellcome;
 GB: Relenza (Glaxo Wellcome) 1999)

Zeranol

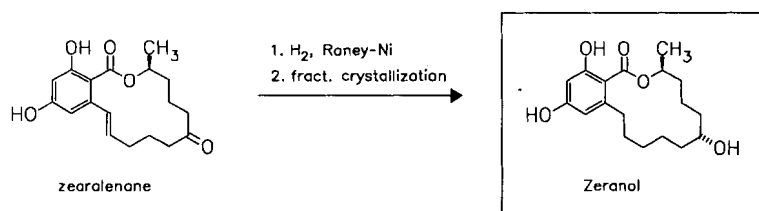
(Zearalanol)

ATC: A14

Use: estrogen

RN: 26538-44-3 MF: C₁₈H₂₆O₅ MW: 322.40 EINECS: 247-769-0

CN: [3*S*-(3*R**,7*S**)]-3,4,5,6,7,8,9,10,11,12-decahydro-7,14,16-trihydroxy-3-methyl-1*H*-2-benzoxacyclotetradecin-1-one

*Reference(s):*

- DE 1 543 395 (Commercial Solvents Corp.; appl. 1.2.1966; USA-prior. 15.2.1965).
 US 3 239 345 (Commercial Solvents Corp.; 8.3.1966; prior. 15.2.1965).

starting material:

The Merck Index, 12th Ed., 1730 (1996).

Trade Name(s):

I: Frideron (Sandoz); wfm Ralgro (Commercial Solvent); wfm Ralone (Iti); wfm

Zidovudine

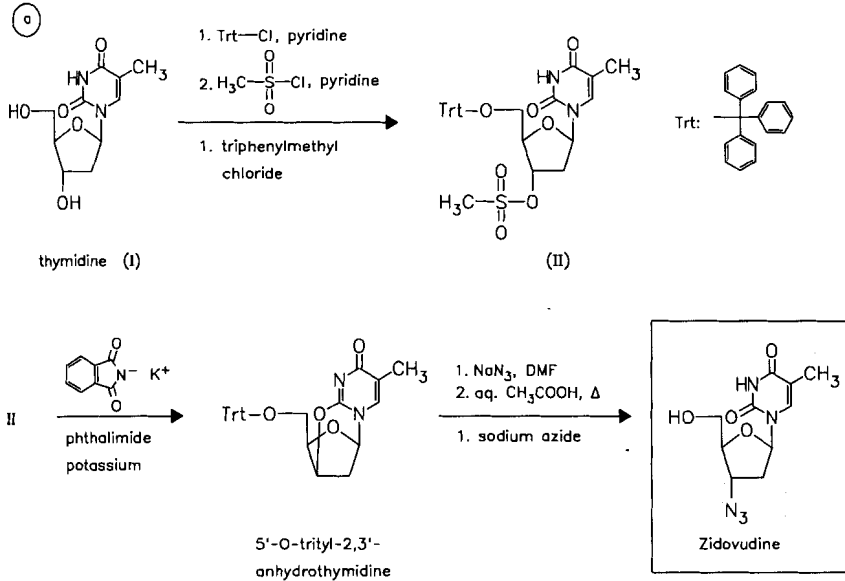
(Azidothymidine; AZT)

ATC: J05AB05

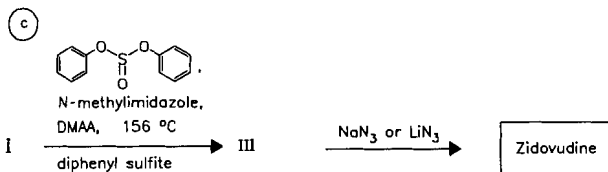
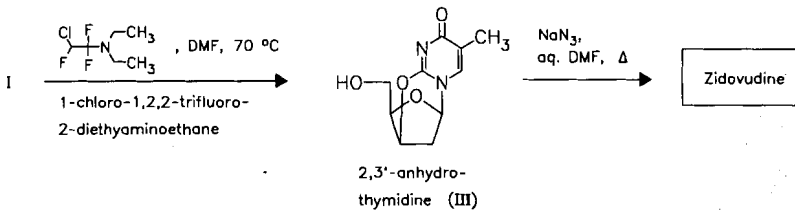
Use: anti-AIDS therapeutic, inhibitor of reverse transcriptase

RN: 30516-87-1 MF: C₁₀H₁₃N₅O₄ MW: 267.25LD₅₀: >750 mg/kg (M, i.v.); >3000 mg/kg (M, p.o.);
>750 mg/kg (R, i.v.); >3000 mg/kg (R, p.o.)

CN: 3'-azido-3'-deoxythymidine



(b) abbreviated route:



Reference(s):

- a Glinski, R.P. et al.: *J. Org. Chem. (JOCEAH)* **38**, 4299 (1973).
 Horwitz, J.P. et al.: *J. Org. Chem. (JOCEAH)* **29**, 2076 (1964).
 Imazawa, M. et al.: *J. Org. Chem. (JOCEAH)* **43**, 3044 (1978).
- b DOS 3 608 606 (Wellcome Found.; appl. 14.3.1986; GB-prior. 16.3.1985, 9.5.1985, 27.9.1985, 12.2.1986; USA-prior. 17.9.1985).
 Czernecki, S.; Valery, J.M.: *Synthesis (SYNTBF)* **1991** (3), 239.
- c EP 317 207 (King's College London; appl. 11.11.1988; GB-prior. 13.11.1987).
 Rao, T.S. et al.: *J. Chem. Soc., Chem. Commun. (JCCCAT)* **15**, 997 (1989).

total synthesis starting with D-xylose and thymine:

- US 4 916 218 (M. R. Almond et al.; 10.4.1990; appl. 9.6.1988).
 EP 295 090 (Wellcome Found.; appl. 14.12.1988; GB-prior. 10.6.1987, 10.7.1987).
 EP 292 101 (Wellcome Found.; appl. 23.11.1988; GB-prior. 25.3.1987, 23.5.1987).
 Benhaddou, R.; Czernecki, S.; Valery, J.M.; Belosta, V.: *Bull. Soc. Chim. Fr. (BSCFAS)* **1991**, 108.
 US 4 921 950 (Burroughs Wellcome; 1.5.1990; appl. 9.6.1988).

alternative syntheses:

- Jung, M.E.; Gardinier, J.U.: *J. Org. Chem. (JOCEAH)* **56** (8), 2614 (1991).
 Zeidler, J.M. et al.: *Nucleosides Nucleotides (NUNUD5)* **9** (5), 629 (1990).
 Hrebabecky, H.; Holy, A.: *Carbohydr. Res. (CRBRAT)* **216**, 179 (1991).
 Chen, B.-C. et al.: *Tetrahedron Lett. (TELEAY)* **36** (44), 7961 (1995).
 EP 653 437 (Bristol-Myers Squibb; appl. 3.11.1994; USA-prior. 15.11.1993).

medical use (treatment of AIDS or of other retroviral infections):

- US 4 724 232 (Burroughs Wellcome; 9.2.1988; GB-prior. 16.3.1985, 9.5.1985).
 US 4 828 838 (Burroughs Wellcome; 9.5.1989; GB-prior. 16.3.1985, 9.5.1985).
 US 4 837 208 (Burroughs Wellcome; 6.6.1989; GB-prior. 16.3.1985, 9.5.1985).
 US 4 847 244 (Burroughs Wellcome; 11.7.1989; appl. 20.10.1987; prior. 17.9.1985).
 US 4 874 751 (Burroughs Wellcome; 17.10.1989; GB-prior. 16.3.1985, 9.5.1985).

controlled-release formulation:

- EP 284 407 (Wellcome Found.; appl. 25.3.1988; GB-prior. 27.3.1987).
 EP 232 155 (Elan; appl. 12.8.1987; IE-prior. 3.2.1986).

Formulation(s): cps. 100 mg, 250 mg; sol. 50 mg/5 ml; syrup 50 mg/5 ml; tabl. 300 mg; vial 10 mg/ml

Trade Name(s):

D:	Retrovir (Glaxo Wellcome; 1987)	GB:	Retrovir (Glaxo Wellcome; 1987)	USA:	Retrovir (Glaxo Wellcome; 1987)
F:	Retrovir (Glaxo Wellcome)	J:	Retrovir (Wellcome; 1987)		

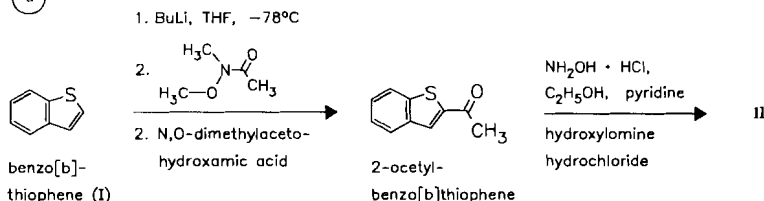
Zileuton

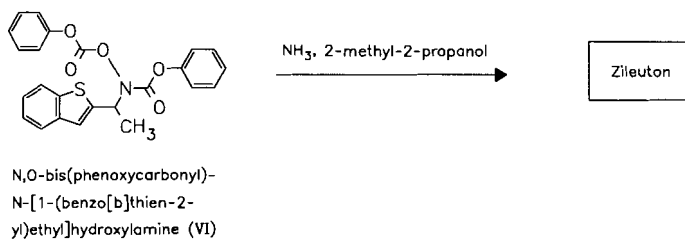
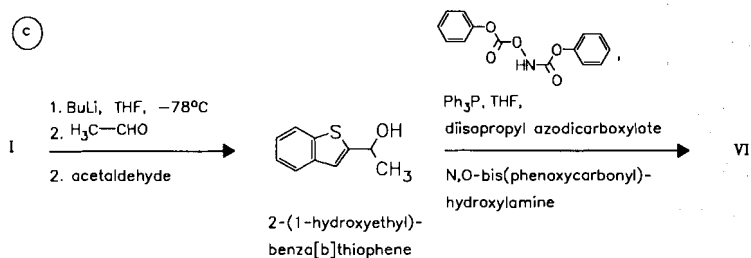
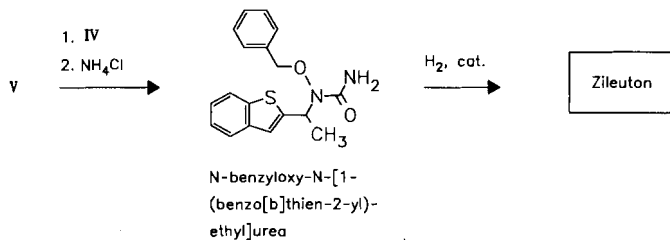
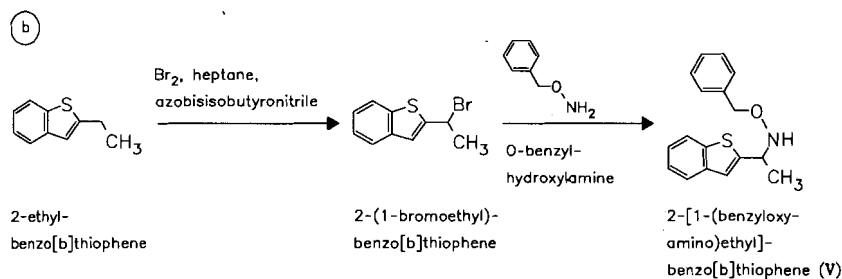
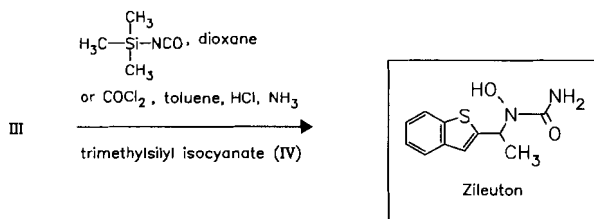
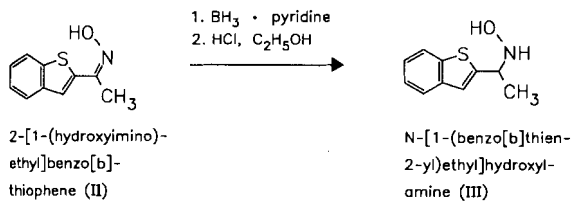
(A-64077; ABT-077)

Use: anti-inflammatory, antiasthmatic, 5-lipoxygenase inhibitor

RN: 111406-87-2 MF: C₁₁H₁₂N₂O₂S MW: 236.30CN: *N*-(1-Benzo[*b*]thien-2-ylethyl)-*N*-hydroxyurea

a





Reference(s):

- a EP 279 263 (Abbott Lab.; appl. 1.2.1988; USA-prior. 10.2.1987).
EP 416 609 (Abbott Lab.; appl. 6.9.1990; USA-prior. 7.9.1989).
Brooks, C.D. W. et al.: J. Med. Chem. (JMCMAR) **38**, 4768 (1995).
- b EP 589 784 (Elf Sanofi; appl. 21.9.1993; F-prior. 22.9.1992).
- c Stewart, A.O.; Brooks, D.W.: J. Org. Chem. (JOCEAH) **57**, 5020 (1992).

alternative synthesis:

Ku, Y.-Y. et al.: Tetrahedron Lett. (TELEAY) **35** (33), 6017 (1994).

preparation of trimethylsilylisocyanate:

Kijima, J. at al.: Nippon Kagaku Kaishi (NKAKB8) **7**, 1157-60 (1989),
EP 66 232 (Bayer AG; appl. 25.5.1982; D-prior. 3.6.1981).

use as anticancer agent:

WO 9 524 894 (US Dept. Health; appl. 14.3.1995; USA-prior. 14.3.1994).

use for treatment of neurodegenerative diseases:

WO 9 820 864 (Università Brescia; appl. 13.11.1997; I-prior. 13.11.1996).

combinations with COX-2-inhibitors:

WO 9 641 626 (G. D. Searle and Co.; appl. 11.6.1996; USA-prior. 12.6.1995).
WO 9 729 776 (G. D. Searle and Co.; appl. 12.2.1997; USA-prior. 13.2.1996).

Formulation(s): tabl. 600 mg

Trade Name(s):

USA: Zyflo (Abbott; 1997)

Zimeldine

(Zimelidine)

ATC: N06AB02

Use: antidepressant

RN: 56775-88-3 MF: C₁₆H₁₇BrN₂ MW: 317.23

LD₅₀: 60 mg/kg (M, i.v.); 800 mg/kg (M, p.o.);

50 mg/kg (R, i.v.); 900 mg/kg (R, p.o.)

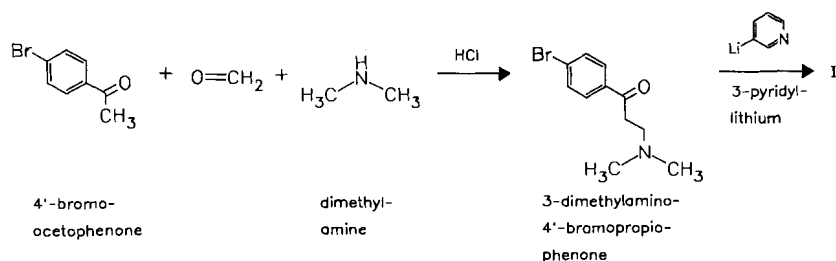
CN: (Z)-3-(4-bromophenyl)-N,N-dimethyl-3-(3-pyridinyl)-2-propen-1-amine

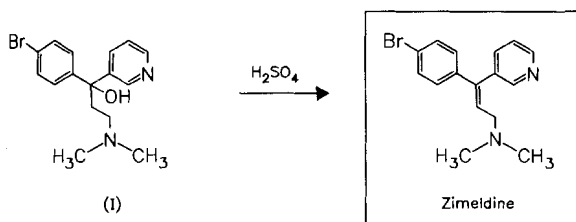
dihydrochloride monohydrate

RN: 61129-30-4 MF: C₁₆H₁₇BrN₂ · 2HCl · H₂O MW: 408.17

dihydrochloride

RN: 60525-15-7 MF: C₁₆H₁₇BrN₂ · 2HCl MW: 390.15



**Reference(s):**

FR 2 134 379 (AB Hässle; appl. 12.4.1972; S-prior. 28.4.1971).

alternative syntheses:

BE 835 802 (Astra; appl. 21.11.1975; S-prior. 21.11.1974).

SU 650 501 (Pharmastra; appl. 21.5.1976).

Formulation(s): 100 mg, 200 mg (as dihydrochloride)

Trade Name(s):

D: Normud (Astra); wfm

GB: Zelmid (Astra); wfm

Zipeprol

ATC: R05DB15

Use: antitussive

RN: 34758-83-3 MF: $C_{23}H_{32}N_2O_3$ MW: 384.52 EINECS: 252-191-7

CN: 4-(2-methoxy-2-phenylethyl)- α -(methoxyphenylmethyl)-1-piperazineethanol

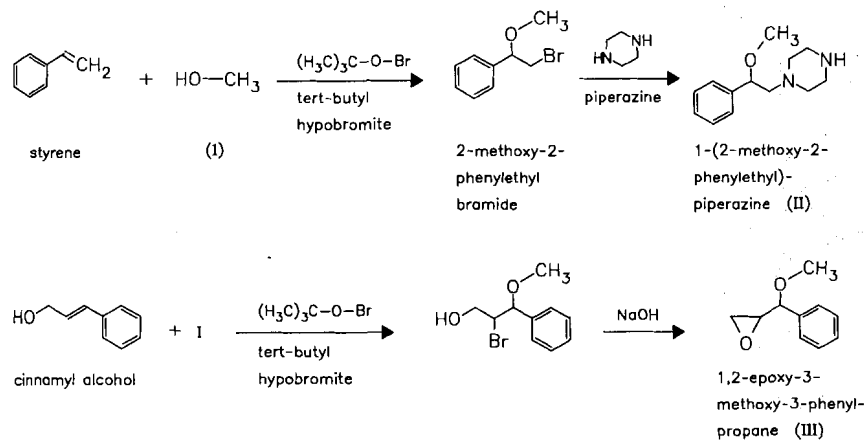
dihydrochloride

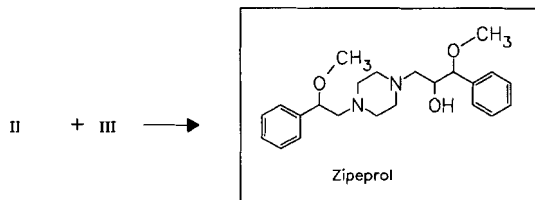
RN: 34758-84-4 MF: $C_{23}H_{32}N_2O_3 \cdot 2HCl$ MW: 457.44 EINECS: 252-192-2

LD₅₀: 44.3 mg/kg (M, i.v.); 300 mg/kg (M, p.o.);

32.7 mg/kg (R, i.v.); 435 mg/kg (R, p.o.);

228 mg/kg (dog, p.o.)



**Reference(s):**

US 3 718 650 (Mauvernay; 27.2.1973; F-prior. 2.3.1970).

DE 2 109 366 (CERM; appl. 30.9.1971; prior. 27.2.1971).

Formulation(s): drg. 75 mg; syrup 0.5 % (as dihydrochloride)**Trade Name(s):**

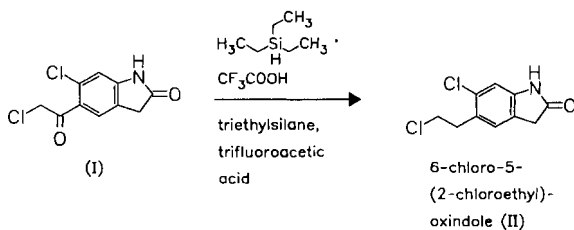
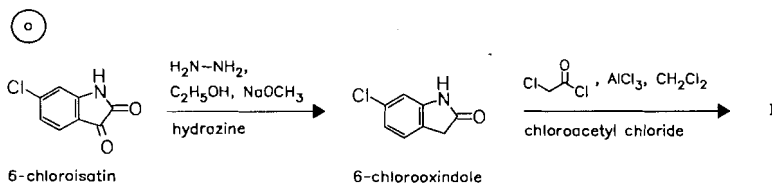
F: Respilène (Winthrop; 1973) I: Zitoxil (Italfarmaco; 1979)

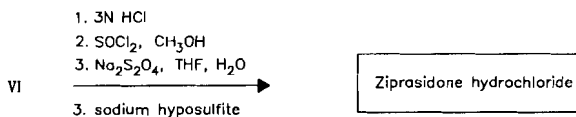
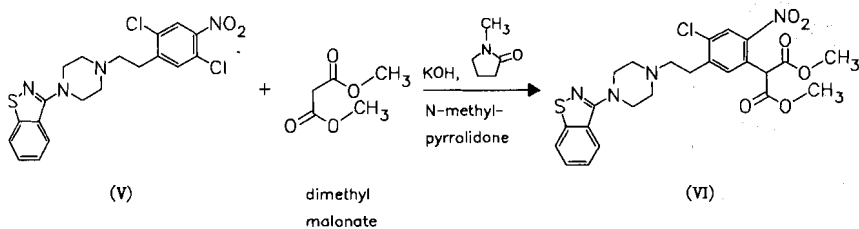
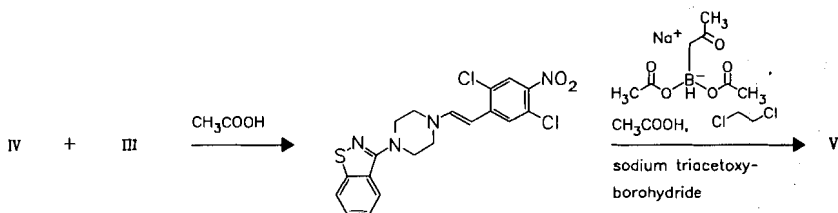
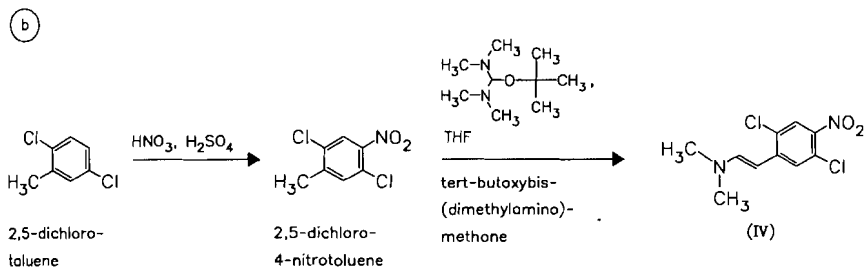
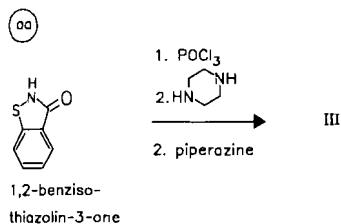
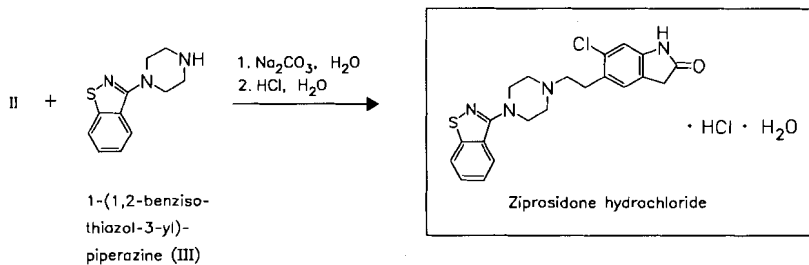
Ziprasidone hydrochloride

(CP-88059-1)

Use: antipsychotic, dopamine D₂-antagonist, 5-HT₂-antagonistRN: 138982-67-9 MF: C₂₁H₂₁ClN₄OS · HCl · H₂O MW: 467.42

CN: 5-[2-[4-(1,2-Benzisothiazol-3-yl)-1-piperazinyl]ethyl]-6-chloro-1,3-dihydro-2H-indol-2-one hydrochloride hydrate

baseRN: 146939-27-7 MF: C₂₁H₂₁ClN₄OS MW: 412.95**hydrochloride**RN: 122883-93-6 MF: C₂₁H₂₁ClN₄OS · HCl MW: 449.41**mesylate**RN: 185021-64-1 MF: C₂₁H₂₁ClN₄OS · CH₃O₃S MW: 509.05



Reference(s):

- a** Howard, H.R. et al.: J. Labelled Compd. Radiopharm. (JLCRD4), **1994**, 51.
US 5 206 366 (Pfizer; 27.4.1993; USA-prior. 26.8.1992).
EP 281 309 (Pfizer; appl. 24.2.1988; WO-prior. 2.3.1987).
- b** Urban, F.J. et al: Synth. Commun. (SYNCAV) **26** (8), 1629-1638 (1996).
US 5 359 068 (Pfizer; 25.10.1994; USA-prior. 28.6.1993).

monohydrate:

EP 586 191 (Pfizer; appl. 25.8.1993; USA-prior. 1.9.1992).

mesylate dihydrate salts:

WO 9 742 191 (Pfizer; appl. 10.4.1997; USA-prior. 7.5.1996).

cyclodextrin inclusion complexes:

EP 811 386 (Pfizer; appl. 24.4.1997; USA-prior. 7.5.1996).

Formulation(s): cps. 20 mg, 40 mg, 60 mg, 80 mg

Trade Name(s):

USA: Zeldox (Pfizer)

Zolimidine

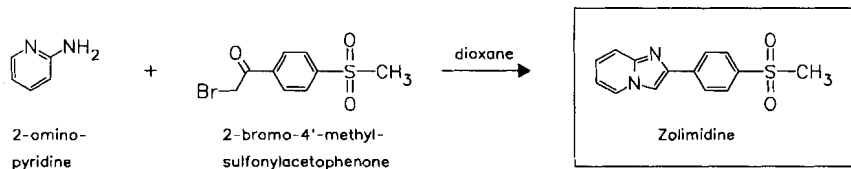
ATC: A02BX10

Use: ulcer therapeutic

RN: 1222-57-7 MF: C₁₄H₁₂N₂O₂S MW: 272.33 EINECS: 214-947-4

LD₅₀: >4 g/kg (M, p.o.);
3710 mg/kg (R, p.o.)

CN: 2-[4-(methylsulfonyl)phenyl]imidazo[1,2-a]pyridine

*Reference(s):*

- GB 991 589 (Lab. Bioterapico Milanese Selvi; valid from 23.7.1963; I-prior. 30.4.1963).
Almirante, L. et al.: J. Med. Chem. (JMCMAR) **8**, 305 (1965).

Formulation(s): cps. 200 mg

Trade Name(s):

I: Solimidin (Selvi); wfm USA: Mutil (Lakeside); wfm

Zolmitriptan

ATC: N02CC03

Use: antimigraine agent, 5-HT_{1D}-agonist

(311C90; BW-311C90)

RN: 139264-17-8 MF: C₁₆H₂₁N₃O₂ MW: 287.36

CN: (S)-4-[[3-[2-(dimethylamino)ethyl]-1H-indol-5-yl]methyl]-2-oxazolidinone

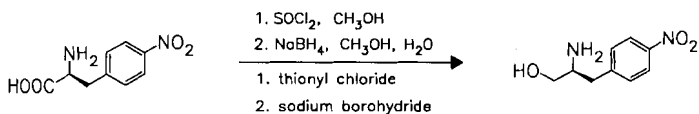
monohydrochloride

RN: 139264-19-0 MF: C₁₆H₂₁N₃O₂ · HCl MW: 323.82

racemic monohydrochloride

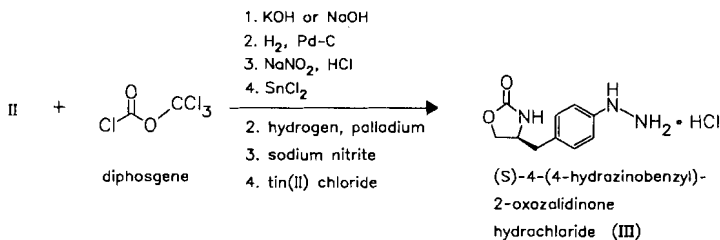
RN: 139346-15-9 MF: C₁₆H₂₁N₃O₂ · HCl MW: 323.82

synthesis of intermediate III:

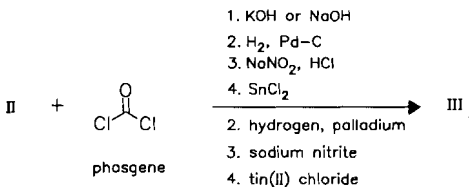


4-nitro-L-phenyl-
alanine (I)

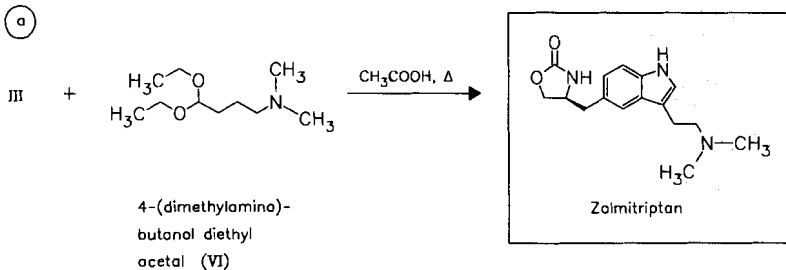
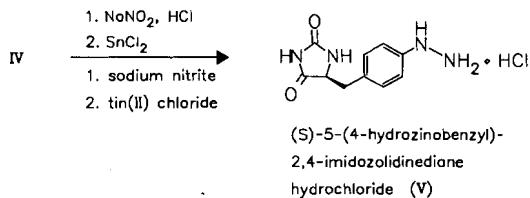
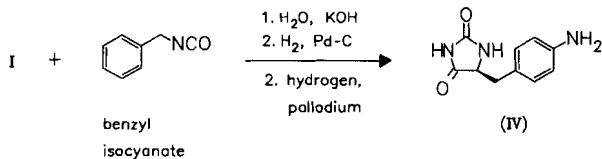
(S)-2-amino-3-
(4-nitrophenyl)-
1-propanol (II)

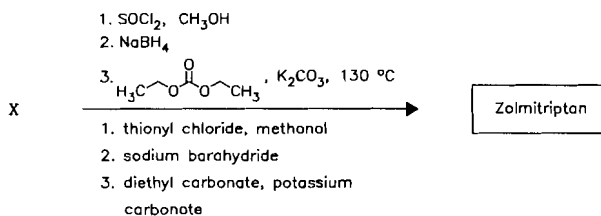
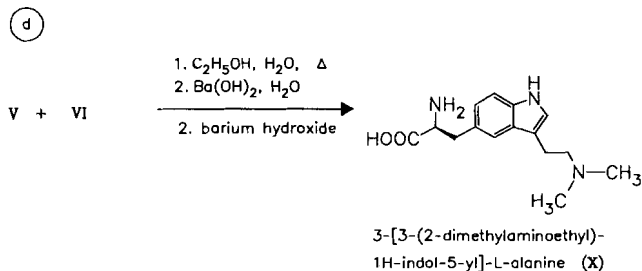
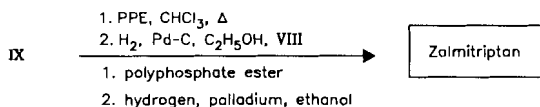
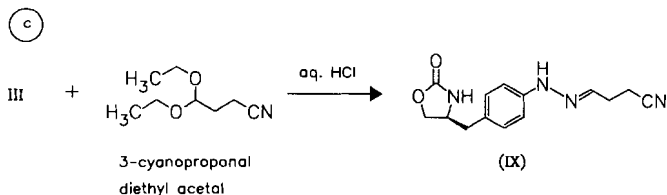
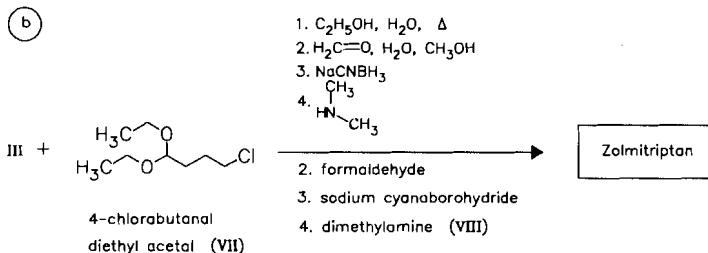


or:

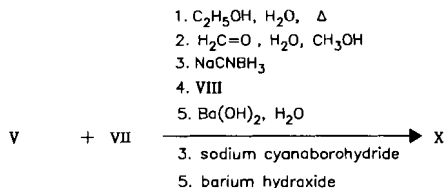


synthesis of intermediate V:





alternative synthesis of X:



Reference(s):

WO 9 118 897 (The Wellcome Foundation; appl. 12.12.1991; GB-prior. 7.6.1990, 1.2.1991).
Glenn, R.C. et al.: J. Med. Chem. (JMCMAR) 38, 3566 (1995).

synthesis of 4-dimethylaminobutanal diethyl acetal:Desaty, K.: Croat. Chem. Acta (CCACAA) **36**, 103, 107 (1964).Somin, I.N. et al.: J. Org. Chem. (JOCEAH) **1**, 2011 (1965).Bhattacharyya, S.: Tetrahedron Lett. (TELEAY) **35** (15), 2401 (1994).Harries et al.: Justus Liebig's Ann. Chem. (JLACBF) **410**, 65 (1915).**synthesis of 4-chlorobutanal diethyl acetal:**Lofffield: J. Am. Chem. Soc. (JACSAT) **73**, 1365 (1951).Anet et al.: Aust. J. Sci. Res. Ser. A (AJSRA2) **3**, 336 (1950).Winterfeld et al.: Arch. Pharm. Ber. Dtsch. Pharm. Ges. (APBDAJ) **293**, 325 (1960).Tamelen, Van et al.: Bioorg. Chem. (BOCMBM) **5**, 283 (1976).**Formulation(s):** f. c. tabl. 2.5 mg; tabl. 2.5 mg**Trade Name(s):**

D: Asco Top (Zeneca)

GB: Zomig (Zeneca)

Zolpidem

(SL-80-0750-23N)

ATC: N05CF02

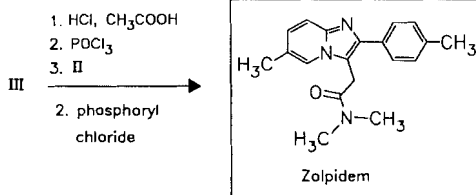
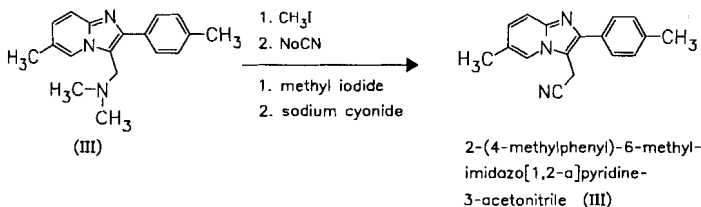
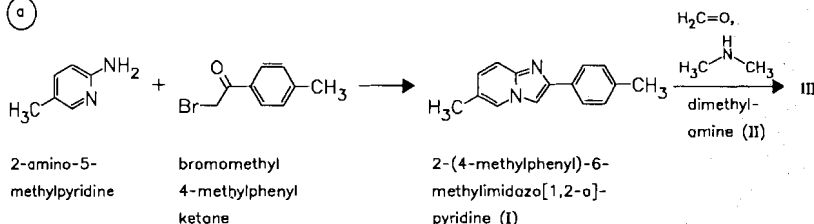
Use: hypnotic with affinity to benzodiazepine receptor

RN: 82626-48-0 MF: $C_{19}H_{21}N_3O$ MW: 307.40CN: *N,N*,6-trimethyl-2-(4-methylphenyl)imidazo[1,2-*a*]pyridine-3-acetamide**tartrate (2:1)**RN: 99294-93-6 MF: $C_{19}H_{21}N_3O \cdot 1/2C_4H_6O_6$ MW: 764.88LD₅₀: 695 mg/kg (M, p.o.);

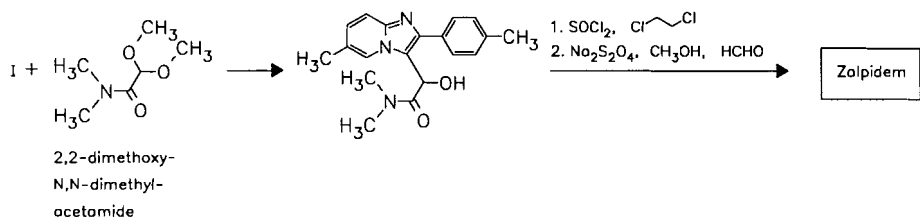
2700 mg/kg (R, p.o.)

tartrate (1:1)RN: 103188-50-7 MF: $C_{19}H_{21}N_3O \cdot C_4H_6O_6$ MW: 457.48

a



(b)

*Reference(s):*

- a** EP 50 563 (Synthelabo; appl. 15.10.1981; F-prior. 22.10.1980).
 DE 3 163 524 (Synthelabo; appl. 15.10.1981; F-prior. 22.10.1980).
b EP 251 859 (Synthelabo; appl. 17.6.1987; F-prior. 27.6.1986).

2,2-dimethoxy-*N,N*-dimethylacetamide:
 US 3 361 757 (Du Pont; 15.11.1965).

Formulation(s): f. c. tabl. 10 mg; tabl. 5 mg, 10 mg (as tartrate)

Trade Name(s):

D:	Bikalim (Byk Gulden)	Stilnox (Synthelabo; 1988)	Stilnox (Synthelabo; 1990)
F:	Ivadal (Cipharm)	GB: Stilnoct (Lorex)	J: Myslee (Fujisawa)
		I: Niotal (Synthelabo)	USA: Ambien (Searle)

Zomepirac

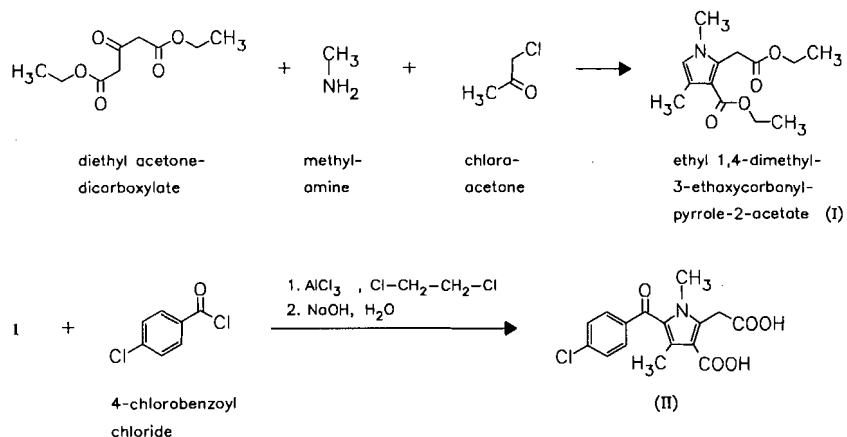
ATC: M01AB04

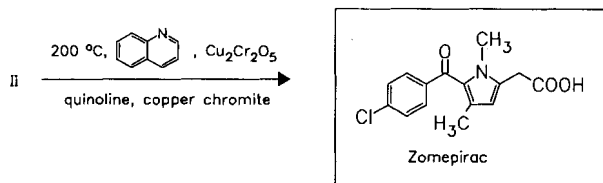
Use: analgesic, anti-inflammatory

RN: 33369-31-2 MF: $\text{C}_{15}\text{H}_{14}\text{ClNO}_3$ MW: 291.73 EINECS: 251-474-2
 CN: 5-(4-chlorobenzoyl)-1,4-dimethyl-1*H*-pyrrole-2-acetic acid

sodium salt dihydrate

RN: 64092-49-5 MF: $\text{C}_{15}\text{H}_{13}\text{ClNaO}_3 \cdot 2\text{H}_2\text{O}$ MW: 349.75



**Reference(s):**

DE 2 102 746 (McNeil; appl. 21.1.1971; USA-prior. 26.1.1970).
 US 3 952 012 (McNeil; 20.4.1976; prior. 16.2.1973, 26.1.1970, 1.7.1968, 26.7.1967).
 Carson, J.R.; Wong, S.: J. Med. Chem. (JMCMAR) **16**, 172 (1973).

alternative syntheses:

BE 762 060 (McNeil; appl. 26.1.1971; USA-prior. 26.1.1970).
 DOS 2 339 140 (McNeil; appl. 2.8.1973; USA-prior. 3.8.1972).
 US 3 865 840 (McNeil; 11.2.1975; prior. 16.2.1973, 26.7.1967, 1.7.1968, 26.1.1970).

Formulation(s): tabl. 100 mg (as sodium salt dihydrate)

Trade Name(s):

D: Zomax (Cilag); wfm F: Zomax (Cilag); wfm USA: Zomax (McNeil); wfm

Zonisamide

(AD-810)

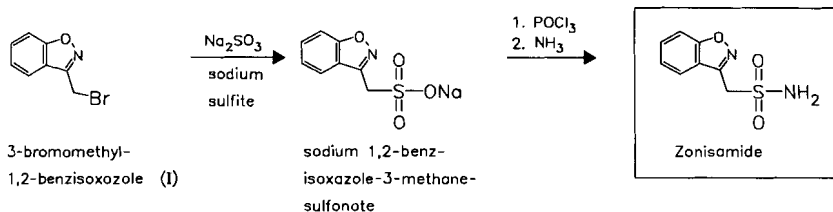
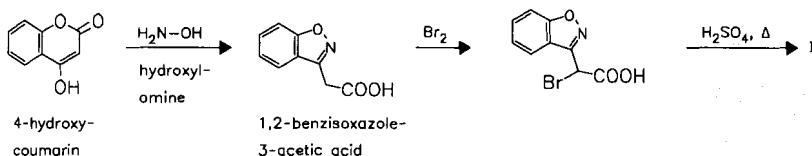
ATC: N03AA

Use: anticonvulsant, antiepileptic

RN: 68291-97-4 MF: C₈H₈N₂O₃S MW: 212.23

LD₅₀: 699 mg/kg (M, i.p.); 816 mg/kg (M, i.v.); 1829 mg/kg (M, p.o.); 1009 mg/kg (M, s.c.);
 733 mg/kg (R, i.p.); 672 mg/kg (R, i.v.); 1992 mg/kg (R, p.o.); 925 mg/kg (R, s.c.);
 1 g/kg (dog, p.o.)

CN: 1,2-benzisoxazole-3-methanesulfonamide

monosodium saltRN: 68291-98-5 MF: C₈H₇N₂NaO₃S MW: 234.21**Reference(s):**

DE 2 825 410 (Dainippon; appl. 9.6.1978).
 US 4 172 896 (Dainippon; 30.10.1979; appl. 5.6.1978).
 Uno, H. et al.: J. Med. Chem. (JMCMAR) **22**, 180 (1979).

*synthesis of 3-bromomethyl-1,2-benzisoxazole:*Uno, H. et al.: Chem. Pharm. Bull. (CPBTAL) **24**, 632 (1976).Giannella, M. et al.: Chim. Ther. (CHTPBA) **7**, 127 (1972).*oral formulation:*

JP 63 150 220 (Dainippon; appl. 15.12.1986).

*alternative synthesis:*Mohareb, R.M. et al.: Z. Naturforsch., B: Chem. Sci. (ZNBSSEN) **45**, 1067 (1990).*Formulation(s):* powder 200 mg/g; tabl. 100 mg*Trade Name(s):*J: Excegran (Dainippon;
1990)**Zopiclone**

(RP-27267)

ATC: N05BX; N05CF01

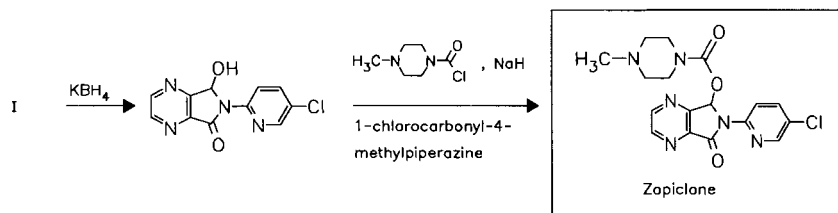
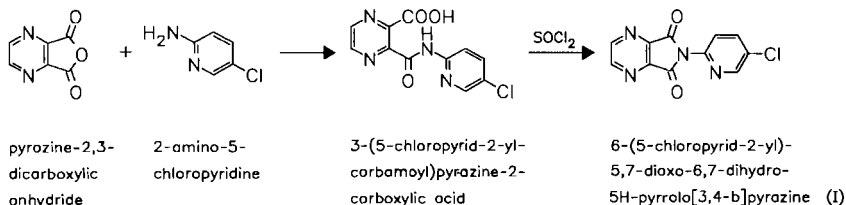
Use: anxiolytic, hypnotic

RN: 43200-80-2 MF: C₁₇H₁₇ClN₆O₃ MW: 388.82 EINECS: 256-138-9LD₅₀: 580 mg/kg (M, i.p.); 321 mg/kg (M, i.v.); 2174 mg/kg (M, p.o.);

280 mg/kg (R, i.v.); 827 mg/kg (R, p.o.);

400 mg/kg (dog, i.v.); 2500 mg/kg (dog, p.o.)

CN: 4-methyl-1-piperazinecarboxylic acid 6-(5-chloro-2-pyridinyl)-6,7-dihydro-7-oxo-5H-pyrrolo[3,4-b]pyrazin-5-yl ester

*Reference(s):*

DOS 2 300 491 (Rhône-Poulenc; appl. 5.1.1973; F-prior. 7.1.1972, 9.9.1972).

US 3 862 149 (Rhône-Poulenc; 21.1.1975; F-prior. 7.1.1972, 9.9.1972).

Formulation(s): f. c. tabl. 7.5 mg*Trade Name(s):*

D:	Ximovan (Rhône-Poulenc Rorer; 1991)	GB:	Zimovane (Rhône-Poulenc Rorer)	J:	Amoban (Rhône-Poulenc-Chugai)
F:	Imovane (Specia Groupe Rhône-Poulenc Rorer)	I:	Imovane (Rhône-Poulenc Rorer; 1989)		

Zorubicin

ATC: L01DB05
Use: antineoplastic

RN: 54083-22-6 MF: C₃₄H₃₅N₃O₁₀ MW: 645.67

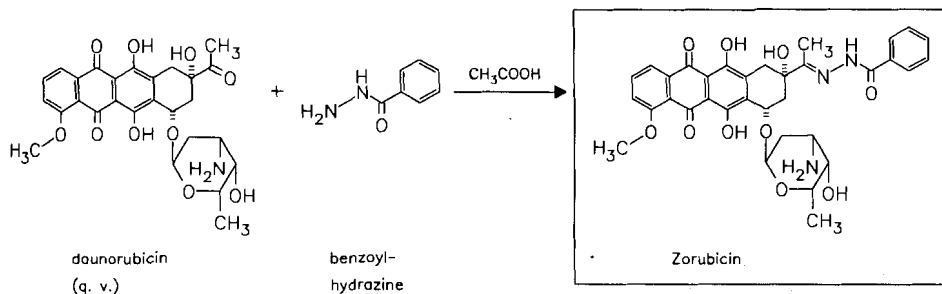
LD₅₀: 35 mg/kg (M, route unreported)

CN: (2*S*-*cis*)-benzoic acid [1-[4-[(3-amino-2,3,6-trideoxy- α -L-*lyxo*-hexopyranosyl)oxy]-1,2,3,4,6,11-hexahydro-2,5,12-trihydroxy-7-methoxy-6,11-dioxo-2-naphthacetyl]ethylidene]hydrazide

monohydrochloride

RN: 36508-71-1 MF: C₃₄H₃₅N₃O₁₀ · HCl MW: 682.13 EINECS: 253-076-4

LD₅₀: 28.71 mg/kg (M, i.p.)

**Reference(s):**

DOS 2 327 211 (Rhône-Poulenc; appl. 28.5.1973).

Formulation(s): amp. 52.8 mg (as hydrochloride)

Trade Name(s):

D: Zorubicin R. P. (Rhône-Poulenc); wfm
F: Rubidazone (Rhône-Poulenc); wfm

Zotepine

ATC: N05AK
Use: neuroleptic

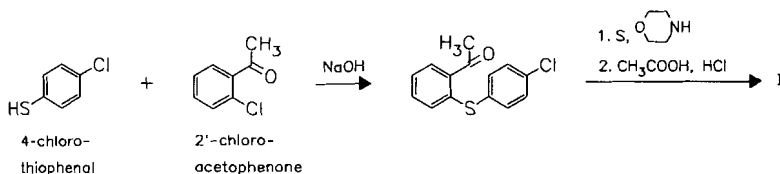
RN: 26615-21-4 MF: C₁₈H₁₈ClNOS MW: 331.87

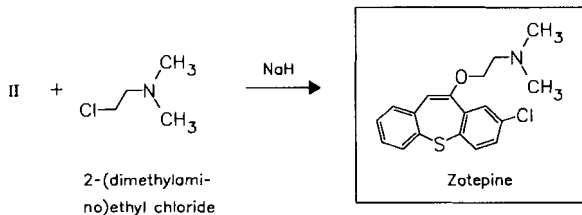
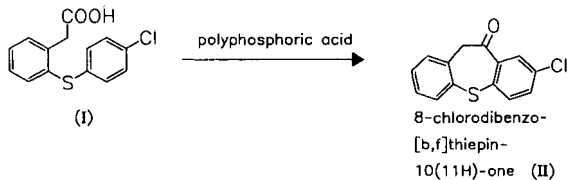
LD₅₀: 43.3 mg/kg (M, i.v.); 108 mg/kg (M, p.o.);

36.8 mg/kg (R, i.v.); 306 mg/kg (R, p.o.);

26.6 mg/kg (dog, i.v.); >1 g/kg (dog, p.o.)

CN: 2-[(8-chlorodibenzo[*b,f*]thiepin-10-yl)oxy]-*N,N*-dimethylethanamine



*Reference(s):*

US 3 704 245 (Fujisawa; 28.11.1972; J-prior. 16.2.1968).
 DOS 1 907 670 (Fujisawa; appl. 15.2.1969; J-prior. 16.2.1968).
 GB 1 247 067 (Fujisawa; appl. 13.2.1969; J-prior. 16.2.1968).
 Ueda, I. et al.: Chem. Pharm. Bull. (CPBTAL) **26**, 3058 (1978).

Formulation(s): drg. 25 mg, 50 mg, 100 mg

Trade Name(s):

D: Nipolept (Rhône-Poulenc) J: Lodopin (Fujisawa; 1982)
 Rorer)

A

- abietic acid**
(C₂₀H₃₀O₂; 514-10-3) see: Ecabet sodium
- acefylline**
(C₉H₁₀N₄O₄; 652-37-9) see: Acefylline
- acetaldehyde**
(C₂H₄O; 75-07-0) see: L-Alanine; *cis*-Cefprozil; Chloral hydrate; Fencamfamin; Fenfluramine; Fluoxetine; Indometacin; Methohexital; Mitopodozide; Netilmicin; Zileuton
- acetaldehyde dimethyl acetal**
(C₄H₁₀O₂; 534-15-6) see: Metolazone
- acetaldehyde (4-methoxyphenyl)hydrazone**
(C₉H₁₂N₂O; 13815-71-9) see: Indometacin
- acetaldehyde thiosemicarbazone**
(C₃H₇N₃S; 2302-95-6) see: Sulfamethizole
- acetamide**
(C₂H₅NO; 60-35-5) see: Sulfacetamide
- acetamidine**
(C₂H₆N₂; 143-37-3) see: Thiamine
- α-acetamido-4-acetoxy-3-methoxycinnamic acid**
(C₁₄H₁₅NO₆; 32954-41-9) see: Levodopa
- 5-acetamido-*O*-acetylsalicylic acid**
(C₁₁H₁₁NO₅; 6376-29-0) see: Parsalimide
- 5-acetamido-*O*-acetylsalicyloyl chloride**
(C₁₁H₁₀ClNO₄; 6393-86-8) see: Parsalimide
- α-acetamido-3-amino-5-iodo-4-(*p*-methoxyphenoxy)cinnamic acid methyl ester**
(C₁₉H₁₉IN₂O₅; 98016-18-3) see: Dextrothyroxine
- (±)-6-acetamido-2-amino-4,5,6,7-tetrahydrobenzothiazole**
(C₉H₁₃N₃OS; 104617-51-8) see: Pramipexole hydrochloride
- α-acetamido-5-amino-*m*-toluic acid**
(C₁₀H₁₂N₂O₃; 1574-52-3) see: Iodamide
- 4-acetamidobenzenesulfinic acid sodium salt**
(C₈H₈NNaO₃S; 15898-43-8) see: Dapsone
- 4-acetamidobenzenesulfonamide**
(C₈H₁₀N₂O₃S; 121-61-9) see: Carbutamide; Sulfabenzamide; Sulfacarbamide; Sulfanilamide; Sulfaproxyline
- 4-acetamidobenzenesulfonyl chloride**
(C₈H₈ClNO₂S; 121-60-8) see: Sulfacitine; Sulfadiazine; Sulfadiazine; Sulfadimethoxine; Sulfadoxine; Sulfaethidole; Sulfafurazole; Sulfalene; Sulfamerazine; Sulfamethizole; Sulfamethoxazole; Sulfametoxydiazine; Sulfamoxole; Sulfanilamide; Sulfathiazole; Sulfisomidine
- (4-acetamidobenzenesulfonyl)urea**
(C₉H₁₁N₃O₄S; 2828-63-9) see: Sulfacarbamide
- 4-acetamidobenzoic acid**
(C₉H₉NO₃; 556-08-1) see: Deanol acetamidobenzoate
- 2-(2-acetamidobenzoyl)pyridine**
(C₁₄H₁₂N₂O₂; 1770-89-4) see: Bromazepam
- 2-(2-acetamido-5-bromobenzoyl)pyridine**
(C₁₄H₁₁BrN₂O₂; 1770-90-7) see: Bromazepam
- 5-acetamido-*N*-butylsalicylamide**
(C₁₅H₁₈N₂O₃; 6382-44-1) see: Parsalimide
- trans*-4-acetamidocyclohexanol**
(C₈H₁₅NO₂; 27489-60-7) see: Ambroxol
- 4-acetamidocyclohexanone**
(C₈H₁₃NO₂; 27514-08-5) see: Pramipexole hydrochloride
- 4-acetamido-*N*-(2-diethylaminoethyl)-2-methoxybenzamide**
(C₁₆H₂₅N₃O₃; 3614-38-8) see: Bromopride
- 1-acetamido-3,5-dimethyladamantane**
(C₁₄H₂₃NO; 19982-07-1) see: Memantine
- α-acetamido-4-hydroxy-3-methoxycinnamic acid**
(C₁₂H₁₃NO₃; 55629-72-6) see: Levodopa
- 2-acetamido-3-hydroxy-4'-nitropropiofenone**
(C₁₁H₁₂N₂O₅; 3123-13-5) see: Chloramphenicol
- α-acetamido-3-iodo-4-(*p*-methoxyphenoxy)-5-nitrocinnamic acid methyl ester**
(C₁₉H₁₇IN₂O₇; 94256-35-6) see: Dextrothyroxine
- 4-(acetamidomethyl)benzenesulfonamide**
(C₉H₁₂N₂O₃S; 2015-14-7) see: Mafenide
- 3-acetamido-6-methylpyridazine**
(C₇H₉N₃O; 57260-79-4) see: Nifurpazine
- 2-acetamido-4'-nitroacetophenone**
(C₁₀H₁₀N₂O₄; 1846-34-0) see: Chloramphenicol
- 4-acetamido-4'-nitrodiphenyl sulfone**
(C₁₄H₁₂N₂O₂S; 1775-37-7) see: Dapsone
- 3-acetamido-6-[2-(5-nitro-2-furyl)vinyl]pyridazine**
(C₁₂H₁₀N₄O₄; 91974-95-7) see: Nifurpazine
- DL*-threo-2-acetamido-1-(4-nitrophenyl)-1,3-propanediol**
(C₁₁H₁₄N₂O₅; 4618-99-9) see: Chloramphenicol
- p*-acetamidophenyl chloroacetate**
(C₁₀H₁₀ClNO₃; 17321-63-0) see: Propacetamol
- 4-(4-acetamidophenyl)-4-oxobutanoic acid**
(C₁₂H₁₃NO₄; 5473-15-4) see: Chlorambucil
- 2-acetamido-4-phenylsulfanylbenzene**
(C₁₄H₁₂N₂O₄S; 54029-09-3) see: Ox fendazole
- (4-acetamidophenylsulfonyl)guanidine**
(C₉H₁₂N₄O₃S; 19077-97-5) see: Sulfametoxydiazine
- acetamidopiperonylmalonic acid diethyl ester**
(C₁₇H₂₁NO₇; 97018-57-0) see: Levodopa
- 4-acetamidosalicylic acid**
(C₉H₉NO₄; 50-86-2) see: Clebopride
- 4-acetamidothymol**
(C₁₂H₁₇NO₂; 3383-30-0) see: Moxisylyte
- 5-acetamido-2,4,6-triiodo-*N,N'*-bis(2,3-dihydroxypropyl)isophthalamide**
(C₁₆H₂₀I₃N₃O₇; 31127-80-7) see: Iohexol
- acetanilide**
(C₈H₉NO; 103-84-4) see: Chlorambucil; Sulfanilamide
- acetic acid**
(C₂H₄O₂; 64-19-7) see: β-Acetyldigoxin; Bromperidol; Chlormidazole; Ciclometasone; Dimetacrine; Etidronic acid; Fluocinonide; Pirbuterol; Troglitazone
- acetic acid ammonium salt**
(C₂H₇NO₂; 631-61-8) see: Oxaprozin
- acetic acid 2-[7-chloro-5-(2-chlorophenyl)-3*H*-1,4-benzodiazepin-2-yl]hydrazide**
(C₁₇H₁₄Cl₂N₄O; 41837-74-5) see: Triazolam
- acetic acid 2-[5-(2-chlorophenyl)-7-ethyl-3*H*-thieno[2,3-*e*]-1,4-diazepin-2-yl]hydrazide**
(C₁₇H₁₇ClN₄OS; 40054-72-6) see: Etizolam
- acetic acid cobalt(2+) salt**
(C₄H₆CoO₄; 71-48-7) see: Midoriamin
- acetic acid diethoxymethyl ester**
(C₇H₁₄O₄; 14036-06-7) see: Abacavir; Imiquimod

acetic acid palladium(2+) salt(C₄H₆O₄Pd; 3375-31-3) see: Acrivastine**acetic anhydride**

(C₄H₆O₃; 108-24-7) see: Abacavir; Acecarbromal; Aceclidine; Aceglutamide aluminum; Acenocoumarol; Acetarsol; Acetazolamide; Acetiamine; Acetrisoic acid; Acetylcholine chloride; Acetylcysteine; Acetylsalicylic acid; Acetylsulfafurazole; Acexamic acid; Aciclovir; Acipimox; Acriflavinium chloride; Actarit; Afloqualone; L-Alanine; Alfaxalone; Aminonide; Amidotrisoic acid; Anagestone acetate; Auranofin; Azapetine; Benzquinamide; Betamethasone; Biotin; Bisacodyl; Bromazepam; Bromopride; Calcifediol; Calcitriol; Camazepam; Canthaxanthin; Capecitabine; Cefamandole; Cefprozime; Chenodeoxycholic acid; Chloramphenicol; Chlormadinone acetate; Cinchocaine; Cinolazepam; Clebopride; Clidanac; Cloprednol; Cortisone; Cortivazol; Cyclofenil; Cyproterone acetate; Cytarabine; Dapsone; Deferoxamine; Dextrothroxine; Diacerein; Diflorasone diacetate; Difluprednate; Diltiazem; Enoxacin; Eprosartan; Etizolam; Etyndiol acetate; Fexofenadine hydrochloride; Fluazacort; Fludarabine phosphate; Fludroxycortide; Flugestone acetate; Flumetasone; Fluocinolone acetonide; Fluperolone acetate; Fluprednidene acetate; Fluprednisolone acetate; Flutamide; Gabapentin; Gestodene; Gitaloxin; Gitoformate; Glaziovine; Grepafloxacin; Halopredone diacetate; Hydrocortisone; Hydrocortisone acetate; Hydroxyprogesterone; Ibuprofen; Idoxuridine; Imiquimod; Iocetamic acid; Iodamide; Iohexol; Isosorbide mononitrate; Lamivudine; Leftunomide; Levamisole; Levodopa; Levonorgestrel; Lorazepam; Lormetazepam; Mabuterol; Medroxyprogesterone acetate; Megestrol acetate; Melengestrol acetate; Menadiol diacetate; Mesoridazine; Metenolone acetate; Methandriol; Methestrol dipropionate; Metipranolol; Metoclopramide; Midazolam; Midecamycin acetate; Montelukast sodium; Mosapride citrate; Moxifloxacin hydrochloride; Moxisylyte; Nalorphine; Norethisterone acetate; Omapatrilat; Omeprazole; Oseltamivir; Oxaceprol; Oxazepam; Oxcarbazepine; Oxendazole; Oxyphenisatin acetate; Pancuronium bromide; Pantoprazole sodium; Paracetamol; Paramethasone; Paricalcitol; Pengitoxin; D-Penicillamine; Phenacetin; Pipecuronium bromide; Prednial acetate; Pregnenolone; Proglumide; Promegestone; Pyridinol carbamate; Quingestanol acetate; Rabepazole sodium; Repaglinide; Retinol; Roxatidine acetate; Salacetamide; Salbutamol; Spizofurone; Stavudine; Sulfacetamide; Temazepam; Tetrazepam; Thalidomide; Thebacon; 2-Thiophenecarboxylic acid; α -Tocopherol; Trandolapril; Trenbolone acetate; Triamcinolone; Troglitazone; L-Tryptophan; Vesnarinone; Zalcitabine; Zanamivir

acetoacetaldehyde dimethyl acetal(C₆H₁₂O₃; 5436-21-5) see: Ambuside**7-acetoacetamidocephalosporanic acid**(C₁₄H₁₆N₂O₇S; 56434-32-3) see: Cefotiam**acetoacetic acid ethyl ester**

(C₆H₁₀O₃; 141-97-9) see: Aminophenazone; Baclofen; Cefotaxime; Cefazidime; Chloroquine; Cloricromen; Cloxacillin; Dipyrindamole; Felodipine; Flutoprazepam; Hymecromone; Kawain; Lacidipine; Leflunomide; Methylthiouracil; Nevirapine; Nitrendipine; Oxacillin; Pentoxifylline; Propyphenazone; Sulfamerazine

acetoacetic acid 4-(trifluoromethyl)anilide(C₁₁H₁₀F₃NO₂; 351-87-1) see: Leflunomide**acetoacetyl chloride**(C₄H₃ClO₂; 39098-85-6) see: Rebamipide**acetoacetyl chloride**(C₂H₆N₂O; 1068-57-1) see: Alprazolam; Muzolimine; Triazolam**acetoin**(C₄H₈O₂; 513-86-0) see: Lenampicillin; Sulfaguanole; Sulfamoxole**acetone**

(C₃H₆O; 67-64-1) see: Ascorbic acid; Chlorobutanol; Cicletanone; Ciprofibrate; Ciprofloxacin; Clofibrate; Clortermine; Desonide; Dimethadione; Etreftinate; Fenofibrate; Fludroxycortide; Flunisolide; Fluocinolone acetonide; Halcinonide; Hetacillin; Iproniazid; Nabumetone; Niaprazine; D-Penicillamine; Pirsudanol; Prenalterol; Probuco; Propyphenazone; Proquazone; Retinol; Terconazole; Topiramate; Triamcinolone acetonide

acetone cyanohydrin(C₄H₇NO; 75-86-5) see: Dimethadione**acetonedicarboxylic acid**(C₃H₆O₅; 542-05-2) see: Dolasetron mesilate; Homatropine**acetone dimethyl acetal**

(C₅H₁₂O₂; 77-76-9) see: Atorvastatin calcium; Dibekacin; Docetaxel; Doxifluridine; Epirubicin; Indinavir sulfate; Iotrolan; Misoprostol; Oseltamivir

acetonitrile

(C₂H₃N; 75-05-8) see: Amantadine; Clofedanol; Dorzolamide; Ethambutol; Gabapentin; Ritonavir

5-acetyl-2-methoxybenzenesulfonamide(C₁₀H₁₃NO₃S; 116091-63-5) see: Tamsulosin hydrochloride**acetophenone**

(C₈H₈O; 98-86-2) see: Algestone acetophenide; Benmoxin; Bipredene; Budipine; Ciclonium bromide; Cycrimine; Eprozinol; Fendiline; Fluoxetine; Lercanidipine hydrochloride; Mesuximide; Phenindamine; Phenoperidine; Pridinol; Procyclidine; Pyrrobutamine; Tiemonium iodide; Tolpropamine; Tridihexethyl chloride; Trihexyphenidyl

acetophenone benzoylhydrazone(C₁₅H₁₄N₂O; 1219-41-6) see: Benmoxin**9-[4-acetoxy-3-(acetoxymethyl)butyl]-2-amino-6-chloro-purine**(C₁₄H₁₈ClN₅O₄; 97845-60-8) see: Famciclovir**3 β -acetoxy-16-(5-acetoxy-4-methylpentanoyl)-5 α -pregnane-11,20-dione**(C₃₁H₄₆O₈) see: Alfaxalone**2-acetoxyacetyl chloride**(C₄H₅ClO₃; 13831-31-7) see: Docetaxel; Paclitaxel**(\pm)-6-acetoxy-2-(4-aminophenoxyethyl)-2,5,7,8-tetramethylchroman**(C₂₂H₂₇NO₄; 107188-37-4) see: Troglitazone**17-acetoxy-5 α -androsta-2,16-diene**

(C₂₁H₃₀O₂; 50588-42-6) see: Pancuronium bromide; Pipecuronium bromide; Vecuronium bromide

3-acetoxybenzaldehyde(C₉H₈O₃; 34231-78-2) see: Metaraminol**2-acetoxybenzoyl chloride**

(C₉H₇ClO₃; 5538-51-2) see: Benorilate; Phenprocoumon

(2-acetoxybenzoyl)(1-phenylpropyl)malonic acid diethyl ester(C₂₅H₂₈O₇) see: Phenprocoumon**[3R(1'R),4R](+)-4-acetoxy-3-[1-(*tert*-butyldimethylsilyloxy)ethyl]-2-azetidinone**

(C₁₃H₂₅NO₄Si; 76855-69-1) see: Faropenem sodium; Meropenem

4(R)-acetoxy-3(R)-[1(R)-(tert-butylidimethylsilyloxy)ethyl]-azetidion-2-one

see under [3R(1'R),4R](+)-4-acetoxy-3-[1-(tert-butylidimethylsilyloxy)ethyl]-2-azetidionone

3-acetoxy-7-chloro-5-(2-chlorophenyl)-1-methyl-1,3-dihydro-2H-1,4-benzodiazepin-2-one

(C₁₈H₁₄Cl₂N₂O₃; 96576-92-0) see: Lormetazepam

1-acetoxy-4-chloro-3-methyl-2-butene

(C₇H₁₁ClO₂; 38872-49-0) see: Retinol

3-acetoxy-7-chloro-1-methyl-5-phenyl-2-oxo-1,3-dihydro-2H-1,4-benzodiazepine

(C₁₈H₁₅ClN₂O₃; 18818-64-9) see: Temazepam

5-acetoxy-3-chloropentan-2-one

(C₇H₁₁ClO₃; 13051-49-5) see: Thiamine

1-acetoxy-3-chloro-2-propanone

(C₅H₇ClO₃; 40235-68-5) see: Levofloxacin

21-acetoxy-2,4-dibromo-11 α ,17 α -dihydroxy-16 β -methyl-5 β -pregnane-3,20-dione

(C₂₄H₃₄Br₂O₆) see: Betamethasone

17-acetoxy-2 α ,3 α :16 α ,17 α -diepoxy-5 α -androstane

(C₂₁H₃₀O₄; 50588-22-2) see: Pancuronium bromide; Pipecuronium bromide; Rocuronium bromide; Vecuronium bromide

1-acetoxy-4-diethylamino-2-butyne

(C₁₉H₁₇NO₂; 22396-77-6) see: Oxybutynin

21-acetoxy-11 α ,17 α -dihydroxy-16 β -methylpregna-1,4-diene-3,20-dione

(C₂₄H₃₂O₆; 5078-99-9) see: Betamethasone

21-acetoxy-11 α ,17 α -dihydroxy-16 β -methyl-5 β -pregnane-3,20-dione

(C₂₄H₃₆O₆; 5078-98-8) see: Betamethasone

3 β -acetoxy-6,16-dimethyl-20-oxo-5,16-pregnadiene

(C₂₅H₃₆O₃; 29147-79-3) see: Melengestrol acetate

21-acetoxy-3,20-dioxo-9 β ,11 β -epoxy-17 α -hydroxy-16 α -methyl-1,4-pregnadiene

(C₂₄H₃₀O₆; 2884-51-7) see: Dexamethasone

21-acetoxy-3,20-dioxo-9 β ,11 β -epoxy-17-hydroxy-4-pregnene

(C₂₃H₃₀O₆; 4383-30-6) see: Fludrocortisone

3 α -acetoxy-11,20-dioxo-16 α ,17 α -epoxy-5 β -pregnane

(C₂₃H₃₂O₅; 24298-90-6) see: Betamethasone

21-acetoxy-3,20-dioxo-9 α -fluoro-11 β -hydroxy-16 α ,17-isopropylidenedioxy-4-pregnene

(C₂₆H₃₈FO₅; 2395-17-7) see: Formocortal

21-acetoxy-3,20-dioxo-6 α -fluoro-17-hydroxy-16 β -methyl-4,9(11)-pregnadiene

(C₂₄H₃₁FO₅; 50763-89-8) see: Diflorasone diacetate

21-acetoxy-3,20-dioxo-6 α -fluoro-11 β -hydroxy-16 α -methyl-4-pregnene

(C₂₄H₃₃FO₅; 1176-81-4) see: Diflucortolone valerate

21-acetoxy-3,20-dioxo-6 α -fluoro-16 α ,17 α -isopropylidenedioxy-1,4-pregnadiene

(C₂₆H₃₃FO₆; 25437-07-4) see: Flunisolide

21-acetoxy-3,20-dioxo-6 α -fluoro-16 α ,17-isopropylidenedioxy-1,4,9(11)-pregnatriene

(C₂₆H₃₁FO₆; 5049-89-8) see: Tralonide

17-acetoxy-3,20-dioxo-1,4,6-pregnatriene

(C₂₃H₂₈O₄; 2668-75-9) see: Cyproterone acetate

3 α -acetoxy-11,20-dioxo-16-pregnene

(C₂₃H₃₂O₄; 67253-64-9) see: Dexamethasone; Meprednisone

3 β -acetoxy-11,20-dioxo-16-pregnene

(C₂₃H₃₂O₄; 2724-68-7) see: Alfaxalone; Fluazacort

17 β -acetoxy-2,3-epoxy-5 α -androstane

(C₂₁H₃₂O₃) see: Epitiostanol

21-acetoxy-16 α ,17-epoxy-3 β -hydroxy-20-oxo-5-pregnene

(C₂₃H₃₂O₅; 28444-97-5) see: Fludroxycortide

3 β -acetoxy-5 α ,6 α -epoxy-16 α -methylpregnan-20-one

(C₂₄H₃₆O₄) see: Paramethasone

3 α -acetoxy-16 α ,17 α -epoxy-5 β -pregnane-11,20-dione 21-ethylene acetal

(C₂₅H₃₆O₆; 13643-92-0) see: Betamethasone

2-acetoxyethyl acetoxymethyl ether

(C₇H₁₂O₅; 59278-00-1) see: Aciclovir

3 α -acetoxy-20,20-ethylenedioxy-16 α ,17 α -epoxy-5 β -pregnan-11 β -ol

(C₂₅H₃₈O₆; 13643-94-2) see: Betamethasone

3 α -acetoxy-20,20-ethylenedioxy-16 α ,17 α -epoxy-5 β -pregn-9(11)-ene

(C₂₅H₃₆O₅; 13643-95-3) see: Betamethasone

17 β -acetoxy-17-ethynyl-3-methoxy-19-nor-2,5(10)-androstadiene

(C₂₃H₃₀O₃; 13251-69-9) see: Quingestanol acetate

5 α -acetoxy-6 β -fluoro-3 β ,17-dihydroxy-16 α -methylpregnan-20-one

(C₂₄H₃₇FO₅; 1525-76-4) see: Paramethasone

21-acetoxy-6 α -fluoro-11 β ,17-dihydroxy-16 α -methylpregn-4-ene-3,20-dione

(C₂₄H₃₃FO₆; 1524-93-2) see: Flumetasone; Paramethasone

3 β -acetoxy-6 β -fluoro-5 α -hydroxy-16 α -methylpregnan-20-one

(C₂₄H₃₇FO₄; 1994-39-4) see: Paramethasone

21-acetoxy-6 β -fluoro-17-hydroxy-16 α -methylpregn-4-ene-3,20-dione

(C₂₄H₃₃FO₅) see: Paramethasone

3-acetoxy-19-hydroxycholesterol

(C₂₉H₄₈O₃; 750-59-4) see: Estrone

21-acetoxy-3 β -hydroxy-16 α -methyl-20-oxo-5-pregnene

(C₂₄H₃₆O₄; 1173-09-7) see: Fluocortolone

21-acetoxy-11 β -hydroxy-16-methyl-1,4-pregnadiene-3,20-dione

(C₂₄H₃₂O₅; 1056-37-7) see: Desoximetasone

21-acetoxy-3 α -hydroxy-16 α -methylpregnane-11,20-dione

(C₂₄H₃₆O₅; 1056-38-8) see: Desoximetasone

21-acetoxy-17-hydroxy-16 β -methylpregna-1,4,9(11)-triene-3,20-dione

(C₂₄H₃₀O₅; 910-99-6) see: Beclometasone; Betamethasone

(3 β ,5 α ,5' β)-21-acetoxy-3-hydroxy-2'-methyl-5H-pregn-9(11)-eno[17,16-d]oxazol-20-one

(C₂₅H₃₅NO₅; 19890-70-1) see: Fluazacort

1 α -acetoxy-25-hydroxy-10-(methylsulfonyloxy)-3,5-cyclo-19-norvitamin D₂ 6-methyl ether

(C₃₁H₅₀O₇S) see: Paricalcitol

1 α -acetoxy-25-hydroxy-19-norvitamin D₂

(C₂₉H₄₆O₄) see: Paricalcitol

21-acetoxy-17-hydroxy-1,4,9(11)-pregnatrien-3,20-dione

(C₂₃H₂₈O₅; 4380-55-6) see: Dichlorisone

- 5'-acetoxy-2'-hydroxy-3',4',6'-trimethylacetophenone**
(C₁₃H₁₆O₄; 66901-79-9) see: Troglitazone
- α-acetoxyisobutyryl chloride**
(C₆H₉ClO₃; 40635-66-3) see: Tacrolimus
- 5-(acetoxyethyl)-1-acetyl-2-butyylimidazole**
(C₁₂H₁₈N₂O₃; 136701-34-3) see: Eprosartan
- 3-acetoxy-2-methylbenzoyl chloride**
(C₁₀H₉ClO₃; 167678-46-8) see: Nelfinavir mesylate
- (±)-3-acetoxymethyl-7,8-difluoro-2,3-dihydro-4H-1,4-benzoxazine**
(C₁₁H₁₁F₂NO₃; 106939-36-0) see: Levofloxacin
- 2-(acetoxymethyl)-4-(3-methoxypropoxy)-3-methylpyridine**
(C₁₃H₁₉NO₄; 117977-19-2) see: Rabepazole sodium
- 3β-acetoxy-16-methyl-20-oxo-5,16-pregnadiene**
(C₂₄H₃₄O₃; 982-06-9) see: Fluprednidene acetate; Prednylidene
- 3β-acetoxy-6-methyl-20-oxo-5,16-pregnadiene**
(C₂₄H₃₄O₃; 20867-46-3) see: Medrogestone
- 21-acetoxy-16α-methylpregna-1,4-diene-3,11,20-trione**
(C₂₄H₃₀O₃; 1056-40-2) see: Desoximetasone
- 3α-acetoxy-16β-methylpregnane-11,20-dione**
(C₂₄H₃₀O₄; 5078-85-3) see: Betamethasone
- 21-acetoxy-16α-methylpregnane-3,11,20-trione**
(C₂₄H₃₀O₃; 984-41-8) see: Desoximetasone
- (3β,5α,5β)-3-acetoxy-2'-methyl-5'H-pregnano[17,16-d]-oxazole-11,20-dione**
(C₂₅H₃₅NO₃; 5070-96-2) see: Fluazacort
- 21-acetoxy-16α-methyl-1,4,9(11)-pregnatriene-3,20-dione**
(C₂₄H₃₀O₄; 4258-83-7) see: Desoximetasone
- (5'β)-21-acetoxy-2'-methyl-5'H-pregna-1,4,9(11)-trieno[17,16-d]oxazole-3,20-dione**
(C₂₅H₂₉NO₃; 16119-56-5) see: Fluazacort
- 3α-acetoxy-16-methyl-16-pregnene-11,20-dione**
(C₂₄H₃₄O₄; 983-48-2) see: Betamethasone
- 21-acetoxy-16β-methyl-3α,11α,17α-trihydroxy-5β-pregnan-20-one**
(C₂₄H₃₈O₆; 5078-97-7) see: Betamethasone
- 17-acetoxy-19-nor-4-pregnene-3,20-dione**
(C₂₂H₃₀O₄; 31981-44-9) see: Norgestrel acetate
- 17β-acetoxy-3-oxo-5α-androst-1-ene**
(C₂₁H₃₀O₃; 64-82-4) see: Metenolone acetate
- 3β-acetoxy-17-oxo-5-androstene**
(C₂₁H₃₀O₃; 853-23-6) see: Estradiol; Mesterolone; Testosterone
- 2(R)-acetoxy-2-phenylacetic acid**
(C₁₀H₁₀O₄; 51019-43-3) see: Orlistat
- 3-acetoxy-4-phenyl-1-[(S)-1-phenylethyl]-2-azetidinone**
(C₁₉H₁₉NO₃) see: Docetaxel; Paclitaxel
- 3α-acetoxy-16-pregnene-11,20-dione**
(C₂₃H₃₂O₄; 4970-39-2) see: Betamethasone; Desoximetasone
- 17-acetoxyprogesterone**
(C₂₃H₃₂O₄; 302-23-8) see: Cyproterone acetate; Flumedroxone acetate; Pentagestrone acetate
- (2-acetoxypropionic)anhydride**
(C₁₀H₁₄O₃; 25769-62-4) see: Aclatonium napadisilate
- 1-2-acetoxypropionyl chloride**
(C₅H₇ClO₃; 36394-75-9) see: Iopamidol
- 4-acetoxyretinal**
(C₂₂H₃₀O₃; 76686-06-1) see: Canthaxanthin
- 4-acetoxyretinol**
(C₂₂H₃₂O₃; 15353-43-2) see: Canthaxanthin
- (4-acetoxyretinyl)triphenylphosphonium chloride**
(C₄₀H₄₆ClO₂P; 15353-45-4) see: Canthaxanthin
- 6-acetoxy-2,5,7,8-tetramethyl-2-(4-nitrophenoxy)methyl-4-chromanone**
(C₂₂H₂₃NO₇; 107188-34-1) see: Troglitazone
- 4-acetoxy-2,3,5-trimethylphenol**
(C₁₁H₁₄O₃; 36592-62-8) see: Metipranolol; Troglitazone
- (S)-(+)-2-acetoxy-1,1,2-triphenylethanol**
(C₂₂H₂₀O₃; 95061-51-1) see: Atorvastatin calcium
- N-acetyl-3-(4-acetoxy-3-methoxyphenyl)-L-alanine**
(C₁₄H₁₇NO₆; 31269-52-0) see: Levodopa
- 1-acetyladamantane**
(C₁₂H₁₈O; 1660-04-4) see: Rimantadine
- N-acetyl-DL-alanine**
(C₄H₉NO₂; 1115-69-1) see: L-Alanine
- 21-O-acetylaldosterone**
(C₂₃H₃₀O₆; 297-91-6) see: Aldosterone
- 21-O-acetylaldosterone 18-oxime**
(C₂₃H₃₁NO₆; 74220-49-8) see: Aldosterone
- 1-acetylaminoadamantane**
(C₁₂H₁₉NO; 880-52-4) see: Arnantadine
- 4-[6-(acetylamino)-3-amino-2-pyridinyl]-1-piperazine-carboxylic acid ethyl ester**
(C₁₄H₂₁N₅O₃; 75167-24-7) see: Enoxacin
- 5-(acetylamino)-2,6-anhydro-4-azido-3,4,5-trideoxy-D-glycero-D-galacto-non-2-enonic acid methyl ester 7,8,9-triacetate**
(C₁₈H₂₄N₄O₁₀; 130525-58-5) see: Zanamivir
- 5-(acetylamino)-2,6-anhydro-3,5-dideoxy-D-glycero-D-galacto-non-2-enonic acid methyl ester 7,8,9-triacetate**
(C₁₈H₂₅NO₁₁; 174273-28-0) see: Zanamivir
- 4-(acetylamino)benzeneacetic acid ethyl ester**
(C₁₂H₁₅NO₃; 13475-17-7) see: Actarit
- 4-(acetylamino)benzenebutanoic acid methyl ester**
(C₁₃H₁₇NO₃) see: Chlorambucil
- α-(acetylamino)-1,3-benzodioxole-5-propanoic acid**
(C₁₂H₁₃NO₃; 20850-40-2) see: Levodopa
- 2-(acetylamino)-3-benzoylbenzeneacetic acid ethyl ester**
(C₁₉H₁₉NO₄; 51135-36-5) see: Amfenac sodium
- 3-acetylamino-5-benzylthio-1,3,4-thiadiazole**
(C₁₁H₁₁N₃OS₂; 64387-67-3) see: Methazolamide
- 4-acetyl-2-aminobiphenyl**
(C₁₄H₁₃NO; 42771-78-8) see: Flurbiprofen
- 2-acetylamino-6-chloro-5-nitro-4(3H)-pyrimidinone**
(C₆H₃ClN₄O₄; 51471-45-5) see: Abacavir
- N-acetyl-4-amino-2,4-dideoxy-2,3-didehydroneuraminic acid**
(C₁₁H₁₈N₂O₇; 130525-62-1) see: Zanamivir
- 6-acetylamino-3,4-dihydro-2(1H)-quinolinone**
(C₁₁H₁₂N₂O₂; 22246-14-6) see: Vesnarinone
- (S)-2-(acetylamino)-N-[2-(3,4-dihydroxyphenyl)ethyl]-4-(methylthio)butanamide**
(C₁₅H₂₂N₂O₄S; 122570-36-9) see: Docarpamine
- p-acetylamino-β-ethoxyacrylanilide**
(C₁₃H₁₆N₂O₃) see: Vesnarinone

(acetylamino)(1*H*-indol-3-ylmethyl)propanedioic acid diethyl ester

(C₁₈H₂₂N₂O₅; 5379-97-5) see: L-Tryptophan

2-acetylamino-5-mercapto-1,3,4-thiadiazole

(C₄H₅N₃OS; 32873-56-6) see: Acetazolamide

3-[(acetylamino)methyl]-5-amino-2,4,6-triiodobenzoic acid

(C₁₀H₉I₃N₂O₃; 727-56-0) see: Iodamide

3-acetylamino-4-methylbenzenesulfonamide

(C₉H₁₂N₂O₃S; 17485-44-8) see: Methexamide

3-[(acetylamino)methyl]-4-chloro-5-nitrobenzoic acid

(C₁₀H₅ClN₂O₅; 728-46-1) see: Iodamide

trans-4-[(acetylamino)methyl]cyclohexanecarbonyl chloride

(C₁₀H₁₆ClNO₂; 82085-98-1) see: Ciclometasone

4-(acetylamino)-*N*-[4-(1-methylethoxy)benzoyl]benzenesulfonamide

(C₁₈H₂₀N₂O₅S) see: Sulfaproxyline

(±)-2-(acetylaminoethyl)-4-(4-fluorobenzyl)morpholine

(C₁₄H₁₉FN₂O₂; 112913-94-7) see: Mosapride citrate

(*S*)-2-(acetylamino)-4-(methylthio)butanoic acid 1-oxopropyl ester

(C₁₀H₁₇NO₄S) see: Docarpamine

(acetylamino)(3-oxopropyl)propanedioic acid diethyl ester

(C₁₂H₁₉NO₆; 53908-65-9) see: Oxitriptan

(acetylamino)[3-(phenylhydrazono)propyl]propanedioic acid diethyl ester

(C₁₈H₂₅N₃O₅; 6297-96-7) see: L-Tryptophan

(acetylamino)[[5-(phenylmethoxy)-1*H*-indol-3-yl]methyl]propanedioic acid diethyl ester

(C₂₅H₂₈N₂O₆; 50469-23-3) see: Oxitriptan

***N*-acetyl-*N*-(*m*-aminophenyl)-2-methyl-β-alanine**

(C₁₂H₁₆N₂O₃; 16034-74-5) see: Iocetamic acid

***N*-[[4-(acetylamino)phenyl]sulfonyl]acetamide**

(C₁₀H₁₂N₂O₄S; 5626-90-4) see: Sulfacetamide

***N*-[[4-(acetylamino)phenyl]sulfonyl]benzamide**

(C₁₅H₁₄N₂O₄S; 5661-33-6) see: Sulfabenzamide

***N*-[[4-(acetylamino)phenyl]sulfonyl]-2-ethylidenehydrazinecarbothioamide**

(C₁₁H₁₄N₄O₃S₂; 57053-66-4) see: Sulfamethizole

***N*-[[4-(acetylamino)phenyl]sulfonyl]-3-methyl-2-butenamide**

(C₁₃H₁₆N₂O₄S; 71119-41-0) see: Sulfadiazamide

***N*-[[4-(acetylamino)phenyl]sulfonyl]-2-propylidenehydrazinecarbothioamide**

(C₁₂H₁₆N₄O₃S) see: Sulfaethidole

(8*S*-cis)-8-acetyl-1-amino-7,8,9,10-tetrahydro-6,8,10,11-tetrahydroxy-5,12-naphthacenedione

(C₂₀H₁₇NO₇; 120372-33-0) see: Idarubicin

2-acetylamino-1,3,4-thiadiazole-5-sulfonyl chloride

(C₄H₄ClN₃O₃S₂; 32873-57-7) see: Acetazolamide

***N*-acetylanthranilic acid**

(C₉H₉NO₃; 89-52-1) see: Mecloqualone; Methaqualone

4-acetylbenzenesulfonamide

(C₈H₉NO₃S; 1565-17-9) see: Acetohexamide

2-acetylbenzofuran

(C₁₀H₈O₂; 1646-26-0) see: Benzarone

2-acetylbenzo[*b*]thiophene

(C₁₀H₈OS; 22720-75-8) see: Zileuton

***N*²-acetyl-9-(2-benzoyloxyethoxymethyl)guanine**

(C₁₇H₁₇N₅O₅; 133186-23-9) see: Aciclovir

***N*-acetyl-5-benzoyloxy-*DL*-tryptophan**

(C₂₀H₂₀N₂O₄; 53017-51-9) see: Oxitriptan

***N*-acetyl-*N*-*O*-bis(trimethylsilyl)cytosine**

(C₁₂H₂₃N₃O₂Si₂; 18027-23-1) see: Gemcitabine

acetyl bromide

(C₂H₃BrO; 506-96-7) see: Paclitaxel

***N*-acetyl-2'-bromo-2'-deoxycytidine 3',5'-diacetate**

(C₁₅H₁₈BrN₃O₇; 126430-12-4) see: Zalcitabine

***N*-acetyl-3'-bromo-3'-deoxycytidine 2',5'-diacetate**

(C₁₅H₁₈BrN₃O₇; 126430-11-3) see: Zalcitabine

2-acetyl-4-butyramidophenol

(C₁₂H₁₅NO₃; 40188-45-2) see: Acebutolol

***O*-acetyl-4-butyramidophenol**

(C₁₂H₁₅NO₃; 40188-44-1) see: Acebutolol

2-acetylbutyrolactone

(C₆H₈O₃; 517-23-7) see: Chloroquine; Risperidone

***N*-acetyl-ε-caprolactam**

(C₈H₁₃NO₂; 1888-91-1) see: Acexamid acid

acetyl chloride

(C₂H₃ClO; 75-36-5) see: Acebutolol; Acetiamine; Acetylcholine chloride; L-Alanine; Benfurodil hemisuccinate; Chlorprothixene; Flumetasone; Ibuprofen; Iotalamic acid; Ioxitalamic acid; Levodopa; Methestrol dipropionate; Midecamycin acetate; Naproxen; Nimesulide; Paclitaxel; Paramethasone; Phensuximide; Retinol; Rocuronium bromide; Rofecoxib; Ropinirole; Tazarotene; Thiopropazate; Tiracizine; Vecuronium bromide

3-acetyl-5-chloro-2-(benzylthio)thiophene

(C₁₃H₁₁ClOS₂; 160982-09-2) see: Brinzolamide

2-acetyl-10-(3-chloropropyl)phenothiazine

(C₁₇H₁₆ClNOS; 39481-55-5) see: Acetophenazine; Piperacetazine

3-acetyl-5-chloro-2-thiophenesulfonamide

(C₆H₆ClNO₃S₂; 160982-10-5) see: Brinzolamide

21-*O*-acetylcorticosterone

(C₂₃H₃₂O₅; 1173-26-8) see: Aldosterone

21-*O*-acetylcortisone

(C₂₃H₃₀O₆; 50-04-4) see: Cortisone; Hydrocortisone

acetylcyclohexane

(C₈H₁₄O; 823-76-7) see: Cicrotoic acid

acetylcyclopropane

(C₅H₈O; 765-43-5) see: Calcipotriol

***N*-acetylcytidine**

(C₁₁H₁₅N₃O₆; 3768-18-1) see: Zalcitabine

5-acetyl-10,11-dibromo-10,11-dihydro-5*H*-dibenz[*b,f*]-azepine

(C₁₆H₁₃Br₂NO; 4614-45-3) see: Oxcarbazepine

3-acetyl-2,5-dichlorothiophene

(C₆H₄Cl₂OS; 36157-40-1) see: Brinzolamide

***N*-acetyl-2',3'-didehydro-2',3'-dideoxycytidine 5'-acetate**

(C₁₃H₁₃N₃O₅; 62805-52-1) see: Zalcitabine

1-acetyl-4-(2,4-difluorobenzoyl)piperidine

(C₁₄H₁₃F₂NO₂; 84162-82-3) see: Risperidone

acetyldigitoxin

(C₄₃H₆₆O₁₄; 1111-39-3) see: α-Acetyldigoxin

β-acetyldigitoxin

(C₄₃H₆₆O₁₄; 1264-51-3) see: Acetyldigitoxin

acetyldigoxin(C₄₃H₆₆O₁₅; 5511-98-8) see: α -Acetyldigoxin; Digoxin **α -acetyldigoxin**

see under acetyldigoxin

 β -acetyldigoxin(C₄₃H₆₆O₁₅; 5355-48-6) see: Digoxin**2-acetyl-5-(2,5-dihydro-5-oxo-3-furyl)-3-methylbenzofuran**(C₁₅H₁₂O₄; 3447-79-8) see: Benfurodil hemisuccinate**5-acetyl-4',5'-dihydrospiro[benzofuran-2(3H),3'(2'H)-furan]-2',3-dione**(C₁₃H₁₀O₅; 72491-93-1) see: Spizofurone **α -acetyl-3,4-dimethoxybenzeneacetonitrile**(C₁₇H₁₃NO₃; 18133-46-5) see: Methylpoda**L-N-acetyl-3-(3,4-dimethoxyphenyl)-2-methylalanine**(C₁₄H₁₉NO₃; 16825-27-7) see: Carbidopa**9-acetyl-2-dimethylaminosulfonyl-9H-thioxanthene**(C₁₇H₁₇NO₂S₂; 5143-98-6) see: Tiotixene**4-acetyldiphenyl sulfide**(C₁₄H₁₂OS; 10169-55-8) see: Tibezonium iodide**14-O-acetyldoxorubicin**(C₂₉H₃₁NO₁₂; 30489-04-4) see: Pirarubicin**acetylene**(C₂H₂; 74-86-2) see: Desogestrel; Ethchlorvynol; Ethinamate; Ethinylestradiol; Ethisterone; Etretinate; Fluorexene; Gestrinone; Lynestrol; Malotilate; Mestranol; Methylpentynol; Moxestrol; Norethisterone; Noretynodrel; Norgestrel; Quinestrol; Retinol; Spironolactone; Tibolone; Vinylbital**acetylenebis(magnesium bromide)**(C₂Br₂Mg₂; 4301-15-9) see: Betacarotene**7 α -acetyl-6,14-endo-ethanotetrahydrothebaine**(C₂₃H₂₉NO₄; 16196-82-0) see: Buprenorphine**7 α -acetyl-6,14-endo-ethenotetrahydrothebaine**(C₂₃H₂₇NO₄; 15358-22-2) see: Buprenorphine**4-(acetylethylamino)-3-allyl-2-hydroxyacetophenone**(C₁₅H₁₉NO₃; 69049-64-5) see: Nedocromil**4-(acetylethylamino)-2-allyloxyacetophenone**(C₁₅H₁₉NO₃; 69049-63-4) see: Nedocromil**4-(acetylethylamino)-2-hydroxyacetophenone**(C₁₂H₁₅NO₃; 69049-62-3) see: Nedocromil**4-acetyl-2-fluorobiphenyl**(C₁₄H₁₁FO; 42771-79-9) see: Flurbiprofen**21-O-acetyl-6 α -fluoro-16 α -hydroxyhydrocortisone acetate**(C₂₆H₃₃FO₇; 2802-11-1) see: Fluclorolone acetate**2-acetylfuran**(C₆H₆O₂; 1192-62-7) see: Cefuroxime**acetylgitoxin**(C₄₃H₆₆O₁₅; 1329-76-6) see: α -Acetyldigoxin**N-acetyl-L-glutamic acid**(C₇H₁₁NO₃; 1188-37-0) see: Repaglinide**N²-acetyl-L-glutamine**(C₇H₁₂N₂O₄; 2490-97-3) see: Aceglutamide aluminum**(\pm)-2-acetyl-7-glycidyloxybenzofuran**(C₁₃H₁₂O₄; 39543-77-6) see: Befunolol**N-acetylglycine**(C₄H₇NO₃; 543-24-8) see: Dextrothyroxine**N²-acetylguanidine**(C₇H₇N₅O₂; 19962-37-9) see: Aciclovir; Ganciclovir**acetylhydrazine**

see under acetohydrazide

2-(2-acetylhydrazino)-7-chloro-5-phenyl-3H-1,4-benzodiazepine(C₁₇H₁₅ClN₄O; 28910-89-6) see: Alprazolam**(S)- α -(1-acetylhydrazino)-3,4-dimethoxy- α -methylbenzenepropanoic acid**(C₁₄H₂₀N₂O₅; 33643-42-4) see: Carbidopa**[5-[[[4-[[5-(acetylhydroxyamino)pentyl]amino]-1,4-dioxobutyl]hydroxyamino]pentyl]carbamic acid phenylmethyl ester**(C₂₄H₃₈N₄O₇; 95748-46-2) see: Deferoxamine**N'-[[5-(acetylhydroxyamino)pentyl]-N-(5-aminopentyl)-N-hydroxybutanediamide**(C₁₆H₃₂N₄O₅; 252325-60-3) see: Deferoxamine**[5-(acetylhydroxyamino)pentyl]carbamic acid phenylmethyl ester**(C₁₅H₂₂N₂O₄; 92700-68-0) see: Deferoxamine**3-acetyl-4-hydroxyaniline**(C₈H₉NO₂; 50-80-6) see: Celiprolol**3-acetyl-4-hydroxy-7,8-dimethyl-2(1H)-quinolinone**(C₁₃H₁₃NO₃; 63768-46-7) see: Repirinast**(11 β)-13-acetyl-11-hydroxygon-5-ene-3,17-dione cyclic 3,17-bis(1,2-ethanediy) acetal**(C₂₃H₃₂O₆; 59860-75-2) see: Desogestrel**N-(3-acetyl-2-hydroxyphenyl)-4-(4-phenylbutoxy)benzamide**(C₂₅H₂₅NO₄; 136450-06-1) see: Pramlukast**1-acetylimidazolidin-2-one**(C₅H₈N₂O₂; 5391-39-9) see: Indanazoline; Moxonidine**1-acetyl-5-iodouracil**(C₆H₅I₂O₃; 89380-55-2) see: Idoxuridine**N-acetylisatine**(C₁₀H₇NO₃; 574-17-4) see: Cinchocaine**N-acetyl-L-leucine**(C₈H₁₅NO₃; 1188-21-2) see: Cisatracurium besylate**(S)-N-acetylmethionine**(C₇H₁₃NO₃S; 65-82-7) see: Docarpamine**N-acetyl-DL-methionine**(C₇H₁₃NO₃S; 1115-47-5) see: Citiolone**2-acetyl-7-methoxybenzofuran**(C₁₁H₁₀O₃; 43071-52-9) see: Befunolol**N-acetyl-3-methoxy-O, α -dimethyl-N-nitroso-L-tyrosine**(C₁₄H₁₈N₂O₆; 52514-53-1) see: Carbidopa**2-acetyl-7-methoxy-10-methylphenothiazine**(C₁₆H₁₅NO₂S; 13956-07-5) see: Protizinic acid**2-acetyl-6-methoxynaphthalene**(C₁₃H₁₂O₂; 3900-45-6) see: Naproxen**2-acetyl-7-methoxyphenothiazine**(C₁₅H₁₃NO₂S; 13623-26-2) see: Protizinic acid**1-(acetylmethylamino)-3-phenylindole**(C₁₇H₁₆N₂O; 57647-17-3) see: Bincodaine**5-acetyl-2-methylbenzenesulfonamide**(C₉H₁₁NO₃S; 70958-70-2) see: Amosulalol**(N-acetyl-4-methylmetanilyl)carbamic acid ethyl ester**(C₁₂H₁₆N₂O₃S; 15429-65-9) see: Metahexamide**1-(N-acetyl-4-methylmetanilyl)-3-cyclohexylurea**(C₁₆H₂₃N₃O₄S; 15429-72-8) see: Metahexamide**N-acetyl-2-methyl-N-(m-nitrophenyl)- β -alanine**(C₁₂H₁₄N₂O₅; 16034-76-7) see: Iocetamic acid

2-acetyl-10-methylphenothiazine(C₁₅H₁₃NOS; 25324-52-1) see: Metiazinic acid**10-acetyl-2-(methylsulfinyl)-10H-phenothiazine**(C₁₅H₁₃NO₂S₂; 80471-59-6) see: Mesoridazine**10-acetyl-2-(methylthio)phenothiazine**(C₁₅H₁₃NOS₂; 23503-69-7) see: Mesoridazine**N^α-(N-acetylmuramoyl-L-alanyl-D-isoglutamyl)-L-lysine**(C₂₅H₄₄N₆O₁₂; 56816-17-2) see: Romurtide**N-acetylneuraminic acid**(C₁₁H₁₉NO₉; 114-04-5) see: Zanamivir**N-acetyl-α-neuraminic acid methyl ester 2,4,7,8,9-pentaacetate**(C₂₂H₃₁NO₁₄; 72690-21-2) see: Zanamivir**4-acetyl-2-nitrobiphenyl**(C₁₄H₁₁NO₃; 42771-77-7) see: Flurbiprofen**21-O-acetyl-11-O-nitrosylcorticosterone**(C₂₃H₃₁NO₆; 74220-48-7) see: Aldosterone**2-acetyl-5-norbornene**(C₉H₁₂O; 5063-03-6) see: Biperidene**1-acetyl-3α,7αβ-octahydroindole**(C₁₀H₁₇NO) see: Trandolapril**1-acetyl-2α,3α,7αβ-octahydroindole-2-carbonitrile**(C₁₁H₁₆N₂O; 89226-37-9) see: Trandolapril**[3β,16β(R)]-3-(acetyloxy)-16-[[5-(acetyloxy)-4-methyl-1-oxopentyl]oxy]pregn-5-en-20-one**(C₃₁H₄₆O₇; 58400-99-0) see: Pregnenolone**1-[4-(acetyloxy)-3-[(acetyloxy)methyl]phenyl]-2-bromoethanone**(C₁₃H₁₃BrO₅; 24085-07-2) see: Salbutamol**1-[4-(acetyloxy)-3-[(acetyloxy)methyl]phenyl]-2-[(1,1-dimethylethyl)(phenylmethyl)amino]ethanone**(C₂₄H₂₉NO₅; 77430-27-4) see: Salbutamol**1-[4-(acetyloxy)-3-[(acetyloxy)methyl]phenyl]ethanone**(C₁₃H₁₄O₅; 24085-06-1) see: Salbutamol**N-[(3β)-3-(acetyloxy)androsta-5,16-dien-17-yl]acetamide**(C₂₃H₃₃NO₃; 65732-71-0) see: Prasterone**[5α,17β]-17-(acetyloxy)androstane-1,3-dione cyclic 3-(1,2-ethanediy acetal)**(C₂₃H₃₄O₅; 1054-83-7) see: Metenolone acetate**N-[(3β,17β)-3-(acetyloxy)androst-5-en-17-yl]acetamide**(C₂₃H₃₃NO₃; 4350-67-8) see: Prasterone**[R-(R*,R*)]-α-(acetyloxy)benzeneacetic acid 1-(2-propenyl)dodecyl ester**(C₂₅H₃₈O₄; 152906-15-5) see: Orlistat**[S-(R*,S*)]-α-(acetyloxy)benzeneacetic acid 1-(2-propenyl)dodecyl ester**(C₂₅H₃₈O₄; 152906-16-6) see: Orlistat**6'-(acetyloxy)-5-bromo-2',3',8',8'a-tetrahydro-5'-methoxy-1'-methylspiro[2-cyclohexene-1,7'(1'H)-cyclopent[*ij*]-isoquinolin]-4-one**(C₂₀H₂₂BrNO₄; 54169-68-5) see: Glaziovine**(R*,S*)-α-(acetyloxy)-β-bromobenzenepropanoic acid methyl ester**(C₁₂H₁₃BrO₄; 132377-76-5) see: Paclitaxel**(11β,16α)-21-(acetyloxy)-9-bromo-11,17-dihydroxy-16-methylpregn-4-ene-3,20-dione**(C₂₄H₃₃BrO₆; 34542-57-9) see: Dexamethasone**(3β,5α,6β,16α)-21-(acetyloxy)-5-bromo-16,17-epoxy-6-fluoro-3-hydroxypregnan-20-one**(C₂₃H₃₂BrFO₅; 1813-08-7) see: Fludroxycortide**(3β,5α,6β,16α)-21-(acetyloxy)-5-bromo-6-fluoro-3-hydroxy-16-methylpregnan-20-one**(C₂₄H₃₆BrFO₄; 1176-85-8) see: Fluocortolone**(6α,11β,16α)-21-(acetyloxy)-9-bromo-6-fluoro-11-hydroxy-16-methylpregn-4-ene-3,20-dione**(C₂₄H₃₂BrFO₅; 2143-33-1) see: Diflucortolone valerate**(5α,6β,16α)-21-(acetyloxy)-5-bromo-6-fluoro-16-methylpregnane-3,20-dione**(C₂₄H₃₄BrFO₄; 22574-20-5) see: Fluocortolone**(2α,5α,6β,11α)-21-(acetyloxy)-2-bromo-6-fluoro-5,11,17-trihydroxypregnan-3,20-dione**(C₂₃H₃₂BrFO₇; 57781-10-9) see: Halopredone diacetate**(4β,5β)-21-(acetyloxy)-4-bromo-17-hydroxypregnan-3,11,20-trione**(C₂₃H₃₁BrO₆; 74243-24-6) see: Cortisone**(1α)-17-(acetyloxy)-6-chloro-1-(chloromethyl)pregna-4,6-diene-3,20-dione**(C₂₄H₃₀Cl₂O₄; 17183-98-1) see: Cyproterone acetate**3-(acetyloxy)-7-chloro-5-(2-chlorophenyl)-1,3-dihydro-2H-1,4-benzodiazepin-2-one**(C₁₇H₁₂Cl₂N₂O₃) see: Lorazepam**3-(acetyloxy)-7-chloro-5-(2-fluorophenyl)-1,3-dihydro-2H-1,4-benzodiazepin-2-one**(C₁₇H₁₂ClFN₂O₃; 19011-80-4) see: Cinolazepam**(5β,16α)-21-(acetyloxy)-2,4-dibromo-16-methylpregnane-3,11,20-trione**(C₂₄H₃₂Br₂O₅) see: Desoximetasone**(6α,11β,16α)-21-(acetyloxy)-6,9-difluoro-11,17-dihydroxy-16-methylpregn-4-ene-3,20-dione**(C₂₄H₃₂F₂O₆; 2358-07-8) see: Flumetasone**(6α,11β,16α)-21-(acetyloxy)-6,9-difluoro-11-hydroxy-16-methylpregn-4-ene-3,20-dione**(C₂₄H₃₂F₂O₅; 2664-07-5) see: Diflucortolone valerate**(1β,2β)-17-(acetyloxy)-1,2-dihydro-3'H-cyclopropa[1,2]-pregna-1,4,6-triene-3,20-dione**(C₂₄H₃₀O₄; 2701-50-0) see: Cyproterone acetate**(2S-cis)-3-(acetyloxy)-2,3-dihydro-2-(4-methoxyphenyl)-1,5-benzothiazepin-4(5H)-one**(C₁₈H₁₇NO₄S; 87447-47-0) see: Diltiazem**(1β,2β)-17-(acetyloxy)-1,2-dihydro-3'H-pregna-1,4,6-trienol[1,2-c]pyrazol-3,20-dione**(C₂₄H₃₀N₂O₄) see: Cyproterone acetate**(3β,16β)-3-(acetyloxy)-5',16-dihydropreg-5-eno[17,16-c]-pyrazol-20-one**(C₂₄H₃₄N₂O₃; 16137-47-6) see: Fluprednidene acetate**(3α,16α)-14-(acetyloxy)-14,15-dihydro-1,14-seco-eburnamenine-14-carboxylic acid methyl ester perchlorate**(C₂₃H₃₁ClN₂O₈; 40163-51-7) see: Vincamine**(3α,16α)-21-(acetyloxy)-3,17-dihydroxy-16-methylpregnane-11,20-dione**(C₂₄H₃₆O₆; 67253-66-1) see: Dexamethasone**(11β,16α)-21-(acetyloxy)-11,17-dihydroxy-16-methylpregn-4-ene-3,20-dione**(C₂₄H₃₄O₆; 41020-56-8) see: Dexamethasone**(16α)-21-(acetyloxy)-16,17-dihydroxypregna-4,9(11)-diene-3,20-dione**(C₂₃H₃₀O₆; 74220-43-2) see: Triamcinolone

- (5 α ,11 α)-21-(acetyloxy)-11,17-dihydroxypregname-3,20-dione
(C₂₃H₃₄O₆) see: Halopredone diacetate
- (11 α)-21-(acetyloxy)-11,17-dihydroxypregn-4-ene-3,20-dione
(C₂₃H₃₂O₆; 1250-97-1) see: Halopredone diacetate
- (11 β)-21-(acetyloxy)-11,17-dihydroxypregn-5-ene-3,20-dione cyclic 3,20-bis(1,2-ethanediy acetal)
(C₂₇H₄₀O₈; 74220-42-1) see: Triamcinolone
- α -(acetyloxy)-*N*-(1,1-dimethylethyl)-6-(hydroxymethyl)-5-(phenylmethoxy)-2-pyridineacetamide
(C₂₁H₂₆N₂O₅; 38029-07-1) see: Pirbuterol
- 1-[4-[2-(acetyloxy)-1,1-dimethylethyl]phenyl]-4-chloro-1-butanone
(C₁₆H₂₁ClO₃; 169032-11-5) see: Fexofenadine hydrochloride
- 1-[4-[2-(acetyloxy)-1,1-dimethylethyl]phenyl]-4-[4-(hydroxydiphenylmethyl)-1-piperidinyl]-1-butanone
(C₃₄H₄₁NO₄; 191155-94-9) see: Fexofenadine hydrochloride
- 3-(acetyloxy)-*N*-[(5*S*,6*R*)-2,2-dimethyl-6-[(methylsulfonyl)oxy]-1,3-dioxepan-5-yl]-2-methylbenzamide
(C₁₈H₂₅NO₈S; 188936-03-0) see: Nelfinavir mesylate
- (17 β)-17-(acetyloxy)-4,5-epoxyandrostan-3-one
(C₂₁H₃₀O₄; 2944-75-4) see: Clostebol acetate
- (1 β ,2 β ,6 α ,7 α)-17-(acetyloxy)-6,7-epoxy-1,2-dihydro-3'*H*-cyclopropa[1,2]pregna-1,4-diene-3,20-dione
(C₂₄H₃₀O₅; 15423-97-9) see: Cyproterone acetate
- (5 α ,6 α ,11 α)-21-(acetyloxy)-5,6-epoxy-11,17-dihydroxypregnane-3,20-dione cyclic 3-(1,2-ethanediy acetal)
(C₂₅H₃₆O₈; 57781-08-5) see: Halopredone diacetate
- (6 α ,9 β ,11 β ,16 α)-21-(acetyloxy)-9,11-epoxy-6-fluoro-17-hydroxy-16-methylpregn-4-ene-3,20-dione
(C₂₄H₃₁FO₆; 3906-67-0) see: Flumetasone
- (9 β ,11 β ,16 α)-21-(acetyloxy)-9,11-epoxy-17-hydroxy-16-methylpregn-4-ene-3,20-dione
(C₂₄H₃₂O₆; 34542-58-0) see: Dexamethasone
- (9 β ,11 β ,16 α)-21-(acetyloxy)-9,11-epoxy-16-methylpregna-1,4-diene-3,20-dione
(C₂₄H₃₀O₅; 52092-65-6) see: Desoximetasone
- (3 β ,5 α ,6 α ,16 α)-3-(acetyloxy)-5,6-epoxy-16-methylpregnan-20-one
(C₂₄H₃₆O₄; 2118-11-8) see: Flumetasone
- (3 β ,16 α)-3-(acetyloxy)-16,17-epoxy-16-methylpregn-5-en-20-one
(C₂₄H₃₄O₄; 14105-35-2) see: Fluprednidene acetate; Prednylidene
- (3 β ,5 α ,16 α)-3-(acetyloxy)-16,17-epoxypregnane-11,20-dione
(C₂₃H₃₂O₅; 909-98-8) see: Fluazacort
- 17-(acetyloxy)-3-ethoxypregna-3,5-dien-20-one
(C₂₅H₃₆O₄; 16319-93-0) see: Flumedroxone acetate
- (11 β ,16 α)-21-(acetyloxy)-9-fluoro-11,17-dihydroxy-16-methylpregn-4-ene-3,20-dione
(C₂₄H₃₃FO₆; 1524-94-3) see: Dexamethasone
- (11 β ,16 α)-21-(acetyloxy)-9-fluoro-11-hydroxy-16,17-[(1-methylethylidene)bis(oxy)]pregn-5-ene-3,20-dione cyclic 3-(1,2-ethanediy acetal)
(C₂₈H₃₉FO₈; 2741-96-0) see: Formocortol
- (6 α ,16 α)-21-(acetyloxy)-6-fluoro-17-hydroxy-16-methylpregna-4,9(11)-diene-3,20-dione
(C₂₄H₃₁FO₅; 1881-07-8) see: Flumetasone
- (6 α ,16 α)-21-(acetyloxy)-6-fluoro-17-hydroxy-16-methylpregn-4-ene-3,20-dione
(C₂₄H₃₃FO₅; 1692-75-7) see: Flumetasone
- (6 β ,16 α)-21-(acetyloxy)-6-fluoro-17-hydroxy-16-methylpregn-4-ene-3,20-dione
(C₂₄H₃₃FO₅; 3821-70-3) see: Flumetasone
- (6 α ,16 α)-21-(acetyloxy)-6-fluoro-16,17-[(1-methylethylidene)bis(oxy)]pregna-4,9(11)-diene-3,20-dione
(C₂₆H₃₃FO₆; 2395-11-1) see: Fluclorolone acetonide
- (6 α ,16 α)-21-(acetyloxy)-6-fluoro-16-methylpregna-4,9(11)-diene-3,20-dione
(C₂₄H₃₁FO₄; 2314-87-6) see: Diflucortolone valerate
- (1 α ,5 α ,17 β)-17-(acetyloxy)-1-hydroxyandrostan-3-one
(C₂₁H₃₂O₄; 1624-88-0) see: Metenolone acetate
- 21-(acetyloxy)-17-hydroxy-16-methylenepregna-4,9(11)-diene-3,20-dione
(C₂₄H₃₀O₅; 18892-17-6) see: Fluprednidene acetate
- (3 β)-3-(acetyloxy)-17-hydroxy-16-methylenepregn-5-en-20-one
(C₂₄H₃₄O₄; 15369-66-1) see: Fluprednidene acetate; Prednylidene
- (16 α)-21-(acetyloxy)-17-hydroxy-16-methylpregna-4,9(11)-diene-3,20-dione
(C₂₄H₃₂O₅; 34542-56-8) see: Dexamethasone
- (16 α)-21-(acetyloxy)-17-hydroxy-16-methylpregnane-3,11,20-trione
(C₂₄H₃₄O₆; 14486-38-5) see: Dexamethasone
- (16 β)-21-(acetyloxy)-17-hydroxy-16-methylpregnane-3,11,20-trione
(C₂₄H₃₄O₆; 14486-39-6) see: Meprednisone
- (16 α)-21-(acetyloxy)-17-hydroxy-16-methylpregn-4-ene-3,11,20-trione
(C₂₄H₃₂O₆; 34542-53-5) see: Dexamethasone
- 21-(acetyloxy)-17-hydroxypregna-4,9(11)-diene-3,20-dione
(C₂₃H₃₀O₅; 7753-60-8) see: Fludrocortisone
- (11 β)-21-(acetyloxy)-11-hydroxypregna-4,17(20)-dien-3-one
(C₂₃H₃₂O₄; 5327-59-3) see: Cortisone
- (11 β ,17Z)-21-(acetyloxy)-11-hydroxypregna-4,17(20)-dien-3-one
(C₂₃H₃₂O₄; 31085-34-4) see: Hydrocortisone
- (3 β)-21-(acetyloxy)-3-hydroxypregn-5-en-20-one
(C₂₃H₃₄O₄; 566-78-9) see: Desoxycortone acetate
- 1-[2-(acetyloxy)-3-methoxy-3-oxopropyl]-1-ethyl-2,3,4,6,7,12-hexahydro-1*H*-indolo[2,3-*a*]quinolizin-5-ium perchlorate
(C₂₃H₂₉ClN₂O₈; 40163-50-6) see: Vincamine
- 4-[[4-(acetyloxy)-3-methoxyphenyl]methylene]-2-methyl-5(4*H*)-oxazolone
(C₁₄H₁₃NO₅; 39600-31-2) see: Levodopa
- (6*R*-*trans*)-3-[(acetyloxy)methyl]-7-[(bromoacetyl)amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid
(C₁₂H₁₃BrN₂O₆S; 26973-80-8) see: Cefapirin

- (6*R*-*cis*)-3-[(acetyloxy)methyl]-7-[[4-carboxy-2,3-dihydro-3-oxo-5-isothiazolyl]thio]acetyl]amino]-7-methoxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid (C₁₇H₁₇N₃O₇S₃; 69713-29-7) see: Cefotetan
- (6*R*-*trans*)-3-[(acetyloxy)methyl]-7-[[3,5-dichloro-4-oxo-1(4*H*)-pyridinyl]acetyl]amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid (C₁₇H₁₂Cl₂N₃O₇S; 56187-36-1) see: Cefazedone
- [6*R*-(6 α ,7 β (S*))]-3-[(acetyloxy)methyl]-7-[[[(1,1-dimethylethoxy)carbonyl]amino]phenylacetyl]amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid (C₂₃H₂₇N₃O₈S; 7716-28-1) see: Cefalexin
- α -(acetyloxy)methyl]-*N*-ethyl-*N*-(4-pyridinylmethyl)-benzeneacetamide (C₁₉H₂₂N₂O₃; 87239-08-5) see: Tropicamide
- [6*R*-(6 α ,7 β (Z))]-3-[(acetyloxy)methyl]-7-[[2-furanyl(methoxyimino)acetyl]amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester (C₃₀H₂₇N₃O₈S) see: Cefuroxime
- (6*R*-*trans*)-3-[(acetyloxy)methyl]-7-[(methoxyimino)[2-[(triphenylmethyl)amino]-4-thiazolyl]acetyl]amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid (C₃₅H₃₁N₃O₇S₂; 66254-46-4) see: Cefotaxime
- [6*R*-(6 α ,7 β (R*))]-3-[(acetyloxy)methyl]-8-oxo-7-(phenylsulfoacetyl)amino]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid (C₁₈H₁₈N₂O₆S₂; 41128-84-1) see: Cefsulodin
- (6*R*-*trans*)-3-[(acetyloxy)methyl]-8-oxo-7-[(1*H*-tetrazol-1-ylacetyl)amino]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid (C₁₃H₁₄N₆O₆S; 32510-61-5) see: Cefazolin; Ceftezole
- (3 β ,5 α ,16 β)-3-(acetyloxy)-2'-methyl-5'*H*-pregnano[17,16-*d*]oxazol-11,20-dione-20-semicarbazone (C₂₆H₃₈N₄O₅) see: Fluazacort
- (3 α)-3-(acetyloxy)-16-methylpregn-16-ene-11,20-dione (C₂₄H₃₄O₄; 14340-18-2) see: Meprednisone
- (2*R*-*cis*)-1-[5-(acetyloxy)methyl]tetrahydro-2-furanyl]-4-(1*H*-1,2,4-triazol-1-yl)-2(1*H*)-pyrimidinone (C₁₃H₁₅N₃O₄; 105784-87-0) see: Zalcitabine
- (3 β ,5 α)-3-(acetyloxy)-27-norcholestan-25-one (C₂₈H₄₆O₃; 2550-90-5) see: Calcifediol
- 5-(acetyloxy)-1,3-oxathiolane-2-carboxylic acid (C₆H₈O₃S) see: Lamivudine
- trans*-5-(acetyloxy)-1,3-oxathiolane-2-carboxylic acid methyl ester (C₇H₁₀O₃S; 147027-03-0) see: Lamivudine
- (2*S*)-5-(acetyloxy)-1,3-oxathiolane-2-methanol benzoate (C₁₃H₁₄O₅S) see: Lamivudine
- (*S*)-5-[[2-(acetyloxy)-1-oxopropyl]amino]-2,4,6-triiodo-1,3-benzenedicarbonyl dichloride (C₁₇H₈Cl₂I₃NO₅; 60166-91-8) see: Iopamidol
- [11 β ,17 α ,17(*S*)]-17-[2-(acetyloxy)-1-oxopropyl]-11,17-dihydroxyandrost-1,4-dien-3-one (C₂₄H₃₂O₆; 17651-98-8) see: Fluperolone acetate
- (3*R*-*cis*)-3-(acetyloxy)-4-phenyl-2-azetidinone (C₁₁H₁₁NO₃; 144790-01-2) see: Paclitaxel
- cis*-3-(acetyloxy)-4-phenyl-2-azetidinone (C₁₁H₁₁NO₃; 133066-59-8) see: Paclitaxel
- 17-(acetyloxy)pregna-4,6-diene-3,20-dione (C₂₃H₃₀O₄; 425-51-4) see: Cyproterone acetate
- 17-(acetyloxy)pregna-4,9(11)-diene-3,20-dione (C₂₃H₃₀O₄; 5106-48-9) see: Flugestone acetate
- 21-(acetyloxy)pregna-4,9(11),16-triene-3,20-dione (C₂₃H₂₈O₄; 23460-76-6) see: Triamcinolone
- (3 β ,5 β ,6 α)-3-(acetyloxy)-5,6,21-tribromo-17-hydroxy-16-methylenepregnan-20-one (C₂₄H₃₁Br₃O₄) see: Prednylidene
- [2*S*-(2*R**,7*Z*,16*Z*,18*E*,20*R**,21*R**,22*S**,23*S**,24*S**,25*R**,26*S**,27*R**,28*E*)]-25-(acetyloxy)-5,21,23-trihydroxy-27-methoxy-2,4,11,16,20,22,24,26-octamethyl-2,7-(epoxy)pentadeca[1,11,13]trienenitrilo]benzofuro[4,5-*e*]pyrido[1,2-*a*]benzimidazole-1,6,15(2*H*,7*H*)-trione (C₄₃H₄₉N₃O₁₁) see: Rifaximin
- 2-acetylphenothiazine (C₁₄H₁₁NOS; 6631-94-3) see: Acepromazine; Aceprometazine; Acetophenazine; Piperacetazine
- (4-acetylphenoxy)acetic acid (C₁₀H₁₀O₄; 1878-81-5) see: Pifoxime
- (4-acetylphenoxy)acetic acid methyl ester (C₁₁H₁₂O₄; 6296-28-2) see: Pifoxime
- 1-[(4-acetylphenoxy)acetyl]piperidine (C₁₅H₁₉NO₃; 31188-99-5) see: Pifoxime
- N*-(3-acetylphenyl)acetamide (C₁₀H₁₁NO₂; 7463-31-2) see: Zaleplon
- [5-acetyl-2-(phenylmethoxy)phenyl]urca (C₁₆H₁₆N₂O₃; 34241-97-9) see: Carbuterol
- (*R*)-*N*²-[*N*²-[*N*-[*N*-acetyl-1-*O*-(phenylmethyl)muramoyl]-*L*-alanyl]-*D*- α -glutaminy]-*N*⁶-[(phenylmethoxy)carbonyl]-*L*-lysine phenylmethyl ester (C₄₇H₆₂N₆O₁₄) see: Romurtide
- N*²-[*N*²-[*N*-[*N*-acetyl-1-*O*-(phenylmethyl)-4,6-*O*-(phenylmethylene)muramoyl]-*L*-alanyl]-*D*- α -glutaminy]-*N*⁶-[(phenylmethoxy)carbonyl]-*L*-lysine phenylmethyl ester (C₃₄H₆₆N₆O₁₄) see: Romurtide
- 4-acetylphenylsulfonyl chloride (C₈H₇ClO₃S; 1788-10-9) see: Acetohexamide
- acetylphosphonic acid diethyl ester (C₆H₁₃O₄P; 919-19-7) see: Fotemustine
- acetylphosphonic acid diethyl ester oxime (C₆H₁₄NO₃P; 53145-08-7) see: Fotemustine
- 1-acetyl-4-piperidinecarbonyl chloride (C₈H₁₂ClNO₂; 59084-16-1) see: Risperidone
- 1-acetyl-4-piperidinecarboxylic acid (C₈H₁₃NO₃; 25503-90-6) see: Risperidone
- 6-(1-acetylpropyl)-3,4,3',4'-tetramethoxybenzophenone (C₂₂H₂₆O₆; 15462-91-6) see: Tofisopam
- 2-acetylpyridine (C₇H₇NO; 1122-62-9) see: Doxylamine
- 3-acetylpyridine (C₇H₇NO; 350-03-8) see: Metyrapone
- 5-acetylsalicylamide (C₉H₉NO₃; 40187-51-7) see: Dilevalol
- acetylsalicylic acid (C₉H₈O₄; 50-78-2) see: Aloxiprin; Carbasalate calcium
- O*-acetylsalicyloyl chloride see under 2-acetoxybenzoyl chloride
- N*-acetylsaline methyl ester (C₆H₁₁NO₄; 55299-56-4) see: Ramipril
- O*-acetyltestosterone (C₂₁H₃₀O₃; 1045-69-8) see: Clostebol acetate

- (*S*)-2-acetylthiobenzenepropionic acid
(C₁₁H₁₂O₃S; 76932-17-7) see: Omapatrilat
- (2*S*-*cis*)-4-(acetylthio)-2-[(dimethylamino)carbonyl]-1-pyrrolidinecarboxylic acid (4-nitrophenyl)methyl ester
(C₁₇H₂₁N₃O₆S; 96034-61-6) see: Meropenem
- 2-[1-[(acetylthio)methyl]cyclopropyl]acetoneitrile
(C₈H₁₁NO₃; 152922-72-0) see: Montelukast sodium
- 1-[3-(acetylthio)-2-methyl-1-oxopropyl]-L-proline 1,1-dimethylethyl ester
(C₁₅H₂₅NO₄S; 64805-61-4) see: Captopril
- (*S*)-*N*-[1-[3-(acetylthio)-2-methyl-1-oxopropyl]-L-prolyl]-L-phenylalanine 1,1-dimethylethyl ester
(C₂₄H₃₄N₂O₅S; 74258-85-8) see: Alacepril
- 2-acetylthiomethyl-3-phenylpropionic acid
(C₁₂H₁₄O₃S; 91702-98-6) see: Acetorphan
- 1-(3-acetylthio-2-methylpropanoyl)-L-proline
(C₁₁H₁₇NO₄S; 64805-62-5) see: Captopril
- 1-[(2*S*)-3-acetylthio-2-methylpropanoyl]-L-proline
(C₁₁H₁₇NO₄S; 64838-55-7) see: Alacepril; Captopril
- 3-acetylthio-2-methylpropionic acid
(C₆H₁₀O₃S; 33325-40-5) see: Captopril
- [*S*-(*R**,*R**)]-2-[[4-(acetylthio)-1-oxo-2-[(phenylmethoxy)carbonyl]amino]butyl]amino]-6-oxohexanoic acid methyl ester
(C₂₁H₂₈N₂O₇S; 167305-86-4) see: Omapatrilat
- 2-acetylthiophene
(C₆H₆OS; 88-15-3) see: 2-Thiophenecarboxylic acid; Tiemonium iodide
- 3-acetylthiophene
(C₆H₆OS; 1468-83-3) see: Brinzolamide
- 5-acetylthiophene-2-carboxamide
(C₇H₇NO₂S; 68257-89-6) see: Arotinolol
- 5-acetylthiophene-2-carboxylic acid
(C₇H₆O₃S; 4066-41-5) see: Arotinolol
- O*-acetylpropionyl chloride
(C₁₁H₁₁ClO₃; 14510-37-3) see: Tropicamide
- N*-acetyl-L-tryptophan
(C₁₃H₁₄N₂O₃; 1218-34-4) see: Caffeine acetyltryptophanate
- N*-acetyl-DL-tryptophan
(C₁₃H₁₄N₂O₃; 87-32-1) see: L-Tryptophan
- 3-acetyl-L-tyrosine
(C₁₁H₁₃NO₄; 32483-30-0) see: Levodopa
- aciclovir
(C₈H₁₁N₅O₃; 59277-89-3) see: Valaciclovir
- acrolein
(C₃H₄O; 107-02-8) see: Abacavir; Chlorthenoxazine; Cyclothiazide; Letosteine; Oxitriptan; Terbinafine; L-Tryptophan
- acrylic acid
(C₃H₄O₂; 79-10-7) see: Calcium pantothenate; Carteolol; Meticrane
- acrylic acid methyl ester
(C₄H₆O₂; 96-33-3) see: Aminoglutethimide; Eprosartan; Glutethimide; Hexobendine; Levocabastine; Nialamide; Phenglutarimide; Pioglitazone; Remifentanil; Vincamine
- acrylonitrile
(C₃H₃N; 107-13-1) see: Calcium pantothenate; Cibenzoline; Cinolazepam; Dihydroxydibutyl ether; Indecainide; Iodoxamic acid; Maprotiline; Nipradilol; Ramatroban; Sulfaphenazole; Tiquizium bromide
- acryloyl chloride
(C₃H₃ClO; 814-68-6) see: Atracurium besilate
- Ac-Thr-Gly-Trp-Met-Asp-Phe-NH₂·HCl
(C₁₇H₄₉ClN₈O₁₀S; 17664-80-1) see: Ceruletide
- adamantane
(C₁₀H₁₆; 281-23-2) see: Amantadine
- 1-adamantanecarboxylic acid
(C₁₁H₁₆O₂; 828-51-3) see: Betamethasone adamantate
- 1-adamantoyl chloride
(C₁₁H₁₅ClO; 2094-72-6) see: Rimantadine
- adenosine cyclic 3',5'-(hydrogen phosphate)
(C₁₀H₁₂N₅O₆P; 60-92-4) see: Bucladesine sodium
- adenosine triphosphate
(C₁₀H₁₆N₅O₁₃P₃; 56-65-5) see: Tobramycin
- adiphenine
(C₂₀H₂₅NO₂; 64-95-9) see: Drofenine
- adipoyl chloride
(C₆H₈Cl₂O₂; 111-50-2) see: Adipodone; locarmic acid
- adriamycinone
(C₂₁H₁₈O₉; 24385-10-2) see: Epirubicin
- ajmaline
(C₂₀H₂₆N₂O₂; 4360-12-7) see: Detajmium bitartrate; Prajmalium bitartrate
- D-alanine
(C₃H₇NO₂; 338-69-2) see: Cetrorelix
- L-alanine
(C₃H₇NO₂; 56-41-7) see: Enalapril
- DL-alanine
(C₃H₇NO₂; 302-72-7) see: L-Alanine; Pyridoxine
- β-alanine
(C₃H₇NO₂; 107-95-9) see: Balsalazide sodium; Calcium pantothenate; Pamidronic acid
- L-alanine benzyl ester
(C₁₀H₁₃NO₂; 17831-01-5) see: Ramipril; Spirapril
- L-alanine *tert*-butyl ester
(C₇H₁₅NO₂; 21691-50-9) see: Moexipril; Quinapril hydrochloride
- β-alanine calcium salt (2:1)
(C₆H₁₂CaN₂O₄; 36321-40-1) see: Calcium pantothenate
- DL-alanine ethyl ester hydrochloride
(C₅H₁₂ClNO₂; 617-27-6) see: Pyridoxine
- (*S*)-alaninol
(C₃H₉NO; 2749-11-3) see: Ergometrine; Levofloxacin
- L-alanyl-D-isoglutaminyl-*N*^ε-(benzyloxycarbonyl)-L-lysine benzyl ester
(C₂₉H₃₉N₅O₇; 59524-65-1) see: Romurtide
- L-alanyl-L-proline
(C₈H₁₄N₂O₃; 13485-59-1) see: Enalapril
- L-alanyl-L-proline benzyl ester
(C₁₅H₂₀N₂O₃; 62361-31-3) see: Enalapril
- "aldehyde C₁₄"
(C₁₄H₂₂O; 14398-40-4) see: Betacarotene; Retinol
- "β-aldehyde C₁₉"
(C₁₉H₂₈O; 50876-26-1) see: Betacarotene
- alfaxalone
(C₂₁H₃₂O₃; 23930-19-0) see: Alfadolone acetate
- (*all-E*)-2,7-dimethyl-2,4,6-octatrienedial
(C₁₀H₁₂O₂; 5056-17-7) see: Betacarotene
- alloxan
(C₄H₂N₂O₄; 50-71-5) see: Riboflavin

allyl alcohol(C₃H₆O; 107-18-6) see: Dimercaprol**allylamine**(C₃H₇N; 107-11-9) see: Almitrine; Azapetine**1-allyl-2-aminomethylpyrrolidine**(C₈H₁₆N₂; 26116-13-2) see: Alizapride**2-allylamino sulfonyl-4-amino sulfonyl-5-chloroaniline**(C₉H₁₂ClN₃O₄S₂; 3921-09-3) see: Ambuside**allyl anthranilate**(C₁₀H₁₁NO₂; 7493-63-2) see: Antrafenine**allyl bromide**(C₃H₅Br; 106-95-6) see: Alclofenac; Alibendol; Allobarbital; Ambuside; Aprobarbital; Azapetine; Butalbital; Cabergoline; Clobenoside; Cyclopentobarbital; Fluoxetine; Indinavir sulfate; Levallorphan; Methohexital; Nalorphine; Naloxone; Nedocromil; Rocuronium bromide; Secobarbital; Tacrolimus; Talipexole**allyl chloride**(C₃H₅Cl; 107-05-1) see: Valdetamide**2-allyl-6-chloro-3,4-dihydro-3-oxo-2H-1,2,4-benzothiadiazine-7-sulfonamide S,S-dioxide**(C₁₀H₁₀ClN₃O₃S₂; 3921-08-2) see: Ambuside**9-allyl-2-chlorothioxanthene-9-ol**(C₁₆H₁₃ClOS; 33049-88-6) see: Chlorprothixene**6-allyl-N-[3-(dimethylamino)propyl]-8β-ergolinecarboxamide**(C₂₃H₃₂N₄O; 85329-86-8) see: Cabergoline**6-allyl-8β-ergolinecarboxylic acid**(C₁₈H₂₀N₂O₂; 81409-74-7) see: Cabergoline**allyl glyoxylate**(C₅H₆O₃; 64370-42-9) see: Faropenem sodium**N^b-allylhemimortoxiferine iodide**(C₂₂H₂₇IN₂O₂; 24180-78-7) see: Alcuronium chloride**(-)-2-allyl-1-(4-hydroxybenzyl)-1,2,3,4,5,6,7,8-octahydroisoquinoline**(C₁₉H₂₅NO) see: Levallorphan**allyl iodide**(C₃H₅I; 556-56-9) see: Alcuronium chloride**allylmagnesium bromide**(C₃H₅BrMg; 1730-25-2) see: Allylestrenol; Chlorprothixene; Flupentixol; Meglutol; Orlistat**allyl mercaptan**(C₃H₆S; 870-23-5) see: Altizide**allyl(1-methyl-2-pentynyl)malonic acid diethyl ester**(C₁₆H₂₄O₄; 101448-52-6) see: Methohexital**4-allyloxy-3-chlorobenzaldehyde**(C₁₀H₉ClO₂; 58236-91-2) see: Alclofenac**4-allyloxy-3-chlorobenzyl chloride**(C₁₀H₁₀Cl₂O; 20788-43-6) see: Alclofenac**4-allyloxy-3-chlorobenzyl cyanide**(C₁₁H₁₀ClNO; 20788-44-7) see: Alclofenac**2-allyloxyphenol**(C₉H₁₀O₂; 1126-20-1) see: Oxprenolol**3-(2-allyloxyphenoxy)-1,2-epoxypropane**(C₁₂H₁₄O₃; 6452-72-8) see: Oxprenolol**2-allylphenol**(C₉H₁₀O; 1745-81-9) see: Alprenolol**1-(2-allylphenoxy)-2,3-epoxypropane**(C₁₂H₁₄O₂; 4638-04-4) see: Alprenolol**(Z)-allyltributylstannane**(C₁₅H₃₂Sn; 66680-84-0) see: cis-Cefprozil**allyl N-(7-trifluoromethyl-4-quinolinyl)anthranilate**(C₂₀H₁₅F₃N₂O₂; 55300-53-3) see: Antrafenine**allylurea**(C₄H₈N₂O; 557-11-9) see: Chlormerodrin**N-allyl-Wieland-Gumlich aldehyde iodide**see under N^b-allylhemimortoxiferine iodide**aluminum ethylate**(C₆H₁₅AlO₃; 555-75-9) see: Alufibrate**aluminum hydroxide**(AlH₃O₃; 21645-51-2) see: Aluminum nicotinate**aluminum isopropylate**(C₉H₂₁AlO₃; 555-31-7) see: Aceglutamide aluminum; Aloxiaprin**aluminum tri-tert-butylate**(C₁₂H₂₇AlO₃; 556-91-2) see: Calusterone**1-amidino-4-butyrylhomopiperazine**(C₁₀H₂₀N₄O; 59775-30-3) see: Bunazosin**6-amidino-2-naphthol methanesulfonate**(C₁₂H₁₂N₂O₃S; 82957-06-0) see: Nafamostat**1-amidinothiourea**(C₂H₆N₄S; 2114-02-5) see: Ebrotidine**amidotriazoic acid**(C₁₁H₉I₃N₂O₄; 117-96-4) see: Metrizoic acid**aminoacetaldehyde diethyl acetal**(C₆H₁₅NO₂; 645-36-3) see: Thiamazole**p-aminoacetanilide**(C₈H₁₀N₂O; 122-80-5) see: Vesnarinone**aminoacetoneitrile**(C₂H₄N₂; 540-61-4) see: Estazolam; Orotic acid**aminoacetoneitrile monohydrochloride**(C₂H₅ClN₂; 6011-14-9) see: Octopamine**3-aminoacetophenone**(C₈H₉NO; 99-03-6) see: Amidephrine mesilate**4-aminoacetophenone**(C₈H₉NO; 99-92-3) see: Acetohexamide**1-amino-5-(N-acetylhydroxyamino)pentane**(C₇H₁₆N₂O₂; 144108-69-0) see: Deferoxamine**1-aminoadamantane**(C₁₀H₁₇N; 768-94-5) see: Tromantadine**2-aminoadenine**(C₅H₆N₆; 1904-98-9) see: Fludarabine phosphate**7-amino-3-aminocarbonyloxymethyl-3-cephem-4-carboxylic acid**(C₉H₁₁N₃O₅S; 37051-07-3) see: Cefuroxime**(2S-cis)-3-amino-2-[(aminocarbonyl)oxy]methyl]-4-oxo-1-azetidinesulfonic acid**(C₅H₉N₃O₆S; 88852-06-6) see: Carumonam**4-amino-5-aminomethyl-2-methylpyrimidine**(C₆H₁₀N₄; 95-02-3) see: Nimustine; Thiamine**aminoantipyrine**(C₁₁H₁₃N₃O; 83-07-8) see: Aminophenazone; Metamizole sodium; Nifenazone**3-amino-3-azabicyclo[3.3.0]octane**(C₇H₁₄N₂; 54528-00-6) see: Gliclazide**4-aminobenzeneacetic acid ethyl ester**(C₁₀H₁₃NO₂; 5438-70-0) see: Actarit**4-aminobenzenesulfonamide monosodium salt**(C₆H₇N₂NaO₂S; 10103-15-8) see: Sulfadimethoxine

4-aminobenzenesulfonyl chloride(C₆H₆ClNO₂S; 24939-24-0) see: Sulfacetamide**3-aminobenzoic acid**(C₇H₇NO₂; 99-05-8) see: Acetrizoic acid**4-aminobenzoic acid**(C₇H₇NO₂; 150-13-0) see: Bentiromide; Methotrexate; Nafamostat; Otilonium bromide; Tetracaine**2-aminobenzophenone**(C₁₃H₁₁NO; 2835-77-0) see: Binedaline; Nitrazepam***N*-(4-aminobenzoyl)-β-alanine**(C₁₀H₁₂N₂O₃; 7377-08-4) see: Balsalazide sodium**2-amino-*N*-(2-benzoyl-4-chlorophenyl)-*N*-methylacetamide**(C₁₆H₁₅ClN₂O₂; 36020-94-7) see: Ketazolam***N*-(4-aminobenzoyl)-*L*-glutamic acid**(C₁₂H₁₄N₂O₅; 4271-30-1) see: Folic acid; Methotrexate**3'-amino-4'-benzoyloxyacetophenone**(C₁₅H₁₅NO₂; 14347-15-0) see: Carbuterol**(2*S*)-4-amino-1-2-[(benzoyloxy)methyl]-1,3-oxathiolan-5-yl]-2(1*H*)-pyrimidinone**(C₁₅H₁₅N₃O₄S) see: Lamivudine**4-amino-1-[2-[(benzoyloxy)methyl]-1,3-oxathiolan-5-yl]-2(1*H*)-pyrimidinone**(C₁₅H₁₅N₃O₄S) see: Lamivudine**2-(2-aminobenzoyl)pyridine**(C₁₂H₁₀N₂O; 42471-56-7) see: Bromazepam**2-aminobenzyl alcohol**(C₇H₉NO; 5344-90-1) see: Mianserin**2-(3-aminobenzyl)butyric acid**(C₁₁H₁₅NO₂; 16623-25-9) see: Iopanoic acid***N*-(2-aminobenzyl)-*N*-cyclohexylmethylamine**(C₁₄H₂₂N₂; 57365-08-9) see: Bromhexine**(*S*)-5-(4-aminobenzyl)-2,4-imidazolidinedione**(C₁₀H₁₁N₃O₂) see: Zolmitriptan**3-amino-1-benzyl-2-methylpyrrolidine**(C₁₂H₁₈N₂; 70325-82-5) see: Nemonapride***cis*-3-amino-1-benzyl-2-methylpyrrolidine**(C₁₂H₁₈N₂; 74880-18-5) see: Nemonapride**4-amino-1-benzylpiperidine**(C₁₂H₁₈N₂; 50541-93-0) see: Cinitapride; Clebopride**5-amino-*N,N'*-bis(2,3-dihydroxypropyl)isophthalamide**(C₁₄H₂₁N₃O₆; 76820-35-4) see: Iohexol**3endo-amino-*D*-borneol**(C₁₀H₁₉NO; 29900-93-4) see: Glibornuride**3-amino-4-bromoanisole**(C₇H₈BrNO; 59557-92-5) see: Protizinic acid**2-amino-4'-bromobenzophenone**(C₁₃H₁₀BrNO; 1140-17-6) see: Bromfenac sodium**2-(2-amino-5-bromobenzoyl)pyridine**(C₁₂H₉BrN₂O; 1563-56-0) see: Bromazepam**2-amino-5-bromo-2'-fluorobenzophenone**(C₁₃H₉BrFNO; 1479-58-9) see: Haloxazolam**3'-amino-4'-[(2-bromo-5-methoxyphenyl)thio]acetophenone**(C₁₅H₁₄BrNO₂S; 13799-07-0) see: Protizinic acid**4-amino-5-bromomethyl-2-methylpyrimidine hydrobromide**(C₆H₉Br₂N₃; 31933-50-3) see: Thiamine**6-amino-5-bromoquinoxaline**(C₈H₆BrN₂; 50358-63-9) see: Brimonidine**(+)-2-amino-1-butanol**(C₄H₁₁NO; 5856-62-2) see: Ethambutol; Methylergometrine**(±)-2-amino-1-butanol**(C₄H₁₁NO; 96-20-8) see: Ethambutol**3-amino-2-butenic acid (2-methyl-1,3-dioxolan-2-yl)-methyl ester**(C₉H₁₅NO₄; 86780-81-6) see: Aramidipine**(4-aminobutyl)[3-[[[(1,1-dimethylethoxy)carbonyl]amino]propyl]carbamic acid 1,1-dimethylethyl ester**(C₁₇H₃₅N₃O₄; 85503-20-4) see: Gusperimus trihydrochloride**2-amino-5-*tert*-butyl-1,3,4-thiadiazole**(C₆H₁₁N₃S; 39222-73-6) see: Glybuzole***L*-2-aminobutyric acid**(C₄H₉NO₂; 1492-24-6) see: Ethambutol**4-aminobutyric acid**(C₄H₉NO₂; 56-12-2) see: Alendronate sodium; Aniracetam; Calcium hopantenate; Progabide**γ-aminobutyric acid**

see under 4-aminobutyric acid

aminocaproic acid(C₆H₁₃NO₂; 60-32-2) see: Acexamamic acid**[*R*-(*R**,*S**)]-[1-(aminocarbonyl)-2,3-dihydroxypropyl]-carbamic acid phenylmethyl ester**(C₁₂H₁₆N₂O₅; 92754-76-2) see: Carumonam***N*-(aminocarbonyl)-3-methoxy-*O*,*α*-dimethyl-*L*-tyrosine**(C₁₃H₁₈N₂O₅; 28861-00-9) see: Carbidopa**[*R*-(*R**,*S**)]-[1-(aminocarbonyl)-2-[(methylsulfonyl)oxy]propyl]carbamic acid phenylmethyl ester**(C₁₃H₁₈N₂O₆S; 80082-51-5) see: Aztreonam**2-(2-aminocarbonyloxy-1-methoxyethyl)-5-methyl-1,4-benzoquinone**(C₁₁H₁₃NO₅; 38843-45-7) see: Carboquone**2-(2-aminocarbonyloxy-1-methoxyethyl)-5-methylhydroquinone dimethyl ether**(C₁₃H₁₉NO₅; 38843-63-9) see: Carboquone**[6*R*-[6*α*,7*α*,7(*R**)]-3-[[[(aminocarbonyl)oxy]methyl]-7-[[5-carboxy-5-[[[(4-methylphenyl)sulfonyl]amino]-1-oxopentyl]amino]-7-methoxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid compd. with *N*-cyclohexylcyclohexanamine (1:1)**(C₃₅H₅₁N₅O₁₁S₂; 83292-23-3) see: Cefoxitin**[6*R*-[6*α*,7*α*,7(*R**)]-3-[[[(aminocarbonyl)oxy]methyl]-7-[[6-(diphenylmethoxy)-1,6-dioxo-5-[[[(2,2,2-trichloroethoxy)carbonyl]amino]hexyl]amino]-7-methoxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester**(C₄₅H₄₃Cl₃N₄O₁₁S; 35713-15-6) see: Cefoxitin**[6*R*-[6*α*,7*α*,7(*R**)]-3-[[[(aminocarbonyl)oxy]methyl]-7-methoxy-7-[[6-(methoxymethoxy)-5-[[[(4-methylphenyl)sulfonyl]amino]-1,6-dioxohexyl]amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid methoxymethyl ester**(C₂₇H₃₆N₄O₁₃S₂; 56686-90-9) see: Cefoxitin**2-(aminocarbonyloxy)propyl chloride**(C₄H₈ClNO₂; 5388-54-5) see: Bethanechol chloride**3-amino-2'-carboxy-4-chlorobenzophenone**(C₁₄H₁₀ClNO₃; 118-04-7) see: Chlortalidone

- (3S)-3-amino-1-(carboxymethyl)-2,3,4,5-tetrahydro-1H-1-benzazepin-2-one**
(C₁₂H₁₄N₂O₃; 88372-47-8) see: Benazepril
- 7-aminocephalosporanic acid**
(C₁₀H₁₂N₂O₅S; 957-68-6) see: Cefacetrile; Cefaloglycin; Cefalotin; Cefamandole; Cefapirin; Cefatrizine; Cefazedone; Cefazolin; Cefbuparazone; Cefoperazone; Cefotaxime; Cefoxitin; Cefsulodin; Ceftezole; Ceftriaxone
- 4-amino-6-chloro-1,3-benzenedisulfamide**
(C₆H₆ClN₂O₄S₂; 121-30-2) see: Altizide; Ambuside; Bemetizide; Benzthiazide; Butizide; Chlorothiazide; Cyclopenthiiazide; Cyclothiazide; Epitizide; Ethiazide; Hydrochlorothiazide; Methylclothiazide; Paraflutizide; Teclorothiazide; Trichloromethiazide
- 6-amino-4-chloro-1,3-benzenedisulfamide**
see under 4-amino-6-chloro-1,3-benzenedisulfamide
- 6-amino-4-chlorobenzene-1,3-disulfonamide**
see under 4-amino-6-chloro-1,3-benzenedisulfamide
- 4-amino-6-chloro-1,3-benzenedisulfonyl dichloride**
(C₆H₄Cl₃NO₄S₂; 671-89-6) see: Chlorothiazide
- 2-amino-5-chlorobenzoic acid**
(C₇H₆ClNO₂; 635-21-2) see: Tetrazepam
- 4-amino-2-chlorobenzoic acid**
(C₇H₆ClNO₂; 2457-76-3) see: Chloroprocaine
- 2-amino-4-chlorobenzoic acid ethyl ester**
(C₉H₁₀ClNO₂; 60064-34-8) see: Azosemide
- 2-amino-5-chlorobenzonitrile**
(C₇H₅ClN₂; 5922-60-1) see: Dipotassium clorazepate
- 2-amino-2'-chlorobenzophenone**
(C₁₃H₁₀ClNO; 2894-45-3) see: Clonazepam; Loprazolam
- 2-amino-5-chlorobenzophenone**
(C₁₃H₁₀ClNO; 719-59-5) see: Alprazolam; Chlordiazepoxide; Diazepam; Estazolam; Ketazolam; Medazepam; Nordazepam; Prazepam
- 2-amino-2'-(o-chlorobenzoyl)acetanilide**
(C₁₅H₁₃ClN₂O₂; 2894-47-5) see: Clonazepam
- 4-amino-2-chlorobenzoyl chloride hydrochloride**
(C₇H₆Cl₂NO; 58979-43-4) see: Chloroprocaine
- 2-amino-N-[3-(2-chlorobenzoyl)-5-ethyl-2-thienyl]acetamide**
(C₁₅H₁₅ClN₂O₂S; 50509-09-6) see: Etizolam
- 2-amino-N-[3-(2-chlorobenzoyl)-5-ethyl-2-thienyl]-N-methylacetamide**
(C₁₆H₁₇ClN₂O₂S; 133278-83-8) see: Clotiazepam
- 2-amino-3-(2-chlorobenzoyl)-5-ethylthiophene**
(C₁₃H₁₂ClNOS; 50508-60-6) see: Clotiazepam; Etizolam
- 2-amino-3-(2-chlorobenzoyl)thiophene**
(C₁₁H₈ClNOS; 40017-58-1) see: Brotizolam
- 6-amino-5-chloro-2-cyclohexylphthalimidine**
(C₁₄H₁₇ClN₂O; 5566-71-2) see: Clorexolone
- (αS)-2-amino-5-chloro-α-(cyclopropylethynyl)-α-(trifluoromethyl)benzenemethanol**
(C₁₃H₁₁ClF₃NO; 209414-27-7) see: Efavirenz
- 2-amino-6-chloro-1,9-dihydro-9-[2-(2-hydroxy-2-oxo-1,3,2-dioxaphosphoran-5-yl)ethyl]-9H-purine**
(C₁₀H₁₃Cl₂O₄P) see: Penciclovir
- 4-amino-2-chloro-6,7-dimethoxyquinazoline**
(C₁₀H₁₀ClN₂O₂; 23680-84-4) see: Alfuzosin; Bunazosin; Doxazosin; Prazosin; Terazosin
- 4-amino-5-chloro-2-ethoxybenzoic acid**
(C₉H₁₀ClNO₃; 108282-38-8) see: Mosapride citrate
- 2-amino-5-chloro-2'-fluorobenzophenone**
(C₁₃H₉ClFNO; 784-38-3) see: Cinolazepam; Doxefazepam; Ethyl loflazepate; Flunitrazepam; Flurazepam; Flutazolam; Midazolam; Quazepam
- 2-amino-N-[4-chloro-2-[(2-fluorophenyl)hydroxymethyl]phenyl]-N-[2-(diethylamino)ethyl]acetamide**
(C₂₁H₂₇ClFN₃O₂; 32566-14-6) see: Flurazepam
- 4-amino-2-chloro-5-fluoropyrimidine**
(C₄H₃ClFN₃; 155-10-2) see: Flucytosine
- 4-amino-6-chloro-5-methoxy-pyrimidine**
(C₅H₆ClN₃O; 5018-41-7) see: Sulfadoxine
- 3-amino-2-chloro-4-methylpyridine**
(C₆H₇ClN₂; 133627-45-9) see: Nevirapine
- 3-amino-2-chloro-4-methylthiophene**
(C₅H₆ClNS) see: Tiamenidine
- 2-amino-4-chloronitrobenzene**
(C₆H₅ClN₂O₂; 1635-61-6) see: Oxfendazole
- 2-amino-6-chloro-3-nitropyridine**
(C₅H₄ClN₃O₂; 27048-04-0) see: Flupirtine
- 2-amino-4-chlorophenol**
(C₆H₆ClNO; 95-85-2) see: Chlorzoxazone
- 1-[2-[(2-amino-4-chlorophenyl)amino]benzoyl]-4-methylpiperazine**
(C₁₈H₂₁ClN₄O; 65514-71-8) see: Clozapine
- 1-[3-[4-[(2-amino-4-chlorophenyl)amino]-1-piperidinyl]propyl]-1,3-dihydro-2H-benzimidazol-2-one**
(C₂₁H₂₆ClN₅O; 62780-98-7) see: Domperidone
- (2-amino-5-chlorophenyl)(2-chlorophenyl)methanone oxime**
(C₁₃H₁₀Cl₂N₂O; 13949-49-0) see: Lorazepam
- 2-amino-5-chlorophenyl cyclohexyl ketone**
(C₁₃H₁₆ClNO; 1789-30-6) see: Tetrazepam
- (±)-2-(2-amino-5-chlorophenyl)-4-cyclopropyl-1,1,1-trifluoro-3-butyn-2-ol**
(C₁₃H₁₁ClF₃NO; 168834-43-3) see: Efavirenz
- (2-amino-5-chlorophenyl)phenylmethanone oxime**
(C₁₃H₁₁ClN₂O; 18097-52-4) see: Chlordiazepoxide
- 4-amino-5-chloro-1-phenyl-6(1H)-pyridazinone**
(C₁₀H₈ClN₃O; 1698-60-8) see: Amezinium metilsulfate
- 2-amino-6-chloropurine**
(C₅H₄ClN₅; 10310-21-1) see: Abacavir; Fanciclovir; Penciclovir
- (1S,4R)-4-(2-amino-6-chloro-9H-purin-9-yl)-2-cyclopentene-1-methanol**
(C₁₁H₁₂ClN₅O; 136522-33-3) see: Abacavir
- (±)-cis-4-(2-amino-6-chloro-9H-purin-9-yl)-2-cyclopentene-1-methanol**
(C₁₃H₁₄ClN₅O₂; 118237-87-9) see: Abacavir
- 2-amino-5-chloropyridine**
(C₅H₅ClN₂; 1072-98-6) see: Alpidem; Zopiclone
- 2-amino-N-(2-chloro-3-pyridinyl)benzamide**
(C₁₂H₁₀ClN₃O; 956-30-9) see: Pirenzepine
- 2-amino-6-chloro-4(3H)-pyrimidinone**
(C₄H₄ClN₃O; 1194-21-4) see: Abacavir
- (±)-cis-4-[(2-amino-4-chloro-6-pyrimidinyl)amino]-2-cyclopentene-1-methanol**
(C₁₀H₁₃ClN₄O; 122624-73-1) see: Abacavir
- 2-amino-4-chloro-5-sulfamoylbenzamide**
(C₇H₈ClN₃O₃S; 34121-17-0) see: Fenquizone; Quinethazone

- 4-amino-3-chloro-5-(trifluoromethyl)benzoyl chloride**
(C₈H₄Cl₂F₃NO; 63498-15-7) see: Mabuterol
- 1-[4-amino-3-chloro-5-(trifluoromethyl)phenyl]-2-[(1,1-dimethylethyl)amino]ethanone**
(C₁₃H₁₆ClF₃N₂O; 97760-88-8) see: Mabuterol
- 1-[4-amino-3-chloro-5-(trifluoromethyl)phenyl]ethanone**
(C₉H₇ClF₃NO; 97760-76-4) see: Mabuterol
- 4-amino-2-chloro-6,7,8-trimethoxyquinazoline**
(C₁₁H₁₂ClN₃O₃; 35795-13-2) see: Trimazosin
- 3-amino-2-cyanoacrylamide**
(C₄H₅N₃O; 21689-52-1) see: Allopurinol
- 4-amino-5-cyano-2-methylpyrimidine**
(C₆H₆N₄; 698-29-3) see: Thiamine
- 2-amino-3-cyano-5-methylthiophene**
(C₆H₆N₂S; 138564-58-6) see: Olanzapine
- 3-amino-4-[2-(4-cyanophenyl)ethenyl]benzonitrile**
(C₁₆H₁₁N₃) see: Hydroxystilbarnidine isethionate
- 2-amino-2-cyanopropane**
(C₄H₈N₂; 19355-69-2) see: Nilutamide
- 2-aminocyclohexanol**
(C₆H₁₃NO; 6850-38-0) see: Cethexonium bromide
- trans-4-aminocyclohexanol**
(C₆H₁₃NO; 27489-62-9) see: Ambroxol
- 4-aminocyclohexanol hydrochloride**
(C₆H₁₄ClNO; 76445-65-3) see: Pramipexole hydrochloride
- 3-amino-2-cyclohexenone**
(C₆H₉NO; 5220-49-5) see: Carteolol
- 2-amino-5-(1-cyclohexen-1-yl)-5-ethyl-5,6-dihydro-6-imino-4-oxo-1(4H)-pyrimidinecarbonitrile**
(C₁₃H₁₇N₃O) see: Cyclobarbitol
- 4-amino-1-(3-cyclohexen-1-ylmethyl)piperidine**
(C₁₂H₂₂N₂; 64730-01-4) see: Cinitapride
- 1-amino-1-cyclopentanecarbonitrile**
(C₆H₁₀N₂; 49830-37-7) see: Irbesartan
- cis-4-amino-2-cyclopentene-1-carboxylic acid**
(C₆H₉NO₂; 168471-40-7) see: Abacavir
- (1S-cis)-4-amino-2-cyclopentene-1-methanol**
(C₆H₁₁NO; 136522-35-5) see: Abacavir
- rac-4-amino-2-cyclopentene-1-methanol**
(C₆H₁₁NO; 122624-72-0) see: Abacavir
- 1-amino-4-cyclopentylpiperazine**
(C₉H₁₉N₃; 61379-64-4) see: Rifapentine
- 2-amino-6-(cyclopropylamino)purine**
(C₈H₁₀N₆; 120503-69-7) see: Abacavir
- cis-4-[2-amino-6-(cyclopropylamino)-9H-purin-9-yl]-2-cyclopentene-1-methanol**
(C₁₄H₁₈N₆O; 128131-83-9) see: Abacavir
- 5-amino-1-cyclopropyl-6,7,8-trifluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid**
(C₁₃H₉F₃N₂O₃; 103772-14-1) see: Sparfloxacin
- 7-amino-3-deacetoxycephalosporanic acid**
(C₈H₁₀N₂O₅S; 22252-43-3) see: Cefadroxil; Cefalexin; Cefradine
- 1-amino-1-deoxy-D-glucitol**
(C₆H₁₅NO₃; 488-43-7) see: Miglitol
- O-3-amino-3-deoxy-α-D-glucopyranosyl-(1→6)-O-[2,6-diamino-2,6-dideoxy-3-O-phosphono-α-D-glucopyranosyl-(1→4)]-2-deoxy-D-streptamine**
(C₁₈H₃₈N₅O₁₃P; 54330-93-7) see: Tobramycin
- 6-amino-6-deoxy-L-sorbose**
(C₆H₁₃NO₅; 74004-39-0) see: Miglitol
- (2S,3S,5S)-5-amino-2-dibenzylamino-3-hydroxy-1,6-diphenylhexane**
(C₃₂H₃₆N₂O; 156732-15-9) see: Ritonavir
- 2-amino-5(S)-dibenzylamino-4-oxo-1,6-diphenyl-2-hexene**
(C₃₂H₃₂N₂O; 156732-13-7) see: Ritonavir
- 2-amino-3,5-dibromobenzaldehyde**
(C₇H₅Br₂NO; 50910-55-9) see: Ambroxol
- trans-4-(2-amino-3,5-dibromobenzylidenamino)cyclohexanol**
(C₁₃H₁₆Br₂N₂O; 50910-53-7) see: Ambroxol
- 6-amino-2,3-dichlorobenzenemethanamine**
(C₇H₈Cl₂N₂; 147249-42-1) see: Anagrelide hydrochloride
- 2-amino-2',5'-dichlorobenzophenone**
(C₁₃H₉Cl₂NO; 2958-36-3) see: Cloxazolam; Lorazepam; Mexazolam; Rilmazafone; Triazolam
- 2-amino-4,6-dichloro-5-methoxypyrimidine**
(C₅H₅Cl₂N₃O; 13428-25-6) see: Sulfametoxydiazine
- 3-amino-2,6-dichloro-4-methylpyridine**
(C₆H₆Cl₂N₂; 129432-25-3) see: Nevirapine
- 1-(4-amino-3,5-dichlorophenyl)-2-[(1,1-dimethylethyl)amino]ethanone**
(C₁₂H₁₆Cl₂N₂O; 69708-36-7) see: Clenbuterol
- 5-(4-amino-3,5-dichlorophenyl)-3-(1,1-dimethylethyl)-2-oxazolidinone**
(C₁₃H₁₆Cl₂N₂O₂; 41936-93-0) see: Clenbuterol
- N-(4-amino-3,5-dichlorophenyl)trichloroacetamide**
(C₈H₅Cl₃N₂O; 86861-41-8) see: Apraclonidine
- 2-amino-4,6-dichloropyrimidine**
(C₄H₃Cl₂N₂; 56-05-3) see: Abacavir
- 6-amino-2,4-dichloropyrimidine**
(C₄H₃Cl₂N₂; 10132-07-7) see: Sulfadimethoxine
- N-(5-amino-4,6-dichloro-2-pyrimidinyl)acetamide**
(C₆H₆Cl₂N₄O; 56145-02-9) see: Abacavir
- 2-amino-5-diethylaminopentane**
(C₉H₂₂N₂; 140-80-7) see: Chloroquine; Mepacrine
- 7(R)-amino-3-[(2,5-dihydro-6-hydroxy-2-methyl-5-oxo-1,2,4-triazin-3-yl)thio]methyl]-3-cephem-4-carboxylic acid**
(C₁₂H₁₃N₅O₅S₂; 58909-56-1) see: Ceftriaxone
- (1S-trans)-1-amino-2,3-dihydro-1H-inden-2-ol**
(C₉H₁₁NO; 163061-74-3) see: Indinavir sulfate
- cis-1-amino-2,3-dihydro-1H-inden-2-ol**
(C₉H₁₁NO; 7480-35-5) see: Indinavir sulfate
- 1-amino-3,7-dihydro-3-methyl-7-propyl-1H-purine-2,6-dione**
(C₉H₁₃N₃O₂; 117835-15-1) see: Propentofylline
- 2-[(2-amino-1,6-dihydro-6-oxo-9H-purin-9-yl)methoxy]ethyl N-[(benzyloxy)carbonyl]-L-valinate**
(C₂₁H₂₆N₆O₆; 124832-31-1) see: Valaciclovir
- (2S)-4-amino-1-(2,3-dihydroxypropyl)-1H-pyrimidin-2-one**
(C₇H₁₁N₃O₃; 55559-70-1) see: Cidofovir
- 6-amino-2,4-dihydroxypyrimidine**
(C₄H₅N₃O₂; 143505-00-4) see: Sulfadimethoxine
- 2-amino-2',5'-dimethoxyacetophenone**
(C₁₀H₁₃NO₃) see: Midodrine
- 2-amino-4,5-dimethoxybenzamide**
(C₉H₁₂N₂O₃; 5004-88-6) see: Alfuzosin

- 2-amino-4,5-dimethoxybenzoic acid**
(C₉H₁₁NO₄; 5653-40-7) see: Prazosin
- 2-amino-4,5-dimethoxybenzonitrile**
(C₉H₁₀N₂O₂; 26961-27-3) see: Bunazosin
- 2-amino-5-[[3,5-dimethoxy-4-(2-methoxyethoxy)phenyl]methyl]-4(1H)-pyrimidinone**
(C₁₆H₂₁N₃O₅; 55211-64-8) see: Tetroxoprim
- 2-amino-1-(3,4-dimethoxyphenyl)-1-butanol**
(C₁₂H₁₉NO₃; 1141-80-6) see: Moxaverine
- (S)-2-amino-3-(3,4-dimethoxyphenyl)propanoic acid**
(C₁₁H₁₃NO₄; 32161-30-1) see: Moexipril
- 2-amino-1-(2,5-dimethoxyphenyl)-1-propanone hydrochloride**
(C₁₁H₁₆ClNO₃; 103565-48-6) see: Methoxamine
- 4-amino-5,6-dimethoxypyrimidine**
(C₆H₉N₃O₂; 5018-45-1) see: Sulfadoxine
- 6-amino-2,4-dimethoxypyrimidine**
(C₆H₉N₃O₂; 3289-50-7) see: Sulfadimethoxine
- 1-(4-amino-6,7-dimethoxy-2-quinazolinyl)hexahydro-4-formyl-1H-1,4-diazepine**
(C₁₆H₂₁N₅O₃) see: Bunazosin
- (6R-trans)-7-amino-3-[[[1-[2-(dimethylamino)ethyl]-1H-tetrazol-5-yl]thio]methyl]-8-oxo-5-thia-1-azabicyclo-[4.2.0]oct-2-ene-2-carboxylic acid**
(C₁₃H₁₉N₇O₃S₂; 61607-66-7) see: Cefotiam
- [4S-(4α,4α,5α,12α)]-9-amino-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,10,12,12a-tetrahydroxy-1,11-dioxo-2-naphthacencarboxamide**
(C₂₁H₂₃N₃O₇; 5874-95-3) see: Minocycline
- [4S-(4α,4α,5α,12α)]-9-amino-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,10,12,12a-tetrahydroxy-7-nitro-1,11-dioxo-2-naphthacencarboxamide**
(C₂₁H₂₂N₄O₇; 47741-18-4) see: Minocycline
- 4-amino-N,N-dimethylaniline**
(C₈H₁₂N₂; 99-98-9) see: Methylthioninium chloride
- 4-amino-1,3-dimethylbenzene**
(C₈H₁₁N; 95-68-1) see: Picotamide
- (5R,6S)-6-amino-2,2-dimethyl-1,3-dioxepan-5-ol acetate (salt)**
(C₉H₁₉NO₅; 188923-21-9) see: Nelfinavir mesylate
- (Z)-2-amino-α-[[2-(1,1-dimethylethoxy)-2-oxoethoxy]imino]-4-thiazoleacetic acid**
(C₁₁H₁₅N₃O₅S; 74440-02-1) see: Carumonam
- 2-amino-α-[[2-(1,1-dimethylethoxy)-2-oxoethoxy]imino]-4-thiazoleacetic acid ethyl ester**
(C₁₃H₁₉N₃O₅S; 149488-87-9) see: Carumonam
- [3S-[2[[1R*(R*),2S*],3α,4aβ,8aβ]]-[3-amino-1-[[[3-[3-[[[1,1-dimethylethyl]amino]carbonyl]octahydro-2(1H)-isoquinolinyl]-2-hydroxy-1-(phenylmethyl)propyl]amino]carbonyl]-3-oxopropyl]carbamic acid phenylmethyl ester**
(C₃₆H₅₁N₅O₆; 136522-18-4) see: Saquinavir
- 5-amino-3,4-dimethylisoxazole**
(C₅H₈N₂O; 19947-75-2) see: Sulfafurazole
- 6-amino-1,3-dimethyl-5-nitroso-2,4(1H,3H)-pyrimidine-dione**
(C₈H₈N₄O₃; 6632-68-4) see: Theophylline
- 2-amino-4,5-dimethylloxazole**
(C₅H₈N₂O; 45529-92-8) see: Sulfamoxole
- DL-threo-5-amino-2,2-dimethyl-4-phenyl-1,3-dioxane**
(C₁₂H₁₇NO₂; 82863-88-5) see: Chloramphenicol
- D(-)-threo-5-amino-2,2-dimethyl-4-phenyl-1,3-dioxane**
(C₁₂H₁₇NO₂; 147781-29-1) see: Chloramphenicol
- 4-amino-2,3-dimethyl-1-phenyl-5-Δ³-pyrazolone**
see under aminoantipyrine
- 1-amino-cis-2,6-dimethylpiperidine**
(C₇H₁₆N₂; 61147-58-8) see: Clopamide
- 6-amino-2,4-dimethylpyrimidine**
(C₆H₉N₃; 461-98-3) see: Sulfisomidine
- 6-amino-1,3-dimethyluracil**
(C₆H₉N₃O₂; 6642-31-5) see: Theophylline
- 3-aminodiphenylamine**
(C₁₂H₁₂N₂; 5840-03-9) see: Moracizine
- 2-aminodiphenyl ether**
(C₁₂H₁₁NO; 2688-84-8) see: Nimesulide
- 2-aminodiphenylmethane**
(C₁₃H₁₃N; 28059-64-5) see: Perlapine
- (Z)-2-amino-α-[[2-(diphenylmethoxy)-1,1-dimethyl-2-oxoethoxy]imino]-4-thiazoleacetic acid**
(C₂₂H₂₁N₃O₃S; 80542-76-3) see: Aztreonam
- 4-amino-5-ethoxyethyl-2-methylpyrimidine**
(C₈H₁₃N₃O; 73-66-5) see: Thiamine
- 9-amino-2-ethoxy-6-nitroacridine**
(C₁₅H₁₃N₃O₃; 20304-70-5) see: Ethacridine
- 4-amino-2-ethoxy-5-nitrobenzoic acid**
(C₉H₁₀N₂O₅; 86718-18-5) see: Cinitapride
- 2-[(2-aminoethyl)amino]ethanol**
(C₄H₁₂N₂O; 111-41-1) see: Mitoxantrone
- 4-amino-α-ethylbenzenecetic acid ethyl ester**
(C₁₂H₁₇NO₂; 57960-84-6) see: Indobufen
- 4-(2-aminoethyl)benzenesulfonamide**
(C₈H₁₂N₂O₂S; 35303-76-5) see: Glipizide; Gliquidone; Glisoxepide
- N-(2-aminoethyl)-4-benzyloxyphenylacetamide**
(C₁₇H₂₀N₂O₂; 58027-51-3) see: Epanolol
- 4-[N-(2-aminoethyl)carbamoyl]morpholine**
(C₇H₁₃N₃O₂; 69630-16-6) see: Xamoterol
- N-(2-aminoethyl)-N'-(5-chloro-2,1,3-benzothiazol-4-yl)thiourea**
(C₉H₁₀ClN₃S₂) see: Tizanidine
- α-(2-aminoethyl)-2-chloro-α-phenylbenzenemethanol**
(C₁₅H₁₆ClNO; 35173-30-9) see: Clofedanol
- 1'-(2-aminoethyl)-3',4'-dihydro-7'-methoxyspiro[cyclopentane-1,2'(1'H)-naphthalen]-1'-ol**
(C₁₇H₂₅NO₂; 48181-36-8) see: Butorphanol
- 4-amino-1-ethyl-5,6-dihydropyrimidin-2(1H)-one hydrobromide**
(C₆H₁₂BrN₃O) see: Sulfacitine
- 2-aminoethyl hydrogen sulfate**
(C₂H₇NO₄S; 926-39-6) see: Viloxazine
- O-(2-aminoethyl)hydroxylamine**
(C₂H₈N₂O; 4747-18-6) see: Fluvoxamine
- N-(2-aminoethyl)morpholine**
(C₆H₁₄N₂O; 2038-03-1) see: Minaprine; Moclobemide
- 1-(2-aminoethyl)octahydroazocine**
(C₉H₂₀N₂; 1126-67-6) see: Guanethidine sulfate
- [R-(R*,S*)]-α-(1-aminoethyl)-3-(phenylmethoxy)benzenemethanol**
(C₁₆H₁₉NO₂; 47017-04-9) see: Metaraminol
- α-aminoethylphosphonic acid diethyl ester**
(C₆H₁₆NO₃P; 54788-35-1) see: Fotemustine

- 3-(2-aminoethyl)-6,7,8,9-tetrahydro-2-methyl-4H-pyridol[1,2-a]pyrimidin-4-one**
(C₁₁H₁₇N₃O; 181479-08-3) see: Risperidone
- 5-amino-2-ethyl-1,3,4-thiadiazole**
(C₄H₇N₃S; 14068-53-2) see: Sulfaethidole
- 5-[[2-(2-aminoethyl)thio]methyl]-N,N-dimethyl-2-furan-methanamine**
(C₁₀H₁₈N₂OS; 66356-53-4) see: Ranitidine
- 4-[(2-aminoethylthio)methyl]-5-methylimidazole dihydrochloride**
(C₇H₁₅Cl₂N₃S; 38603-72-4) see: Cimetidine
- 4-[[2-(2-aminoethyl)thio]methyl]-2-thiazolyl]guanidine**
(C₇H₉N₅S₂; 71916-66-0) see: Ebrotidine
- 2-amino-2'-fluorobenzophenone**
(C₁₃H₁₀FNO; 1581-13-1) see: Flunitrazepam
- 6-amino-3-fluoro-2-(4-ethoxycarbonyl-1-piperazinyl)pyridine**
(C₁₂H₁₇FN₄O₂; 75167-28-1) see: Enoxacin
- 4-amino-5-fluoro-2-(methylthio)pyrimidine**
(C₅H₆FN₃S) see: Flucytosine
- α-aminoglutaramide**
(C₅H₈N₂O₂; 2353-44-8) see: Thalidomide
- aminoguanidine**
(CH₆N₄; 79-17-4) see: Ambazone; Lamotrigine
- aminoguanidine carbonate**
(C₂H₈N₄O₃; 2200-97-7) see: Guanabenz
- 1-aminohexahydroazepine**
(C₆H₁₄N₂; 5906-35-4) see: Glisoxepide; Tolazamide
- 2-amino-endo-hexahydro-6,7-methanoisindoline**
(C₉H₁₀N₂; 67505-12-8) see: Tripamide
- 1-aminohydantoin**
(C₃H₅N₃O₂; 6301-02-6) see: Nitrofurantoin
- 1-aminohydantoin hydrochloride**
(C₃H₆ClN₃O₂; 2827-56-7) see: Dantrolene
- 2-amino-3'-hydroxyacetophenone**
(C₈H₉NO₂; 90005-54-2) see: Norfenefrine
- 3-amino-5-[[2-(2-hydroxyethyl)amino]carbonyl]benzoic acid**
(C₁₀H₁₂N₂O₄; 22871-57-4) see: loxitalamic acid
- 1-amino-3-hydroxyguanidine**
(CH₆N₄O; 36778-67-3) see: Guanoxabenz
- (R)-7-amino-3-hydroxyheptanamide**
(C₇H₁₆N₂O₂) see: Gusperimus trihydrochloride
- cis-4-amino-1-[2-(hydroxymethyl)-1,3-oxathiolan-5-yl]-2(1H)-pyrimidinone**
(C₈H₁₁N₃O₃S; 136891-12-8) see: Lamivudine
- 2-amino-2-(hydroxymethyl)-1,3-propanediol**
(C₄H₁₁NO₃; 77-86-1) see: Dexketoprofen trometamol
- 7(R)-[2(R)-amino-2-(4-hydroxyphenyl)acetamido]-3-[[1-(1-methyl-1H-tetrazol-5-yl)thio]methyl]-3-cephem-4-carboxylic acid**
(C₁₈H₁₉N₇O₅S₂; 51929-23-8) see: Cefoperazone; Cefpiramide
- 7-[D(-)-α-amino-(4-hydroxyphenyl)acetamido]-3-(1-methyltetrazol-5-ylthiomethyl)-3-cephem-4-carboxylic acid**
see under 7(R)-[2(R)-amino-2-(4-hydroxyphenyl)acetamido]-3-[[1-(1-methyl-1H-tetrazol-5-yl)thio]methyl]-3-cephem-4-carboxylic acid
- [6R-[6α,7β(R*)]]-7-[[amino(4-hydroxyphenyl)acetyl]amino]-8-oxo-3-[[trifluoromethyl)sulfonyl]oxy]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid**
(C₁₆H₁₄F₃N₃O₈S₂; 133005-89-7) see: cis-Cefprozil
- (3-amino-4-hydroxyphenyl)arsonic acid**
(C₆H₈AsNO₄; 2163-77-1) see: Acetarsol
- N-[(2R,3S)-3-amino-2-hydroxy-4-phenylbutyl]-N-(2-methylpropyl)-4-nitrobenzenesulfonamide**
(C₂₀H₂₇N₃O₃S; 251105-80-3) see: Amprenavir
- 2-(3-amino-4-hydroxyphenyl)propionic acid**
(C₉H₁₁NO₃; 51234-43-6) see: Flunoxaprofen
- 2-(3-amino-4-hydroxyphenyl)propionitrile**
(C₉H₁₀N₂O; 51234-23-2) see: Benoxaprofen
- [3S-[2(2S*,3S*),3α,4aβ,8aβ]]-2-[3-amino-2-hydroxy-4-(phenylthio)butyl]-N-(1,1-dimethylethyl)decahydro-3-isoquinolinecarboxamide**
(C₂₄H₃₀N₃O₂S; 159878-05-4) see: Nelfinavir mesylate
- 2-amino-4-hydroxy-5-(3,4,5-trimethoxybenzyl)pyrimidine**
(C₁₄H₁₇N₃O₄; 92440-76-1) see: Trimethoprim
- 5-aminoimidazole-4-carboxamide**
(C₄H₆N₄O; 360-97-4) see: Dacarbazine
- 4-aminoimidazole-5-carboxamide hydrochloride**
(C₄H₇ClN₄O; 72-40-2) see: Orazamide
- aminoiminomethanesulfonic acid**
(CH₄N₂O₃S; 1184-90-3) see: Zanamivir
- (R)-7-[(aminoiminomethyl)amino]-3-hydroxyheptanamide**
(C₈H₁₈N₄O₂) see: Gusperimus trihydrochloride
- 2-[(aminoiminomethyl)thio]ethanesulfonic acid**
(C₃H₈N₂O₃S₂; 25985-57-3) see: Mesna
- N-[5-[[3-amino-3-iminopropyl]amino]carbonyl]-1-methyl-1H-pyrrol-3-yl]-1-methyl-4-[[1-(1-methyl-4-nitro-1H-pyrrol-2-yl)carbonyl]amino]-1H-pyrrole-2-carboxamide**
(C₂₁H₂₅N₉O₅; 2573-48-0) see: Stallimycin
- 4-aminoindan**
(C₉H₁₁N; 32202-61-2) see: Indanazoline
- 1-aminoindolin-2-one**
(C₈H₈N₂O; 36149-75-4) see: Amfenac sodium
- 5-aminoisophthalic acid**
(C₈H₇NO₄; 99-31-0) see: Iopamidol
- 2-amino-6-isopropyl-4-oxo-4H-1-benzopyran-3-carboxaldehyde**
(C₁₃H₁₃NO₃; 68301-82-6) see: Amlexanox
- 2-amino-5-mercapto-1,3,4-thiadiazole**
(C₂H₃N₃S₂; 2349-67-9) see: Acetazolamide
- (6R-cis)-7-amino-7-methoxy-3-[[1-[2-[[[(4-methylphenyl)methoxy]carbonyl]oxy]ethyl]-1H-tetrazol-5-yl]thio]methyl]-8-oxo-5-oxa-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester**
(C₃₄H₃₄N₆O₈S; 95589-11-0) see: Flomoxef
- 3-amino-2-methoxy-4-methylpyridine**
(C₇H₁₀N₂O; 76005-99-7) see: Nevirapine
- 1-[2-amino-1-(4-methoxyphenyl)ethyl]cyclohexanol**
(C₁₅H₂₃NO₂; 93413-77-5) see: Venlafaxine
- N-(4-amino-3-methoxyphenyl)methanesulfonamide**
(C₈H₁₂N₂O₃S; 57165-06-7) see: Amsacrine
- 3-amino-α-[[2-(4-methoxyphenyl)-1-methylethyl]-(phenylmethyl)amino]methyl]-4-(phenylmethoxy)-benzenemethanol**
(C₂₃H₃₀N₂O₃; 43229-68-1) see: Formoterol

3-amino-2-methoxypyrazine(C₅H₇N₃O; 4774-10-1) see: Sulfalene**2-amino-5-methoxypyrimidine**(C₅H₇N₃O; 13418-77-4) see: Sulfametoxydiazine**8-amino-6-methoxyquinoline**(C₁₀H₁₀N₂O; 90-52-8) see: Primaquine**3-amino-4-methylacetophenone**(C₉H₁₁NO; 17071-24-8) see: Amosulalol**3-amino-5-[(methylamino)carbonyl]benzoic acid**(C₉H₁₀N₂O₃; 1954-96-7) see: lotalamic acid**4-amino- α -methylbenzeneacetic acid methyl ester**(C₁₀H₁₃NO₂; 39718-97-3) see: Alminoprofen **α -amino- α -methylbenzenepropanenitrile monohydrochloride**(C₁₀H₁₃ClN₂; 56968-07-1) see: Metirosine**3-amino-2-methylbenzoic acid**(C₈H₉NO₂; 52130-17-3) see: Nelfinavir mesylate**4-(aminomethyl)benzoic acid**(C₈H₉NO₂; 56-91-7) see: Tranexamic acid**2-amino-4-methylbenzophenone**(C₁₄H₁₃NO; 4937-62-6) see: Proquazone**1,2-amino-2-methyl-3-bromopropionic acid**(C₄H₈BrNO₂) see: Metirosine**2-aminomethyl-5-bromo-3-(2-pyridyl)indole dihydrochloride**(C₁₄H₁₄BrCl₂N₃; 58350-31-5) see: Bromazepam**3-(aminomethyl)-4-chlorobenzoic acid**(C₈H₈ClNO₂; 705-17-9) see: Iodamide**2-aminomethyl-5-chloro-1-methyl-3-phenylindole**(C₁₆H₁₅ClN₂; 24140-10-1) see: Diazepam**3-(aminomethyl)-4-chloro-5-nitrobenzoic acid**(C₈H₇ClN₂O₄; 716-30-3) see: Iodamide**4-(aminomethyl)cyclohexanecarboxylic acid**(C₈H₁₅NO₂; 701-54-2) see: Tranexamic acid**5-amino-2-methyl-4,6-dichloropyrimidine**(C₅H₅Cl₂N₃; 39906-04-2) see: Moxonidine**2-aminomethyl-2,3-dihydro-1,4-benzodioxin**(C₉H₁₁NO₂; 4442-59-5) see: Guanoxan**6-aminomethyl-6,11-dihydro-5H-dibenz[*b,e*]azepine**(C₁₅H₁₆N₂; 41218-84-2) see: Epinastine hydrochloride**2-aminomethyl-1,4-dioxaspiro[4.5]decane**(C₉H₁₇NO₂; 45982-66-9) see: Guanadrel**2-amino-4,5-methylenedioxyacetophenone**(C₉H₉NO₃; 28657-75-2) see: Cinoxacin **α -(aminomethylene)-3,4,5-trimethoxybenzenepropanenitrile**(C₁₃H₁₆N₂O₃; 85536-85-2) see: Trimethoprim**2-aminomethyl-1-ethylpyrrolidine**(C₇H₁₆N₂; 26116-12-1) see: Sulpiride; Sultopride**(\pm)-2-aminomethyl-4-(4-fluorobenzyl)morpholine**(C₁₂H₁₇FN₂O; 112914-13-3) see: Mosapride citrate **α^1 -(aminomethyl)-4-hydroxy-1,3-benzenedimethanol**(C₉H₁₃NO₃; 24085-19-6) see: Salmeterol**(2*S*,3*R*)-2-(aminomethyl)-3-hydroxybutanoic acid hydrochloride**(C₅H₁₂ClNO₃; 129994-66-7) see: Faropenem sodium**1-amino-2-methylindoline**(C₉H₁₂N₂; 31529-46-1) see: Indapamide**3-amino-5-methylisoxazole**(C₄H₆N₂O; 1072-67-9) see: Isoxicam; Sulfamethoxazole**2-aminomethyl-1-methyl-5-nitro-3-phenylindole**(C₁₆H₁₅N₃O₂; 30008-54-9) see: Nimetazepam**2-aminomethyl-2-methyltetrahydrofuran**(C₆H₁₃NO; 7179-94-4) see: Mefruside***cis*-2-(aminomethyl)-1-phenylcyclopropanecarboxylic acid**(C₁₁H₁₃NO₂; 69160-57-2) see: Milnacipran hydrochloride**4-(aminomethyl)-1-(2-phenylethyl)-4-piperidinol**(C₁₄H₂₂N₂O; 23808-42-6) see: Fenspiride **α^6 -(aminomethyl)-3-(phenylmethoxy)-2,6-pyridinedimethanol**(C₁₅H₁₈N₂O₃) see: Pirbuterol**2-amino-2-methyl-1-phenyl-1-propanol**(C₁₀H₁₅NO; 34405-42-0) see: Phentermine**2-amino-2-methyl-1-phenylpropyl chloride hydrochloride**(C₁₀H₁₅Cl₂N; 14718-27-5) see: Phentermine**1-amino-4-methylpiperazine**(C₅H₁₃N₃; 6928-85-4) see: Rifampicin**1-amino-3-[4-(4-methyl-1-piperazinyl)butyl]-2,4-imidazolidinedione**(C₁₂H₂₃N₅O₂) see: Azimilide hydrochloride**2-amino-2-methyl-1-propanol**(C₄H₁₁NO; 124-68-5) see: Losartan potassium **α -[1-(aminomethyl)propyl]- α -phenylbenzenemethanol**(C₁₇H₂₁NO; 22101-87-7) see: Etifelmine**4-amino-1-methyl-3-propyl-1*H*-pyrazole-5-carboxamide**(C₈H₁₄N₄O; 139756-02-8) see: Sildenafil**2-amino-3-methylpyridine**(C₆H₈N₂; 1603-40-3) see: Pemirolast**2-amino-4-methylpyridine**(C₆H₈N₂; 695-34-1) see: Picketoprofen; Rifaximin**2-amino-5-methylpyridine**(C₆H₈N₂; 1603-41-4) see: Zolpidem**2-amino-6-methylpyridine**(C₆H₈N₂; 1824-81-3) see: Nalidixic acid**2-aminomethylpyridine**(C₆H₈N₂; 3731-51-9) see: Flecainide**3-(aminomethyl)pyridine**(C₆H₈N₂; 3731-52-0) see: Nicotiny alcohol; Picotamide; Pimefylline**1-amino-2-methylpyridinium iodide**(C₆H₉I₂; 7583-90-6) see: Ibudilast**2-amino-4-methylpyrimidine**(C₅H₇N₃; 108-52-1) see: Sulfamerazine**2-amino-6-methyl-4(1*H*)-pyrimidinone**(C₅H₇N₃O; 3977-29-5) see: Sulfamerazine**[(4-amino-2-methyl-5-pyrimidinyl)methyl]carbamo-dithioic acid 1-[2-(acetyloxy)ethyl]-2-oxopropyl ester**(C₁₄H₂₀N₄O₅S₂; 89285-03-0) see: Thiamine***N*'-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-*N'*-(2-chloroethyl)urea**(C₉H₁₄ClN₅O; 42471-43-2) see: Nimustine**3-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-5-(2-hydroxyethyl)-4-methyl-2(3*H*)-thiazolethione**(C₁₂H₁₆N₄OS₂; 299-35-4) see: Thiamine***N*-(4-amino-2-methylpyrimidin-5-ylmethyl)-*N*-(4-hydroxy-1-methyl-2-mercaptobut-1-enyl)formamide**(C₁₂H₁₈N₄O₂S; 554-45-0) see: Acetiamine; Bentiamine; Bisbentiamine; Fursultiamine; Octotiamine

- [R-(R*,R*)]-2-amino-1-[4-(methylsulfonyl)phenyl]-1,3-propanediol**
(C₁₀H₁₅N₂O₄S; 51458-28-7) see: Thiamphenicol
- 1-aminomethyl-1,2,3,4-tetrahydroisoquinoline**
(C₁₀H₁₄N₂; 84500-70-9) see: Praziquantel
- 4-amino-3-methyl-tetrazol-1,4-thiazine 1,1-dioxide**
(C₅H₁₂N₂O₂S₂; 26494-77-9) see: Nifurtimox
- 7(R)-amino-3-(1-methyl-1H-tetrazol-5-ylthiomethyl)-3-cephem-4-carboxylic acid**
(C₁₀H₁₂N₆O₃S₂; 24209-38-9) see: Cefamandole; Cefmenoxime; Cefoperazone
- 7-amino-3-(1-methyltetrazol-5-ylthiomethyl)-3-cephem-4-carboxylic acid**
see under 7(R)-amino-3-(1-methyl-1H-tetrazol-5-ylthiomethyl)-3-cephem-4-carboxylic acid
- 5-amino-2-methyl-1,3,4-thiadiazole**
(C₃H₅N₃S; 108-33-8) see: Sulfamethizole
- 2-amino-5-methylthiazole**
(C₄H₆N₂S; 7305-71-7) see: Meloxicam
- [6R-[3(Z),6α,7β]]-7-amino-3-[2-(4-methyl-5-thiazolyl)-ethenyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid (4-methoxyphenyl)methyl ester**
(C₂₇H₂₂N₃O₃S₂; 119608-99-0) see: Cefditoren pivoxil
- 4-amino-2-methyl-10H-thieno[2,3-b][1,5]benzodiazepine**
(C₁₂H₁₁N₃S) see: Olanzapine
- 3-amino-5-(methylthiomethyl)-2-oxazolidone**
(C₅H₁₀N₂O₂S; 25517-72-0) see: Nifuratel
- 4-amino-2-methylthiopyrimidine**
(C₃H₇N₃S; 2183-66-6) see: Pipemidic acid
- N-amino-N-methylthiourea**
(C₂H₇N₃S; 6938-68-7) see: Ceftriaxone
- 5-amino-N-methyl-2,4,6-triiodoisophthalamic acid**
(C₉H₇I₃N₂O₃; 2280-89-9) see: Iocarmic acid; Iotalamic acid
- 4-aminomorpholine**
(C₄H₁₀N₂O; 4319-49-7) see: Molsidomine
- 5-amino-3-(4-morpholinyl)-1,2,3-oxadiazolium inner salt**
(C₆H₁₀N₄O₂; 33876-97-0) see: Molsidomine
- 2-aminonicotinic acid**
(C₆H₆N₂O₂; 5345-47-1) see: Niflumic acid
- 2-amino-4'-nitroacetophenone hydrochloride**
(C₈H₉ClN₂O₃; 5425-81-0) see: Chloramphenicol
- 2-amino-5-nitrobenzophenone**
(C₁₃H₁₀N₂O₃; 1775-95-7) see: Nitrazepam
- 4-amino-3-nitrobenzophenone**
(C₁₃H₁₀N₂O₃; 31431-19-3) see: Mebendazole
- 2-amino-5-nitrobenzoyl chloride**
(C₇H₅ClN₂O₃; 69123-71-3) see: Aloqualone
- N-(2-amino-5-nitrobenzoyl)-o-toluidine**
(C₁₄H₁₃N₃O₃; 23076-31-5) see: Aloqualone
- 4-amino-1-(4-nitrobenzyl)-1,2,4-triazolium bromide**
(C₉H₁₀BrN₃O₂; 6085-99-0) see: Rizatriptan benzoate
- 2-amino-5-nitro-2'-chlorobenzophenone**
(C₁₃H₉ClN₂O₃; 2011-66-7) see: Nizofenone
- 4-amino-4'-nitrodiphenyl sulfide**
(C₁₂H₁₀N₂O₂S; 101-59-7) see: Dapsone
- N-(2-amino-4-nitrophenyl)pentanamide**
(C₁₂H₁₈N₂O₂) see: Amscrine
- DL-threo-2-amino-1-(4-nitrophenyl)-1,3-propanediol**
(C₉H₁₂N₂O₄; 3689-55-2) see: Chloramphenicol
- D(-)-threo-2-amino-1-(4-nitrophenyl)-1,3-propanediol**
(C₉H₁₂N₂O₄; 716-61-0) see: Azidamfenicol; Chloramphenicol
- (S)-2-amino-3-(4-nitrophenyl)-1-propanol**
(C₉H₁₂N₂O₃; 89288-22-2) see: Zolmitriptan
- 2-amino-5-nitrothiazole**
(C₃H₃N₃O₂S; 121-66-4) see: Niridazole; Tenonitroazole
- [4S-(4α,7α,10αβ)]-4-aminooctahydro-5-oxo-7H-pyridido[2,1-b][1,3]thiazepine-7-carboxylic acid methyl ester**
(C₁₁H₁₈N₂O₃S; 167304-98-5) see: Omapatrilat
- 5-aminoorotic acid**
(C₅H₅N₃O₄; 7164-43-4) see: Dipyrindamole
- 3-amino-2-oxazolidinone**
(C₃H₆N₂O₂; 80-65-9) see: Furazolidone
- 7-[2(S)-amino-1-oxopropyl]-(S)-1,4-dithia-7-azaspiro[4.4]nonane-8-carboxylic acid**
(C₁₀H₁₆N₂O₃S₂) see: Spirapril
- 5-(4-amino-2-oxo-1(2H)-pyrimidinyl)-1,3-oxathiolane-2-carboxylic acid**
(C₈H₉N₃O₃S) see: Lamivudine
- cis-5-(4-amino-2-oxo-1(2H)-pyrimidinyl)-1,3-oxathiolane-2-carboxylic acid methyl ester**
(C₉H₁₁N₃O₄S; 173602-24-9) see: Lamivudine
- (2S,6R)-6-amino-5-oxo-2-(2-thienyl)perhydro-1,4-thiazepine**
(C₉H₁₂N₂OS₂; 110221-26-6) see: Temocapril
- 6-aminopenicillanic acid**
(C₈H₁₂N₂O₃S; 551-16-6) see: Amoxicillin; Ampicillin; Aspoxicillin; Azidocillin; Azlocillin; Carbenicillin; Carfecillin; Carindacillin; Ciclacillin; Clometocillin; Cloxacillin; Diclloxacinil; Epicillin; Flucloxacillin; Latamoxef; Mecillinam; Meticillin; Nafcillin; Oxacillin; Pheneticillin; Propicillin; Sulbactam; Sulbenicillin; Ticarcillin
- 6-aminopenicillanic acid benzyl ester**
(C₁₅H₁₈N₂O₃S; 3956-31-8) see: Temocillin
- 6-aminopenicillanic acid sodium salt**
(C₈H₁₁N₂NaO₃S; 1203-85-6) see: Pivmecillinam
- 6-aminopenicillanic acid trimethylsilyl ester**
(C₁₁H₂₀N₂O₃SSi; 1025-55-4) see: Amoxicillin
- 2-[(4-aminopentyl)ethylamino]ethanol**
(C₉H₂₂N₂O; 69559-11-1) see: Hydroxychloroquine
- 2-aminophenol**
(C₆H₇NO; 95-55-6) see: Chlorquinaldol; Oxyquinoline
- 3-aminophenol**
(C₆H₇NO; 591-27-5) see: *p*-Aminosalicylic acid
- 4-aminophenol**
(C₆H₇NO; 123-30-8) see: Acebutolol; Amodiaquine; Paracetamol
- 2-amino-1-phenoxypropane**
(C₉H₁₃NO; 35205-54-0) see: Isoxsuprine
- 4-aminophenylacetic acid**
(C₈H₉NO₂; 1197-55-3) see: Actarit
- [6R-[6α,7β(R*)]]-7-[(aminophenylacetyl)amino]-3-chloro-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid (4-nitrophenyl)methyl ester mono(4-methylbenzenesulfonate)**
(C₂₉H₂₇ClN₄O₉S₂; 53994-76-6) see: Cefaclor
- 3-[(2-aminophenyl)amino]-1-propanol**
(C₉H₁₄N₂O; 65214-43-9) see: Domperidone

- 4-[[[(2-aminophenyl)amino]thioxomethyl]amino]-1-piperidinecarboxylic acid ethyl ester**
(C₁₅H₂₂N₄O₂S; 73733-81-0) see: Astemizole
- 2-amino-3-phenylbicyclo[2.2.1]heptane**
(C₁₃H₁₇N; 39550-30-6) see: Fencamfamin
- 4-(4-aminophenyl)butanoic acid**
(C₁₀H₁₃NO₂; 15118-60-2) see: Chlorambucil
- N-(2-aminophenyl)-2-chloro-N-[(4-chlorophenyl)methyl]-acetamide**
(C₁₅H₁₄Cl₂N₂O) see: Clemizole
- N-(2-aminophenyl)-N-[(4-chlorophenyl)methyl]pyrrolidine-1-acetamide**
(C₁₉H₂₂ClN₃O) see: Clemizole
- 3-(*p*-aminophenyl)-N-dichloroacetyl-2-methylalanine**
(C₁₂H₁₄Cl₂N₂O₃) see: Metirosine
- 1-(4-aminophenyl)-2-[(1,1-dimethylethyl)amino]ethanone**
(C₁₂H₁₈N₂O; 104656-91-9) see: Clenbuterol
- 5-(4-aminophenyl)-3-(1,1-dimethylethyl)-2-oxazolidinone**
(C₁₃H₁₈N₂O₂; 41936-92-9) see: Clenbuterol
- 2-amino-1-phenylethanol**
(C₈H₁₁NO; 7568-93-6) see: Levamisole
- 2-(4-aminophenyl)ethyl bromide**
(C₈H₁₀BrN; 39232-03-6) see: Anileridine
- (1 α ,5 α ,6 α)-6-amino-3-(phenylmethyl)-3-azabicyclo[3.1.0]hexane-2,6-dione**
(C₁₂H₁₂N₂O₂) see: Trovafloxacin mesilate
- (S)- α -[(4-aminophenyl)methyl]-1,3-dihydro-1,3-dioxo-2H-isoindole-2-acetic acid ethyl ester**
(C₁₉H₁₈N₂O₄; 74743-23-0) see: Melphalan
- 5-amino-3-phenyl-1,2,4-oxadiazole**
(C₈H₇N₃O; 3663-37-4) see: Butalamine; Imolamine
- 2-amino-1-phenylpropane**
(C₉H₁₃N; 300-62-9) see: Amphetaminil; Fenalcomine; Fenetylline; Racefemine
- 2-(4-aminophenyl)propionitrile**
(C₉H₁₀N₂; 28694-90-8) see: Benoxaprofen; Flunoxaprofen
- 3-amino-2-phenylpyrazole**
(C₉H₉N₃; 826-85-7) see: Sulfaphenazole
- 4-amino-1-phenyl-6(1H)-pyridazinone**
(C₁₀H₉N₃O; 13589-77-0) see: Amezinium metilsulfate
- 4-(3-aminophenyl)pyridine**
(C₁₁H₁₀N₂; 40034-44-4) see: Rosoxacin
- N-(4-aminophenylsulfonyl)cyanamide**
(C₇H₇N₃O₂S; 116-47-2) see: Sulfamoxole
- N¹-(4-aminophenylsulfonyl)-N³-cyanoguanidine**
(C₈H₈N₄O₂S; 55455-79-3) see: Sulfaguanole
- (R*,R*)- β -[(2-aminophenyl)thio]- α -hydroxy-4-methoxybenzenepropanoic acid**
(C₁₆H₁₇NO₄S; 42399-55-3) see: Diltiazem
- [S-(R*,R*)]- β -[(2-aminophenyl)thio]- α -hydroxy-4-methoxybenzenepropanoic acid**
(C₁₆H₁₇NO₄S; 42399-48-4) see: Diltiazem
- [S-(R*,R*)]- β -[(2-aminophenyl)thio]- α -hydroxy-4-methoxybenzenepropanoic acid methyl ester**
(C₁₇H₁₉NO₄S; 99109-07-6) see: Diltiazem
- 2-amino-4-phenylthionitrobenzene**
(C₁₂H₁₀N₂O₂S; 43156-47-4) see: Oxfendazole
- (2R-cis)-4-amino-1-[2-(phosphonoxy)methyl]-1,3-oxathiolan-5-yl]-2(1H)-pyrimidinone**
(C₈H₁₂N₃O₆PS; 143616-56-2) see: Lamivudine
- (\pm)-2-amino-6-phthalimido-4,5,6,7-tetrahydrobenzothiazole**
(C₁₅H₁₃N₃O₂S; 104618-33-9) see: Pramipexole hydrochloride
- 2-amino-1,3-propanediol**
(C₃H₉NO₂; 534-03-2) see: Iopamidol
- 3-amino-1,2-propanediol**
(C₃H₉NO₂; 616-30-8) see: Iohexol
- 3-aminopropane-1-sulfonic acid**
(C₃H₉NO₃S; 3687-18-1) see: Acamprosate calcium
- 2-amino-1-propanol**
(C₃H₉NO; 6168-72-5) see: Mexazolam
- L(+)-2-amino-1-propanol**
see under (S)-alaninol
- 3-amino-1-propanol**
(C₃H₉NO; 156-87-6) see: Acamprosate calcium; Cyclophosphamide; Dexpanthenol; Domperidone; Gusperimus trihydrochloride; Mefenorex; Urapidil
- 7-amino-3-[(Z)-1-propenyl]-3-cephem-4-carboxylic acid**
(C₁₀H₁₂N₂O₃S; 106447-44-3) see: *cis*-Cefprozil
- 3-aminopropionaldehyde diethyl acetal**
(C₇H₁₇NO₂; 41365-75-7) see: Atorvastatin calcium
- β -aminopropionic acid phosphite**
(C₃H₁₀NO₆P) see: Pamidronic acid
- 3-aminopropionitrile**
(C₃H₆N₂; 151-18-8) see: Calcium pantothenate; Stallimycin
- N-[4-(3-aminopropylamino)butyl]-2,2-dihydroxyethanamide trihydrochloride**
(C₉H₂₆Cl₃N₃O₃) see: Gusperimus trihydrochloride
- 2-(3-aminopropylamino)ethyl bromide dihydrobromide**
(C₅H₁₅Br₃N₂; 23545-42-8) see: Amifostine
- 5-(3-aminopropyl)-4,6-dihydroxy-1,3,2,4,6-dioxatriphosphorinan-5-ol 2,4,6-trioxide**
(C₄H₁₂NO₈P₃; 165043-19-6) see: Alendronate sodium
- 4-(2-aminopropyl)-1,2-dimethoxybenzene**
(C₁₁H₁₇NO₂; 120-26-3) see: Dimoxyline
- 2-aminopyrazine**
(C₄H₅N₃; 5049-61-6) see: Sulfalene
- 3-aminopyrazine-2-carboxylic acid**
(C₅H₅N₃O₂; 5424-01-1) see: Amiloride
- 3-amino-1H-pyrazole-4-carbonitrile**
(C₄H₄N₄; 16617-46-2) see: Zaleplon
- 5-aminopyrazole-4-carboxamide**
(C₄H₆N₄O; 5334-31-6) see: Allopurinol
- 2-aminopyridine**
(C₅H₆N₂; 504-29-0) see: Fenyramidol; Lornoxicam; Mepyramine; Piroxicam; Propiram; Risperidone; Tenoxicam; Zolimidine
- 3-aminopyridine**
(C₅H₆N₂; 462-08-8) see: Apalcillin; Troxipide
- 7(R)-amino-3-(1-pyridinylmethyl)-3-cephem-4-carboxylic acid chloride monohydrochloride**
(C₁₃H₁₅Cl₂N₃O₃S; 96752-43-1) see: Cefazidime
- 2-aminopyrimidine**
(C₄H₅N₃; 109-12-6) see: Sulfadiazine
- 2-amino-4,6-pyrimidinedione**
(C₄H₅N₃O₂; 4425-67-6) see: Abacavir
- 3-aminopyrrolidine**
(C₄H₁₀N₂; 79286-79-6) see: Tosufloxacin

- 4-aminoquinaldine**
(C₁₀H₁₀N₂; 6628-04-2) see: Dequalinium chloride
- 3-aminoquinuclidine**
(C₇H₁₄N₂; 6238-14-8) see: Nazasetron
- p*-aminosalicylic acid**
(C₇H₇NO₃; 65-49-6) see: Alizapride; Bromopride; Clebopride; Metoclopramide; Pasiuiazi
- 4-aminosalicylic acid**
see under *p*-aminosalicylic acid
- 5-aminosalicylic acid**
(C₇H₇NO₃; 89-57-6) see: Fendosal
- 2-amino-5-sulfamoyl-4-chloro-*N*-(*o*-tolyl)benzamide**
(C₁₄H₁₄ClN₃O₃S; 23380-54-3) see: Metolazone
- 3-amino-5-sulfamoyl-4-phenoxybenzoic acid**
(C₁₃H₁₂N₂O₅S; 28328-54-3) see: Bumetanide
- 5-aminosulfonyl-4-chloroanthranilamide**
see under 2-amino-4-chloro-5-sulfamoylbenzamide
- 7-aminosulfonyl-6-chloro-3-(chloromethyl)-2*H*-1,2,4-benzothiadiazine 1,1-dioxide**
(C₈H₇Cl₂N₃O₂S₂; 2904-46-3) see: Benzthiazide
- 6-aminosulfonyl-7-chloro-2-ethyl-4(3*H*)-quinazolinone**
(C₁₀H₁₀ClN₂O₃S₂; 5915-22-0) see: Quinethazone
- 5-(aminosulfonyl)-4-chloro-2-fluorobenzamide**
(C₇H₆ClFN₂O₃S) see: Azosemide
- 5-(aminosulfonyl)-4-chloro-2-fluorobenzoic acid**
(C₇H₅ClFNO₃S; 4793-22-0) see: Azosemide
- 5-(aminosulfonyl)-4-chloro-2-fluorobenzoyl chloride**
(C₇H₄Cl₂FNO₃S) see: Azosemide
- 4-aminosulfonyl-5-chloro-2-methylaminosulfonylaniline**
(C₇H₁₀ClN₃O₄S₂; 13659-98-8) see: Methyclothiazide; Polythiazide
- 5-(aminosulfonyl)-4-chloro-2-[(1-oxopropyl)amino]benzamide**
(C₁₀H₁₂ClN₃O₄S) see: Quinethazone
- 5-aminosulfonyl-4-chlorosalicylic acid**
(C₇H₆ClNO₅S; 14556-98-0) see: Xipamide
- (4*S*-trans)-*N*-[2-(aminosulfonyl)-5,6-dihydro-6-methyl-7,7-dioxido-4*H*-thieno[2,3-*b*]thiopyran-4-yl]acetamide**
(C₁₀H₁₄N₂O₅S₃; 147200-03-1) see: Dorzolamide
- 5-(aminosulfonyl)-2-methoxybenzoic acid**
(C₈H₉NO₅S; 22117-85-7) see: Sulpiride
- (*R*)-(+)-*N*-[2-(3-aminosulfonyl-4-methoxyphenyl)-1-methylethyl]-2-bromoacetamide**
(C₁₂H₁₇BrN₂O₄S; 133261-14-0) see: Tamsulosin hydrochloride
- N*-[2-[4-(aminosulfonyl)phenyl]ethyl]-5-chloro-2-methoxybenzamide**
(C₁₆H₁₇ClN₂O₄S; 16673-34-0) see: Glibenclamide
- N*-[2-[4-(aminosulfonyl)phenyl]ethyl]-3-ethyl-2,5-dihydro-4-methyl-2-oxo-1*H*-pyrrole-1-carboxamide**
(C₁₆H₂₁N₃O₄S; 119018-29-0) see: Glimepiride
- N*-[2-[4-(aminosulfonyl)phenyl]ethyl]-5-methyl-3-isoxazolecarboxamide**
(C₁₃H₁₅N₃O₄S; 24477-36-9) see: Glisoxepide
- N*-[2-[4-(aminosulfonyl)phenyl]ethyl]-5-methylpyrazinecarboxamide**
(C₁₄H₁₆N₃O₄S; 33288-71-0) see: Glipizide
- 5-aminosulfonylsalicylic acid**
(C₇H₇NO₅S; 5378-41-6) see: Sulpiride
- (3*R*)-3-amino-1,2,3,4-tetrahydrocarbazole**
(C₁₂H₁₄N₂; 116650-33-0) see: Ramatroban
- 5-aminotetralin**
(C₁₀H₁₃N; 2217-41-6) see: Tramazoline
- 8-amino-2-(1*H*-tetrazol-5-yl)-4*H*-1-benzopyran-4-one**
(C₁₀H₇N₅O₂; 110683-22-2) see: Pranlukast
- 2-aminothiazole**
(C₃H₄N₂S; 96-50-4) see: Niridazole; Sulfathiazole
- 2-amino-4-thiazoleacetic acid monohydrochloride**
(C₅H₇ClN₂O₂S; 66659-20-9) see: Cefotiam
- (*Z*)-[[[1-(2-amino-4-thiazolyl)-2-(2-benzothiazolylthio)-2-oxoethylidene]amino]oxy]acetic acid 1,1-dimethylethyl ester**
(C₁₈H₁₈N₄O₄S₃; 89605-09-4) see: Carumonam
- (2*S*,3*S*,5*S*)-5-amino-2-(5-thiazolylmethoxycarbonylamino)-3-hydroxy-1,6-diphenylhexane**
(C₂₃H₂₇N₃O₅S₂; 144164-11-4) see: Ritonavir
- [6*R*-{3(*Z*),6*α*,7*β*(*Z*)}]-7-[[2-(2-amino-4-thiazolyl)(methoxyimino)acetyl]amino]-3-[2-(4-methyl-5-thiazolyl)ethenyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid mono(trifluoroacetate)**
(C₂₁H₁₉F₃N₆O₇S₂; 104145-96-2) see: Cefditoren pivoxil
- [6*R*-{3(*Z*),6*α*,7*β*(*Z*)}]-7-[[2-(2-amino-4-thiazolyl)(methoxyimino)acetyl]amino]-3-[2-(4-methyl-5-thiazolyl)ethenyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid monosodium salt**
(C₁₉H₁₇N₆NaO₇S₂; 104146-53-4) see: Cefditoren pivoxil
- [6*R*-{6*α*,7*β*(*Z*)}]-7-[[2-(2-amino-4-thiazolyl)(2-methoxy-2-oxoethoxyimino)acetyl]amino]-3-ethenyl-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid**
(C₁₇H₁₇N₅O₇S₂; 88621-01-6) see: Cefixime
- [6*R*-{6*α*,7*β*(*Z*)}]-7-[[2-(2-amino-4-thiazolyl)(2-methoxy-2-oxoethoxyimino)acetyl]amino]-3-ethenyl-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester**
(C₃₀H₂₇N₅O₇S₂; 88621-02-7) see: Cefixime
- S*-(2-amino-4-thiazolylmethyl)isothiourea**
(C₅H₈N₄S₂; 20166-91-0) see: Famotidine
- [2*S*-{2*α*,3*β*(*Z*)}]-2-[[[1-(2-amino-4-thiazolyl)-2-[(2-methyl-4-oxo-1-sulfo-3-azetidyl)amino]-2-oxoethylidene]amino]oxy]-2-methylpropanoic acid**
(C₂₆H₂₇N₅O₈S₂; 123539-91-3) see: Aztreonom
- 3-[[2-(2-amino-4-thiazolyl)methyl]thio]propanenitrile**
(C₇H₉N₃S₂; 76823-89-7) see: Famotidine
- 2-aminothiophenol**
(C₆H₇NS; 137-07-5) see: Diltiazem
- 4-aminothymol**
(C₁₀H₁₅NO; 1128-28-5) see: Moxisylyte
- 4-aminotoluene-3-sulfonic acid**
(C₇H₉NO₃S; 88-44-8) see: Mesulfen
- 4-amino-1,2,4-triazole**
(C₂H₄N₄; 584-13-4) see: Rizatriptan benzoate
- 7(*R*)-amino-3-[(1,2,3-triazol-4-ylthio)methyl]-3-cephem-4-carboxylic acid**
(C₁₀H₁₁N₃O₃S₂; 37539-03-0) see: Cefatrizine
- 2-amino-2',4,4'-trichlorodiphenyl ether**
(C₁₂H₈Cl₃NO; 56966-52-0) see: Triclosan
- 2-amino-3,5,6-trifluoro-4-methoxybenzonitrile**
(C₈H₅F₃N₂O; 114214-46-9) see: Moxifloxacin hydrochloride

4-amino-6-trifluoromethylbenzene-1,3-disulfamide

(C₇H₈F₃N₃O₄S₂; 654-62-6) see: Bendroflumethiazide; Hydroflumethiazide

4-amino-6-trifluoromethyl-1,3-benzenedisulfochloride

(C₇H₄Cl₂F₃NO₂S₂; 1479-95-4) see: Bendroflumethiazide; Hydroflumethiazide

4-amino-3-(trifluoromethyl)benzoic acid

(C₈H₆F₃NO₂; 400-76-0) see: Mabuterol

2-amino-1-(3-trifluoromethylphenyl)propane

(C₁₀H₁₂F₃N; 1886-26-6) see: Benfluorex; Fenfluramine

5-amino-2,4,6-triiodo-1,3-benzenedicarbonyl dichloride

(C₈H₂Cl₂I₃NO₂; 37441-29-5) see: Iopamidol

3-amino-2,4,6-triiodobenzoic acid

(C₇H₄I₃NO₂; 3119-15-1) see: Acetrizoic acid; Adipiodone; lobenzamic acid; Iodoxamic acid; Ioglycamic acid; Iotroxic acid

3-amino-2,4,6-triiodobenzoyl chloride

(C₇H₃ClI₃NO; 51935-27-4) see: lobenzamic acid

N-(3-amino-2,4,6-triiodobenzoyl)-N-phenyl-β-alanine methyl ester

(C₁₇H₁₅I₃N₂O₃; 51934-66-8) see: lobenzamic acid

5-amino-2,4,6-triiodo-N,N'-bis(2,3-dihydroxypropyl)isophthalamide

(C₁₄H₁₈I₃N₃O₆; 76801-93-9) see: Iohexol

5-amino-2,4,6-triiodoisophthalic acid

(C₈H₄I₃NO₂; 35453-19-1) see: Iopamidol

2-[(3-amino-2,4,6-triiodophenyl)methylene]butanoic acid

(C₁₁H₁₀I₃NO₂; 1215-70-9) see: Bunamiodyl

2-amino-3,4,5-trimethoxybenzoic acid

(C₁₀H₁₃NO₃; 61948-85-4) see: Trimazosin

2-(4-amino-6,7,8-trimethoxy-2-quinazoliny)-1-piperazinecarboxylic acid 2-methyl-2-propenyl ester

(C₂₀H₂₇N₅O₅; 35795-15-4) see: Trimazosin

5-aminouracil

(C₄H₅N₃O₂; 932-52-5) see: Uramustine

L-α-amino-α-vanillylpropionamide

(C₁₁H₁₆N₂O₃; 6555-09-5) see: Methyl dopa

DL-α-amino-α-vanillylpropionitrile

(C₁₁H₁₄N₂O₂; 6555-27-7) see: Methyl dopa

L-α-amino-α-vanillylpropionitrile

(C₁₁H₁₄N₂O₂; 14818-96-3) see: Methyl dopa

amitriptyline

(C₂₀H₂₃N; 50-48-6) see: Amitriptylinoxide; Nortriptyline

amitriptyline methiodide

(C₂₁H₂₆IN; 33445-20-4) see: Nortriptyline

ammonium carbonate

(CH₃N₂O₃; 506-87-6) see: Clopidogrel hydrogensulfate; Mephenytoin; Methyl dopa; Metirosine; Phenytoin

ammonium dithiocarbamate

(CH₆N₂S₂; 513-74-6) see: Arotinolol; Clomethiazole

ammonium formate

(CH₅NO₂; 540-69-2) see: Ramatroban

ammonium fumarate

(C₄H₁₀N₂O₄; 14548-85-7) see: L-Aspartic acid

ammonium rhodanide

(CH₄N₂S; 1762-95-4) see: Acetazolamide; Benzyl mustard oil; Brimonidine; Clonidine; Indanzoline; Thiadrine; Tiamenidine; Tioxolone; Tolonidine; Tramazoline

ammonium thiocyanate

see under ammonium rhodanide

amoxicillin

(C₁₆H₁₉N₃O₅S; 26787-78-0) see: Aspoxicillin

amoxicillin trimethylsilyl ester

(C₁₉H₂₇N₃O₅SSi; 53512-08-6) see: Amoxicillin

(±)-amphetamin

see under 2-amino-1-phenylpropane

ampicillin

(C₁₆H₁₉N₃O₄S; 69-53-4) see: Apalcillin; Lenampicillin; Metampicillin; Mezlocillin; Piperacillin; Sultamicillin

ampicillin potassium salt

(C₁₆H₁₈KN₃O₄S; 23277-71-6) see: Talampicillin

ampicillin sodium salt

(C₁₆H₁₈N₃NaO₄S; 69-52-3) see: Hetacillin

4-tert-amybenzaldehyde

(C₁₂H₁₆O; 67468-54-6) see: Amorolfine

4-tert-amy-α-methylcinnamaldehyde

(C₁₅H₂₀O; 67468-55-7) see: Amorolfine

amy methyl ketone

(C₇H₁₄O; 110-43-0) see: Tuaminoheptane

androsta-1,4-diene-3,17-dione cyclic 17-(1,2-ethanediy) acetal

(C₂₁H₂₈O₃; 2398-63-2) see: Estrone

(3β,5α,17β)-androstane-3,17-diol 17-benzoate

(C₂₆H₃₆O₃; 6242-26-8) see: Mesterolone

3,17-androstanedione

(C₁₉H₂₈O₂; 846-46-8) see: Androstanolone; Estrone

(3β,17β)-androst-5-ene-3,17-diol 3-acetate

(C₂₁H₃₂O₃; 1639-43-6) see: Mesterolone; Testosterone

(3β,17β)-androst-5-ene-3,17-diol 3-acetate 17-benzoate

(C₂₈H₃₆O₄; 5953-63-9) see: Estradiol; Mesterolone; Testosterone

androstenediol 17-propionate

(C₂₂H₃₄O₃; 38859-47-1) see: Testosterone propionate

4-androstene-3,17-dione

(C₁₉H₂₆O₂; 63-05-8) see: Formestane; Penmesterol; Spironolactone

androstenolone

(C₁₉H₂₈O₂; 53-43-0) see: Androstanolone; Azacosterol; Estrone; Ethisterone; Methyltestosterone; Prasterone enanthate; Spironolactone

androstenolone acetate

see under 3β-acetoxy-17-oxo-5-androstene

(5α)-androst-2-en-17-one

(C₁₉H₂₈O; 963-75-7) see: Pancuronium bromide; Pipecuronium bromide; Vecuronium bromide

androsterone

(C₁₉H₃₀O₂; 53-41-8) see: Mestanolone

anethole

(C₁₀H₁₂O; 104-46-1) see: Anethole trithione; Diethylstilbestrol

D-anhydro-O-carboxymandelic acid

(C₉H₆O₄; 54256-33-6) see: Cefamandole

5,6-anhydro-1,2-O-isopropylidene-α-D-glucofuranose

(C₉H₁₄O₅; 15354-69-5) see: Prenalterol

2,3'-anhydrothymidine

(C₁₀H₁₂N₂O₄; 15981-92-7) see: Zidovudine

3',5'-anhydrothymidine

(C₁₀H₁₂N₂O₄; 38313-48-3) see: Stavudine

anhydrovinblastine

(C₄₆H₅₆N₄O₈; 38390-45-3) see: Vinorelbine

- aniline**
(C₆H₇N; 62-53-3) see: Alfentanil; Amsacrine; Aprindine; Bampipine; Brodimoprim; Clobazam; Fentanyl; Fluspirilene; lbutilide fumarate; Mesalazine; Nelfinavir mesylate; Rebamipide; Sotalol; Tacrine; Thenalidine
- 2-anilinobenzoic acid**
(C₁₃H₁₁NO₂; 91-40-7) see: Amsacrine
- 4-anilino-1-benzyl-4-carbamoylpiperidine**
(C₁₉H₂₃N₃O; 1096-03-3) see: Fluspirilene
- 4-anilino-1-benzyl-4-cyanopiperidine**
(C₁₉H₂₁N₃; 968-86-5) see: Alfentanil; Fluspirilene
- 4-anilino-1-benzylpiperidine**
(C₁₈H₂₂N₂; 1155-56-2) see: Fentanyl
- 2-anilinoindane**
(C₁₅H₁₅N; 33237-72-8) see: Aprindine
- 3-anilinopropionitrile**
(C₉H₁₀N₂; 1075-76-9) see: Trimethoprim
- 3-anilino-2-(3,4,5-trimethoxybenzyl)acrylonitrile**
(C₁₉H₂₀N₂O₃; 30078-48-9) see: Trimethoprim
- p-anisaldehyde**
(C₈H₈O₂; 123-11-5) see: Anisindione; Diltiazem; Fenoldopam mesilate; Mepyramine; Raloxifene hydrochloride
- m-anisidine**
(C₇H₉NO; 536-90-3) see: Amsacrine
- anisole**
(C₇H₈O; 100-66-3) see: Anethole; Diflunisal; Fenofibrate
- 4-anisoyl chloride**
(C₈H₇ClO₂; 100-07-2) see: Amiodarone; Aniracetam; Benzarone; Pimobendan
- anthracene**
(C₁₄H₁₀; 120-12-7) see: Benzocetamine; Bisantrene
- 9-anthracenecarboxaldehyde**
(C₁₅H₁₀O; 642-31-9) see: Benzocetamine
- 9,10-anthracenedicarboxaldehyde**
(C₁₆H₁₀O₂; 7044-91-9) see: Bisantrene
- anthranilamide**
(C₇H₈N₂O; 88-68-6) see: Bromazepam; Tacrine
- anthranilic acid**
(C₇H₇NO₂; 118-92-3) see: Imiquimod; Lobenzarit; Tranilast
- anthranilonitrile**
(C₇H₆N₂; 1885-29-6) see: Bromazepam; Tacrine
- 1,8-anthraquinonedisulfonic acid**
(C₁₄H₈O₆S₂; 82-48-4) see: Dithranol
- anthrone**
(C₁₄H₁₀O; 90-44-8) see: Maprotiline; Melitracen
- 3-(9-anthryl)propionic acid**
(C₁₇H₁₄O₂; 41034-83-7) see: Maprotiline
- (+)-apovincamine**
(C₂₁H₂₄N₂O₂; 4880-92-6) see: Vincamine; Vinpocetine
- apovincamine**
see under (+)-apovincamine
- L-arabinitol**
(C₅H₁₂O₅; 7643-75-6) see: Tacrolimus
- 1-β-D-arabinofuranosyl-5-(chloromethyl)-2,4(1H,3H)-pyrimidinedione**
(C₁₀H₁₃ClN₂O₆; 75843-06-0) see: Sorivudine
- 1-β-D-arabinofuranosyl-5-ethenyl-2,4(1H,3H)-pyrimidinedione**
(C₁₁H₁₄N₂O₆; 74886-33-2) see: Sorivudine
- (E)-3-(1-β-D-arabinofuranosyl-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl)-2-propenoic acid**
(C₁₂H₁₄N₂O₈; 80659-43-4) see: Sorivudine
- 1-β-D-arabinofuranosyluracil**
(C₉H₁₂N₂O₆; 3083-77-0) see: Cytarabine; Sorivudine
- arecoline**
(C₈H₁₃NO₂; 63-75-2) see: Paroxetine
- L-arginine**
(C₆H₁₄N₄O₂; 74-79-3) see: Arginine aspartate; Arginine pidolate; Cetrorelix
- L-arginine monohydrochloride**
(C₆H₁₅ClN₄O₂; 1119-34-2) see: Citrulline
- D-Arg(Tos)-Gly-OEt**
(C₁₇H₂₇N₅O₅S; 136730-95-5) see: Desmopressin
- ascorbic acid**
(C₆H₈O₆; 50-81-7) see: Carumonam
- L-asparagine**
(C₄H₈N₂O₃; 70-47-3) see: Eptifibatide
- L-asparaginic acid**
(C₄H₇NO₄; 56-84-8) see: L-Alanine; Arginine aspartate; Aspartame; Betaine aspartate
- 2-[3(S)-(L-asparaginylamino)-2(R)-hydroxy-4-phenylbutyl]-N-tert-butyldecahydro-(4aS,8aS)-isoquinoline-3(S)-carboxamide**
(C₂₈H₄₅N₅O₄; 137431-06-2) see: Saquinavir
- L-aspartic anhydride hydrochloride**
(C₄H₆ClNO₃; 34029-31-7) see: Aspartame
- atropine**
(C₁₇H₂₃NO₃; 51-55-8) see: Atropine methonitrate; Sultroponium
- 2-azabicyclo[2.2.1]hept-5-en-3-one**
(C₆H₇NO; 49805-30-3) see: Abacavir
- 3-azabicyclo[3.3.0]octane**
(C₇H₁₃N; 5661-03-0) see: Gliclazide
- (±)-endo,cis-2-azabicyclo[3.3.0]octane-3-carboxylic acid**
(C₈H₁₃NO₃; 105307-53-7) see: Ramipril
- azacyclonol**
(C₁₈H₂₁NO; 115-46-8) see: Fexofenadine hydrochloride; Terfenadine
- 1-aza-3-oxaspiro[4.5]decane-2,4-dione**
(C₈H₁₁NO₃; 3253-43-8) see: Ciclacillin
- 1-azaphenothiazine**
(C₁₁H₈N₂S; 261-96-1) see: Isothipendyl; Oxypendyl; Pipazetate; Prothipendyl
- 1-azaphenothiazine-10-carbonyl chloride**
(C₁₂H₇ClN₂OS; 94231-78-4) see: Pipazetate
- 2-azaspiro[4.5]decan-3-one**
(C₉H₁₅NO; 64744-50-9) see: Gabapentin
- azidocillin potassium**
(C₁₆H₁₆KN₃O₄S; 22647-32-1) see: Pivampicillin
- azidocillin sodium salt**
(C₁₆H₁₆N₃NaO₄S; 35334-12-4) see: Bacampicillin
- 17α-azido-3β,16α-diacetoxy-5α-pregnane-11,20-dione**
(C₂₅H₃₅N₃O₆; 5167-90-8) see: Deflazacort; Fluzacort
- 2-azido-N-[2-(2,5-dimethoxyphenyl)-2-oxoethyl]acetamide**
(C₁₂H₁₄N₄O₄; 59939-34-3) see: Midodrine
- 2-azidoethanol**
(C₂H₅N₃O; 1517-05-1) see: Amlodipine

6-(D- α -azidophenylacetamido)penicillanic acid 1-ethoxy-carbonyloxyethyl ester(C₂₁H₂₅N₅O₇S; 37661-07-7) see: Bacampicillin**D(-)- α -azidophenylacetic acid**(C₈H₇N₃O₃; 29125-25-5) see: Azidocillin**[2S-[2 α ,5 α ,6 β (S*)]]-6-[(azidophenylacetyl)amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid (2,2-dimethyl-1-oxopropoxy)methyl ester**(C₂₂H₂₇N₅O₆S; 26255-15-2) see: Pivampicillin**3-azido-2,3,4,5-tetrahydro-1H-1-benzazepin-2-one**(C₁₀H₁₀N₄O; 86499-24-3) see: Benzepiril**azidotrimethylsilane**(C₃H₉N₃Si; 4648-54-8) see: Z \acute{a} namivir**aziridine**(C₂H₅N; 151-56-4) see: Carboquone; Levamisole; Medazepam; Quazepam; Thiotepa; Triaziquone**B****barbituric acid**(C₄H₄N₂O₃; 67-52-7) see: Allobarbital; Minoxidil; Riboflavin**BCH 189 (rac.)**see under *cis*-4-amino-1-[2-(hydroxymethyl)-1,3-oxathiolan-5-yl]-2(1*H*)-pyrimidinone**beclometasone**(C₂₂H₂₉ClO₅; 4419-39-0) see: Ciclometasone**beclometasone 21-acetate**(C₂₄H₃₁ClO₆; 4735-64-2) see: Beclometasone**bekanamycin**(C₁₈H₃₇N₅O₁₀; 4696-76-8) see: Dibekacin; Tobramycin**bendazolic acid chloride**(C₁₆H₁₃ClN₂O₂; 40988-23-6) see: Bendacort**benzalacetone**(C₁₀H₁₀O; 122-57-6) see: Warfarin**benzaldehyde**(C₇H₆O; 100-52-7) see: Acetorphan; Amphetaminil; Atorvastatin calcium; Azimilide hydrochloride; Benzathine benzylpenicillin; Docetaxel; L(-)-Ephedrine; Ethotoin; Fenipentol; Fenquizone; Furazolidone; Imolamine; Isocarboxazid; Metamizole sodium; Oxacillin; Paclitaxel; Phensuximide; Phentermine; Pildralazine; Propiverine**benzaldehyde [6-[(2-hydroxypropyl)methylamino]-3-pyridazinyl]hydrazone**(C₁₅H₁₉N₅O; 56976-47-7) see: Pildralazine**benzaldehyde semicarbazone**(C₈H₉N₃O; 1574-10-3) see: Azimilide hydrochloride**benzaldoxime**(C₇H₇NO; 932-90-1) see: Imolamine; Oxacillin**6-benzamidopenicillanic acid**(C₁₅H₁₆N₂O₄S; 6489-59-4) see: Latamoxef**4-benzamidopyridine**(C₁₂H₁₀N₂O; 5221-44-3) see: Indoramim**benzamidoxime**(C₇H₈N₂O; 613-92-3) see: Oxolamine**benzarone**(C₁₇H₁₄O₃; 1477-19-6) see: Benzbromarone; Benziodarone**benzene**(C₆H₆; 71-43-2) see: Budipine; Clotrimazole; Fexofenadine hydrochloride; Ibuprofen; Phenylmercuric borate; Seratrodast; Sertraline**benzeneacetic acid 2-[4-(methylsulfonyl)phenyl]-2-oxoethyl ester**(C₁₇H₁₆O₅S; 201737-94-2) see: Rofecoxib**benzenediazonium chloride**(C₆H₅ClN₂; 100-34-5) see: Amsacrine; Mesalazine; Phenazopyridine; Riboflavin**benzenepropanoic acid phenyl ester**(C₁₅H₁₄O₂; 726-26-1) see: Latanoprost**benzenesulfochloride**(C₆H₅ClO₂S; 98-09-9) see: Clopidogrel hydrogensulfate; Dextrothyroxine; Gabapentin; Glybuzole; Orlistat**benzenesulfonic acid 4-formyl-2-iodo-6-nitrophenyl ester**(C₁₃H₈INO₆S) see: Dextrothyroxine***N*-benzenesulfonyl-3-azaspiro[5.5]undecane-2,4-dione**(C₁₆H₁₉NO₄S) see: Gabapentin**benzenesulfonylguanidine**(C₇H₉N₃O₂S; 4392-37-4) see: Glymidine**benzhidrol**(C₁₃H₁₂O; 91-01-0) see: Adrafinil; Modafinil**benzhydroxamic acid chloride**(C₇H₆ClNO; 698-16-8) see: Imolamine; Oxacillin**benzhydriyl bromide**(C₁₃H₁₁Br; 776-74-9) see: Diphenhydramine; Diphenylpyraline; Ebastine; Manidipine**benzhydriyl chloride**(C₁₃H₁₁Cl; 90-99-3) see: Cinnarizine; Cyclizine; Medibazine**1-benzhydriylpiperazine**(C₁₇H₂₀N₂; 841-77-0) see: Cinnarizine; Oxatamide**(benzhydriylsulfonyl)acetic acid**(C₁₅H₁₄O₃S; 63547-24-0) see: Adrafinil**(benzhydriylthio)acetic acid**(C₁₅H₁₄O₂S; 63547-22-8) see: Adrafinil; Modafinil**benzil**(C₁₄H₁₀O₂; 134-81-6) see: Phenytoin; Propiverine**benzilic acid**(C₁₄H₁₂O₃; 76-93-7) see: Flutropium bromide; Mepenzolate bromide; Pipenzolate bromide; Pipoxolan; Propiverine**benzilic chloride**(C₁₄H₁₁ClO₂; 52905-45-0) see: Clidinium bromide**3-benziloyloxy-1-methylpiperidine**(C₂₀H₂₃NO₃; 3321-80-0) see: Mepenzolate bromide**1*H*-benzimidazole-2-thiol**(C₇H₆N₂S; 134469-07-1) see: Rabeprazole sodium**2-benzimidazolone**(C₇H₆N₂O; 615-16-7) see: Mizolastine; Oxatamide**4-(1*H*-benzimidazol-2-ylamino)-1-piperidinecarboxylic acid ethyl ester**(C₁₅H₂₀N₄O₂; 73734-07-3) see: Astemizole**1,2-benzisothiazolin-3-one**(C₇H₅NOS; 2634-33-5) see: Ziprasidone hydrochloride**1-(1,2-benzisothiazol-3-yl)piperazine**(C₁₁H₁₃N₃S; 87691-87-0) see: Ziprasidone hydrochloride**[5-[2-[4-(1,2-benzisothiazol-3-yl)-1-piperazinyl]ethyl]-4-chloro-2-nitrophenyl]propanedioic acid dimethyl ester**(C₂₄H₂₅ClN₄O₆S; 160384-39-4) see: Ziprasidone hydrochloride**1,2-benzisoxazole-3-acetic acid**(C₉H₇NO₃; 4865-84-3) see: Zonisamide

benzmorpholide(C₁₁H₁₃NO₂; 1468-28-6) see: Ketorolac**1,4-benzodioxan-2-ylcarbonyl chloride**(C₉H₇ClO₃; 3663-81-8) see: Doxazosin**N-(1,4-benzodioxan-2-ylcarbonyl)piperazine**(C₁₃H₁₆N₂O₃; 70918-00-2) see: Doxazosin**1,3-benzodioxole-5-methanol**(C₈H₈O₃; 495-76-1) see: Levodopa**[(1,3-benzodioxol-5-ylamino)methylene]malonic acid diethyl ester**(C₁₅H₁₇NO₆; 17394-77-3) see: Oxolinic acid**2-[[2-(1,3-benzodioxol-5-yl)-1-methylethyl]amino]-1-(3,4-dihydroxyphenyl)ethanone**(C₁₈H₁₉NO₅) see: Protokylol**benzofuran**(C₈H₆O; 271-89-6) see: Amiodarone**benzoic acid**(C₇H₆O₂; 65-85-0) see: Acetrizoic acid; Rizatriptan**benzoate****benzoic acid 2-(hexahydro-1-methyl-1H-azepin-4-yl)-hydrazide**(C₁₄H₂₁N₃O; 110406-94-5) see: Azelastine**benzoic acid 2-(1-methyl-4-piperidinyl)hydrazide**(C₁₃H₁₉N₃O; 88858-10-0) see: Piperylone**benzoic acid (1-methyl-4-piperidylidene)hydrazide**(C₁₃H₁₇N₃O; 92043-04-4) see: Piperylone**benzoic anhydride**(C₁₄H₁₀O₃; 93-97-0) see: Bopindolol; Flavoxate; Paclitaxel**benzoin**(C₁₄H₁₂O₂; 119-53-9) see: Oxaprozin; Propiverine**benzophenone**(C₁₃H₁₀O; 119-61-9) see: Cibenzoline; Difenidol; Etifelmine; Perhexiline; Phenytoin; Pipradrol**5H-[1]benzopyrano[2,3-b]pyridine**(C₁₂H₉NO; 261-27-8) see: Pranoprofen**5H-[1]benzopyrano[2,3-b]pyridine-7-acetonitrile**(C₁₄H₁₀N₂O; 52549-06-1) see: Pranoprofen**p-benzoquinone**(C₆H₄O₂; 106-51-4) see: Ambazone; Calcium dobesilate; Etamsylate**1,4-benzoquinone**see under *p*-benzoquinone**p-benzoquinone amidinohydrazone**(C₇H₈N₄O; 7316-92-9) see: Ambazone**N-[1-(benzo[*b*]thien-2-yl)ethyl]hydroxylamine**(C₁₀H₁₁NOS; 118564-89-9) see: Zileuton**benzo[*b*]thiophene**(C₈H₆S; 95-15-8) see: Zileuton**2,1,3-benzoxadiazole**(C₆H₄N₂O; 273-09-6) see: Isradipine**2,1,3-benzoxadiazole-4-carboxaldehyde**(C₇H₄N₂O₂; 32863-32-4) see: Isradipine**α-(benzoylamino)-4-(benzoyloxy)-N,N-dipropylbenzene-propanamide**(C₂₉H₃₂N₂O₄; 57227-08-4) see: Tiropramide**(6*R*-cis)-7-(benzoylamino)-3-(chloromethyl)-7-methoxy-8-oxo-5-oxa-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester**(C₂₉H₂₅ClN₂O₆; 68313-94-0) see: Latamoxef**2-(benzoylamino)-3-(3,4-dimethoxyphenyl)-2-propenoic acid methyl ester**(C₁₉H₁₉NO₅; 128289-78-1) see: Moexipril**[6*R*-[6α,7β(*R**)]-7-[[5-(benzoylamino)-6-(diphenylmethoxy)-1,6-dioxohexyl]amino]-3-(chloromethyl)-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester**(C₄₇H₄₂ClN₃O₇S) see: Cefixime**[6*R*-[6α,7β(*R**)]-7-[[5-(benzoylamino)-6-(diphenylmethoxy)-1,6-dioxohexyl]amino]-3-ethenyl-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester**(C₄₈H₄₃N₃O₇S) see: Cefixime**4-(benzoylamino)-5-(dipropylamino)-5-oxopentanoic acid 3-[4-(2-hydroxyethyl)-1-piperazinyl]propyl ester**(C₂₇H₄₄N₄O₅; 59209-38-0) see: Proglumetacin**cis-7-(benzoylamino)-3-[[[1-(2-hydroxyethyl)-1*H*-tetrazol-5-yl]thio]methyl]-8-oxo-5-oxa-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester**(C₃₁H₂₈N₆O₆S; 98043-69-7) see: Flomoxef**4-(benzoylamino)-1-[2-(1*H*-indol-3-yl)ethyl]pyridinium bromide**(C₂₂H₂₀BrN₃O; 26853-15-6) see: Indoramin**β-benzoylaminoisobutyryl chloride**(C₁₁H₁₂ClNO₂; 49540-49-0) see: Triamcinolone benetonide**cis-7-(benzoylamino)-7-methoxy-3-[[[1-[2-[[[(4-methylphenyl)methoxy]carbonyl]oxy]ethyl]-1*H*-tetrazol-5-yl]thio]methyl]-8-oxo-5-oxa-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester**(C₄₁H₃₈N₆O₉S; 98043-71-1) see: Flomoxef**(6*R*-cis)-7-(benzoylamino)-7-methoxy-3-[[[1-(1-methyl-1*H*-tetrazol-5-yl)thio]methyl]-8-oxo-5-oxa-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester**(C₃₁H₂₈N₆O₆S; 68402-81-3) see: Latamoxef**[2*R*-(2α,6α,7α)]-7-(benzoylamino)-3-methylene-8-oxo-5-oxa-1-azabicyclo[4.2.0]octane-2-carboxylic acid diphenylmethyl ester**(C₂₈H₂₄N₂O₅; 67977-91-7) see: Latamoxef**cis-7-(benzoylamino)-3-[[[1-[2-[[[(4-methylphenyl)methoxy]carbonyl]oxy]ethyl]-1*H*-tetrazol-5-yl]thio]methyl]-8-oxo-5-oxa-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester**(C₄₀H₃₆N₆O₈S; 98043-70-0) see: Flomoxef**2-benzoylbenzoic acid**(C₁₄H₁₀O₃; 85-52-9) see: Nefopam**N-benzoyl-N-[2-(bromomethyl)-3-chlorophenyl]benzamide**(C₂₁H₁₃BrClNO₂; 41458-70-2) see: Fominoben**benzoyl chloride**(C₇H₅ClO; 98-88-4) see: Aciclovir; Alprazolam; Bamethan; Benfluorex; Benfotiamine; Bentiamine; Bentromide; Benzoyl peroxide; Bifonazole; Bisbentiamine; Cefixime; Dibekacin; Dienestrol; Endralazine; Estradiol; Estradiol benzoate; Etilefrine; Fominoben; Gemcitabine; Hexylcaine; Iloprost; Indanazole; Indinavir sulfate; Itraconazole; Ketoconazole; Latamoxef; Medazepam; (-)-Menthol; Meprylicaine; Mesterolone; Montelukast sodium; Norfenefrine; Paclitaxel; Piperocaine; Proglumide; Ropinirole; Setastine; Stavudine; Sulfabenzamide; Tacalitol; Terconazole; Testosterone; Tiaprofenic acid; Tiropramide**2'-benzoyl-4'-chlorocyclopropanecarboxanilide**(C₁₇H₁₄ClNO₂; 2896-97-1) see: Prazepam

- 5-benzoyl-2-chloro-1-[3,3-di(methoxycarbonyl)propyl]pyrrole**
(C₁₈H₁₈ClNO₃) see: Ketorolac
- N-benzoyl-N-(3-chloro-2-methylphenyl)benzamide**
(C₂₁H₁₆ClNO₂; 42313-35-9) see: Fominoben
- N-(2-benzoyl-4-chlorophenyl)-2-chloro-N-methylacetamide**
(C₁₆H₁₃Cl₂NO₂; 6021-21-2) see: Diazepam
- N-(2-benzoyl-4-chlorophenyl)-N-(cyclopropylmethyl)-1,3-dihydro-1,3-dioxo-2H-isoindole-2-acetamide**
(C₂₇H₂₁ClN₂O₄; 2897-01-0) see: Prazepam
- N-(2-benzoyl-4-chlorophenyl)-N,4-dimethylbenzenesulfonamide**
(C₂₁H₁₈ClNO₃S; 4873-37-4) see: Diazepam
- N-(2-benzoyl-4-chlorophenyl)-4-methylbenzenesulfonamide**
(C₂₀H₁₆ClNO₃S; 4873-59-0) see: Diazepam
- 6-benzoyl-3-chloro-5,6,7,8-tetrahydropyrido[4,3-c]pyridazine**
(C₁₄H₁₂ClN₃O; 39715-73-6) see: Endralazine
- 3-benzoyl-α-cyanobenzeneacetic acid ethyl ester**
(C₁₈H₁₅NO₃; 34124-51-1) see: Ketoprofen
- 3-benzoyl-α-cyano-α-methylbenzeneacetic acid ethyl ester**
(C₁₉H₁₇NO₃; 22071-25-6) see: Ketoprofen
- N-Benzoyl-2'-deoxycytidine**
(C₁₆H₁₇N₃O₅; 4836-13-9) see: Zalcitabine
- O-[2-O-benzoyl-3-(ethoxycarbonylamino)-3-deoxy-4,6-O-isopropylidene-α-D-glucopyranosyl-(1→6)]-O-[2,6-bis(ethoxycarbonylamino)-2,6-dideoxy-3,4-O-isopropylidene-α-D-glucopyranosyl-(1→4)]-1,3-bis-N-(ethoxycarbonyl)-2-deoxy-D-streptamine**
(C₄₀H₆₉N₅O₁₁) see: Dibekacin
- O-[2-O-benzoyl-3-(ethoxycarbonylamino)-3-deoxy-4,6-O-isopropylidene-α-D-glucopyranosyl]-(1→6)-O-[2,6-bis(ethoxycarbonylamino)-2,6-dideoxy-3,4-bis-O-(methanesulfonyl)-α-D-glucopyranosyl-(1→4)]-1,3-bis-N-(ethoxycarbonyl)-2-deoxy-D-streptamine**
(C₄₅H₆₉N₅O₁₅S₂) see: Dibekacin
- [3R-(3α,4α)]-[partial]-1-benzoyl-3-(1-ethoxyethoxy)-4-phenyl-2-azetidione**
(C₂₀H₂₁NO₄; 201856-53-3) see: Paclitaxel
- (2R,3S)-N-benzoyl-O-(1-ethoxyethyl)-3-phenylisoserine**
(C₂₀H₂₃NO₅; 216094-54-1) see: Paclitaxel
- N-benzoyl-DL-glutamic acid**
(C₁₂H₁₃NO₅; 6460-81-7) see: Proglumide
- N-benzoyl-DL-glutamic anhydride**
(C₁₂H₁₁NO₄; 91569-94-7) see: Proglumide
- benzoylhydrazine**
(C₇H₈N₂O; 613-94-5) see: Azelastine; Benmoxin; Piperlyone; Zorubicin
- 2-benzoyl-N-(2-hydroxyethyl)-N-methylbenzamide**
(C₁₇H₁₇NO₃; 24833-47-4) see: Nefopam
- 3-benzoyl-4-hydroxy-1-methyl-4-phenylpiperidine**
(C₁₉H₂₁NO₂; 5409-66-5) see: Phenindamine
- 7-benzoylindolin-2-one**
(C₁₅H₁₁NO₂; 51135-38-7) see: Amfenac sodium
- benzoyl isocyanate**
(C₈H₅NO₂; 4461-33-0) see: Imiquimod
- benzoyl isothiocyanate**
(C₈H₅NOS; 532-55-8) see: Famotidine; Indanazoline
- (S)-3-benzoyl-α-methylbenzeneacetic acid**
(C₁₆H₁₄O₃; 22161-81-5) see: Dexketoprofen trometamol
- 3-benzoyl-α-methylbenzeneacetyl chloride**
(C₁₆H₁₃ClO₂; 59512-44-6) see: Piketoprofen
- 4-benzoyl-1-methylpiperidine**
(C₁₃H₁₇NO; 92040-00-1) see: Diphemanil metilsulfate
- 5-benzoyl-2-(methylthio)pyrrole**
(C₁₂H₁₁NOS; 80965-00-0) see: Ketorolac
- N-(2-benzoyl-4-nitrophenyl)-4-methylbenzenesulfonamide**
(C₂₀H₁₆N₂O₅S; 24042-91-9) see: Nitrazepam
- (benzoyloxy)acetaldehyde**
(C₉H₈O₃; 64904-47-8) see: Lamivudine
- 3'-benzoyloxyacetophenone**
(C₁₅H₁₂O₃; 139-28-6) see: Etilefrine; Norfenefrine
- 4'-benzoyloxyacetophenone**
(C₁₅H₁₂O₃; 1523-18-8) see: Bamethan
- (5α,17β)-17-(benzoyloxy)androstan-3-one**
(C₂₆H₃₄O₃; 1057-07-4) see: Mesterolone
- (17β)-17-(benzoyloxy)androst-4-en-3-one**
(C₂₆H₃₂O₃; 2088-71-3) see: Testosterone
- [3S-(3α,3aα,5α,9α,9bβ)]-3-(benzoyloxy)-5-bromo-6-(3-chloro-2-butenyl)-1,2,3,4a,4,5,8,9,9a,9b-decahydro-3a-methyl-7H-benz[ε]indeno-7-one**
(C₂₅H₂₈BrClO₃) see: Trenbolone acetate
- 1-benzoyloxy-2-chloromethoxyethane**
(C₁₀H₁₁ClO₃; 58305-05-8) see: Aciclovir
- 17β-benzoyloxy-3-chloro-5-oxo-4,5-seco-2,9-estradiene**
(C₂₅H₂₉ClO₃; 24156-98-7) see: Trenbolone acetate
- [3aR-(3aα,4α,5β,6aα)]-5-(benzoyloxy)-4-[[[(1,1-dimethyl-ethyl)dimethylsilyl]oxy]methyl]hexahydro-2H-cyclopenta[b]furan-2-one**
(C₂₁H₃₀O₅Si; 64982-34-9) see: Iloprost
- 2-benzoyloxyethanol**
(C₉H₁₀O₃; 94-33-7) see: Aciclovir
- 9-(2-benzoyloxyethoxymethyl)guanine**
(C₁₅H₁₅N₅O₄; 59277-91-7) see: Aciclovir
- 4-(2-(benzoyloxy)ethyl)-3-chloro-1,3-dihydro-2H-indol-2-one**
(C₁₇H₁₄ClNO₃; 139122-17-1) see: Ropinirole
- 2-(2-benzoyloxyethyl)-β-nitrostyrene**
(C₁₇H₁₅NO₄; 139122-16-0) see: Ropinirole
- [3aS-(3aα,4α,5β,6aα)]-5-(benzoyloxy)hexahydro-4-(hydroxymethyl)-2(1H)-pentalenone**
(C₁₆H₁₈O₄; 74842-93-6) see: Iloprost
- [3'aS-(3'aα,4'aα,5'β,6'aα)]-5'-(benzoyloxy)hexahydro-spiro[1,3-dioxolane-2,2'(1'H)-pentalene]-4'-carboxaldehyde**
(C₁₈H₂₀O₅; 74818-14-7) see: Iloprost
- [3'aS-[3'aα,4'a(1E),5'β,6'aα]]-1-[5'-(benzoyloxy)hexahydro-spiro[1,3-dioxolane-2,2'(1'H)-pentalene]-4'-yl]-4-methyl-1-octen-6-yn-3-one**
(C₂₆H₃₀O₅) see: Iloprost
- 17β-benzoyloxy-3β-hydroxy-5-androstene**
(C₂₆H₃₄O₃; 1175-12-8) see: Mesterolone; Testosterone
- 2-[1-(benzoyloxymethyl)cyclopropyl]acetoneitrile**
(C₁₃H₁₃NO₂; 142148-12-7) see: Montelukast sodium
- 4-benzoyloxyphenacyl bromide**
(C₁₅H₁₁BrO₃; 5324-15-2) see: Bamethan
- N-(4-benzoyloxyphenacyl)butylamine**
(C₁₉H₂₁NO₃) see: Bamethan

(3-benzoylphenyl)acetonitrile(C₁₅H₁₁NO; 21288-34-6) see: Ketoprofen***N*-benzoyl-L-phenylglycinal**(C₁₅H₁₃NO₂; 163010-72-8) see: Paclitaxel**(2*R*,3*S*)-*N*-benzoyl-3-phenylisoserine**(C₁₆H₁₅NO₄; 132201-33-3) see: Paclitaxel**(2*R*,3*S*)-*N*-benzoyl-3-phenylisoserine ethyl ester**(C₁₈H₁₉NO₄; 153433-80-8) see: Paclitaxel**2-benzoylpyridine**(C₁₂H₉NO; 91-02-1) see: Pirmenol hydrochloride**α-(benzoylthio)propionylglycine**(C₁₂H₁₃NO₄S; 6183-01-3) see: Stepronin***cis*-1-benzoyl-3-(triethylsilyloxy)-4-phenyl-2-azetidinone**(C₂₂H₂₇NO₃Si; 149107-83-5) see: Paclitaxel***N*-benzoyl-L-tyrosine**(C₁₆H₁₅NO₄; 2566-23-6) see: Bentiromide***N*-benzoyl-DL-tyrosinedipropylamide**(C₂₂H₂₈N₂O₃; 57227-09-5) see: Tiropramide**1-(5-*O*-benzoyl-β-D-xylofuranosyl)-5-methyl-2,4(1*H*,3*H*)-pyrimidinedione**(C₁₇H₁₈N₂O₇; 190003-80-6) see: Stavudine***N*-benzylacetamide**(C₉H₁₁NO; 588-46-5) see: Mafenide**(3*S*)-1-benzyl-3-(acetoacetoxy)pyrrolidine**(C₁₅H₁₉NO₃; 101930-01-2) see: Barnidipine**benzylacetone**(C₁₀H₁₂O; 2550-26-7) see: Buphenine; Dilevalol; Labetalol**2-benzylacrylic acid**(C₁₀H₁₀O₂; 5669-19-2) see: Acetorphan**benzyl alcohol**(C₇H₈O; 100-51-6) see: Fluoxetine; Gabapentin; Ganciclovir; Levocabastine; Moexipril; Nicotinic acid benzyl ester; Perindopril; Quinapril hydrochloride; Ramipril; Saquinavir; Trandolapril**benzylamine**(C₇H₉N; 100-46-9) see: Amosulalol; Barnidipine; Beclamide; Benperidol; Betanidine; Biotin; Cisapride; Dilevalol; Guanoxan; Moxifloxacin hydrochloride; Nebivolol; Nialamide; Reproterol; Sparfloxacin; Sulbentine; Viloxazine**benzylamine hydrochloride**(C₇H₁₀ClN; 3287-99-8) see: Benzyl mustard oil**2-benzylaminoethanol**(C₉H₁₃NO; 104-63-2) see: Indeloxacine; Phenmetrazine**7-(2-benzylaminoethyl)theophylline**(C₁₆H₁₉N₅O₂; 22680-61-1) see: Fenetylline; Theodrenaline**benzyl [(2*R*,3*S*)-3-amino-2-hydroxy-4-phenylbutyl]-(2-methylpropyl)carbamate monohydrochloride**(C₂₂H₃₁ClN₂O₃; 160232-11-1) see: Amprenavir**2-benzylamino-1-(4-methoxyphenyl)propane**(C₁₇H₂₁NO; 43229-65-8) see: Fenoterol; Formoterol**benzyl [3-[(2-aminophenyl)carbamoyl]propyl]methyl-****carbamate**
(C₁₉H₂₃N₃O₃; 116666-61-6) see: Mibefradil hydrochloride**1-benzyl-4-aminopiperidine**

see under 4-amino-1-benzylpiperidine

7-(3-benzylaminopropyl)theophylline(C₁₇H₂₁N₅O₂; 24890-70-8) see: Reproterol**2-benzylaminopyridine**(C₁₂H₁₂N₂; 6935-27-9) see: Tripeleppamine***N*-benzylaniline**(C₁₃H₁₃N; 103-32-2) see: Antazoline; Bepridil; Histapyrodine**(3*S*)-benzyl *endo,cis*-2-azabicyclo[3.3.0]octane-3-carboxylate**(C₁₅H₁₉NO₂; 93779-31-8) see: Ramipril**(±)-benzyl *endo,cis*-2-azabicyclo[3.3.0]octane-3-carboxylate**(C₁₅H₁₉NO₂) see: Ramipril**1-*O*-benzyl-4,6-*O*-benzylidene-*N*-acetylmuramic acid**(C₂₅H₂₉NO₈; 2862-03-5) see: Romurtide***O*-benzyl-5-[*N*-benzyl-*N*-[(*R*)-1-methyl-3-phenylpropyl]-glycyl]salicylamide**(C₃₃H₃₄N₂O₃; 75615-53-1) see: Dilevalol**benzyl bromide**(C₇H₇Br; 100-39-0) see: Fosinopril; Latanoprost; Monobenzene; Orlistat; Pirbuterol; Saquinavir**benzyl bromoacetate**(C₉H₉BrO₂; 5437-45-6) see: Aceclofenac; Acemetacin; Fosinopril**8-benzyl-7-(2-bromoethyl)theophylline**(C₁₆H₁₇BrN₄O₂; 97977-40-7) see: Bamifylline**benzyl 2-bromopropionate**(C₁₀H₁₁BrO₂; 3017-53-6) see: Meropenem***N*-benzyl-*tert*-butylamine**(C₁₁H₁₇N; 3378-72-1) see: Bambuterol; Carbuterol; Salbutamol; Terbutaline**benzyl chloride**(C₇H₇Cl; 100-44-7) see: Bamipine; Benidipine; Benzalkonium chloride; Benzphetamine; Benzylamine; Benzyl alcohol; Benzyl benzoate; Bephenium hydroxynaphthoate; Betaxolol; Brinzolamide; Buphenine; Cetalkonium chloride; Dilevalol; Ifenprodil; Metaraminol; Pheniramine; Phenoxybenzamine; Tribenoside**benzyl chloroacetate**(C₉H₉ClO₂; 140-18-1) see: Acemetacin**benzyl [1-(4-chlorobenzoyl)-5-methoxy-2-methyl-3-indolyl]acetate**(C₂₈H₂₄ClNO₆; 53164-04-8) see: Acemetacin**benzyl chloroformate**(C₈H₇ClO₂; 501-53-1) see: Amprenavir; Aztreonam; Captopril; Carumonam; Deferoxamine; Fosinopril; Indalpine; Indinavir sulfate; Oxitriptan; Saquinavir; Teniposide; Trovafloxacin mesilate; Voglibose**benzyl chloromethyl ether**(C₈H₉ClO; 3587-60-8) see: Eprosartan***N*-benzyl-2-(chloromethyl)morpholine**(C₁₂H₁₆ClNO; 40987-25-5) see: Indeloxacine**benzyl cyanide**(C₈H₇N; 140-29-4) see: Azatadine; Dicycloverine; Disopyramide; Ethoheptazine; Isoaminile; Levocabastine; Mephenytoin; Methylphenidate; Methylphenobarbital; Milnacipran hydrochloride; Oxeladin; Pentapipride; Pentoxyverine; Pethidine; Phenglutarimide; Pheniramine; Phenobarbital; Tolazoline; Triamterene; Valetamate bromide**1-benzyl-4-cyanopiperidine**(C₁₃H₁₆N₂; 62718-31-4) see: Ketanserin**1-benzyl-4-cyano-4-piperidinopiperidine**(C₁₈H₂₅N₃; 84254-97-7) see: Pipamperone**1-benzylcycloheptanol**(C₁₄H₂₀O; 4006-73-9) see: Bencyclane

S-benzyl-L-cysteine(C₁₀H₁₃NO₂S; 3054-01-1) see: Bucillamine(±)-**cis-8-benzyl-2,8-diazabicyclo[4.3.0]nonane**(C₁₄H₂₀N₂; 161594-54-3) see: Moxifloxacin hydrochloride**1-benzyl-4-(5,6-dimethoxy-1-oxoindan-2-ylidene-methyl)piperidine**(C₂₄H₂₇NO₃; 120014-07-5) see: Donepezil hydrochloride**benzyl dimethylamine**(C₉H₁₃N; 103-83-3) see: Benzethonium chloride; Cefalexin**benzyl [(2R,3S)-3-[[[(1,1-dimethylethoxy)carbonyl]amino]-****2-hydroxy-4-phenylbutyl](2-methylpropyl)carbamate**(C₂₇H₃₈N₂O₅; 160232-10-0) see: Amprenavir**N-benzyl-N',S-dimethylisothiouraea**(C₁₀H₁₄N₂S) see: Betanidine**O-benzyl S-(4,6-dimethyl-2-pyrimidinyl)thiocarbonate**(C₁₄H₁₄N₂O₂S; 42116-21-2) see: Gusperimus

trihydrochloride

benzyl 2-[N-[1(S)-ethoxycarbonyl-3-phenylpropyl]-L-alanyl]-1,2,3,4-tetrahydro-6,7-dimethoxy-3(S)-isoquinoline-carboxylate(C₃₄H₄₀N₂O₇; 82637-57-8) see: Moexipril**γ-benzyl L-glutamate**(C₁₂H₁₅NO₄; 1676-73-9) see: Cilazapril**benzylhydrazine**(C₇H₁₀N₂; 555-96-4) see: Isocarboxazid**α-[benzyl(2-hydroxyethyl)amino]propiophenone**(C₁₈H₂₁NO₂; 94997-05-4) see: Phenmetrazine**1-benzyl-3-hydroxyimino-2-methylpyrrolidine**(C₁₂H₁₆N₂O; 74880-17-4) see: Nemonapride**1-benzyl-3-hydroxy-1H-indazole**(C₁₄H₁₂N₂O; 2215-63-6) see: Bendazac; Benzydamine**O-benzylhydroxylamine**(C₇H₉NO; 622-33-3) see: Aztreonam; Zileuton**benzyl [(2R,3S)-2-hydroxy-4-phenyl-3-[[[(3S)-tetrahydro-3-furanyl]oxy]carbonyl]amino]butyl](2-methylpropyl)-carbamate**(C₂₇H₃₆N₂O₆; 160232-12-2) see: Amprenavir**(3S)-1-benzyl-3-hydroxypyrrolidine**(C₁₁H₁₅NO; 101385-90-4) see: Barnidipine**1-benzyl-4-hydroxy-4-(3-trifluoromethylphenyl)piperidine**(C₁₉H₂₀F₃NO; 56108-27-1) see: Trifluperidol**4-benzylidenamino-2,3-dimethyl-1-phenyl-5-Δ³-pyrazolone**(C₁₈H₁₇N₃O; 83-17-0) see: Metamizole sodium**1-(benzylidenamino)-2,4-imidazolidinedione**(C₁₀H₉N₃O₂; 2827-57-8) see: Azimilide hydrochloride**1-(benzylidenamino)-3-(4-iodobutyl)-2,4-imidazolidinedione**(C₁₄H₁₆IN₃O₂; 92254-87-0) see: Azimilide hydrochloride**4-benzylidene-N-methylammonio-2,3-dimethyl-1-phenyl-5-Δ³-pyrazolone methyl sulfate**(C₂₀H₂₃N₃O₅S) see: Metamizole sodium**2-benzylidene-4-methyl-3-oxo-N-phenylpentanamide**(C₁₉H₁₉NO₂; 125971-57-5) see: Atorvastatin calcium**(S)-N-benzylidene-1-phenylethylamine**(C₁₅H₁₅N; 62696-51-9) see: Docetaxel; Paclitaxel**benzyl isocyanate**(C₈H₇NO; 3173-56-6) see: Zolmitriptan**benzyl D-isoglutamate**(C₁₂H₁₆N₂O₃; 71811-14-8) see: Romurtide**benzyl levulinoyloxyacetate**(C₁₄H₁₆O₅; 53164-03-7) see: Acemetacin**benzylmagnesium chloride**(C₇H₇ClMg; 6921-34-2) see: Benzcyclane; Clomifene; Dextropropoxyphene; Ritonavir**N-benzylmaleimide**(C₁₁H₉NO₂; 1631-26-1) see: Trovafloxacin mesilate**benzylmalonic acid**(C₁₀H₁₀O₄; 616-75-1) see: Acetorphan**benzyl mercaptan**(C₇H₈S; 100-53-8) see: Benzthiazide; Bucillamine; Thioctic acid**benzyl (5-methoxy-2-methyl-3-indolylacetoxy)acetate**(C₂₁H₂₁NO₅; 53164-08-2) see: Acemetacin**benzyl [2-(4-methoxyphenylhydrazono)valeryloxy]acetate**(C₂₁H₂₄N₂O₅; 53164-06-0) see: Acemetacin**N-benzylmethylamine**(C₈H₁₁N; 103-67-3) see: Amidephrine mesilate; Epinastine hydrochloride; Lercanidipine hydrochloride; Oxilofrine; Pargyline**3-(benzylmethylamino)-1,1-diphenyl-1-propanol**(C₂₃H₂₅NO; 25772-95-6) see: Lercanidipine hydrochloride**α-benzylmethylamino-3-methylsulfonylamino-acetophenone**(C₁₇H₂₀N₂O₂S; 6861-18-3) see: Amidephrine mesilate**3-(benzylmethylamino)-1-phenylpropan-1-one**(C₁₇H₁₉NO; 21970-65-0) see: Lercanidipine hydrochloride**3-(benzylmethylamino)propyl chloride**(C₁₁H₁₆ClN; 3161-52-2) see: Desipramine**benzyl (4S)-1-methyl-3-[(2S)-2-[(1S)-1-ethoxycarbonyl-3-phenylpropylamino]propionyl]-2-oxoimidazolidine-4-carboxylate**(C₂₇H₃₃N₃O₆; 89371-36-8) see: Imidapril**N-benzyl-N-[1-methyl-2-(4-methoxyphenyl)ethyl]amine**

see under 2-benzylamino-1-(4-methoxyphenyl)propane

(±)-N-benzyl-N-[1-methyl-2-(4-methoxyphenyl)ethyl]-amine

see under 2-benzylamino-1-(4-methoxyphenyl)propane

benzyl (4S)-1-methyl-2-oxo-imidazolidine-4-carboxylate(C₁₂H₁₄N₂O₃; 89371-35-7) see: Imidapril**N-benzyl-N-(1-methyl-2-phenoxyethyl)ethanolamine**(C₁₈H₂₃NO₂; 101-45-1) see: Phenoxybenzamine**benzyl (-)-3-methyl-4-phenyl-4-piperidinecarboxylate**(C₂₀H₂₃NO₂; 104907-71-3) see: Levocabastine**(R)-(+)-N-benzyl-1-methyl-3-phenylpropylamine**(C₁₇H₂₁N; 75659-06-2) see: Dilevalol**N-benzyl-1-methyl-3-phenylpropylamine**(C₁₇H₂₁N; 68164-04-5) see: Dilevalol; Labetalol

see under N-benzyl-1-methyl-3-phenylpropylamine

1-benzyl-2-methyl-3-pyrrolidinone(C₁₂H₁₅NO; 69079-26-1) see: Nemonapride**N¹-benzyl-N²-methylthiourea**(C₉H₁₂N₂S; 2740-94-5) see: Betanidine**(1α,5α,6α)-3-benzyl-6-nitro-2,4-dioxo-3-azabicyclo[3.1.0]hexane**(C₁₂H₁₀N₂O₄; 151860-15-0) see: Trovafloxacin mesilate**4(S)-benzyloxazolidin-2-one**(C₁₀H₁₁NO₂; 90719-32-7) see: Abacavir

- 8-benzyl-4-oxo-1-phenyl-1,3,8-triazaspiro[4.5]decane**
(C₂₀H₂₃N₃O; 974-41-4) see: Fluspirilene
- 2-[1-(benzyloxyamino)ethyl]benzo[*b*]thiophene**
(C₁₇H₁₇NOS; 155205-55-3) see: Zileuton
- N*-benzyloxy-*N*-[1-(benzo[*b*]thien-2-yl)ethyl]urea**
(C₁₈H₁₈N₂O₂S; 155205-56-4) see: Zileuton
- 3-benzyloxy-2,6-bis(hydroxymethyl)pyridine**
(C₁₃H₁₃NO₃) see: Pirbuterol
- 4'-benzyloxy-2-bromo-3'-carbamoylacetophenone**
(C₁₆H₁₄BrNO₃; 72370-19-5) see: Dilevalol
- 4'-henzyloxy-2-bromopropiophenone**
(C₁₆H₁₅BrO₂; 35081-45-9) see: Buphenine; Ifenprodil; Isoxsuprine; Oxilofrine; Ritodrine
- N*-benzyloxycarbonyl-L-alanine succinimido ester**
(C₁₅H₁₆N₂O₆; 3401-36-3) see: Spirapril
- (2*S*-*cis*)-3-(benzyloxycarbonylamino)-2-(carbamoyloxy-methyl)-4-oxoazetidine-1-sulfonic acid**
(C₁₃H₁₅N₃O₈S; 90192-26-0) see: Carumonam
- (1*S*,2*R*)-2-(benzyloxycarbonylamino)-1-(1,3-dithian-2-yl)-3-(phenylthio)-1-propanol**
(C₂₁H₂₅NO₃S₃; 197302-36-6) see: Nelfinavir mesylate
- 3(*S*)-benzyloxycarbonylamino-1,2(*S*)-epoxy-4-phenylbutane**
(C₁₈H₁₉NO₃; 128018-44-0) see: Saquinavir
- 1-benzyloxycarbonylamino-5-hydroxyaminopentane**
(C₁₃H₂₀N₂O₃; 91905-05-4) see: Deferoxamine
- L(-)- γ -benzyloxycarbonylamino- α -hydroxybutyric acid succinimido ester**
(C₁₆H₁₈N₂O₇; 40371-52-6) see: Amikacin
- N*¹-[(*S*)-3-benzyloxycarbonylamino-2-hydroxypropionyl]-betamicin**
(C₃₀H₄₉N₅O₁₄) see: Isepamicin
- N*-[(*S*)-3-benzyloxycarbonylamino-2-hydroxypropionyl]-succinimide**
(C₁₅H₁₆N₂O₆) see: Isepamicin
- (3*S*-*trans*)-3-benzyloxycarbonylamino-4-methyl-2-azetidinone**
(C₁₂H₁₄N₂O₃; 80582-04-3) see: Aztreonam
- 2-(5-benzyloxycarbonylamino-2-hydroxy-3,6-dioxotetrahydro-1,2-oxazine**
(C₁₇H₂₂N₂O₅; 94622-86-3) see: Deferoxamine
- N*²-benzyloxycarbonyl-L-asparagine**
(C₁₂H₁₄N₂O₅; 2304-96-3) see: Angiotensinamide; Saquinavir
- (α ,5 α ,6 α)-3-(benzyloxycarbonyl)-3-azabicyclo[3.1.0]-hexane-6-carboxylic acid**
(C₁₄H₁₅NO₄; 134575-15-8) see: Trovafloxacin mesilate
- N*-benzyloxycarbonyl-1,4-butanediamine**
(C₁₂H₁₈N₂O₂; 62146-62-7) see: Gusperimus trihydrochloride
- N*²-benzyloxycarbonyl-*N*⁶-*tert*-butoxycarbonyl L-lysine**
(C₁₉H₂₈N₂O₆; 2389-60-8) see: Lisinopril
- benzyloxycarbonyldeferaxamine**
(C₃₃H₅₄N₆O₁₀) see: Deferoxamine
- 4'-benzyloxycarbonyl-4'-demethylepipodophyllotoxin**
(C₂₉H₂₆O₁₀; 23363-33-9) see: Etoposide; Teniposide
- N*-benzyloxycarbonyl-3,4-didehydro-4-phenyl-L-proline**
(C₁₉H₁₇NO₄; 82087-66-9) see: Fosinopril
- 1-(benzyloxycarbonyl)-2,5-dihydro-1*H*-pyrrole**
(C₁₂H₁₃NO₂; 31970-04-4) see: Trovafloxacin mesilate
- (*S*)-7-benzyloxycarbonyl-1,4-dithia-7-azaspiro[4.4]nonane-8-carboxylic acid**
(C₁₅H₁₇NO₄S₂; 75776-77-1) see: Spirapril
- N*-benzyloxycarbonylglycyl chloride**
(C₁₀H₁₀ClNO₃; 15050-24-5) see: Clotiazepam; Etizolam
- N*-benzyloxycarbonyl-4-hydroxy-L-proline**
(C₁₃H₁₅NO₃; 13504-85-3) see: Fosinopril; Spirapril
- N*⁶-(benzyloxycarbonyl)kanamycin A**
(C₂₆H₄₂N₄O₁₃; 40372-09-6) see: Amikacin
- N*⁶-(benzyloxycarbonyl)-L-lysine benzyl ester**
(C₂₁H₂₆N₂O₄; 24458-14-8) see: Romurtide
- 4-[*N*-(benzyloxycarbonyl)methylamino]butyric acid**
(C₁₃H₁₇NO₄; 98008-66-3) see: Mibefradil hydrochloride
- N*-benzyloxycarbonyl-4-oxo-L-proline**
(C₁₃H₁₃NO₃; 64187-47-9) see: Fosinopril; Spirapril
- N*-(benzyloxycarbonyloxy)succinimide**
(C₁₂H₁₁NO₅; 13139-17-8) see: Amikacin; Omapatrilat
- N*-(benzyloxycarbonyl)-L-phenylalaninal**
(C₁₇H₁₇NO₃; 59830-60-3) see: Ritonavir
- N*-benzyloxycarbonyl-L-phenylalanine**
(C₁₇H₁₇NO₄; 1161-13-3) see: Saquinavir
- N*-(benzyloxycarbonyl)-L-phenylalanine methyl ester**
(C₁₈H₁₉NO₄; 35909-92-3) see: Ritonavir
- N*-(benzyloxycarbonyl)-L-phenylalaninol**
(C₁₇H₁₉NO₃; 6372-14-1) see: Ritonavir
- (*R*)-*N*-benzyloxycarbonyl-3-(phenylthio)alanine**
(C₁₇H₁₇NO₃S; 159453-24-4) see: Nelfinavir mesylate
- N*-benzyloxycarbonyl-4-piperidineacetic acid**
(C₁₅H₁₉NO₄; 63845-28-3) see: Indalpine
- N*-benzyloxycarbonyl-L-proline**
(C₁₃H₁₅NO₄; 1148-11-4) see: Angiotensinamide; Captopril
- N*-benzyloxycarbonyl-L-proline *tert*-butyl ester**
(C₁₇H₂₃NO₄; 16881-39-3) see: Captopril
- N*-benzyloxycarbonyl-L-serine**
(C₁₁H₁₃NO₃; 1145-80-8) see: Nelfinavir mesylate
- N*-benzyloxycarbonyl-L-serine- β -lactone**
(C₁₁H₁₁NO₄; 26054-60-4) see: Nelfinavir mesylate
- N*-benzyloxycarbonylsuccinimide**
(C₁₂H₁₁NO₄; 75315-63-8) see: Gusperimus trihydrochloride
- N*²-benzyloxycarbonyl-L-threoninamide**
(C₁₂H₁₆N₂O₄; 49705-98-8) see: Aztreonam
- N*-benzyloxycarbonyl-L-valine**
(C₁₃H₁₇NO₄; 1149-26-4) see: Valaciclovir
- N*-benzyloxycarbonyl-L-valyl-L-tyrosyl-L-valyl-L-histidine**
(C₃₁H₄₂N₆O₈; 41839-92-3) see: Angiotensinamide
- DL-5-(benzyloxy)-*N*-carboxytryptophan *N*-benzyl ester**
(C₂₆H₂₄N₂O₅; 3017-27-4) see: Oxitriptan
- 4-benzyloxy-2-dimethylaminomethylindole**
(C₁₈H₂₀N₂O; 75303-01-4) see: Mepindolol
- 4-(benzyloxy)-*N,N*-dimethylindole-2-carboxamide**
(C₁₈H₁₈N₂O₂; 109559-13-9) see: Mepindolol
- 1-(2-benzyloxyethyl)-4-(3-chloropropyl)piperazine**
(C₁₆H₂₅ClN₂O; 4981-87-7) see: Flupentixol
- 2-(2-benzyloxyethyl)piperazine**
(C₁₃H₂₀N₂O; 4981-85-5) see: Flupentixol
- 4-[2-(benzyloxy)ethyl]-1-piperazinepropanol**
(C₁₆H₂₆N₂O₂; 4903-29-1) see: Flupentixol

9-[3-[4-[2-(benzyloxy)ethyl]-1-piperazinyl]propyl]-2-(trifluoromethyl)thioxanthen-9-ol
(C₃₀H₃₃F₃N₂O₂S; 2560-74-9) see: Flupentixol

6-benzyloxy-2-(4-formylphenoxy)methyl)-2,5,7,8-tetramethylchroman
(C₂₈H₃₀O₄; 138564-69-9) see: Troglitazone

5-benzyloxygramine
(C₁₈H₂₀N₂O; 1453-97-0) see: Oxitriptan

4-benzyloxyhydrazobenzene
(C₁₉H₁₈N₂O; 93942-75-7) see: Oxyphenbutazone

5-benzyloxy-6-(hydroxymethyl)pyridine-2-carboxaldehyde
(C₁₄H₁₃NO₃; 38029-04-8) see: Pirbuterol

5-benzyloxyindole
(C₁₅H₁₃NO; 1215-59-4) see: Oxitriptan

4-(benzyloxy)indole-2-acetonitrile
(C₁₇H₁₄N₂O; 108981-51-7) see: Mepindolol

4-benzyloxyindole-2-carboxylic acid
(C₁₆H₁₃NO₃; 39731-09-4) see: Mepindolol

4-benzyloxy-3-methoxybenzaldehyde
(C₁₅H₁₄O₃; 2426-87-1) see: Tolcapone

4-benzyloxy-3-methoxy-4'-methylbenzhydrol
(C₂₂H₂₂O₃; 134612-19-4) see: Tolcapone

1-(benzyloxymethyl)-2-butyl-4-iodoimidazole-5-carboxaldehyde
(C₁₆H₁₉IN₂O₂; 154371-51-4) see: Eprosartan

4-benzyloxy-2-methylindole
(C₁₆H₁₅NO; 35308-72-6) see: Mepindolol

7-(benzyloxymethyl)-3-oxo-5-norbornene
(C₁₅H₁₆O₂; 56817-38-0) see: Dinoprost

4'-(benzyloxy)-2-[(1-methyl-3-phenylpropyl)amino]propiphenone hydrobromide
(C₂₆H₃₀BrNO₂; 102946-28-1) see: Buphenine

4'-benzyloxy-3'-nitroacetophenone
(C₁₅H₁₃NO₄; 14347-05-8) see: Formoterol

O-benzyloxyphenbutazone
(C₂₆H₂₆N₂O₃; 31603-00-6) see: Oxyphenbutazone

4-benzyloxyphenol
(C₁₃H₁₂O₂; 103-16-2) see: Prenalterol; Xamoterol

1-(4-benzyloxyphenoxy)-2,3-epoxypropane
(C₁₆H₁₆O₃; 28150-30-3) see: Prenalterol; Xamoterol

1-(4-benzyloxyphenyl)-2(S),3-dihydroxypropane
(C₁₆H₁₈O₄; 57506-18-0) see: Prenalterol

2-(4-benzyloxyphenyl)ethylamine
(C₁₅H₁₇NO; 51179-05-6) see: Ritodrine

3'-benzyloxypropiphenone
(C₁₆H₁₆O₂; 37951-47-6) see: Metaraminol

4'-benzyloxypropiphenone
(C₁₆H₁₆O₂; 4495-66-3) see: Buphenine; Ifenprodil; Isoxsuprine; Oxilofrine; Ritodrine

3(R)-benzyloxytetradecanal
(C₂₁H₃₄O₂; 112763-97-0) see: Orlistat

5-[4-(6-benzyloxy-2,5,7,8-tetramethylchroman-2-ylmethoxy)benzylidene]-2,4-thiazolidinedione
(C₃₁H₃₁NO₅S; 138564-62-2) see: Troglitazone

5-benzyloxy-DL-tryptophan
(C₁₈H₁₈N₂O₃; 1956-25-8) see: Oxitriptan

benzylpenicillin
(C₁₆H₁₈N₂O₄S; 61-33-6) see: Benzathine benzylpenicillin; D-Penicillamine

5R,6R-benzylpenicilloic acid
(C₁₆H₂₀N₂O₅S; 87492-68-0) see: D-Penicillamine

benzylpenilloic acid "(2R-trans)"
(C₁₅H₂₀N₂O₅S; 73184-06-2) see: D-Penicillamine

2-benzylphenol
(C₁₃H₁₂O; 28994-41-4) see: Benproperine; Phenyltoloxamine

1-(2-benzylphenoxy)-2-chloropropane
(C₁₆H₁₇ClO; 85909-36-0) see: Benproperine

1-(2-benzylphenoxy)-2-propanol
(C₁₆H₁₈O₂; 5029-76-5) see: Benproperine

1-(2-benzylphenoxy)-2-tosyloxypropane
(C₂₃H₂₄O₄S; 5029-77-6) see: Benproperine

2-(benzylphenylamino)ethanol
(C₁₅H₁₇NO; 33905-47-4) see: Efonidipine hydrochloride ethanol

2-(benzylphenylamino)ethyl acetoacetate
(C₁₉H₂₁NO₃; 111011-83-7) see: Efonidipine hydrochloride ethanol

2-(benzylphenylamino)ethyl 3-aminocrotonate
(C₁₉H₂₂N₂O₂; 111011-79-1) see: Efonidipine hydrochloride ethanol

2-(benzylphenylamino)ethyl 2-(3-nitrobenzylidene)acetoacetate
(C₂₆H₂₄N₂O₅; 111011-82-6) see: Efonidipine hydrochloride ethanol

N-benzyl-N-phenylhydrazine
(C₁₃H₁₄N₂; 614-31-3) see: Mebhydrolin

4-benzylpiperidine
(C₁₂H₁₇N; 31252-42-3) see: Ifenprodil

1-benzylpiperidine-4-carboxaldehyde
(C₁₃H₁₇NO; 22065-85-6) see: Donepezil hydrochloride

1-benzylpiperidine-4-one
(C₁₂H₁₅NO; 3612-20-2) see: Alfentanil; Clebopride; Fentanyl; Fluspirilene; Pipamperone; Tinoridine; Trifluoperidol

1-benzyl-4-piperidinopiperidine-4-carboxamide
(C₁₈H₂₇N₃O; 1762-50-1) see: Pipamperone

N-benzyl-3-piperidinyl acetoacetate
(C₁₆H₂₁NO₃; 85387-34-4) see: Benidipine

1-benzyl-4-piperidone
see under 1-benzylpiperidine-4-one

1-(1-benzyl-4-piperidyl)-2-benzimidazolone
(C₁₉H₂₁N₃O; 16148-06-4) see: Benperidol

2-benzylpyridine
(C₁₂H₁₁N; 101-82-6) see: Pheniramine

4-benzylpyridine
(C₁₂H₁₁N; 2116-65-6) see: Pheniramine

benzyl 3-pyridyl ketone
(C₁₃H₁₁NO; 14627-92-0) see: Azatadine

benzyl salicylate
(C₁₄H₁₂O₃; 118-58-1) see: Benexate

benzyl 1,2,3,4-tetrahydro-6,7-dimethoxy-3(S)-isoquinolinecarboxylate
(C₁₉H₂₁NO₄; 82586-59-2) see: Moexipril

benzyl (S)-1,2,3,4-tetrahydro-3-isoquinolinecarboxylate
(C₁₇H₁₇NO₂; 77497-96-2) see: Quinapril hydrochloride

1-(1-benzyl-1,2,3,6-tetrahydro-4-pyridyl)-2-benzimidazolone
(C₁₉H₁₉N₃O; 60373-71-9) see: Droperidol

8-benzyltheophylline(C₁₄H₁₄N₄O₂; 2879-15-4) see: Bamifylline**α-benzylthioisobutyric acid**(C₁₁H₁₄O₂S; 36038-77-4) see: Bucillamine**α-benzylthioisobutyryl chloride**(C₁₁H₁₃ClOS; 62738-25-4) see: Bucillamine**S-benzylthiosalicylic acid**(C₁₄H₁₂O₂S; 1531-80-2) see: Dosulepin**N-benzylthiourea**(C₈H₁₀N₂S; 621-83-0) see: Benzyl mustard oil**benzyltributylammonium chloride**(C₁₉H₃₄ClN; 23616-79-7) see: Pioglitazone**benzyl trichloroacetimidate**(C₉H₈Cl₃NO; 81927-55-1) see: Orlistat; Tacrolimus**benzyl 4-(trifluoromethyl)phenyl ether**(C₁₄H₁₁F₃O; 70097-65-3) see: Fluoxetine**benzyltrimethylammonium hydroxide**(C₁₀H₁₇NO; 100-85-6) see: Phenglutarimide**bephenium chloride**(C₁₇H₂₂ClNO; 13928-81-9) see: Bephenium

hydroxynaphthoate

betaine(C₅H₁₁NO₂; 107-43-7) see: Betaine aspartate**betaine chloride**(C₅H₁₂ClNO₂; 590-46-5) see: Betaine hydrate**betaine hydrate**(C₅H₁₃NO₃; 590-47-6) see: Cloral betaine**betamethasone**(C₂₂H₂₉FO₅; 378-44-9) see: Betamethasone benzoate; Betamethasone butyrate propionate; Betamethasone dipropionate; Betamethasone phosphate; Betamethasone valerate**betamethasone acetate**(C₂₄H₃₁FO₆; 987-24-6) see: Betamethasone**betamethasone 17-butyrate**(C₂₆H₃₅FO₆; 5534-14-5) see: Betamethasone butyrate propionate; Clobetasone butyrate**betamethasone 17-propionate**(C₂₅H₃₃FO₆; 5534-13-4) see: Betamethasone dipropionate; Clobetasol propionate**betamethasone valerate**(C₂₇H₃₇FO₆; 2152-44-5) see: Betamethasone divalerate**bicyclo[2.2.1]hept-5-ene-2-carboxaldehyde**(C₈H₁₀O; 5453-80-5) see: Cyclothiazide**bicyclo[2.2.1]hept-5-en-2-ylmagnesium chloride**(C₇H₉ClMg) see: Biperidene; Ciclonium bromide**2-(1-bicyclo[2.2.1]hept-5-en-2-yl-1-phenylethoxy)-N,N-diethylethanamine**(C₂₁H₃₁NO; 59985-93-2) see: Ciclonium bromide**biphenyl**(C₁₂H₁₀; 92-52-4) see: Bifonazole; Fenbufen**4-biphenylacetonitrile**(C₁₄H₁₁N; 31603-77-7) see: Felbinac**[3aR-(3α,4α,5β,6α)]-[1,1'-biphenyl]-4-carboxylic acid 4-formylhexahydro-2-oxo-2H-cyclopenta[b]furan-5-yl ester**(C₂₁H₁₈O₅; 38754-71-1) see: Latanoprost**[3aR-[3α,4α(1E,3S*),5β,6α]]-[4,4'-biphenyl]-4-carboxylic acid hexahydro-4-(3-hydroxy-5-phenyl-1-pentenyl)-2-oxo-2H-cyclopenta[b]furan-5-yl ester**(C₃₁H₃₀O₅; 41639-73-0) see: Latanoprost**[3aR-(3α,4α,5β,6α,6α)]-[1,1'-biphenyl]-4-carboxylic acid hexahydro-6-iodo-2-oxo-4-[(phenylmethoxy)methyl]-2H-cyclopenta[b]furan-5-yl ester**(C₂₈H₂₅IO₃) see: Dinoprost**[3aR-[3α,4α(E),5β,6α]]-[1,1'-biphenyl]-4-carboxylic acid hexahydro-2-oxo-4-(3-oxo-1-decenyl)-2H-cyclopenta[b]furan-5-yl ester**(C₃₀H₃₄O₅; 39865-76-4) see: Unoprostone isopropyl**[3aR-[3α,4α(E),5β,6α]]-[1,1'-biphenyl]-4-carboxylic acid hexahydro-2-oxo-4-(3-oxo-1-octenyl)-2H-cyclopenta[b]furan-5-yl ester**(C₂₈H₃₀O₅) see: Dinoprost**[3aR-[3α,4α(E),5β,6α]]-[4,4'-biphenyl]-4-carboxylic acid hexahydro-2-oxo-4-(3-oxo-5-phenyl-1-pentenyl)-2H-cyclopenta[b]furan-5-yl ester**(C₃₁H₂₈O₅; 41639-72-9) see: Latanoprost**4,4'-bis(acetamido)diphenyl sulfide**(C₁₆H₁₆N₂O₂S; 7355-56-8) see: Dapsone**4,4'-bis(acetamido)diphenyl sulfone**(C₁₆H₁₆N₂O₄S; 77-46-3) see: Dapsone**2,6-bis(acetoxymethyl)pyridine**(C₁₁H₁₃NO₃; 7688-39-3) see: Pyridinol carbamate**3,6-bis(acetylamino)acridine**(C₁₇H₁₅N₃O₂; 15724-70-6) see: Acriflavinium chloride**3,6-bis(acetylamino)-10-methylacridinium tosylate**(C₂₅H₂₅N₃O₅S) see: Acriflavinium chloride**(11β,16α)-16,21-bis(acetyloxy)-9-bromo-11,17-dihydroxy-pregn-4-ene-3,20-dione**(C₂₅H₃₃BrO₈; 91160-85-9) see: Triamcinolone**(6β)-17,21-bis(acetyloxy)-2-bromo-6-fluoropregna-****1,4,9(11)-triene-3,20-dione**(C₂₅H₂₈BrFO₆; 57808-78-3) see: Halopredone diacetate**(6β,11β)-17,21-bis(acetyloxy)-2,9-dibromo-6-fluoro-11-hydroxypregna-1,4-diene-3,20-dione**(C₂₅H₂₉Br₂FO₇; 57781-13-2) see: Halopredone diacetate**(6β,11α)-17,21-bis(acetyloxy)-2,2-dibromo-6-fluoro-11-****[(methylsulfonyl)oxy]pregn-4-ene-3,20-dione**(C₂₆H₃₃Br₂FO₉S; 57781-12-1) see: Halopredone diacetate**(5α,6α)-3,6-bis(acetyloxy)-7,8-didehydro-4,5-epoxymorphinan-17-carbonitrile**(C₂₁H₂₀N₂O₅; 20827-47-8) see: Nalorphine**(6α,11β,16α)-16,21-bis(acetyloxy)-6,9-difluoro-11,17-dihydroxypregn-4-ene-3,20-dione**(C₂₅H₃₂F₂O₈; 3793-00-8) see: Fluocinolone acetoneide**(6α,9β,11β,16β)-17,21-bis(acetyloxy)-9,11-epoxy-6-fluoro-16-methylpregn-4-ene-3,20-dione**(C₂₆H₃₃FO₇; 50630-14-3) see: Diflorasone diacetate**(9β,11β,16β)-16,21-bis(acetyloxy)-9,11-epoxy-17-hydroxypregn-4-ene-3,20-dione 16,21-diacetate**(C₂₅H₃₂O₈; 98422-57-2) see: Triamcinolone**(5α)-3,14-bis(acetyloxy)-4,5-epoxymorphinan-6-one**(C₂₀H₂₁NO₆; 63091-72-5) see: Naloxone**(11β,16α)-16,21-bis(acetyloxy)-9-fluoro-11,17-dihydroxypregna-1,4-diene-3,20-dione**(C₂₅H₃₁FO₈; 67-78-7) see: Triamcinolone**(6α,11β,16α)-16,21-bis(acetyloxy)-6-fluoro-11,17-dihydroxypregn-4-ene-3,20-dione**(C₂₅H₃₃FO₈; 2992-52-1) see: Fluocinolone acetoneide

(3 β ,5 α ,6 β ,16 α)-3,5-bis(acetyloxy)-6-fluoro-17-hydroxy-16-methylpregnane-20-one

(C₂₆H₃₉FO₆) see: Flumetasone

(3 β)-17,21-bis(acetyloxy)-3-(formyloxy)pregn-5-en-20-one

(C₂₆H₃₆O₇; 96671-22-6) see: Hydrocortisone

3,4-bis(acetyloxy)-2-methylbutanal

(C₉H₁₄O₅; 32347-78-7) see: Retinol

1-[3,5-bis(acetyloxy)phenyl]-2-[[2-(4-methoxyphenyl)-1-methylethyl](phenylmethyl)amino]ethanone

(C₂₉H₃₁NO₆) see: Fenoterol

7-[3-[[2-[3,5-bis(acetyloxy)phenyl]-2-oxoethyl](phenylmethyl)amino]propyl]-3,7-dihydro-1,3-dimethyl-1H-purine-2,6-dione

(C₂₉H₃₁N₅O₇; 62932-98-3) see: Reproterol

(3 β ,5 α ,11 α)-3,11-bis(acetyloxy)pregn-16-en-20-one

(C₂₅H₃₆O₅; 28507-80-4) see: Halopredone diacetate

3,4-bis[4-(benzyloxy)phenyl]-3,4-hexanediol

(C₃₂H₃₀O₆) see: Dienestrol

1,2-bis(benzylideneamino)ethane

(C₁₆H₁₆N₂; 104-71-2) see: Benzathine benzylpenicillin

4-O-[2,6-bis(benzoyloxycarbonylamino)-3,4-di-O-benzyl-2,6-dideoxy- α -D-glucopyranosyl]-N,N'-bis(benzoyloxycarbonyl)-2-deoxy-D-streptamine

(C₅₈H₆₂N₄O₁₄; 22854-78-0) see: Ribostamycin

(2S,3R,4R,5S)-2,5-bis[(benzyloxycarbonyl)amino]-3,4-dihydroxy-1,6-diphenylhexane

(C₃₄H₃₆N₂O₆; 137649-69-5) see: Ritonavir

(2S,3R,4R,5S)-2,5-bis[(benzyloxycarbonyl)amino]-3,4-epoxy-1,6-diphenylhexane

(C₃₄H₃₄N₂O₅; 162849-92-5) see: Ritonavir

1,2-bis(benzoyloxycarbonyl)-1-methylhydrazine

(C₁₇H₁₈N₂O₄; 6002-83-1) see: Procarbazine

1,2-bis(2-bromoethoxy)benzene

(C₁₀H₁₂Br₂O₂; 136383-33-0) see: Tamsulosin hydrochloride

bis(β -bromoethyl)amine hydrobromide

(C₄H₁₀Br₃N; 43204-63-3) see: Vesnarinone

2,2'-bis(bromomethyl)biphenyl

(C₁₄H₁₂Br₂; 38274-14-5) see: Azapetine

3,4-bis(bromomethyl)-5-hydroxy-6-methylpyridine hydrobromide

(C₈H₁₀Br₃NO; 39984-49-1) see: Pyritinol

3,5-bis-O-(tert-butylidimethylsilyl)-2-deoxy-2,2-difluoro-2-O-methanesulfonyl-D-ribofuranose

(C₁₈H₃₈F₂O₆SSi₂; 103882-89-9) see: Gemcitabine

3,5-bis-O-(tert-butylidimethylsilyl)-2-deoxy-2,2-difluoro-D-ribofuranose

(C₁₇H₃₆F₂O₄Si₂) see: Gemcitabine

N,O-bis(4-chlorobenzoyl)tyramine

(C₂₂H₁₇Cl₂NO₃; 41859-56-7) see: Bezafibrate

bis(2-chloroethyl)amine

(C₄H₉Cl₂N; 334-22-5) see: Cyclophosphamide; Estramustine phosphate

4-[4-bis(2-chloroethyl)amino]phenyl]butyric anhydride

(C₂₈H₃₆Cl₄N₂O₃; 64338-29-0) see: Prednimustine

bis(2-chloroethyl) ether

(C₄H₈Cl₂O; 111-44-4) see: Benzethonium chloride; Oxeladin; Risperidone

N,N-bis(2-chloroethyl)-N-methylamine

(C₅H₁₁Cl₂N; 51-75-2) see: Ketobemidone; Pethidine

N,N-bis(2-chloroethyl)phosphoramidic dichloride

(C₄H₈Cl₄NOP; 127-88-8) see: Cyclophosphamide; Trofosfamide

N,N'-bis(2-chloroethyl)urea

(C₅H₁₀Cl₂N₂O; 2214-72-4) see: Carmustine

bis(chloromethyl) ether

(C₂H₄Cl₂O; 542-88-1) see: Obidoxime chloride

2,6-bis(chloromethyl)pyridine

(C₇H₇Cl₂N; 3099-28-3) see: Pyridinol carbamate

bis(4-chlorophenyl) disulfide

(C₁₂H₈Cl₂S₂; 1142-19-4) see: Tiludronate disodium

5,6-bis-O-[(4-chlorophenyl)methylene]-1,2-O-(1-methylethylidene)-3-O-propyl- α -D-glucofuranose

(C₂₆H₃₂Cl₂O₆; 28542-48-5) see: Clobenoside

1,5-bis(4-cyanophenoxy)pentane

(C₁₉H₁₈N₂O₂; 7467-71-2) see: Pentamidine

N,N'-bis(2-diethylaminoethyl)oxamide

(C₁₄H₃₀N₄O₂; 5432-13-3) see: Ambenonium chloride

1,3-bis(dimethylamino)-2-chloropropane

(C₇H₁₇ClN₂; 40550-12-7) see: Aminopromazine

bis(2-dimethylaminoethyl) succinate

(C₁₂H₂₄N₂O₄; 19249-04-8) see: Suxamethonium chloride

1,6-bis(dimethylamino)hexane

(C₁₀H₂₄N₂; 111-18-2) see: Distigmine bromide; Hexafluronium bromide

1,3-bis(dimethylamino)-2-propanol

(C₇H₁₈N₂O; 5966-51-8) see: Prolonium iodide

3',5'-bis(dimethylcarbamoyloxy)acetophenone

(C₁₄H₁₈N₂O₅; 81732-48-1) see: Bambuterol

bis(1,1-dimethylethyl) dicarbonate

(C₁₀H₁₈O₆; 24424-99-5) see: Delavirdine mesilate; Fosinopril; Indinavir sulfate; Miglitol; Nevirapine; Temocapril; Tirofiban hydrochloride; Trovafloxacin mesilate

[1R-[1 α [(1R*(S*),3aR*,4E,7aR*),4 α ,6 β]]-4-[[4,6-bis[(1,1-dimethylethyl)dimethylsilyl]oxy]-1,3,4,5,6,7-hexahydro-2,2-dioxidobenzoc[thien-1-yl]methylene]octahydro- α ,7a-dimethyl-1H-indene-1-acetaldehyde

(C₃₄H₆₀O₅SSi₂; 112790-51-9) see: Calcipotriol

(1 α ,3 β ,5E,7E)-1,3-bis[[1,1-dimethylethyl]dimethylsilyl]oxy]-9,10-secopregna-5,7,10(19)-triene-20-carboxaldehyde

(C₃₄H₆₀O₃Si₂) see: Calcipotriol

1,2-bis(3,5-dioxopiperazin-1-yl)ethane

(C₁₀H₁₄N₄O₄; 1506-47-4) see: Sobuzoxane

(11 β)-3,3:17,17-bis[1,2-ethanediybis(oxy)]-11-hydroxy-estr-5-en-18-oic acid γ -lactone

(C₂₂H₂₈O₆; 59860-72-9) see: Desogestrel

3,4-bis(ethoxycarbonyloxy)phenethylamine oxalate hemihydrate

(C₃₂H₄₄N₂O₂₁; 143436-67-3) see: Docarpamine

1,1-bis(ethoxycarbonyl)-2-vinylcyclopropane

(C₁₁H₁₆O₄; 7686-78-4) see: Vigabatrin

3,3:20,20-bis(ethylenedioxy)-11 β ,17,21-trihydroxy-5-pregnene

(C₂₅H₃₈O₇; 76338-54-0) see: Cloprednol; Hydrocortisone; Methylprednisolone

bis(2-ethylhexyl) fumarate

(C₂₀H₃₆O₄; 141-02-6) see: Sodium dioctyl sulfosuccinate

- 1,3-bis(2-ethylhexyl)hexahydro-5-methyl-5-nitropyrimidine**
(C₂₁H₄₃N₃O₂; 56672-87-8) see: Hexetidine
- (R*,S*)-2,3-bis(3-fluoro-4-methoxyphenyl)pentane**
(C₁₉H₂₂F₂O₂; 79295-55-9) see: Bifluranol
- trans-2,3-bis(3-fluoro-4-methoxyphenyl)-2-pentene**
(C₁₉H₂₀F₂O₂) see: Bifluranol
- 4,4-bis(4-fluorophenyl)butyl bromide**
(C₁₆H₁₅BrF₂; 57668-61-8) see: Fluspirilene
- 4,4-bis(4-fluorophenyl)butyl chloride**
(C₁₆H₁₅ClF₂; 3312-04-7) see: Penfluridol; Pimozide
- 1-[4,4-bis(4-fluorophenyl)butyl]piperazine**
(C₂₀H₂₄F₂N₂; 5631-35-6) see: Lidoflazine
- 1,1-bis(4-fluorophenyl)-4-chloro-1-butene**
(C₁₆H₁₃ClF₂; 3311-94-2) see: Pimozide
- bis(4-fluorophenyl)chloromethane**
(C₁₃H₉ClF₂; 27064-94-4) see: Flunarizine
- bis(4-fluorophenyl)cyclopropylcarbinol**
(C₁₆H₁₄F₂O; 427-53-2) see: Pimozide
- 1-[bis(4-fluorophenyl)methyl]piperazine**
(C₁₇H₁₈F₂N₂; 27469-60-9) see: Almitrine
- 2-[4-[bis(4-fluorophenyl)methyl]-1-piperazinyl]-4,6-dichloro-1,3,5-triazine**
(C₂₀H₁₇Cl₂F₂N₅; 106648-09-3) see: Almitrine
- 4-[bis(2-hydroxyethyl)amino]benzenebutanoic acid**
(C₁₄H₂₁NO₄; 34677-78-6) see: Chlorambucil
- (S)-α-[[4-[bis(2-hydroxyethyl)amino]phenyl]methyl]-1,3-dihydro-1,3-dioxo-2H-isoindole-2-acetic acid ethyl ester**
(C₂₃H₂₆N₂O₆; 97338-02-8) see: Melphalan
- 5-[bis(2-hydroxyethyl)amino]-2,4(1H,3H)-pyrimidinedione**
(C₈H₁₃N₃O₄; 55476-37-4) see: Uramustine
- 1,2-bis(4-hydroxymethyl-3,5-dioxopiperazin-1-yl)ethane**
(C₁₂H₁₈N₄O₆; 98631-86-8) see: Sobuzoxane
- 2,6-bis(hydroxymethyl)pyridine**
(C₇H₉NO₂; 1195-59-1) see: Pyridinol carbamate
- 1,1-bis(4-hydroxyphenyl)cyclohexane**
(C₁₈H₂₀O₂; 843-55-0) see: Clonofibrate
- bis(2-hydroxyphenyl)sulfide**
(C₁₂H₁₀O₂S; 13693-59-9) see: Fenticlor
- bis(3-hydroxypropyl)amine**
(C₆H₁₅NO₂; 14002-33-6) see: Improsulfan
- N,N'-bis(3-hydroxypropyl)ethylenediamine**
(C₈H₂₀N₂O₂; 25448-76-4) see: Dilazep
- 1,4-bis(3-hydroxypropyl)hexahydro-1,4-diazepine**
(C₁₁H₂₄N₂O₂; 19970-80-0) see: Dilazep
- bis(2-iodo-5-methylphenyl) disulfide**
(C₁₄H₁₂I₂S₂) see: Mesulfen
- 3',5'-bis(methanesulfonyl)-2,2'-anhydro-5-methyluridine**
(C₁₂H₁₀N₂O₉S₂; 99631-17-1) see: Stavudine
- N,N'-bis(methoxycarbonyl)-S-methylisothiourea**
(C₆H₁₀N₂O₄S; 34840-23-8) see: Oxendazole
- 1,2-bis(4-methoxyphenyl)-1-butanone**
(C₁₈H₂₀O₃; 4390-94-7) see: Diethylstilbestrol
- 3,4-bis(4-methoxyphenyl)-3,4-hexanediol**
(C₂₀H₂₆O₄; 7499-29-8) see: Diethylstilbestrol; Dimestrol
- 4,4-bis(4-methoxyphenyl)-3-hexanone**
(C₂₀H₂₄O₃; 115-42-4) see: Diethylstilbestrol; Dimestrol
- 3,4-bis(4-methoxyphenyl)-5-methylisoxazole**
(C₁₈H₁₇NO₃; 78967-05-2) see: Mofezolac
- 1,1-bis(4-methoxyphenyl)propane**
(C₁₇H₂₀O₂; 4792-39-6) see: Anethole
- 1,10-bis(methylamino)decane**
(C₁₂H₂₈N₂; 88682-11-5) see: Demecarium bromide
- α-[2-[bis(1-methylethyl)amino]ethyl]-α-phenylbenzeneacetamide**
(C₂₂H₃₀N₂O; 39666-27-8) see: Isopropamide iodide
- α-[2-[bis(1-methylethyl)amino]ethyl]-α-phenylbenzeneacetonitrile**
(C₂₂H₂₈N₂; 77-11-2) see: Diisopromine; Isopropamide iodide
- α-[2-[bis(1-methylethyl)amino]ethyl]-α-phenyl-2-pyridineacetonitrile**
(C₂₁H₂₇N₃; 5005-46-9) see: Disopyramide
- 2-[3-[bis(1-methylethyl)amino]-1-phenylpropyl]-4-methylphenol**
(C₂₂H₃₁NO; 124936-74-9) see: Tolterodine
- 2,3:4,5-bis-O-(1-methylethylidene)-β-D-fructopyranose**
(C₁₂H₂₀O₆; 20880-92-6) see: Topiramate
- 1,2:5,6-bis-O-(1-methylethylidene)-3-O-2-propenyl-α-D-glucofuranose**
(C₁₅H₂₄O₆; 20316-77-2) see: Clobenoside
- 3,4-bis(3-methyl-4-propionyloxyphenyl)-2,4-hexadiene**
(C₂₆H₃₀O₄) see: Methestrol dipropionate
- 3,4-bis(3-methyl-4-propionyloxyphenyl)-3,4-hexanediol**
(C₂₆H₃₄O₆) see: Methestrol dipropionate
- bis(1-methylpropyl)amine**
(C₈H₁₉N; 626-23-3) see: Viminol
- 2-[bis(1-methylpropyl)amino]-1-[1-[(2-chlorophenyl)methyl]-1H-pyrrol-2-yl]ethanone**
(C₂₁H₂₉ClN₂O; 69241-41-4) see: Viminol
- [T-4-(E)]-bis(2-methylpropyl)[4-methyl-4-[(triethylsilyloxy]-1-oxenyl-C,O]aluminum**
(C₂₃H₄₉AlOSi; 59200-29-2) see: Misoprostol
- 1-[4,4-bis(3-methyl-2-thienyl)-3-butenyl]-3-piperidine-carboxylic acid ethyl ester**
(C₂₂H₂₉NO₂S₂; 148319-27-1) see: Tiagabine
- 1,1-bis(methylthio)-2-nitroethene**
(C₄H₇NO₂S₂; 13623-94-4) see: Ranitidine
- bismuth oxide (Bi₂O₃)**
(Bi₂O₃; 1304-76-3) see: Bibrocatol
- N,O-bis(phenoxycarbonyl)-N-[1-(benzo[b]thien-2-yl)ethyl]hydroxylamine**
(C₂₄H₁₉NO₃S; 142763-92-6) see: Zileuton
- N,O-bis(phenoxycarbonyl)hydroxylamine**
(C₁₄H₁₁NO₃; 141580-65-6) see: Zileuton
- 1-[3,4-bis(phenylmethoxy)phenyl]-2-bromo-1-butanone**
(C₂₄H₂₃BrO₃; 24538-60-1) see: Isoetarine
- 1-[3,5-bis(phenylmethoxy)phenyl]-2-bromoethanone**
(C₂₂H₁₉BrO₃; 28924-18-7) see: Terbutaline
- 1-[3,5-bis(phenylmethoxy)phenyl]-2-[(1,1-dimethylthyl)-(phenylmethyl)amino]ethanone**
(C₃₃H₃₅NO₃; 52144-92-0) see: Terbutaline
- 1-[3,4-bis(phenylmethoxy)phenyl]-2-[(1-methylethyl)amino]-1-butanone**
(C₂₇H₂₇NO₃) see: Isoetarine
- 5-[[bis(phenylmethyl)amino]acetyl]-2-hydroxybenzamide**
(C₂₃H₂₂N₂O₃; 30566-92-8) see: Labetalol

(S)-3-[bis(phenylmethyl)amino]-1-chloro-4-phenyl-2-butano-**none** (C₂₄H₂₄ClNO; 171815-94-4) see: Saquinavir**7,10-bis(triethylsilyl)-10-deacetylbaecatin III**(C₄₁H₆₄O₁₀Si₂; 149107-84-6) see: Docetaxel**2',7-bis(triethylsilyl)paclitaxel**(C₅₉H₇₉NO₁₄Si₂; 135365-62-7) see: Paclitaxel**[bis(trifluoroacetoxy)iodo]benzene**(C₁₀H₃F₆IO₄; 2712-78-9) see: Tacrolimus**1,1-bis(2,2,2-trifluoroethoxy)ethane**(C₆H₈F₆O₂; 673-67-6) see: Fluoroxene**2,8-bis(trifluoromethyl)-4-bromoquinoline**(C₁₁H₄BrF₆N; 35853-45-3) see: Mefloquine**2,8-bis(trifluoromethyl)-4-hydroxyquinoline**(C₁₁H₅F₆NO; 35853-41-9) see: Mefloquine**2,8-bis(trifluoromethyl)-4-lithioquinoline**(C₁₁H₄F₆LiN; 112748-10-4) see: Mefloquine**2,8-bis(trifluoromethyl)-4-quinolinecarboxylic acid**(C₁₂H₅F₆NO₂; 35853-50-0) see: Mefloquine**[2,8-bis(trifluoromethyl)-4-quinolinyl]-2-pyridinylmethanone**(C₁₇H₈F₆N₂O; 35853-55-5) see: Mefloquine***N,O*-bis(trimethylsilyl)acetamide**(C₈H₂₁NOSi₂; 10416-59-8) see: Cefalexin**1,3-bis(trimethylsilyl)fluorouracil**(C₁₀H₁₉FN₂O₂Si₂; 58138-78-6) see: Tegafur**bis(trimethylsilyl)thymine**(C₁₁H₂₂N₂O₂Si₂; 7288-28-0) see: Stavudine***N,O*-bis(trimethylsilyl)trifluoroacetamide**(C₈H₁₈F₃NOSi₂; 25561-30-2) see: Tirofiban hydrochloride***N*,9-bis(trimethylsilyl)-6-[(trimethylsilyl)oxy]-9*H*-purin-2-amine**(C₁₄H₂₀N₅OSi₃; 18602-85-2) see: Aciclovir**Boc-Asp(OBzl)**(C₁₆H₂₁NO₆; 7536-58-5) see: Ceruletide**Boc-Asp(OBzl)-Tyr-NH-NH-Z**(C₃₃H₃₈N₄O₉; 17664-74-3) see: Ceruletide**Boc-Gln**(C₁₀H₁₈N₂O₅; 13726-85-7) see: Ceruletide**Boc-Gln-Asp(OBzl)-Tyr-NH-NH-Z**(C₃₈H₄₆N₆O₁₁; 21385-06-8) see: Ceruletide**Boc-Gly-*O*-Np**(C₁₃H₁₆N₂O₆; 3655-05-8) see: Ceruletide**Boc-Gly-Trp-Met-Asp-Phe-NH₂**(C₃₆H₄₇N₇O₉S; 5915-71-9) see: Ceruletide**Boc-(S)-phenylglycinal**(C₁₃H₁₇NO₃; 163061-19-6) see: Docetaxel**Boc-Thr(Ac)-*O*-Tcp**(C₁₇H₂₀Cl₃NO₆; 21385-12-6) see: Ceruletide**Boc-Tyr**(C₁₄H₁₉NO₅; 3978-80-1) see: Ceruletide**Boc-Tyr-NH-NH-Z**(C₂₂H₂₇N₃O₆; 17664-72-1) see: Ceruletide**boldenone**(C₁₉H₂₆O₂; 846-48-0) see: Boldenone undecenate; Estradiol**boric acid**(BH₃O₃; 10043-35-3) see: Phenylmercuric borate**bromine azide**(BrN₃; 13973-87-0) see: Cefoxitin**bromoacetaldehyde diethyl acetal**(C₆H₁₃BrO₂; 2032-35-1) see: Domiodol**bromoacetaldehyde ethylene acetal**(C₄H₇BrO₂; 4360-63-8) see: Carbimazole***N*-bromoacetamide**(C₂H₄BrNO; 79-15-2) see: Betamethasone; Fluazacort; Fludroxycortide; Fluperolone acetate; Halopredone diacetate; Triamcinolone; Ulobetasol propionate**7(S)-bromoacetamido-7-methoxycephalosporanic acid**(C₁₃H₁₅BrN₂O₅S; 65871-82-1) see: Cefotetan**bromoacetic acid**(C₂H₃BrO₂; 79-08-3) see: Bendazac; Tamsulosin hydrochloride**bromoacetic acid methyl ester**(C₃H₅BrO₂; 96-32-2) see: Sertindole**2-bromoacetophenone**(C₈H₇BrO; 70-11-1) see: Fendosal; Hexocyclium metilsulfate; Levamisole; Nomifensine**4'-bromoacetophenone**(C₈H₇BrO; 99-90-1) see: Zimeldine**bromoacetyl bromide**(C₂H₂Br₂O; 598-21-0) see: Cefapirin; Clonazepam; Flunitrazepam; Haloxazolam; Ketazolam; Sotalol**bromoacetyl chloride**(C₂H₂BrClO; 22118-09-8) see: Cloxazolam; Flurazepam; Mexazolam; Nazasetron; Quazepam; Salbutamol**3-(bromoacetyl)-5-chloro-2-thiophenesulfonamide**(C₆H₃BrClNO₂S₂; 160982-11-6) see: Brinzolamide**5-(bromoacetyl)-2-hydroxybenzoic acid methyl ester**(C₁₀H₉BrO₄; 36256-45-8) see: Salbutamol**4-(bromoacetyl)methanesulfonanilide**(C₉H₁₀BrNO₃S; 5577-42-4) see: Sotalol**5-(bromoacetyl)-2-methylbenzenesulfonamide**(C₉H₁₀BrNO₃S; 70958-71-3) see: Amosulalol**(4*S*,5*R*)-3-(2-bromoacetyl)-4-methyl-5-phenyl-2-oxazolidinone**(C₁₂H₁₂BrNO₃; 142722-84-7) see: Docetaxel**[5-(bromoacetyl)-2-(phenylmethoxy)phenyl]urea**(C₁₆H₁₅BrN₂O₃; 49639-82-9) see: Carbuterol**5-bromoacetylsalicylamide**(C₉H₈BrNO₃; 73866-23-6) see: Labetalol**5-(bromoacetyl)-2-thiophenecarboxamide**(C₇H₆BrNO₂S; 68257-90-9) see: Arotinolol**3-(bromoacetyl)-2-thiophenesulfonamide**(C₆H₆BrNO₃S₂; 154127-28-3) see: Brinzolamide**1-bromoadamantane**(C₁₀H₁₅Br; 768-90-1) see: Amantadine**21-bromoalfaxalone**(C₂₁H₃₁BrO₃; 32226-10-1) see: Alfadolone acetate**2-bromoaniline**(C₆H₆BrN; 615-36-1) see: Ondansetron**3-(2-bromoanilino)cyclohex-2-en-1-one**(C₁₂H₁₂BrNO; 68890-19-7) see: Ondansetron**3-bromoanisole**(C₇H₇BrO; 2398-37-0) see: Tramadol**4-bromobenzaldehyde**(C₇H₅BrO; 1122-91-4) see: Bromindione

bromobenzene

(C₆H₅Br; 108-86-1) see: Alphaprodine; Fenopropfen; Flurbiprofen

(R)-2-bromobenzenepropionic acid

(C₉H₉BrO₂; 42990-55-6) see: Omapatrilat

4-bromobenzenesulfonamide

(C₆H₆BrNO₂S; 701-34-8) see: Ebrotidine

4-bromobenzhydrol

(C₁₃H₁₁BrO; 29334-16-5) see: Bromazine

4-bromobenzhydrol bromide

(C₁₃H₁₀Br₂; 18066-89-2) see: Bromazine

α-bromo-1,2-benzisoxazole-3-acetic acid

(C₉H₆BrNO₃; 37924-67-7) see: Zonisamide

4-(10-bromo-4H-benzo[4,5]cyclohepta[1,2-b]thien-4-ylidene)-1-methylpiperidine

(C₁₉H₁₈BrNS; 34580-12-6) see: Ketotifen

4-(9-bromo-4H-benzo[4,5]cyclohepta[1,2-b]thien-4-ylidene)-1-methylpiperidine

(C₁₉H₁₈BrNS) see: Ketotifen

2-bromobenzoic acid

(C₇H₅BrO₂; 88-65-3) see: Tolfenamic acid

2-bromobenzonitrile

(C₇H₄BrN; 2042-37-7) see: Losartan potassium

7-(4-bromobenzoyl)-3-(methylthio)-2,3-dihydro-1H-indol-2-one

(C₁₆H₁₂BrNO₂S; 91713-90-5) see: Bromfenac sodium

2-bromo-3'-benzoyloxyacetophenone

(C₁₅H₁₁BrO₃; 139-27-5) see: Etilefrine; Norefnefrine

p-bromobenzyl bromide

(C₇H₆Br₂; 589-15-1) see: Losartan potassium

4-bromobenzyl cyanide

(C₈H₆BrN; 16532-79-9) see: Brompheniramine

2-bromo-N-[4-bromo-2-(2-fluorobenzoyl)phenyl]-acetamide

(C₁₅H₁₀Br₂FNO₂; 1647-74-1) see: Haloxazolam

4-bromo-1-butanol acetate

(C₈H₁₁BrO₂; 4753-59-7) see: Omapatrilat

1-bromo-2-butyne

(C₄H₅Br; 3355-28-0) see: Iloprost

2-bromobutyric acid

(C₄H₇BrO₂; 80-58-0) see: Etidocaine

α-bromo-γ-butyrolactone

(C₄H₅BrO₂; 5061-21-2) see: Spizofurone

2-bromobutyl chloride

(C₄H₈BrClO; 22118-12-3) see: Etidocaine; Procatrol

2-bromo-2'-chloroacetophenone

(C₈H₆BrClO; 5000-66-8) see: Clorprenaline

2-bromo-4'-chloroacetophenone

(C₈H₆BrClO; 536-38-9) see: Alpidem; Lofepramine

1-bromo-4-chlorobenzene

(C₆H₄BrCl; 106-39-8) see: Chlorprothixene

2-bromo-5-chlorobenzoic acid

(C₇H₄BrClO₂; 21739-93-5) see: Sertindole

2-bromo-N-[2-(2-chlorobenzoyl)phenyl]acetamide

(C₁₅H₁₁BrClNO₂; 2894-46-4) see: Clonazepam

1-bromo-4-chlorobutane

(C₄H₈BrCl; 6940-78-9) see: Azimilide hydrochloride

2-bromo-N-[4-chloro-2-(2-chlorobenzoyl)phenyl]acetamide

(C₁₅H₁₀BrCl₂NO₂; 5504-92-7) see: Cloxazolam; Mexazolam

1-bromo-2-chloroethane

(C₂H₄BrCl; 107-04-0) see: Alfentanil

1-bromo-2-(2-chloroethoxy)-2-(3-trifluoromethylphenyl)ethane

(C₁₁H₁₁BrClF₃O; 26629-85-6) see: Oxaflozane

2-bromo-N-[4-chloro-2-(2-fluorobenzoyl)phenyl]acetamide

(C₁₅H₁₀BrClFNO₂; 1584-62-9) see: Flurazepam

bromochloromethane

(CH₂BrCl; 74-97-5) see: Fluticasone propionate; Saquinavir

1-bromo-3-chloro-2-methylpropane

(C₄H₈BrCl; 6974-77-2) see: Dixyrazine

1-bromo-2-(4-chlorophenoxy)ethane

(C₈H₈BrClO; 2033-76-3) see: Dodeclonium bromide; Omoconazole nitrate

7-bromo-5-(2-chlorophenyl)-1,3-dihydro-2H-thieno[2,3-e]-1,4-diazepine-2-thione

(C₁₃H₈BrClN₂S₂; 57801-82-8) see: Brotizolam

2-bromo-1-(3-chlorophenyl)-1-propanone

(C₉H₈BrClO; 34911-51-8) see: Amfebutamone

1-bromo-3-chloropropane

(C₃H₆BrCl; 109-70-6) see: Acetophenazine; Carfenazine; Cisapride; Clozapramine; Desipramine; Dilazep; Etoperidone; Gallopamil; Metopimazine; Opipramol; Oxatomide; Perphenazine; Pipamazine; Piperacetazine; Repraterol; Tirofiban hydrochloride; Verapamil; Vincamine (1α,3β,7α)-7-bromocholest-5-ene-1,3,25-triol triacetate (C₃₃H₅₁BrO₆) see: Calcitriol

3-bromocyclopentene

(C₅H₇Br; 36291-48-2) see: Cyclopentobarbital

(1-bromocyclopentyl)(2-chlorophenyl)methanone

(C₁₂H₁₂BrClO; 6740-86-9) see: Ketamine

2-bromo-1-cyclopropylethanone

(C₅H₇BrO; 69267-75-0) see: Calcipotriol

2'-bromo-2'-deoxy-5-methyluridine 5'-benzoate 3'-methanesulfonate

(C₁₈H₁₉BrN₂O₈S; 165047-01-8) see: Stavudine

2-bromo-3',5'-diacetoxyacetophenone

(C₁₂H₁₁BrO₅; 36763-39-0) see: Fenoterol; Orciprenaline; Repraterol

2-bromo-2',4'-dichloroacetophenone

(C₈H₅BrCl₂O; 2631-72-3) see: Isoconazole; Ketoconazole; Miconazole

(1R-trans)-2-bromo-2,3-dihydro-1H-inden-1-ol

(C₉H₉BrO; 79465-06-8) see: Indinavir sulfate

5-bromodihydroorotic acid

(C₅H₅BrN₂O₄; 58668-21-6) see: Orotic acid

9-bromo-11β,21-dihydroxy-16α-methylpregna-1,4-diene-3,20-dione 21-acetate

(C₂₄H₃₁BrO₅; 31653-81-3) see: Desoximetasone

4β-bromo-17α,21-dihydroxy-16β-methylpregnane-**3,11,20-trione 21-acetate**

(C₂₄H₃₃BrO₆; 5078-89-7) see: Betamethasone

(3β,16β)-16-bromo-3,17-dihydroxypregn-5-en-20-one

(C₂₁H₃₁BrO₃; 14072-39-0) see: Hydrocortisone; Hydroxyprogesterone

2-bromo-3',5'-dimethoxyacetophenone(C₁₀H₁₁BrO₃; 50841-50-4) see: Orciprenaline**4-bromo-3,5-dimethoxy- α -(anilino)methylene)hydrocinnam-
onitrile**(C₁₈H₁₇BrN₂O₂; 65566-21-4) see: Brodimoprim**4-bromo-3,5-dimethoxybenzaldehyde**(C₉H₇BrO₃; 31558-40-4) see: Brodimoprim**3-bromo-2,6-dimethoxybenzoic acid**(C₉H₇BrO₄; 73219-89-3) see: Remoxipride**4-bromo-3,5-dimethoxybenzoyl chloride**(C₉H₇BrClO₃; 56518-43-5) see: Brodimoprim**4-bromo-3,5-dimethoxy- α -(methoxymethyl)cinnamo-
nitrile**(C₁₃H₁₄BrNO₃; 56518-39-9) see: Brodimoprim**4-bromo-3,5-dimethoxy- α -(morpholinomethylene)-
hydrocinnamonnitrile**(C₁₆H₁₉BrN₂O₃; 65566-19-0) see: Brodimoprim**bromo(2,5-dimethoxy-3,4,6-trimethylphenyl)magnesium**(C₁₁H₁₅BrMgO₂; 73127-73-8) see: Troglitazone**2-bromo-*N,N*-dimethylacetamide**(C₄H₈BrNO; 5468-77-9) see: Camostat**1-bromo-3,5-dimethyladamantane**(C₁₂H₁₉Br; 941-37-7) see: Memantine**(*Z*)-(*S*)-7-bromo-2-(2,2-dimethylcyclopropanecarbox-
amido)-2-heptenoic acid**(C₁₃H₂₀BrNO₃; 78834-80-7) see: Cilastatin**1-bromo-6,6-dimethyl-2-hepten-4-yne**(C₉H₁₃Br; 126764-15-6) see: Terbinafine**2-bromo-*N*-(2,6-dimethylphenyl)butanamide**(C₁₂H₁₆BrNO; 53984-81-9) see: Etidocaine**5-bromo-2,2-dimethyl-4-phenyl-1,3-dioxane**(C₁₂H₁₅BrO₂; 36808-10-3) see: Chloramphenicol**2-bromo-*N*-(2,6-dimethylphenyl)propanamide**(C₁₁H₁₄BrNO; 41708-73-0) see: Tocainide**3-bromo-*N,N*-dimethyl-1-propanamine**(C₅H₁₂BrN; 53929-74-1) see: Rizatriptan benzoate**2-bromo-6-(1,3-dioxolan-2-yl)pyridine**(C₈H₈BrNO₂; 34199-87-6) see: Acrivastine**4-bromo-2,2-diphenylbutyric acid**(C₁₆H₁₅BrO₂; 37742-98-6) see: Loperamide**4-bromo-2,2-diphenylbutyronitrile**(C₁₆H₁₄BrN; 39186-58-8) see: Diphenoxylate; Piritamide**4-bromo-2,2-diphenylbutyryl chloride**(C₁₆H₁₄BrClO; 50650-44-7) see: Loperamide**(*5R,6S,9 α ,11 α ,13E,15S*)-5-bromo-6,9-epoxy-11,15-bis
[(tetrahydro-2*H*-pyran-2-yl)oxy]prost-13-en-1-*o*-ic acid**(C₃₀H₄₉BrO₇) see: Epoprostenol**2-bromoethanesulfonic acid**(C₂H₅BrO₃S; 26978-65-4) see: Mesna**2-bromoethanol**(C₂H₅BrO; 540-51-2) see: Doxefazepam; Miltefosine**(*E*)-5-(2-bromoethenyl)-1-(2,3,5-tri-*O*-acetyl- β -*D*-arabino-
furanosyl)-2,4(1*H*,3*H*)-pyrimidinedione**(C₁₇H₁₉BrN₂O₉; 87877-27-8) see: Sorivudine**4-(2-bromoethoxy)benzoyl chloride**(C₉H₈BrClO₂; 51616-10-5) see: Raloxifene hydrochloride**(2-bromo-1-ethoxyethyl)benzene**(C₁₀H₁₃BrO; 6589-30-6) see: Eprazinone**1-(2-bromoethoxy)-2-methoxybenzene**(C₉H₁₁BrO₂; 4463-59-6) see: Amosulalol**[4-(2-bromoethoxy)phenyl][6-methoxy-2-(4-methoxyph-
enyl)benzo[*b*]thien-3-yl]methanone**(C₂₅H₂₁BrO₄S; 170636-68-7) see: Raloxifene hydrochloride**1-[4-(2-bromoethoxy)phenyl]-1-propanone**(C₁₁H₁₃BrO₂; 34645-63-1) see: Fenalcomine**2-bromoethyl acetate**(C₄H₇BrO₂; 927-68-4) see: Fluphenazine**2-(1-bromoethyl)benzo[*b*]thiophene**(C₁₀H₉BrS; 155205-54-2) see: Zileuton**2-(1-bromoethyl)-2-(5-bromo-6-methoxy-2-naphthalenyl)-
1,3-dioxolane-4,5-dicarboxylic acid**(C₁₈H₁₆Br₂O₇) see: Naproxen**1-(2-bromoethyl)-2,5-dimethoxy-3,4,6-trimethylbenzene**(C₁₃H₁₉BrO₂; 84071-98-7) see: Troglitazone**5-(2-bromoethyl)-2,2-dimethyl-1,3-dioxane**(C₈H₁₅BrO₂; 97845-58-4) see: Penciclovir**4-(2-bromoethyl)-1-ethyl-3,3-diphenyl-2-pyrrolidinone**(C₂₀H₂₂BrNO; 3192-92-5) see: Doxapram**3-(2-bromoethyl)-1*H*-indole**(C₁₀H₁₀BrN; 3389-21-7) see: Indoramin**2-bromoethyl isothiocyanate**(C₃H₄BrNS; 1483-41-6) see: Levamisole**(*4R,5R*)-2-(1-bromoethyl)-2-(6-methoxy-2-naphthalenyl)-
1,3-dioxolane-4,5-dicarboxylic acid**(C₁₈H₁₇BrO₇) see: Naproxen**(5-bromo-3-ethyl-4-oxo-2-thiazolidinylidene)acetic acid
ethyl ester**(C₉H₁₂BrNO₃S; 82760-32-5) see: Piprozolin**1-(1-bromoethyl)-3-phenoxybenzene**(C₁₄H₁₃BrO; 32852-94-1) see: Fenoprofen**[4-(1-bromoethyl)phenyl]-2-thienylmethanone**(C₁₃H₁₁BrOS; 52779-83-6) see: Suprofen**2-(2-bromoethyl)-1,3-propanediol diacetate**(C₉H₁₅BrO₄; 126589-82-0) see: Famciclovir**2-(2-bromoethyl)pyridine**(C₇H₈BrN; 39232-04-7) see: Betahistine**7-(2-bromoethyl)theophylline**(C₉H₁₁BrN₄O₃; 23146-05-6) see: Cafedrine; Pimecyllyne**9-bromofluorene**(C₁₃H₉Br; 1940-57-4) see: Hexafluronium bromide**1-bromo-4-fluorobenzene**(C₆H₄BrF; 460-00-4) see: Paroxetine**2-bromo-*N*-[2-(2-fluorobenzoyl)phenyl]acetamide**(C₁₅H₁₁BrFNO₂; 1894-70-8) see: Flunitrazepam***N*-[4-bromo-2-(2-fluorobenzoyl)phenyl]-2-[(2-hydroxy-
ethyl)amino]acetamide**(C₁₇H₁₈BrFN₂O₃; 71980-88-6) see: Haloxazolam**4-bromo-2-fluorobiphenyl**(C₁₂H₈BrF; 41604-19-7) see: Flurbiprofen**bromo(2-fluoro[1,1'-biphenyl]-4-yl)magnesium**(C₁₂H₈BrFMg; 76699-46-2) see: Flurbiprofen**1 β -bromo-6 α -fluoro-17,21-dihydroxypregn-4-ene-3,20-
dione diacetate**(C₂₅H₃₂BrFO₆; 2561-13-9) see: Fludroxycortide**1-bromo-2-fluoroethane**(C₂H₄BrF; 762-49-2) see: Fleroxacin; Flutropium bromide

- 4-bromo-4'-fluoro-2-(hydroxymethyl)benzophenone**
(C₁₄H₁₀BrFO₂; 64169-64-8) see: Citalopram
- (6 α ,16 α)-21-bromo-6-fluoro-16,17-[(1-methylethylidene)-bis(oxy)]pregna-1,4,9(11)-triene-3,20-dione**
(C₂₄H₂₈BrFO₄; 39852-17-0) see: Tralonide
- 5-bromo-1-(4-fluorophenyl)phthalide**
(C₁₄H₁₁BrFO; 64169-66-0) see: Citalopram
- (3 β)-21-bromo-3-(formyloxy)-17-hydroxypregn-5-en-20-one**
(C₂₂H₃₁BrO₄) see: Hydrocortisone
- 5-bromo-hexahydro-1-(2-propenyl)-4H-azepin-4-one**
(C₉H₁₄BrNO) see: Talipexole
- 1-bromo-5-hexanone**
(C₆H₁₁BrO; 10226-29-6) see: Lomifylline; Pentoxifylline; Propentofylline
- [4-[(6-bromohexyloxy)butyl]benzene**
(C₁₆H₂₅BrO; 94749-73-2) see: Salmeterol
- 2-bromo-3-hexyne**
(C₈H₉Br; 109-48-8) see: Methohexital
- 2-bromo-2'-hydroxyacetophenone**
(C₈H₇BrO₂; 2491-36-3) see: Neticonazole hydrochloride
- 2 β -bromo-17 β -hydroxy-5 α -androstane-3-one**
(C₁₉H₂₉BrO₂; 18000-70-9) see: Mesterolone
- 3-bromo-4-hydroxybenzotrile**
(C₇H₄BrNO; 2315-86-8) see: Dibrompropamidine
- (S)-3-(2-bromo-1-hydroxyethyl)-2-thiophenesulfonamide**
(C₆H₈BrNO₃S₂) see: Brinzolamide
- 3-bromo-4-hydroxy-6,7-methylenedioxcinnoline**
(C₉H₅BrN₂O₃; 28657-77-4) see: Cinoxacin
- 5-bromo-3-(4-hydroxy-1-methyl-4-piperidinyl)-1H-indole**
(C₁₄H₁₇BrN₃O; 166306-26-9) see: Naratriptan
- (3 α ,5 β ,16 α)-21-bromo-3-hydroxy-16-methylpregnane-11,20-dione**
(C₂₂H₃₃BrO₃; 1050-93-7) see: Desoxinetasone
- [4S]-[3(2R*,3S*),4 α ,5 α]-3-(2-bromo-3-hydroxy-1-oxo-3-phenylpropyl)-4-methyl-5-phenyl-2-oxazolidinone**
(C₁₀H₁₈BrNO₄; 144704-63-2) see: Docetaxel
- 6-bromoimidazo[1,2-a]pyridine**
(C₇H₅BrN₃; 6188-23-4) see: Olprinone hydrochloride
- 5-bromoindole**
(C₈H₆BrN; 10075-50-0) see: Naratriptan
- α -bromoisobutyric acid ethyl ester**
(C₆H₁₁BrO₂; 600-00-0) see: Bezafibrate; Methallenestril
- 2-bromo-4'-isopropylthiopropiophenone**
(C₁₂H₁₅BrOS; 54790-01-1) see: Suloctidil
- α -bromoisovaleryl bromide**
(C₅H₈Br₂O; 26464-05-1) see: Bromisoval
- 17 β -(3-bromolactoyl)-11 β ,17-dihydroxyandrostane-1,4-dien-3-one**
(C₂₂H₂₉BrO₃; 95159-02-7) see: Fluperolone acetate
- N-(bromomagnesium)-1-(4-chlorophenyl)- α -(2-methylpropyl)cyclobutanemethanimide**
(C₁₅H₁₉BrClMg) see: Sibutramine hydrochloride
- 5-(bromomagnesium)-3-methyl-2-penten-4-yn-1-ol bromomagnesium salt**
(C₆H₆Br₂Mg₂O) see: Retinol
- β -bromo- γ -methoxybenzenepropanol**
(C₁₀H₁₃BrO₂; 32785-09-4) see: Zipeprol
- 2-bromo-6-methoxynaphthalene**
(C₁₁H₉BrO; 5111-65-9) see: Methallenestril; Naproxen
- bromo(6-methoxy-2-naphthalenyl)magnesium**
(C₁₁H₉BrMgO; 38046-82-1) see: Naproxen
- (S)-2-(5-bromo-6-methoxy-2-naphthyl)propanoic acid**
(C₁₄H₁₃BrO₃; 84236-26-0) see: Naproxen
- bromo(3-methoxyphenyl)magnesium**
(C₇H₇BrMgO; 36282-40-3) see: Tramadol
- (R)-2-bromo-N-[2-(4-methoxyphenyl)-1-methylethyl]-acetamide**
(C₁₂H₁₆BrNO₂; 133261-12-8) see: Tamsulosin hydrochloride
- 1-bromo-1-(4-methoxyphenyl)propane**
(C₁₀H₁₃BrO; 536-44-7) see: Diethylstilbestrol; Dimestrol; Hexestrol
- 4'-[(2-bromo-5-methoxyphenyl)thio]-3'-nitroacetophenone**
(C₁₅H₁₂BrNO₄S; 13799-05-8) see: Protizinic acid
- 3-bromo-1-methoxypropane**
(C₄H₈BrO; 36865-41-5) see: Brinzolamide
- 5-bromo-3-methoxypyrazinamine**
(C₅H₆BrN₃O; 5900-13-0) see: Sulfalene
- 2-bromo-5-methoxythiophenol**
(C₇H₇BrOS; 13993-51-6) see: Protizinic acid
- 3-(bromomethyl)-1,2-benzisoxazole**
(C₈H₆BrNO; 37924-85-9) see: Zonisamide
- 3-bromomethylbenzophenone**
(C₁₄H₁₁BrO; 22071-24-5) see: Kctoprofen
- 4'-(bromomethyl)biphenyl-2-carbonitrile**
(C₁₄H₁₀BrN; 114772-54-2) see: Candesartan cilexetil; Irbesartan; Losartan potassium
- 5-[4'-(bromomethyl)[1,1'-biphenyl]-2-yl]-1-(triphenylmethyl)-1H-tetrazole**
(C₃₃H₂₅BrN₄; 124750-51-2) see: Losartan potassium
- 4-bromo-3-methyl-2-butenyl acetate**
(C₇H₁₁BrO₂; 55311-87-0) see: Troglitazone
- α -(bromomethyl)-2-chlorobenzenemethanol**
(C₈H₈BrClO; 72702-57-9) see: Clorprenaline
- 3-(bromomethyl)-7-chlorobenzo[*b*]thiophene**
(C₉H₆BrClS; 17512-61-7) see: Sertaconazole
- 3-bromomethylcoumarilic acid ethyl ester**
(C₁₂H₁₁BrO₃; 29115-34-2) see: Oxetorone
- 4'-bromomethyl-2-cyanobiphenyl**
see under 4'-(bromomethyl)biphenyl-2-carbonitrile
- 2-(bromomethyl)-3,4-dichloro-1-nitrobenzene**
(C₇H₄BrCl₂NO₂; 93213-79-7) see: Anagrelide hydrochloride
- 2-bromomethyl-2-(2,4-dichlorophenyl)-4-(benzoyloxy-methyl)-1,3-dioxolane**
(C₁₈H₁₅BrCl₂O₄) see: Terconazole
- cis-[2-bromomethyl-2-(2,4-dichlorophenyl)-1,3-dioxolan-4-ylmethyl] benzoate**
(C₁₈H₁₅BrCl₂O₄; 61397-56-6) see: Itraconazole
- cis-2-(bromomethyl)-N,N-diethyl-1-phenylcyclopropanecarboxamide**
(C₁₅H₂₀BrNO; 105310-90-5) see: Milnacipran hydrochloride
- 6-bromomethyl-3,4-dihydro-2-methyl-3-pivaloyloxy-methylquinazolin-4-one**
(C₁₆H₁₉BrN₂O₅; 112888-39-8) see: Raltitrexed
- 2-(bromomethyl)-1,3-dioxolane-4-methanol**
(C₅H₉BrO₃; 87179-37-1) see: Domiodol

2-bromo-3-(1-methylethoxy)-2-propenal(C₆H₉BrO₂; 155272-73-4) see: Eprosartan**5-(2-bromomethyl)-2-hydroxy-1,3,2-dioxaphosphoran 2-oxide**(C₅H₁₀BrO₄P) see: Penciclovir**4-bromomethyl-5-methyl-2-oxo-1,3-dioxole**(C₅H₅BrO₃; 80715-22-6) see: Lenampicillin**bromomethyl 4-methylphenyl ketone**(C₉H₉BrO; 619-41-0) see: Zolpidem**3-(bromomethyl)-1-methylpiperidine**(C₇H₁₄BrN; 41886-04-8) see: Pecazine**[2-[3-(bromomethyl)-5-methyl-4H-1,2,4-triazol-4-yl]-5-chlorophenyl]phenylmethanone**(C₁₇H₁₃BrClN₃O; 38150-28-6) see: Alprazolam**α-(bromomethyl)-4-nitrobenzenemethanol**(C₈H₈BrNO₃; 19922-82-8) see: Nifenalol**2-(bromomethyl)-4-[(phenylmethoxy)methyl]-1,3-dioxolane**(C₁₂H₁₅BrO₃; 92905-04-9) see: Domiodol**2-bromo-N-(2-methylphenyl)propanamide**(C₁₀H₁₂BrNO; 19397-79-6) see: Prilocaine**9-bromo-4-(1-methyl-4-piperidinyl)-4H-benzo[4,5]cyclohepta[1,2-b]thiophene-4-ol**(C₁₉H₂₀BrNOS) see: Ketotifen**10-bromo-4-(1-methyl-4-piperidinyl)-4H-benzo[4,5]cyclohepta[1,2-b]thiophene-4-ol**(C₁₉H₂₀BrNOS; 59776-37-3) see: Ketotifen**9α-bromo-16β-methylprednisolone 21-acetate**(C₂₄H₃₁BrO₆; 4735-65-3) see: Betamethasone**6-(bromomethyl)-2,4-pteridinediamine monohydrobromide**(C₇H₈Br₂N₆; 52853-40-4) see: Methotrexate**4-(bromomethyl)-2(1H)-quinolinone**(C₁₀H₈BrNO; 4876-10-2) see: Rebamipide**4-bromo-α-methylstyrene**(C₉H₉Br; 6888-79-5) see: Bromperidol**2-bromo-4'-(methylsulfonyl)acetophenone**(C₉H₉BrO₃S; 50413-24-6) see: Rofecoxib; Zolimidine**2-bromo-4'-methylsulfonylacetophenone**

see under 2-bromo-4'-(methylsulfonyl)acetophenone

α-bromo-3-methylsulfonylaminoacetophenone(C₉H₁₀BrNO₃S; 2065-04-5) see: Amidephrine mesilate**5-bromo-3-(1-methyl-1,2,3,6-tetrahydro-4-pyridinyl)-1H-indole**(C₁₄H₁₅BrN₂; 116480-53-6) see: Naratriptan**2-bromo-4'-methylvalerophenone**(C₁₂H₁₅BrO) see: Pyrovalerone**6-bromo-2-naphthol**(C₁₀H₇BrO; 15231-91-1) see: Naproxen**5-bromonicotinic acid**(C₆H₄BrNO₂; 20826-04-4) see: Nicergoline; Timepidium bromide**5-bromonicotinoyl chloride**(C₆H₃BrClNO; 39620-02-5) see: Nicergoline**2-bromo-4'-nitroacetophenone**(C₈H₆BrNO₃; 99-81-0) see: Chloramphenicol; Clenbuterol; Nifenalol**4'-bromo-3'-nitroacetophenone**(C₈H₆BrNO₃; 18640-58-9) see: Flurbiprofen**2-bromo-1-nitrobenzene**(C₆H₄BrNO₂; 577-19-5) see: Dibenzepine; Nimesulide**bromonitromethane**(CH₂BrNO₂; 563-70-2) see: Trovafloxacin mesilate**2-bromo-1-[3-nitro-4-(phenylmethoxy)phenyl]ethanone**(C₁₅H₁₂BrNO₄; 43229-01-2) see: Formoterol**α-bromooctanoic acid**(C₈H₁₅BrO₂; 2623-82-7) see: Orlistat**α-bromooctanoyl chloride**(C₈H₁₄BrClO; 42768-44-5) see: Orlistat**9-bromo-4-oxo-4H-benzo[4,5]cyclohepta[1,2-b]thiophene**(C₁₃H₇BrOS; 57568-63-5) see: Ketotifen**10-bromo-4-oxo-4H-benzo[4,5]cyclohepta[1,2-b]thiophene**(C₁₃H₇BrOS; 34580-11-5) see: Ketotifen**5-(2-bromo-1-oxobutyl)-8-hydroxy-2(1H)-quinolinone**(C₁₃H₁₂BrNO₃; 59827-93-9) see: Procaterol**7-bromo-2-oxoheptanoic acid**(C₇H₁₁BrO₃; 107872-93-5) see: Cilastatin**(3R)-3-[(2-bromo-1-oxooctyl)oxy]tetradecanoic acid methyl ester**(C₂₃H₄₃BrO₄) see: Orlistat**3-[(2-bromo-1-oxopropyl)amino]-4-methyl-2-thiophene-carboxylic acid methyl ester**(C₁₀H₁₂BrNO₃S) see: Carticaine**10-(2-bromo-1-oxopropyl)-10H-phenothiazine**(C₁₅H₁₂BrNOS; 4091-90-1) see: Propyramazine bromide**5-bromopentanoic acid**(C₅H₉BrO₂; 2067-33-6) see: Iloprost**1-bromo-4-pentanone**(C₅H₉BrO; 3884-71-7) see: Chloroquine**2-(5-bromopentyl)-1,3-dithiane-2-carboxylic acid ethyl ester**(C₁₂H₂₁BrO₂S₂; 107871-16-9) see: Cilastatin**1-(5-bromopentyl)-1-methyl-7-methoxy-2-tetralone**(C₁₇H₂₃BrO₂; 42263-81-0) see: Dezocine**α-bromophenylacetonitrile**(C₈H₆BrN; 5798-79-8) see: Amiphenazole**α-(4-bromophenyl)-α-[2-(dimethylamino)ethyl]-3-pyridinemethanol**(C₁₆H₁₉BrN₂O; 41910-98-9) see: Zimeldine**2-(4-bromophenyl)-4-dimethylamino-2-(2-pyridyl)butyronitrile**(C₁₇H₁₈BrN₃; 65676-22-4) see: Brompheniramine**bromo(2-phenylethyl)magnesium**(C₈H₉BrMg; 3277-89-2) see: Enalapril**(4-bromophenyl)hydrazine monohydrochloride**(C₆H₈BrClN₂; 622-88-8) see: Bromazepam**4-(4-bromophenyl)-4-hydroxypiperidine**(C₁₁H₁₄BrNO; 57988-58-6) see: Bromperidol**2-bromo-1-phenyl-1,3-propanediol**(C₉H₁₁BrO₂; 36808-14-7) see: Chloramphenicol**(4-bromophenyl)(2-pyridyl)acetonitrile**(C₁₃H₉BrN₂; 85750-24-9) see: Brompheniramine**4-(4-bromophenyl)-1,2,3,6-tetrahydropyridine**(C₁₁H₁₃BrN; 91347-99-8) see: Bromperidol**5-(2-bromophenyl)-1H-tetrazole**(C₇H₅BrN₄; 73096-42-1) see: Losartan potassium**3-bromophthalide**(C₈H₅BrO₂; 6940-49-4) see: Talampicillin

5-bromophthalide(C₈H₅BrO₂; 64169-34-2) see: Citalopram**4-bromo-1-phthalimidopentane**(C₁₃H₁₄BrNO₂; 59353-62-7) see: Primaquine**(2-bromopropanoato-*O*)chloromagnesium**(C₃H₄BrClMgO₂; 68460-55-9) see: Naproxen**3-bromo-1-propanol**(C₃H₇BrO; 627-18-9) see: Flupentixol; Pirmenol hydrochloride; Ronifibrate**[1R-[1 α ,2 β ,4 β (E)]]-[4-(2-bromo-1-propenyl)-2-methoxy-cyclohexyl]oxy]tris(1-methylethyl)silane**(C₁₉H₃₇BrO₂Si; 122948-78-1) see: Tacrolimus**3-bromopropionic acid**(C₃H₅BrO₂; 590-92-1) see: Cisatracurium besylate**2-bromopropionitrile**(C₃H₄BrN; 19481-82-4) see: Lofexidine**2-bromopropionyl bromide**(C₃H₄Br₂O; 563-76-8) see: Prilocaine; Propylamine bromide; Tiopronin; Tocainide**2-bromopropionyl chloride**(C₃H₄BrClO; 7148-74-5) see: Carticaine**3-bromopropionyl chloride**(C₃H₄BrClO; 15486-96-1) see: Pipobroman***N*-(2-bromopropionyl)glycine**(C₅H₈BrNO₃; 25413-03-0) see: Stepronin; Tiopronin **α -bromopropionylglycine**see under *N*-(2-bromopropionyl)glycine **α -bromopropiophenone**(C₉H₉BrO; 2114-00-3) see: Amfepramone; Phendimetrazine; Phenmetrazine**(\pm)-2-(3-bromopropyl)-3,4-dihydro-4-hydroxy-2*H*-thieno[3,2-*e*]-1,2-thiazine 1,1-dioxide**(C₉H₁₂BrNO₂S₂; 154127-37-4) see: Brinzolamide **α -(3-bromopropyl)- α -[2-(dimethylamino)ethyl]benzene-acetonitrile**(C₁₅H₂₁BrN₂) see: Ethoheptazine**(\pm)-2-(3-bromopropyl)-4-(1-ethoxyethoxy)-3,4-dihydro-2*H*-thieno[3,2-*e*]-1,2-thiazine 1,1-dioxide**(C₁₃H₂₀BrNO₂S₂; 165116-91-6) see: Brinzolamide**5-(3-bromopropylidene)-10,11-dihydro-5*H*-dibenzo[*a,d*]cycloheptene**(C₁₈H₁₇Br; 3436-04-2) see: Amitriptyline; Amitriptylinoxide; Nortriptyline***N*-(3-bromopropyl)phthalimide**(C₁₁H₁₀BrNO₂; 5460-29-7) see: Roxatidine acetate**1-(3-bromopropyl)theobromine**(C₁₀H₁₃BrN₄O₂; 6493-10-3) see: Pentoxifylline**2-bromopyridine**(C₅H₄BrN; 109-04-6) see: Chloropyramine; Pipradrol; Rimiterol; Tripolidine**6-bromopyridine-2-carboxaldehyde**(C₆H₄BrNO; 34160-40-2) see: Acrivastine**5-bromo-3-(2-pyridyl)indole-2-carbonitrile**(C₁₄H₈BrN₃; 53497-51-1) see: Bromazepam**(*S*)-3-bromo-*N*-[(2-pyrrolidinyl)methyl]-2,6-dimethoxybenzamide**(C₁₄H₁₉BrN₂O₃; 82935-51-1) see: Remoxipride**3-bromorifaxin S**(C₃₇H₄₄BrNO₁₂; 57375-25-4) see: Rifaximin***N*-bromosuccinimide**(C₄H₄BrNO₂; 128-08-5) see: Anastrozole; Azapetine; Betamethasone; Bromocriptine; Cilastatin; Desoximetasone; Epoprostenol; Flumetasone; Fluocortolone; Fluprednidene acetate; Fominoben; Gestrinone; Kawaiin; Ketotifen; Lenampicillin; Losartan potassium; Mepindolol; Metaclozepam; Metenolone acetate; Ozagrel; Raltitrexed; Rebamipide; Sertaconazole; Sorivudine; Suprofen; Tacrolimus; Troglitazone**4-bromothioanisole**(C₇H₇BrS; 104-95-0) see: Rofecoxib**5-bromo-6-thioureidoquinoline**(C₉H₇BrN₄S) see: Brimonidine***p*-bromotoluene**(C₇H₇Br; 106-38-7) see: Losartan potassium; Tolcapone**4-bromotoluene**see under *p*-bromotoluene**2-bromo-6-(*p*-toluoyl)pyridine**(C₁₃H₁₀BrNO; 87848-95-1) see: Acrivastine**1-bromo-3-(trifluoromethyl)benzene**(C₇H₄BrF₃; 401-78-5) see: Niflumide**1-bromo-3,7,11-trimethyl-2,6,10-dodecatriene**(C₁₅H₂₅Br; 6874-67-5) see: Pifarnine**(\pm)-brompheniramine**(C₁₆H₁₉BrN₂; 86-22-6) see: Dexbrompheniramine**brucine dihydrate**(C₂₃H₃₀N₂O₆; 145428-94-0) see: Faropenem sodium**bucladesine**(C₁₈H₂₄N₅O₈P; 362-74-3) see: Bucladesine sodium**buphenine**(C₁₉H₂₅NO₂; 447-41-6) see: Buphenide**1,4-butanediamine**(C₄H₁₂N₂; 110-60-1) see: Gusperimus trihydrochloride**butanedioic acid 2-(dimethylamino)ethyl (2,2,8-trimethyl-4*H*-1,3-dioxino[4,5-*c*]pyridin-5-yl)methyl ester**(C₁₉H₂₈N₂O₆; 98298-58-9) see: Pirusudanol**butanedioic acid mono[2-(dimethylamino)ethyl] ester**(C₈H₁₅NO₄; 10549-59-4) see: Pirusudanol**butanedioic acid mono(2-oxo-1,2-diphenylethyl) ester**(C₁₈H₁₆O₅; 24248-42-8) see: Oxaprozin**1,4-butanediol**(C₄H₁₀O₂; 110-63-4) see: Busulfan**2,3-butanedione**(C₄H₆O₂; 431-03-8) see: Cladribine***n*-butanesulfonyl chloride**(C₄H₉ClO₂S; 2386-60-9) see: Tirofiban hydrochloride**butanoic acid**(C₄H₈O₂; 107-92-6) see: Betamethasone butyrate**propionate*****n*-butanol**(C₄H₁₀O; 71-36-3) see: Bumetanide; Cinchocaine;

Febuprol; Fluocortin butyl

***tert*-butanol**(C₄H₁₀O; 75-65-0) see: Candesartan cilexetil; Indometacin;

Loratadine; Trovafloxacin mesilate

butanone(C₄H₈O; 78-93-3) see: Beclobrate; Bemegride; Clinofibrate;

Clobetasone butyrate; Ethionamide; Ethosuximide;

Methylpentynol; Paramethadione

1-butene(C₄H₈; 106-98-9) see: Ethambutol

3-butene-1,2-diol diacetate(C₈H₁₂O₄; 18085-02-4) see: Retinol**(E)-2-butenyltriphenylstannane**(C₂₂H₂₂Sn; 29000-09-7) see: Tacrolimus**4'-butoxyacetophenone**(C₁₂H₁₆O₂; 5736-89-0) see: Bufexamac; Dyclonine**4-butoxybenzyl bromide**(C₁₁H₁₅BrO; 2417-74-5) see: Butropium bromide**tert-butoxybis(dimethylamino)methane**(C₉H₂₂N₂O; 5815-08-7) see: Ziprasidone hydrochloride**N-tert-butoxycarbonyl-L-alanine**(C₈H₁₅NO₄; 15761-38-3) see: Enalapril; Romurtide**N-tert-butoxycarbonyl-L-alanyl-L-alanine**(C₁₁H₂₀N₂O₅; 27317-69-7) see: Alatrofloxacin mesilate**tert-butoxycarbonyl-L-alanyl-D-isoglutamine**(C₁₃H₂₃N₃O₆; 18814-50-1) see: Romurtide**(1α,5α,6α)-6-tert-butoxycarbonylamino-3-azabicyclo-[3.1.0]hexane**(C₁₀H₁₈N₂O₂; 134575-17-0) see: Trovafloxacin mesilate**2-tert-butoxycarbonylamino-1-chloro-1-(2-thienyl)ethane**(C₁₁H₁₆ClNO₂S; 102090-60-8) see: Temocapril**3(S)-tert-butoxycarbonylamino-1,2(S)-epoxy-4-phenylbutane**(C₁₅H₂₁NO₃; 98737-29-2) see: Amprenavir**3-(tert-butoxycarbonylamino)-2-methoxyppyridine**(C₁₁H₁₆N₂O₃; 161117-83-5) see: Nevirapine**(2R,3S)-3-tert-butoxycarbonylamino-3-phenyl-2-(2,2,2-trichloroethoxymethoxy)propionic acid**(C₁₇H₂₂Cl₃NO₆; 145433-71-2) see: Docetaxel**2-tert-butoxycarbonylamino-1-(2-thienyl)ethanol**(C₁₁H₁₇NO₃S; 102090-59-5) see: Temocapril**S-[2-tert-butoxycarbonylamino-1(S)-(2-thienyl)ethyl]-N-phthaloyl-L-cysteine benzhydrol ester**(C₃₅H₃₄N₂O₆S₂) see: Temocapril**(2RS,6R)-6-tert-butoxycarbonylamino-2-(2-thienyl)-5-oxoperhydro-1,4-thiazepine**(C₁₄H₂₀N₂O₃S₂) see: Temocapril**N-tert-butoxycarbonyl-L-cysteine**(C₈H₁₅NO₄S; 20887-95-0) see: Temocapril**(4S,5R)-3-tert-butoxycarbonyl-2,2-dimethyl-4-phenyl-5-oxazolidinecarboxaldehyde**(C₁₇H₂₃NO₄; 163010-82-0) see: Docetaxel**(4S,5R)-3-tert-butoxycarbonyl-2,2-dimethyl-4-phenyl-5-oxazolidinecarboxylic acid**(C₁₇H₂₃NO₅; 143527-70-2) see: Docetaxel**(3R,4S)-1-tert-butoxycarbonyl-3-(1-ethoxyethoxy)-4-phenyl-2-azetidinone**(C₁₈H₂₅NO₃; 201856-57-7) see: Docetaxel**N-tert-butoxycarbonyl-trans-4-hydroxy-L-proline**(C₁₀H₁₇NO₅; 13726-69-7) see: Fosinopril**N-(N⁶-tert-butoxycarbonyl-L-lysyl)-L-proline**(C₁₆H₂₉N₃O₅; 4583-24-8) see: Lisinopril**(Z)-2-(tert-butoxycarbonylmethoxyimino)-2-(2-formamidothiazol-4-yl)acetic acid**(C₁₂H₁₅N₃O₆S; 68401-68-3) see: Cefixime**(Z)-2-(1-tert-butoxycarbonyl-1-methylethoxyimino)-2-(2-tritylaminothiazol-4-yl)acetic acid**(C₃₂H₃₃N₃O₅S; 68672-66-2) see: Cefazidime**N-tert-butoxycarbonyl-D-α-phenylglycine**(C₁₃H₁₇NO₄; 33125-05-2) see: Cefaclor**N-tert-butoxycarbonyl piperidine-2(S)-carboxylic acid**(C₁₁H₁₉NO₄; 26250-84-0) see: Tacrolimus**N-tert-butoxycarbonyl-trans-4-tosyloxy-L-proline**(C₁₇H₂₃NO₅S; 96314-28-2) see: Fosinopril**3-butoxy-4-nitrobenzoic acid**(C₁₁H₁₃NO₅; 72101-53-2) see: Oxybuprocaine**3-butoxy-4-nitrobenzoic acid 2-(diethylamino)ethyl ester**(C₁₇H₂₆N₂O₅; 10367-95-0) see: Oxybuprocaine**3-butoxy-4-nitrobenzoic acid ethyl ester**(C₁₃H₁₇NO₅) see: Oxybuprocaine**3-butoxy-4-nitrobenzoyl chloride**(C₁₁H₁₂ClNO₄; 23442-21-9) see: Oxybuprocaine**4-butoxyphenol**(C₁₀H₁₄O₂; 122-94-1) see: Pramocaine**(4-butoxyphenoxy)acetyl chloride**(C₁₂H₁₅ClO₃; 54022-77-4) see: Fenoxedil**2-(p-butoxyphenoxy)-2',5'-diethoxyacetanilide**(C₂₂H₂₉NO₅; 27585-34-8) see: Fenoxedil**4-butoxyphenylacetic acid**(C₁₂H₁₆O₃; 4547-57-3) see: Bufexamac**(4S,5R)-2-tert-butoxy-4-phenyl-5-(1-ethoxyethoxy)-4,5-dihydro-1,3-oxazin-6-one**(C₁₈H₂₅NO₅) see: Docetaxel**4-[2-(4-butoxyphenyl)-1-thioxoethyl]morpholine**(C₁₆H₂₃NO₂S; 55784-03-7) see: Bufexamac**tert-butylacetate**(C₈H₁₂O₂; 540-88-5) see: Atorvastatin calcium; Indinavir sulfate**tert-butylacetic anhydride**(C₁₂H₂₂O₃; 38965-26-3) see: Dexamethasone tert-butylacetate; Triamcinolone hexacetonide**tert-butyl acetoacetate**(C₈H₁₄O₄; 1694-31-1) see: Barnidipine; Cefixime; Fluvastatin sodium; Lercanidipine hydrochloride**tert-butylacetyl chloride**(C₈H₁₁ClO; 7065-46-5) see: Prednisolone tebutate; Triamcinolone hexacetonide**tert-butylacetylene**(C₆H₁₀; 917-92-0) see: Terbinafine**tert-butyl alcohol**

see under tert-butanol

butylamine(C₄H₁₁N; 109-73-9) see: Bamethan; Buclosamide; Butanilcaine; Carbutamide; Parsalimide; Tybamate**tert-butylamine**(C₄H₁₁N; 75-64-9) see: Amfebutamone; Bitolterol; Bopindolol; Bucumolol; Budipine; Bufetolol; Bunitrolol; Bupranolol; Butoflilolol; Carteolol; Celiprolol; Clenbuterol; Finasteride; Levobunolol; Maberol; Nadolol; Penbutolol; Perindopril; Saquinavir; Talinolol; Terodilene; Tertatolol; Tilisolol hydrochloride; Timolol; Tulobuterol; Xibenolol**4-(butylamino)benzoic acid**(C₁₁H₁₅NO₂; 4740-24-3) see: Tetracaine**2-tert-butylamino-3',4'-bis(p-toluoyloxy)acetophenone**(C₂₈H₂₉NO₅; 47749-96-2) see: Bitolterol**N-[4-[[[(butylamino)carbonyl]amino]sulfonyl]phenyl]-acetamide**(C₁₃H₁₉N₃O₄S; 6630-00-8) see: Carbutamide**2-tert-butylamino-3',4'-dihydroxyacetophenone**(C₁₂H₁₇NO₃; 105644-17-5) see: Bitolterol

- tert-butyl (4R,6R)-2-[6-(2-aminoethyl)-2,2-dimethyl-1,3-dioxan-4-yl]acetate**
(C₁₄H₂₇NO₄; 125995-13-3) see: Atorvastatin calcium
- N-tert-butyl-2-[3(S)-amino-2(R)-hydroxy-4-phenylbutyl]decahydro-(4aS,8aS)-isoquinoline-3(S)-carboxamide**
(C₂₄H₃₉N₃O₂; 136522-17-3) see: Saquinavir
- 4-(3-tert-butylamino-2-hydroxypropoxy)-2-methylindole**
(C₁₆H₂₄N₂O₂; 23869-98-9) see: Bopindolol
- tert-butyl 9(S)-amino-octahydro-10-oxo-6H-pyridazo-[1,2-a][1,2]diazepine-1(S)-carboxylate**
(C₁₄H₂₅N₃O₃; 106860-20-2) see: Cilazapril
- tert-butyl (2S,6R)-6-amino-5-oxo-2-(2-thienyl)perhydro-1,4-thiazepine-4-acetate**
(C₁₅H₂₂N₂O₃S₂; 112968-38-4) see: Temocapril
- tert-butyl aminoxyacetate**
(C₆H₁₃NO₃; 56834-02-7) see: Cefixime
- 2-tert-butylamino-1-phenylethanol**
(C₁₂H₁₉NO; 18366-40-0) see: Clenbuterol
- S-(-)-1-tert-butylamino-2,3-propanediol**
(C₇H₁₇NO₂; 30315-46-9) see: Timolol
- 4-tert-butylbenzaldehyde**
(C₁₁H₁₄O; 939-97-9) see: Butenafine
- 2-butylbenzofuran**
(C₁₂H₁₄O; 4265-27-4) see: Amiodarone
- 4-tert-butylbenzoic acid**
(C₁₁H₁₄O₂; 98-73-7) see: Butenafine
- 1-tert-butyl-3-benzoyl-4-hydroxy-4-phenylpiperidine**
(C₂₂H₂₇NO₂; 81831-81-4) see: Budipine
- 1-[3-(4-tert-butylbenzoyl)propyl]-4-hydroxypiperidine**
(C₁₉H₂₉NO₂; 97928-18-2) see: Ebastine
- N-tert-butylbenzylamine**
see under *N*-benzyl-*tert*-butylamine
- 4-tert-butylbenzyl bromide**
(C₁₁H₁₅Br; 18880-00-7) see: Butenafine
- 4-tert-butylbenzyl chloride**
(C₁₁H₁₅Cl; 19692-45-6) see: Buclizine
- tert-butyl-1-(benzyloxycarbonyl)-hexahydro-3-pyridazine-carboxylate**
(C₁₇H₂₄N₂O₄; 81383-49-5) see: Cilazapril
- butyl bromide**
(C₄H₉Br; 109-65-9) see: Bufenamac; Bupivacaine; Butylscopolammonium bromide; Oxybuprocaine; Tetracaine
- sec-butyl bromide**
(C₄H₉Br; 78-76-2) see: Itraconazole; Pentapiperide; Secbutabarbital; Valethamate bromide
- tert-butyl bromide**
(C₄H₉Br; 507-19-7) see: Pirbuterol
- tert-butyl bromoacetate**
(C₆H₁₁BrO₂; 5292-43-3) see: Carumonam; Mibefradil hydrochloride; Temocapril
- tert-butyl 2-bromomethylacrylate**
(C₈H₁₃BrO₂; 53913-96-5) see: Quinagolide hydrochloride
- tert-butyl 4'-(bromomethyl)biphenyl-2-carboxylate**
(C₁₈H₁₉BrO₂; 114772-40-6) see: Telmisartan
- tert-butyl 2-bromo-2-methylpropionate**
(C₈H₁₅BrO₂; 23877-12-5) see: Ceftazidime
- N-tert-butyl-4-(tert-butoxycarbonyl)piperazine-2(S)-carboxamide**
(C₁₄H₂₇N₃O₃; 150323-35-6) see: Indinavir sulfate
- butylcarbamic acid 2-(hydroxymethyl)-2-methylpentyl ester**
(C₁₂H₂₅NO₃; 23787-20-4) see: Tybamate
- 4-(tert-butylcarbonyl)-1-bromobenzene**
(C₁₁H₁₄BrNO; 42498-38-4) see: Fadzozole
- 4-[4-[4-(tert-butylcarbonyl)phenyl]-4-hydroxybutyl]-1-(trimethylsilyl)imidazole**
(C₂₁H₃₃N₃O₂Si; 102676-34-6) see: Fadzozole
- 2-butyl-4-chloro-1-(4-bromobenzyl)-1H-imidazole-5-carboxaldehyde**
(C₁₅H₁₆BrClN₂O; 143722-29-6) see: Losartan potassium
- 4-tert-butyl-ω-chlorobutyrophenone**
(C₁₄H₁₉ClO; 43076-61-5) see: Ebastine; Terfenadine
- 2-butyl-4-chloro-1-[2'-(cyanobiphenyl-4-yl)-methyl]-5-(hydroxymethyl)imidazole**
(C₂₂H₂₂ClN₃O; 114772-55-3) see: Losartan potassium
- tert-butyl chloroformate**
(C₅H₉ClO₂; 24608-52-4) see: Cefalexin
- 2-butyl-4-chloro-5-hydroxymethylimidazole**
(C₈H₁₃ClN₂O; 79047-41-9) see: Losartan potassium
- 2-butyl-4-chloro-1H-imidazole-5-carboxaldehyde**
(C₈H₁₁ClN₂O; 83857-96-9) see: Eprosartan; Losartan potassium
- 2-butyl-4-chloroimidazole-5-carboxaldehyde**
see under 2-butyl-4-chloro-1H-imidazole-5-carboxaldehyde
- 3-butyl-1-chloroisoquinoline**
(C₁₃H₁₄ClN; 87-06-9) see: Quinisocaine
- 6-tert-butyl-3-chloromethyl-2,4-dimethylphenol**
(C₁₃H₁₉ClO; 23500-79-0) see: Oxymetazoline
- 2-butyl-4-chloro-1-[[2'-[1-(triphenylmethyl)-1H-tetrazol-5-yl][1,1'-biphenyl]-4-yl]methyl]-1H-imidazole-5-carboxaldehyde**
(C₄₁H₃₅ClN₆O; 120568-18-5) see: Losartan potassium
- tert-butyl (4R,6R)-2-(6-cyanomethyl-2,2-dimethyl-1,3-dioxan-4-yl)acetate**
(C₁₄H₂₃NO₄; 125971-94-0) see: Atorvastatin calcium
- N-tert-butyldecahydro-(4aS,8aS)-isoquinoline-3(S)-carboxamide**
(C₁₄H₂₆N₂O; 136465-81-1) see: Nelfinavir mesylate; Saquinavir
- 2-butyl-1,3-diazaspiro[4.4]non-1-en-4-one**
(C₁₁H₁₈N₂O; 138402-05-8) see: Irbesartan
- 2-butyl-4,5-diiodo-1-[(phenylmethoxy)methyl]-1H-imidazole**
(C₁₅H₁₈I₂N₂O; 154371-62-7) see: Eprosartan
- tert-butyl 4,4'-dimethoxy-α-stilbenyl sulfide**
(C₂₀H₂₄O₂S) see: Raloxifene hydrochloride
- tert-butyl 4,4'-dimethoxy-α-stilbenyl sulfoxide**
(C₂₀H₂₄O₃S; 186408-54-8) see: Raloxifene hydrochloride
- 1-butyl-2-(2,6-dimethylanilinocarbonyl)pyridinium bromide**
(C₁₈H₂₃BrN₂O) see: Bupivacaine
- 4-tert-butyl-2,6-dimethylbenzyl cyanide**
(C₁₄H₁₉N; 84803-57-6) see: Xylometazoline
- 6-tert-butyl-2,4-dimethylphenol**
(C₁₂H₁₈O; 1879-09-0) see: Oxymetazoline
- O-tert-butyl S-(4,6-dimethyl-2-pyrimidinyl)thiocarbonate**
(C₁₁H₁₆N₂O₂S; 41840-28-2) see: Gusperimus trihydrochloride

tert-butyl dimethylsilyl chloride

(C₆H₁₅ClSi; 18162-48-6) see: Calcipotriol; Montelukast sodium; Orlistat; Simvastatin; Tacrolimus

(S)-4-(tert-butyl dimethylsilyloxy)-2-hydroxybutyl 2-naphthalenesulfonate

(C₃₀H₃₄O₅SSi; 153011-61-1) see: Orlistat

tert-butyl dimethylsilyl trifluoromethanesulfonate

(C₇H₁₅F₃O₃SSi; 69739-34-0) see: Gemcitabine; Tacrolimus

tert-butyl diphenylsilyl chloride

(C₁₆H₁₉ClSi; 58479-61-1) see: Orlistat; Stavudine

2-(tert-butyl diphenylsilyloxymethyl)-5-acetoxy-1,3-oxathiolane

(C₂₂H₂₈O₄SSi; 139757-72-5) see: Lamivudine

2-(tert-butyl diphenylsilyloxymethyl)-5-oxo-1,3-oxathiolane

(C₂₀H₂₄O₃SSi; 137125-19-0) see: Lamivudine

tert-butyl (±)-erythro-(E)-7-[3-(4-fluorophenyl)-1-isopropylindol-2-yl]-3,5-dihydroxyhept-6-enoate

(C₂₈H₃₄FNO₄; 129332-29-2) see: Fluvastatin sodium

tert-butyl (±)-(E)-7-[3-(4-fluorophenyl)-1-isopropylindol-2-yl]-5-hydroxy-3-oxohept-6-enoate

(C₂₈H₃₂FNO₄) see: Fluvastatin sodium

2-butyl-4-formylimidazole

(C₈H₁₂N₂O; 68282-49-5) see: Eprosartan

4-[(2-butyl-5-formyl-1H-imidazol-1-yl)methyl]benzoic acid

(C₁₆H₁₈N₂O₃; 152146-59-3) see: Eprosartan

tert-butyl (3S,5R)-2-hexyl-3-hydroxy-5-[(tetrahydro-2H-pyran-2-yl)oxy]hexadecanoate

(C₃₁H₆₀O₅; 104801-65-2) see: Orlistat

2-butyl-3-(4-hydroxybenzoyl)benzofuran

(C₁₉H₁₈O₃; 52490-15-0) see: Amiodarone

tert-butyl 5(R)-hydroxy-6-cyano-3-oxohexanoate

(C₁₁H₁₇NO₄; 125988-01-4) see: Atorvastatin calcium

2-butyl-3-(4-hydroxy-3,5-diiodobenzoyl)benzofuran

(C₁₉H₁₆I₂O₃; 1951-26-4) see: Amiodarone

4-tert-butyl-3-hydroxy-2,6-dimethylbenzeneacetonitrile

(C₁₄H₁₉NO; 55699-10-0) see: Oxymetazoline

tert-butyl 2-hydroxyimino-3-oxobutyrate

(C₈H₁₃NO₄; 14352-65-9) see: Cefixime

tert-butyl (4R,6S)-2-(6-hydroxymethyl-2,2-dimethyl-1,3-dioxan-4-yl)acetate

(C₁₃H₂₄O₅; 124655-09-0) see: Atorvastatin calcium

tert-butyl (3S,5R)-3-hydroxy-2-[(S)-(4-methylphenyl)sulfinyl]-5-[(tetrahydro-2H-pyran-2-yl)oxy]hexadecanoate

(C₃₂H₅₄O₆S; 104801-80-1) see: Orlistat

tert-butyl [(1S,2R)-2-hydroxy-3-[(2-methylpropyl)amino]-1-(phenylmethyl)propyl]carbamate

(C₁₉H₃₂N₂O₃; 160232-08-6) see: Amprenavir

tert-butyl [(1S,2R)-2-hydroxy-3-[(2-methylpropyl)](4-nitrophenyl)sulfonyl]amino-1-(phenylmethyl)propyl]carbamate

(C₂₅H₃₅N₃O₇S; 191226-98-9) see: Amprenavir

N-tert-butyl-2-[2(R)-hydroxy-4-phenyl-3(S)-phthalimido-butyl]decahydro-(4aS,8aS)-isoquinoline-3(S)-carboxamide

(C₃₂H₄₁N₃O₄; 136465-78-6) see: Saquinavir

1-tert-butyl-4-hydroxy-4-phenylpiperidine

(C₁₅H₂₃NO; 35116-84-8) see: Budipine

tert-butyl (1R,2S)-2-hydroxy-1-phenyl-2-(2-thiazolyl)ethylcarbamate

(C₁₆H₂₀N₂O₃S; 163010-75-1) see: Docetaxel

tert-butyl (R)-3-hydroxytetradecanoate

(C₁₈H₃₆O₃; 79816-65-2) see: Orlistat

tert-butyl hypobromite

(C₄H₉BrO; 1611-82-1) see: Amixetrine; Eprazinone; Eprozinol; Zipeprol

2-butylimidazole

(C₇H₁₂N₂; 50790-93-7) see: Eprosartan

butyl iodide

(C₄H₉I; 542-69-8) see: Eprosartan

butyl isocyanate

(C₅H₉NO; 111-36-4) see: Tolbutamide; Tybamate

tert-butylisocyanide

(C₅H₉N; 7188-38-7) see: Pirbuterol

butyllithium

(C₄H₉Li; 109-72-8) see: Acrivastine; Fluconazole; Tirofiban hydrochloride

butylmagnesium bromide

(C₄H₉BrMg; 693-03-8) see: Fenipentol

tert-butylmagnesium chloride

(C₄H₉ClMg; 677-22-5) see: Buprenorphine

butylmalonic acid diethyl ester

(C₁₁H₂₀O₄; 133-08-4) see: Mofebutazone; Oxyphenbutazone; Phenylbutazone

2-butyl-3-(4-methoxybenzoyl)benzofuran

(C₂₀H₂₀O₃; 83790-87-8) see: Amiodarone

tert-butyl 4-methoxybenzyl sulfide

(C₁₂H₁₈OS; 178431-33-9) see: Raloxifene hydrochloride

(Z)-tert-butyl 2-(methoxycarbonylmethoxyimino)-3-oxobutyrate

(C₁₁H₁₇NO₆; 84080-68-2) see: Cefixime

17,21-(1-butyl-1-methoxymethylenedioxy)-3,20-dioxo-9-fluoro-11β-hydroxy-16α-methyl-1,4-pregnadiene

(C₂₈H₃₉FO₆; 1062-64-2) see: Dexamethasone valerate

5-tert-butyl 3-methyl 2,6-dimethyl-4-(3-nitrophenyl)-1,4-dihydropyridine-3,5-dicarboxylate

(C₂₀H₂₄N₂O₆; 103521-70-6) see: Lercanidipine hydrochloride

tert-butyl (4S)-1-methyl-2-oximidazolidine-4-carboxylate

(C₉H₁₆N₂O₃; 83056-79-5) see: Imidapril

2-sec-butyl-2-methylpropane-1,3-diol

(C₈H₁₈O₂; 813-60-5) see: Mebutanate

tert-butyl (4S)-1-methyl-3-[(2R)-2-(p-toluenesulfonyloxy)propionyl]-2-oximidazolidine-4-carboxylate

(C₁₉H₂₆N₂O₇S; 130368-70-6) see: Imidapril

butyl nitrite

(C₄H₉NO₂; 544-16-1) see: Metaraminol; Minocycline

tert-butyl nitrite

(C₄H₉NO₂; 540-80-7) see: Vincamine

tert-butyl 2-(3-nitrobenzylidene)acetoacetate

(C₁₅H₁₇NO₅; 103295-96-1) see: Lercanidipine hydrochloride

tert-butyl octahydro-6,10-dioxo-9(S)-phthalimido-6H-pyridazo[1,2-a][1,2]diazepine-1(S)-carboxylate

(C₂₂H₂₅N₃O₆; 106928-72-7) see: Cilazapril

N-tert-butyl-1-[(R)-oxiranylmethyl]-4-tert-butoxycarbonyl-piperazine-2(S)-carboxamide

(C₁₇H₃₁N₃O₄; 158380-45-1) see: Indinavir sulfate

4'-[(2-butyl-4-oxo-1,3-diazaspiro[4.4]non-1-en-3-yl)methyl][1,1'-biphenyl]-2-carbonitrile
(C₂₅H₂₇N₃O; 138401-24-8) see: Irbesartan

3-butyl-1-oxo-1,2-dihydroisoquinoline
(C₁₃H₁₅NO; 132-90-1) see: Quinisoquine

tert-butyl (2S,6R)-5-oxo-6-phthalimido-2-(2-thienyl)perhydro-1,4-thiazepine-4-acetate
(C₂₃H₂₄N₂O₅S₂) see: Temocapril

N-(tert-butylloxycarbonyl)-2(R)-(4-hydroxyphenyl)glycine
(C₁₃H₁₇NO₅; 27460-85-1) see: *cis*-Cefprozil

N-(tert-butylloxycarbonyl)-4-piperidineacetic acid
(C₁₂H₂₁NO₄; 157688-46-5) see: Tirofiban hydrochloride

N-(tert-butylloxycarbonyl)-4-piperidineethanol
(C₁₂H₂₃NO₃; 89151-44-0) see: Tirofiban hydrochloride

4-[N-(tert-butylloxycarbonyl)piperidin-4-yl]butyl bromide
(C₁₄H₂₆BrNO₂; 142355-81-5) see: Tirofiban hydrochloride

N-tert-butylloxycarbonyl-L-threonine
(C₉H₁₇NO₅; 2592-18-9) see: Aztreonam

1-(4-tert-butylphenyl)-4-chloro-1-butanol
(C₁₄H₂₁ClO; 105377-23-9) see: Terfenadine

1-(4-tert-butylphenyl)-4-chloro-1-butanone
see under 4-tert-butyl- ω -chlorobutyrophenone

tert-butyl 3-phenylglycidate
(C₁₃H₁₆O₃; 27593-40-4) see: Docetaxel; Paclitaxel

1-tert-butyl-4-phenyl-1,2,3,6-tetrahydropyridine
(C₁₅H₂₁N; 46713-61-5) see: Budipine

N-tert-butyl-4-(3-picolyl)-2(S)-piperazinecarboxamide
(C₁₅H₂₄N₄O; 183074-81-9) see: Indinavir sulfate

1-tert-butylpiperidine-4-one
(C₉H₁₇NO; 1465-76-5) see: Budipine

N-(butylsulfonyl)-O-[4-(4-pyridinyl)butyl]-L-tyrosine
(C₂₂H₃₀N₂O₅S; 149490-61-9) see: Tirofiban hydrochloride

N-(butylsulfonyl)-L-tyrosine
(C₁₃H₁₉NO₅S; 149490-60-8) see: Tirofiban hydrochloride

tert-butyl β -[1,2,3,4-tetrahydro-1,1-bis(phenylthio)-2-oxo-5-methoxy-3-naphthyl]- α -methylene propionate
(C₃₁H₃₂O₄S₂; 87056-68-6) see: Quinagolide hydrochloride

4-(butylthio)benzhydrol
(C₁₇H₂₀OS; 94823-88-8) see: Captodiame

4-butylthiobenzhydrol chloride
(C₁₇H₁₉ClS; 84245-51-2) see: Captodiame

4-butylthiobenzhydrol mercaptan
(C₁₇H₂₀S₂) see: Captodiame

4-butylthiobenzophenone
(C₁₇H₁₈OS; 73242-21-4) see: Captodiame

tert-butyl (S)-p-toluenesulfinylacetate
(C₁₃H₁₈O₃S; 94404-20-3) see: Orlistat

1-butyne
(C₄H₆; 107-00-6) see: Methohexital

2-butyne-1,4-diol
(C₄H₆O₂; 110-65-6) see: Amezinium metilsulfate

3-butyne-1-ol
(C₄H₆O; 927-74-2) see: Rizatriptan benzoate

butyraldehyde
(C₄H₈O; 123-72-8) see: Budesonide; Etizolam; Tetracaine; Vincamine

4-butyramidophenol
(C₁₀H₁₃NO₂; 101-91-7) see: Acebutolol

butyric anhydride
(C₈H₁₄O₃; 106-31-0) see: Acebutolol; Amiodarone; Bucladesine sodium; Bunamiodyl; Iopanoic acid; Iophenoic acid

butyronitrile
(C₄H₇N; 109-74-0) see: Etifelmine

2-butyrylbenzofuran
(C₁₂H₁₂O₂; 85614-50-2) see: Amiodarone

butyryl chloride
(C₄H₇ClO; 141-75-3) see: Bunazosin; Butofiolol; Etacrynic acid; Telmisartan

4-butyryl-2,3-dichlorophenoxyacetic acid
(C₁₂H₁₂Cl₂O₄; 1217-67-0) see: Etacrynic acid

1-butyrylhomopiperazine
(C₉H₁₈N₂O; 61903-12-6) see: Bunazosin

2-butyrylphenothiazine
(C₁₆H₁₅NOS; 25244-91-1) see: Butaperazine

Bzl-Mep-ONp
(C₁₆H₁₅NO₄S; 50833-62-0) see: Desmopressin

Bzl-Mep-Tyr-Phe-Gln-Asn-Cys(Bzl)-Pro-D-Arg-Gly-NH₂
(C₆₇H₈₄N₁₄O₁₄S₃; 16717-13-8) see: Desmopressin

Bzl-Mep-Tyr-Phe-NH-NH₂
(C₂₈H₃₂N₄O₄S; 5254-58-0) see: Desmopressin

Bzl-Mep-Tyr-Phe-OMe
(C₂₉H₃₂N₂O₅S; 5254-57-9) see: Desmopressin

C

caffeic acid
(C₈H₆O₄; 331-39-5) see: Cynarine

caffeine
(C₈H₁₀N₄O₂; 58-08-2) see: Cafaminol; Caffeine acetyltrypophanate

calcium 1,1-cyclobutanecarboxylate
(C₆H₆CaO₄; 13799-91-2) see: Carboplatin

calcium D-pantothenate
(C₁₈H₃₂CaN₂O₁₀; 137-08-6) see: Pantethine

camphene
(C₁₀H₁₆; 79-92-5) see: Mecamylamine

(-)-camphene
(C₁₀H₁₆; 5794-04-7) see: Xibornol

D-camphoric acid
(C₁₀H₁₆O₄; 124-83-4) see: Carnitine; Dexfenfluramine

(1R,3S)-(+)-camphoric acid
see under D-camphoric acid

camptothecin
(C₂₀H₁₆N₂O₄; 7689-03-4) see: Topotecan

canrenone
(C₂₂H₂₈O₃; 976-71-6) see: Potassium canrenoate; Spironolactone

caproic anhydride
(C₁₂H₂₂O₃; 2051-49-2) see: Clacortolone; Fluocortolone caproate; Gestonorone caproate; Hydroxyprogesterone caproate

ϵ -caprolactam
(C₆H₁₁NO; 105-60-2) see: Acexamidic acid; Aminocaproic acid; Pentetrazol; Setastine

carbamazepine
(C₁₅H₁₂N₂O; 298-46-4) see: Oxcarbazepine

carbamimidic acid methyl ester(C₂H₆N₂O; 2440-60-0) see: Azacitidine**carbamoyl chloride**(CH₂ClNO; 463-72-9) see: 2-Thiophenecarboxylic acid**9-carbamoyl-9-(2-cyanoethyl)fluorene**(C₁₇H₁₄N₂O; 79156-94-8) see: Indecainide**4-carbamoyl-5-diazonio-N'-imidazolide**(C₄H₃N₃O; 26230-33-1) see: Dacarbazine**N⁵-carbamoyl-D-ornithine**(C₆H₁₃N₃O₃; 13594-51-9) see: Cetrorelix**4-carbamoyl-4-piperidinopiperidine**(C₁₁H₂₁N₃O; 39633-82-4) see: Carpipramine; Clozapramine; Mosapramine; Pipamperone; Piritramide**carbenicillin benzyl ester**(C₂₄H₂₄N₂O₆S; 3973-06-6) see: Carbenicillin**3-carthoxyamino-10,11-dihydro-5H-dibenz[b,f]azepine**(C₁₇H₁₈N₂O₂; 78816-40-7) see: Tiracizine**N-carthoxyphthalimide**(C₁₁H₉NO₄; 22509-74-6) see: Gusperimus trihydrochloride; Thalidomide**N-carthoxypiperazine**(C₇H₁₄N₂O₂; 120-43-4) see: Amoxapine; Buclizine; Cetirizine; Enoxacin**DL-carbidopa**(C₁₀H₁₄N₂O₄; 302-53-4) see: Carbidopa**N-carbobenzylxynortropine**(C₁₅H₁₉NO₃; 109840-91-7) see: Flutropium bromide**N-carbobenzylxynortropine benzilate**(C₂₉H₂₉NO₅) see: Flutropium bromide**carbon dioxide**(CO₂; 124-38-9) see: *p*-Aminosalicylic acid; Genticic acid; Indecainide; Lamotrigine; Salicylic acid; Troglitazone; L-Tryptophan**carbon disulfide**(CS₂; 75-15-0) see: Cefotetan; Dihydralazine; Disulfiram; Ethoxzalamide; Flomoxef; Lanoconazole; Malotilate; Ranitidine; Sulbentine; Tibezoneum iodide; Timiperone; Tinazoline hydrochloride; Tiocarlide**carbonic acid [2aR-(2α,4β,4aβ,6β,9α,11α,12α,12α,12bα)]-12b-(acetyloxy)-12-(benzyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-9,11-dihydroxy-4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1H-cyclodeca[3,4]benz[1,2-*b*]oxete-4,6-diyl bis(2,2,2-trichloroethyl) ester**(C₃₅H₃₈Cl₆O₁₄; 95603-44-4) see: Docetaxel**earbonic acid 7-chloro-2,3-dihydro-1-methyl-2-oxo-5-phenyl-1H-1,4-benzodiazepin-3-yl phenyl ester**(C₂₇H₁₇ClN₂O₄; 36111-95-2) see: Camazepam**[5R-[5α,5aβ,8α,9β(R*)]]-carbonic acid 4-[9-[(2,3-di-*O*-acetyl-4,6-*O*-ethylidene-β-D-glucopyranosyl)oxy]-5,5a,6,8,8a,9-hexahydro-6-oxofuro[3',4':6,7]naphtho[2,3-*d*]-1,3-dioxol-5-yl]-2,6-dimethoxyphenyl phenylmethyl ester**(C₄₁H₄₂O₁₇; 131234-65-6) see: Etoposide**[5R-(5α,5aβ,8α,9β)]-carbonic acid 4-[5,5a,6,8,8a,9-hexahydro-6-oxo-9-[(2,3,4,6-tetra-*O*-acetyl-β-D-glucopyranosyl)oxy]furo[3',4':6,7]naphtho[2,3-*d*]-1,3-dioxol-5-yl]-2,6-dimethoxyphenyl phenylmethyl ester**(C₄₃H₄₄O₁₉; 23362-12-1) see: Teniposide**carbon monoxide**

(CO; 630-08-0) see: Ibuprofen; Retinol; Rofecoxib

carbonochloridic acid (4-nitrophenyl)methyl ester(C₈H₆ClNO₄; 4457-32-3) see: Meropenem**carbonochloridothioic acid *O*-2-naphthalenyl ester**(C₁₁H₇ClOS; 10506-37-3) see: Tolnaftate**carbonocyanimidic acid methyl ester**(C₃H₄N₂O; 13369-03-4) see: Sulfametrole***N,N'*-[carbonylbis(iminosulfonyl-4,1-phenylene)]his[acetamide]**(C₁₇H₁₈N₄O₇S₂; 115036-71-0) see: Carbutamide**1,1'-carbonyldiimidazole**(C₇H₆N₄O; 530-62-1) see: Tropisetron**3,4-carbonyldioxyacinnamic acid**(C₁₀H₆O₅; 5728-81-4) see: Cynarine**3-carboxamido-5-vinyl-2-pyrrolidone**(C₇H₁₀N₂O₂; 71107-19-2) see: Vigabatrin**α-[(2-carboxy-4-acetylphenyl)oxy]-γ-butyrolactone**(C₁₃H₁₂O₆; 72492-92-3) see: Spizofurone***N*-carboxy-L-alanine anhydride**(C₄H₅NO₃; 2224-52-4) see: Enalapril**4-carboxybenzenesulfonyl chloride**(C₇H₅ClO₄S; 10130-89-9) see: Probenecid**4-carboxybutylenetriphenylphosphorane sodium salt**(C₂₃H₂₂NaO₂P; 41723-91-5) see: Iloprost**3-carboxy-5-(4-chlorobenzoyl)-1,4-dimethyl-1H-pyrrole-2-acetic acid**(C₁₆H₁₄ClNO₅; 33369-28-7) see: Zomepirac**2'-carboxy-4-chloro-3-nitrobenzophenone**(C₁₄H₈ClNO₃; 85-54-1) see: Chlortalidone**[6R-[6α,7β(Z)]]-1-[[2-carboxy-7-[[[2-(1,1-dimethylethoxy)-1,1-dimethyl-2-oxoethoxy]imino]]2-[(triphenylmethyl)amino]-4-thiazolyl]acetyl]amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl)methyl]pyridinium inner salt**(C₄₅H₄₄N₆O₇S₂; 73547-69-0) see: Ceftazidime**(*E*)-5-[[4-[[2-carboxyethyl]amino]carbonyl]phenyl]azo]-2-hydroxybenzoic acid**(C₁₇H₁₅N₃O₆; 80573-04-2) see: Balsalazide sodium**DL-(1-carboxyethyl)oxamic acid diethyl ester**(C₉H₁₅NO₅; 23460-73-3) see: Pyridoxine**4-carboxy-3-hydroxy-5-mercaptopsothiazole trisodium salt**(C₄NN₃O₃S₂; 76857-14-2) see: Cefotetan**1-(*N*-carboxymethyl-*N*-cyclohexylcarbonylaminoethyl)-1,2,3,4-tetrahydroisoquinoline**(C₁₉H₂₆N₂O₃; 60744-44-7) see: Praziquantel**8-carboxy-3-methylflavone**(C₁₇H₁₂O₄; 3468-01-7) see: Flavoxate**7a-carboxymethylpyrrolizine**(C₉H₁₅NO₂; 94794-30-6) see: Pilsicainide**17β-carboxy-5-oxo-*A*-nor-3,5-secoandrostan-3-oic acid**(C₁₉H₂₈O₅; 76763-14-9) see: Finasteride**(11β)-21-(3-carboxy-1-oxopropoxy)-11,17-dihydroxypregna-1,4-diene-3,20-dione**(C₂₅H₃₂O₈; 2920-86-7) see: Prednisolone sodium succinate**4-[[2-carboxyphenyl]carbonyl]amino]-*N*-(aminocarbonyl)benzenesulfonamide**(C₁₅H₁₃N₃O₆S) see: Sulfaloxic acid**carbromal**(C₇H₁₃BrN₂O₂; 77-65-6) see: Acecarbromal**L-carnitinamide D-camphorate**(C₁₇H₃₂N₂O₆; 73804-72-5) see: Carnitine**DL-carnitinamide chloride**(C₇H₁₇ClN₂O₂; 5261-99-4) see: Carnitine

L-carnitinamide chloride(C₇H₁₇ClN₂O₂; 6490-20-6) see: Carnitine**DL-carnitinamide hydroxide**(C₇H₁₈N₂O₃; 91774-93-5) see: Carnitine**DL-carnitine**(C₇H₁₅NO₃; 406-76-8) see: Carnitine**carnitine ethyl ester chloride**(C₉H₂₀ClNO₃; 5852-97-1) see: Carnitine**carnitinenitrile chloride**(C₇H₁₅ClN₂O; 18933-33-0) see: Carnitine**L-carnosine**(C₉H₁₄N₄O₃; 305-84-0) see: Polaprezinc**15-cis-β,β-carotene**(C₄₀H₅₆; 19361-58-1) see: Betacarotene**catechol**(C₆H₆O₂; 120-80-9) see: Adrenalone; Bibrocatolol; Guajacol; Guanoxan**Cbo-ampicillin sodium salt**(C₂₄H₂₄N₃NaO₆S; 84458-21-9) see: Ampicillin**N-Cbo-cefaloglycin**(C₂₄H₂₃N₃O₆S; 55150-31-7) see: Cefaloglycin**N-Cbo-L-Cys(Bzl)-L-Phe-L-Phe-N₃**(C₃₆H₃₆N₆O₅S; 108517-87-9) see: Felypressin**N-Cbo-L-Gln-L-Asn-L-Cys(Bzl)-N₃**(C₂₇H₃₂N₈O₇S; 67470-42-2) see: Felypressin**N-Cbo-D-phenylglycine**(C₁₆H₁₅NO₄; 17609-52-8) see: Ampicillin; Cefaloglycin**D(-)-Cbo-phenylglycine**

see under N-Cbo-D-phenylglycine

D-Cbo-phenylglycine anhydride with monoethyl carbonate(C₁₉H₁₉NO₆) see: Ampicillin[4*R*-[4*αα*,6*αα*,6*αα*,7*αα*,7*βα*,7*ββ*,9*αα*,10*α*(*R**),12*αβ*,12*βα*]-10-(1,5-dimethylhexyl)-5,6,6*a*,7*a*,7*b*,7*c*,9,9*a*,10,11,12,12*a*-dodecahydro-6-hydroxy-7*b*,9*a*-dimethyl-2-phenyl-4*a*,12*b*-etheno-1*H*,8*H*-indeno[4,5-*c*]oxireno[*f*][1,2,4]triazolo-[1,2-*a*]-cinnoline-1,3(2*H*)-dione(C₃₅H₄₇N₃O₄; 54631-59-3) see: Alfalcaldol**cefaloridine**(C₁₉H₁₇N₃O₄S₂; 50-59-9) see: Cefotaxime**cefalotin**(C₁₆H₁₆N₂O₆S₂; 153-61-7) see: Cefaloridine**cefotaxime**(C₁₆H₁₇N₃O₇S₂; 63527-52-6) see: Cefmenoxime**cephaloglycine**(C₁₈H₁₉N₃O₆S; 3577-01-3) see: Cefalexin**cephamycin C**(C₁₆H₂₂N₄O₉S; 34279-51-1) see: Cefoxitin**cesium thioacetate**(C₂H₃CS₂; 56827-86-2) see: Montelukast sodium**cethexonium iodide**(C₂₄H₅₀INO) see: Cethexonium bromide**cetyl bromide**(C₁₆H₃₃Br; 112-82-3) see: Cethexonium bromide; Cetrimonium bromide**cetyl chloride**(C₁₆H₃₃Cl; 4860-03-1) see: Cetalkonium chloride; Cetylpyridinium chloride**N-cetyl-N,N-dimethylamine**(C₁₈H₃₉N; 112-69-6) see: Cetalkonium chloride**chenodeoxycholic acid**(C₂₄H₄₀O₄; 474-25-9) see: Ursodeoxycholic acid**chloral**(C₂HCl₃O; 75-87-6) see: Chloral hydrate; Teclotiazide**chloral cyanohydrin**(C₃H₂Cl₃NO; 513-96-2) see: Diloxanide**chloral hydrate**(C₂H₃Cl₃O₂; 302-17-0) see: Chloralodol; Cloral betaine; Diloxanide; Mefloquine; Thiamphenicol**chlorine e₆**(C₃₄H₃₆N₄O₆; 19660-77-6) see: Midoriamin**chloroacetaldehyde**(C₂H₃ClO; 107-20-0) see: Altizide; Benzthiazide; Methyclothiazide**2-chloroacetamide**(C₂H₄ClNO; 79-07-2) see: Piracetam**1-(2-chloroacetamido)adamantane**(C₁₂H₁₈ClNO; 5689-59-8) see: Tromantadine**2-chloroacetamido-5-chlorobenzophenone**(C₁₅H₁₁Cl₂NO₂; 4016-85-7) see: Nordazepam**3-(chloroacetamido)-2-oxotetrahydrothiophene**(C₆H₈ClNO₂S; 84611-22-3) see: Erdosteine**2-(2-chloroacetamido-4-thiazolyl)-2-methoxyiminoacetyl chloride**(C₈H₇Cl₂N₃O₃S; 75532-64-8) see: Cefmenoxime; Ceftriaxone**chloroacetic acid**(C₂H₃ClO₂; 79-11-8) see: Acediasulfone; Acefylline; Adrafinil; Adrenalone; Carbocisteine; Diodone; Mefexamide; Methoxsalen; Modafinil; Nitrofurantoin; Pifoxime; Praziquantel; Propylidone**[R-(R*,S*)]-chloroacetic acid 4-amino-2-hydroxy-4-oxo-3-[[phenylmethoxy]carbonyl]amino]butyl ester**(C₁₄H₁₇ClN₂O₆; 92973-23-4) see: Carumonam**[R-(R*,S*)]-chloroacetic acid 4-amino-2-[(methylsulfonyl)oxy]-4-oxo-3-[[phenylmethoxy]carbonyl]amino]butyl ester**(C₁₅H₁₉ClN₂O₈S; 97764-69-7) see: Carumonam**2-chloro-acetic acid [[2-[(methylamino)methyl]phenyl]-phenylmethyl]ester**(C₁₇H₁₈ClNO₂) see: Nefopam**2-chloroacetimidic acid methyl ester hydrochloride**(C₃H₇Cl₂NO; 70737-12-1) see: Oxyphenyclimine**γ-chloroacetoacetyl chloride**(C₄H₄Cl₂O₂; 41295-64-1) see: Orotic acid**chloroacetone**(C₃H₃ClO; 78-95-5) see: Befunolol; Benfurodil hemisuccinate; Benzarone; Mexiletine; Ofloxacin; Secnidazole; Sertaconazole; Zomepirac**chloroacetonitrile**(C₂H₂ClN; 107-14-2) see: Guanethidine sulfate**2'-chloroacetophenone**(C₈H₇ClO; 2142-68-9) see: Clofedanol; Clorprenaline; Fenclofenac; Tulobuterol; Zotepine**4'-chloroacetophenone**(C₈H₇ClO; 99-91-2) see: Clemastine; Lonazolac; Tiocloमारol**4'-chloroacetophenone phenylhydrazine**(C₁₄H₁₃ClN₂; 57845-08-6) see: Lonazolac

2-[(chloroacetyl)amino]- α -(methoxyimino)-4-thiazole-acetic acid(C₈H₈ClN₃O₃S; 60846-17-5) see: Ceftriaxone**2-[(chloroacetyl)amino]-3-methylbenzoic acid methyl ester**(C₁₁H₁₂ClNO₃; 77093-79-9) see: Tolycaine**[6R-[6 α ,7 β (Z)]]-7-[[[2-[(chloroacetyl)amino]-4-thiazolyl](methoxyimino)acetyl]amino]-3-[[[1-methyl-1H-tetrazol-5-yl]thio]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid**(C₁₈H₁₈ClN₉O₆S₃; 65336-94-9) see: Cefmenoxime**[6R-[6 α ,7 β (Z)]]-7-[[[2-[(chloroacetyl)amino]-4-thiazolyl](methoxyimino)acetyl]amino]-8-oxo-3-[[[1,2,5,6-tetrahydro-2-methyl-5,6-dioxo-1,2,4-triazin-3-yl]thio]methyl]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid**(C₂₀H₁₉ClN₈O₈S₃; 74578-70-4) see: Ceftriaxone**chloroacetyl chloride**(C₂H₂Cl₂O; 79-04-9) see: Butanilcaine; Carumonam; Ceftriaxone; Chlordiazepoxide; Cinolazepam; Clemizole; Diazepam; Erdosteine; Fenoverine; Fenticonazole; Fluconazole; Lidocaine; Lidoflazine; Lorazepam; Midodrine; Nefopam; Nordazepam; Oxetacaine; Pirenzepine; Piroxicam; Praziquantel; Prednisolamate; Propacetamol; Pyrrocaine; Reboxetine; Tiracizine; Tolycaine; Tromantadine; Viloxazine; Ziprasidone hydrochloride**11-(chloroacetyl)-5,11-dihydro-6H-pyrido[2,3-b][1,4]benzodiazepin-6-one**(C₁₄H₁₀ClN₃O₂; 28797-48-0) see: Pirenzepine**10-(chloroacetyl)-10H-phenothiazine**(C₁₄H₁₀ClNOS; 786-50-5) see: Fenoverine**N-[[[2-(chloroacetyl)-1,2,3,4-tetrahydro-1-isoquinolyl]methyl]cyclohexanecarboxamide**(C₁₉H₂₅ClN₂O₂; 104916-35-0) see: Praziquantel**9-chloroacridine**(C₁₃H₈ClN; 1207-69-8) see: Amsacrine**2-chloroacrylonitrile**(C₃H₂ClN; 920-37-6) see: Dinoprost**2-chloroadenosine**(C₁₀H₁₂ClN₅O₄; 146-77-0) see: Cladribine **β -chloro-L-alanine**(C₃H₆ClNO₂; 2731-73-9) see: Oxitriptan**3-chloro-D-alanine methyl ester hydrochloride**(C₄H₉Cl₂NO₂; 112346-82-4) see: Cycloscrine**(3 β ,17 β)-17-(chloroamino)androst-5-en-3-ol**(C₁₉H₃₀ClNO) see: Prasterone**5-chloro-2-aminobenzenesulfamide**(C₆H₇ClN₂O₂S; 5790-69-2) see: Diazoxide**4-chloro- β -(aminomethyl)benzenepropanoic acid ethyl ester**(C₁₂H₁₆ClNO₂; 232597-00-1) see: Baclofen**2-chloro-3-aminopyridine**(C₅H₅ClN₂; 6298-19-7) see: Pirenzepine**2-chloroaniline**(C₆H₆ClN; 95-51-2) see: Mecloqualone**3-chloroaniline**(C₆H₆ClN; 108-42-9) see: Chloroquine; Chlorothiazide**4-chloroaniline**(C₆H₆ClN; 106-47-8) see: Acetarsol; Alprazolam; Diazepam; Efavirenz; Flunitrazepam; Flutoprazepam; Medazepam; Quazepam**4-chloroaniline hydrochloride**(C₆H₇Cl₂N; 20265-96-7) see: Chlorhexidine; Proguanil**8-chloroazatadine**(C₂₀H₂₁ClN₂; 38092-89-6) see: Desloratadine; Loratadine**o-chlorobenzaldehyde**(C₇H₅ClO; 89-98-5) see: Amlodipine; Clobenzorex; Clodidogrel hydrogensulfate; Cloxacillin**4-chlorobenzaldehyde**(C₇H₅ClO; 104-88-1) see: Baclofen; Carbinoxamine; Chlormezanone; Chloropyramine; Nicoclonate**2-chlorobenzaldehyde oxime**(C₇H₆ClNO; 3717-28-0) see: Cloxacillin**chlorobenzene**(C₆H₅Cl; 108-90-7) see: Chlortalidone; Mitotane; Setastine**4-chlorobenzenediazonium chloride**(C₆H₄Cl₂N₂; 2028-74-2) see: Abacavir; Acetarsol; Azimilide hydrochloride; Diazepam**4-chlorobenzenesulfonamide**(C₆H₆ClNO₂S; 98-64-6) see: Chlorpropamide**4-chlorobenzhydrol**(C₁₃H₁₁ClO; 119-56-2) see: Cloperastine**2-chlorobenzhydryl chloride**(C₁₃H₁₀Cl₂; 56961-47-8) see: Chlorbenzoxamine**4-chlorobenzhydryl chloride**(C₁₃H₁₀Cl₂; 134-83-8) see: Buclizine; Cetirizine; Chlorethyclizine; Clobenzotropine**1-(4-chlorobenzhydryl)piperazine**(C₁₇H₁₉ClN₂; 303-26-4) see: Buclizine; Cetirizine; Etodroxizine; Hydroxyzine; Meclozine**2-chlorobenzimidazole**(C₇H₅ClN₂; 4857-06-1) see: Emedastine**2-chlorobenzoic acid**(C₇H₅ClO₂; 118-91-2) see: Amsacrine; Diclofenac; Flufenamic acid; Thioridazine**4-chlorobenzoic acid**(C₇H₅ClO₂; 74-11-3) see: Bumetanide; Clopamide; Iodamide; Progabide; Tripamide**4-chlorobenzoic acid (3-carboxy-1-methylpropylidene)(4-methoxyphenyl)hydrazide**(C₁₉H₁₉ClN₂O₄; 69038-50-2) see: Indometacin**4-chlorobenzoic acid ethylidene(4-methoxyphenyl)hydrazide**(C₁₆H₁₅ClN₂O₂; 13815-59-3) see: Indometacin**4-chlorobenzoic acid 4-fluorophenyl ester**(C₁₃H₈ClFO₂; 29558-88-1) see: Progabide**4-chlorobenzoic acid 1-(4-methoxyphenyl)hydrazide hydrochloride**(C₁₄H₁₄Cl₂N₂O₂; 16390-18-4) see: Indometacin**4-chlorobenzoic acid methyl ester**(C₈H₇ClO₂; 1126-46-1) see: Moclobemide**2-chlorobenzoic acid potassium salt**(C₇H₄ClKO₂; 16463-38-0) see: Thiethylperazine**2-chlorobenzonitrile**(C₇H₄ClN; 873-32-5) see: Ketamine; Repaglinide**3-chlorobenzonitrile**(C₇H₄ClN; 766-84-7) see: Amfebutamone**2-chlorobenzophenone**(C₁₃H₉ClO; 5162-03-8) see: Clofedanol; Clotrimazole

4-chlorobenzophenone

(C₁₃H₉ClO; 134-85-0) see: Chlorphenoxamine; Clemastine; Mebendazole; Setastine

5-chloro-2,1,3-benzothiadiazol-4-amine

(C₆H₄ClN₃S; 30536-19-7) see: Tizanidine

5-chloro-2,1,3-benzothiadiazole

(C₆H₃ClN₂S; 2207-32-1) see: Tizanidine

5-chloro-2(3H)-benzothiazolone

(C₇H₄ClNOS; 20600-44-6) see: Tiaramide

2-chlorobenzotrichloride

(C₇H₄Cl₄; 2136-89-2) see: Clotrimazole

2-chlorobenzoyl-acetonitrile

(C₉H₆ClNO; 40018-25-5) see: Brotizolam; Etizolam

α-[4-[2-(4-chlorobenzoylamino)ethyl]phenoxy]isobutyric acid ethyl ester

(C₂₁H₂₄ClNO₄; 41859-58-9) see: Bezafibrate

2-(4-chlorobenzoyl)benzoic acid

(C₁₄H₉ClO₃; 85-56-3) see: Chlortalidone; Mazindol

2-chlorobenzoyl chloride

(C₇H₄Cl₂O; 609-65-4) see: Metaclozepam

4-chlorobenzoyl chloride

(C₇H₄Cl₂O; 122-01-0) see: Acemetacin; Benoxaprofen; Bezafibrate; Feclobuzone; Fenofibrate; Indometacin; Moclobemide; Progabide; Rebamipide; Zomepirac

(2-chlorobenzoyl)cyclopentane

(C₁₂H₁₃ClO; 6740-85-8) see: Ketamine

3-(2-chlorobenzoyl)-5-ethyl-2-methylaminothiophene

(C₁₄H₁₄ClNOS; 51687-55-9) see: Clotiazepam

[2-[[3-(2-chlorobenzoyl)-5-ethyl-2-thienyl]methylamino]-2-oxoethyl]carbamic acid phenylmethyl ester

(C₂₄H₂₃ClN₂O₄S; 190968-89-9) see: Clotiazepam

1-(4-chlorobenzoyl)-5-methoxy-2-methyl-1H-indole-3-acetic acid 1,1-dimethylethyl ester

(C₂₃H₂₄ClNO₄; 1601-20-3) see: Indometacin

1-(4-chlorobenzoyl)-5-methoxy-2-methyl-1H-indole-3-acetic acid methyl ester

(C₂₀H₁₈ClNO₄; 1601-18-9) see: Indometacin

3-(4-chlorobenzoyl)-6-methoxy-2-methyl-1H-indole-1-acetic acid methyl ester

(C₂₀H₁₈ClNO₄; 25803-13-8) see: Clometacin

1-(4-chlorobenzoyl)-2-methyl-5-methoxyindol-3-acetyl chloride

(C₁₉H₁₅Cl₂NO₃; 20357-37-3) see: Glucametacin; Indometacin farnesil

α-[4-(4-chlorobenzoyl)phenoxy]isobutyric acid

(C₁₇H₁₅ClO₄; 42017-89-0) see: Fenofibrate

2-chloro-5-benzoylpyrrole

(C₁₁H₈ClNO; 142231-06-9) see: Ketorolac

N-(4-chlorobenzoyl)tyramine

(C₁₅H₁₄ClNO₂; 41859-57-8) see: Bezafibrate

2-chlorobenzylamine

(C₇H₈ClN; 89-97-4) see: Ticlopidine

4-chlorobenzylamine

(C₇H₈ClN; 104-86-9) see: Clemizole

3-chlorobenzyl bromide

(C₇H₆BrCl; 766-80-3) see: Croconazole

4-chlorobenzyl bromide

(C₇H₆BrCl; 622-95-7) see: Chlormidazole

m-chlorobenzyl chloride

(C₇H₆Cl₂; 620-20-2) see: Loratadine

2-chlorobenzyl chloride

(C₇H₆Cl₂; 611-19-8) see: Ambenonium chloride; Clortermine; Ticlopidine

4-chlorobenzyl chloride

(C₇H₆Cl₂; 104-83-6) see: Beclobrate; Chlorphenamine; Clobenoside; Econazole

4-chlorobenzyl cyanide

(C₈H₆ClCN; 140-53-4) see: Chlorphenamine; Pyrimethamine; Sibutramine hydrochloride

N'-(4-chlorobenzyl)-N,N-dimethylethylenediamine

(C₁₁H₁₇ClN₂; 65875-44-7) see: Chloropyramine

N-(o-chlorobenzylidene)-α-methylphenethylamine

(C₁₆H₁₆ClN) see: Clobenzorex

p-chlorobenzylmagnesium bromide

(C₇H₆BrClMg; 107323-82-0) see: Butoconazole

2-chlorobenzylmagnesium chloride

(C₇H₆Cl₂Mg; 29874-00-8) see: Clortermine

4-chlorobenzylmagnesium chloride

(C₇H₆Cl₂Mg; 874-72-6) see: Clobutinol; Pyrrobutamine

4-chlorobenzyl mercaptan

(C₇H₇ClS; 6258-66-8) see: Sulconazole

2-chloro-4'-benzyloxyacetophenone

(C₁₅H₁₃ClO₂; 63365-56-0) see: Denopamine

N⁶-2-chlorobenzoyloxycarbonyl-L-lysine

(C₁₄H₁₉ClN₂O₄; 42390-97-6) see: Eptifibatide

N-(chlorobenzyl)-o-phenylenediamine

(C₁₃H₁₃ClN₂; 5729-18-0) see: Chlormidazole; Clemizole

2-(4-chlorobenzyl)pyridine

(C₁₂H₁₀ClN; 4350-41-8) see: Chlorphenamine

1-(2-chlorobenzyl)pyrrole

(C₁₁H₁₀ClN; 23694-46-4) see: Viminol

5-chloro-2,4-bis(aminosulfonyl)aniline

see under 4-amino-6-chloro-1,3-benzenedisulfamide

2-chloro-4,6-bis(dimethylamino)-1,3,5-triazine

(C₇H₁₂ClN₃; 3140-74-7) see: Altretamine

4'-chloro-2-bromoacetophenone

see under 2-bromo-4'-chloroacetophenone

21-chloro-9-bromo-11β-hydroxy-16β-methyl-17-propionylloxypreg-4-ene-3,20-dione

(C₂₅H₃₄BrClO₅) see: Ulobetasol propionate

4-chlorobutanal diethyl acetal

(C₈H₁₇ClO₂; 6139-83-9) see: Zolmitriptan

4-chlorobutanal dimethyl acetal

(C₆H₁₃ClO₂; 29882-07-3) see: Rizatriptan benzoate; Sumatriptan

4-chloro-1-butanefulfonyl chloride

(C₄H₈Cl₂O₂S; 1633-84-7) see: Sultiame

4-(3-chloro-2-butenyl)-1,2-diphenyl-3,5-pyrazolidinedione

(C₁₉H₁₇ClN₂O₂; 10561-01-0) see: Kebuzone

1-chloro-3-tert-butylamino-2-propanol

(C₇H₁₆ClNO; 13156-02-0) see: Arotinolol; Butofilolol; Xibenolol

4-[(4-chlorobutylidene)hydrazino]-N-methylbenzene-methanesulfonamide

(C₁₂H₁₈ClN₃O₂S; 88918-68-7) see: Sumatriptan

4-chlorobutyronitrile

(C₄H₆ClN; 628-20-6) see: Buflomedil; Buspirone; Tandospirone

4-chlorobutyl chloride

(C₄H₈Cl₂O; 4635-59-0) see: Bromperidol; Fexofenadine hydrochloride; Haloperidol

8-chlorocaffeine

(C₈H₉ClN₄O₂; 4921-49-7) see: Cafaminol

α-(chlorocarbonyl)benzeneacetic acid

(C₉H₇ClO₃; 41393-81-1) see: Carfecillin

α-(chlorocarbonyl)benzeneacetic acid phenyl ester

(C₁₅H₁₁ClO₃; 27031-18-1) see: Carfecillin

α-(chlorocarbonyl)benzenemethanesulfonic acid

(C₈H₇ClO₄S; 40125-73-3) see: Sulbenicillin

(S)-γ-(chlorocarbonyl)-1,3-dihydro-1,3-dioxo-2H-isoindole-2-butanoic acid phenylmethyl ester

(C₂₀H₁₆ClNO₅; 88767-16-2) see: Cilazapril

1-chlorocarbonyl-4-methylpiperazine

(C₈H₁₁ClN₂O; 39539-66-7) see: Zopiclone

3-(chlorocarbonyl)-5-nitrobenzoic acid methyl ester

(C₉H₆ClNO₅; 1955-04-0) see: Ioxitalamic acid

3-[(chlorocarbonyl)oxy]-3-(dimethylamino)-2-methyl-1-ethoxypropylmethyl chloride

(C₉H₁₇Cl₂NO₃) see: Sulfaperin

N-[(chlorocarbonyl)oxy]methylene]-N-methylmethanaminium chloride

(C₄H₇Cl₂NO; 53726-30-0) see: Sulfaperin

α-(chlorocarbonyl)-3-thiopheneacetic acid

(C₇H₅ClO₃S; 60822-08-4) see: Ticarcillin

6-chloro-5-(chloroacetyl)-1,3-dihydro-2H-indol-2-one

(C₁₀H₇Cl₂NO₂; 118307-04-3) see: Ziprasidone hydrochloride

N-[[1-[4-chloro-2-(2-chlorobenzoyl)phenyl]-3-[(dimethylamino)carbonyl]-1H-1,2,4-triazol-5-yl]methyl]-1,3-dihydro-1,3-dioxo-2H-isoindole-2-acetamide

(C₂₉H₂₂Cl₂N₆O₅; 65699-00-5) see: Rilmafazone

7-chloro-5-(1-chlorocyclohexyl)-1,3-dihydro-2H-1,4-benzodiazepin-2-one

(C₁₅H₁₆Cl₂N₂O; 10379-01-8) see: Tetrazepam

2-chloro-5-(1-chloro-1,3-dihydro-3-oxo-1-isobenzofuran-yl)benzenesulfonyl chloride

(C₁₄H₇Cl₃O₄S; 68592-11-0) see: Chlortalidone

β-chloro-N-(2-chloroethyl)benzeneethanamine hydrochloride

(C₁₀H₁₄Cl₃N; 40371-11-7) see: Levamisole

β-chloro-N-(2-chloroethyl)-N-methylbenzeneethanamine

(C₁₁H₁₅Cl₂N; 22270-22-0) see: Mianserin

6-chloro-5-(2-chloroethyl)oxindole

(C₁₀H₉Cl₂NO; 118289-55-7) see: Ziprasidone hydrochloride

2-chloro-3-(2-chloroethyl)tetrahydro-2H-1,3,2-oxazaphosphorine 2-oxide

(C₅H₁₀Cl₂NO₂P; 40722-73-4) see: Ifosfamide

6-chloro-2-(chloromethyl)-4-(2-chlorophenyl)quinazoline 3-oxide

(C₁₅H₉Cl₃N₂O; 13949-50-3) see: Lorazepam

6-chloro-3-(chloromethyl)-3,4-dihydro-2H-1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide

(C₈H₉Cl₂N₃O₄S₂; 1824-47-1) see: Altizide

2-chloro-N-(2-chloro-6-methylphenyl)acetamide

(C₉H₉Cl₂NO; 6307-67-1) see: Butanilicaine

6-chloro-2-(chloromethyl)-4-phenylquinazoline 3-oxide

(C₁₅H₁₀Cl₂N₂O; 5958-24-7) see: Camazepam; Chlordiazepoxide; Oxazepam

2-chloro-N-(2-chloro-4-methyl-3-pyridinyl)-3-pyridine-carboxamide

(C₁₂H₉Cl₂N₃O; 133627-46-0) see: Nevirapine

2-chloro-3-(chloromethyl)thiophene

(C₅H₄Cl₂S; 109459-94-1) see: Tioconazole

5-chloro-2-chloromethylthiophene

(C₅H₄Cl₂S; 23784-96-5) see: Chloropyrilene

3-chloro-4-(3-chloro-2-nitrophenyl)-1H-pyrrole-2,5-dicarboxylic acid

(C₁₂H₆Cl₂N₂O₆; 5875-88-7) see: Pyrrolnitrin

7-chloro-5-(2-chlorophenyl)-1,3-dihydro-2H-1,4-benzodiazepin-2-one 4-oxide

(C₁₅H₁₀Cl₂N₂O₂; 2955-37-5) see: Lorazepam

6-chloro-2-(4-chlorophenyl)-3-[(dimethylamino)methyl]imidazo[1,2-a]pyridine

(C₁₆H₁₅Cl₂N₃) see: Alpidem

6-chloro-2-(4-chlorophenyl)imidazo[1,2-a]pyridine

(C₁₃H₈Cl₂N₂; 88964-99-2) see: Alpidem

6-chloro-2-(4-chlorophenyl)imidazo[1,2-a]pyridine-3-acetic acid

(C₁₅H₁₀Cl₂N₂O₂; 82626-74-2) see: Alpidem

7-chloro-5-(o-chlorophenyl)-2-(methylamino)-3H-1,4-benzodiazepine 4-oxide

(C₁₆H₁₃Cl₂N₃O; 13949-51-4) see: Lorazepam

7-chloro-5-(2-chlorophenyl)-1-methyl-2-oxo-1,3-dihydro-2H-1,4-benzodiazepine 4-oxide

(C₁₆H₁₂Cl₂N₂O₂; 4187-04-6) see: Lormetazepam

7-chloro-5-(2-chlorophenyl)-2-oxo-2,3-dihydro-1H-1,4-benzodiazepine

(C₁₅H₁₀Cl₂N₂O; 2894-67-9) see: Triazolam

7-chloro-5-(2-chlorophenyl)-2-thioxo-2,3-dihydro-1H-1,4-benzodiazepine

(C₁₅H₁₀Cl₂N₂S; 2894-71-5) see: Triazolam

3-chloro-5-(3-chloropropyl)-10,11-dihydro-5H-dibenz[b,f]azepine

(C₁₇H₁₇Cl₃N; 51551-41-8) see: Clozapramine

2-chloro-10-(3-chloropropyl)phenothiazine

(C₁₅H₁₃Cl₂NS; 2765-59-5) see: Perphenazine; Pipamazine; Prochlorperazine

4-chloro-3-(chlorosulfonyl)benzoic acid

(C₇H₄Cl₂O₄S; 2494-79-3) see: Bumetanide; Clopamide

2-[4-chloro-3-(chlorosulfonyl)benzoyl]benzoic acid

(C₁₄H₈Cl₂O₅S; 68592-12-1) see: Chlortalidone

4-chloro-5-(chlorosulfonyl)-2-hydroxybenzoic acid

(C₇H₄Cl₂O₅S; 14665-31-7) see: Xipamide

4-chloro-3-(chlorosulfonyl)-5-nitrobenzoic acid

(C₇H₃Cl₂NO₆S; 22892-95-1) see: Bumetanide

6α-chlorocortisone

(C₂₃H₂₉ClO₆; 16319-99-6) see: Chloroprednisone acetate

2'-chloro-2-cyanoacetophenone

see under 2-chlorobenzoyl-acetonitrile

2-chloro-5-cyano-4-fluorobenzenesulfonamide

(C₇H₄ClFN₂O₂S; 27589-31-7) see: Azosemide

3-chloro-2-cyanopyrazine

(C₅H₂ClN₃; 55557-52-3) see: Sulfalene

2-chloro-5-cyano-N²-2-thenylsulfanilamide

(C₁₂H₁₀ClN₃O₂S₂; 27589-57-7) see: Azosemide

- 7-chloro-5-(1-cyclohexen-1-yl)-2-oxo-1,3-dihydro-2H-1,4-benzodiazepine**
(C₁₃H₁₅ClN₂O; 10379-11-0) see: Tetrzapepam
- 5-chloro-2-cyclohexylisoindolinone**
(C₁₄H₁₆ClNO; 5545-02-8) see: Clorexolone
- 5-chloro-2-cyclohexyl-6-nitrophthalimidine**
(C₁₄H₁₅ClN₂O₃; 5566-70-1) see: Clorexolone
- 7-chloro-5-cyclohexyl-2-oxo-1,3-dihydro-2H-1,4-benzodiazepine**
(C₁₃H₁₇ClN₂O; 1789-33-9) see: Tetrzapepam
- 6-chloro-2-cyclohexyl-3-oxo-5-isoindolinesulfonyl chloride**
(C₁₄H₁₅Cl₂NO₃S; 5566-72-3) see: Clorexolone
- 4-chloro-N-cyclohexylphthalimide**
(C₁₄H₁₄ClNO₂; 5566-68-7) see: Clorexolone
- (4S)-6-chloro-4-(cyclopropylethynyl)-1,4-dihydro-1-[(4-methoxyphenyl)methyl]-4-(trifluoromethyl)-2H-3,1-benzoxazin-2-one**
(C₂₂H₁₇ClF₃NO₃; 174819-21-7) see: Efavirenz
- 6-chloro-4-(cyclopropylethynyl)-1,4-dihydro-4-(trifluoromethyl)-2H-3,1-benzoxazin-2-one**
(C₁₄H₉ClF₃NO₂; 177530-93-7) see: Efavirenz
- (αS)-5-chloro-α-(cyclopropylethynyl)-2-[[[(4-methoxyphenyl)methyl]amino]-α-(trifluoromethyl)benzenemethanol**
(C₂₁H₁₉ClF₃NO₂; 173676-60-3) see: Efavirenz
- 7-chloro-1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid**
(C₁₃H₉ClFNO₃; 86393-33-1) see: Ciprofloxacin
- 7-chloro-1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid methyl ester**
(C₁₄H₁₁ClFNO₃; 104599-90-8) see: Ciprofloxacin
- 5-chloro-2-[(cyclopropylmethyl)amino]benzhydrol**
(C₁₇H₁₈ClNO; 2896-99-3) see: Prazepam
- 5-chloro-2-[(cyclopropylmethyl)amino]benzophenone**
(C₁₇H₁₆ClNO; 2897-00-9) see: Prazepam
- 5-chloro-1-cyclopropylmethyl-3-(2-fluorophenyl)indole-2-carboxamide**
(C₁₉H₁₆ClFN₂O; 38086-10-1) see: Flutoprazepam
- 5-chloro-1-(cyclopropylmethyl)-3-(2-fluorophenyl)-1H-indole-2-methanamine**
(C₁₉H₁₈ClFN₂) see: Flutoprazepam
- 4-chloro-1,2-diaminobenzene**
(C₆H₇ClN₂; 95-83-0) see: Tizanidine
- 6-chloro-2,4-diaminopyrimidine**
(C₄H₅ClN₄; 156-83-2) see: Minoxidil
- 5-chloro-2,4-diaminosulfonylaniline**
see under 4-amino-6-chloro-1,3-benzenedisulfamide
- 6-chloro-11H-dibenz[*b,e*]azepine**
(C₁₄H₁₀ClN; 4998-12-3) see: Epinastine hydrochloride; Perlapine
- 10-chloro-5H-dibenz[*b,f*]azepine-5-carboxamide**
(C₁₅H₁₁ClN₂O; 59690-92-5) see: Oxcarbapazine
- 11-chlorodibenzo[*b,f*][1,4]thiazepine**
(C₁₃H₈ClNS; 13745-86-3) see: Quetiapine fumarate
- 8-chlorodibenzo[*b,f*]thiopin-10(11H)-one**
(C₁₄H₈ClOS; 1469-28-9) see: Zotepine
- 4-chloro-3-[[[(dichloroacetyl)amino]methyl]benzoic acid**
(C₁₀H₈Cl₃NO₃; 725-80-4) see: Iodamide
- 4-chloro-1-(2,4-dichlorophenoxy)-2-nitrobenzene**
(C₁₂H₆Cl₃NO₃; 2392-48-5) see: Triclosan
- 1-chloro-2-(dichlorophenylmethyl)benzene**
(C₁₃H₉Cl₃; 3509-85-1) see: Clotrimazole
- 5-chloro-2-[[2-(diethylamino)ethyl]amino]-α-(2-fluorophenyl)benzenemethanol**
(C₁₉H₂₄ClFN₂O; 32566-12-4) see: Flurazepam
- 4'-chloro-N-[2-(diethylamino)ethyl]-α-(*o*-fluorophenyl)-α-hydroxy-1,3-dioxo-2-isoindolineaceto-*o*-toluidide**
(C₂₉H₂₉ClFN₃O₄; 32566-13-5) see: Flurazepam
- 7-chloro-1-[2-(diethylamino)ethyl]-5-(2-fluorophenyl)-1,3,4,5-tetrahydro-2H-1,4-benzodiazepin-2-one**
(C₂₁H₂₅ClFN₃O; 1172-17-4) see: Flurazepam
- 8-chloro-3-(2-diethylaminoethyl)-4-methyl-7-hydroxy-coumarin**
(C₁₆H₂₀ClNO₃; 70665-54-2) see: Cloricromen
- 2-chloro-N-[2-(diethylamino)ethyl]-4-quinolinecarboxamide**
(C₁₆H₂₀ClN₃O; 87864-14-0) see: Cinchocaine
- 1-chloro-3-(diethylamino)-2-propanol**
(C₇H₁₆ClNO; 15285-59-3) see: Detajmium bitartrate
- 2-chloro-N,N-diethyl-1-propanamine**
(C₇H₁₆ClN; 761-21-7) see: Profenamine
- α-chloro-2,4-difluoroacetophenone**
(C₈H₅ClF₂O; 51336-94-8) see: Fluconazole
- chlorodifluoromethane**
(CHClF₂; 75-45-6) see: Eflornithine; Flomoxef
- 7-chloro-1-(2,4-difluorophenyl)-6-fluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid**
(C₁₆H₇ClF₃NO₃; 98105-93-2) see: Temafloxacin
- 8-chloro-5,6-dihydro-11H-benzo[5,6]cyclohepta[1,2-*b*]pyridin-11-one**
(C₁₄H₁₀ClNO; 31251-41-9) see: Loratadine
- 3-chloro-10,11-dihydro-5H-dibenz[*b,f*]azepine**
(C₁₄H₁₂ClN; 32943-25-2) see: Clocapramine; Clomipramine
- 3-chloro-10,11-dihydro-5H-dibenz[*b,f*]azepine-5-carbonyl chloride**
(C₁₅H₁₁Cl₂NO; 92428-58-5) see: Clomipramine
- 3-chloro-10,11-dihydro-5H-dibenz[*b,f*]azepine-5-carboxylic acid 3-(dimethylamino)propyl ester**
(C₂₀H₂₃ClN₂O₂; 94758-20-0) see: Clomipramine
- 5-chloro-10,11-dihydro-5H-dibenzo[*a,d*]cycloheptene**
(C₁₅H₁₃Cl; 1210-33-9) see: Amineptine; Deptropine
- 7-chloro-1,3-dihydro-5-(2-fluorophenyl)-2H-1,4-benzodiazepin-2-one 4-oxide**
(C₁₅H₁₀ClFN₂O₂; 7435-12-3) see: Cinolazepam; Doxefazepam
- 7-chloro-1,3-dihydro-3-hydroxy-1-methyl-5-phenyl-2H-1,4-benzodiazepin-2-one**
(C₁₆H₁₃ClN₂O₂; 846-50-4) see: Camazepam
- 6-chloro-1,5-dihydroimidazo[2,1-*b*]quinazolin-2-one**
(C₁₀H₈ClN₃O; 61834-95-5) see: Anagrelide hydrochloride
- 6-chloro-3,4-dihydro-2-methyl-3-oxo-2H-1,2,4-benzothiazine-7-sulfonamide 1,1-dioxide**
(C₈H₈ClN₃O₃S₂; 89813-57-0) see: Methyclothiazide
- 6-chloro-3,4-dihydro-4-methyl-3-oxo-2H-1,4-benzoxazine-8-carbonyl chloride**
(C₁₀H₇Cl₂NO₃; 123040-50-6) see: Nazasetron
- 6-chloro-3,4-dihydro-4-methyl-3-oxo-2H-1,4-benzoxazine-8-carboxylic acid**
(C₁₀H₈ClNO₃; 123040-79-9) see: Nazasetron

7-chloro-1,3-dihydro-1-methyl-5-phenyl-2H-1,4-benzodiazepin-2-one 4-oxide(C₁₆H₁₃ClN₂O₂; 2888-64-4) see: Camazepam; Temazepam**8-chloro-6,11-dihydro-11-(1-methyl-4-piperidinyl)-5H-benzol[5,6]cyclohepta[1,2-*b*]pyridin-11-ol**(C₂₀H₂₃ClN₂O; 38089-93-9) see: Loratadine**6-chloro-3,4-dihydro-3-oxo-2H-1,2,4-benzothiadiazine-7-sulfonamide *S,S*-dioxide**(C₇H₆ClN₂O₃S₂; 89813-56-9) see: Ambuside;

Methylclothiazide

2-chloro-5-(1,3-dihydro-3-oxo-1-isobenzofuranyl)benzenesulfonyl chloride(C₁₄H₈Cl₂O₄S; 73617-81-9) see: Chlortalidone**2-chloro-5-(2,3-dihydro-3-oxo-1H-isoindol-1-yl)benzenesulfonamide**(C₁₄H₁₁ClN₂O₃S; 82875-49-8) see: Chlortalidone**7-chloro-2,3-dihydro-2-oxo-5-phenyl-1H-1,4-benzodiazepine-3-carboxylic acid ethyl ester**(C₁₈H₁₅ClN₂O₃; 5606-55-3) see: Dipotassium clorazepate**7-chloro-2,3-dihydro-5-phenyl-1H-1,4-benzodiazepine**(C₁₅H₁₃ClN₂; 1694-78-6) see: Medazepam**(*Z*)-7-chloro-1,3-dihydro-5-phenyl-2H-1,4-benzodiazepin-2-one hydrazone**(C₁₅H₁₃ClN₄; 112393-62-1) see: Estazolam**8-chloro-6,11-dihydro-11-(4-piperidinylidene)-5H-benzol[5,6]cyclohepta[1,2-*b*]pyridine**(C₁₉H₁₉ClN₂; 100643-71-8) see: Loratadine**(4*S*)-6-chloro-3,4-dihydro-2H-thieno[3,2-*e*]-1,2-thiazin-4-ol 1,1-dioxide**(C₆H₆ClNO₂S₂; 160982-16-1) see: Brinzolamide**2-chloro-3',4'-dihydroxyacetophenone**(C₈H₇ClO₃; 99-40-1) see: Adrenalone; Bitolterol; Dipivefrine; Epinephrine; Hexoprenaline; Isoprenaline; Protokylol; Theodrenaline**3-chloro-1,2-dihydroxypropane**(C₃H₇ClO₂; 96-24-2) see: Chlorphenesin; Diprophylline; Doxofylline; Guaifenesin; Guanadrel; Iohexol; Iopydol; Mephesisin**2-chloro-1-(1,2-dimesyloxyethyl)benzene**(C₁₀H₁₃ClO₆S₂; 110309-60-9) see: Lanoconazole**2-chloro-3,4-dimethoxybenzaldehyde**(C₉H₉ClO₃; 5417-17-4) see: Fenoldopam mesilate**4'-chloro-3,5-dimethoxy-4-hydroxybenzophenone**(C₁₅H₁₃ClO₄; 54094-08-5) see: Morclofone**2-chloro-3,4-dimethoxyphenylacetone nitrile**(C₁₀H₁₀ClNO₂; 7537-07-7) see: Fenoldopam mesilate**2-(2-chloro-3,4-dimethoxyphenyl)ethylamine**(C₁₀H₁₄ClNO₂; 67287-36-9) see: Fenoldopam mesilate **α -[[[2-(2-chloro-3,4-dimethoxyphenyl)ethyl]amino]-methyl]-4-methoxybenzenemethanol**(C₁₉H₂₄ClNO₄; 71636-38-9) see: Fenoldopam mesilate**2-chloro-*N*-[2-(2,5-dimethoxyphenyl)-2-oxoethyl]acetamide**(C₁₂H₁₄ClNO₄; 59908-77-9) see: Midodrine **α -chloro-2,6-dimethylacetanilide**(C₁₀H₁₂ClNO; 1131-01-7) see: Lidocaine; Lidoflazine; Pyrrocaine**[1*S*-(1 α ,4 α ,5 β ,5 α ,11 β ,11 α ,12 α ,12 α)]-5 α -chloro-1-(dimethylamino)-1,4,4 α ,5,5 α ,6,11,11 α ,12,12 α -decahydro-2,4 α ,5,7,12-pentahydroxy-11-methyl-4,6-dioxo-5,11-epoxynaphthacene-3-carboxamide**(C₂₂H₂₃ClN₂O₉; 35689-72-6) see: Doxycycline**[4*S*-(4 α ,4 α ,5 α ,5 α ,11 α ,12 α)]-11 α -chloro-4-(dimethylamino)-1,4,4 α ,5,5 α ,6,11,11 α ,12,12 α -decahydro-3,5,10,12-tetrahydroxy-6-methylene-1,11,12-trioxo-2-naphthacene-carboxamide**(C₂₂H₂₁ClN₂O₈; 31461-51-5) see: Doxycycline**1-chloro-3-dimethylamino-2-methylpropane**(C₆H₁₄ClN; 23349-86-2) see: Alimemazine; Cyamemazine; Etymemazine; Levomepromazine; Oxomemazine; Trimipramine**2'-chloro-3-dimethylaminopropiophenone**(C₁₁H₁₄ClNO; 91131-19-0) see: Clofedanol**2-chloro-9-[3-(dimethylamino)propyl]-9H-thioxanthene-9-ol**(C₁₈H₂₀ClNOS; 4295-65-2) see: Chlorprothixene**[*R*-(*R**,*S**)]- β -chloro-*N*, α -dimethylbenzeneethanamine**(C₁₀H₁₄ClN; 110925-64-9) see: Thiadrine**2-chloro-*N,N*-dimethylbutylamide**(C₆H₁₂ClNO; 59843-83-3) see: Cropropamide; Crotetamide**6-chloro-9-[2-(2,2-dimethyl-1,3-dioxan-5-yl)ethyl]-9H-purin-2-amine**(C₁₃H₁₈ClN₅O₂; 97845-59-5) see: Penciclovir**[6*R*-(6 α ,7 β (*R**))]-3-chloro-7-[[[(1,1-dimethylethoxy)carbonyl]amino]phenylacetyl]amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid (4-nitrophenyl)methyl ester**(C₂₇H₂₇ClN₄O₈S; 53994-84-6) see: Cefaclor**(*S*)-7-chloro-2-[(*E*)-2-[3-[1-[(1,1-dimethylethyl)dimethylsilyloxy]-3-[2-[1-methyl-1-[(tetrahydro-2H-pyran-2-yl)oxy]ethyl]phenyl]propyl]phenyl]ethenyl]quinoline**(C₄₀H₅₀ClNO₃Si) see: Montelukast sodium**4-chloro-2,3-dimethylpyridine *N*-oxide**(C₇H₈ClNO; 59886-90-7) see: Rabeprazole sodium**6-chloro-1,3-dimethyluracil**(C₆H₇ClN₂O₂; 6972-27-6) see: Urapidil**2-chloro-1,3,2-dioxaphospholane 2-oxide**(C₂H₄ClO₃P; 6609-64-9) see: Miltefosine **α -chlorodiphenylacetyl chloride**(C₁₄H₁₀Cl₂O; 2902-98-9) see: Trospium chloride**1-(4-chlorodiphenylmethyl)piperazine**

see under 1-(4-chlorobenzhydryl)piperazine

4-chloro-2,6-dipyrrroldinopyrimidine(C₁₂H₁₇ClN₄; 111669-15-9) see: Tirilazad mesilate**5-chloro-2,4-disulfamoylaniline**

see under 4-amino-6-chloro-1,3-benzenedisulfamide

21-chloro-9 β ,11 β -epoxy-3-ethoxy-16 β -methyl-17-propionyloxypregna-3,5-dien-20-one(C₂₇H₃₇ClO₅; 83880-41-5) see: Ulobetasol propionate**21-chloro-9 β ,11 β -epoxy-6 α -fluoro-16 β -methyl-17-propionyloxypregn-4-ene-3,20-dione**(C₂₅H₃₂ClFO₅; 66852-57-1) see: Ulobetasol propionate**21-chloro-9 β ,11 β -epoxy-16 β -methyl-17-propionyloxypregn-4-ene-3,20-dione**(C₂₅H₃₃ClO₅; 66852-55-9) see: Ulobetasol propionate**5-chloro-*N*-ethoxycarbonyl-2-methylaniline**(C₁₀H₁₂ClNO₂; 35442-34-3) see: Metolazone

- (2-chloroethoxy)-1,2-dibromoethane**
(C₄H₇Br₂ClO; 14689-94-2) see: Oxaflazone
- 2-chloroethoxyethane**
(C₄H₉ClO; 628-34-2) see: Emedastine
- 2-chloro-1-(2-ethoxyethyl)benzimidazole**
(C₁₁H₁₃ClN₂O; 87233-54-3) see: Emedastine
- 2-(2-chloroethoxy)ethyl 2-ethyl-2-phenylbutyrate**
(C₁₆H₂₃ClO₃; 71265-18-4) see: Oxcladin
- 9-chloro-2-ethoxy-6-nitroacridine**
(C₁₅H₁₁ClN₂O₃; 20304-69-2) see: Ethacridine
- (R*,R*)-2-chloro-N-[3-(2-ethoxyphenoxy)-2-hydroxy-3-phenylpropyl]acetamide**
(C₁₉H₂₂ClNO₄; 98769-77-8) see: Reboxetine
- N-[4-(2-chloroethoxy)phenyl]methanesulfonamide**
(C₉H₁₂ClNO₃S; 115256-17-2) see: Dofetilide
- 1-[(2-chloroethoxy)phenylmethyl]-2-methylbenzene**
(C₁₆H₁₇ClO; 22135-59-7) see: Tofenacin
- 2-chloroethyl acetate**
(C₄H₇ClO₂; 542-58-5) see: Acetylcholine chloride
- 2-chloroethylamine**
(C₂H₆ClN; 689-98-5) see: Fluvoxamine
- 2-chloroethylamine hydrochloride**
(C₂H₇Cl₂N; 870-24-6) see: Ifosfamide
- α-[(2-chloroethyl)amino]methyl]benzenemethanol hydrochloride**
(C₁₀H₁₅Cl₂NO; 20405-96-3) see: Levamisole
- 2-chloroethyl carbamate**
(C₅H₉ClNO₂; 2114-18-3) see: Carbachol
- 2-chloroethyl chloroformate**
(C₃H₄Cl₂O₂; 627-11-2) see: Carbachol
- N-(2-chloroethyl)-N-(2-chloropropyl)-4-methylbenzenesulfonamide**
(C₁₂H₁₇Cl₂NO₂S; 25772-51-4) see: Levocabastine
- 1-(2-chloroethyl)-3-cyclohexylurea**
(C₉H₁₇ClN₂O; 13908-11-7) see: Lomustine
- N-(2-chloroethyl)-N'-(dicyclopropylmethyl)urea**
(C₁₀H₁₇ClN₂O; 54187-03-0) see: Rilmenidine
- N-(2-chloroethyl)-N'-[1-(diethoxyphosphoryl)ethyl]urea**
(C₉H₂₀ClN₂O₄P; 154480-53-2) see: Fotemustine
- 2-(1-chloroethyl)-4,5-dihydro-1H-imidazole**
(C₅H₉ClN₂; 120215-62-5) see: Lofexidine
- 2-(2-chloroethyl)-1,3-dioxane**
(C₆H₁₁ClO₂; 13297-07-9) see: Oxaflumazine
- 1-chloroethyl ethyl carbonate**
(C₅H₉ClO₃; 50893-36-2) see: Ampiroxicam; Bacampicillin
- 1-(2-chloroethyl)-4-ethyl-1,4-dihydro-5H-tetrazol-5-one**
(C₅H₉ClN₄O; 69049-03-2) see: Alfentanil
- 7-chloro-1-ethyl-6-fluoro-1,4-dihydro-4-oxo-3-quinoline-carboxylic acid ethyl ester**
(C₁₄H₁₃ClFNO₃; 70458-94-5) see: Pefloxacin
- N-(2-chloroethyl)hexamethylenimine**
(C₈H₁₆ClN; 2205-31-4) see: Cetiedil; Prozapine; Setastine
- N-(2-chloroethyl)-3-hydroxypropylamine hydrochloride**
(C₅H₁₃Cl₂NO; 40722-80-3) see: Ifosfamide; Trofosfamide
- 1-(2-chloroethyl)-2-imidazolidinone**
(C₅H₉ClN₂O; 2387-20-4) see: Sertindole
- 2-chloroethyl isocyanate**
(C₃H₄ClNO; 1943-83-5) see: Fotemustine; Nimustine; Niridazole; Ranimustine; Rilmenidine
- 5-(2-chloroethyl)-2-mercapto-4-methylthiazole**
(C₆H₈ClNS₂) see: Clomethiazole
- 3-(2-chloroethyl)-N-methyl-1H-indole-5-methanesulfonamide**
(C₁₂H₁₅ClN₂O₂S; 88918-69-8) see: Sumatriptan
- 2-(2-chloroethyl)-1-methylpiperidine**
(C₈H₁₆ClN; 50846-01-0) see: Mesoridazine; Sulfuridazine; Thioridazine
- (±)-2-(2-chloroethyl)-1-methylpyrrolidine**
(C₇H₁₄ClN; 54777-54-7) see: Clemastine
- 2-chloroethyl 4-nitrophenyl ether**
(C₈H₈ClNO₃; 3383-72-0) see: Dofetilide
- N-(2-chloroethyl)-N'-(5-nitro-2-thiazolyl)urea**
(C₆H₇ClN₄O₃S; 3311-98-6) see: Niridazole
- N-(2-chloroethyl)piperidine**
(C₇H₁₄ClN; 1932-03-2) see: Cloperastine; Fenpiverinium bromide; Raloxifene hydrochloride
- 2-(2-chloroethyl)-1-piperidinepropanenitrile**
(C₁₀H₁₇ClN₂; 71731-50-5) see: Tiquizium bromide
- N-(2-chloroethyl)pyrrolidine hydrochloride**
(C₆H₁₃Cl₂N; 7250-67-1) see: Histapyrodine
- 3-(2-chloroethyl)-6,7,8,9-tetrahydro-2-methyl-4H-pyrido[1,2-*a*]pyrimidin-4-one**
(C₁₁H₁₅ClN₂O; 63234-80-0) see: Risperidone
- 7-(2-chloroethyl)theophylline**
(C₉H₁₁ClN₄O₂; 5878-61-5) see: Fenetylline
- 2-chloroethyl vinyl ether**
(C₄H₇ClO; 110-75-8) see: Oxaflazone
- α-chloro-*p*-fluoroacetophenone**
(C₈H₆ClFO; 456-04-2) see: Fluvastatin sodium
- 3-chloro-4-fluoroaniline**
(C₆H₅ClFN; 367-21-5) see: Norfloxacin; Pefloxacin
- 2-chloro-6-fluorobenzaldehyde**
(C₇H₄ClFO; 387-45-1) see: Flucloxacillin
- 2-chloro-6-fluorobenzaldehyde oxime**
(C₇H₅ClFNO; 443-33-4) see: Flucloxacillin
- 2-chloro-4-fluorobenzoic acid**
(C₇H₄ClFO₂; 2252-51-9) see: Flosequin
- 4-chloro-2-fluorobenzoic acid ethyl ester**
(C₉H₈ClFO₂; 4793-20-8) see: Azosemide
- 3-[[4-chloro-2-(2-fluorobenzoyl)phenyl]amino]-N-(methoxycarbonyl)-3-oxoalanine ethyl ester**
(C₂₀H₁₈ClFN₂O₆; 77822-79-8) see: Ethyl loflazepate
- 3-[[4-chloro-2-(2-fluorobenzoyl)phenyl]amino]-3-oxoalanine ethyl ester monohydrobromide**
(C₁₈H₁₇BrClFN₂O₄; 77822-80-1) see: Ethyl loflazepate
- N-[4-chloro-2-(2-fluorobenzoyl)phenyl]-2-(diethylamino)acetamide**
(C₁₉H₂₀ClFN₂O₂; 32566-11-3) see: Flurazepam
- 2-chloro-1-(4-fluorobenzyl)benzimidazole**
(C₁₄H₁₀ClFN₂; 84946-20-3) see: Mizolastine
- 4-chloro-4'-fluorobutyrophenone**
(C₁₀H₁₀ClFO; 3874-54-2) see: Benperidol; Bromperidol; Droperidol; Fluanisone; Haloperidol; Melperone; Moperone; Pipamperone; Primaperone; Spiperone; Timiperone; Trifluoperidol
- 8-chloro-7-fluoro-3,4-dihydro-2H-1,4-benzothiazine**
(C₈H₇ClFNS; 101337-96-6) see: Rufloxacin hydrochloride

- 10-chloro-9-fluoro-2,3-dihydro-7-oxo-7H-pyrido[1,2,3-de]-1,4-benzothiazine-6-carboxylic acid 1-oxide**
(C₁₂H₇ClFNO₄S; 101337-84-2) see: Rufloxacin hydrochloride
- 7-chloro-6-fluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid ethyl ester**
(C₁₂H₉ClFNO₃; 75073-15-3) see: Norfloxacin
- 2-chloro-6-fluoro-N-hydroxybenzenecarboximidoyl chloride**
(C₇H₄Cl₂FNO; 51088-25-6) see: Flucloxacillin
- 4-chloro-5-fluoro-2-(methylthio)pyrimidine**
(C₅H₄ClFN₂S; 6096-45-3) see: Flucytosine
- 8-chloro-7-fluoro-3-oxo-3,4-dihydro-2H-1,4-benzothiazine**
(C₈H₅ClFNO₃S; 101337-95-5) see: Rufloxacin hydrochloride
- 5-chloro-2-[(4-fluorophenyl)amino]benzoic acid methyl ester**
(C₁₄H₁₁ClFNO₂) see: Sertindole
- [[[(3-chloro-4-fluorophenyl)amino]methylene]propane-1,3-dioic acid diethyl ester**
(C₁₄H₁₅ClFNO₄; 70032-30-3) see: Norfloxacin; Pefloxacin
- 7-chloro-5-(2-fluorophenyl)-1,3-dihydro-2H-1,4-benzodiazepin-2-one**
(C₁₅H₁₀ClFN₂O; 2886-65-9) see: Cinolazepam; Doxefazepam; Flutazolam; Flutoprazepam; Midazolam
- N-[[7-chloro-5-(2-fluorophenyl)-2,3-dihydro-1H-1,4-benzodiazepin-2-yl]methyl]acetamide**
(C₁₈H₁₇ClFN₂O; 59467-68-4) see: Midazolam
- 7-chloro-5-(2-fluorophenyl)-1,3-dihydro-1-(2-hydroxyethyl)-2H-1,4-benzodiazepin-2-one 4-oxide**
(C₁₇H₁₄ClFN₂O₃) see: Doxefazepam
- 5-chloro-1-(4-fluorophenyl)-1,2-dihydro-3H-indol-3-one**
(C₁₄H₉ClFNO; 170232-17-4) see: Sertindole
- 8-chloro-6-(2-fluorophenyl)-3a,4-dihydro-1-methyl-3H-imidazo[1,5-a][1,4]benzodiazepine**
(C₁₈H₁₅ClFN₃; 59467-69-5) see: Midazolam
- 7-chloro-5-(2-fluorophenyl)-2,3-dihydro-2-(nitromethylene)-1H-1,4-benzodiazepine**
(C₁₆H₁₁ClFN₂O₂; 59467-63-9) see: Midazolam
- 7-chloro-5-(2-fluorophenyl)-1,3-dihydro-1-(2,2,2-trifluoroethyl)-2H-1,4-benzodiazepin-2-one**
(C₁₇H₁₁ClF₃N₂O; 49606-44-2) see: Quazepam
- 5-chloro-3-(2-fluorophenyl)-1H-indole-2-carbonitrile**
(C₁₅H₈ClFN₂; 24106-94-3) see: Flutoprazepam
- 5-chloro-3-(2-fluorophenyl)indole-2-carbonyl chloride**
(C₁₅H₈Cl₂FNO; 32502-22-0) see: Flutoprazepam
- 1-[2-[4-[5-chloro-1-(4-fluorophenyl)-1H-indol-3-yl]-3,6-dihydro-1(2H)-pyridinyl]ethyl]-2-imidazolidinone**
(C₂₄H₂₄ClFN₄O; 106516-54-5) see: Sertindole
- 5-chloro-2-[(4-fluorophenyl)(methoxycarbonyl)methyl]amino]benzoic acid methyl ester**
(C₁₇H₁₅ClFNO₄) see: Sertindole
- 7-chloro-5-(2-fluorophenyl)-N-methyl-3H-1,4-benzodiazepin-2-amine**
(C₁₆H₁₃ClFN₂; 59467-61-7) see: Midazolam
- 3-(2-chloro-6-fluorophenyl)-5-methyl-4-isoxazolecarbonyl chloride**
(C₁₁H₇ClFNO₃; 3919-74-2) see: Flucloxacillin
- 3-(2-chloro-6-fluorophenyl)-5-methyl-4-isoxazolecarbonylic acid methyl ester**
(C₁₂H₉ClFNO₃; 4415-09-2) see: Flucloxacillin
- 7-chloro-5-(2-fluorophenyl)-N-methyl-N-nitroso-3H-1,4-benzodiazepin-2-amine**
(C₁₆H₁₂ClFN₂O; 59467-62-8) see: Midazolam
- 5-chloro-1-(4-fluorophenyl)-3-(1,2,3,6-tetrahydro-4-pyridinyl)-1H-indole**
(C₁₉H₁₆ClFN₂; 106516-07-8) see: Sertindole
- (11β,16α)-21-chloro-9-fluoro-11,16,17-trihydroxypregna-4-ene-3,20-dione**
(C₂₁H₂₈ClFO₅; 982-91-2) see: Halcinonide
- chloroform**
(CHCl₃; 67-66-3) see: Chlorobutanol; Ciprofibrate; Clino-fibrate; Clofibrate; Fenofibrate
- chloroformic acid ethyl ester**
(C₃H₅ClO₂; 541-41-3) see: Alfuzosin; Amoxapine; Amoxicillin; Ampicillin; Apalcillin; Azidocillin; Butorphanol; Carbimazole; Cefbuperazone; Cefradine; Cinitapride; Cisapride; Clebopride; Desipramine; Dibekacin; Docarpamine; Ebastine; Fluoxetine; Flupirtine; Foscarnet sodium; Ketanserin; Loratadine; Loteprednol etabonate; Loxapine; Metahexamide; Metolazone; Molsidomine; Moracizine; Nemonapride; Nipradilol; Nortriptyline; Paroxetine; Romurtide; Telmestine; Tiracizine; Todalazine; Tolazamide
- chloroformic acid isobutyl ester**
(C₅H₉ClO₂; 543-27-1) see: Aspicillin; Cefaloglycin; Nelfinavir mesylate; Pheneticillin; Propicillin; Sobuzoxane
- (1R-cis)-N-[4-chloro-5-(formylamino)-6-[[4-(hydroxymethyl)-2-cyclopenten-1-yl]amino]-2-pyrimidinyl]acetamide**
(C₁₃H₁₆ClN₃O₃; 136522-32-2) see: Abacavir
- N-chloroformyl-bis(2-chloroethyl)amine**
(C₄H₈Cl₂NO; 2998-56-3) see: Estramustine phosphate
- 1-chloroformylimidazolidinone**
(C₄H₅ClN₂O₂; 13214-53-4) see: Azlocillin
- 3-chloroformyl-1-methanesulfonyl-2-imidazolidinone**
(C₅H₇ClN₂O₄S; 41762-76-9) see: Mezlocillin
- 8-chloroformyl-3-methylflavone**
(C₁₇H₁₁ClO₃; 51950-71-1) see: Flavoxate
- (16α)-21-chloro-17-[(2-furanylcarbonyl)oxy]-16-methylpregna-1,4,9(11)-triene-3,20-dione**
(C₂₇H₂₉ClO₃; 83880-65-3) see: Mometasone furoate
- chloroglyoxylic acid ethyl ester**
(C₄H₅ClO₃; 4755-77-5) see: Oxitefonium bromide; Penthenate methobromide; Tiaprofenic acid
- 6-chloro-2-hydrazino-4-phenylquinoline**
(C₁₅H₁₂ClN₃; 27537-93-5) see: Alprazolam
- 6α-chlorohydrocortisone**
(C₂₁H₂₉ClO₅; 96744-43-3) see: Cloprednol
- 6α-chlorohydrocortisone 21-acetate**
(C₂₃H₃₁ClO₆; 112652-74-1) see: Cloprednol
- 3-chloro-4-hydroxybenzaldehyde**
(C₇H₅ClO₂; 2420-16-8) see: Alclofenac
- 2-chloro-N-hydroxybenzenecarboximidoyl chloride**
(C₇H₅Cl₂NO; 29568-74-9) see: Cloxacillin

- 5-chloro-4-hydroxy-1,3-benzenedisulfonyl dichloride**
(C₆H₃Cl₃O₃S₂; 71293-22-6) see: Diclofenamide
- 4-chloro-4'-hydroxybenzophenone**
(C₁₃H₉ClO₂; 42019-78-3) see: Fenofibrate
- 4-chloro-3-hydroxybutyronitrile**
(C₄H₆ClNO; 105-33-9) see: Carnitine
- 4-chloro-4'-hydroxydiphenylmethane**
(C₁₃H₁₁ClO; 52890-73-0) see: Beclobrate
- 4-chloro-2'-hydroxy-5'-fluorobenzophenone**
(C₁₃H₈ClFO₂; 62433-26-5) see: Progabide
- (±)-7-chloro-3-hydroxy-5-(2-fluorophenyl)-1,3-dihydro-2H-1,4-benzodiazepin-2-one**
(C₁₅H₁₀ClFN₂O₂; 17617-60-6) see: Cinolazepam
- 21-chloro-11β-hydroxy-16β-methyl-17-propionyloxy-pregn-4-ene-3,20-dione**
(C₂₅H₃₅ClO₅) see: Ulobetasol propionate
- 8-chloro-6-hydroxyoctanoic acid ethyl ester**
(C₁₀H₁₉ClO₃; 1070-65-1) see: Thioctic acid
- 7-chloro-4-(4-hydroxyphenylamino)quinoline**
(C₁₅H₁₁ClN₂O; 81099-86-7) see: Amodiaquine
- 2-chloro-β-hydroxy-β-phenylbenzenepropanenitrile**
(C₁₅H₁₂ClNO; 35173-29-6) see: Clofedanol
- 6-chloro-17-hydroxypregna-4,6-diene-3,20-dione**
(C₂₁H₂₇ClO₃; 1961-77-9) see: Chlormadinone acetate
- 3-chloro-6-[(2-hydroxypropyl)methylamino]pyridazine**
(C₈H₁₂ClN₃O; 54121-12-9) see: Pildralazine
- 5-chloro-8-hydroxyquinoline**
(C₉H₆ClNO; 130-16-5) see: Clioquinol
- 7-chloro-4-hydroxyquinoline**
(C₉H₆ClNO; 86-99-7) see: Chloroquine
- 7-chloro-4-hydroxy-2-quinolinecarboxylic acid**
(C₁₀H₆ClNO₃; 18000-24-3) see: Chloroquine
- 7-chloro-4-hydroxy-3-quinolinecarboxylic acid**
(C₁₀H₆ClNO₃; 86-47-5) see: Chloroquine
- 3-chloro-17β-hydroxy-4,5-secoestra-2,9,11-trien-5-one benzoate**
(C₂₅H₂₇ClO₃; 10161-54-3) see: Trenbolone acetate
- (±)-2-chloro-3-[4-[(6-hydroxy-2,5,7,8-tetramethylchroman-2-yl)methoxy]phenyl]propionic acid**
(C₂₃H₂₇ClO₅; 97322-69-5) see: Troglitazone
- 4'-chloro-2-(2-imidazolin-2-yl)benzophenone**
(C₁₆H₁₃ClN₂O; 22590-17-6) see: Mazindol
- 4-chloro-2-(iminophenylmethyl)benzenamine**
(C₁₃H₁₁ClN₂; 5606-39-3) see: Dipotassium clorazepate
- 3-chloro-1-(4-indolyloxy)-2-propanol**
(C₁₄H₁₂ClNO₂; 130115-66-1) see: Pindolol
- 6-chloroisatin**
(C₈H₄ClNO₂; 6341-92-0) see: Ziprasidone hydrochloride
- 1-(2-chloro-3-isobutoxypropyl)pyrrolidine**
(C₁₁H₂₂ClNO; 49571-02-0) see: Bepriidil
- 1-chloro-3-isopropylamino-2-propanol**
(C₆H₁₄ClNO; 50666-68-7) see: Oxprenolol
- 5-chloro-4-isothiocyanato-2,1,3-benzothiadiazole**
(C₇H₂ClN₃S₂) see: Tizanidine
- 2-chloro-1-mercaptobenzene**
(C₆H₅ClS; 6320-03-2) see: Sertaconazole
- 3-chloro-6-mercaptopyridazine**
(C₄H₃ClN₂S; 3916-78-7) see: Azintamide
- 5-chloro-2-methoxybenzoic acid**
(C₈H₇ClO₃; 3438-16-2) see: Glibenclamide
- 4-chloro-4'-methoxybenzophenone**
(C₁₄H₁₁ClO₂; 10547-60-1) see: Fenofibrate
- 5-chloro-2-methoxybenzoyl chloride**
(C₈H₆Cl₂O₂; 29568-33-0) see: Glibenclamide
- (Z)-4-chloro-2-(methoxycarbonylmethoxyimino)-3-oxohutyric acid**
(C₇H₈ClNO₆; 84080-70-6) see: Cefixime
- 3-chloro-6-methoxycarbonylphenylsulfonyl chloride**
(C₈H₆Cl₂O₄S; 85392-01-4) see: Tianeptine sodium
- 5-chloro-2-methoxy-4-(methylamino)benzoic acid**
(C₉H₁₀ClNO₃; 61694-98-2) see: Nemonapride
- 4-chloro-3-methoxy-2-methylpyridine 1-oxide**
(C₇H₈ClNO₂; 122307-41-9) see: Pantoprazole sodium
- 2-chloro-N-(2-methoxy-4-methyl-3-pyridinyl)-3-pyridine-carboxamide**
(C₁₃H₁₂ClN₃O₂; 162709-29-7) see: Nevirapine
- 2-chloro-4-methoxy-6-methylpyrimidine**
(C₆H₇ClN₂O; 22536-64-7) see: Epirizole
- [6R-[6α,7β(Z)]]-7-[4-chloro-2-[(2-methoxy-2-oxoethoxy)imino]-1,3-dioxobutyl]amino]-3-ethenyl-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester**
(C₂₉H₂₆ClN₃O₈S; 95759-11-8) see: Cefixime
- 4-chloro-2-[(4-methoxyphenyl)amino]benzoic acid**
(C₁₄H₁₂ClNO₃; 91-38-3) see: Mepacrine
- 5-chloro-2-methoxy-N-(2-phenylethyl)benzamide**
(C₁₆H₁₆ClNO₂; 33924-49-1) see: Glibenclamide
- 4-chloro-α-(1-methoxypropylidene)benzeneacetonitrile**
(C₁₂H₁₂ClNO; 100121-94-6) see: Pyrimethamine
- 3-chloro-4-methoxy-1,2,5-thiadiazole**
(C₃H₃ClN₂OS; 5728-16-5) see: Sulfametrole
- 5-chloro-2-methylaminobenzophenone**
(C₁₄H₁₂ClNO; 1022-13-5) see: Diazepam; Ketazolam
- 2-chloro-4-methylaniline**
(C₇H₈ClN; 615-65-6) see: Tolonidine
- 2-chloro-6-methylaniline**
(C₇H₈ClN; 87-63-8) see: Butanilicaine
- 3-chloro-2-methylaniline**
(C₇H₈ClN; 87-60-5) see: Fominoben; Tolfenamic acid
- 4-chloro-N-methylaniline**
(C₇H₈ClN; 932-96-7) see: Medazepam
- 5-chloro-2-methylaniline**
(C₇H₈ClN; 95-79-4) see: Metolazone
- 4-chloro-α-methylbenzhydrol**
(C₁₄H₁₃ClO; 59767-24-7) see: Chlorphenoxamine; Clemastine; Setastine
- 5-(chloromethyl)-1,3-benzodioxole**
(C₈H₇ClO₂; 20850-43-5) see: Levodopa
- 7-(chloromethyl)-5H-[1]benzopyran[2,3-b]pyridine**
(C₁₃H₁₀ClNO; 52581-20-1) see: Pranoprofen
- 7-chloro-3-methylbenzo[b]thiophene**
(C₉H₇ClS; 17514-68-0) see: Sertaconazole
- 1-(chloromethyl)-4-(3-chloropropyl)benzene**
(C₁₀H₁₂Cl₂; 69156-39-4) see: Fomocaine
- 3-chloro-6-methyldibenzo[c,f][1,2]thiazepin-11(6H)-one S,S-dioxide**
(C₁₄H₁₀ClNO₃S; 26638-53-9) see: Tianeptine sodium

- 2-(chloromethyl)-2,3-dihydro-1,4-benzodioxin**
(C₉H₉ClO₂; 2164-33-2) see: Guanoxan
- 4-chloromethyl-6,7-dihydroxymenol-2-one**
(C₁₀H₇ClO₄; 85029-91-0) see: Folesculot
- 2-chloromethyl-3,4-dimethoxypyridinium chloride**
(C₈H₁₁Cl₂NO₂; 72830-09-2) see: Pantoprazole sodium
- [6R-[6 α ,7 β (Z)]]-3-(chloromethyl)-7-[[[2-(1,1-dimethylethoxy)-2-oxoethoxy]imino][2-(formylamino)-4(thiazolyl)acetyl]amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester**
(C₃₃H₃₂ClN₅O₈S₂; 79349-95-4) see: Cefixime
- 2-[5-(chloromethyl)-3-(1,1-dimethylethyl)-2-oxazolidinyl]-4-fluorophenol**
(C₁₄H₁₉ClFNO₂; 58929-09-2) see: Butofitolol
- 2-(chloromethyl)-1,4-dioxaspiro[4.5]decane**
(C₉H₁₅ClO₂; 5503-32-2) see: Guanadrel
- 3-(chloromethyl)-5,5-diphenylhydantoin**
(C₁₆H₁₃ClN₂O₂; 93360-07-7) see: Fosphenytoin sodium
- [1R-[1 α ,5 α ,6(R*)]]- α -[1-(chloromethyl)ethenyl]-7-oxo-3-phenyl-4-oxa-2,6-diazabicyclo[3.2.0]hept-2-ene-6-acetic acid diphenylmethyl ester**
(C₂₈H₂₁ClN₂O₄; 67977-79-1) see: Latamoxef
- 1-[3-(chloromethyl)-4-hydroxyphenyl]ethanone**
(C₉H₉ClO₂; 24085-05-0) see: Salbutamol
- 2-chloromethyl- Δ^2 -imidazoline**
(C₄H₇ClN₂; 50342-08-0) see: Antazoline
- 2-chloromethyl- Δ^2 -imidazoline hydrochloride**
(C₄H₈Cl₂N₂; 13338-49-3) see: Phentolamine
- chloromethyl iodide**
(CH₂ClI; 593-71-5) see: Loteprednol etabonate
- 4-(chloromethyl)-2-isopropylthiazole hydrochloride**
(C₇H₁₁Cl₂NS; 65386-28-9) see: Ritonavir
- 1-(chloromethyl)-4-methoxybenzene**
(C₈H₉ClO; 824-94-2) see: Meropenem
- 2-(chloromethyl)-4-methoxy-3,5-dimethylpyridine**
(C₉H₁₂ClNO; 84006-10-0) see: Omeprazole
- 2-(chloromethyl)-4-(3-methoxypropoxy)-3-methylpyridine**
(C₁₁H₁₆ClNO₂; 117977-20-5) see: Rabeprazole sodium
- 4-(chloromethyl)- α -methylbenzeneacetic acid ethyl ester**
(C₁₂H₁₅ClO₂; 43153-03-3) see: Loxoprofen
- chloromethyl methyl ether**
(C₂H₅ClO; 107-30-2) see: Cefoxitin; Troglitazone
- 3-(chloromethyl)-1-methylpiperidine**
(C₇H₁₄ClN; 52694-50-5) see: Metixene
- 2-chloromethyl-1-methyl-1,4,5,6-tetrahydropyrimidine**
(C₆H₁₁ClN₂) see: Oxypheencyclimine
- 4-chloro-2-methyl-5-(4-morpholinyl)-3(2H)-pyridazinone**
(C₉H₁₂ClN₃O₂; 1080-85-9) see: Emorfazone
- 1-chloromethylnaphthalene**
(C₁₁H₉Cl; 86-52-2) see: Butenafine; Naftidrofuryl
- 5-chloro-1-methyl-4-nitro-1H-imidazole**
(C₄H₄ClN₃O₂; 4897-25-0) see: Azathioprine
- 6-chloro-2-methyl-4-oxo-4H-3,1-benzoxazine**
(C₉H₆ClNO₂; 7033-50-3) see: Tetrzapam
- 2-chloromethylphenethyl benzoate**
(C₁₆H₁₅ClO₂; 168476-58-2) see: Ropinirole
- 2-chloro-5-methylphenol**
(C₇H₇ClO; 615-74-7) see: Bupranolol
- 5-(4-chloromethylphenoxy)methyl-3-isopropyl-2-oxazolidinone**
(C₁₄H₁₈ClNO₃; 87844-82-4) see: Bisoprolol
- 4-chloro-2-[(methylphenylamino)sulfonyl]benzoic acid methyl ester**
(C₁₅H₁₄ClNO₄S) see: Tianeptine sodium
- 2-chloro-N-methyl-N-(phenyl-tert-butyl)acetamide**
(C₁₃H₁₈ClNO; 2293-55-2) see: Oxetacaine
- (2-chloro-4-methylphenyl)carbamimidothioic acid methyl ester monohydrate**
(C₉H₁₂ClN₂S; 52041-81-3) see: Tolonidine
- (2-chloro-5-methylphenyl) glycidyl ether**
(C₁₀H₁₁ClO₂; 53732-26-6) see: Bupranolol
- 5-chloro-1-methyl-3-phenyl-1H-indole-2-carboxamide**
(C₁₆H₁₃ClN₂O; 21139-24-2) see: Diazepam
- 5-chloro-1-methyl-3-phenyl-1H-indole-2-carboxylic acid ethyl ester**
(C₁₈H₁₆ClNO₂; 21139-26-4) see: Diazepam
- 3-chloro-4-methyl-6-phenylpyridazine**
(C₁₁H₉ClN₂; 28657-39-8) see: Minaprine
- N-(2-chloro-4-methylphenyl)thiourea**
(C₈H₉ClN₂S; 57005-14-8) see: Tolonidine
- 7-chloro-1-methyl-5-phenyl[1,2,4]triazolo[4,3-a]quinoline**
(C₁₇H₁₂ClN₃; 36916-18-4) see: Alprazolam
- (chloromethyl)phosphonic dichloride**
(CH₂Cl₂OP; 1983-26-2) see: Cidofovir
- 3-chloro-1-methylpiperidine**
(C₆H₁₂ClN; 22704-36-5) see: Mepenzolate bromide
- 4-chloro-1-methylpiperidine**
(C₆H₁₂ClN; 5570-77-4) see: Cyproheptadine; Propiverine
- chloromethyl pivalate**
(C₆H₁₁ClO₂; 18997-19-8) see: Pivampicillin; Pivmecillinam; Raltitrexed
- 1-chloro-2-methyl-2-propanol**
(C₄H₉ClO; 558-42-9) see: Lercanidipine hydrochloride
- 1-chloro-2-methyl-1-propanol propanoate**
(C₇H₁₃ClO₂; 58304-65-7) see: Fosinopril
- D-3-chloro-2-methylpropionyl chloride**
(C₂H₆Cl₂O; 80141-50-0) see: Captopril
- N-[(2S)-3-chloro-2-methylpropionyl]-L-proline**
(C₉H₁₄ClNO₃; 80141-53-3) see: Captopril
- N-[1-(chloromethyl)propyl]acetamide**
(C₆H₁₂ClNO; 59173-61-4) see: Ethambutol
- 4-chloro-1-(2-methylpropyl)-1H-imidazo[4,5-c]quinoline**
(C₁₄H₁₄ClN₃; 99010-64-7) see: Imiquimod
- 10-(3-chloro-2-methylpropyl)-10H-phenothiazine**
(C₁₆H₁₆ClNS; 40256-08-4) see: Dixyrazine
- 2-chloro-N⁴-(2-methylpropyl)-3,4-quinolinediamine**
(C₁₃H₁₆ClN₃; 133860-76-1) see: Imiquimod
- 2-(chloromethyl)pyridine**
(C₆H₆ClN; 4377-33-7) see: Pimeprofen
- 4-(chloromethyl)pyridine hydrochloride**
(C₆H₇Cl₂N; 1822-51-1) see: Tropicamide
- N-(2-chloro-4-methyl-3-pyridinyl)-2-(cyclopropylamino)-3-pyridinecarboxamide**
(C₁₅H₁₅ClN₄O; 133627-47-1) see: Nevirapine
- 4-chloro-6-methyl-2-pyrimidinamine**
(C₅H₆ClN₃; 5600-21-5) see: Sulfamerazine
- 3-chloromethyl-quinuclidine**
(C₈H₁₄ClN; 64099-45-2) see: Mequitazine

3-chloro-5-(3-methylsulfonyloxypropyl)-10,11-dihydro-5H-dibenz[*b,f*]azepine(C₁₈H₂₀ClNO₃S; 123435-16-5) see: Mosapramine**[4-(chloromethyl)-2-thiazolyl]guanidine**(C₅H₇ClN₄S; 81152-53-6) see: Ebrotidine***N*-(2-chloro-4-methyl-3-thienyl)thiourea**(C₆H₇ClN₂S₂) see: Tiamenidine**1-chloro-3-(methylthio)-2-propanol**(C₄H₉ClOS; 23451-66-3) see: Nifuratel**5-chloromethyl- γ -tocopherol**(C₂₉H₄₉ClO₂) see: α -Tocopherol**4-chloro-1-(*N*-methyltosylamino)benzene**(C₁₄H₁₄ClNO₂S; 22604-12-2) see: Medazepam**[5-chloro-2-(3-methyl-4*H*-1,2,4-triazol-4-yl)phenyl]phenylmethanone**(C₁₆H₁₂ClN₃O; 36916-19-5) see: Alprazolam**6-(chloromethyl)uracil**(C₅H₅ClN₂O₂; 18592-13-7) see: Orotic acid**3-chloro-4-morpholino-1,2,5-thiadiazole**(C₆H₈ClN₃OS; 30165-96-9) see: Timolol**1-chloro-3-(1-naphthoxy)-2-propanol**(C₁₃H₁₃ClO₂; 20133-93-1) see: Propranolol**2-chloronicotinic acid**(C₆H₄ClNO₂; 2942-59-8) see: Niflumic acid; Pranoprofen**2-chloronicotinonitrile**(C₆H₃ClN₂; 6602-54-6) see: Mirtazapine**2-chloronicotinoyl chloride**(C₆H₃Cl₂NO; 49609-84-9) see: Nevirapine**4'-chloro-3'-nitroacetophenone**(C₈H₆ClNO₂; 5465-65-6) see: Protizinic acid**2-chloro-4-nitroaniline**(C₆H₅ClN₂O₂; 121-87-9) see: Niclosamide**4-chloro-2-nitroaniline**(C₆H₅ClN₂O₂; 89-63-4) see: Clozapine***o*-chloronitrobenzene**(C₆H₄ClNO₂; 88-73-3) see: Amoxapine; Clemizole; Domperidone; Olanzapine; Quetiapine fumarate***p*-chloronitrobenzene**(C₆H₄ClNO₂; 100-00-5) see: Dapsone; Itraconazole; Troglitazone**2-chloro-4-nitrobenzoic acid**(C₇H₄ClNO₄; 99-60-5) see: Ethacridine**2-chloro-2'-nitrobenzophenone**(C₁₃H₈ClNO₂; 2894-44-2) see: Clonazepam**2-chloro-5-nitrobenzophenone**(C₁₃H₈ClNO₂; 34052-37-4) see: Nitrazepam**4-chloro-3-nitrobenzophenone**(C₁₃H₈ClNO₂; 56107-02-9) see: Mebendazole**3-chloro-4-nitrobenzoyl chloride**(C₇H₃Cl₂NO₂; 55737-29-6) see: Flubendazole**[[2-(3-chloro-2-nitrobenzoyl)-1-methylethylidene]amino]malonic acid diethyl ester**(C₁₇H₁₉ClN₂O₇; 10272-62-5) see: Pyrrolnitrin**8-chloro-11-[(*p*-nitrobenzyl)thio]-5*H*-dibenzo[*b,e*][1,4]diazepine**(C₂₀H₁₄ClN₃O₂S; 15980-85-5) see: Clozapine**5-chloro-2-nitrodiphenylamine**(C₁₂H₉ClN₂O₂; 25781-92-4) see: Clobazam**3-chloro-4-nitro-4'-fluorobenzophenone**(C₁₃H₇ClFNO₂) see: Flubendazole**4-chloro- β -(nitromethyl)benzenepropanoic acid ethyl ester**(C₁₂H₁₄ClNO₄; 28311-20-8) see: Baclofen**2-chloro-3-nitro-4-methylpyridine**(C₆H₅ClN₂O₂; 23056-39-5) see: Nevirapine**2-[(4-chloro-2-nitrophenyl)amino]benzoic acid methyl ester**(C₁₄H₁₁ClN₂O₄; 62889-51-4) see: Clozapine**1-[2-[(4-chloro-2-nitrophenyl)amino]benzoyl]-4-methylpiperazine**(C₁₈H₁₉ClN₄O₂; 65514-72-9) see: Clozapine**1-[3-[4-[(4-chloro-2-nitrophenyl)amino]-1-piperidinyl]propyl]-1,3-dihydro-2*H*-benzimidazol-2-one**(C₂₁H₂₄ClN₅O₂; 62780-97-6) see: Domperidone**(4-chloro-3-nitrophenyl)arsonic acid**(C₆H₅AsClNO₂; 5430-08-0) see: Acetarsol**4-chloro-*N*-(2-nitrophenyl)benzenemethanamine**(C₁₃H₁₁ClN₂O₂; 5822-16-2) see: Clemizole**(3-chloro-4-nitrophenyl)methylpropanedioic acid diethyl ester**(C₁₄H₁₆ClNO₆; 26039-74-7) see: Pirprofen**3-(3-chloro-2-nitrophenyl)-5-methyl-1*H*-pyrrole-2-carboxylic acid ethyl ester**(C₁₄H₁₃ClN₂O₄; 5875-83-2) see: Pyrrolnitrin**3-[(5-chloro-2-nitrophenyl)phenylamino]-3-oxopropanoic acid ethyl ester**(C₁₇H₁₅ClN₂O₅; 22316-45-6) see: Clobazam***N*-(4-chloro-2-nitrophenyl)-4-piperidinamine monohydrobromide**(C₁₁H₁₅BrClN₃O₂; 62780-95-4) see: Domperidone**2-chloro-3-nitropyridine**(C₅H₃ClN₂O₂; 5470-18-8) see: Delavirdine mesilate**4-(6-chloro-3-nitro-2-pyridinyl)-1-piperazinecarboxylic acid ethyl ester**(C₁₂H₁₅ClN₄O₄; 75167-21-4) see: Enoxacin**4-chloro-3-nitroquinoline**(C₉H₅ClN₂O₂; 39061-97-7) see: Imiquimod**6-chlorooxindole**(C₈H₆ClNO; 56341-37-8) see: Ziprasidone hydrochloride**5-chloro-2-oxo-3(2*H*)-benzothiazoleacetic acid ethyl ester**(C₁₁H₁₀ClNO₃S; 85750-08-9) see: Tiaramide**4-chloro-4-oxobutanoic acid 2-(dimethylamino)ethyl ester hydrochloride**(C₈H₁₅Cl₂NO₃; 58012-30-9) see: Pirsudanol**4-(4-chloro-1-oxobutyl)- α,α -dimethylbenzeneacetic acid ethyl ester**(C₁₆H₂₁ClO₃; 76811-97-7) see: Fexofenadine hydrochloride**4-(2-chloro-2-oxoethyl)-1-piperidinecarboxylic acid phenylmethyl ester**(C₁₅H₁₈ClNO₃; 63845-29-4) see: Indalpine**8-chloro-6-oxooctanoic acid ethyl ester**(C₁₀H₁₇ClO₃; 50628-91-6) see: Thioctic acid**7-chloro-2-oxo-5-phenyl-2,3-dihydro-1*H*-1,4-benzodiazepine**(C₁₅H₁₁ClN₂O; 1088-11-5) see: Alprazolam; Diazepam; Estazolam; Medazepam; Pinazepam; Prazepam**(*S*)-[3-chloro-2-oxo-1-(phenylmethyl)propyl]carbamic acid phenylmethyl ester**(C₁₈H₁₈ClNO₃; 26049-94-5) see: Saquinavir***O*-(3-chloro-1-oxopropyl)benzamidoxime**(C₁₀H₁₁ClN₂O₂; 10560-64-2) see: Oxolamine

- 4-chloro- α -(1-oxopropyl)benzeneacetonitrile**
(C₁₁H₁₀ClNO; 55474-40-3) see: Pyrimethamine
- (Z)-2-[[[2-chloro-2-oxo-1-[2-[(triphenylmethyl)amino]-4-thiazolyl]ethylidene]amino]oxy]-2-methylpropanoic acid 1,1-dimethylethyl ester**
(C₃₂H₃₂ClN₃O₄S; 91622-14-9) see: Cefprozil
- 3-chloro-2-pentanol**
(C₅H₁₁ClO; 139121-35-0) see: Bifluranol
- 3-chloro-2-pentanone**
(C₅H₉ClO; 13280-00-7) see: Bifluranol
- 5-chloro-2-pentanone**
(C₅H₉ClO; 5891-21-4) see: Hydroxychloroquine
- 5-chloropentanoyl chloride**
(C₅H₈Cl₂O; 1575-61-7) see: Cilostazol
- N-(5-chloropentanoyl)cyclohexylamine**
(C₁₁H₂₀ClNO; 15865-18-6) see: Cilostazol
- 1-chloro-1-penten-3-one**
(C₅H₈ClO; 105-32-8) see: Ethchlorvynol
- 5-chloro-1-pentyne**
(C₅H₇Cl; 14267-92-6) see: Efavirenz
- m-chloroperbenzoic acid**
(C₇H₅ClO₃; 937-14-4) see: Dolasetron mesilate; Rabeprazole sodium
- 2-chlorophenol**
(C₆H₅ClO; 95-57-8) see: Alclofenac; Diclofenamide
- 4-chlorophenol**
(C₆H₅ClO; 106-48-9) see: Amoxapine; Chlorphenesin; Clofibrate; Dichlorophen; Dodeclonium bromide; Fenticlor
- 2-chlorophenothiazine**
(C₁₁H₈ClNS; 92-39-7) see: Chlorpromazine; Cyamemazine; Perphenazine; Pipamazine; Prochlorperazine
- (4-chlorophenoxy)acetic acid**
(C₈H₇ClO₃; 122-88-3) see: Meclofenoxate
- (4-chlorophenoxy)acetyl chloride**
(C₈H₆Cl₂O₂; 4122-68-3) see: Clofexamide; Fipexide
- 2-(4-chlorophenoxy)aniline**
(C₁₂H₁₀ClNO; 2770-11-8) see: Amoxapine; Loxapine
- 2-(4-chlorophenoxy)isobutyric acid**
(C₁₀H₁₁ClO₃; 882-09-7) see: Alufibrate; Clofibrate; Etofibrate; Simfibrate
- 2-(4-chlorophenoxy)-2-methylpropanoic acid 2-hydroxyethyl ester**
(C₁₂H₁₅ClO₄; 31637-96-4) see: Etofibrate
- 2-(4-chlorophenoxy)-2-methylpropanoic acid 3-hydroxypropyl ester**
(C₁₃H₁₇ClO₄; 14496-75-4) see: Ronifibrate
- 2-(4-chlorophenoxy)-2-methylpropionic acid**
see under 2-(4-chlorophenoxy)isobutyric acid
- [2-(4-chlorophenoxy)phenyl]carbamic acid ethyl ester**
(C₁₅H₁₄ClNO₃; 31879-60-4) see: Amoxapine; Loxapine
- 4-[[*o*-(*p*-chlorophenoxy)phenyl]carbamoyl]-1-piperazine-carboxylic acid ethyl ester**
(C₂₀H₂₂ClN₃O₄; 31879-61-5) see: Amoxapine
- N-[2-(4-chlorophenoxy)phenyl]-4-methyl-1-piperazine-carboxamide**
(C₁₈H₂₀ClN₃O₂; 69478-73-5) see: Loxapine
- 3-(4-chlorophenoxy)-1,2-propanediol**
(C₉H₁₁ClO₃; 104-29-0) see: Chlorphenesin carbamate
- 2-chloro-2'-O-phenoxythiocarbonyl-3',5'-O-(tetraisopropyl)disiloxanyleneadenosine**
(C₂₉H₄₂ClN₅O₆SSi₂; 149681-75-4) see: Cladribine
- 2-[(4-chlorophenyl)acetyl]benzoic acid**
(C₁₅H₁₁ClO₃; 53242-76-5) see: Azelastine
- α -chlorophenylacetyl chloride**
(C₈H₆Cl₂O; 2912-62-1) see: Bietamiverine; Fenozolone
- 1-(chlorophenylacetyl)-3-ethylurea**
(C₁₁H₁₃ClN₂O₂; 23420-63-5) see: Fenozolone
- 4-chloro-D-phenylalanine**
(C₉H₁₀ClNO₂; 14091-08-8) see: Cetrorelix
- 2-chlorophenyl allyl ether**
(C₉H₉ClO; 20788-42-5) see: Alclofenac
- [[3-(chlorophenyl)amino]methylene]propanedioic acid diethyl ester**
(C₁₄H₁₆ClNO₄; 3412-99-5) see: Chloroquine
- (4-chlorophenyl)arsonic acid**
(C₆H₆AsClO₃; 5440-04-0) see: Acetarsol
- α -chloro- α -phenylbenzeneacetic acid 1-methyl-4-piperidinyl ester**
(C₂₀H₂₂ClNO₂; 118108-64-8) see: Propiverine
- 7-chloro-5-phenyl-3H-1,4-benzodiazepin-2-amine**
(C₁₅H₁₂ClN₃; 7564-07-0) see: Estazolam
- 1-(4-chlorophenyl)biguanide hydrochloride**
(C₈H₁₁Cl₂N₅; 4022-81-5) see: Chlorazaniil
- 4-(4-chlorophenyl)-1-chloro-2-butanol**
(C₁₀H₁₂Cl₂O; 59363-13-2) see: Butoconazole
- 1-(3-chlorophenyl)-4-(3-chloropropyl)piperazine**
(C₁₃H₁₈Cl₂N₂; 39577-43-0) see: Etoperidone; Nefazodone hydrochloride; Trazodone
- 3-[3-(4-chlorophenyl)-1-(5-chloro-2-thienyl)-3-oxopropyl]-4-hydroxy-2H-1-benzopyran-2-one**
(C₂₂H₁₄Cl₂O₄S; 22619-37-0) see: Tiocloamarol
- 1-(4-chlorophenyl)-3-(5-chloro-2-thienyl)-2-propen-1-one**
(C₁₃H₈Cl₂OS; 22619-36-9) see: Tiocloamarol
- 1-(4-chlorophenyl)cyclobutyl cyanide**
(C₁₁H₁₀ClN; 28049-61-8) see: Sibutramine hydrochloride
- 1-(2-chlorophenyl)-2-dichloroethanol**
(C₈H₇Cl₃O; 27683-60-9) see: Mitotane
- (4-chlorophenyl)dicyanodiamide**
(C₈H₇ClN₄; 1482-62-8) see: Chlorhexidine; Proguanil
- 5-(2-chlorophenyl)-1,3-dihydro-7-nitro-2H-1,4-benzodiazepine-2-thione**
(C₁₅H₁₀ClN₃O₂S; 35628-48-9) see: Loprazolam
- 6-(2-chlorophenyl)-2,4-dihydro-8-nitro-1H-imidazo[1,2-a][1,4]benzodiazepin-1-one**
(C₁₇H₁₁ClN₄O₃; 61198-06-9) see: Loprazolam
- 5-(2-chlorophenyl)-1,3-dihydro-2H-thieno[2,3-e]-1,4-diazepin-2-one**
(C₁₃H₉ClN₂OS; 36811-58-2) see: Brotizolam
- α -(4-chlorophenyl)- α -[2-(dimethylamino)ethyl]-2-pyridineacetonitrile**
(C₁₇H₁₈ClN₃; 65676-21-3) see: Chlorphenamine
- 6-(2-chlorophenyl)-2-[[dimethylamino]methylene]-2,4-dihydro-8-nitro-1H-imidazo[1,2-a][1,4]benzodiazepin-1-one**
(C₂₀H₁₆ClN₅O₃; 61197-47-5) see: Loprazolam
- N-(4-chlorophenyl)-2,2-dimethylpropanamide**
(C₁₁H₁₄ClNO; 65854-91-3) see: Efavirenz

- 5-(2-chlorophenyl)-7-ethyl-1,3-dihydro-2H-thieno[2,3-*e*]-1,4-diazepine-2-thione**
(C₁₅H₁₃ClN₂S₂; 40054-40-8) see: Etizolam
- 5-(2-chlorophenyl)-7-ethyl-1,3-dihydro-2H-thieno[2,3-*e*]-1,4-diazepin-2-one**
(C₁₅H₁₃ClN₂OS; 33671-37-3) see: Clotiazepam; Etizolam
- 3-[2-(3-chlorophenyl)ethyl]-*N*-(1,1-dimethylethyl)-2-pyridinecarboxamide**
(C₁₈H₂₁ClN₂O; 107285-30-3) see: Loratadine
- α-[2-(4-chlorophenyl)ethyl]-1H-imidazole-1-ethanol**
(C₁₃H₁₃ClN₂O; 67085-11-4) see: Butoconazole
- 3-[2-(3-chlorophenyl)ethyl]-2-pyridinecarbonitrile**
(C₁₄H₁₁ClN₂; 31255-57-9) see: Loratadine
- [3-[2-(3-chlorophenyl)ethyl]-2-pyridinyl](1-methyl-4-piperidinyl)methanone**
(C₂₀H₂₃ClN₂O; 130642-50-1) see: Loratadine
- 3-(2-chloro-2-phenylethyl)-2-thiazolidinimine**
(C₁₁H₁₃ClN₂S; 46425-47-2) see: Levamisole
- 4-[(4-chlorophenyl)(5-fluoro-2-hydroxyphenyl)methylene]amino]butanoic acid**
(C₁₇H₁₅ClFNO₃; 62665-97-8) see: Progabide
- 5-(4-chlorophenyl)-2-furancarboxaldehyde**
(C₁₁H₇ClO₂; 34035-03-5) see: Azimilide hydrochloride
- 3-(4-chlorophenyl)glutaric acid**
(C₁₁H₁₁ClO₄; 35271-74-0) see: Baclofen
- 3-(4-chlorophenyl)glutaric anhydride**
(C₁₁H₉ClO₃; 53911-68-5) see: Baclofen
- 3-(4-chlorophenyl)glutarimide**
(C₁₁H₁₀ClNO₂; 84803-46-3) see: Baclofen
- (±)-2-(2-chlorophenyl)glycine**
(C₈H₈ClNO₂; 88744-36-9) see: Clopidogrel hydrogensulfate
- (+)-2-(2-chlorophenyl)glycine methyl ester**
(C₉H₁₀ClNO₂; 141109-14-0) see: Clopidogrel hydrogensulfate
- (±)-2-(2-chlorophenyl)glycine methyl ester**
(C₉H₁₀ClNO₂; 141109-13-9) see: Clopidogrel hydrogensulfate
- 2-chlorophenylglyoxal**
(C₈H₅ClO₂; 27993-71-1) see: Tulobuterol
- (4-chlorophenyl)hydrazine**
(C₆H₇ClN₂; 1073-69-4) see: Carprofen
- 1-(3-chlorophenyl)-4-(3-hydrazinopropyl)piperazine**
(C₁₃H₂₁ClN₄; 57059-59-3) see: Nefazodone hydrochloride
- α-[2-(4-chlorophenyl)hydrazono]benzenepropanoic acid ethyl ester phenylpyruvic acid ethyl ester 2-[(4-chlorophenyl)hydrazono]**
(C₁₇H₁₇ClN₂O₂; 24139-99-9) see: Diazepam
- 4-(4-chlorophenyl)-4-hydroxypiperidine**
(C₁₁H₁₄ClNO; 39512-49-7) see: Haloperidol; Loperamide
- 5-(2-chlorophenyl)-2,4-imidazolidinedione**
(C₉H₇ClN₂O₂; 103029-09-0) see: Clopidogrel hydrogensulfate
- α-[2-(4-chlorophenyl)imino]butanedioic acid diethyl ester**
(C₁₄H₁₆ClNO₄) see: Chloroquine
- 3-[(3-chlorophenyl)imino]propanoic acid ethyl ester**
(C₁₁H₁₂ClNO₃; 82673-23-2) see: Chloroquine
- 4-chlorophenyl isocyanate**
(C₇H₄ClNO; 104-12-1) see: Triclocarban
- 2-chlorophenylmagnesium bromide**
(C₆H₄BrClMg; 36692-27-0) see: Mitotane
- 4-chlorophenylmagnesium bromide**
(C₆H₄BrClMg; 873-77-8) see: Cicletanine; Morclofone; Phenaglycodol
- 2-chloro-7-[(phenylmethoxy)methyl]bicyclo[2.2.1]hept-5-ene-2-carbonitrile**
(C₁₆H₁₆ClNO; 50889-55-9) see: Dinoprost
- (4-chlorophenyl)(6-methoxy-2-methyl-1H-indol-3-yl)methanone**
(C₁₇H₁₄ClNO₂; 25803-10-5) see: Clometacin
- N*-[2-[(4-chlorophenyl)methylamino]ethyl]benzamide**
(C₁₆H₁₇ClN₂O; 24483-44-1) see: Medazepam
- 2-(4-chlorophenyl)-α-methyl-5-benzoxazolecarbonitrile**
(C₁₆H₁₁ClN₂O; 51234-36-7) see: Benoxapofen
- (±)-4-(chlorophenylmethyl)biphenyl**
(C₁₉H₁₅Cl; 7515-73-3) see: Bifonazole
- 1-[(2-chlorophenyl)methyl]-*N,N*-bis(1-methylpropyl)-α-oxo-1H-pyrrole-2-acetamide**
(C₂₁H₂₇ClN₂O₂; 41596-37-6) see: Viminol
- 3-[(4-chlorophenyl)methylene]-1(3H)-isobenzofuranone**
(C₁₅H₉ClO₂; 20526-97-0) see: Azelastine
- N*-(4-chlorophenyl)-*N*-methyl-ethylenediamine**
(C₉H₁₃ClN₂; 21647-84-7) see: Medazepam
- 1-[(2-chlorophenyl)(methylimino)methyl]cyclopentanol**
(C₁₃H₁₆ClNO; 6740-87-0) see: Ketamine
- 3-(2-chlorophenyl)-5-methyl-4-isoxazolecarbonyl chloride**
(C₁₁H₇Cl₂NO₂; 25629-50-9) see: Cloxacillin
- 3-(2-chlorophenyl)-5-methyl-4-isoxazolecarboxylic acid**
(C₁₁H₈ClNO₃; 23598-72-3) see: Cloxacillin
- 3-(2-chlorophenyl)-5-methyl-4-isoxazolecarboxylic acid ethyl ester**
(C₁₃H₁₂ClNO₃; 83817-50-9) see: Cloxacillin
- 1-[(2-chlorophenyl)methyl]-α-oxo-1H-pyrrole-2-acetyl chloride**
(C₁₃H₉Cl₂NO₂) see: Viminol
- α-[(4-chlorophenyl)methyl]-α-phenyl-1-pyrrolidine-propanol**
(C₂₀H₂₄ClNO; 77-64-5) see: Pyrbutamine
- 1-(2-chlorophenyl)-2-methyl-2-propanol**
(C₁₀H₁₃ClO; 6256-31-1) see: Clortermine
- 1-(4-chlorophenyl)-2-methyl-1-propanol**
(C₁₀H₁₃ClO; 10400-18-7) see: Nicoclonate
- 1-(4-chlorophenyl)-α-(2-methylpropyl)cyclobutane-methanamine**
(C₁₅H₂₂ClN; 84467-54-9) see: Sibutramine hydrochloride
- 2-(4-chlorophenyl)-3-methyltetrahydro-1,3-thiazin-4-one**
(C₁₁H₁₂ClNOS; 30897-26-8) see: Chlormezanone
- 5-[(2-chlorophenyl)methyl]thieno[3,2-*c*]pyridinium chloride**
(C₁₄H₁₁Cl₂NS; 53885-64-6) see: Ticlopidine
- N*-[(2-chlorophenyl)methyl]-2-thiopheneethanamine**
(C₁₃H₁₄ClNS; 69061-17-2) see: Ticlopidine
- 7-chloro-5-phenyl-2-oxo-3-acetoxy-1,3-dihydro-2H-1,4-benzodiazepine**
(C₁₇H₁₃ClN₂O₃; 1824-74-4) see: Oxazepam
- 5-(2-chlorophenyl)-2-oxo-2,3-dihydro-1H-1,4-benzodiazepine**
(C₁₅H₁₁ClN₂O; 3022-68-2) see: Clonazepam; Loprazolam

7-chloro-5-phenyl-2-oxo-2,3-dihydro-1*H*-1,4-benzodiazepine

see under 7-chloro-2-oxo-5-phenyl-2,3-dihydro-1*H*-1,4-benzodiazepine

7-chloro-5-phenyl-2-oxo-1,3-dihydro-2*H*-1,4-benzodiazepine 4-oxide

(C₁₅H₁₁ClN₂O₂; 963-39-3) see: Camazepam; Oxazepam; Temazepam

1-(4-chlorophenyl)-1-phenylethanol

see under 4-chloro- α -methylbenzhydrol

2-[2-[1-(4-chlorophenyl)-1-phenylethoxy]ethyl]-1-methylpyrrolidine

(C₂₁H₂₆ClNO; 7723-51-5) see: Clemastine

3-(4-chlorophenyl)-1-phenyl-1*H*-pyrazole-4-carboxaldehyde

(C₁₆H₁₁ClN₂O; 36663-00-0) see: Lonazolac

3-(4-chlorophenyl)-1-phenyl-1*H*-pyrazole-4-methanol

(C₁₆H₁₃ClN₂O; 36640-39-8) see: Lonazolac

3-(4-chlorophenyl)phthalide

(C₁₄H₉ClO₂; 4889-69-4) see: Chlortalidone

3-(4-chlorophenyl)phthalimide

(C₁₄H₁₀ClNO; 2224-77-3) see: Chlortalidone

***N*-(3-chlorophenyl)piperazine**

(C₁₀H₁₃ClN₂; 6640-24-0) see: Etoperidone

2-[3-[4-(3-chlorophenyl)-1-piperazinyl]propyl]-5-ethyl-**2,4-dihydro-3*H*-1,2,4-triazol-3-one**

(C₁₇H₂₄ClN₅O; 57059-58-2) see: Nefazodone hydrochloride

2-(4-chlorophenyl)propene

(C₉H₉Cl; 1712-70-5) see: Haloperidol

(4-chlorophenyl)(2-pyridyl)acetonitrile

(C₁₃H₉ClN₂; 5005-37-8) see: Chlorphenamine

(4-chlorophenyl)(2-pyridyl)carbinol

(C₁₂H₁₀ClNO; 27652-89-7) see: Carbinoxamine

9*b*-(4-chlorophenyl)-1,2,3,9*b*-tetrahydro-5*H*-imidazo[2,1-*a*]isoindol-5-one

(C₁₆H₁₃ClN₂O; 6038-49-9) see: Mazindol

9*b*-(4-chlorophenyl)-1,2,3,9*b*-tetrahydro-1-[(4-methylphenyl)sulfonyl]-5*H*-imidazo[2,1-*a*]isoindol-5-one

(C₂₃H₁₉ClN₂O₃S; 22590-16-5) see: Mazindol

4-(4-chlorophenyl)-1,2,3,6-tetrahydropyridine

(C₁₁H₁₂ClN; 30005-58-4) see: Haloperidol

(+)-2-(2-chlorophenyl)-*N*-[2-(2-thienyl)ethyl]glycine methyl ester

(C₁₅H₁₆ClNO₂S; 141109-20-8) see: Clopidogrel hydrogensulfate

2-[(4-chlorophenyl)thio]benzeneacetic acid

(C₁₄H₁₁ClO₂S; 13459-62-6) see: Zotepine

2-[(4-chlorophenyl)thio]benzoic acid

(C₁₃H₉ClO₂S; 6469-85-8) see: Chlorprothixene

2-[(4-chlorophenyl)thio]benzoyl chloride

(C₁₃H₈Cl₂OS; 6469-86-9) see: Chlorprothixene

1-[2-[(4-chlorophenyl)thio]phenyl]ethanone

(C₁₄H₁₁ClOS; 41932-35-8) see: Zotepine

1-[(2-chlorophenyl)thio]-2-propanone

(C₉H₉ClOS; 17514-52-2) see: Sertaconazole

7-chloro-5-phenyl-2-thioxo-2,3-dihydro-1*H*-1,4-benzodiazepine

(C₁₅H₁₁ClN₂S; 4547-02-8) see: Alprazolam; Estazolam

***N*-(4-chlorophenyl)-*N*-(2,2,2-trifluoroethyl)-1,2-ethanediamine**

(C₁₀H₁₂ClF₃N₂; 34483-02-8) see: Quazepam

 α -(4-chlorophenyl)-2,2,8-trimethyl-4*H*-1,3-dioxino[4,5-*c*]pyridine-5-methanol

(C₁₇H₁₈ClNO₃; 133545-64-9) see: Cicletanin

1-chlorophthalazine

(C₈H₅ClN₂; 5784-45-2) see: Hydralazine

4-chlorophthalimide

(C₈H₄ClNO₂; 7147-90-2) see: Clorexolone

2-chloro-1-piperidinopropane

(C₈H₁₆ClN; 698-92-0) see: Propiram

chloro[3-(1-piperidinyl)propyl]magnesium

(C₈H₁₆ClMgN; 34924-24-8) see: Difenidol

(9 β ,10 α)-6-chloropregna-4,6-diene-3,20-dione

(C₂₁H₂₇ClO₂; 4202-98-6) see: Trengestone

1-chloro-2,3-propanediol

see under 3-chloro-1,2-dihydroxypropane

3-chloropropane-1,2-diol

see under 3-chloro-1,2-dihydroxypropane

1-chloro-2-propanol

(C₃H₇ClO; 127-00-4) see: Bethanechol chloride; Proxiphylline

3-chloro-1-propanol

(C₃H₇ClO; 627-30-5) see: Cyclomethycaine; Piperocaine

2-chloro-9-(2-propenylidene)-9*H*-thioxanthene

(C₁₆H₁₁ClS; 56987-24-7) see: Chlorprothixene

3-chloropropionaldehyde

(C₃H₅ClO; 19434-65-2) see: Chlorthenoxazine

3-chloropropionaldehyde diethyl acetal

(C₇H₁₃ClO₂; 35573-93-4) see: Pipoxolan

 β -chloropropionic acid

(C₃H₅ClO₂; 107-94-8) see: Tertatolol

3-chloropropionitrile

(C₃H₄ClN; 542-76-7) see: Famotidine

2-chloropropionyl chloride

(C₃H₄Cl₂O; 7623-09-8) see: Omoconazole nitrate

3-chloropropionyl chloride

(C₃H₄Cl₂O; 625-36-5) see: Beclamide; Clidanac; Moracizine; Oxolamine; Proxazole

 α -chloropropionylglycine

(C₅H₈ClNO₃; 85038-45-5) see: Stepronin

3'-chloropropiophenone

(C₉H₉ClO; 34841-35-5) see: Amfebutamone

1-(3-chloropropoxy)-4-fluorobenzene

(C₉H₁₀ClFO; 1716-42-3) see: Cisapride

1-(3-chloropropyl)-2-benzimidazolone

(C₁₀H₁₁ClN₂O; 62780-89-6) see: Domperidone; Oxatamide

3-chloropropyl benzoate

(C₁₀H₁₁ClO₂; 942-95-0) see: Piperocaine

5-(3-chloropropyl)-5*H*-dibenz[*b,f*]azepine

(C₁₇H₁₆ClN; 51551-40-7) see: Opipramol

2-(3-chloropropyl)-4,5-diethyl- Δ^5 -1,2,4-triazolin-3-one

(C₉H₁₆ClN₃O; 52883-44-0) see: Etoperidone

5-(3-chloropropyl)-10,11-dihydro-5*H*-dibenz[*b,f*]azepine

(C₁₇H₁₈ClN; 16036-79-6) see: Desipramine

***N*-(3-chloropropyl)-3,4-dimethoxy-*N*-methylbenzene-ethanamine**

(C₁₄H₂₂ClNO₂; 36770-74-8) see: Gallopamil; Verapamil

2-(3-chloropropyl)-2-(4-fluorophenyl)-1,3-dioxolane(C₁₂H₁₄ClFO₂; 3308-94-9) see: Timiperone**1-(3-chloropropyl)hexahydro-1H-1,4-diazepine**(C₈H₁₁ClN₂; 164332-25-6) see: Homofenazine**1-(3-chloropropyl)-4-(2-hydroxyethyl)piperazine**(C₉H₁₉ClN₂O; 57227-28-8) see: Proglumetacin**N-(1-chloropropylidene)-2-phenoxyethanamine**(C₁₁H₁₄ClNO) see: Nefazodone hydrochloride**4-[[5-(3-chloropropyl)-1H-imidazol-1-yl]methyl]benzotrile**(C₁₄H₁₄ClN₃; 102676-30-2) see: Fadzozole**10-(3-chloropropyl)-2-(methylsulfonyl)-10H-phenothiazine**(C₁₆H₁₆ClNO₂S₂; 40051-30-7) see: Metopimazine**4-(2-chloropropyl)morpholine**(C₇H₁₄ClNO; 41821-45-8) see: Dextromoramide**2-(3-chloropropyl)-2-phenyl-1,3-dioxolane**(C₁₂H₁₅ClO₂; 3308-98-3) see: Pirmenol hydrochloride**1-(3-chloropropyl)piperazine**(C₇H₁₃ClN₂; 120163-60-2) see: Oxypendyl**4-(3-chloropropyl)-1-piperazinecarboxaldehyde**(C₈H₁₃ClN₂O; 66927-43-3) see: Fluphenazine**N-(3-chloropropyl)piperidine**(C₈H₁₆ClN; 1458-63-5) see: Difenidol**10-(3-chloropropyl)-2-propionylphenothiazine**(C₁₈H₁₈ClNOS; 95157-45-2) see: Carfenazine**7-(3-chloropropyl)theophylline**(C₁₀H₁₃ClN₄O₂; 2770-66-3) see: Repraterol**1-[(6-chloro-3-pyridazinyl)ethylamino]-2-propanol**(C₉H₁₄ClN₃O; 64241-33-4) see: Cadralazine**2-chloropyridine**(C₅H₄ClN; 109-09-1) see: Brompheniramine; Chlorphenamine; Disopyramide; Methylphenidate; Pheniramine; Pyriothione zinc; Rosiglitazone; Trazodone**4-chloropyridine**(C₅H₄ClN; 626-61-9) see: Cefapirin**2-chloropyridine 1-oxide**(C₅H₄ClNO; 2402-95-1) see: Pyriothione zinc**4-chloro-3-pyridinesulfonamide**(C₅H₅ClN₂O₂S; 33263-43-3) see: Torasemide**4-chloro-3-pyridinesulfonyl chloride**(C₅H₄Cl₂NO₂S; 33263-44-4) see: Torasemide**6-(5-chloro-2-pyridinyl)-6,7-dihydro-7-hydroxy-5H-pyrrolo[3,4-b]pyrazin-5-one**(C₁₁H₇ClN₄O₂; 43200-81-3) see: Zopiclone**N-(2-chloro-3-pyridinyl)-2-nitrobenzamide**(C₁₂H₈ClN₃O₃; 1028-86-0) see: Pirenzepine**3-(5-chloropyrid-2-ylcarbonyl)pyrazine-2-carboxylic acid**(C₁₁H₇ClN₄O₃; 43200-83-5) see: Zopiclone**6-(5-chloropyrid-2-yl)-5,7-dioxo-6,7-dihydro-5H-pyrrolo[3,4-b]pyrazine**(C₁₁H₅ClN₄O₂; 43200-82-4) see: Zopiclone**2-chloropyrimidine**(C₄H₃ClN₂; 1722-12-9) see: Piribedil**2-chloropyrrole**(C₄H₄ClN; 56454-22-9) see: Ketorolac**7-chloroquinaldine**(C₁₀H₈ClN; 4965-33-7) see: Montelukast sodium**2-chloro-4-quinolinecarbonyl chloride**(C₁₀H₅Cl₂NO; 2388-32-1) see: Cinchocaine**(E)-3-[2-(7-chloro-2-quinolinyl)ethenyl]-α-ethenylbenzenemethanol**(C₂₀H₁₆ClNO; 149968-10-5) see: Montelukast sodium**[αS-(E)]-3-[2-(7-chloro-2-quinolinyl)ethenyl]-α-[2-[1-methyl-1-[(tetrahydro-2H-pyran-2-yl)oxy]ethyl]phenyl]ethyl]benzenemethanol methanesulfonate (ester)**(C₃₅H₃₈ClNO₃S; 162489-71-6) see: Montelukast sodium**(S)-α-[3-[(E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-2-(1-hydroxy-1-methylethyl)benzenepropanol**(C₂₀H₂₈ClNO₂) see: Montelukast sodium**(S)-α-[3-[(E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-2-(1-hydroxy-1-methylethyl)benzenepropanol methanesulfonate**(C₃₀H₃₀ClNO₄S) see: Montelukast sodium**1-[[[(1R)-1-[3-[(1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]-thio]methyl]cyclopropanecetic acid**(C₃₅H₃₈ClNO₃S; 158966-92-8) see: Montelukast sodium**3-[2(E)-(7-chloroquinolin-2-yl)vinyl]benzaldehyde**(C₁₈H₁₂ClNO; 120578-03-2) see: Montelukast sodium**2-chlororesorcinol**(C₆H₅ClO₂; 6201-65-6) see: Cloricromen**4-chlorosalicylic acid**(C₇H₅ClO₃; 5106-98-9) see: Xipamide**5-chlorosalicylic acid**(C₇H₅ClO₃; 321-14-2) see: Niclosamide**3-chloro-4,5-secoestra-2,5(10),9(11)-triene-5,17-β-diol****5-acetate 17-benzoate**(C₂₇H₃₁ClO₄; 10161-30-5) see: Trenbolone acetate**N-chlorosuccinimide**(C₄H₄ClNO; 128-09-6) see: Beclometasone; Clidanac; Clorcortolone; Clomifene; Doxycycline; Ketorolac; Mosapride citrate**4-chloro-3-sulfamoylbenzoic acid**(C₇H₆ClNO₂S; 1205-30-7) see: Clopamide; Tripamide**4-chloro-3-sulfamoylbenzoyl chloride**(C₇H₅Cl₂NO₂S; 70049-77-3) see: Clopamide; Indapamide; Tripamide**chlorosulfonic acid**(ClHO₂S; 7790-94-5) see: Actinoquinol; Azosemide; Bendroflumethiazide; Clopamide; Diclofenamide; Diethylstilbestrol disulfate; Dorzolamide; Furosemide; Glibenclamide; Glimperidine; Hydroflumethiazide; Lornoxicam; Mafenide; Meticrane; Metolazone; Saccharin; Sildenafil; Sodium picosulfate; Sulfanilamide; Tiotixene; Tripamide; Xipamide**5-(chlorosulfonyl)-2-ethoxybenzoic acid**(C₉H₉ClO₅S; 200575-16-2) see: Sildenafil**chlorosulfonyl isocyanate**(CClNO₂S; 1189-71-5) see: Carumonam; Cefoxitin; Felbamate**chlorosulfuric acid chloromethyl ester**(CH₂Cl₂O₃S; 49715-04-0) see: Sultamicillin**3-chloro-2,3,4,5-tetrahydro-1H-1-benzazepin-2-one**(C₁₀H₁₀ClNO; 86499-23-2) see: Benazepril**2-chlorotetrahydrofuran**(C₄H₇ClO; 13369-70-5) see: Tegafur**3-chloro-5,6,7,8-tetrahydropyrido[4,3-c]pyridazine**(C₇H₈ClN₂; 45882-63-1) see: Endralazine

6 β -chloro-5,11 β ,17,21-tetrahydroxy-5 α -pregnane-3,20-dione

(C₂₁H₃₁ClO₆; 113113-99-8) see: Cloprednol

2-chloro-3',5'-O-[1,1,3,3-tetrakis(1-methylethyl)-1,3-disiloxanediy]adenosine

(C₂₂H₃₈ClN₅O₅Si₂; 111556-90-2) see: Cladribine

8-chlorotheophylline

(C₇H₇ClN₄O₂; 85-18-7) see: Dimenhydrinate; Piprinhydrinate

chlorothiazide

(C₇H₆ClN₃O₄S₂; 58-94-6) see: Hydrochlorothiazide

2-chloro-5-thiophenecarboxaldehyde

(C₅H₃ClOS; 7283-96-7) see: Tiocloamarol

4-chlorothiophenol

(C₆H₅ClS; 106-54-7) see: Chlorprothixene; Zotepine

2-chlorothioxanthone

(C₁₃H₇ClOS; 86-39-5) see: Chlorprothixene

8-chloro-11-thioxo-10,11-dihydro-5H-dibenzo[*b,e*][1,4]diazepine

(C₁₃H₉ClN₂S; 15980-68-4) see: Clozapine

2-chlorotoluene

(C₇H₇Cl; 95-49-8) see: Clotrimazole

1-chloro-3-(*m*-tolylxy)-2-propanol

(C₁₀H₁₃ClO₂; 42865-04-3) see: Bevantolol

4-chloro-1-tosylaminobenzene

(C₁₃H₁₂ClNO₂S; 2903-34-6) see: Medazepam

chloro(triethylphosphine)gold

(C₆H₁₅AuClP; 15529-90-5) see: Auranofin

4-chloro-2-(trifluoroacetyl)aniline hydrochloride

(C₈H₆Cl₂F₃NO; 173676-59-0) see: Efavirenz

1-chloro-1,2,2-trifluoro-2-diethylaminoethane

(C₆H₁₁ClF₃N; 357-83-5) see: Zidovudine

2-chloro-1,1,1-trifluoroethane

(C₂H₂ClF₃; 75-88-7) see: Halothane

[5-chloro-2-((2,2,2-trifluoroethyl)amino)phenyl](2-fluorophenyl)methanone

(C₁₅H₁₀ClF₄NO; 50939-39-4) see: Quazepam

4-chloro-N-(2,2,2-trifluoroethyl)aniline

(C₈H₇ClF₃N; 22753-82-8) see: Quazepam

2-chloro-1,1,2-trifluoroethyl dichloromethyl ether

(C₃H₂Cl₂F₃O; 428-96-6) see: Enflurane

7-chloro-1-(2,2,2-trifluoroethyl)-2,3-dihydro-5-(2-fluorophenyl)-1H-1,4-benzodiazepin-2-one

(C₁₇H₁₃ClF₄N₂; 34482-99-0) see: Quazepam

2-chloro-1,1,2-trifluoroethyl methyl ether

(C₃H₄ClF₃O; 425-87-6) see: Enflurane

1-chloro-4-(trifluoromethyl)benzene

(C₇H₄ClF₃; 98-56-6) see: Fluoxetine

4-(4-chloro-3-trifluoromethylphenyl)-4-hydroxypiperidine

(C₁₂H₁₃ClF₃NO; 21928-50-7) see: Penfluridol

4-(4-chloro-3-trifluoromethylphenyl)-4-hydroxypiperidine-1-carboxylic acid methyl ester

(C₁₄H₁₅ClF₃NO₃) see: Penfluridol

4-chloro-3-trifluoromethylphenylmagnesium bromide

(C₇H₃BrClF₃Mg; 61895-77-0) see: Penfluridol

4-chloro-7-(trifluoromethyl)quinoline

(C₁₀H₅ClF₃N; 346-55-4) see: Antrafenine

4-chloro-8-(trifluoromethyl)quinoline

(C₁₀H₅ClF₃N; 23779-97-7) see: Floctafenine

2-chloro-2',3',4'-trihydroxyacetophenone

(C₈H₇ClO₄; 17345-68-5) see: Methoxsalen

2-chlorotriphenylcarbinol

(C₁₉H₁₅ClO; 66774-02-5) see: Clotrimazole

2-chlorotriphenylmethyl chloride

(C₁₉H₁₄Cl₂; 42074-68-0) see: Clotrimazole

(\pm)-chlorpheniramine

(C₁₆H₁₉ClN₂; 132-22-9) see: Dexchlorpheniramine

chlorprothixen

(C₁₈H₁₈ClNS; 113-59-7) see: Clopenthixol

chlortetracycline

(C₂₂H₂₃ClN₂O₈; 57-62-5) see: Tetracycline

chlortetracycline hydrochloride

(C₂₂H₂₄Cl₂N₂O₈; 64-72-2) see: Clomocycline

(3 β)-cholesta-5,7-diene-3,25-diol 3-acetate

(C₂₉H₄₆O₃; 24281-78-5) see: Calcifediol

(1 α ,3 β)-cholesta-5,7-diene-1,3,25-triol triacetate

(C₃₃H₅₀O₆; 39783-16-9) see: Calcitriol

cholesta-1,4,6-triene-3,24-dione

(C₂₇H₃₈O₂; 57701-40-3) see: Tacalcitol

1,5,7-cholestatrien-3 β -ol

(C₂₇H₄₂O; 54604-59-0) see: Alfalcaldol

(3 β)-cholest-5-ene-3,25-diol diacetate

(C₃₁H₅₀O₄; 59975-17-6) see: Calcifediol

(1 α ,3 β)-cholest-5-ene-1,3,24-triol

(C₂₇H₄₆O₃; 59780-19-7) see: Tacalcitol

(1 α ,3 β)-cholest-5-ene-1,3,25-triol triacetate

(C₃₃H₅₂O₆; 39783-14-7) see: Calcitriol

(1 α ,3 β ,24R)-cholest-5-ene-1,3,24-triol tribenzoate

(C₄₈H₅₈O₆; 57701-50-5) see: Tacalcitol

cholic acid

(C₂₄H₄₀O₅; 81-25-4) see: Chenodeoxycholic acid; Dehydrocholic acid

choline chloride

(C₅H₁₄ClNO; 67-48-1) see: Acetylcholine chloride; Choline salicylate

choline hydrogen carbonate

(C₆H₁₅NO₄; 78-73-9) see: Choline theophyllinate

choline hydroxide

(C₅H₁₅NO₂; 123-41-1) see: Acetylcholine chloride; Choline chloride; Choline dihydrogen citrate; Choline stearate

choline naphthalene-1,5-disulfonate

(C₂₀H₃₄N₂O₈S₂) see: Aclatonium napadisilate

choline tosylate

(C₁₂H₂₁NO₄S; 55357-38-5) see: Miltefosine

cinnamaldehyde

(C₉H₈O; 104-55-2) see: Alverine; Kawain; Torcemifene

cinnamic acid

(C₉H₈O₂; 140-10-3) see: Tolterodine

cinnamoyl chloride

(C₉H₇ClO; 102-92-1) see: Cinmetacin

cinnamyl alcohol

(C₉H₁₀O; 104-54-1) see: Chloramphenicol; Zipeprol

trans-cinnamyl alcohol

(C₉H₁₀O; 4407-36-7) see: Reboxetine

cinnamyl bromide

(C₉H₉Br; 4392-24-9) see: Cinnamedrine

cinnamyl chloride

(C₉H₉Cl; 2687-12-9) see: Cinnarizine; Naftifine

- cinnamyl 2-(3-nitrobenzylidene)acetoacetate**
(C₂₀H₁₇NO₃; 102106-88-7) see: Cilnidipine
- 1-cinnamylpiperazine**
(C₁₃H₁₈N₂; 18903-01-0) see: Flunarizine
- 1-trans-cinnamylpiperazine**
(C₁₃H₁₈N₂; 87179-40-6) see: Cinnarizine
- cisplatin**
(Cl₂H₆N₂Pt; 15663-27-1) see: Carboplatin; Nedaplatin
- cis-3,3,5-trimethylcyclohexyl (±)-mandelate**
(C₁₇H₂₄O₃) see: Micinicate
- citric acid**
(C₆H₈O₇; 77-92-9) see: Choline dihydrogen citrate
- citric acid monohydrate**
(C₆H₁₀O₈; 5949-29-1) see: Mosapride citrate
- (+)-citronellal**
(C₁₀H₁₈O; 2385-77-5) see: (-)-Menthol
- "β-C₁₈-ketone"**
(C₁₈H₂₆O; 17974-57-1) see: Retinol
- clocortolone**
(C₂₂H₂₈ClFO₄; 4828-27-7) see: Clocortolone
- clofexamide**
(C₁₄H₂₁ClN₂O₂; 1223-36-5) see: Clofezone
- clofibric acid**
see under 2-(4-chlorophenoxy)isobutyric acid
- cloprednol 21-acetate**
(C₂₃H₂₇ClO₆; 5383-17-5) see: Cloprednol
- cobalt trifluoride**
(CoF₃; 10026-18-3) see: Perflunafene
- codeine**
(C₁₈H₂₁NO₃; 76-57-3) see: Dihydrocodeine; Hydrocodone; Oxycodone
- copper cyanide (Cu(CN)₂)**
(C₂CuN₂; 4367-08-2) see: Cyamemazine
- copper(I) cyanide**
(CCuN; 544-92-3) see: Cinoxacin; Citalopram; Lamotrigine; Mabuterol; Methallenestril; Trimetrexate glucuronate
- Corey lactone**
(C₂₁H₂₀O₅; 31752-99-5) see: Dinoprost; Latanoprost; Unoprostone isopropyl
- cortisol 21-acetate**
(C₂₃H₃₂O₆; 50-03-3) see: Fludrocortisone; Hydrocortisone; Triamcinolone
- cortisone**
(C₂₁H₂₈O₅; 53-06-5) see: Prednisone
- cortisone 21-acetate**
see under 21-O-acetylcortisone
- cortisone 3,20-disemicarbazone 21-acetate**
(C₂₅H₃₆N₆O₆; 104117-71-7) see: Hydrocortisone
- cortisone 3-semicarbazone 21-acetate**
(C₂₄H₃₃N₃O₆; 123267-88-9) see: Cortisone
- cotarnine**
(C₁₂H₁₅NO₄; 82-54-2) see: Tritoqualine
- o*-cresol**
(C₇H₈O; 95-48-7) see: Mephenesin
- p*-cresol**
(C₇H₈O; 106-44-5) see: Tolterodine
- crotonaldehyde**
(C₄H₆O; 4170-30-3) see: Chlorquinaldol; Tilidine
- crotonic acid**
(C₄H₆O₂; 3724-65-0) see: Dorzolamide
- crotonobetaine**
(C₇H₁₃NO₂; 927-89-9) see: Carnitine
- crotonoyl chloride**
(C₄H₅ClO; 10487-71-5) see: Cropropamide; Crotamiton; Crotetamide
- cuminic acid**
(C₁₀H₁₂O₂; 536-66-3) see: Nateglinide
- cuprous cyanide**
see under copper(I) cyanide
- cyanamide**
(CH₂N₂; 420-04-2) see: Imolamine; Nafamostat; Pinacidil; Sulfamoxole
- cyanic acid silver(1+) salt**
(CAGNO; 3315-16-0) see: Azacitidine
- cyanoacetamide**
(C₃H₄N₂O; 107-91-5) see: Allopurinol; Amrinone; Ethionamide; Milrinone; Nevirapine; Olprinone hydrochloride; Protionamide
- cyanoacetic acid**
(C₃H₃NO₂; 372-09-8) see: Cyclopentamine; Levorphanol; Pyrantel; Sulindac
- cyanoacetyl chloride**
(C₃H₂ClNO; 16130-58-8) see: Cefacetrile
- 4-cyanobenzaldehyde**
(C₈H₅NO; 105-07-7) see: Hydroxystilbamidine isethionate
- α-cyanobenzeneacetamide**
(C₉H₈N₂O; 771-84-6) see: Mephenytoin
- 4-cyanobenzoic acid**
(C₈H₅NO₂; 619-65-8) see: Tranexamic acid
- α-cyano-5H-[1]benzopyrano[2,3-*b*]pyridine-7-acetic acid ethyl ester**
(C₁₇H₁₄N₂O₃; 77822-74-3) see: Pranoprofen
- 4-cyanobenzyl bromide**
(C₈H₆BrN; 17201-43-3) see: Fadzole; Fomocaine; Letrozole
- 1-cyanobicyclohexyl**
(C₁₃H₂₁N; 113777-31-4) see: Dicycloverine
- 2'-cyanobiphenyl-4-carboxaldehyde**
(C₁₄H₉NO; 135689-93-9) see: Valsartan
- N*-[(2'-cyano[1,1'-biphenyl]-4-yl)methyl]-L-valine methyl ester**
(C₂₀H₂₂N₂O₂; 137863-89-9) see: Valsartan
- cyanocobalamin**
(C₆₃H₈₈CoN₁₄O₁₄P; 68-19-9) see: Hydroxocobalamin
- cyanocyclohexane**
(C₇H₁₁N; 766-05-2) see: Dicycloverine
- 1-cyanocyclohexaneacetic acid**
(C₉H₁₃NO₂; 133481-09-1) see: Gabapentin
- 1-cyanocyclohexaneacetoneitrile**
(C₉H₁₂N₂; 4172-99-0) see: Gabapentin
- β-cyano-4-cyclohexylbenzenepropanoic acid ethyl ester**
(C₁₈H₂₃NO₂; 36414-03-6) see: Clidanac
- (1-cyanocyclohexyl)propanedioic acid dimethyl ester**
(C₁₂H₁₇NO₄; 128262-19-1) see: Gabapentin
- 6-cyano-11H-dibenz[*b,e*]azepine**
(C₁₅H₁₀N₂; 80012-69-7) see: Epinastine hydrochloride

3-cyano-1,2-dihydro-2-oxo-6-propyl-4-pyridinecarboxylic acid

(C₁₀H₁₀N₂O₃) see: Protonamide

1-cyano-2,2-diphenylcyclopropane

(C₁₆H₁₃N; 30932-41-3) see: Cibenzoline

γ-cyano-γ-ethylbenzenebutanoic acid methyl ester

(C₁₄H₁₇N₂O₂; 90424-96-7) see: Glutethimide

α-cyano-α-ethyl-1-cycloheptene-1-acetic acid methyl ester

(C₁₃H₁₉NO₂; 84803-64-5) see: Heptabarb

3-cyano-6-ethyl-1,2-dihydro-2-oxo-4-pyridinecarboxylic acid ethyl ester

(C₁₁H₁₂N₂O₃; 31718-05-5) see: Ethionamide

1-(2-cyanoethyl)-1-ethylurea

(C₈H₁₁N₃O; 28461-57-6) see: Sulfacitine

5-(2-cyanoethyl)hydantoin

(C₈H₇N₃O₂; 1007-06-3) see: L-Tryptophan

γ-cyano-γ-ethyl-4-nitrobenzenebutanoic acid methyl ester

(C₁₄H₁₆N₂O₄; 101939-07-5) see: Aminoglutethimide

1-(2-cyanoethyl)-2-piperidineethanol

(C₁₀H₁₈N₂O) see: Tiquizium bromide

N-[[[4-[[[(2-cyanoethyl)thio]methyl]-2-thiazolyl]amino]thioxomethyl]benzamide

(C₁₅H₁₄N₄OS₂; 76823-90-0) see: Famotidine

[4-[[[(2-cyanoethyl)thio]methyl]-2-thiazolyl]guanidine

(C₈H₁₁N₅S₂; 76823-93-3) see: Famotidine

9-cyanofluorene

(C₁₄H₉N; 1529-40-4) see: Indecainide

[3S-[1(cis),3α,4β]]-1-[4-cyano-4-(4-fluorophenyl)cyclohexyl]-3-methyl-4-phenyl-4-piperidinecarboxylic acid phenylmethyl ester

(C₃₃H₃₅FN₂O₂) see: Levocabastine

4-cyano-4-(4-fluorophenyl)heptanedioic acid dimethyl ester

(C₁₆H₁₈FN₂O₄; 56326-92-2) see: Levocabastine

5-cyano-5-(4-fluorophenyl)-2-oxocyclohexanecarboxylic acid methyl ester

(C₁₅H₁₄FN₂O₃; 56326-95-5) see: Levocabastine

cyanogen bromide

(CBrN; 506-68-3) see: Anagrelide hydrochloride; Desloratadine; Epinastine hydrochloride; Fluoxetine; Nalorphine; Naloxone; Pergolide

cyanogen chloride

(CClN; 506-77-4) see: Oxcarbazepine

4-cyano-4-hydroxy-1,1-dimethyl-4-phenyl-1H-azepinium bromide

(C₁₅H₂₁BrN₂; 7512-10-9) see: Ethoheptazine

2-cyano-2-hydroxyindane

(C₁₀H₉NO; 55589-21-4) see: Indanorex

3-cyano-4-hydroxy-6,7-methylenedioxcinnoline

(C₁₀H₅N₃O₃; 28657-78-5) see: Cinoxacin

3-cyano-4-imino-9-methyl-4H-pyrido[1,2-a]pyrimidine

(C₁₀H₈N₄; 102781-19-1) see: Pemirolast

5-cyano-5-(*m*-methoxyphenyl)heptanoic acid ethyl ester

(C₁₇H₂₃NO₃; 27180-88-7) see: Meptazinol

4-cyano-4-(3-methoxyphenyl)-1-methylpiperidine

(C₁₄H₁₈N₂O; 5460-79-7) see: Ketobemidone

2-cyano-3-methoxypyrazine

(C₆H₅N₃O; 75018-05-2) see: Sulfalene

α-cyano-α-methyl-5H-[1]benzopyrano[2,3-*b*]pyridine-7-acetic acid ethyl ester

(C₁₈H₁₆N₂O₃; 52549-16-3) see: Pranoprofen

1-cyanomethylimidazole

(C₅H₅N₃; 98873-55-3) see: Lanoconazole

***N*-cyano-*N'*-[2-[[[5-methyl-1H-imidazol-4-yl)methyl]-thio]ethyl]carbamidodithioic acid methyl ester**

(C₁₀H₁₅N₅S₂; 52378-40-2) see: Cimetidine

2-cyano-*N*-methyl-*N'*-[(methylamino)carbonyl]acetamide

(C₆H₉N₃O₂; 39615-79-7) see: Theophylline

5-cyano-4-methylloxazole

(C₅H₄N₂O; 1003-52-7) see: Pyridoxine

2-cyano-3-methyl-2-pentenoic acid ethyl ester

(C₉H₁₃NO₂; 759-51-3) see: Ethosuximide

4-cyano-1-methyl-4-phenylhexahydroazepine

(C₁₄H₁₈N₂; 6315-32-8) see: Ethoheptazine

cyanomethyl phenyl ketone

(C₉H₇NO; 614-16-4) see: Fluoxetine

4-cyano-1-methyl-4-phenylpiperidine

(C₁₃H₁₆N₂; 3627-62-1) see: Pethidine

2-cyano-3-methylpyridine

(C₇H₆N₂; 20970-75-6) see: Loratadine

2-cyano-2-methyltetrahydrofuran

(C₆H₉NO; 19679-75-5) see: Mefruside

2-cyano-*N*-methyl-*N*-tetrahydrofuroylethylamine

(C₉H₁₄N₂O₂; 72104-44-0) see: Alfuzosin

2-cyano-8-nitro-1-benzopyran-4-one

(C₁₀H₄N₂O₄; 141283-41-2) see: Pranlukast

5-cyano-10-nitro-5H-dibenz[*b,f*]azepine

(C₁₅H₉N₃O₃; 78880-63-4) see: Oxcarbazepine

4-cyano-2-nitrotoluene

(C₈H₆N₂O₂; 939-79-7) see: Hydroxystilbamidine

isethionate

2-cyano-3-phenethylpyridine

(C₁₄H₁₂N₂; 14578-23-5) see: Azatadine

2-cyanophenothiazine

(C₁₃H₈N₂S; 38642-74-9) see: Cyamemazine; Periciazine

***N*-[2-[3-(2-cyanophenoxy)-2-hydroxypropylamino]ethyl]-4-benzyloxyphenylacetamide**

(C₂₇H₂₉N₃O₄) see: Epanolol

α-cyanophenylacetic acid ethyl ester

(C₁₁H₁₁NO₂; 4553-07-5) see: Mephenytoin; Phenobarbital

4-(2-cyanophenyl)benzyl bromide

see under 4-(bromomethyl)biphenyl-2-carbonitrile

2-cyano-3-phenyl-2-butenic acid methyl ester

(C₁₂H₁₁NO₂; 14505-27-2) see: Mesuximide

2-cyano-2-phenylbutyramide

(C₁₁H₁₂N₂O; 80544-75-8) see: Mephenytoin

2-cyano-2-phenylbutyric acid ethyl ester

(C₁₃H₁₅NO₂; 718-71-8) see: Phenobarbital

1-cyano-1-phenylcyclohexane

(C₁₃H₁₅N; 2201-23-2) see: Dicycloverine

1-cyano-1-phenylcyclopentane

(C₁₂H₁₃N; 77-57-6) see: Pentoxiverine

4-[2-(4-cyanophenyl)ethyl]-3-hydroxybenzotrile

(C₁₆H₁₀N₂O; 67466-66-4) see: Hydroxystilbamidine

isethionate

(cyanophenylmethyl)urea

(C₉H₉N₃O; 88169-89-5) see: Ethotoin

2-cyano-3-phenyl-2-propenoic acid ethyl ester(C₁₂H₁₁NO₂; 2025-40-3) see: Phensuximide**3-cyanopropanal diethyl acetal**(C₈H₁₅NO₂; 18381-45-8) see: Zolmitriptan**3-cyanopropionaldehyde**(C₄H₅NO; 3515-93-3) see: L-Tryptophan**3-cyanoquinolizidine**(C₁₀H₁₆N₂; 73259-83-3) see: Tiquizium bromide**1-cyanotetralin**(C₁₁H₁₁N; 56536-96-0) see: Tetryzoline**2-cyano-10-[3-(*p*-toluenesulfonyloxy)propyl]phenothiazine**(C₂₃H₂₀N₂O₃S₂; 112045-51-9) see: Periciazine**4-cyano-3-trifluoromethylaniline**(C₈H₅F₃N₂; 654-70-6) see: Bicalutamide**4'-cyano-3'-trifluoromethyl-2,3-epoxy-2-methylpropionanilide**(C₁₂H₉F₃N₂O₂; 90357-51-0) see: Bicalutamide**4'-cyano-3'-trifluoromethylmethacrylanilide**(C₁₂H₉F₃N₂O; 90357-53-2) see: Bicalutamide***N*-[4-cyano-2-(trifluoromethyl)phenyl]acetamide**(C₁₀H₉F₃N₂O; 175277-96-0) see: Mabutrol***N*-(4-cyano-3-trifluoromethylphenyl)-3-(fluorophenylsulfanyl)-2-hydroxy-2-methylpropionamide**(C₁₈H₁₄F₄N₂O₂S; 90356-78-8) see: Bicalutamide**2-cyano-3-(3,4,5-trimethoxyphenyl)-2-propenoic acid ethyl ester**(C₁₅H₁₇NO₅; 2601-03-8) see: Trimethoprim**cyanuric chloride**(C₃Cl₃N₃; 108-77-0) see: Almitrine; Altretamine**cyclobutanecarbonyl chloride**(C₅H₇ClO; 5006-22-4) see: Butorphanol; Nalbuphine**1,1-cyclobutanedicarboxylic acid**(C₆H₈O₄; 5445-51-2) see: Carboplatin**(±)-17-(cyclobutylcarbonyl)-8,14-didehydro-3-methoxymorphinan**(C₂₂H₂₇NO₂; 58786-76-8) see: Butorphanol**17-(cyclobutylcarbonyl)-4,5 α -epoxy-3,14-dihydroxymorphinan-6-one 3-cyclobutanecarboxylate**(C₂₆H₂₉NO₆; 16676-35-0) see: Nalbuphine**(±)-(8 β)-17-(cyclobutylcarbonyl)-8,14-epoxy-3-methoxymorphinan**(C₂₂H₂₇NO₃; 58786-75-7) see: Butorphanol**cyclobutylmethyl bromide**(C₅H₉Br; 17247-58-4) see: Nalbuphine**(±)-17-(cyclobutylmethyl)-3-methoxymorphinan-14-ol**(C₂₃H₃₁NO₂; 51491-06-6) see: Butorphanol **β -cyclodextrin**(C₄₂H₇₀O₃₅; 7585-39-9) see: Benexate; Piroxicam**cyclodextrin****cycloheptanone**(C₇H₁₂O; 502-42-1) see: Bencyclane; Heptabarb**cycloheptylamine**(C₇H₁₅N; 5452-35-7) see: Incadronic acid**D-2-(1,4-cyclohexadienyl)glycine**(C₈H₁₁NO₂; 26774-88-9) see: Cefradine; Epicillin**cyclohexanecarbonyl chloride**(C₇H₁₁ClO; 2719-27-9) see: Praziquantel**1,1-cyclohexanediacetic acid**(C₁₀H₁₆O₄; 4355-11-7) see: Gabapentin**1,1-cyclohexanediacetic anhydride**(C₁₀H₁₄O₃; 1010-26-0) see: Gabapentin**cyclohexane-1,3-dione**(C₆H₈O₂; 504-02-9) see: Carteolol; Molindone; Ondansetron**cyclohexane oxide**(C₆H₁₀O; 286-20-4) see: Cethexonium bromide**cyclohexanol**(C₆H₁₂O; 108-93-0) see: Biotin**cyclohexanone**(C₆H₁₀O; 108-94-1) see: Calusterone; Clinofibrate; Cyclobarbitol; Cyclobutylol; Cyclovalone; Ethinamate; Gabapentin; Guanadrel; Hexobarbital; Levorphanol; Orlistat; Ramatroban; Tacrine; Tenylidone; Venlafaxine**2-cyclohexen-1-one**(C₆H₈O; 930-68-7) see: Carprofen**1-cyclohexenylacetoneitrile**(C₈H₁₁N; 6975-71-9) see: Levorphanol**2-(1-cyclohexenyl)ethylamine**(C₈H₁₅N; 3399-73-3) see: Levorphanol***N*-[2-(1-cyclohexenyl)ethyl]-4-methoxyphenylacetamide**(C₁₇H₂₃NO₂; 51072-34-5) see: Levorphanol**cyclohexylamine**(C₆H₁₃N; 108-91-8) see: Cilostazol; Clorexolone; Metahexamide**1-(cyclohexylamino)-2-propanol hydrochloride**(C₉H₂₀ClNO) see: Hexylcaine **β -cyclohexyl aspartate**(C₁₀H₁₇NO₄; 112259-66-2) see: Eptifibatide**4-cyclohexylbenzaldehyde**(C₁₃H₁₆O; 27634-89-5) see: Clidnac**cyclohexyl bromide**(C₆H₁₁Br; 108-85-0) see: Dicycloverine**2-(cyclohexylcarbonyl)-1,2-dihydro-1-isoquinolinecarbo-nitrile**(C₁₇H₁₈N₂O; 93271-68-2) see: Praziquantel**1-cyclohexyl-5-(4-chlorobutyl)tetrazole**(C₁₁H₁₉ClN₄; 73963-42-5) see: Cilostazol**cyclohexylglyoxylic acid**(C₈H₁₂O₃; 4354-49-8) see: Cetiedil***N*-cyclohexyl-*N'*-(2-hydroxyethyl)urea**(C₉H₁₈N₂O₂; 66929-46-2) see: Lomustine**5-cyclohexyl-1-indancarboxylic acid**(C₁₆H₂₀O₂; 31962-05-7) see: Clidnac**5-cyclohexyl-1-indanone**(C₁₅H₁₈O; 38240-91-4) see: Clidnac**cyclohexyl 1-iodoethyl carbonate**(C₉H₁₅IO₃; 102672-57-1) see: Candesartan cilexetil**cyclohexyl isocyanate**(C₇H₁₁NO; 3173-53-3) see: Acetohexamide; Glibenclamide; Glipizide; Gliquidone; Lomustine; Talinolol**cyclohexylmagnesium bromide**(C₆H₁₁BrMg; 931-50-0) see: Hexocyclium metilsulfate; Perhexiline; Tetrazepam; Tridihexethyl chloride; Trihexphenidyl**cyclohexylmethylamine**(C₇H₁₅N; 3218-02-8) see: Bromhexine**cyclohexylmethyl chloroformate**(C₈H₁₃ClO₂; 6099-86-1) see: Trenbolone hexahydrobenzyl carbonate

- α -cyclohexyl-4-methyl- α -phenyl-1-piperazineethanol**
(C₁₉H₃₀N₂O; 7556-54-9) see: Hexocyclium metilsulfate
- 6-cyclohexyl-4-methyl-2-pyrone**
(C₁₂H₁₆O₃; 14818-35-0) see: Ciclopirox
- 4-(cyclohexyloxy)benzoic acid**
(C₁₃H₁₆O₃; 139-61-7) see: Cyclomethycaine
- 3-(4-cyclohexylphenyl)dihydro-2,5-furandione**
(C₁₆H₁₈O₃; 36414-05-8) see: Clidanac
- α -cyclohexyl- α -phenylglycolic acid**
(C₁₄H₁₈O₃; 4335-77-7) see: Oxyphenyclimine
- α -cyclohexylphenylglycolic acid 2-diethylaminoethyl ester**
(C₁₈H₂₇NO₃; 25520-98-3) see: Oxyphenonium bromide
- α -cyclohexylphenylglycolic acid methyl ester**
(C₁₅H₂₀O₃; 10399-13-0) see: Oxybutynin; Oxyphenonium bromide; Oxypryronium bromide
- α -cyclohexylphenylglycolic acid (1-methyl-2-pyrrolidinyl)methyl ester**
(C₂₀H₂₉NO₃; 94868-25-4) see: Oxypryronium bromide
- α -cyclohexylphenylglycolic acid propargyl ester**
(C₁₇H₂₀O₃; 81039-74-9) see: Oxybutynin
- [(4-cyclohexylphenyl)methylene]propanedioic acid diethyl ester**
(C₂₀H₂₆O₄; 29041-00-7) see: Clidanac
- trans-4-cyclohexyl-L-proline**
(C₁₁H₁₉NO₂; 103201-78-1) see: Fosinopril
- cyclohexyl(3-thienyl)acetic acid**
(C₁₂H₁₆O₂S; 16199-74-9) see: Cetiedil
- cyclohexyl(3-thienyl)glycolic acid**
(C₁₂H₁₆O₃S; 3193-02-0) see: Cetiedil
- cyclopentadiene**
(C₅H₆; 542-92-7) see: Abacavir; Biperidene; Bornaprine; Cyclothiazide; Fencamfamin
- 2,4-cyclopentadienylmethyl benzyl ether**
(C₁₃H₁₄O; 39939-07-6) see: Dinoprost
- cyclopentaneacetonitrile**
(C₇H₁₁N; 5732-87-6) see: Cyclopentamine
- cyclopentanone**
(C₅H₈O; 120-92-3) see: Amcinonide; Cyclopentamine; Cyclopentolate; Irbesartan
- 3-cyclopentene-1-carboxylic acid**
(C₆H₈O₂; 7686-77-3) see: Dolasetron mesilate
- cyclopentylacetaldehyde**
(C₇H₁₂O; 5623-81-4) see: Cyclophentiazide
- cyclopentylacetone**
(C₈H₁₄O; 1122-98-1) see: Cyclopentamine
- cyclopentyl alcohol**
(C₅H₁₀O; 96-41-3) see: Penmesterol; Pentagestrone acetate; Quingestanol acetate
- cyclopentyl bromide**
(C₅H₉Br; 137-43-9) see: Quinestrol
- cyclopentyl chloroformate**
(C₆H₉ClO₂; 50715-28-1) see: Zafirlukast
- α -cyclopentyl- α -hydroxybenzeneacetic acid 1-methyl-3-pyrrolidinyl ester**
(C₁₈H₂₅NO₃; 13118-11-1) see: Glycopyrronium bromide
- cyclopentylideneacetonitrile**
(C₇H₉N; 5732-88-7) see: Cyclopentamine
- cyclopentylmagnesium bromide**
(C₅H₉BrMg; 33240-34-5) see: Cycrimine; Glycopyrronium bromide; Ketamine; Penthienate methobromide
- 4-[5-(cyclopentylloxycarbonylamino)-1-methylindol-3-yl-methyl]-3-methoxybenzoic acid**
(C₂₄H₂₆N₂O₅; 107754-20-1) see: Zafirlukast
- 3-cyclopentylloxy-17-oxo-3,5-androstadiene**
(C₂₄H₃₄O₂; 15236-92-7) see: Penmesterol
- 2-cyclopentylphenol**
(C₁₁H₁₄O; 1518-84-9) see: Penbutolol
- 3-cyclopentylpropionic acid**
(C₈H₁₄O₂; 140-77-2) see: Estradiol cypionate
- 3-cyclopentylpropionyl chloride**
(C₈H₁₃ClO; 104-97-2) see: Estradiol cypionate; Testosterone cypionate
- cyclopentyl-2-thienylglycolic acid**
(C₁₁H₁₄O₃S; 3899-50-1) see: Penthienate methobromide
- cyclopentyl-2-thienylglycolic acid 2-diethylaminoethyl ester**
(C₁₇H₂₇NO₃S; 15421-88-2) see: Penthienate methobromide
- cyclopropanecarbonyl chloride**
(C₄H₅ClO; 4023-34-1) see: Buprenorphine; Fexofenadine hydrochloride; Naltrexone; Prazepam
- cyclopropanecarboxylic acid ethyl ester**
(C₆H₁₀O₂; 4606-07-9) see: Pimozide
- 1,1-cyclopropanedimethanol**
(C₃H₁₀O₂; 39590-81-3) see: Montelukast sodium
- 1,1-cyclopropanedimethanol monobenzoate**
(C₁₂H₁₄O₃; 142148-11-6) see: Montelukast sodium
- cyclopropylacetylene**
(C₃H₆; 6746-94-7) see: Efavirenz
- cyclopropylamine**
(C₃H₇N; 765-30-0) see: Abacavir; Ciprofloxacin; Grepafloxacin; Moxifloxacin hydrochloride; Nevirapine; Sparfloxacin
- 2-(cyclopropylamino)-N-(2,6-dichloro-4-methyl-3-pyridinyl)-3-pyridinecarboxamide**
(C₁₅H₁₄Cl₂N₄O; 142266-59-9) see: Nevirapine
- 2-(cyclopropylamino)-N-(2-methoxy-4-methyl-3-pyridinyl)-3-pyridinecarboxamide**
(C₁₆H₁₈N₄O₂; 162709-30-0) see: Nevirapine
- α -[(cyclopropylamino)methylene]-2,4,5-trifluoro-3-methoxy- β -oxobenzenepropanoic acid ethyl ester**
(C₁₆H₁₆F₃NO₄; 112811-70-8) see: Moxifloxacin hydrochloride
- (1 α ,3 β ,5E,7E,20S,22E)-24-cyclopropyl-1,3-bis[[1,1-dimethylethyl]dimethylsilyl]oxy]-9,10-secochola-5,7,10(19),22-tetraen-24-one**
(C₃₉H₆₆O₃Si₂; 115648-68-5) see: Calcipotriol
- (1 α ,3 β ,5E,7E,20S,22E,24S)-24-cyclopropyl-1,3-bis[[1,1-dimethylethyl]dimethylsilyl]oxy]-9,10-secochola-5,7,10(19),22-tetraen-24-ol**
(C₃₉H₆₈O₃Si₂; 134523-61-8) see: Calcipotriol
- (1 α ,3 β ,5Z,7E,20S,22E,24S)-24-cyclopropyl-1,3-bis[[1,1-dimethylethyl]dimethylsilyl]oxy]-9,10-secochola-5,7,10(19),22-tetraen-24-ol**
(C₃₉H₆₈O₃Si₂; 134523-70-9) see: Calcipotriol
- 17-(cyclopropylcarbonyl)-4,5 α -epoxy-3,14-dihydroxymorphinan-6-one cyclic ethylene acetal 3-cyclopropanecarboxylate**
(C₂₆H₂₉NO₇; 16676-30-5) see: Naltrexone
- (cyclopropylcarbonylmethylene)triphenylphosphorane**
(C₂₃H₂₁OP; 7691-76-1) see: Calcipotriol

1-cyclopropyl-6,8-difluoro-1,4-dihydro-7-[(4a*S*,7a*S*)-octahydro-6*H*-pyrrolo[3,4-*b*]pyridin-6-yl]-4-oxo-3-quinolinecarboxylic acid(C₂₀H₂₁F₂N₃O₃; 151213-15-9) see: Moxifloxacin hydrochloride**1-cyclopropyl-6,7-difluoro-8-methoxy-4-oxo-1,4-dihydroquinoline-3-carboxylic acid**(C₁₄H₁₁F₂NO₄; 112811-72-0) see: Moxifloxacin hydrochloride**5-cyclopropyl-10,11-dihydro-5*H*-dibenzo[*a,d*]cyclohepten-5-ol**(C₁₈H₁₈O; 3241-97-2) see: Amitriptyline**1-cyclopropyl-6-fluoro-1,4-dihydro-5-methyl-7-(3-methyl-1-piperazinyl)-4-oxo-3-quinolinecarboxylic acid ethyl ester**(C₂₁H₂₆FN₃O₃) see: Grepafloxacin**cyclopropylmagnesium bromide**(C₃H₅BrMg; 23719-80-4) see: Amitriptyline; Tiagabine**4-[2-(cyclopropylmethoxy)ethyl]-1-(phenylmethoxy)benzene**(C₁₉H₂₂O₂; 63659-15-4) see: Betaxolol**cyclopropylmethyl bromide**(C₄H₇Br; 7051-34-5) see: Betaxolol; Cimetropium bromide; Flutoprazepam; Naltrexone; Prazepam***N*-cyclopropylmethyl-6,14-endo-ethano-7 α -[(1*S*)-1-hydroxy-1,2,2-trimethylpropyl]tetrahydronorthebaine**(C₃₀H₄₃NO₃; 16524-65-5) see: Buprenorphine**(2-cyclopropyl-2-oxoethyl)triphenylphosphonium bromide**(C₂₃H₂₂BrOP; 112849-15-7) see: Calcipotriol**1-cyclopropyl-6,7,8-trifluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid**(C₁₃H₈F₃NO₃; 94695-52-0) see: Moxifloxacin hydrochloride**L-Cys-L-Phe-L-Phe-L-Gln-L-Asn-L-Cys-L-Pro-L-Lys-Gly-NH₂**(C₄₆H₆₇N₁₃O₁₁S₂; 106884-70-2) see: Felypressin**cystamine**(C₄H₁₂N₂S₂; 51-85-4) see: Pantethine**cystamine dihydrochloride**(C₄H₁₄Cl₂N₂S₂; 56-17-7) see: Pantethine**cysteamine**(C₂H₇NS; 60-23-1) see: Ebrotidine; Nizatidine**cysteamine hydrochloride**(C₂H₈ClNS; 156-57-0) see: Cimetidine; Ranitidine; Rifaxacin hydrochloride**L-cysteine**(C₃H₇NO₂S; 52-90-4) see: Carbocysteine; Cilastatin; Eptifibatide; Letosteine; Timonacic**L-cysteine hydrochloride monohydrate**(C₃H₁₀ClNO₃S; 7048-04-6) see: Acetylcysteine; Mecysteine hydrochloride**L-cystine dimethyl ester dihydrochloride**(C₈H₁₈Cl₂N₂O₄S₂; 32854-09-4) see: Mecysteine hydrochloride**cytidine**(C₉H₁₃N₃O₅; 65-46-3) see: Ancitabine**cytidine-5'-phosphoric acid tributylamine salt**(C₂₁H₄₁N₄N₄O₈P; 51450-21-6) see: Citicoline**cytosine**(C₄H₅N₃O; 71-30-7) see: Cidofovir; Lamivudine**D****DANE salt**(C₁₃H₁₄NNaO₃; 26787-84-8) see: Amoxicillin; Cefoperazone**Dane salt of ampicillin**(C₂₁H₂₄KN₃O₆S; 84367-01-1) see: Sultamicillin**dapsone**(C₁₂H₁₂N₂O₂S; 80-08-0) see: Acediasulfone; Sulfoxone sodium**daunomycinone**(C₂₁H₁₈O₈; 21794-55-8) see: Idarubicin**daunorubicin**(C₂₇H₂₉NO₁₀; 20830-81-3) see: Zorubicin**10-deacetylbaaccatin III**(C₂₉H₃₆O₁₀; 32981-86-5) see: Docetaxel; Paclitaxel**deacetylcephalosporin C sodium salt**(C₁₄H₁₈N₃NaO₇S; 14488-15-4) see: Cefixime**(2*R*,3*S*)-*N*-debenzoyl-*N*-tert-butoxycarbonyl-10-deacetyl-2-(1-ethoxyethyl)-7,10-bis(triethylsilyl)taxol**(C₅₉H₈₂NO₁₅Si₂) see: Docetaxel**[3*aR*,3*ac*,8*a*,8*bc*]-decahydro-2-oxo-1,3-bis(phenylmethyl)thieno[1',2':1,2]thieno[3,4-*d'*]imidazol-5-ium bromide**(C₂₃H₂₅BrN₂OS; 33719-11-8) see: Biotin**1,10-decanediylbis[methylcarbamic acid] bis[3-(dimethylamino)phenyl] ester**(C₃₀H₄₆N₄O₄; 96440-66-3) see: Demecarium bromide**1,10-decanediylbis[methylcarbamic chloride]**(C₁₄H₂₆Cl₂N₂O₂) see: Demecarium bromide**decanoyl chloride**(C₁₀H₁₉ClO; 112-13-0) see: Nandrolone decanoate**decyllithium**(C₁₀H₂₁Li; 4416-59-5) see: Orlistat**dehydroabietic acid**(C₂₀H₂₈O₂; 1740-19-8) see: Ecabet sodium**15-dehydro- β -carotene**(C₄₀H₅₄; 4481-69-0) see: Betacarotene**7-dehydrocholesterol**(C₂₇H₄₄O; 434-16-2) see: Colecalciferol**21-dehydroprednisolone**(C₂₁H₂₆O₅; 22420-16-2) see: Fluperolone acetate**16-dehydropregnenolone**(C₂₁H₃₀O₂; 1162-53-4) see: Algestone acetophenide; Desoxycortone acetate; Hydrocortisone; Hydroxyprogesterone**16-dehydropregnenolone acetate**(C₂₃H₃₂O₃; 979-02-2) see: Flumetasone; Fluprednidene acetate; Paramethasone; Prasterone; Pregnenolone**16-dehydroprogesterone**(C₂₁H₂₈O₂; 1096-38-4) see: Algestone acetophenide**4-demethoxydaunomycinone**(C₂₀H₁₆O₇; 60660-75-5) see: Idarubicin**4-demethoxy-4-(4-methoxybenzylamino)daunomycinone****1'-ethylene acetal**(C₃₀H₂₉NO₉; 125310-16-9) see: Idarubicin**1-demethylclobazam**(C₁₅H₁₁ClN₂O₂; 22316-55-8) see: Clobazam**4-*O*-demethyl-daunomicinone 1'-ethylene acetal**(C₂₂H₂₀O₉; 75075-21-7) see: Idarubicin

4-O-demethyl-daunomycinone(C₂₀H₁₆O₈; 52744-22-6) see: Idarubicin**4'-demethyl-epidophyllotoxin**(C₂₁H₂₀O₈; 6559-91-7) see: Teniposide**4'-demethylpodophyllotoxin**(C₂₁H₂₀O₈; 40505-27-9) see: Teniposide**6-demethyltetracycline**(C₂₁H₂₂N₂O₈; 987-02-0) see: Minocycline**4-O-demethyl-4-O-(p-toluenesulfonyl)-daunomycinone****1^β-ethylene acetal**(C₂₉H₂₆O₁₁S; 125310-15-8) see: Idarubicin**2-deoxy-9a-aza-9a-homoerythromycin A**(C₃₇H₇₀N₂O₁₂; 76801-85-9) see: Azithromycin**deoxyanisoic acid**(C₁₆H₁₆O₃; 120-44-5) see: Diethylstilbestrol; Mofezolac; Raloxifene hydrochloride**deoxyanisoic oxime**(C₁₆H₁₇NO₃; 5471-45-4) see: Mofezolac**2-deoxy-3,5-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-2,2-****difluoro-D-erythro-pentonic acid γ-lactone**(C₁₇H₃₄F₂O₄Si₂; 95058-78-9) see: Gemcitabine**2-deoxy-2,2-difluoro-4,5-O-(1-methylethylidene)-D-****erythro-pentonic acid ethyl ester**(C₁₀H₁₆F₂O₅; 95058-92-7) see: Gemcitabine**2-deoxy-2,2-difluoro-D-erythro-pentano-1,4-lactone**(C₅H₆F₂O₄; 95058-77-8) see: Gemcitabine**2-deoxy-2,2-difluoro-D-ribofuranose**(C₅H₈F₂O₄) see: Gemcitabine**3'-deoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-5-methyl-2'-S-phenyl-2'-thiouridine**(C₃₂H₃₆N₂O₄SSi; 129778-51-4) see: Stavudine**3-deoxy-5-O-[(1,1-dimethylethyl)diphenylsilyl]-2-S-phenyl-2-thio-D-erythro-pentonic acid γ-lactone**(C₂₇H₃₀O₃SSi; 129778-50-3) see: Stavudine**1-deoxy-1-[[4,5-dimethyl-2-(phenylazo)phenyl]amino]-D-ribitol**(C₁₉H₂₅N₃O₄; 21037-26-3) see: Riboflavin**2-deoxy-3,5-di-O-p-toluoyl-α-D-erythro-pentofuranosyl chloride**(C₂₁H₂₁ClO₅; 4330-21-6) see: Cladribine**(+)-deoxyephedrine**(C₁₀H₁₅N; 537-46-2) see: Benzphetamine**1-(2-deoxy-3,5-epoxy-β-D-threo-pentofuranosyl)cytosine**(C₉H₁₁N₃O₃; 7481-87-0) see: Zalcitabine**5'-deoxy-5-fluorocytidine**(C₉H₁₃FN₃O₄; 66335-38-4) see: Capecitabine**5'-deoxy-5-fluoro-5'-iodouridine**(C₉H₁₀FIN₂O₅; 61787-13-1) see: Doxifluridine**5'-deoxy-5-fluoro-N-[(pentyloxy)carbonyl]cytidine 2',3'-bis(pentyl carbonate)**(C₂₇H₄₂FN₃O₁₀; 174667-24-4) see: Capecitabine**5'-deoxy-5-fluoro-N-[(pentyloxy)carbonyl]cytidine 2',3'-diacetate**(C₁₉H₂₆FN₃O₈; 162204-20-8) see: Capecitabine**1-deoxy-1-[(2-hydroxyethyl)amino]-D-glucitol**(C₈H₁₉NO₆; 54662-27-0) see: Miglitol**6-deoxy-6-(2-hydroxyethyl)amino]-L-sorbose**(C₈H₁₇NO₆) see: Miglitol**5'-deoxy-5'-iodoadenosine**(C₁₀H₁₂IN₅O₃; 4099-81-4) see: Cobamide**5'-deoxy-5'-iodo-2',3'-O-isopropylidene-5-fluorouridine**(C₁₂H₁₄FIN₂O₅; 61787-10-8) see: Doxifluridine**2'-deoxy-5-iodouridine 3',5'-bis(4-methylbenzenesulfonate)**(C₂₃H₂₃IN₂O₉S₂) see: Idoxuridine**5'-deoxy-2',3'-O-isopropylidene-5-fluorouridine**(C₁₂H₁₃FN₂O₅; 66335-39-5) see: Doxifluridine**2-deoxyribofuranosyl chloride 3,5-bis(4-nitrobenzoate)**(C₁₉H₁₃ClN₂O₉; 51841-98-6) see: Trifluridine**2-deoxy-D-ribose**(C₅H₁₀O₄; 533-67-5) see: Idoxuridine**2'-deoxyuridine**(C₉H₁₂N₂O₅; 951-78-0) see: Idoxuridine**dequalinium iodide**(C₃₀H₄₀I₂N₄; 2019-42-3) see: Dequalinium chloride**desipramine**(C₁₈H₂₃ClN₂; 58-28-6) see: Lofepramine**deslanoside**(C₄₇H₇₄O₁₉; 17598-65-1) see: Lanatoside C**Dess-Martin periodinane**(C₁₃H₁₃IO₈; 87413-09-0) see: Tacrolimus**dexamethasone**(C₂₂H₂₉FO₅; 50-02-2) see: Dexamethasone *tert*-butylacetate; Dexamethasone 21-isonicotinate; Dexamethasone 21-inolate; Dexamethasone phosphate; Dexamethasone pivalate**dexamphetamine**(C₉H₁₃N; 51-64-9) see: Clobenzorex**dextrin**

(unspecified; 9004-53-9) see: Cadexomer iodine

2,6-diacetamido-9-(2,3,5-tri-O-benzyl-β-D-arabinofuranosyl)purine(C₃₅H₃₆N₆O₆; 25146-54-7) see: Fludarabine phosphate**diacetone-2-oxo-L-gulonic acid**(C₁₂H₁₈O₇; 18467-77-1) see: Ascorbic acid**diacetone-L-sorbose**(C₁₂H₂₀O₆; 17682-70-1) see: Ascorbic acid**3',5'-diacetoxyacetophenone**(C₁₂H₁₂O₅; 35086-59-0) see: Fenoterol; Orciprenaline**3',5'-diacetoxy-2-bromoacetophenone**

see under 2-bromo-3',5'-diacetoxyacetophenone

16α,21-diacetoxy-11β,17-dihydroxy-3,20-dioxo-9-fluoro-4-pregnene(C₂₅H₃₃FO₈; 426-39-1) see: Triamcinolone; Triamcinolone diacetate**16α,21-diacetoxy-3,20-dioxo-17-hydroxy-9β,11β-epoxy-1,4-pregnadiene**(C₂₅H₃₀O₈; 96670-24-5) see: Triamcinolone diacetate**5α,21-diacetoxy-6β-fluoro-3β,17-dihydroxy-16α-methylpregnan-20-one**(C₂₆H₃₉FO₇; 2707-32-6) see: Paramethasone**3β,26-diacetoxy-5α-furost-20(22)-en-11-one**(C₃₁H₄₆O₆; 108248-58-4) see: Alfaxalone**2-diacetoxymethyl-5-nitrofurran**(C₉H₉NO₇; 92-55-7) see: Nitrofurantoin**3β,17β-diacetoxy-17α-methyl-7-oxo-5-androstene**(C₂₄H₃₄O₅; 37038-00-9) see: Calusterone**3α,20-diacetoxy-16β-methylpregn-17(20)-ene-11-one**(C₂₆H₃₈O₅; 76564-00-6) see: Betamethasone

- 4-(2,5-diacetoxy-3,4,6-trimethylphenyl)-2-butanone**
(C₁₇H₂₂O₅; 53101-69-2) see: Troglitazone
- "**diacetylaciclovir**"
(C₁₂H₁₅N₃O₅; 75128-73-3) see: Aciclovir
- 2,4-diacetyl-3-(4-chlorophenyl)pentanedioic acid diethyl ester**
(C₁₉H₂₃ClO₆; 84803-73-6) see: Baclofen
- 2',3'-di-O-acetyl-5'-deoxy-5-fluorocytidine**
(C₁₃H₁₆FN₃O₆; 161599-46-8) see: Capecitabine
- N²,9-diacetylguanine**
(C₉H₉N₅O₃; 3056-33-5) see: Aciclovir; Ganciclovir
- diallylnortoxiferin diiodide**
(C₄₄H₃₀I₂N₄O₂; 25389-91-7) see: Alcuronium chloride
- 3,6-diaminoacridine**
(C₁₃H₁₁N₃; 92-62-6) see: Acriflavinium chloride
- 2,5-diaminoanisole**
(C₇H₁₀N₂O; 5307-02-8) see: Phanquinone
- 3,5-diaminobenzoic acid**
(C₇H₈N₂O₂; 535-87-5) see: Amidotrizoic acid
- 3,4-diaminobenzophenone**
(C₁₃H₁₂N₂O; 39070-63-8) see: Mebendazole
- (±)-cis-4-[(2,5-diamino-4-chloro-6-pyrimidinyl)amino]-2-cyclopentene-1-methanol**
(C₁₀H₁₄ClN₅O; 122624-77-5) see: Abacavir
- 2,4-diamino-6-chloro-5-(3,4,5-trimethoxybenzyl)pyrimidine**
(C₁₄H₁₇ClN₄O₃; 30563-87-2) see: Trimethoprim
- 1(R),2(R)-diaminocyclohexane**
(C₆H₁₄N₂; 20439-47-8) see: Oxaliplatin
- 2,4-diamino-6-(2,4-dichlorophenoxy)pyrimidine**
(C₁₀H₈Cl₂N₄O; 16317-65-0) see: Minoxidil
- 2,4-diamino-6-(2,4-dichlorophenoxy)pyrimidine 3-oxide**
(C₁₀H₈Cl₂N₄O₂; 128305-05-5) see: Minoxidil
- "**3,6-diamino-9,10-dihydroacridine**"
(C₁₃H₁₃N₃; 83996-56-9) see: Acriflavinium chloride
- 5,6-diamino-1,3-dimethyluracil**
(C₆H₁₀N₄O₂; 5440-00-6) see: Theophylline
- 4,4'-diamino-2,2'-dinitrodiphenylmethane**
(C₁₃H₁₂N₄O₄; 26946-33-8) see: Acriflavinium chloride
- 4,4'-diaminodiphenylmethane**
(C₁₃H₁₄N₂; 101-77-9) see: Acriflavinium chloride
- 4,4'-diaminodiphenyl sulfide**
(C₁₂H₁₂N₂S; 139-65-1) see: Dapsone
- 3,4-diamino-4'-fluorobenzophenone**
(C₁₃H₁₁FN₂O; 66938-86-1) see: Flubendazole
- (2S,3S,5S)-2,5-diamino-3-hydroxy-1,6-diphenylhexane**
(C₁₈H₂₄N₂O; 144163-44-0) see: Ritonavir
- 2,4-diamino-6-(hydroxymethyl)pteridine hydrobromide**
(C₇H₉BrN₆O; 57963-59-4) see: Methotrexate
- 2,4-diamino-6-hydroxypyrimidine**
(C₄H₆N₄O; 100643-27-4) see: Folic acid
- 2,4-diamino-6-hydroxy-5-(3,4,5-trimethoxybenzyl)pyrimidine**
(C₁₄H₁₈N₄O₄; 37389-83-6) see: Trimethoprim
- 5-[[3,5-diamino-4-(4-methoxyphenoxy)phenyl]methyl]-5-methyl-2,4-imidazolidinedione**
(C₁₈H₂₀N₄O₄; 5165-04-8) see: Ertroxate
- 2,4-diamino-5-methylquinazoline-6-carbonitrile**
(C₁₀H₉N₅; 18917-72-1) see: Trimetrexate glucuronate
- 2,6-diamino-5-nitro-4(1H)-pyrimidinone**
(C₄H₅N₅O₃; 3346-23-4) see: Folic acid
- 1,2-diamino-4-phenylsulfanylbenzene**
(C₁₂H₁₂N₂OS; 54029-73-1) see: Ox fendazole
- (±)-1,2-diaminopropane-N,N,N',N'-tetraacetic acid**
(C₁₁H₁₈N₂O₈; 4408-81-5) see: Razoxane
- 2,6-diaminopyridine**
(C₅H₇N₃; 141-86-6) see: Phenazopyridine
- 2,4-diaminosulfonyl-5-trifluoromethylaniline**
see under 4-amino-6-trifluoromethylbenzene-1,3-disulfamide
- (S)-(-)-2,6-diamino-4,5,6,7-tetrahydrobenzothiazole**
(C₇H₁₁N₃S; 106092-09-5) see: Pramipexole hydrochloride
- 3,5-diamino-2,4,6-triiodobenzoic acid**
(C₇H₃I₃N₂O₂; 5505-16-8) see: Amidotrizoic acid
- 5,6-diaminouracil**
(C₄H₆N₄O₂; 3240-72-0) see: Amiloride
- (SP-4-2)-diamminediaquaplatinum(2+) dinitrate**
(H₁₀N₄O₈Pt; 52241-26-6) see: Carboplatin
- (SP-4-2)-diamminediaquaplatinum(2+) sulfate (1:1)**
(H₁₀N₂O₆PtS; 63632-03-1) see: Carboplatin
- (SP-4-2)-diamminedihydroxyplatinum**
(H₈N₂O₂Pt; 63700-88-9) see: Nedaplatin
- cis-diamminediodoplatinum**
(H₆I₂N₂Pt; 15978-93-5) see: Carboplatin
- diammineplatinum nitrate**
(H₆N₄O₄Pt; 41575-87-5) see: Nedaplatin
- diamorphine**
(C₂₁H₂₃NO₅; 561-27-3) see: Nalorphine
- 1,2,4,5-dianhydro-3-O-[(1,1-dimethylethyl)dimethylsilyl]-L-arabinitol**
(C₁₁H₂₂O₃Si; 128685-00-7) see: Tacrolimus
- [SP-4-2-(1R-trans)]-diaqua(1,2-cyclohexanediamine-κN,κN')platinum(2+) dinitrate**
(C₆H₁₈N₄O₈Pt; 94042-08-7) see: Oxaliplatin
- (S,S)-2,8-diazabicyclo[4.3.0]nonane**
(C₇H₁₄N₂; 151213-40-0) see: Moxifloxacin hydrochloride
- diazepam**
(C₁₆H₁₃ClN₂O; 439-14-5) see: Ketazolam; Medazepam
- diazomethane**
(CH₂N₂; 334-88-3) see: Betamethasone; Cyproterone acetate; Fluperolone acetate; Fluprednidene acetate; Gusperimus trihydrochloride; Meprednisone; Metenolone acetate; Quinagolide hydrochloride; Saquinavir; Tacrolimus
- 5H-dibenz[b,f]azepine-5-carbonyl chloride**
(C₁₅H₁₀ClNO; 33948-22-0) see: Carbamazepine
- 5H-dibenzo[a,d]cycloheptene**
(C₁₅H₁₂; 256-81-5) see: Protriptyline
- dibenzo[a,d]cyclohepten-5-one**
(C₁₅H₁₀O; 2222-33-5) see: Cyclobenzaprine; Cyproheptadine
- N-[3-(5H-dibenzo[a,d]cyclohepten-5-yl)propyl]-N-methylformamide**
(C₂₀H₂₁NO; 99926-11-1) see: Protriptyline
- dibenzosuberone**
(C₁₅H₁₂O; 1210-35-1) see: Amineptine; Amitriptyline; Butriptyline; Deptropine; Noxiptiline
- dibenzosuberone oxime**
(C₁₅H₁₃NO; 1785-74-6) see: Noxiptiline
- dibenzo[b,f][1,4]thiazepin-11(10H)-one**
(C₁₃H₉NOS; 3159-07-7) see: Quetiapine fumarate

3,5-di-O-benzoyl-2-deoxy-2,2-difluoro-1-O-methane-sulfonyl-D-ribofuranose(C₂₀H₁₈F₂O₈S; 134877-43-3) see: Gemcitabine**N¹,N⁴-dibenzoylsulfanilamide**(C₂₀H₁₆N₂O₄S) see: Sulfabenzamide**(±)-O,N-dibenzoyltyrosine**(C₂₃H₁₉NO₅; 97485-13-7) see: Tiropramide**1,3-di-O-benzyl-2-O-(acetoxymethyl)glycerol**(C₂₀H₂₄O₅; 84245-11-4) see: Ganciclovir**dibenzylamine**(C₁₄H₁₅N; 103-49-1) see: Imiquimod; Labetalol**4(S)-dibenzylamino-3-oxo-5-phenylpentanenitrile**(C₂₅H₂₄N₂O; 156732-12-6) see: Ritonavir**O-3,4-di-O-benzyl-2,6-bis(carboxyamino)-2,6-dideoxy-α-D-glucopyranosyl-(1→4)-O-[β-D-ribofuranosyl-(1→5)]-N,N'-dicarboxy-2-deoxystreptamine tetrabenzyl ester tribenzoate (ester)**(C₈₄H₈₂N₄O₂₁; 34128-45-5) see: Ribostamycin**1,3-dibenzyl-4-(3-ethoxypropyl)-4-hydroxy-cis-perhydrothieno[3,4-d]imidazol-2-one**(C₂₄H₃₀N₂O₃S) see: Biotin**1,3-dibenzyl-4-(3-ethoxypropylidene)-cis-perhydrothieno[3,4-d]imidazol-2-one**(C₂₄H₂₈N₂O₂S; 51591-97-0) see: Biotin**1,3-dibenzyl-4-(3-ethoxypropyl)-cis-perhydrothieno[3,4-d]imidazol-2-one**(C₂₄H₃₀N₂O₂S) see: Biotin**N,N'-dibenzylethylenediamine**(C₁₆H₂₀N₂; 140-28-3) see: Benzathine benzylpenicillin**1,3-di-O-benzylglycerol**(C₁₇H₂₀O₃; 6972-79-8) see: Ganciclovir**N,N'-dibenzylhexamethylenediamine**(C₂₀H₂₈N₂; 30070-99-6) see: Hexoprenaline**N²,N⁶-dibenzylideneornithine methyl ester**(C₂₀H₂₂N₂O₂; 69955-51-7) see: Eflornithine**(3aS)-1,3-dibenzyl-4t-(3-methoxypropyl)-(3ar,6ac)-tetrahydrothieno[3,4-d]imidazol-2-one**(C₂₃H₂₈N₂O₂S) see: Biotin**cis-1,3-dibenzyl-2-oxoimidazolidine-4,5-dicarboxylic acid**(C₁₉H₁₈N₂O₅; 51591-75-4) see: Biotin**cis-1,3-dibenzyl-2-oxoimidazolidine-4,5-dicarboxylic acid monocyclohexyl ester**(C₂₅H₂₈N₂O₅; 85610-97-5) see: Biotin**[3aS-(3ac,4β,6aα)]-[3-(1,3-dibenzyl-2-oxoperhydrothieno[3,4-d]imidazol-4-yl)propyl]malonic acid diethyl ester**(C₂₉H₃₆N₂O₅S; 101469-35-6) see: Biotin**1,3-dibenzyl-2-oxo-3a,8b-cis-perhydrothieno[1',2':1,2]-thieno[3,4-d]imidazolium bromide**(C₂₂H₂₅BrN₂OS) see: Biotin**3',5'-dibenzoyloxyacetophenone**(C₂₂H₂₀O₃; 28924-21-2) see: Terbutaline**3',4'-dibenzoyloxybutyrophenone**(C₂₄H₂₄O₃; 24538-59-8) see: Isoctarine**cis-1,3-dibenzylperhydrofuro[3,4-d]imidazole-2,4,6-trione**(C₁₉H₁₆N₂O₄; 26339-42-4) see: Biotin**cis-1,3-dibenzylperhydrothieno[3,4-d]imidazole-2,4-dione**(C₁₉H₁₈N₂O₂S; 33607-57-7) see: Biotin**N,N-dibenzyl-L-phenylalanine benzyl ester**(C₃₀H₂₉NO₂; 111138-83-1) see: Ritonavir; Saquinavir**6,8-dibenzylthiooctanoic acid**(C₂₂H₂₈O₂S₂; 95809-78-2) see: Thioctic acid**2,5-dibromoamyl acetate**(C₇H₁₂Br₂O₂; 30727-26-5) see: Oxypyrronium bromide**(2α,4α,5α)-2,4-dibromoandrostane-3,17-dione**(C₁₉H₂₆Br₂O₂; 42453-26-9) see: Estrone**1,4-dibromobutane**(C₄H₈Br₂; 110-52-1) see: Butorphanol; Pentoxifyverine; Trospium chloride**1,4-dibromo-2-butene**(C₄H₆Br₂; 6974-12-5) see: Betacarotene**1,10-dibromodecane**(C₁₀H₂₀Br₂; 4101-68-2) see: Decamethonium bromide; Tiadenol**9,10-dibromo-9,10-dihydro-4H-benzo[4,5]cyclohepta[1,2-b]thiophen-4-one**(C₁₃H₈Br₂OS; 34580-10-4) see: Ketotifen**2,4-dibromo-17,21-dihydroxy-5β-pregnane-3,11,20-trione 21-acetate**(C₂₃H₃₀Br₂O₆; 115114-29-9) see: Prednisone**1,3-dibromo-5,5-dimethylhydantoin**(C₈H₆Br₂N₂O₂; 77-48-5) see: Calcifediol; Calcitriol;

Diflucortolone valerate; Halopredone diacetate; Tacalcitol

N,N'-dibromo-5,5-dimethylhydantoin

see under 1,3-dibromo-5,5-dimethylhydantoin

1,2-dibromoethane(C₂H₄Br₂; 106-93-4) see: Amosulalol; Bamifylline; Cafedrine; Dodeclonium bromide; Fenalcomine; Guanoclor; Ketoprofen; Malotilate; Pimefylline**2',7'-dibromofluorescein**(C₂₀H₁₀Br₂O₅; 25709-81-3) see: Merbromin**1,6-dibromohexane**(C₆H₁₂Br₂; 629-03-8) see: Salmeterol**(2α,4α,5α,17β)-2,4-dibromo-17-hydroxyandrostane-3-one**(C₁₉H₂₈Br₂O₂) see: Estradiol**[S-(R*,R*)]-2,4-dibromo-3-hydroxybutanoic acid methyl ester**(C₈H₈Br₂O₃; 88824-11-7) see: Carumonam**2β,4β-dibromo-17α-hydroxy-16β-methyl-5β-pregn-9(11)-ene-3,20-dione**(C₂₂H₃₀Br₂O₃; 13656-79-6) see: Betamethasone**dibromomethane**(CH₂Br₂; 74-95-3) see: Clodronate disodium**1,6-dibromo-2-naphthol**(C₁₀H₆Br₂O; 16239-18-2) see: Naproxen**6,6-dibromopenicillanic acid**(C₈H₆Br₂NO₃S; 24158-88-1) see: Sulbactam**6,6-dibromopenicillanic acid S,S-dioxide**(C₈H₆Br₂NO₃S; 76646-91-8) see: Sulbactam**1,5-dibromopentane**(C₅H₁₀Br₂; 111-24-0) see: Cilastatin; Dezocine; Dicycloverine; Pentamidine**21,21-dibromopregn-4-ene-3,11,20-trione**(C₂₁H₂₆Br₂O₃) see: Hydrocortisone**1,3-dibromopropane**(C₃H₆Br₂; 109-64-8) see: Brinzolamide; Carpipramine; Dibromopropanidine; Ethoheptazine; Pentoxifylline; Sibutramine hydrochloride**2,3-dibromo-1-propanol**(C₃H₆Br₂O; 96-13-9) see: Dimercaprol

- 2,3-dibromopropene**
(C₃H₄Br₂; 513-31-5) see: Propallylonal
- 2,3-dibromopropionaldehyde**
(C₃H₄Br₂O; 5221-17-0) see: Folic acid; Methotrexate
- 3,5-dibromopyrazinamine**
(C₄H₃Br₂N₃; 24241-18-7) see: Sulfalene
- 2,6-dibromopyridine**
(C₅H₃Br₂N; 626-05-1) see: Acrivastine
- meso-2,3-dibromosuccinic acid**
(C₄H₄Br₂O₄; 608-36-6) see: Biotin
- 2,4-dibromo-11β,17,21-trihydroxy-5α-pregnane-3,20-dione 21-acetate**
(C₂₃H₃₂Br₂O₆; 104096-76-6) see: Prednisolone
- dibutylamine**
(C₈H₁₉N; 111-92-2) see: Risperidone
- 2-dibutylaminoethyl chloride**
(C₁₀H₂₂ClN; 13422-90-7) see: Butalamine
- 3-(dibutylamino)-1-propanol**
(C₁₁H₂₅NO; 2050-51-3) see: Butacaine
- 3-(dibutylamino)-1-propanol 4-nitrobenzoate (ester)**
(C₁₈H₂₈N₂O₄) see: Butacaine
- N,N-dibutyl-2-bromoacetamide**
(C₁₀H₂₀BrNO; 40124-27-4) see: Halofantrine
- di-tert-butyl dicarbonate**
see under bis(1,1-dimethylethyl) dicarbonate
- 2,6-di-tert-butyl-4-mercaptophenol**
(C₁₄H₂₂OS; 950-59-4) see: Probuconol
- dichlorisone acetate**
(C₂₃H₂₈Cl₂O₅; 79-61-8) see: Dichlorisone
- dichloroacetaldehyde**
(C₂H₂Cl₂O; 79-02-7) see: Mitotane
- dichloroacetaldehyde diethyl acetal**
(C₆H₁₂Cl₂O₂; 619-33-0) see: Trichlormethiazide
- D(-)-threo-5-dichloroacetamido-2,2-dimethyl-4-phenyl-1,3-dioxane**
(C₁₄H₁₇Cl₂NO₃) see: Chloramphenicol
- D(-)-threo-2-dichloroacetamido-1-(4-nitrophenyl)-1,3-propanediol dinitrate**
(C₁₁H₁₀Cl₂N₄O₉; 91092-33-0) see: Chloramphenicol
- dichloroacetic acid**
(C₂H₂Cl₂O₂; 79-43-6) see: Medifoxamine
- 1,3-dichloroacetone**
(C₃H₄Cl₂O; 534-07-6) see: Ebrotidine; Famotidine; Fluconazole; Ritonavir
- 2',4'-dichloroacetophenone**
(C₈H₆Cl₂O; 2234-16-4) see: Isoconazole; Itraconazole; Terconazole
- 3',4'-dichloroacetophenone**
(C₈H₆Cl₂O; 2642-63-9) see: Muzolimine
- dichloroacetyl chloride**
(C₂HCl₃O; 79-36-7) see: Diloxanide; Metirosine
- N-dichloroacetyl-2-methyl-3-(p-nitrophenyl)alanine**
(C₁₂H₁₂Cl₂N₂O₅; 100122-46-1) see: Metirosine
- N-dichloroacetyl-α-methyl-DL-phenylalanine**
(C₁₂H₁₃Cl₂NO₃; 100119-87-7) see: Metirosine
- 2',5-dichloro-2-aminobenzophenone**
see under 2-amino-2',5-dichlorobenzophenone
- 2,6-dichloroaniline**
(C₆H₅Cl₂N; 608-31-1) see: Clonidine; Diclofenac
- 3,4-dichloroaniline**
(C₆H₅Cl₂N; 95-76-1) see: Triclocarban
- 2-(2,6-dichloroanilino)benzoic acid**
(C₁₃H₉Cl₂NO₂; 13625-57-5) see: Diclofenac
- 2,3-dichloroanisole**
(C₇H₆Cl₂O; 1984-59-4) see: Tienilic acid
- 2,3-dichlorobenzaldehyde**
(C₇H₄Cl₂O; 633-4-18-5) see: Felodipine
- 2,4-dichlorobenzaldehyde**
(C₇H₄Cl₂O; 874-42-0) see: Halofantrine
- 2,6-dichlorobenzaldehyde**
(C₇H₄Cl₂O; 83-38-5) see: Dicloxacillin; Guanabenz; Guanoxabenz
- 2,6-dichlorobenzaldehyde oxime**
(C₇H₅Cl₂NO; 25185-95-9) see: Dicloxacillin
- 1,3-dichlorobenzene**
(C₆H₄Cl₂; 541-73-1) see: Clobazam; Fenticonazole; Omoconazole nitrate
- 1,4-dichlorobenzene**
(C₆H₄Cl₂; 106-46-7) see: Triclosan
- 4,5-dichloro-1,3-benzenedisulfonyl dichloride**
(C₆H₂Cl₄O₂S₂; 70269-54-4) see: Diclofenamide
- 2,3-dichlorobenzoic acid**
(C₇H₄Cl₂O₂; 50-45-3) see: Lamotrigine
- 2,4-dichlorobenzoic acid**
(C₇H₄Cl₂O₂; 50-84-0) see: Furosemide; Lobenzarit; Mepacrine
- 2,5-dichlorobenzonitrile**
(C₇H₃Cl₂N; 21663-61-6) see: Medazepam
- 3,4-dichlorobenzophenone**
(C₁₃H₈Cl₂O; 6284-79-3) see: Sertraline
- 3,4-dichlorobenzoyl chloride**
(C₇H₃Cl₃O; 3024-72-4) see: Sertraline
- 2,3-dichlorobenzoyl cyanide**
(C₈H₃Cl₂NO; 77668-42-9) see: Lamotrigine
- 1-(2,4-dichlorobenzoylmethyl)imidazole**
(C₁₁H₈Cl₂N₂O; 46503-52-0) see: Isoconazole; Miconazole; Oxiconazole
- 2,4-dichlorobenzyl bromide**
(C₇H₃BrCl₂; 20443-99-6) see: Miconazole
- 2,4-dichlorobenzyl chloride**
(C₇H₃Cl₃; 94-99-5) see: Clofocetol; Lonidamine; Oxiconazole
- 2,6-dichlorobenzyl chloride**
(C₇H₆Cl₂O; 15258-73-8) see: Isoconazole
- 1,3-dichloro-2-butene**
(C₄H₆Cl₂; 926-57-8) see: Kebuzone
- 1,4-dichloro-2-butene**
(C₄H₆Cl₂; 764-41-0) see: Pirprofen; Vigabatrin
- cis-1,4-dichloro-2-butene**
(C₄H₆Cl₂; 1476-11-5) see: Dolasetron mesilate
- 2,6-dichloro-N-[2-(chloromethyl)phenyl]benzenamine**
(C₁₃H₁₀Cl₃N; 27204-58-6) see: Diclofenac
- 2,6-dichloro-3-(2-chloronicotinoylamino)-4-methylpyridine**
(C₁₂H₈Cl₃N₃O; 142266-58-8) see: Nevirapine
- [SP-4-2-[1R-(trans)]]-dichloro(1,2-cyclohexanediamine-κN,κN')platinum**
(C₆H₁₄Cl₂N₂Pt; 61848-66-6) see: Oxaliplatin

- 1,7-dichloro-5-cyclohexyl-1,3-dihydro-2H-1,4-benzodiazepin-2-one**
(C₁₅H₁₆Cl₂N₂O; 10379-00-7) see: Tetrazepam
- 2,4-dichloro- α -(cyclopropylamino)methylene]-5-fluoro- β -oxobenzenepranoic acid methyl ester**
(C₁₄H₁₂Cl₂FNO₃; 105392-26-5) see: Ciprofloxacin
- 4-(2,2-dichlorocyclopropyl)aniline**
(C₉H₉Cl₂N; 52179-27-8) see: Ciprofibrate
- 4-(2,2-dichlorocyclopropyl)phenol**
(C₉H₈Cl₂O; 52179-26-7) see: Ciprofibrate
- 1,10-dichlorodecane**
(C₁₀H₂₀Cl₂; 2162-98-3) see: Tadenol
- 2,6-dichloro-9-(2-deoxy-3,5-di-*O*-*p*-toluoyl- β -D-erythro-pentofuranosyl)purine**
(C₂₆H₂₂Cl₂N₄O₅; 38925-80-3) see: Cladribine
- 1,5-dichloro-1,5-dideoxy-L-arabinitol 2,4-diacetate**
(C₉H₁₄Cl₂O₅; 118227-48-8) see: Tacrolimus
- 1,1-dichloro-2,2-difluoroethylene**
(C₂Cl₂F₂; 79-35-6) see: Methoxyflurane
- 2,6-dichloro- α -[[2,4-difluorophenyl]amino)methylene]-5-fluoro- β -oxo-3-pyridinepropanoic acid ethyl ester**
(C₁₇H₁₁Cl₂F₂N₂O₃; 100490-99-1) see: Tosufloxacin
- 1,3-dichloro-2-(2,4-difluorophenyl)-2-propanol**
(C₉H₈Cl₂F₂O; 86386-74-5) see: Fluconazole
- 8,11-dichloro-6,11-dihydro-5H-benzo[5,6]cyclohepta[1,2-*b*]pyridine**
(C₁₄H₁₁Cl₂N; 117810-66-9) see: Loratadine
- 3,11-dichloro-6,11-dihydro-6-methylidibenzo[*c,f*][1,2]thiazepine S,S-dioxide**
(C₁₄H₁₁Cl₂NO₂S; 26638-66-4) see: Tianeptine sodium
- 2,4-dichloro-6,7-dimethoxyquinazoline**
(C₁₀H₈Cl₂N₂O₂; 27631-29-4) see: Alfuzosin; Prazosin
- 2,4-dichloro- α -(dimethylamino)methylene]-5-fluoro- β -oxobenzenepranoic acid methyl ester**
(C₁₃H₁₂Cl₂FNO₃; 105392-19-6) see: Ciprofloxacin
- [2,3-dichloro-4-[2-[(dimethylamino)methyl]-1-oxobutyl]phenoxy]acetic acid**
(C₁₅H₁₉Cl₂NO₄; 1160-10-7) see: Etacrynic acid
- 4,5-dichloro-2,6-dimethyl-3(2H)-pyridazinone**
(C₆H₆Cl₂N₂O) see: Emorfazonè
- 2,6-dichlorodiphenylamine**
(C₁₂H₉Cl₂N; 15307-93-4) see: Diclofenac
- 2,6-dichloro-4,8-dipiperidinopyrimido[5,4-*d*]pyrimidine**
(C₁₆H₂₀Cl₂N₆; 7139-02-8) see: Dipyridamole
- 1,2-dichloroethane**
(C₂H₄Cl₂; 107-06-2) see: Dofetilide; Ethambutol; Trientine
- 2',4'-dichloro-5'-fluoroacetophenone**
(C₈H₅Cl₂FO; 704-10-9) see: Temafloxacin
- 2,4-dichloro-5-fluorobenzoyl chloride**
(C₇H₂Cl₃FO; 86393-34-2) see: Ciprofloxacin
- 2,6-dichloro-5-fluoronicotinoyl chloride**
(C₆HCl₂FNO; 96568-02-4) see: Tosufloxacin
- 2,3-dichloro-1-fluoro-4-nitrobenzene**
(C₆H₂Cl₂FNO₂; 36556-51-1) see: Rifaxacin hydrochloride
- 2,4-dichloro-5-fluoropyrimidine**
(C₄HCl₂FN₂; 2927-71-1) see: Flucytosine
- N*-[4,6-dichloro-5-(formylamino)-2-pyrimidinyl]acetamide**
(C₇H₆Cl₂N₂O₂; 136470-91-2) see: Abacavir
- 2,6-dichloro-*N*-hydroxybenzencarboximidoyl chloride**
(C₇H₄Cl₂NO; 6579-27-7) see: Dicloxacinil
- 2,3-dichloro-4-hydroxybenzoic acid**
(C₇H₄Cl₂O₃; 66584-09-6) see: Tienilic acid
- 3,4-dichloro-5-hydroxy-2(5H)-furanone**
(C₄H₂Cl₂O₃; 766-40-5) see: Amezinium metilsulfate
- 2,2-dichloro-*N*-(hydroxymethyl)acetamide**
(C₃H₅Cl₂NO₂; 1555-91-5) see: Iodamide
- (2,3-dichloro-4-hydroxyphenyl)-2-thienylmethanone**
(C₁₁H₆Cl₂O₂S; 40180-03-8) see: Tienilic acid
- 2,3-dichloro-1-iodobenzene**
(C₆H₃Cl₂I; 2401-21-0) see: Lamotrigine
- 6,9-dichloro-2-methoxyacridine**
(C₁₄H₉Cl₂NO; 86-38-4) see: Mepacrine
- 3,4-dichloro- α -methoxybenzeneacetyl chloride**
(C₉H₇Cl₂O₂; 83833-34-5) see: Clometocillin
- 2,3-dichloro-4-methoxybenzoic acid**
(C₈H₆Cl₂O₃; 55901-80-9) see: Tienilic acid
- 2,3-dichloro-4-methoxybenzoyl chloride**
(C₈H₅Cl₂O₂; 76238-31-8) see: Tienilic acid
- 3,4-dichloro- α -methoxyphenylacetic acid**
(C₉H₈Cl₂O₃; 13911-20-1) see: Clometocillin
- (2,3-dichloro-4-methoxyphenyl)-2-thienylmethanone**
(C₁₂H₈Cl₂O₂S; 40180-05-0) see: Tienilic acid
- 4,6-dichloro-5-methoxypyrimidine**
(C₅H₄Cl₂N₂O; 5018-38-2) see: Sulfadoxine
- 2-(dichloromethoxy)-1,1,1-trifluoroethane**
(C₃H₃Cl₂F₃O; 26644-86-0) see: Isoflurane
- 4,6-dichloro-2-methyl-5-(1-acetyl-2-imidazolin-2-ylamino)pyrimidine**
(C₁₀H₁₁Cl₂N₅O; 75438-54-9) see: Moxonidine
- 2,6-dichloro-3-methylaniline**
(C₇H₇Cl₂N; 64063-37-2) see: Meclofenamic acid
- 1,2-dichloro-3-methylbenzene**
(C₇H₆Cl₂; 32768-54-0) see: Anagrelide hydrochloride
- N*-[4-(dichloromethyleneamino)-3,5-dichlorophenyl]trichloroacetamide**
(C₉H₃Cl₇N₂O; 86861-35-0) see: Apraclonidine
- (dichloromethylene)bisphosphonic acid tetrakis(1-methyl-ethyl) ester**
(C₁₃H₂₈Cl₂O₆P₂; 10596-22-2) see: Clodronate disodium
- dichloromethyl methyl ether**
(C₂H₄Cl₂O; 4885-02-3) see: Clidanac
- 4,5-dichloro-2-methyl-3(2H)-pyridazone**
(C₅H₄Cl₂N₂O; 933-76-6) see: Emorfazone
- 2,6-dichloro-4-methyl-3-pyridinecarbonitrile**
(C₇H₄Cl₂N₂; 875-35-4) see: Nevirapine
- 2,6-dichloro-4-methyl-3-pyridinecarboxamide**
(C₇H₆Cl₂N₂O; 38841-54-2) see: Nevirapine
- 2,4-dichloro-6-methylpyrimidine**
(C₅H₄Cl₂N₂; 5424-21-5) see: Epirizole
- 2,5-dichloro-*N*-methyl-3-thiophenesulfonamide**
(C₅H₃Cl₂NO₂S₂; 56946-84-0) see: Lornoxicam
- 2,6-dichloro-4-nitroaniline**
(C₆H₄Cl₂N₂O₂; 99-30-9) see: Apraclonidine
- 2,4-dichloro-1-nitrobenzene**
(C₆H₃Cl₂NO₂; 611-06-3) see: Clobazam; Pirprofen
- 2,5-dichloro-1-nitrobenzene**
(C₆H₃Cl₂NO₂; 89-61-2) see: Domperidone; Triclosan
- 2,3-dichloro-6-nitrobenzonitrile**
(C₇H₂Cl₂N₂O₂; 2112-22-3) see: Anagrelide hydrochloride

- 2,2'-dichloro-5-nitrobenzophenone**
(C₁₃H₇Cl₂NO₃; 54534-72-4) see: Nizofenone
- 2-(2,5-dichloro-4-nitrophenyl)-N,N-dimethylethanamine**
(C₁₀H₁₀Cl₂N₂O₂; 160384-44-1) see: Ziprasidone hydrochloride
- 3-[4-[2-(2,5-dichloro-4-nitrophenyl)ethenyl]-1-piperazinyl]-1,2-benzisothiazole**
(C₁₉H₁₆Cl₂N₄O₂S; 160384-37-2) see: Ziprasidone hydrochloride
- 3-[4-[2-(2,5-dichloro-4-nitrophenyl)ethyl]-1-piperazinyl]-1,2-benzisothiazole**
(C₁₉H₁₈Cl₂N₄O₂S; 160384-38-3) see: Ziprasidone hydrochloride
- 2,6-dichloro-3-nitropyridine**
(C₅H₂Cl₂N₂O₂; 16013-85-7) see: Enoxacin; Flupirtine
- 2,4-dichloro-3-nitroquinoline**
(C₉H₄Cl₂N₂O₂; 132521-66-5) see: Imiquimod
- 2,5-dichloro-4-nitrotoluene**
(C₇H₅Cl₂NO₂; 7149-76-0) see: Ziprasidone hydrochloride
- 1,3-dichloro-4-oxopentane**
(C₅H₈Cl₂O; 58371-98-5) see: Clomethiazole
- 3,5-dichloro-4-oxo-1(4H)-pyridineacetic acid ethyl ester**
(C₉H₉Cl₂NO₃; 70149-51-8) see: Cefazedone
- 3,5-dichloro-4-oxopyridin-1-ylacetic acid**
(C₇H₅Cl₂NO₃; 56187-37-2) see: Cefazedone
- 2,4-dichlorophenacyl bromide**
see under 2-bromo-2',4'-dichloroacetophenone
- 1-(2,4-dichlorophenacyl)imidazole**
see under 1-(2,4-dichlorobenzoylmethyl)imidazole
- 2,3-dichlorophenol**
(C₆H₄Cl₂O; 576-24-9) see: Tienilic acid
- 2,4-dichlorophenol**
(C₆H₄Cl₂O; 120-83-2) see: Fenclufenac; Minoxidil; Triclosan
- 2,6-dichlorophenol**
(C₆H₄Cl₂O; 87-65-0) see: Guanoclor; Lofexidine
- 2,6-dichlorophenol sodium salt**
(C₆H₃Cl₂NaO; 29726-01-0) see: Lofexidine
- (2,3-dichlorophenoxy)acetic acid**
(C₈H₆Cl₂O₃; 2976-74-1) see: Etacrynic acid
- 2-(2,6-dichlorophenoxy)ethyl bromide**
(C₈H₇BrCl₂O; 26583-73-3) see: Guanoclor
- [2-(2,6-dichlorophenoxy)ethyl]hydrazine**
(C₈H₁₀Cl₂N₂O; 2347-81-1) see: Guanoclor
- 1-[2-(2,4-dichlorophenoxy)phenyl]ethanone**
(C₁₄H₁₀Cl₂O₂; 86309-05-9) see: Fenclufenac
- 4-[2-(2,4-dichlorophenoxy)phenyl]-1-thioxoethyl]morpholine**
(C₁₈H₁₇Cl₂N₂O₂S) see: Fenclufenac
- 2-(2,6-dichlorophenoxy)propionitrile**
(C₉H₇Cl₂NO; 78302-27-9) see: Lofexidine
- 2,6-dichlorophenylacetyl chloride**
(C₈H₅Cl₂O; 61875-53-4) see: Guanfacine
- 2-[2-(2,6-dichlorophenyl)amino]benzeneacetonitrile**
(C₁₄H₁₀Cl₂N₂; 27204-59-7) see: Diclofenac
- 2-[2-(2,6-dichlorophenyl)amino]benzenemethanol**
(C₁₃H₁₁Cl₂NO; 27204-57-5) see: Diclofenac
- cis-2-(2,4-dichlorophenyl)-2-bromomethyl-4-hydroxy-methyl-1,3-dioxolane**
(C₁₁H₁₁BrCl₂O₃; 61396-52-9) see: Ketoconazole
- (2,6-dichlorophenyl)carbamimidithioic acid methyl ester monohydrindide**
(C₈H₈Cl₂N₂S; 27806-88-8) see: Clonidine
- 1-(2,4-dichlorophenyl)-2-chloroethanol**
(C₈H₇Cl₃O; 13692-14-3) see: Fenticonazole
- 1,1-dichloro-2-phenylcyclopropane**
(C₉H₈Cl₂; 2415-80-7) see: Ciprofibrate
- (±)-4-(3,4-dichlorophenyl)-3,4-dihydro-1(2H)-naphthalenone**
(C₁₆H₁₂Cl₂O; 79560-19-3) see: Sertraline
- [1-(3,4-dichlorophenyl)ethyl]hydrazine**
(C₈H₁₀Cl₂N₂; 55294-31-0) see: Muzolimine
- 1-(2,4-dichlorophenyl)-2-(1H-imidazol-1-yl)ethanol**
(C₁₁H₁₀Cl₂N₂O; 24155-42-8) see: Econazole; Fenticonazole; Isoconazole; Miconazole; Sertaconazole; Sulconazole; Tioconazole
- 1-(2,4-dichlorophenyl)-2-(1H-imidazol-1-yl)ethanone oxime**
(C₁₁H₉Cl₂N₃O; 100220-48-2) see: Oxiconazole
- cis-2-(2,4-dichlorophenyl)-2-(1H-imidazol-1-ylmethyl)-1,3-dioxolane-4-methanol benzoate (ester)**
(C₂₁H₁₈Cl₂N₂O₄; 70894-66-5) see: Ketoconazole
- cis-2-(2,4-dichlorophenyl)-2-(1H-imidazol-1-ylmethyl)-1,3-dioxolane-4-methanol methanesulfonate (ester)**
(C₁₅H₁₆Cl₂N₂O₅S; 61397-61-3) see: Ketoconazole
- 1-(2,4-dichlorophenyl)-2-(1H-imidazol-1-yl)-1-propanone**
(C₁₂H₁₀Cl₂N₂O; 74287-28-8) see: Omoconazole nitrate
- 1-(2,6-dichlorophenyl)indole-2,3-dione**
(C₁₄H₇Cl₂NO₂; 24542-74-3) see: Diclofenac
- 2-(2,4-dichlorophenyl)-2-methyl-1,3-dioxolane-4-methanol**
(C₁₁H₁₂Cl₂O₃; 172032-21-2) see: Itraconazole; Terconazole
- 3-(2,6-dichlorophenyl)-5-methyl-4-isoxazolecarbonyl chloride**
(C₁₁H₆Cl₂NO₂; 4462-55-9) see: Dicloxacillin
- 3-(2,6-dichlorophenyl)-5-methyl-4-isoxazolecarboxylic acid**
(C₁₁H₇Cl₂NO₃; 3919-76-4) see: Dicloxacillin
- 3-(2,6-dichlorophenyl)-5-methyl-4-isoxazolecarboxylic acid methyl ester**
(C₁₂H₉Cl₂NO₃; 4402-83-9) see: Dicloxacillin
- [(2,6-dichlorophenyl)phenylamino]oxoacetyl chloride**
(C₁₄H₈Cl₂NO₂; 24542-55-0) see: Diclofenac
- (±)-4-(3,4-dichlorophenyl)-4-phenylbutanoic acid**
(C₁₆H₁₄Cl₂O₂; 79560-18-2) see: Sertraline
- 4-(3,4-dichlorophenyl)-4-phenyl-3-butenic acid**
(C₁₆H₁₂Cl₂O₂; 79560-17-1) see: Sertraline
- 1-(2,5-dichlorophenyl)-1-phenylmethylimine**
(C₁₃H₉Cl₂N) see: Madazepam
- 4,5-dichloro-1-phenyl-6(1H)-pyridazinone**
(C₁₀H₆Cl₂N₂O; 1698-53-9) see: Amezinium metilsulfate
- 2,6-dichloro-4-phenylquinoline**
(C₁₅H₉Cl₂N; 10352-30-4) see: Alprazolam
- N-(2,6-dichlorophenyl)thiourea**
(C₇H₆Cl₂N₂S; 6590-91-6) see: Clonidine
- 2-(2,4-dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolane-4-methanol**
(C₁₃H₁₃Cl₂N₃O₃; 110762-98-6) see: Terconazole
- 2-(2,4-dichlorophenyl)-2-(1H-1,2,4-triazol-1-ylmethyl)-1,3-dioxolane-4-methanol methanesulfonate (ester)**
(C₁₄H₁₅Cl₂N₃O₅S; 115897-54-6) see: Terconazole

- cis*-2-(2,4-dichlorophenyl)-2-(1*H*-1,2,4-triazol-1-ylmethyl)-1,3-dioxolane-4-methanol methanesulfonate (C₁₄H₁₅Cl₂N₃O₅S; 67914-86-7) see: Itraconazole
- cis*-1-[4-[[2-(2,4-dichlorophenyl)-2-(1*H*-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]piperazine (C₂₃H₂₅Cl₂N₃O₃; 67915-50-8) see: Itraconazole
- cis*-4-[4-[4-[[2-(2,4-dichlorophenyl)-2-(1*H*-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-1-piperazinyl]phenyl]-2,4-dihydro-3*H*-1,2,4-triazol-3-one (C₃₁H₃₀Cl₂N₃O₄; 89848-41-9) see: Itraconazole
- cis*-[4-[4-[4-[[2-(2,4-dichlorophenyl)-2-(1*H*-1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]-1-piperazinyl]phenyl]carbamic acid phenyl ester (C₃₆H₃₄Cl₂N₆O₅; 89848-11-3) see: Itraconazole
- 2,6-dichloropurine**
(C₅H₂Cl₂N₄; 5451-40-1) see: Aciclovir; Cladribine
- 2-[(2,6-dichloro-9*H*-purin-9-yl)methoxy]ethanol benzoate (ester)**
(C₁₅H₁₂Cl₂N₄O₃; 59277-96-2) see: Aciclovir
- 3,6-dichloropyridazine**
(C₄H₂Cl₂N₂; 141-30-0) see: Azintamide; Cadralazine; Pildralazine; Sulfachlorpyridazine
- 2,6-dichloropyridine**
(C₅H₃Cl₂N; 2402-78-0) see: Flupirtine
- 3,5-dichloro-4-pyridone**
(C₅H₃Cl₂NO; 17228-70-5) see: Cefazedone
- 4,7-dichloroquinoline**
(C₉H₅Cl₂N; 86-98-6) see: Amodiaquine; Chloroquine; Glafenine; Hydroxychloroquine
- 3,3-dichloro-2,3,4,5-tetrahydro-1*H*-1-benzazepin-2-one**
(C₁₀H₉Cl₂NO; 86499-22-1) see: Benazepril
- 1,3-dichloro-1,1,3,3-tetraisopropylidisiloxane**
(C₁₂H₂₈Cl₂O₂Si₂; 69304-37-6) see: Cladribine
- 3,4-dichloro-1,2,5-thiadiazole**
(C₂Cl₂N₂S; 5728-20-1) see: Timolol
- [2,3-dichloro-4-(2-thienylcarbonyl)phenoxy]acetic acid ethyl ester**
(C₁₅H₁₂Cl₂O₄S; 66883-42-9) see: Tienilic acid
- 2,5-dichlorothiophene**
(C₄H₂Cl₂S; 3172-52-9) see: Lornoxicam
- 2,5-dichloro-3-thiophenesulfonyl chloride**
(C₄HCl₂O₂S₂; 56946-83-9) see: Lornoxicam
- 2,6-dichlorothiophenol**
(C₆H₄Cl₂S; 24966-39-0) see: Butoconazole
- 2,5-dichlorotoluene**
(C₇H₆Cl₂; 19398-61-9) see: Ziprasidone hydrochloride
- 1,3-dichloro-6-(trifluoromethyl)-9-phenanthrene-carboxaldehyde**
(C₁₆H₉Cl₂F₃O; 38492-84-1) see: Halofantrine
- 1,3-dichloro-6-(trifluoromethyl)-9-phenanthrene-carboxylic acid**
(C₁₆H₇Cl₂F₃O₂; 38635-85-7) see: Halofantrine
- diclofenac**
(C₁₄H₁₁Cl₂NO₂; 15307-86-5) see: Aceclofenac
- α,β-dicyanobenzenepropanoic acid ethyl ester**
(C₁₃H₁₂N₂O₂; 5473-13-2) see: Phensuximide
- α,α'-dicyano-1,1-cyclohexanediacetamide compd. with ammonia**
(C₁₂H₁₆N₄O₂; 108669-05-2) see: Gabapentin
- dicyanodiamide**
(C₂H₂N₄; 461-58-5) see: Cyclobarbital; Hexobarbital; Metformin; Moroxydine
- 2,4-dicyano-3-ethyl-3-methylglutarimide**
(C₁₀H₁₁N₃O₂; 1135-62-2) see: Bemegride
- dicyanogen**
(C₂N₂; 460-19-5) see: Sulfametrole
- α,β-dicyano-β-methylhydrocinnamic acid methyl ester**
(C₁₃H₁₂N₂O₂; 29840-30-0) see: Mesuximide
- 4,4'-dicyano-2-nitrostilbene**
(C₁₆H₉N₃O₂; 67466-65-3) see: Hydroxystilbamidine isethionate
- dicyclohexylamine**
(C₁₂H₂₃N; 101-83-7) see: Cefoxitin
- dicyclohexylcarbinol**
(C₁₃H₂₄O; 4453-82-1) see: Perhexiline
- N,N'-dicyclohexylcarbodiimide**
(C₁₃H₂₂N₂; 538-75-0) see: Repaglinide
- dicyclohexyl ketone**
(C₁₃H₂₂O; 119-60-8) see: Perhexiline
- 1,1-dicyclohexyl-2-(2-pyridyl)ethanol hydrochloride**
(C₁₉H₃₀ClNO; 94439-07-3) see: Perhexiline
- 1,1-dicyclohexyl-2-(2-pyridyl)ethylene hydrochloride**
(C₁₉H₂₈ClN; 6746-72-1) see: Perhexiline
- dicyclopropylmethylamine**
(C₇H₁₃N; 13375-29-6) see: Rilmenidine
- 3',4'-didehydro-4'-deoxy-6'-[(trifluoroacetyl)oxy]vinca-leukoblastinium mono(trifluoroacetate)**
(C₅₀H₅₆F₆N₄O₁₂) see: Vinorelbine
- 3',4'-didehydro-4'-deoxyvincalukoblastine 6'-oxide**
(C₄₆H₅₆N₄O₉; 60332-19-6) see: Vinorelbine
- 2',3'-didehydro-2',3'-dideoxycytidine**
(C₉H₁₁N₃O₃; 7481-88-1) see: Zalcitabine
- 11,12-didehydro-7,10-dihydro-10-hydroxyretinol**
(C₂₀H₃₀O₂; 3230-75-9) see: Retinol
- (5α,6α)-7,8-didehydro-4,5-epoxymorphinan-3,6-diol**
(C₁₆H₁₇NO₃; 466-97-7) see: Nalorphine
- 2',3'-dideoxyadenosine**
(C₁₀H₁₃N₅O₂; 4097-22-7) see: Didanosine
- (S)-2,4-dideoxy-1,3-O-[(4-methoxyphenyl)methylene]-4-(2-propenyl)-D-erythro-pentitol**
(C₁₆H₂₂O₄; 118207-50-4) see: Tacrolimus
- [3R-[3α(S*),5β]]-2,4-dideoxy-5-O-[(4-methoxyphenyl)methyl]-2-methyl-5-C-[tetrahydro-5-(iodomethyl)-3-furanyl]-3-O-[tris(1-methylethyl)silyl]-L-threo-pentose**
(C₂₈H₄₇IO₅Si; 128708-25-8) see: Tacrolimus
- 2,4-dideoxy-5-O-[(4-methoxyphenyl)methyl]-2-(2-propenyl)-L-erythro-pentonic acid methyl ester**
(C₁₇H₂₄O₅; 118207-49-1) see: Tacrolimus
- [2R-(2*R**,3*S**,4*R**,5*R**,8*R**,10*R**,11*R**,12*S**,13*S**,14*R**)]-13-[(2,6-dideoxy-3-C-methyl-3-O-methyl-α-L-ribo-hexopyranosyl)oxy]-2-ethyl-3,4,6,10-tetrahydroxy-3,5,8,10,12,14-hexamethyl-13-[3,4,6-trideoxy-3-(dimethylxido-amino)-β-D-xylo-hexopyranosyl]oxy]-1-oxa-6-azacyclo-pentadecan-15-one**
(C₃₇H₇₀N₂O₁₄; 90503-04-1) see: Azithromycin

- [2R-(2R*,3S*,4R*,5R*,8R*,10R*,11R*,12S*,13S*,14R*)]-13-(2,6-dideoxy-3-C-methyl-3-O-methyl- α -L-ribo-hexopyranosyl)oxy]-2-ethyl-3,4,10-trihydroxy-3,5,6,8,10,12,14-heptamethyl-11-[[3,4,6-trideoxy-3-(dimethylxidoamino)- β -D-xylo-hexopyranosyl]oxy]-1-oxa-6-azacyclopentadecan-15-one 6-oxide**
(C₃₈H₇₂N₂O₁₄; 90503-05-2) see: Azithromycin
- (3a*S*-*cis*)-3-[2,3-dideoxy-2-(phenylmethyl)-D-erythro-pentonoyl]-3,3a,8,8a-tetrahydro-2,2-dimethyl-2H-indeno-[1,2-d]oxazole**
(C₂₄H₂₉NO₄; 150407-70-8) see: Indinavir sulfate
- 2',3'-dideoxyuridine**
(C₉H₁₂N₂O₄; 5983-09-5) see: Zalcitabine
- 2 α ,3 α :16 α ,17 α -diepoxy-17 β -acetoxy-5 α -androstane**
see under 17 α -acetoxy-2 α ,3 α :16 α ,17 α -diepoxy-5 α -androstane
- diethanolamine**
(C₄H₁₁NO₂; 111-42-2) see: Dipyrindamole
- 2,5-diethoxyaniline**
(C₁₀H₁₅NO₂; 94-85-9) see: Fenoxedil
- diethoxydimethylsilane**
(C₆H₁₆O₂Si; 78-62-6) see: Dimethicone
- diethoxymethyl acetate**
see under acetic acid diethoxymethyl ester
- 4,4-diethoxy-3-methyl-2-butenic acid ethyl ester**
(C₁₁H₂₀O₄; 64908-69-6) see: Retinol
- 1-(4,4-diethoxy-3-methyl-2-butenyl)-2,6,6-trimethylcyclohexene**
(C₁₈H₃₂O₂; 64197-57-5) see: Betacarotene
- 4,4-diethoxy-3-methylcrotyl alcohol**
(C₉H₁₈O₃) see: Retinol
- 1-diethoxymethylimidazole**
(C₈H₁₄N₂O₂; 61278-81-7) see: Eprosartan
- 3,5-diethoxyphenol**
(C₁₀H₁₄O₃; 10373-41-8) see: Floredil
- 3,4-diethoxyphenylacetyl chloride**
(C₁₂H₁₅ClO₃; 139036-00-3) see: Ethaverine
- 1-(3,4-diethoxyphenyl)-2-aminoethanol**
(C₁₂H₁₉NO₃; 40665-57-4) see: Ethaverine
- N-[2-(3,4-diethoxyphenyl)-2-hydroxyethyl]-3,4-diethoxybenzeneacetamide**
(C₂₄H₃₃NO₆) see: Ethaverine
- diethyl acetamidomalonate**
(C₉H₁₅NO₅; 1068-90-2) see: Levodopa; Omapatrilat; Oxitriptan; Rebamipide; L-Tryptophan
- diethyl acetonedicarboxylate**
(C₉H₁₄O₅; 105-50-0) see: Zomepirac
- diethyl 2-acetylglutarate**
(C₁₁H₁₈O₅; 1501-06-0) see: Nabilone
- N,N-diethyl-N'-(3-acetyl-4-hydroxyphenyl)urea**
(C₁₃H₁₈N₂O₃; 79881-89-3) see: Celiprolol
- diethyl acetylmalonate**
(C₉H₁₄O₅; 570-08-1) see: Repirinast
- diethyl adipate**
(C₁₀H₁₈O₄; 141-28-6) see: Loxoprofen
- diethyl allyl(2-cyclopentenyl)malonate**
(C₁₅H₂₂O₄; 93981-13-6) see: Cyclopentobarbital
- diethyl allyl(1-methylbutyl)malonate**
(C₁₅H₂₆O₄; 6285-59-2) see: Thiamylal
- diethylamine**
(C₄H₁₁N; 109-89-7) see: Amfepramone; Amodiaquine; Benzquinamide; Calcium hopantenate; Chloroquine; Detajmium bitartrate; Disulfiram; Etamivan; Flurazepam; Lidocaine; Milnacipran hydrochloride; Morinamide; Nikethamide; Oxeladin; Oxolamine; Oxybutynin; Prednisolamate; Propacetamol; Proxazole; Tolycaine; Tridihexethyl chloride
- diethylaminoacetate anhydride**
(C₁₂H₂₄N₂O₃) see: Prednylidene diethylaminoacetate
- cis*-1-[[2-[(diethylamino)carbonyl]-2-phenylcyclopropyl]-methyl]-3,5,7-triaza-1-azoniatricyclo[3.3.1.1^{3,7}]decane bromide**
(C₂₁H₃₂BrN₃O; 109001-33-4) see: Milnacipran hydrochloride
- 3-diethylamino-1-cyclohexyl-1-phenyl-1-propanol**
(C₁₉H₃₁NO; 115-64-0) see: Tridihexethyl chloride
- 1-diethylamino-2,3-epoxypropane**
(C₇H₁₅NO; 2917-91-1) see: Detajmium bitartrate
- 2-diethylaminoethanol**
(C₆H₁₃NO; 100-37-8) see: Adiphenine; Benactyzine; Bietamiverine; Dicycloverine; Otilonium bromide; Oxybuprocaine; Oxypheonium bromide; Parethoxycaine; Procaine; Valethamate bromide
- 2-(diethylamino)ethanol hydrochloride**
(C₆H₁₆ClNO; 14426-20-1) see: Chloroprocaine
- 4-(2-diethylaminoethoxy)benzophenone**
(C₁₉H₂₃NO₂; 796-77-0) see: Clomifene
- 2-[2-(diethylamino)ethoxy]ethanol**
(C₈H₁₉NO₂; 140-82-9) see: Butamirac; Pentoxyverine
- α -[4-[2-(diethylamino)ethoxy]phenyl]- α -phenylbenzene-ethanol**
(C₂₆H₃₁NO₂; 73404-00-9) see: Clomifene
- 2-diethylaminoethyl chloride**
(C₆H₁₄ClN; 100-35-6) see: Amiodarone; Bietaserpine; Chloroquine; Ciclonium bromide; Clomifene; Cloricromen; Dimazole; Etafenone; Etamiphylline; Fenoxedil; Gallamine triethiodide; Imolamine; Myrtecaine; Naftidrofuryl; Oxitefonium bromide; Penthenate methobromide; Phenglutaramide; Propoxycaine; Proxymetacaine; Tibezonium iodide; Tiropamide
- 2-diethylaminoethyl chloride hydrochloride**
(C₆H₁₅Cl₂N; 869-24-9) see: Butetamate; Camylofin
- 3-[2-(diethylamino)ethyl]-7-hydroxy-4-methyl-2H-1-benzopyran-2-one**
(C₁₆H₂₁NO₃; 49652-64-4) see: Carbocromen
- 2-diethylaminoethyl mercaptan**
(C₆H₁₃NS; 100-38-9) see: Fencarbamide
- N-[2-(diethylamino)ethyl]-4-nitrobenzamide**
(C₁₃H₁₉N₃O₃; 1664-52-4) see: Procainamide
- 2-diethylaminoethyl 4-(2-octyloxybenzoylamino)benzoate**
(C₂₈H₄₀N₂O₄; 26090-29-9) see: Otilonium bromide
- 2-diethylaminoethyl 1-phenylcyclohexane-1-carboxylate (17R)-4-[3-(diethylamino)-2-hydroxypropyl]-17-hydroxy-4,21-secoajmalan-21-aldehyde**
(C₂₇H₄₁N₃O₃) see: Detajmium bitartrate
- diethyl aminomalonate**
(C₇H₁₃NO₄; 6829-40-9) see: Pyrrolnitrin
- diethyl aminomalonate hydrochloride**
(C₇H₁₄ClNO₄; 13433-00-6) see: Dipotassium clorazepate

4-diethylamino-2-(2-methoxycarbonyl)ethyl)-2-phenylbutyronitrile(C₁₈H₂₆N₂O₂; 190912-70-0) see: Phenglutarimide**2-(diethylaminomethyl)imidazole**(C₈H₁₅N₃; 54534-77-9) see: Nizofenone**2-diethylamino-4-methyl-1-pentanol**(C₁₀H₂₃NO; 115985-81-4) see: Leucinocaine**N-[(diethylamino)methyl]pyrazinecarboxamide**(C₁₀H₁₆N₄O; 1017-28-3) see: Morinamide**1-diethylamino-4-pentanone**(C₉H₁₉NO; 105-14-6) see: Chloroquine**4-diethylamino-2-phenylbutyronitrile**(C₁₄H₂₀N₂; 3699-29-4) see: Phenglutarimide**3-(diethylamino)-1-propanol**(C₇H₁₇NO; 622-93-5) see: Bomaprine**3-diethylaminopropiophenone**(C₁₃H₁₉NO; 94-38-2) see: Tridihexethyl chloride**3-diethylaminopropyl chloride**(C₇H₁₆ClN; 104-77-8) see: Aprindine**diethylammonium hydrogen sulfite**(C₄H₁₃NO₃S; 53690-20-3) see: Etamsylate**N,N-diethylaniline**(C₁₀H₁₅N; 91-66-7) see: Nedocromil**diethyl benzylidenemalonate**(C₁₄H₁₆O₄; 5292-53-5) see: Acetorphan**diethyl benzylmalonate**(C₁₄H₁₈O₄; 607-81-8) see: Dimetindene**diethyl butylmalonate**

see under butylmalonic acid diethyl ester

diethyl 2-sec-butyl-2-methylmalonate(C₁₂H₂₂O₄; 64770-18-9) see: Mebutamate**diethylcarbamodithioic acid sodium salt**(C₅H₁₀NNaS₂; 148-18-5) see: Disulfiram**diethylcarbamoyl chloride**(C₅H₁₀ClNO; 88-10-8) see: Celiprolol; Diethylcarbamazine**diethyl carbonate**(C₅H₁₀O₃; 105-58-8) see: Ambuside; Bisoprolol; Fenspiride; Flurbiprofen; Furazolidone; Ketoprofen; Mephenytoin; Nifuratel; Phenobarbital; Pranoprofen; Protizinic acid; Temafloxacin; Toloxatone; Tybamate; Zolmitriptan**diethyl (E)-4-[2-(2-carboxyethyl)phenyl]-1,4-dihydro-2,6-dimethyl-3,5-pyridinedicarboxylate**(C₂₂H₂₅NO₆; 103890-71-7) see: Lacidipine**N,N-diethylchloroacetamide**(C₆H₁₂ClNO; 2315-36-8) see: Azintamide; Propanidid**N,N-diethylcyanoacetamide**(C₇H₁₂N₂O; 26391-06-0) see: Entacapone**diethyl 2-cyano-3-(4-fluorophenyl)pentanedioate**(C₁₆H₁₈FNO₄; 198640-81-2) see: Paroxetine**diethyl 2-(cyclohexylamino)vinylphosphonate**(C₁₂H₂₄NO₃P; 20061-84-1) see: Cerivastatin sodium**diethyl 3-cyclopentene-1,1-dicarboxylate**(C₁₁H₁₆O₄; 21622-00-4) see: Dolasetron mesilate**diethyl 2-cyclopentenylmalonate**(C₁₂H₁₈O₄; 53608-93-8) see: Cyclopentobarbital**diethyl cyclopropane-1,1-dicarboxylate**(C₉H₁₄O₄; 1559-02-0) see: Montelukast sodium**diethyl (2,4-dichloro-5-fluorobenzoyl)malonate**(C₁₄H₁₃Cl₂FO₅; 86483-50-3) see: Ciprofloxacin**diethyl diethylmalonate**(C₁₁H₂₀O₄; 77-25-8) see: Barbitol**diethyl [(7,8-difluoro-3-methoxymethyl-2,3-dihydro-4H-1,4-benzoxazin-4-yl)methyl]malonate**(C₁₈H₂₁F₂NO₆; 91040-37-8) see: Levofloxacin**diethyl 1,4-dihydro-2,6-diisopropyl-4-(4-fluorophenyl)pyridine-3,5-dicarboxylate**(C₂₃H₃₀FNO₄; 124863-78-1) see: Cerivastatin sodium**diethyl 1,1'-(dithiodi-2,1-ethanediy)bis[6,8-difluoro-1,4-dihydro-7-(4-methyl-1-piperazinyl)-4-oxo-3-quinoline-carboxylic acid diethyl ester]**(C₃₈H₄₄F₈N₆O₆S₂; 165541-88-8) see: Rufloxacin

hydrochloride

(R*,S*)-1,1'-(1,2-diethyl-1,2-ethanediy)bis[4-methoxybenzene](C₂₀H₂₆O₂; 28231-25-6) see: Hexestrol**1,1'-(1,2-diethyl-1,2-ethenediy)bis[4-methoxybenzene]**(C₂₀H₂₄O₂; 7773-34-4) see: Diethylstilbestrol**diethyl ethoxycarbonylphosphonate**(C₇H₁₅O₅P; 1474-78-8) see: Foscarnet sodium**diethyl ethoxymethylenemalonate**(C₁₀H₁₆O₅; 87-13-8) see: Apalcillin; Chloroquine; Enoxacin; Floctafenine; Flumequine; Levofloxacin; Lomefloxacin; Nalidixic acid; Norfloxacin; Ofloxacin; Oxolinic acid; Pefloxacin; Pipemidic acid; Rosoxacin; Rufloxacin hydrochloride**diethyl ethyl-sec-butylmalonate**(C₁₃H₂₄O₄; 76-71-1) see: Secbutabarbital**diethyl 2-ethyl-2-(3-chloropropyl)malonate**(C₁₂H₂₁ClO₄; 32821-60-6) see: Vincamine**diethyl 9-ethyl-6,9-dihydro-10-propyl-4,6-dioxo-4H-pyran[3,2-g]quinoline-2,8-dicarboxylate**(C₂₃H₂₅NO₇; 69049-72-5) see: Nedocromil**N,N-diethylethylenediamine**(C₆H₁₆N₂; 100-36-7) see: Ambenonium chloride; Bromopride; Cinchocaine; Clofexamide; Mefexamide; Metoclopramide; Procainamide; Tiapride**diethyl 2-(3,3-ethylenedioxybutyl)malonate**(C₁₃H₂₂O₆; 7796-23-8) see: Kebuzone**diethyl α-ethyl-α-isopentylmalonate**(C₁₄H₂₆O₄; 77-24-7) see: Amobarbital**diethyl ethylmalonate**(C₉H₁₆O₄; 133-13-1) see: Amobarbital; Pentobarbital; Secbutabarbital; Thiopental; Vincamine**diethyl ethyl(1-methylbutyl)malonate**(C₁₄H₂₆O₄; 76-72-2) see: Pentobarbital; Thiopental**diethyl ethylphenylmalonate**(C₁₅H₂₀O₄; 76-67-5) see: Methylphenobarbital; Phenobarbital**diethyl formamidomalonate**(C₈H₁₃NO₃; 6326-44-9) see: Oxitriptan**diethyl L-glutamate hydrochloride**(C₉H₁₈ClNO₄; 1118-89-4) see: Merhotrexate**N,N-diethyl-1,3,4,6,7,11b-hexahydro-9,10-dimethoxy-2-oxo-2H-benzo[a]quinolizine-3-carboxamide**(C₂₀H₂₈N₂O₄; 2214-63-3) see: Benzquinamide**N,N-diethyl-1,3,4,6,7,11b-hexahydro-2-hydroxy-9,10-dimethoxy-2H-benzo[a]quinolizine-3-carboxamide**(C₂₀H₃₀N₂O₄; 53-68-9) see: Benzquinamide

α,β -diethyl-4-hydroxy- β -(4-hydroxyphenyl)benzene-ethanol(C₁₈H₂₂O₃; 2297-48-5) see: Diethylstilbestrol**3,3-diethyl-5-(hydroxymethylene)-2,4-piperidinedione**(C₁₀H₁₅NO₃) see: Methyprylon**diethyl isobutylmalonate**(C₁₁H₂₀O₄; 10203-58-4) see: Butalbital**diethyl ketone**(C₅H₁₀O; 96-22-0) see: Molindone; Oseltamivir***N,N*-diethylleucine ethyl ester**(C₁₂H₂₅NO₃) see: Leucinocaine***N,N*-diethylleucine 4-nitrophenyl ester**(C₁₇H₂₅N₂O₄) see: Leucinocaine**diethyl malonate**(C₇H₁₂O₄; 105-53-3) see: Abacavir; Acetorphan; Amobarbital; Benzquinamide; Biotin; Butalbital; Ciprofloxacin; Clidanan; Cyclopentobarbital; Dolasetron mesilate; Grepafloxacin; Kebuzone; Mabuterol; Methohexital; Naftidrofuryl; Rimantadine; Risperidone; Rufloxacin hydrochloride; Secbutabarbital; Secobarbital; Vigabatrin**diethyl methoxycarbonylaminomalonate**(C₉H₁₅NO₆; 58178-20-4) see: Ethyl loflazepate**diethyl methoxymalonate**(C₈H₁₄O₅; 40924-27-4) see: Sulfametoxydiazine **α,β -diethyl-4-methoxy- α -(4-methoxyphenyl)benzene-ethanol**(C₂₀H₂₆O₃; 5331-23-7) see: Diethylstilbestrol; Dimestrol **α,β -diethyl-4-methoxy- β -(4-methoxyphenyl)benzene-ethanol**(C₂₀H₂₆O₃) see: Dimestrol**diethyl *N*-[(4-methylamino)benzoyl]-*L*-glutamate**(C₁₇H₂₄N₂O₅; 2378-95-2) see: Methotrexate**diethyl *N*-(5-methylamino-2-thenoyl)-*L*-glutamate**(C₁₅H₂₂N₂O₅S; 112889-02-8) see: Raltitrexed**diethyl (1-methylbutyl)malonate**(C₁₂H₂₂O₄; 117-47-5) see: Secobarbital**diethyl methylmalonate**(C₈H₁₄O₄; 609-08-5) see: Carprofen; Iloprost; Pirprofen; Suprofen**diethyl methyl(3-oxocyclohexyl)malonate**(C₁₄H₂₂O₅; 52263-19-1) see: Carprofen**diethyl methyl-2-propynylpropanedioate**(C₁₁H₁₆O₄; 19157-51-8) see: Iloprost**diethyl (2-methyl-3,4,6-trifluorobenzoyl)malonate**(C₁₅H₁₃F₃O₅; 119915-42-3) see: Grepafloxacin**diethyl oxalate**(C₆H₁₀O₄; 95-92-1) see: Ambenonium chloride; Bromazepam; Cortisone; Cromoglic acid; Desoxycortone acetate; Enalapril; Ethionamide; Hydrocortisone; Methylphenobarbital; Nedocromil; Phenobarbital; Piperacillin; Propiverine; Protonamide; Repirinast; Setiptiline; Sildenafil; Troglitazone**diethyl oxaloacetate**(C₈H₁₂O₅; 108-56-5) see: Chloroquine**diethyl 2-(3-oxobutyl)malonate**(C₁₁H₁₈O₅; 4761-26-6) see: Kebuzone**diethyl 3-oxo-2-phenylsuccinate**(C₁₄H₁₆O₅; 7147-33-3) see: Methylphenobarbital; Phenobarbital**2,2-diethyl-4-pentenenitrile**(C₉H₁₅N; 59346-54-2) see: Valdetamide**diethyl phenylmalonate**(C₁₃H₁₆O₄; 83-13-6) see: Felbamate; Methylphenobarbital; Phenobarbital**diethyl 2-phenylthioethylmalonate**(C₁₅H₂₀O₄S; 1558-97-0) see: Sulfipyrazone**diethyl phosphite**(C₄H₁₁O₃P; 762-04-9) see: Incadronic acid**diethyl phosphochloridate**(C₄H₁₀ClO₃P; 814-49-3) see: Ecothiopate iodide**3,3-diethyl-2,4-piperidinedione**(C₉H₁₃NO₂; 77-03-2) see: Methyprylon**diethyl propylmalonate**(C₁₀H₁₈O₄; 2163-48-6) see: Azapropazone**diethyl [3-(4-pyridyl)anilinomethylene]malonate**(C₁₉H₂₀N₂O₄; 40034-45-5) see: Rosoxacin**diethylstilbestrol**(C₁₈H₂₀O₂; 56-53-1) see: Diethylstilbestrol dipropionate; Diethylstilbestrol disulfate; Dimestrol; Fosfestrol**diethyl succinate**(C₈H₁₄O₄; 123-25-1) see: Sertraline**diethylsulfamoyl chloride**(C₄H₁₀ClNO₂S; 20588-68-5) see: Quinagolide hydrochloride**diethyl sulfate**(C₄H₁₀O₄S; 64-67-5) see: Ditophal; Ethenzamide; Etidocaine; Pipemidic acid; Piprozolin; Rosoxacin**diethyl tetrahydrofurfurylmalonate**(C₁₂H₂₀O₅; 37136-39-3) see: Naftidrofuryl**1,8-diethyl-1,3,4,9-tetrahydropyrano[3,4-*b*]indole-1-acetic acid ethyl ester**(C₁₉H₂₅NO₃; 200880-23-5) see: Etodolac**3,3-diethyl-1,2,3,4-tetrahydropyridine-2,4-dione**(C₉H₁₃NO₂; 77-04-3) see: Methyprylon***N,N*-diethylthiocarbamoyl chloride**(C₅H₁₀CINS; 88-11-9) see: Astemizole**4,5-diethyl- Δ^5 -1,2,4-triazolin-3-one**(C₆H₁₁N₃O; 52883-26-8) see: Etoperidone**2,4-difluoroaniline**(C₆H₅F₂N; 367-25-9) see: Diflunisal; Terafloxacin; Tosufloxacin**1,3-difluorobenzene**(C₆H₄F₂; 372-18-9) see: Fluconazole; Risperidone**2,4'-difluorobenzophenone**(C₁₃H₈F₂O; 342-25-6) see: Flutrimazole**4-(2,4-difluorobenzoyl)piperidine hydrochloride**(C₁₂H₁₄ClF₂NO; 106266-04-0) see: Risperidone**6 α ,9-difluoro-2-chloro-16 α -methyl-11 β ,17-dihydroxy-21-acetoxypregna-1,4-diene-3,20-dione**(C₂₄H₂₉ClF₂O₆; 23961-22-0) see: Halometasone**7,8-difluoro-3,4-dihydro-2*H*-1,4-benzothiazine**(C₈H₇F₂NS; 198278-55-6) see: Rufloxacin hydrochloride**(-)-7,8-difluoro-2,3-dihydro-3-hydroxymethyl-4*H*-1,4-benzoxazine**(C₉H₉F₂NO₂; 106939-40-6) see: Levofloxacin**7,8-difluoro-3,4-dihydro-3-methyl-2*H*-1,4-benzoxazine**(C₉H₉F₂NO; 82419-33-8) see: Levofloxacin; Ofloxacin**(-)-7,8-difluoro-2,3-dihydro-3-methyl-4*H*-1,4-benzoxazine**(C₉H₉F₂NO; 106939-42-8) see: Levofloxacin

(S)-[(7,8-difluoro-2,3-dihydro-3-methyl-4*H*-1,4-benzoxazin-4-yl)methylene]propanedioic acid diethyl ester (C₁₇H₁₉F₂NO₅; 106939-43-9) see: Levofloxacin

[(7,8-difluoro-2,3-dihydro-3-methyl-4*H*-1,4-benzoxazin-4-yl)methylene]propanedioic acid diethyl ester (C₁₇H₁₉F₂NO₅; 86760-99-8) see: Ofloxacin

[S-(*R**,*R**)]-7,8-difluoro-3,4-dihydro-3-methyl-4-[[1-[(4-methylphenyl)sulfonyl]-2-pyrrolidinyl]carbonyl]-2*H*-1,4-benzoxazine (C₂₁H₂₂F₂N₂O₄S; 106939-44-0) see: Levofloxacin

9,10-difluoro-2,3-dihydro-3-methyl-7-oxo-7*H*-pyridido[1,2,3-*de*]-1,4-benzoxazine-6-carboxylic acid (C₁₃H₉F₂NO₄; 82419-35-0) see: Ofloxacin

(6 α ,11 β ,16 α ,17 α)-6,9-difluoro-11,17-dihydroxy-16-methyl-3-oxoandrosta-1,4-diene-17-carboxylic acid (C₂₁H₂₆F₂O₅; 28416-82-2) see: Fluticasone propionate

(6 α ,11 β ,16 α)-6,9-difluoro-11,21-dihydroxy-16-methyl-pregna-1,4-diene-3,20-dione (C₂₂H₂₈F₂O₄; 2607-06-9) see: Diflucortolone valerate; Fluticasone propionate

6 α ,9 α -difluoro-3,20-dioxo-16 β -methyl-11 β ,17,21-trihydroxy-1,4-pregnadiene (C₂₂H₂₈F₂O₅; 2557-49-5) see: Diflorasone diacetate

6,8-difluoro-1-(2-fluoroethyl)-1,4-dihydro-7-(4-methyl-1-piperazinyl)-4-oxo-3-quinolinecarbonitrile (C₁₇H₁₃F₃N₄O; 133369-53-6) see: Fleroxacin

(6 α ,11 β)-6,9-difluoro-11-hydroxy-17,21-[(1-methoxybutylidene)bis(oxy)]pregna-1,4-diene-3,20-dione (C₂₅H₃₂F₂O₆; 23640-92-8) see: Difluprednate

(6 α ,11 β ,16 β)-6,9-difluoro-11-hydroxy-17,21-[(1-methoxyethylidene)bis(oxy)]-16-methyl-pregna-1,4-diene-3,20-dione (C₂₅H₃₂F₂O₆; 50630-18-7) see: Diflorasone diacetate

(6 α ,11 β ,16 α ,17 α)-6,9-difluoro-11-hydroxy-16-methyl-3-oxo-17-(1-oxopropoxy)androsta-1,4-diene-17-carbothioic acid (C₂₄H₃₀F₂O₅S; 80474-45-9) see: Fluticasone propionate

(6 α ,11 β ,16 α ,17 α)-6,9-difluoro-11-hydroxy-16-methyl-3-oxo-17-(1-oxopropoxy)androsta-1,4-diene-17-carboxylic acid (C₂₄H₃₀F₂O₆; 65429-42-7) see: Fluticasone propionate

(*R*)-3,4-difluoro-2-(2-hydroxypropoxy)-1-nitrobenzene (C₉H₉F₂NO₄; 124409-94-5) see: Levofloxacin

4-(difluoromethoxy)aniline (C₇H₇F₂NO; 22236-10-8) see: Pantoprazole sodium

5-(difluoromethoxy)-2-[[[(3,4-dimethoxy-2-pyridinyl)methyl]thio]-1*H*-benzimidazole (C₁₆H₁₃F₂N₃O₃S; 102625-64-9) see: Pantoprazole sodium

5-(difluoromethoxy)-2-mercaptobenzimidazole (C₈H₆F₂N₂OS; 97963-62-7) see: Pantoprazole sodium

4-(difluoromethoxy)-2-nitrobenzenamine (C₇H₆F₂N₂O₃; 97963-76-3) see: Pantoprazole sodium

N-[4-(difluoromethoxy)phenyl]acetamide (C₉H₉F₂NO₂; 22236-11-9) see: Pantoprazole sodium

2-(difluoromethoxy)-1,1,1-trifluoroethane (C₃H₃F₅O; 1885-48-9) see: Isoflurane

(S)-9,10-difluoro-3-methyl-7-oxo-2,3-dihydro-7*H*-pyrido[1,2,3-*de*]-1,4-benzoxazine-6-carboxylic acid (C₁₃H₉F₂NO₄; 100986-89-8) see: Levofloxacin

[(difluoromethyl)thio]acetic acid (C₃H₄F₂O₂S; 83494-32-0) see: Flomoxef

cis-7-[[[(difluoromethyl)thio]acetyl]amino]-7-methoxy-3-[[[1-[2-[[[(4-methylphenyl)methoxy]carbonyl]oxy]ethyl]-1*H*-tetrazol-5-yl]thio]methyl]-8-oxo-5-oxa-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester (C₃₇H₃₆F₂N₆O₉S₂; 92823-08-0) see: Flomoxef

2,3-difluoro-6-nitrophenol (C₆H₃F₂NO₃; 82419-26-9) see: Levofloxacin; Ofloxacin

1-(2,3-difluoro-6-nitrophenoxy)-3-methoxy-2-propanone (C₁₀H₉F₂NO₅; 91040-35-6) see: Levofloxacin

1-(2,3-difluoro-6-nitrophenoxy)-2-propanone (C₉H₇F₂NO₄; 82419-32-7) see: Ofloxacin

2,3-difluoro-6-nitrophenyl oxiranylmethyl ether (C₉H₇F₂NO₄; 91040-33-4) see: Levofloxacin

4-(2,4-difluorophenyl)anisole (C₁₃H₁₀F₂O; 90101-30-7) see: Diflunisal

1-[2-(2,4-difluorophenyl)-2,3-epoxypropyl]-1*H*-1,2,4-triazole (C₁₁H₉F₂N₃O; 86386-76-7) see: Fluconazole

(2,4-difluorophenyl)lithium (C₆H₃F₂Li; 87820-35-7) see: Fluconazole

4-(2,4-difluorophenyl)phenol (C₁₂H₈F₂O; 59089-68-8) see: Diflunisal

(2,4-difluorophenyl)-4-piperidinylmethanone oxime (C₁₂H₁₄F₂N₂O; 84163-46-2) see: Risperidone

(2,4-difluorophenyl)(tetrahydropyran-4-yl)methanone (C₁₂H₁₂F₂O₂; 181479-09-4) see: Risperidone

(*Z*)-(2,4-difluorophenyl)(tetrahydro-2*H*-pyran-4-yl)methanone oxime (C₁₂H₁₃F₂NO₂; 181479-10-7) see: Risperidone

6 α ,9-difluoroprednisolone (C₂₁H₂₆F₂O₅; 806-29-1) see: Difluprednate

6 α ,9-difluoro-11 β ,16 α ,17,21-tetrahydroxypregna-1,4-diene-3,20-dione 16,21-diacetate (C₂₅H₃₀F₂O₈; 3914-23-6) see: Fluocinolone acetonide

1,1-difluoro-2,2,2-trichloroethane (C₂HCl₃F₂; 354-12-1) see: Methoxyflurane

digitoxin (C₄₁H₆₄O₁₃; 71-63-6) see: Acetyldigitoxin

diglycolic chloride (C₄H₄Cl₂O₃; 21062-20-4) see: loglycamic acid

digoxin (C₄₁H₆₄O₁₄; 20830-75-5) see: α -Acetyldigoxin; β -Acetyldigoxin; Metildigoxin

3,4-dihydro-2*H*-1-benzopyran-3,8-diol (C₉H₁₀O₃; 81486-17-1) see: Nipradilol

(S)-3,4-dihydro-6-chloro-4-hydroxy-2-(3-methoxypropyl)-2*H*-thieno[3,2-*e*]-1,2-thiazine 1,1-dioxide (C₁₀H₁₄ClNO₄S₂; 160982-13-8) see: Brinzolamide

1,3-dihydro-5-(2-chlorophenyl)-2*H*-1,4-benzodiazepin-2-one see under 5-(2-chlorophenyl)-2-oxo-2,3-dihydro-1*H*-1,4-benzodiazepine

dihydrocortisone 21-acetate (C₂₃H₃₂O₆; 1499-59-8) see: Cortisone; Prednisone

6,7-dihydro-5*H*-dibenz[*c,e*]azepine (C₁₄H₁₃N; 6672-69-1) see: Azapetine

- 3-(10,11-dihydro-5H-dibenz[*b,f*]azepin-5-yl)propyl bromide
(C₁₇H₁₈BrN; 58835-73-7) see: Carpipramine
- [3-(10,11-dihydro-5H-dibenz[*b,f*]azepin-5-yl)propyl]methylcarbamic acid ethyl ester
(C₂₁H₂₆N₂O₂; 27097-69-4) see: Desipramine
- 9,10-dihydro-9,9-dimethylacridine
(C₁₅H₁₅N; 6267-02-3) see: Dimetacrine
- 1-(3,4-dihydro-4,4-dimethyl-2H-1-benzothiopyran-6-yl)ethanone
(C₁₃H₁₆OS; 88579-23-1) see: Tazarotene
- 5,6-dihydro-7,8-dimethyl-4,5-dioxo-4H-pyrano[3,2-*c*]quinoline-2-carboxylic acid
(C₁₅H₁₁NO₅; 63768-47-8) see: Repirinast
- N*-[[5-[[[1,4-dihydro-3-[[1(1,1-dimethylethyl)carbonyloxy]methyl]-2-methyl-4-oxo-6-quinazolyl]methyl]methylamino]-2-thienyl]carbonyl]-L-glutamic acid diethyl ester
(C₃₁H₄₀N₄O₈S) see: Raltitrexed
- 3,4-dihydro-2,6-dimethyl-3-pivaloyloxymethylquinazolin-4-one
(C₁₆H₂₀N₂O₃; 112888-41-2) see: Raltitrexed
- (3 α ,16 α)-14,15-dihydro-14,15-dioxo-D-homocburnamine-9ine
(C₂₀H₂₂N₂O₂; 35226-43-8) see: Vincamine
- 1,3-dihydro-1,3-dioxo-2H-isoindole-2-acetic acid 2-[[3-carboxy-5-[[[1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl]acetyl]amino]-2,4,6-triiodobenzoyl]amino]ethyl ester
(C₃₀H₁₉I₃N₄O₁₀; 59017-38-8) see: Ioxaglic acid
- (*S*)- β -(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-1,3-dihydro-1,3-dioxo-2H-isoindole-2-heptanoic acid methyl ester
(C₂₄H₂₂N₂O₆; 80909-97-3) see: Gusperimus trihydrochloride
- [*S*-(*R**,*R**)]-2-[[2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-1,5-dioxo-5-(phenylmethoxy)pentyl]tetrahydro-1,3(2H)-pyridazinedicarboxylic acid 3-(1,1-dimethylethyl) 1-(phenylmethyl) ester
(C₃₇H₃₀N₄O₉; 106860-13-3) see: Cilazapril
- 4-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)- α -ethylbenzeneacetic acid ethyl ester
(C₂₀H₁₉NO₄; 36691-07-3) see: Indobufen
- 4-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)- α -methylbenzeneacetic acid ethyl ester
(C₁₉H₁₇NO₄; 36691-05-1) see: Indoprofen
- cis*-2-[[1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)methyl]-*N,N*-diethyl-1-phenylcyclopropanecarboxamide
(C₂₃H₂₄N₂O₃; 105310-75-6) see: Milnacipran hydrochloride
- cis*-2-[[1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)methyl]-1-phenylcyclopropanecarboxylic acid
(C₁₉H₁₅NO₄; 69160-56-1) see: Milnacipran hydrochloride
- (*1S-cis*)-9-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)octahydro-10-oxo-6H-pyridazino[1,2-*a*][1,2]diazepine-1-carboxylic acid 1,1-dimethylethyl ester
(C₂₂H₂₇N₃O₅; 106927-97-3) see: Cilazapril
- (*S*)-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)pentane-dioic acid 5-(phenylmethyl) ester
(C₂₀H₁₇NO₆; 88784-33-2) see: Cilazapril
- (*S*)-1,3-dihydro-1,3-dioxo- α -(phenylmethyl)-2H-isoindole-2-acetic acid
(C₁₇H₁₃NO₄; 5123-55-7) see: Saquinavir
- 3,4-dihydro-2,4-dioxo-3-(1-phenylpropyl)-2H-1-benzopyran-3-carboxylic acid ethyl ester
(C₂₁H₂₀O₅) see: Phenprocoumon
- 9,10-dihydro-9,10-ethanoanthracene-9-carboxaldehyde
(C₁₇H₁₄O; 36280-77-0) see: Benzocetamine
- 9,10-dihydro-9,10-ethanoanthracene-11,12-diol
(C₁₆H₁₄O₂; 20678-93-7) see: Bisantrene
- 1,4-dihydro-1-ethoxycarbonyl-4-(4-fluorophenyl)-3-methoxycarbonylpyridine
(C₁₆H₁₆NO₄; 109887-59-4) see: Paroxetine
- 3,4-dihydro-8-(ethoxycarbonyloxy)-2H-1-benzopyran-3-ol 3-nitrate
(C₁₂H₁₃NO₇; 81486-19-3) see: Nipradilol
- 2,3-dihydrofuran
(C₄H₆O; 1191-99-7) see: Amaprenavir; Tegafur
- (\pm)-dihydroglaziovine
(C₁₈H₂₁NO₃; 54274-43-0) see: Glaziovine
- 1,2-dihydro-4-hydroxy-7,8-dimethyl- α,γ ,2-trioxo-3-quinolinebutanoic acid ethyl ester
(C₁₇H₁₇NO₆) see: Repirinast
- [*S*-(*R**,*R**)]-1,3-dihydro- α -hydroxy-1,3-dioxo- β -(phenylmethyl)-2H-isoindole-2-propanenitrile
(C₁₈H₁₄N₂O₃; 161525-75-3) see: Saquinavir
- (*E*)-6-(1,3-dihydro-4-hydroxy-6-methoxy-7-methyl-3-oxo-5-isobenzofuran-yl)-4-methyl-4-hexenoic acid
(C₁₇H₂₀O₆; 24280-93-1) see: Mycophenolate mofetil
- (2*S*,3*S*)-2,3-dihydro-3-hydroxy-2-(4-methoxyphenyl)-1,5-benzothiazepin-4(5H)-one
(C₁₆H₁₅NO₃S; 42399-49-5) see: Diltiazem
- (4*S*)-3,4-dihydro-4-hydroxy-2-(3-methoxypropyl)-2H-thieno[3,2-*e*]-1,2-thiazine-6-sulfonamide 1,1-dioxide
(C₁₀H₁₆N₂O₆S₂; 154127-42-1) see: Brinzolamide
- (\pm)-3',4'-dihydro-1'-hydroxy-7'-methoxyspiro[cyclopentane-1,2'(1*H*)-naphthalene]-1'-acetonitrile
(C₁₇H₂₁NO₂; 51491-09-9) see: Butorphanol
- 2,3-dihydro-3-hydroxy-1-methyl-1*H*-indole-5,6-dione
(C₉H₉NO₃; 54-06-8) see: Carbazochrome
- 2,5-dihydro-6-hydroxy-2-methyl-3-mercapto-5-oxo-1,2,4-triazine
(C₄H₃N₃O₂S; 58909-39-0) see: Ceftriaxone
- 1,2-dihydro-6-hydroxy-4-methyl-2-oxo-3-pyridinecarbo-nitrile
(C₇H₆N₂O₂; 5444-02-0) see: Nevirapine
- (3*S*,4*aS*,8*aS*)-2-[(2*R*)-2-[(4*S*)-4,5-dihydro-2-(3-hydroxy-2-methylphenyl)-4-oxazolyl]-2-hydroxyethyl]-*N*-(1,1-dimethylethyl)decahydro-3-isoquinolinecarboxamide
(C₂₆H₃₉N₃O₄; 188936-07-4) see: Nelfinavir mesylate
- 3-[(4*S*)-4,5-dihydro-4-[(1*R*)-2-hydroxy-1-[(methylsulfonyl)oxy]ethyl]-2-oxazolyl]-2-methylphenol
(C₁₃H₁₇NO₆S) see: Nelfinavir mesylate
- 5,6-dihydro-4-hydroxy-6-methyl-4*H*-thieno[2,3-*b*]thio-pyran-2-sulfonamide
(C₈H₁₁NO₃S₂; 120298-37-5) see: Dorzolamide
- 5,6-dihydro-4-hydroxy-6-methyl-4*H*-thieno[2,3-*b*]thio-pyran-2-sulfonamide 7,7-dioxide
(C₈H₁₁NO₃S₂; 120279-26-7) see: Dorzolamide
- 1,3-dihydro-1-(3-hydroxypropyl)-2*H*-benzimidazol-2-one
(C₁₀H₁₂N₂O₂; 62780-92-1) see: Domperidone
- 7,10-dihydro-10-hydroxyretinol
(C₂₀H₃₂O₂; 34255-07-7) see: Retinol

- 7,10-dihydro-10-hydroxyretinol 15-acetate**
(C₂₂H₃₄O₃; 95404-32-3) see: Retinol
- (3 α ,16 α)-14,15-dihydro-14-hydroxy-1,14-secoburnamine-9-14-carboxylic acid methyl ester**
(C₂₁H₂₈N₂O₃; 41173-96-0) see: Vincamine
- (S)-3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-methanol**
(C₁₄H₂₀O₃; 69427-83-4) see: Troglitazone
- 3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-methanol α -acetate**
(C₁₆H₂₂O₄; 233757-09-0) see: Troglitazone
- (\pm)-3,4-dihydro-4-hydroxy-2H-thieno[3,2-*e*]-1,2-thiazine 1,1-dioxide**
(C₆H₇NO₃S₂; 138890-97-8) see: Brinzolamide
- dihydro-2-imino-5-methoxy-4,6(1H,5H)-pyrimidinedione**
(C₅H₇N₃O₃; 89280-05-7) see: Sulfametyoxydiazine
- 2,3-dihydro-2-(1-iminopropyl)-2-[(trimethylsilyl)oxy]-1H-indene**
(C₁₅H₂₃NOSi) see: Indanorex
- (1S-cis)-2,3-dihydro-1H-indene-1,2-diol**
(C₉H₁₀O₂; 67528-22-7) see: Indinavir sulfate
- (1aS)-1a,6a-dihydro-6H-indenol[1,2-*b*]oxirane**
(C₉H₈O; 67528-26-1) see: Indinavir sulfate
- (2,3-dihydro-1H-inden-4-yl)carbamimidothioic acid methyl ester monohydrate**
(C₁₁H₁₃N₂S; 40507-77-5) see: Indanazoline
- 2,3-dihydro-1H-indole-2-carboxylic acid ethyl ester**
(C₁₁H₁₃NO₂; 50501-07-0) see: Perindopril
- 2,3-dihydro-5-mercapto-3-oxo-4-isothiazolecarboxylic acid methyl ester, monosodium salt**
(C₃H₄NaO₃S₂) see: Cefotetan
- dihydro-5(S)-(methanesulfonyloxymethyl)-3(R)-phenylmethyl-2(3H)-furanone**
(C₁₃H₁₆O₃S; 150323-17-4) see: Indinavir sulfate
- 4,5-dihydro-6-[4-(4-methoxybenzoylamino)-3-nitrophenyl]-5-methyl-3(2H)-pyridazinone**
(C₁₉H₁₈N₄O₅; 74149-73-8) see: Pimobendan
- 4-[2-(3,4-dihydro-7-methoxy-4,4-dimethyl-1,3-dioxo-2(1H)-isoquinolinyl)ethyl]benzenesulfonamide**
(C₂₀H₂₂N₂O₅S; 33456-68-7) see: Gliquidone
- 3,4-dihydro-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2H-1-benzopyran-2-methanol**
(C₁₆H₂₄O₄; 107188-55-6) see: Troglitazone
- 3,4-dihydro-6-(methoxymethoxy)-5,7,8-trimethyl-2H-1-benzopyran-2-carboxylic acid ethyl ester**
(C₁₇H₂₄O₅; 107187-97-3) see: Troglitazone
- 1,2-dihydro-6-methoxy-4-methylnaphthalene**
(C₁₂H₁₄O; 30021-91-1) see: Dezocine
- 2,4-dihydro-2-(4-methoxy-6-methyl-2-pyrimidinyl)-5-methyl-3H-pyrazol-3-one**
(C₁₀H₁₂N₄O₂; 18694-45-6) see: Epirizole
- (E)-2-[2-(3,4-dihydro-6-methoxy-1(2H)-naphthalenyldene)ethyl]-2-ethyl-1,3-cyclopentanedione**
(C₂₀H₂₄O₃; 62298-52-6) see: Levonorgestrel
- [2S-[2 α (E),3 β]]-2-[2-(3,4-dihydro-6-methoxy-1(2H)-naphthalenyldene)ethyl]-2-ethyl-3-hydroxycyclopentanone**
(C₂₀H₂₆O₃; 51773-47-8) see: Levonorgestrel
- 3,4-dihydro-2-(3-methoxypropyl)-4-oxo-2H-thieno[3,2-*e*]-1,2-thiazine-6-sulfonamide 1,1-dioxide**
(C₁₀H₁₄N₂O₆S₃; 154127-41-0) see: Brinzolamide
- (4S)-3,4-dihydro-2-(3-methoxypropyl)-2H-thieno[3,2-*e*]-1,2-thiazine-4-ol 1,1-dioxide**
(C₁₀H₁₅NO₄S₂) see: Brinzolamide
- 3,4-dihydro-6-methyl-2H-1-benzothiopyran-7-sulfonyl chloride 1,1-dioxide**
(C₁₀H₁₁ClO₄S₂; 1084-64-6) see: Meticrane
- 10,11-dihydro-5-methyl-5H-dibenz[*b,f*]azepin-10-amine**
(C₁₅H₁₆N₂; 21808-11-7) see: Metapramine
- N-(10,11-dihydro-5-methyl-5H-dibenz[*b,f*]azepin-10-yl)formamide**
(C₁₆H₁₆N₂O; 21737-56-4) see: Metapramine
- (4S-trans)-N-(5,6-dihydro-6-methyl-7,7-dioxido-4H-thieno[2,3-*b*]thiopyran-4-yl)acetamide**
(C₁₀H₁₃NO₃S₂; 147086-83-7) see: Dorzolamide
- 1,3-dihydro-6-methylfuro[3,4-*c*]pyridin-7-ol**
(C₈H₉NO₂; 5196-20-3) see: Pyridoxine
- 1,3-dihydro-4-methyl-2H-imidazol-2-one**
(C₄H₆N₂O; 1192-34-3) see: Enoximone
- 3,4-dihydro-2-methyl-4-oxo-2H-1,2-benzothiazine-3-carboxylic acid methyl ester 1,1-dioxide**
(C₁₁H₁₁NO₅S; 29209-30-1) see: Piroxicam
- 3-(4,7-dihydro-1-methyl-7-oxo-3-propyl-1H-pyrazolo[4,3-*d*]pyrimidin-5-yl)-4-ethoxybenzenesulfonyl chloride**
(C₁₇H₁₉ClN₄O₄S; 139756-22-2) see: Sildenafil
- 5,6-dihydro-6-methyl-4-oxo-4H-thieno[2,3-*b*]thiopyran**
(C₈H₈OS₂; 120279-85-8) see: Dorzolamide
- 5,6-dihydro-6-methyl-4-oxo-4H-thieno[2,3-*b*]thiopyran-2-sulfonamide**
(C₈H₈NO₃S₂; 120279-88-1) see: Dorzolamide
- 5,6-dihydro-6-methyl-4-oxo-4H-thieno[2,3-*b*]thiopyran-2-sulfonic acid**
(C₈H₈O₄S₃; 120279-86-9) see: Dorzolamide
- 1,3-dihydro-1-[(1-methyl-2-phenylethylidene)amino]-2H-indol-2-one**
(C₁₇H₁₆N₂O; 51135-33-2) see: Amfenac sodium
- 10,11-dihydro-N-methyl-N-(phenylmethyl)-5H-dibenz[*b,f*]azepine-5-propanamine**
(C₂₅H₂₈N₂; 3978-87-8) see: Desipramine
- 1,3-dihydro-4-[2-[[4-methylphenyl)sulfonyl]oxy]ethyl]-2H-indol-2-one**
(C₁₇H₁₇NO₄S; 139122-20-6) see: Ropinirole
- 9,10-dihydro-4-(1-methyl-4-piperidinyl)-4H-benzo[4,5]cyclohepta[1,2-*b*]thiophene-4-ol**
(C₁₉H₂₃NOS; 5189-10-6) see: Pizotifen
- 4,10-dihydro-4-(1-methyl-4-piperidinylidene)-9H-benzo[4,5]cyclohepta[1,2-*b*]thiophen-9-one**
(C₁₉H₁₉NOS; 34580-09-1) see: Ketotifen
- 4,9-dihydro-4-(1-methyl-4-piperidinylidene)-10H-benzo[4,5]cyclohepta[1,2-*b*]thiophen-10-one**
(C₁₉H₁₉NOS; 34580-13-7) see: Ketotifen
- 4,5-dihydro-4-methylpyrazole**
(C₄H₈N₂; 5920-30-9) see: Fomepizole
- (4S-trans)-5,6-dihydro-6-methyl-4H-thieno[2,3-*b*]thiopyran-4-ol acetate 7,7-dioxide**
(C₁₀H₁₂O₄S₂; 147086-82-6) see: Dorzolamide
- (4S-trans)-5,6-dihydro-6-methyl-4H-thieno[2,3-*b*]thiopyran-4-ol 7,7-dioxide**
(C₈H₁₀O₃S₂; 147086-81-5) see: Dorzolamide

- 5,6-dihydro-6-methyl-4H-thieno[2,3-b]thiopyran-4-ol 7,7-dioxide**
(C₈H₁₀O₃S₂) see: Dorzolamide
- 5,8-dihydro-1-naphthol**
(C₁₀H₁₀O; 27673-48-9) see: Nadolol
- (S)-1,3-dihydro- α -[(4-nitrophenyl)methyl]-1,3-dioxo-2H-isoindole-2-acetic acid ethyl ester**
(C₁₉H₁₆N₂O₆; 17451-67-1) see: Melfalan
- 3,4-dihydro-8-(oxiranylmethoxy)-2H-1-benzothiopyran**
(C₁₂H₁₄O₂S; 85392-02-5) see: Tertatolol
- 9,10-dihydro-10-oxo-9-anthracenopropanenitrile**
(C₁₇H₁₃NO; 155134-04-6) see: Maprotiline
- 9,10-dihydro-10-oxo-9-anthracenopropanoic acid**
(C₁₇H₁₄O₃; 93321-51-8) see: Maprotiline
- 5-(2,5-dihydro-5-oxo-3-furyl)-2-(1-hydroxyethyl)-3-methylbenzofuran**
(C₁₅H₁₄O₄; 3448-13-3) see: Benfurodil hemisuccinate
- 4'-(2,5-dihydro-5-oxo-3-furyl)-2'-(2-oxopropoxy)acetophenone**
(C₁₅H₁₄O₅; 3447-68-5) see: Benfurodil hemisuccinate
- (3 α ,16 α)-14,15-dihydro-14-oxo-D-homoeburnamenine**
(C₂₀H₂₄N₂O; 35226-41-6) see: Vincamine
- 4-(1,3-dihydro-1-oxo-2H-isoindol-2-yl)- α -ethylbenzene-acetic acid ethyl ester**
(C₂₀H₂₁NO₃; 36691-02-8) see: Indobufen
- 4-(1,3-dihydro-1-oxo-2H-isoindol-2-yl)- α -methylbenzene-acetic acid ethyl ester**
(C₁₉H₁₉NO₃; 36691-00-6) see: Indoprofen
- 2,5-dihydro-5-oxo-4-phenyl-3-furanyl trifluoromethanesulfonate**
(C₁₁H₇F₃O₅S; 178619-03-9) see: Rofecoxib
- 1,2-dihydro-2-oxo-5-(4-pyridyl)nicotinamide**
(C₁₁H₉N₃O₂; 62749-46-6) see: Amrinone
- 1,2-dihydro-2-oxo-5-(4-pyridyl)nicotinic acid**
(C₁₁H₈N₂O₃; 62749-61-5) see: Amrinone
- 1,2-dihydro-2-oxo-5-(4-pyridyl)nicotinonitrile**
(C₁₁H₇N₃O; 62749-26-2) see: Amrinone
- 1,2-dihydro-2-oxo-4-quinolinecarboxylic acid**
(C₁₀H₇NO₃; 15733-89-8) see: Cinchocaine
- (3 α ,16 α)-14,15-dihydro-19-oxo-1,14-secoeburnamenine-14-carboxylic acid methyl ester**
(C₂₁H₂₆N₂O₃; 23944-37-8) see: Vincamine
- 3,4-dihydropapaverine**
(C₂₀H₂₃NO₄; 6957-27-3) see: Papaverine
- 1,4-dihydro-4-phenylcinnoline**
(C₁₄H₁₂N₂; 1500-69-2) see: Binedaline
- dihydro-6-(2-phenylethenyl)-2H-pyran-2,4(3H)-dione**
(C₁₃H₁₂O₃; 73536-62-6) see: Kawain
- (3aS-cis)-3a,8a-dihydro-2-phenyl-8H-indeno[1,2-d]oxazole**
(C₁₆H₁₃NO; 176587-85-2) see: Indinavir sulfate
- 2,3-dihydro-N-(phenylmethyl)-1,4-benzodioxin-2-methanamine**
(C₁₆H₁₇NO₂; 2164-42-3) see: Guanoxan
- 11,12-dihydro-11-(phenylsulfonyl)retinol acetate**
(C₂₈H₃₈O₄S; 50465-60-6) see: Retinol
- dihydroxypropan**
(C₃H₈O; 110-87-2) see: Dinoprost; Dolasetron mesilate; Flomoxef; Iloprost; Misoprostol; Montelukast sodium; Orlistat; Pirarubicin; Saquinavir
- 5,11-dihydro-6H-pyrido[2,3-b][1,4]benzodiazepin-6-one**
(C₁₂H₉N₃O; 885-70-1) see: Pirenzepine
- 2,5-dihydropyrrrol**
(C₄H₇N; 109-96-6) see: Trovafloxacin mesilate
- 3,6-dihydro-4-(1-pyrrolidinyl)-1(2H)-pyridinecarboxylic acid ethyl ester**
(C₁₂H₂₀N₂O₂; 39716-27-3) see: Endralazine
- 1,2-dihydro-1-[2-[(tetrahydro-2H-pyran-2-yl)oxy]ethyl]-5H-tetrazole-5-thione**
(C₈H₁₄N₄O₂S; 88570-74-5) see: Flomoxef
- 10,19-dihydro-1 α ,10,19,25-tetrahydroxy-3,5-cyclovitamin D₂ 1-acetate 6-methyl ether**
(C₃₁H₅₀O₆) see: Paricalcitol
- 3,4-dihydro-2,5,7,8-tetramethyl-2-[(4-nitrophenoxy)methyl]-2H-1-benzopyran-6-ol**
(C₂₀H₂₃NO₃; 107188-58-9) see: Troglitazone
- 3,4-dihydro-2,5,7,8-tetramethyl-6-(phenylmethoxy)-2H-1-benzopyran-2-methanol**
(C₂₁H₂₆O₃; 171270-07-8) see: Troglitazone
- (S)-3,4-dihydro-2H-thieno[3,2-e]-1,2-thiazin-4-ol 1,1-dioxide**
(C₆H₇NO₃S₂; 174139-70-9) see: Brinzolamide
- (3 α ,16 α)-14,15-dihydro-19-thioxo-1,14-secoeburnamenine-14-carboxylic acid methyl ester**
(C₂₁H₂₆N₂O₂S; 23944-40-3) see: Vincamine
- 3,4-dihydro-4-thioxo-1-(2,3,5-tri-O-acetyl- β -D-arabinofuranosyl)-2(1H)-pyrimidinone**
(C₁₅H₁₈N₂O₈S; 25130-27-2) see: Cytarabine
- 1,5-dihydro-3,3,8-trimethyl[1,3]dioxepino[5,6-c]pyridin-9-ol**
(C₁₁H₁₅NO₃; 948-00-5) see: Pyridoxine
- 2,3-dihydro-2-[(trimethylsilyl)oxy]-1H-indene-2-carbonitrile**
(C₁₃H₁₇NOSi; 55589-22-5) see: Indanorex
- dihydrovitamin D₂**
(C₂₈H₄₆O) see: Dihydrotachysterol
- 2,3-dihydroxanthotoxin**
(C₁₂H₁₀O₄; 3779-03-1) see: Methoxsalen
- 2,3-dihydroxanthotoxol**
(C₁₁H₈O₄; 68123-30-8) see: Methoxsalen
- 1,3-dihydroxyacetone**
(C₃H₆O₃; 96-26-4) see: Eprosartan; Methotrexate; Voglibose
- 2',4'-dihydroxyacetophenone**
(C₈H₈O₃; 89-84-9) see: Sofalcone
- 2',6'-dihydroxyacetophenone**
(C₈H₈O₃; 699-83-2) see: Cromoglicic acid
- 3',5'-dihydroxyacetophenone**
(C₈H₈O₃; 51863-60-6) see: Bambuterol
- 1,8-dihydroxyanthraquinone**
(C₁₄H₈O₄; 117-10-2) see: Dithranol; Mitoxantrone
- 1,8-dihydroxy-3-anthraquinonecarboxylic acid**
(C₁₅H₈O₆; 478-43-3) see: Diacerein
- (R*,S*)- α , β -dihydroxybenzenepropanoic acid methyl ester**
(C₁₀H₁₂O₄; 65870-46-4) see: Paclitaxel
- 4,4'-dihydroxybenzhydrylidencyclohexane**
(C₁₉H₂₀O₂; 5189-40-2) see: Cyclofenil
- 2-(4,4'-dihydroxybenzhydryl)pyridine**
(C₁₈H₁₅NO₂; 603-41-8) see: Bisacodyl; Sodium picosulfate

- 2,5-dihydroxybenzoic acid**
(C₇H₆O₄; 490-79-9) see: Flecainide
- 3,5-dihydroxybenzoic acid**
(C₇H₆O₄; 99-10-5) see: Brodimoprim
- 2,5-dihydroxybenzoic acid monopotassium salt**
(C₇H₅KO₄; 52843-95-5) see: Gentisic acid
- 1,2-dihydroxy-2-butene**
(C₄H₈O₂; 110-64-5) see: Iotrolan
- 1 α ,25-dihydroxycholesterol**
(C₂₇H₄₆O₃; 50392-32-0) see: Calcitriol
- 3,4-dihydroxycinnamoyl chloride cyclic carbonate**
(C₁₀H₅ClO₄; 116133-06-3) see: Cynarine
- 6,7-dihydroxycoumaranone**
(C₈H₆O₄; 6272-27-1) see: Methoxsalen
- 1 α ,25-dihydroxy-3,5-cyclovitamin D₂ 1-acetate 6-methyl ether**
(C₃₁H₄₈O₄) see: Paricalcitol
- 6,7-dihydroxy-2,3-dihydrobenzofuran**
(C₈H₈O₃; 42484-95-7) see: Methoxsalen
- 2,4-dihydroxy-6,7-dimethoxyquinazoline**
(C₁₀H₁₀N₂O₄; 28888-44-0) see: Alfuzosin; Prazosin
- (S)-4-[(2,4-dihydroxy-3,3-dimethyl-1-oxobutyl)amino]butanoic acid**
(C₁₀H₁₉NO₅; 49831-65-4) see: Calcium hopantenate
- 3 β ,5-dihydroxy-6 β ,17-dimethyl-5 α -pregnan-20-one**
(C₂₃H₃₈O₃; 95671-00-4) see: Medrogestone
- 11 β ,17-dihydroxy-3,20-dioxo-9 α -fluoro-21-iodo-16 β -methyl-1,4-pregnadiene**
(C₂₂H₂₈FIO₄; 51548-34-6) see: Betamethasone adamantoate
- 11 β ,17-dihydroxy-3,20-dioxo-9 α -fluoro-4-pregnene**
(C₂₁H₂₉FO₄; 337-03-1) see: Flugestone acetate
- 11 β ,17-dihydroxy-3,20-dioxo-21-iodo-4-pregnene**
(C₂₁H₂₉IO₄; 33767-06-5) see: Hydrocortisone sodium phosphate; Tixocortol pivalate
- 5 α ,17 α -dihydroxy-3,20-dioxo-6 β -methylpregnane**
(C₂₂H₃₄O₄; 23706-51-6) see: Medroxyprogesterone acetate
- 2,5-dihydroxy-1,3-dithiane**
(C₄H₈O₂S₂; 200396-18-5) see: Brotizolam
- 1,8-dihydroxy-3-hydroxymethylanthraquinone**
(C₁₅H₁₀O₅; 481-72-1) see: Diacerein
- 11 α ,17 β -dihydroxy-2-(hydroxymethylene)-17-methyl-androst-4-en-3-one**
(C₂₁H₃₀O₄; 2384-26-1) see: Formebolone
- [1R-[1 α (Z),2 β (R*),3 α ,5 α]]-7-[3,5-dihydroxy-2-(3-hydroxy-5-phenylpentyl)cyclopentyl]-5-heptenoic acid**
(C₂₃H₃₄O₅; 41639-83-2) see: Latanoprost
- 3',5'-dihydroxy-2-(isopropylamino)acetophenone**
(C₁₁H₁₅NO₃; 94200-14-3) see: Orciprenaline
- 4'-[(4,6-dihydroxy-5-methoxy-2-pyrimidinyl)sulfamoyl]acetanilide**
(C₁₃H₁₄N₄O₆S; 92024-58-3) see: Sulfametoxydiazine
- 3',4'-dihydroxy-2-methylaminoacetophenone**
(C₉H₁₁NO₃; 99-45-6) see: Dipivefrine; Epinephrine
- 3 β ,17 β -dihydroxy-17 α -methyl-5-androstene**
(C₂₀H₃₂O₂; 521-10-8) see: Bolasterone; Methyltestosterone
- (11 β ,17 β)-11,17-dihydroxy-17-methylandrost-4-en-3-one**
(C₂₀H₃₀O₃; 1043-10-3) see: Fluoxymesterone
- 17,21-dihydroxy-16-methylenepregn-4-ene-3,20-dione**
(C₂₂H₃₀O₄; 1570-80-5) see: Fluprednidene acetate; Prednylidene
- 3 β ,17-dihydroxy-6-methyl-16-methylenepregn-5-en-20-one 17-acetate**
(C₂₅H₃₆O₄; 101611-22-7) see: Melengestrol acetate
- 11 α ,17 β -dihydroxy-17-methyl-3-oxo-4-androstene**
(C₂₀H₃₀O₃; 1807-02-9) see: Formebolone
- (11 β ,16 α)-11,17-dihydroxy-16-methyl-21-(1-oxopropoxy)pregna-1,4,6-triene-3,20-dione**
(C₂₅H₃₂O₆; 69426-18-2) see: Alclometasone dipropionate
- (3 α ,16 α)-3,17-dihydroxy-16-methylpregnane-11,20-dione**
(C₂₂H₃₄O₄; 25324-87-2) see: Dexamethasone
- (3 α ,16 β)-3,17-dihydroxy-16-methylpregnane-11,20-dione**
(C₂₂H₃₄O₄; 25273-82-9) see: Meprednisone
- 3 α ,17 α -dihydroxy-16 β -methylpregnane-11,20-dione**
(C₂₂H₃₄O₄; 803-09-8) see: Betamethasone
- 5,17-dihydroxy-6 β -methyl-5 α -pregnane-3,20-dione cyclic bis(ethylene acetal)**
(C₂₆H₄₂O₆; 3386-01-4) see: Medroxyprogesterone acetate
- 3 α ,17 α -dihydroxy-16 β -methyl-5 β -pregnane-11,20-dione 20-ethylene acetal**
(C₂₄H₃₈O₅; 5078-92-2) see: Betamethasone
- 17 α ,21-dihydroxy-16 β -methylpregnane-3,11,20-trione 21-acetate**
(C₂₄H₃₄O₆; 1253-36-7) see: Betamethasone
- (5 α ,5' β)-3 β ,11 β -dihydroxy-2'-methyl-5'*H*-pregnano [17,16-*d*]oxazol-20-one**
(C₂₃H₃₅NO₄; 13649-86-0) see: Deflazacort; Fluazacort
- 3 β ,11 β -dihydroxy-2'-methyl-5' β *H*-5 α -pregnano[17,16-*d*]oxazol-20-one 3-acetate**
(C₂₅H₃₇NO₅; 13649-87-1) see: Fluazacort
- 17 α ,21-dihydroxy-16 α -methyl-1,4,9(11)-pregnatriene-3,20-dione 17-(2-furoate)**
(C₂₇H₃₀O₆; 83880-62-0) see: Mometasone furoate
- 3 α ,17 α -dihydroxy-16 β -methyl-5 β -pregn-9(11)-en-20-one**
(C₂₂H₃₄O₃; 13656-77-4) see: Betamethasone
- 2,4-dihydroxy-6-methylpyrimidine**
(C₅H₆N₂O₂; 626-48-2) see: Dipyrindamole; Epirizole
- (11 β)-11,17-dihydroxy-21-[(methylsulfonyl)oxy]pregna-1,4-diene-3,20-dione**
(C₂₇H₃₀O₇S; 35410-28-7) see: Prednisolone sodium sulfbenzoate
- (11 β)-11,17-dihydroxy-21-[(methylsulfonyl)oxy]pregn-4-ene-3,20-dione**
(C₂₇H₃₀O₇S; 6677-96-9) see: Hydrocortisone sodium phosphate
- 3,4-dihydroxy-5-nitrobenzaldehyde**
(C₇H₅NO₅; 116313-85-0) see: Entacapone
- 11 β ,17 α -dihydroxy-3-oxoandrosta-1,4-diene-17 β -carboxylic acid**
(C₂₀H₂₆O₅; 37927-29-0) see: Loteprednol etabonate
- 1-[(11 β ,17 α),11,17-dihydroxy-3-oxoandrosta-1,4-dien-17-yl]-1,2-propanedione**
(C₂₂H₂₈O₅; 6911-15-5) see: Fluperolone acetate
- 1 α ,25-dihydroxy-10-oxo-3,5-cyclo-19-norvitamin D₂ 1-acetate 6-methyl ether**
(C₃₀H₄₆O₅) see: Paricalcitol
- (3 β)-3,23-dihydroxy-20-oxo-21-norchola-5,22-dien-24-oic acid ethyl ester sodium salt**
(C₂₅H₃₅NaO₅) see: Desoxycortone acetate
- 2,4-dihydroxyphenyl benzyl ketone**
(C₁₄H₁₂O₃; 3669-41-8) see: Ipriflavone

- 1-(3,5-dihydroxyphenyl)-2-[[2-(4-hydroxyphenyl)-1-methylethyl]amino]ethanone**
(C₁₇H₁₉NO₄) see: Fenoterol
- 1-(3,5-dihydroxyphenyl)-2-[[2-(4-methoxyphenyl)-1-methylethyl]amino]ethanone**
(C₁₈H₂₁NO₄) see: Fenoterol
- 1-(3,4-dihydroxyphenyl)-2-[(1-methylethyl)amino]ethanone**
(C₁₁H₁₅NO₃; 121-28-8) see: Isoprenaline
- 7-[2-[2-[(3,4-dihydroxyphenyl)-2-oxoethyl](phenylmethyl)amino]ethyl]-3,7-dihydro-1,3-dimethyl-1*H*-purin-2,6-dione**
(C₂₄H₂₅N₅O₅) see: Theodrenaline
- (3,4-dihydroxyphenyl)-2-pyridinylmethanone**
(C₁₂H₉NO₃; 63724-47-0) see: Rimiterol
- (3β,17α)-3,17-dihydroxypregna-5,20-diene-21-carboxylic acid**
(C₂₂H₃₂O₄) see: Spironolactone
- (3β,17α)-3,17-dihydroxypregna-5,20-diene-21-carboxylic acid γ-lactone**
(C₂₂H₃₀O₅; 28444-75-9) see: Spironolactone
- 3β,21-dihydroxypregna-5,16-dien-20-one 21-acetate 3-formate**
(C₂₄H₃₂O₅; 114002-10-7) see: Desoxycortone acetate
- (11β,17*Z*)-11,21-dihydroxypregna-5,17(20)-dien-3-one cyclic 1,2-ethanediy acetal**
(C₂₃H₃₄O₄; 3546-74-5) see: Hydrocortisone
- (3β,17α)-3,17-dihydroxypregna-5-ene-21-carboxylic acid γ-lactone**
(C₂₂H₃₂O₅; 13934-61-7) see: Spironolactone
- 3β,21-dihydroxypregna-5-en-20-one 21-acetate 3-formate**
(C₂₄H₃₄O₅; 115098-53-8) see: Desoxycortone acetate
- (3β,17α)-3,17-dihydroxypregna-5-en-20-yne-21-carboxylic acid**
(C₂₂H₃₀O₄; 3460-93-3) see: Spironolactone
- 14,17-dihydroxyprogesterone**
(C₂₁H₃₀O₄; 14226-13-2) see: Proligestone
- 16α,17α-dihydroxyprogesterone**
(C₂₁H₃₀O₄; 595-77-7) see: Algestone acetophenide
- N*-(2,3-dihydroxypropyl)piperidine**
(C₈H₁₇NO₂; 4847-93-2) see: Dipiperodon
- 7-(2,3-dihydroxypropyl)theophylline**
(C₁₀H₁₄N₄O₄; 479-18-5) see: Doxofylline
- 2,6-diimino-3,5-dimethyl-5-(1-hexen-1-yl)-4-oxotetrahydropyrimidine-1(2*H*)-carbonitrile**
(C₁₃H₁₇N₅O) see: Hexobarbital
- 1,10-diiododecane**
(C₁₀H₂₀I₂; 16355-92-3) see: Dequalinium chloride
- 5-[[3,5-diiodo-4-(4-methoxyphenoxy)phenyl]methyl]-5-methyl-2,4-imidazolidinedione**
(C₁₈H₁₆I₂N₂O₄; 5165-05-9) see: Etiroxate
- 3,5-diiodo-α-methylthyronine**
(C₁₆H₁₅I₂NO₄; 5165-07-1) see: Etiroxate
- 3,5-diiodo-4-oxo-1,4-dihydropyridinoacetic acid**
(C₇H₅I₂NO₃; 101-29-1) see: Propyl iodone
- 1,3-diiodo-2-propanol**
(C₃H₆I₂O; 534-08-7) see: Prolonium iodide
- 3,5-diiodo-4(1*H*)-pyridone**
(C₅H₃I₂NO; 5579-93-1) see: Diodone; lopydol; Propylidone
- DL-3,5-diiodothyronine**
(C₁₅H₁₃I₂NO₄; 534-51-0) see: Dextrothyroxine
- L-3,5-diiodothyronine**
(C₁₅H₁₃I₂NO₄; 1041-01-6) see: Levothyroxine; Liothyronine
- D(-)-3,5-diiodothyronine**
(C₁₅H₁₃I₂NO₄; 5563-89-3) see: Dextrothyroxine
- diisobutylaluminium hydride**
(C₈H₁₉Al; 1191-15-7) see: Misoprostol
- diisohomoeugenol**
(C₂₂H₂₈O₄; 4483-47-0) see: Tofisopam
- diisopropylamine**
(C₆H₁₅N; 108-18-9) see: Tolterodine
- diisopropylamine lithium salt**
(C₆H₁₄LiN; 4111-54-0) see: Orlistat
- 2-(diisopropylamino)ethanol**
(C₈H₁₉NO; 96-80-0) see: Propantheline bromide
- 2-diisopropylaminoethyl chloride**
(C₈H₁₈ClN; 96-79-7) see: Diisopromine; Disopyramide; Isopropamide iodide
- N,N*-diisopropyl-1,2-ethanediamine**
(C₈H₂₀N₂; 121-05-1) see: Pramiracetam hydrochloride
- 2,6-diisopropyl-4-(4-fluorophenyl)-5-methoxymethyl-3-pyridinecarboxaldehyde**
(C₂₀H₂₂FNO₂; 169196-11-6) see: Cerivastatin sodium
- 1,2:5,6-di-*O*-isopropylidene-α-D-glucofuranose**
(C₁₂H₂₀O₆; 582-52-5) see: Clobenoside; Prenalterol
- diisopropyl malonate**
(C₉H₁₆O₄; 13195-64-7) see: Malotilate
- diisopropyl phosphite**
(C₆H₁₅O₃P; 1809-20-7) see: Isofluorophate
- diketene**
(C₄H₄O₂; 674-82-8) see: Aranidipine; Barnidipine; Benidipine; Butoctamide; Efonidipine hydrochloride ethanol; Epirizole; Ketazolam; Leflunomide; Lercanidipine hydrochloride; Manidipine; Nimodipine; Orotic acid
- diloxanide**
(C₉H₉Cl₂NO₂; 579-38-4) see: Diloxanide furoate
- 6,8-dimercaptooctanoic acid methyl ester 6-acetate 8-sulfate sodium salt**
(C₁₁H₁₉NaO₆S₃; 93283-48-8) see: Octotiamine
- 3',5'-dimethoxyacetophenone**
(C₁₀H₁₂O₃; 39151-19-4) see: Orciprenaline
- 3,5-dimethoxybenzaldehyde**
(C₉H₁₀O₃; 7311-34-4) see: Nabilone
- 1,3-dimethoxybenzene**
(C₈H₁₀O₂; 151-10-0) see: Mexenone
- 3,5-dimethoxybenzeneacetonitrile**
(C₁₀H₁₁NO₂; 13388-75-5) see: Nabilone
- 4,4'-dimethoxybenzhydrylidene cyclohexane**
(C₂₁H₂₄O₂; 10218-57-2) see: Cyclofenil
- 2,6-dimethoxybenzoic acid**
(C₉H₁₀O₄; 1466-76-8) see: Meticillin; Remoxipride
- 4,4'-dimethoxybenzophenone**
(C₁₅H₁₄O₃; 90-96-0) see: Chlorotrianisene
- 2,6-dimethoxy-1,4-benzoquinone**
(C₈H₈O₄; 530-55-2) see: Triaziquone
- 2,6-dimethoxybenzoyl chloride**
(C₉H₉ClO₃; 1989-53-3) see: Meticillin

- 3,4-dimethoxybenzoyl chloride**
(C₉H₉ClO₃; 3535-37-3) see: Itopride hydrochloride; Mebeverine; Vesnarinone
- 3-[2-(3,4-dimethoxybenzoyl)-4,5-dimethoxyphenyl]-2-pentanone 2-hydrazone**
(C₂₂H₂₈N₂O₅; 37952-09-3) see: Tofisopam
- 3,4-dimethoxybenzyl chloride**
(C₉H₁₁ClO₂; 7306-46-9) see: Papaverine
- 2,6-dimethoxy-3-bromobenzoyl chloride**
(C₉H₈BrClO₃; 84225-91-2) see: Remoxipride
- 1-[3,3-(dimethoxycarbonyl)propyl]-2-(methanesulfonyl)-5-benzoylpyrrole**
(C₁₉H₂₁NO₇S; 80965-05-5) see: Ketorolac
- 3,4-dimethoxycinnamoyl chloride**
(C₁₁H₁₁ClO₃; 39856-08-1) see: Tranilast
- 2,2-dimethoxy-N,N-dimethylacetamide**
(C₆H₁₃NO₃; 25408-61-1) see: Zolpidem
- 3,5-dimethoxy- α,α -dimethylbenzeneacetone nitrile**
(C₁₂H₁₅NO₂; 22972-63-0) see: Nabilone
- 1,2-dimethoxyethane**
(C₄H₁₀O₂; 110-71-4) see: Docetaxel
- 3,5-dimethoxy-4-ethoxycarboxybenzoyl chloride**
(C₁₂H₁₃ClO₆; 18780-68-2) see: Syrosingopine
- 3,5-dimethoxy-4-hydroxybenzoxonitrile**
(C₉H₉NO₃; 72684-95-8) see: Morclofone
- 5,6-dimethoxy-1-indanone**
(C₁₁H₁₂O₃; 2107-69-9) see: Donepezil hydrochloride
- 3,5-dimethoxy-4-(2-methoxyethoxy)benzene propanoic acid ethyl ester**
(C₁₆H₂₄O₆; 55211-63-7) see: Tetroxoprim
- 2,3-dimethoxy-5-methyl-6-(9-carboxynonyl)benzoquinone**
(C₁₉H₂₈O₆; 58185-99-2) see: Idebenone
- 5,6-dimethoxy-2-methyl-3-indolylacetic acid**
(C₁₃H₁₅NO₄; 71987-65-0) see: Oxypertine
- 5,6-dimethoxy-2-methyl-3-(4-phenylpiperazinocarbonyl-methyl)indole**
(C₂₃H₂₇N₃O₃; 71987-57-0) see: Oxypertine
- 3,4-dimethoxy-2-methylpyridine 1-oxide**
(C₈H₁₁NO₃; 72830-07-0) see: Pantoprazole sodium
- 6,7-dimethoxy-2-methyl-1,2,3,4-tetrahydroisoquinoline-1-acetic acid**
(C₁₄H₁₉NO₄; 54170-09-1) see: Glaziovine
- (E,E,E)-1,1-dimethoxy-7-methyl-9-(2,6,6-trimethyl-1-cyclohexen-1-yl)-4,6,8-nonatrien-3-one**
(C₂₁H₃₂O₃; 82925-39-1) see: Retinol
- (E)-5,5-dimethoxy-3-methyl-1-(2,6,6-trimethyl-1-cyclohexen-1-yl)-1-penten-3-ol**
(C₁₇H₃₀O₃; 1224-76-6) see: Retinol
- 3,5-dimethoxy-4-[2-(4-morpholinyl)ethoxy]benzoxonitrile**
(C₁₅H₂₀N₂O₄) see: Morclofone
- 1,6-dimethoxynaphthalene**
(C₁₂H₁₂O₂; 3900-49-0) see: Quinagolide hydrochloride
- 4,5-dimethoxy-2-nitrobenzaldehyde**
(C₉H₉NO₃; 20357-25-9) see: Alfuzosin
- 4,5-dimethoxy-2-nitrobenzamide**
(C₉H₁₀N₂O₅; 4959-60-8) see: Alfuzosin
- 3,4-dimethoxyphenethylamine**
(C₁₀H₁₅NO₂; 120-20-7) see: Benzquinamide; Bevantolol; Denopamine; Dobutamine; Dopamine; Dopexamine; Papaverine
- 2-(3,4-dimethoxyphenethylamino)-4'-benzyloxyacetophenone**
(C₂₅H₂₇NO₄; 64434-48-6) see: Denopamine
- (3,4-dimethoxyphenyl)acetone**
(C₁₁H₁₄O₃; 776-99-8) see: Carbidopa; Dimoxyline; Methyl dopa
- 3,4-dimethoxyphenylacetone nitrile**
(C₁₀H₁₁NO₂; 93-17-4) see: Methyl dopa; Papaverine; Verapamil
- (3,4-dimethoxyphenyl)dimethylaminoacetone nitrile**
(C₁₂H₁₆N₂O₂; 37672-97-2) see: Vetrabutine
- α -(3,4-dimethoxyphenyl)- α -(dimethylamino)benzene-pentanenitrile**
(C₂₁H₂₆N₂O₂) see: Vetrabutine
- 2-(3,4-dimethoxyphenyl)ethylamine**
see under 3,4-dimethoxyphenethylamine
- N-[2-(3,4-dimethoxyphenyl)ethyl]-4-methoxy- α -methylbenzene propanamine**
(C₂₁H₂₉NO₃; 61413-44-3) see: Dobutamine
- N-[2-(3,4-dimethoxyphenyl)ethyl]methylamine**
(C₁₁H₁₇NO₂; 3490-06-0) see: Gallopamil; Verapamil
- N-[2-(3,4-dimethoxyphenyl)ethyl]-N'-(2-phenylethyl)hexanediamide**
(C₂₄H₃₂N₂O₄; 86480-25-3) see: Dopexamine
- L-3-(3,4-dimethoxyphenyl)-2-hydrazino-2-methylalanine**
(C₁₂H₁₈N₂O₄; 28860-96-0) see: Carbidopa
- N-[1-(3,4-dimethoxyphenyl)hydroxymethyl]propylbenzeneacetamide**
(C₂₀H₂₅NO₄) see: Moxaverine
- L-3-(3,4-dimethoxyphenyl)-2-methylalanine**
(C₁₂H₁₇NO₄; 39948-18-0) see: Carbidopa
- (\pm)-3-(3,4-dimethoxyphenyl)-2-methylalanine**
(C₁₂H₁₇NO₄; 10128-06-0) see: Methyl dopa
- 2-(3,4-dimethoxyphenyl)-3-methylbutyronitrile**
(C₁₃H₁₇NO₂; 20850-49-1) see: Verapamil
- 1-[(3,4-dimethoxyphenyl)methyl]-3,4-dihydro-6,7-dimethoxy-2(1H)-isoquinolinepropanoic acid 1,5-pentanediy ester**
(C₃₁H₆₆N₂O₁₂; 64228-77-9) see: Atracurium besilate
- N-[2-(3,4-dimethoxyphenyl)-1-methylethyl]-4-ethoxy-3-methoxybenzeneacetamide**
(C₂₂H₂₉NO₅; 93-31-2) see: Dimoxyline
- 2-(3,5-dimethoxyphenyl)-2-methyl-3-octanone**
(C₁₇H₂₆O₃; 55048-08-3) see: Nabilone
- 1-(3,4-dimethoxyphenyl)-2-nitro-1-butanol**
(C₁₂H₁₇NO₅; 1779-85-7) see: Moxaverine
- 1-(2,5-dimethoxyphenyl)-1,2-propanedione 2-oxime**
(C₁₁H₁₃NO₄; 121347-31-7) see: Methoxamine
- 1-(3,4-dimethoxyphenyl)-2-propanone oxime**
(C₁₁H₁₅NO₃; 1454-62-2) see: Dimoxyline
- α -(3,4-dimethoxyphenyl)-2-pyridinemethanol**
(C₁₄H₁₅NO₃; 31749-10-7) see: Rimiterol
- 3,4-dimethoxyphenyl 2-pyridinyl ketone**
(C₁₄H₁₃NO₃; 27693-42-1) see: Rimiterol
- 2',5'-dimethoxypropiophenone**
(C₁₁H₁₄O₃; 5803-30-5) see: Methoxamine
- 2,4-dimethoxypyrimidine**
(C₆H₈N₂O₂; 3551-55-1) see: Cytarabine

***N*-[4-[(5,6-dimethoxy-4-pyrimidinyl)amino]sulfonyl]phenyl]acetamide**(C₁₄H₁₆N₄O₅S; 5018-54-2) see: Sulfadoxine**6,7-dimethoxyquinazoline-2,4-dione**

see under 2,4-dihydroxy-6,7-dimethoxyquinazoline

3,3-dimethoxy-2-(3,4,5-trimethoxybenzyl)propionitrile(C₁₅H₂₁NO₅; 7520-70-9) see: Trimethoprim**2,4-dimethoxy-6-trimethylammonio-pyrimidine chloride**(C₆H₁₆ClN₃O₂; 77767-96-5) see: Sulfadimethoxine**(*E*)-5,5-dimethoxy-1-(2,6,6-trimethyl-1-cyclohexen-1-yl)-1-penten-3-one**(C₁₆H₂₆O₃; 85458-25-9) see: Retinol**(3*S*-*trans*)-3-(2,5-dimethoxy-3,4,6-trimethylphenyl)-1-(hexahydro-2-phenyl-1*H*-pyrrolo[1,2-*c*]imidazol-3-yl)-1-propanone**(C₂₆H₃₄N₂O₃) see: Troglitazone**4-(2,5-dimethoxy-3,4,6-trimethylphenyl)-2-methyl-2-buten-1-ol**(C₁₆H₂₄O₃; 104679-53-0) see: Troglitazone**dimethylacetamide**(C₄H₉NO; 127-19-5) see: α -Acetyldigoxin; Iodoxamic acid***N,O*-dimethylacetohydroxamic acid**(C₄H₉NO₂; 78191-00-1) see: Zileuton**dimethyl acetonedicarboxylate**(C₇H₁₀O₅; 1830-54-2) see: Tropenziline bromide**dimethyl acetylenedicarboxylate**(C₆H₆O₄; 762-42-5) see: Malotilate; Nedocromil**dimethyl [N-(4-acetyl-3-hydroxy-2-propylphenyl)-*N*-ethyl-amino]maleate**(C₁₉H₂₅NO₃; 77941-04-9) see: Nedocromil**3,3-dimethylacrylic acid**(C₅H₈O₂; 541-47-9) see: Bucillamine**1,3-dimethyladamantane**(C₁₂H₂₀; 702-79-4) see: Memantine**dimethylamine**(C₂H₇N; 124-40-3) see: Alminoprofen; Alpidem; Altretamine; Amitriptyline; Benzalkonium chloride; Camazepam; Cetalkonium chloride; Cethexonium bromide; Chlorprothixene; Ciprofloxacin; Clofedanol; Dacarbazine; Dextropropoxyphene; Dimazole; Domiphen bromide; Etaerynic acid; Fluoxetine; Loperamide; Medifoxamine; Mepindolol; Meropenem; Nelfinavir mesylate; Ondansetron; Oxitriptan; Prolonium iodide; Rizatriptan benzoate; Sumatriptan; Tildine; Trioxene; Tiracizine; Tolmetin; Tolpropamine; Topotecan; Vetrabutine; Zimeldine; Zolmitriptan; Zolpidem**dimethylamine hydrochloride**(C₂H₈ClN; 506-59-2) see: Metformin; Ranitidine**3-dimethylamino-4'-bromopropiophenone**(C₁₁H₁₄BrNO; 2138-34-3) see: Zimeldine**4-(dimethylamino)butanal diethyl acetal**(C₁₀H₂₃NO₂; 1116-77-4) see: Zolmitriptan**4-(dimethylamino)butanal dimethyl acetal**(C₈H₁₉NO₂; 19718-92-4) see: Rizatriptan benzoate; Sumatriptan**3-(dimethylaminocarbonyloxy)pyridine**(C₈H₁₀N₂O₂; 51581-32-9) see: Pyridostigmine bromide***N,N*-dimethyl-2-amino-2-[2-(2-chlorobenzoyl)-4-chloro-phenylhydrazono]acetamide**(C₁₇H₁₆Cl₂N₄O₂; 65698-99-9) see: Rilmazafone**1-dimethylamino-2-chloropropane**(C₃H₁₂ClN; 108-14-5) see: Isothipendyl; Methadone; Promethazine**2-(dimethylamino)cyclohexanol**(C₈H₁₇NO; 30727-29-8) see: Cethexonium bromide**6-(dimethylamino)-1,2-dimethylquinolinium iodide**(C₁₃H₁₇N₂) see: Pyrvinium embonate**4-dimethylamino-2,2-diphenylbutyronitrile**(C₁₈H₂₀N₂; 23278-88-8) see: Normethadone **α -(+)-4-dimethylamino-1,2-diphenyl-3-methyl-2-butanol**(C₁₉H₂₅NO; 38345-66-3) see: Dextropropoxyphene **α -(±)-4-dimethylamino-1,2-diphenyl-3-methyl-2-butanol**(C₁₉H₂₅NO; 63957-11-9) see: Dextropropoxyphene**4-dimethylamino-2,2-diphenylvaleronitrile**(C₁₉H₂₂N₂; 125-79-1) see: Methadone**[4*S*-(4 α ,4 α ,5 α ,5 α ,6 β ,12 β ,12 α)]-4-(dimethylamino)-****6,12-epoxy-1,4,4a,5,5a,6,11,11a,12,12a-decahydro-****3,5,10,12a-tetrahydroxamide methyl-1,11-dioxo-12-sulfoxy-****2-naphthacene-carboxamide**(C₂₂H₂₄N₂O₁₂S) see: Metacycline**2-dimethylaminoethanol**(C₄H₁₁NO; 108-01-0) see: Aclatonium napsadisilate; Bromazine; Chloroquine; Deanol acetamidobenzoate; Diphenhydramine; Medrylamine; Orphenadrine; Pirsudanol; Quinisocaine; Suxamethonium chloride; Tetracaine; Tromantadine**4-[2-(dimethylamino)ethoxy]benzaldehyde**(C₁₁H₁₅NO₂; 15182-92-0) see: Itopride hydrochloride; Trimethobenzamide**4-[2-(dimethylamino)ethoxy]benzophenone**(C₁₇H₁₉NO₂; 51777-15-2) see: Tamoxifen; Toremfifene**4-(2-dimethylaminoethoxy)benzylamine**(C₁₁H₁₈N₂O; 20059-73-8) see: Itopride hydrochloride; Trimethobenzamide**2-[2-(dimethylamino)ethoxy]ethanol**(C₆H₁₅NO₂; 1704-62-7) see: Dimethoxanate**4-[2-(dimethylamino)ethoxy]-2-methyl-5-(1-methyl-ethyl)benzenamine**(C₁₄H₂₄N₂O; 83880-23-3) see: Moxisylyte**4-[2-(dimethylamino)ethoxy]-2-methyl-5-(1-methyl-ethyl)phenol**(C₁₄H₂₃NO₂; 35231-36-8) see: Moxisylyte***N*-[4-[2-(dimethylamino)ethoxy]-2-methyl-5-(1-methyl-ethyl)phenyl]acetamide**(C₁₆H₂₆N₂O₂; 3380-60-7) see: Moxisylyte **α -[4-[2-(dimethylamino)ethoxy]phenyl]- β -ethyl- α -phenylbenzeneethanol**(C₂₆H₃₁NO₂; 748-97-0) see: Tamoxifen**4-(2-dimethylaminoethoxy)phenylmagnesium bromide**(C₁₀H₁₄BrMgNO; 35258-27-6) see: Tamoxifen**2-dimethylaminoethyl 4-aminobenzoate**(C₁₁H₁₆N₂O₂; 10012-47-2) see: Tetracaine**2-(2-dimethylaminoethylamino)pyridine**(C₉H₁₅N₃; 23826-72-4) see: Chloropyrilene; Methapyrilene; Thenyldiamine **α -[2-(dimethylamino)ethyl]benzenemethanol**(C₁₁H₁₇NO; 5554-64-3) see: Fluoxetine

2-(dimethylamino)ethyl chloride

(C₄H₁₀ClN; 107-99-3) see: Bephenium hydroxynaphthoate; Binedaline; Brompheniramine; Captodiame; Carbinoxamine; Chlorphenamine; Chlorphenoxamine; Cyclopentolate; Dibenzepine; Diltiazem; Dimetindene; Doxylamine; Ethoheptazine; Itopride hydrochloride; Meclofenoxate; Mepyramine; Moxisylyte; Normethadone; Noxiptiline; Pheniramine; Phenyltoloxamine; Tamoxifen; Toremfene; Trimethobenzamide; Tripelennamine; Zotepine

2-[2-(dimethylamino)ethyl]-2,3-dihydro-1-[1-(2-pyridinyl)ethyl]-1H-inden-1-ol

(C₂₀H₂₆N₂O; 70080-51-2) see: Dimetindene

2-(2-dimethylaminoethyl)-1-indanone

(C₁₃H₁₇NO; 3409-21-0) see: Dimetindene

3-[3-(2-dimethylaminoethyl)-1H-indol-5-yl]-L-alanine

(C₁₅H₂₁N₃O₂) see: Zolmitriptan

2-dimethylaminoethyl mercaptan

(C₄H₁₁NS; 108-02-1) see: Ecothiopate iodide

α-[2-(dimethylamino)ethyl]-4-methyl-α-phenylbenzencemethanol

(C₁₈H₂₃NO; 58574-44-0) see: Tolpropamine

(±)-3-[1-(dimethylamino)ethyl]phenol

(C₁₀H₁₅NO; 105601-04-5) see: Rivastigmine

[2-(dimethylamino)ethyl](phenylmethyl)propanedioic acid diethyl ester

(C₁₈H₂₇NO₄; 1805-03-4) see: Dimetindene

(2-dimethylaminoethyl)phenyl(2-pyridyl)acetonitrile

(C₁₇H₁₉N₃; 71486-42-5) see: Pheniramine

1-(2-dimethylaminoethyl)-1H-tetrazole-5-thiol

(C₅H₁₁N₅S; 61607-68-9) see: Cefotiam

2-dimethylamino-6-hydroxybenzothiazole

(C₉H₁₀N₂OS; 943-04-4) see: Dimazole

trans-2,2-dimethyl-5-amino-6-hydroxy-1,3-dioxepane

(C₇H₁₅NO₃; 79944-37-9) see: Iotrolan

4-(dimethylamino)-3-(imidazo[1,2-a]pyridin-6-yl)-3-buten-2-one

(C₁₃H₁₅N₃O; 106730-70-5) see: Olprinone hydrochloride

β-dimethylaminoisobutyrophenone

(C₁₂H₁₇NO; 91-03-2) see: Dextropropoxyphene

(-)-β-dimethylaminoisobutyrophenone

(C₁₂H₁₇NO; 48141-77-1) see: Dextropropoxyphene

3-(dimethylamino)-2-(2-methoxyethoxy)-2-propenal

(C₈H₁₅NO₃; 15131-88-1) see: Glymidine

2-(dimethylaminomethyl)-4-(2-aminoethylthiomethyl)thiazole

(C₉H₁₇N₃S₂; 78441-62-0) see: Nizatidine

3-dimethylamino-7-methyl-1,2,4-benzotriazine 1-oxide

(C₁₀H₁₂N₄O; 50632-92-3) see: Azapropazone

4-(dimethylamino)-3-methyl-2-butanone

(C₇H₁₅NO; 22104-62-7) see: Clobutinol

2-[(dimethylamino)methyl]cyclohexanone

(C₉H₁₇NO; 15409-60-6) see: Tramadol

3-dimethylamino-7-methyl-1,2-dihydro-1,2,4-benzotriazine

(C₁₀H₁₄N₄; 43171-03-5) see: Azapropazone

2-dimethylamino-1-methylethyl chloride

see under 1-dimethylamino-2-chloropropane

5-(dimethylaminomethyl)furfuryl alcohol

(C₇H₁₁NO₂; 80020-43-5) see: Ranitidine

2-dimethylaminomethyl-1-methylpyrrole

(C₈H₁₄N₂; 56139-76-5) see: Tolmetin

α-[(dimethylamino)methyl]-4-nitrobenzeneacetic acid

(C₁₁H₁₄N₂O₄; 71593-63-0) see: Alminoprofen

3-dimethylamino-2-methylpropyl chloride

see under 1-chloro-3-dimethylamino-2-methylpropane

5-[3-(dimethylamino)-2-methylpropyl]-10,11-dihydro-5H-dibenzo[*a,d*]cyclohepten-5-ol

(C₂₁H₂₇NO; 2625-17-4) see: Butriptyline

3-dimethylamino-2-methylpropylmagnesium chloride

(C₆H₁₄ClMgN; 36795-29-6) see: Butriptyline

10-(3-dimethylamino-2-methylpropyl)phenothiazine

(C₁₈H₂₂N₂S; 84-96-8) see: Oxomemazine

3-[(dimethylamino)methyl]-1,2,3,9-tetrahydro-4H-carbazol-4-one

(C₁₅H₁₈N₂O; 35556-30-0) see: Ondansetron

2-[(dimethylamino)methyl]-4-thiazolomethanol

(C₇H₁₂N₂OS; 78441-69-7) see: Nizatidine

[4S-(4α,4α,5α,5α,6α,12α)]-4-(dimethylamino)-

1,4,4a,5,5a,6,11,12a-octahydro-3,5,10,12,12a-pentahydroxy-1,11-dioxo-6-[(phenylthio)methyl]-2-naphthacene-carboxamide

(C₂₈H₂₈N₂O₈S; 146253-71-6) see: Doxycycline

[4S-(4α,4α,5α,12α)]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,10,12,12a-tetrahydroxy-1,11-dioxo-2-naphthacene-carboxamide

(C₂₁H₂₂N₂O₇; 808-26-4) see: Minocycline

[4S-(4α,4α,5α,12α)]-4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,10,12,12a-tetrahydroxy-9-nitro-1,11-dioxo-2-naphthacene-carboxamide

(C₂₁H₂₁N₃O₉; 4199-35-3) see: Minocycline

(R)-[2-(dimethylamino)-2-oxo-1-[(phenylthio)methyl]ethyl]carbamic acid phenylmethyl ester

(C₁₉H₂₂N₂O₃S; 197302-34-4) see: Nelfinavir mesylate

N-[3-[3-(dimethylamino)-1-oxo-2-propenyl]phenyl]acetamide

(C₁₃H₁₆N₂O₂; 96605-61-7) see: Zaleplon

N-[3-[3-(dimethylamino)-1-oxo-2-propenyl]phenyl]-N-ethylacetamide

(C₁₅H₂₀N₂O₂; 96605-66-2) see: Zaleplon

9-[3-(dimethylamino)-1-oxopropyl]-N,N-dimethyl-9H-thioxanthene-2-sulfonamide

(C₂₀H₂₄N₂O₃S) see: Tiotixene

3-(dimethylamino)phenol

(C₈H₁₁NO; 99-07-0) see: Edrophonium chloride; Neostigmine methylsulfate

3-dimethylaminophenol sodium salt

(C₈H₁₀NNaO; 65161-06-0) see: Demecarium bromide

1-dimethylamino-2-phenoxyethane

(C₁₀H₁₅NO; 13468-02-5) see: Bephenium hydroxynaphthoate; Domiphen bromide; Thenium closilate

4-dimethylamino-2-phenylbutyronitrile

(C₁₂H₁₆N₂; 50599-78-5) see: Ethoheptazine

4-dimethylaminophenylmagnesium bromide

(C₈H₁₀BrMgN; 7353-91-5) see: Mifepristone

[R-(R*,S*)]-2-(dimethylamino)-1-phenylpropyl octanoate

(C₁₉H₃₁NO₂; 114264-02-7) see: Orlistat

3-(dimethylamino)-1-propanol

(C₅H₁₃NO; 3179-63-3) see: Clomipramine

3-dimethylaminopropiophenone(C₁₁H₁₅NO; 3506-36-3) see: Fluoxetine; Tolpropamine**3-dimethylaminopropylamine**(C₅H₁₄N₂; 109-55-7) see: Azacosterol; Cabergoline**2-dimethylaminopropyl chloride**(C₃H₁₂ClN; 53309-35-6) see: Aceprometazine; Dimetotiazine; Isoaminile**3-dimethylaminopropyl chloride**(C₃H₁₂ClN; 109-54-6) see: Acepromazine; Bencyclane; Benzydamine; Chlorpromazine; Citalopram; Clomipramine; Dimetacrine; Imipramine; Promazine; Prothipendyl; Triflupromazine**5-[3-(dimethylamino)propyl]-5H-dibenzo[*a,d*]cyclohepten-5-ol**(C₂₀H₂₃NO; 18029-54-4) see: Cyclobenzaprine**5-[3-(dimethylamino)propyl]-10,11-dihydro-5H-dibenzo[*a,d*]cyclohepten-5-ol**(C₂₀H₂₅NO; 1159-03-1) see: Amitriptyline**11-[3-(dimethylamino)propyl]-6,11-dihydrodibenzo[*b,e*]thiepin-11-ol**(C₁₉H₂₃NOS; 1531-85-7) see: Dosulepin**11-[3-(dimethylamino)propyl]-6,11-dihydrodibenz[*b,e*]oxepin-11-ol**(C₁₉H₂₃NO₂; 4504-88-5) see: Doxepin**9-[3-(dimethylamino)propyl]-9,10-dihydro-10,10-dimethyl-9-anthracenol**(C₂₁H₂₇NO; 85118-29-2) see: Melitracen**17β-[[3-(dimethylamino)propyl]formylamino]androst-5-en-3β-ol**(C₂₅H₄₂N₂O₂; 102399-53-1) see: Azacosterol**3-dimethylaminopropylmagnesium bromide**(C₅H₁₂BrMgN; 120615-47-6) see: Chlorprothixene**3-dimethylaminopropylmagnesium chloride**(C₅H₁₂ClMgN; 19070-16-7) see: Amitriptyline; Cyclobenzaprine; Dosulepin; Doxepin; Melitracen; Oxetorone**4-dimethylaminopyridine**(C₇H₁₀N₂; 1122-58-3) see: Paclitaxel; Zafirlukast**4-dimethylamino-3-(4-pyridyl)-3-buten-2-one**(C₁₁H₁₄N₂O; 78504-61-7) see: Milrinone**2-dimethylaminosulfonylphenothiazine**(C₁₃H₁₄N₂O₂S₂; 1090-78-4) see: Dimetotiazine; Pipotiazine; Thioproperazine**2-dimethylaminosulfonyl-9H-thioxanthene**(C₁₅H₁₅NO₂S₂; 3285-33-4) see: Tiotixene**dimethylaminothioacetamide**(C₄H₁₀N₂S; 27507-28-4) see: Nizatidine**4-dimethylamino-1-trimethylsilyl-1-butanone**(C₉H₂₁NOSi) see: Rizatriptan benzoate**(3β,17β)-7,17-dimethylandrost-5-ene-3,7,17-triol**(C₂₇H₃₄O₃; 96613-61-5) see: Calusterone**dimethylaniline**(C₈H₁₁N; 121-69-7) see: Methylthionium chloride; Quetiapine fumarate***N,N*-dimethylaniline**

see under dimethylaniline

2,3-dimethylaniline(C₈H₁₁N; 87-59-2) see: Mefenamic acid; Repirinast**2,6-dimethylaniline**(C₈H₁₁N; 87-62-7) see: Bupivacaine; Etidocaine; Lidocaine; Lidoflazine; Mepivacaine; Pilsicainide; Pyrrocaine; Ropivacaine hydrochloride; Tocainide; Xipamide**3,4-dimethylaniline**(C₈H₁₁N; 95-64-7) see: Riboflavin**3,4-dimethylanisol**(C₉H₁₂O; 4685-47-6) see: Xibomol**10,10-dimethylanthrone**(C₁₆H₁₄O; 5447-86-9) see: Melitracen**1,3-dimethylbarbituric acid**(C₆H₈N₂O₃; 769-42-6) see: Urapidil***N,N*-dimethylbenzamide**(C₉H₁₁NO; 611-74-5) see: Ketorolac**α,α-dimethylbenzeneethanol acetate**(C₁₂H₁₆O₂; 151-05-3) see: Fexofenadine hydrochloride**dimethyl 5-benzoyl-1,2-dihydro-3H-pyrrolo[1,2-*a*]pyrrole-1,1-dicarboxylate**(C₁₈H₁₇NO₅; 80965-08-8) see: Ketorolac***N,N*-dimethylbenzylamine**

see under benzyl dimethylamine

2,2'-dimethylbiphenyl(C₁₄H₁₄; 605-39-0) see: Azapetine***N,N*-dimethyl-*N,N'*-bis(3-hydroxypropyl)ethylenediamine**(C₁₀H₂₄N₂O₂; 14037-75-3) see: Hexobendine**(11β,16α)-6,16-dimethyl-17,20,20,21-bis[methylenebis(oxy)]-2'-phenyl-2'*H*-pregna-2,4,6-trieno[3,2-*c*]pyrazol-11-ol**(C₃₂H₃₈N₂O₅; 1110-35-6) see: Cortivazol***N,N*-dimethyl-1,3-butadien-1-amine**(C₆H₁₁N; 1515-77-1) see: Tilidine**[15-[1α,3α,7β,8β(2S*,4S*),8αβ]]-2,2-dimethylbutanoic acid 8-[2-[4-[[1,1-dimethylethyl]dimethylsilyl]oxy]tetrahydro-6-oxo-2H-pyran-2-yl]ethyl]-1,2,3,7,8,8a-hexahydro-3,7-dimethyl-1-naphthalenyl ester**(C₃₁H₅₂O₅Si; 79902-59-3) see: Simvastatin***N,N*-dimethylbutyramide**(C₆H₁₃NO; 760-79-2) see: Hydrocortisone 17-butyrate**2,2-dimethylbutyryl chloride**(C₆H₁₁ClO; 5856-77-9) see: Simvastatin**dimethylcarbamic acid 3-(dimethylamino)phenyl ester**(C₁₁H₁₆N₂O₂; 16088-19-0) see: Neostigmine methylsulfate**dimethylcarbamic acid 5-[[1,1-dimethylethyl](phenylmethyl)amino]acetyl]-1,3-phenylene ester**(C₂₅H₃₃N₃O₅; 81732-47-0) see: Bambuterol**dimethylcarbamoyle chloride**(C₃H₆ClNO; 79-44-7) see: Bambuterol; Fadrozole; Neostigmine methylsulfate; Pyridostigmine bromide***N,N*-dimethylcarbamoylemethyl (4-hydroxyphenyl)acetate**(C₁₂H₁₅NO₄; 59721-16-3) see: Camostat**1-(dimethylcarbamoyle)-4-[3-(trimethylsiloxy)propyl]imidazole**(C₁₂H₂₃N₃O₂Si; 102676-27-7) see: Fadrozole***N,N*-dimethyl-2-chloroacetoacetamide**(C₆H₁₀ClNO₂; 5810-11-7) see: Rilmazafone***N,N*-dimethyl-4-chlorobenzamide**(C₉H₁₀ClNO; 14062-80-7) see: Clometacin***N,N*-dimethyl-2-chloro-2-[2-(2-chlorobenzoyl)-4-chlorophenyl]oxy]acetoacetamide**(C₁₉H₁₆Cl₃N₃O₃; 85815-52-7) see: Rilmazafone

1,3-dimethyl-6-(3-chloropropylamino)uracil(C₉H₁₄ClN₃O₂; 34654-81-4) see: Urapidil**dimethylcyanamide**(C₃H₆N₂; 1467-79-4) see: Azapropazone**dimethyl cyanocarboimidodithioate**(C₄H₆N₂S₂; 10191-60-3) see: Cimetidine**dimethyl cyclohexylidenemalonate**(C₁₁H₁₆O₄; 94286-34-7) see: Gabapentin**(S)-2,2-dimethylcyclopropanecarboxamide**(C₆H₁₁NO; 75885-58-4) see: Cilastatin**4,4-dimethyl-3,4-dihydro-2H-1-benzothiopyran**(C₁₁H₁₄S; 66165-06-8) see: Tazarotene**2,2-dimethyl-4,7-dihydro-1,3-dioxepin**(C₇H₁₂O₂; 1003-83-4) see: Iotrolan; Nelfinavir mesylate; Pyridoxine**dimethyl 1,4-dihydro-4-(3-nitrophenyl)-3,5-pyridine-dicarboxylate**(C₁₅H₁₄N₂O₆; 43113-96-8) see: Rosoxacin**dimethyl 2,6-dimethoxyterephthalate**(C₁₂H₁₄O₆; 16849-68-6) see: Brodimoprim**6,6-dimethyl-5,7-dioxaspiro[2.5]octane-4,8-dione**(C₈H₁₀O₄; 5617-70-9) see: Ketorolac**2,2-dimethyl-1,3-dioxolane-4-methanol 2-aminobenzoate**(C₁₃H₁₇NO₄; 4934-23-0) see: Glafenine**2,2-dimethyl-1,3-dioxolane-4-methanol 2-nitrobenzoate**(C₁₃H₁₅NO₆; 4601-17-6) see: Glafenine**6,16 α -dimethyl-3,20-dioxo-11 β ,17,21-trihydroxy-4,6-pregnadiene**(C₂₃H₃₂O₅; 39932-51-9) see: Cortivazol**N,N'-dimethyl-1,2-diphenyl-1,2-ethanediamine**(C₁₆H₂₀N₂; 22751-68-4) see: Paroxetine**dimethyl(3,3-diphenyltetrahydro-2-furylidene)ammonium bromide**(C₁₈H₂₀BrNO; 37743-18-3) see: Loperamide**3-O,17 α -dimethylestradiol**(C₂₀H₂₈O₂; 15236-73-4) see: Methylstrenolone**N-[(1,1-dimethylethoxy)carbonyl]-L-alanyl-N-[(1 α ,5 α ,6 α)-3-[8-(2,4-difluorophenyl)-6-(ethoxycarbonyl)-3-fluoro-5,8-dihydro-5-oxo-1,8-naphthyridin-2-yl]-3-azabicyclo[3.1.0]hex-6-yl]-L-alaninamide**(C₃₃H₃₇F₃N₆O₇; 186772-86-1) see: Alatrofloxacin mesilate**N²-[N-[(1,1-dimethylethoxy)carbonyl]-L-alanyl]-D- α -glutamine phenylmethyl ester**(C₂₀H₂₉N₃O₆; 18814-49-8) see: Romurtide**N²-[N²-[N-[(1,1-dimethylethoxy)carbonyl]-L-alanyl]-D- α -glutaminy]-N⁶-[(phenylmethoxy)carbonyl]-L-lysine phenylmethyl ester**(C₃₄H₄₇N₅O₉; 59524-63-9) see: Romurtide**1-N-[(1,1-dimethylethoxy)carbonyl]-L-alanyl]-L-proline phenylmethyl ester**(C₂₀H₂₈N₂O₅; 35084-69-6) see: Enalapril**(S)- α -[[[(1,1-dimethylethoxy)carbonyl]amino]benzenecarboxylic acid methyl ester**(C₁₄H₁₉NO₄; 143978-88-5) see: Docetaxel

[2 α R-[2 α ,4 β ,4 α β ,6 β ,9 α (α R*, β S*)],11 α ,12 α ,12 α ,12 β α]]- β -[[[(1,1-dimethylethoxy)carbonyl]amino]- α -[1-(ethoxy)ethoxy]benzenepropanoic acid 12 β -(acetyloxy)-12-(benzoyloxy)-4,6-bis[[[(2,2,2-trichloroethoxy)carbonyl]oxy]-2 α ,3,4,4 α ,5,6,9,10,11,12,12 α ,12 β -dodecahydro-11-hydroxy-4 α ,8,13,13-tetramethyl-5-oxo-7,11-methano-1H-cyclodeca[3,4]benz[1,2-*b*]oxet-9-yl ester

(C₅₃H₆₃Cl₃NO₁₉) see: Docetaxel

[2 α R-[2 α ,4 β ,4 α β ,6 β ,9 α (α R*, β S*)],11 α ,12 α ,12 α ,12 β α]]- β -[[[(1,1-dimethylethoxy)carbonyl]amino]- α -hydroxybenzenepropanoic acid 2 α ,3,4,4 α ,5,6,9,10,11,12,12 α ,12 β -dodecahydro-11-hydroxy-4 α ,8,13,13-tetramethyl-5-oxo-4,6-bis[[[(2,2,2-trichloroethoxy)carbonyl]oxy]-7,11-methano-1H-cyclodeca[3,4]benz[1,2-*b*]oxet-9-yl ester

(C₄₉H₅₅Cl₆NO₁₈; 114915-14-9) see: Docetaxel

[6R-[6 α ,7 β (R*)]]-[[7-[[[(1,1-dimethylethoxy)carbonyl]amino](4-hydroxyphenyl)acetyl]amino]-2-[[diphenylmethoxy)carbonyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]triphénylphosphonium iodide

(C₅₇H₄₉IN₃O₇PS; 92676-83-0) see: *cis*-Cefprozil

[6R-[6 α ,7 β (R*)]]-7-[[[(1,1-dimethylethoxy)carbonyl]amino]phenylacetyl]amino]-3-methyl-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

(C₂₁H₂₅N₃O₆S; 28180-92-9) see: Cefalexin

1-[N⁶-[(1,1-dimethylethoxy)carbonyl]-N²-[(phenylmethoxy)carbonyl]-L-lysyl]-L-proline phenylmethyl ester

(C₃₁H₄₁N₃O₇; 90826-23-6) see: Lisinopril

[S-(R*,R*)]- γ -[[6-[(1,1-dimethylethoxy)carbonyl]tetrahydro-1(2H)-pyridazinyl]carbonyl]-1,3-dihydro-1,3-dioxo-2H-isoindole-2-butanolic acid

(C₂₂H₂₇N₃O₇; 88767-18-4) see: Cilazapril

[6R-[6 α ,7 β (Z)]]-7-[[[2-(1,1-dimethylethoxy)-2-oxoethoxy]imino][2-(formylamino)-4-thiazolyl]acetyl]amino]-3-ethenyl-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester

(C₃₄H₃₃N₅O₈S₂; 79350-29-1) see: Cefixime

[6R-[6 α ,7 β (Z)]]-7-[[[2-(1,1-dimethylethoxy)-2-oxoethoxy]imino][2-(formylamino)-4-thiazolyl]acetyl]amino]-3-(triphenylphosphorandiy)-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester

(C₅₁H₄₆N₅O₈PS₂) see: Cefixime

(S)-3-[[[(1,1-dimethylethyl)amino]carbonyl]-3,4-dihydro-2(1H)-isoquinolinecarboxylic acid phenylmethyl ester

(C₂₇H₂₆N₂O₃; 149182-71-8) see: Saquinavir

5-[[[(1,1-dimethylethyl)amino]carbonyl]-2,3-dihydro-1,4-pyrazinedicarboxylic acid 1-(1,1-dimethylethyl) 4-(phenylmethyl) ester

(C₂₂H₃₁N₃O₅; 171504-92-0) see: Indinavir sulfate

[3S-[2(1S*,2S*),3 α ,4 α β ,8 α β]]-[3-[3-[[[(1,1-dimethylethyl)amino]carbonyl]octahydro-2(1H)-isoquinolinyl]-2-hydroxy-1-[(phenylthio)methyl]propyl]carbamic acid phenylmethyl ester

(C₃₂H₄₅N₃O₄S; 159878-04-3) see: Nelfinavir mesylate

(S)-2-[[[(1,1-dimethylethyl)amino]carbonyl]-1,4-piperazine-dicarboxylic acid 4-(1,1-dimethylethyl) 1-(phenylmethyl) ester

(C₂₂H₃₃N₃O₅; 150323-34-5) see: Indinavir sulfate

2-[3-[[[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-5-fluorobenzaldehyde

(C₁₄H₂₀FNO₃; 58929-11-6) see: Butofilolol

2-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-5-**fluoro- α -propylbenzenemethanol**(C₁₇H₂₈FNO₃; 58929-12-7) see: Butofilolol **α -[[[(1,1-dimethylethyl)amino]methyl]-4-nitrobenzenemethanol**(C₁₂H₁₈N₂O₃; 15235-97-9) see: Clenbuterol **α^6 -[[[(1,1-dimethylethyl)amino]methyl]-3-(phenylmethoxy)-2,6-pyridinedimethanol**(C₁₉H₂₆N₂O₃; 38029-09-3) see: Pirbuterol**1-[1-(1,1-dimethylethyl)amino]-3-[[4-(4-morpholinyl)-1,2,5-thiadiazol-3-yl]oxy]-2-propanol**(C₁₃H₂₄N₄O₃S; 29023-48-1) see: Timolol**2-[(1,1-dimethylethyl)amino]-1-(4-nitrophenyl)ethanone**(C₁₂H₁₆N₂O₃; 88877-91-2) see: Clenbuterol**[2S-[2 α (S*),3 β (S*)]]-1-[[[(1,1-dimethylethyl)dimethylsilyl]-3-1-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]ethyl]- α -methyl-4-oxo-2-azetidineacetic acid**(C₂₀H₄₁NO₄Si₂; 188193-06-8) see: Meropenem**[S-(R*,R*)]-5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-1,9-diethoxy-1,8-nonadiyne-4,6-diol**(C₁₉H₃₄O₈Si; 128685-01-8) see: Tacrolimus**[1R-(1R*,3R*,5S*,6R*,7S*,9R*)]-P-[6-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-9-(1,3-dithian-2-yl)-5,7-dimethoxy-1,3-dimethyldecyl]-N,N,N',N'-tetramethylphosphonic diamide**(C₂₈H₆₁N₂O₄PS₂Si; 128778-86-9) see: Tacrolimus**[2S-[2 α (R*),3 β (S*)]]-3-[1-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]ethyl]- α -methyl-4-oxo-2-azetidineacetic acid phenylmethyl ester**(C₂₁H₃₃NO₄Si) see: Meropenem**[2S-[2 α (S*),3 β (S*)]]-3-[1-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]ethyl]- α -methyl-4-oxo-2-azetidineacetic acid phenylmethyl ester**(C₂₁H₃₃NO₄Si; 96035-98-2) see: Meropenem**[2R-[2 α (R*),3 β (R*)]]-S-[3-[1-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]ethyl]-4-oxo-2-azetidyl] tetrahydro-2-furancarbothioate**(C₁₆H₂₉NO₄SSi; 106560-32-1) see: Faropenem sodium**[1S-[1 α (4S*,6S*),2 α ,6 β ,8 β ,8 α]]-4-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-[2-(1,2,6,7,8,8a-hexahydro-8-hydroxy-2,6-dimethyl-1-naphthalenyl)ethyl]tetrahydro-2H-pyran-2-one**(C₂₅H₄₂O₄Si; 79902-31-1) see: Simvastatin**(2R,3S,5R)-3-[(1,1-dimethylethyl)dimethylsilyloxy]-2-hexyl-5-(phenylmethoxy)hexadecanoic acid**(C₃₅H₆₄O₄Si) see: Orlistat**(2S,3S,5R)-3-[[[(1,1-dimethylethyl)dimethylsilyloxy]-2-hexyl-5-(phenylmethoxy)hexadecanoic acid**(C₃₅H₆₄O₄Si) see: Orlistat**(1,1-dimethylethyl)dimethyl[[[(3 β ,7E,22E)-6,19-sulfonyl-9,10-secoergosta-5(10),7,22-trien-3-yl]oxy]silane**(C₃₄H₅₈O₃SSi; 170081-43-3) see: Calcipotriol**(R)-(1,1-dimethylethyl)diphenyl[[3-(phenylmethoxy)tetradecyl]oxy]silane**(C₃₇H₅₄O₂Si; 153011-62-2) see: Orlistat**(1,1-dimethylethyl)diphenylsilanol formate**(C₁₇H₂₀O₂Si; 200800-16-4) see: Lamivudine**N,N'-dimethylethylenediamine**(C₄H₁₂N₂; 110-70-3) see: Hexobendine**N,N-dimethylethylenediamine**(C₄H₁₂N₂; 108-00-9) see: Chloropyramine**dimethyl 4-ethyl-4-formylpimelate**(C₁₂H₂₀O₅; 23837-97-0) see: Vincamine**N-(1,1-dimethylethyl)- α -hydroxy-6-(hydroxymethyl)-5-(phenylmethoxy)-2-pyridineacetamide**(C₁₉H₂₄N₂O₄; 38028-97-6) see: Pirbuterol**(1,1-dimethylethyl)[[(3 β ,5E,7E,22E)-1-hydroxy-9,10-secoergosta-5,7,10(19),22-tetraen-3-yl]oxy]dimethylsilane**(C₃₄H₅₈O₂Si) see: Calcipotriol**1,1-dimethylethyl 4-[3-[(1-methylethyl)amino]-2-pyridinyl]-1-piperazinecarboxylate**(C₁₇H₂₈N₄O₂; 136818-14-9) see: Delavirdine mesilate**4-(1,1-dimethylethyl)-N-methyl-N-(1-naphthalenylmethyl)benzamide**(C₂₃H₂₅NO; 101846-87-1) see: Butenafine**N-(1,1-dimethylethyl)-3-methyl-2-pyridinecarboxamide**(C₁₁H₁₆N₂O; 32998-95-1) see: Loratadine**3-(1,1-dimethylethyl)-5-(4-nitrophenyl)-2-oxazolidinone**(C₁₃H₁₆N₂O₄; 88151-10-4) see: Clenbuterol**1,1-dimethylethyl 4-(3-nitro-2-pyridinyl)-1-piperazinecarboxylate**(C₁₄H₂₀N₄O₄; 153473-24-6) see: Delavirdine mesilate**(1,1-dimethylethyl)[2-(2S)-oxiranylethoxy]diphenylsilane**(C₂₀H₂₆O₂Si; 116996-54-4) see: Orlistat**N-(1,1-dimethylethyl)-3-oxo-4-aza-5 α -androstane-17 β -carboxamide**(C₂₃H₃₈N₂O₂; 98319-24-5) see: Finasteride**1-[4-(1,1-dimethylethyl)phenyl]-4-[4-(hydroxydiphenylmethyl)-1-piperidinyl]-1-butanone**(C₃₂H₃₉NO₂; 43076-30-8) see: Terfenadine**5-[[[(1,1-dimethylethyl)(phenylmethyl)amino]acetyl]-2-hydroxybenzoic acid methyl ester**(C₂₁H₂₅NO₄) see: Salbutamol**[5-[[[(1,1-dimethylethyl)(phenylmethyl)amino]acetyl]-2-(phenylmethoxy)phenyl]urea**(C₂₇H₃₁N₃O₃; 51581-98-7) see: Carbuterol**2-[(1,1-dimethylethyl)(phenylmethyl)amino]-1-[4-hydroxy-3-(hydroxymethyl)phenyl]ethanone**(C₂₀H₂₅NO₃; 64092-10-0) see: Salbutamol**N-[[4-(1,1-dimethylethyl)phenyl]methyl]-N-methyl-1-naphthalenecarboxamide**(C₂₃H₂₅NO; 101846-86-0) see: Butenafine**(S)-N-(1,1-dimethylethyl)-2-piperazinecarboxamide**(C₉H₁₉N₃O; 166941-47-5) see: Indinavir sulfate**N-(1,1-dimethylethyl)-2-piperazinecarboxamide**(C₉H₁₉N₃O; 121885-09-4) see: Indinavir sulfate**[1R-[1 α [E[1S*(S*),2S*,3S*,5S*,6R*,7E,10S*,12S*,13R*,14S*,16R*]],3 α ,4 β]]-1-(1,1-dimethylethyl)-1,2-piperidine-dicarboxylic acid 2-[13-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-12,14-dimethoxy-5-[(4-methoxyphenyl)methoxy]-1-****[2-[3-methoxy-4-[[tris(1-methylethyl)silyl]oxy]cyclohexyl]-1-methylethenyl]-2,8,10,16-tetramethyl-17-oxo-3-[[tris(1-methylethyl)silyl]oxy]-7-heptadecenyl] ester**(C₇₉H₁₄₃NO₃Si₃; 128685-09-6) see: Tacrolimus

- [1R-[1 α [E[1S*(S*),2S*,3S*,5S*,6S*]],3 α ,4 β]]-1-(1,1-dimethylethyl)-1,2-piperidinedicarboxylic acid 2-[6-formyl-5-[(4-methoxyphenyl)methoxy]-1-[2-[3-methoxy-4-[[tris(1-methylethyl)silyl]oxy]cyclohexyl]-1-methylethyl]-2-methyl-3-[[tris(1-methylethyl)silyl]oxy]-8-nonenyl] ester**
(C₅₈H₁₀₁NO₁₀Si₂; 128684-97-9) see: Tacrolimus
- N-(1,1-dimethylethyl)pyrazinecarboxamide**
(C₉H₁₃N₃O; 121885-10-7) see: Indinavir sulfate
- (1,1-dimethylethyl)[[(3 β ,5E,7E,22E)-9,10-secoergosta-5,7,10(19),22-tetraen-3-yl]oxy]dimethylsilane**
(C₃₄H₅₈O_{Si}; 104846-63-1) see: Calcipotriol
- N-(1,1-dimethylethyl)-1,4,5,6-tetrahydropyrazine-carboxamide**
(C₉H₁₇N₃O; 171504-80-6) see: Indinavir sulfate
- dimethylformamide**
(C₃H₇NO; 68-12-2) see: Acrivastine; Amlexanox; Amrinone; Etrretinate; Fluvastatin sodium; Gitaloxin; Glymidine; Isradipine; Lonazolac; Nomegestrol acetate; Sulfaperin
- dimethylformamide diethyl acetal**
(C₇H₁₇NO₂; 1188-33-6) see: Loprazolam; Rufloxacin hydrochloride
- N,N-dimethylformamide diethyl acetal**
see under dimethylformamide diethyl acetal
- dimethylformamide dimethyl acetal**
(C₅H₁₃NO₂; 4637-24-5) see: Milrinone; Olprinone hydrochloride; Zaleplon
- N,N-dimethylformamide di-tert-butyl acetal**
(C₁₁H₂₅NO₂; 36805-97-7) see: Lacidipine
- 6,6-dimethyl-1-hepten-4-yn-3-ol**
(C₉H₁₄O; 78629-20-6) see: Terbinafine
- 3-(1,1-dimethylethyl)-7,10-dihydro-1-hydroxy-6H-dibenzo[b,d]pyran-6,9(8H)-dione**
(C₂₂H₂₈O₄; 56469-12-6) see: Nabilone
- 3-(1,1-dimethylethyl)-7,10-dihydro-1-hydroxyspiro[9H-dibenzol[b,d]pyran-9,2'-[1,3]dioxolan]-6(8H)-one**
(C₂₄H₃₂O₅; 56469-13-7) see: Nabilone
- 5-(1,1-dimethylethyl)resorcinol**
(C₁₅H₂₄O₂; 56469-10-4) see: Nabilone
- 3-(1,1-dimethylethyl)-6,6a,7,8-tetrahydro-1-hydroxy-6,6-dimethyl-9H-dibenzo[b,d]pyran-9-one**
(C₂₄H₃₄O₃; 56469-14-8) see: Nabilone
- [4aS-[4 α ,6 α ,8 α ,8 β ,10 α ,11 α (S*),13 α β ,13 β α]]-11-(1,5-dimethylhexyl)-5,6,8a,8b,10,10a,11,12,13,13a-decahydro-6-hydroxy-8a,10a-dimethyl-2-phenyl-4a,13b-etheno-1H,9H-benzol[c]cyclopenta[h][1,2,4]triazolo[1,2-a]cinnoline-1,3(2H)-dione**
(C₃₅H₄₇N₃O₃; 57102-18-8) see: Alfacalcidol
- 5,9-dimethyl-2'-hydroxybenzo-6-morphen**
(C₁₄H₁₉NO; 16808-63-2) see: Phenazocine
- N,N-dimethyl- α -(1-hydroxycyclohexyl)-4-methoxyphenylthioacetamide**
(C₁₇H₂₅NO₂S; 131801-70-2) see: Venlafaxine
- N-(1,1-dimethyl-2-hydroxyethyl)propylamine**
(C₇H₁₇NO; 55968-10-0) see: Meprylcaine
- N,N-dimethylhydroxylamine**
(C₂H₇NO; 5725-96-2) see: Amitriptylinoxide
- 2,2-dimethyl-4-hydroxymethyl-1,3-dioxolane**
(C₆H₁₂O₃; 100-79-8) see: Floctafenine; Glafenine
- 5,9-dimethyl-2'-hydroxy-2-phenylacetylbenzo-6-morphen**
(C₂₂H₂₅NO₂) see: Phenazocine
- 1,3-dimethyl-6-(3-hydroxypropylamino)uracil**
(C₉H₁₅N₃O₃; 34654-80-3) see: Urapidil
- 5,5-dimethyl-2-isopropylthiazolidine-4-carbonitrile**
(C₉H₁₆N₂S; 13206-50-3) see: D-Penicillamine
- 5,5-dimethyl-2-isopropylthiazolidine-4-carboxylic acid**
(C₉H₁₇NO₂S; 13206-31-0) see: D-Penicillamine
- 5,5-dimethyl-2-isopropyl- Δ^3 -thiazoline**
(C₈H₁₅NS; 32899-85-7) see: D-Penicillamine
- N-[4-[[[(3,4-dimethyl-5-isoxazolyl)amino]sulfonyl]phenyl]acetamide**
(C₁₃H₁₅N₃O₄S; 4206-74-0) see: Sulfafurazole
- dimethyl malonate**
(C₃H₈O₄; 108-59-8) see: Biotin; Dolasetron mesilate; Gabapentin; Ziprasidone hydrochloride
- 2,6-dimethyl-5-methoxycarbonyl-4-(3-nitrophenyl)-1,4-dihydropyridine-3-carboxylic acid**
(C₁₆H₁₆N₂O₆; 74936-72-4) see: Barnidipine; Lercanidipine hydrochloride
- 4,4-dimethyl-7-methoxyisochroman-1,3-dione**
(C₁₂H₁₂O₄; 55974-25-9) see: Gliquidone
- dimethyl-methoxymalonate**
(C₆H₁₀O₅; 5018-30-4) see: Sulfadoxine
- [2S-(2 α ,5 α ,6 α)]-3,3-dimethyl-6-methoxy-7-oxo-6-[[3-oxo-3-phenoxy-2-(3-thienyl)-1-propenylidene]amino]-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid (4-nitrophenyl)methyl ester**
(C₃₀H₂₅N₃O₉S₂) see: Temocillin
- 4,4-dimethyl-2-(2-methoxyphenyl)-2-oxazoline**
(C₁₂H₁₅NO₂; 57598-33-1) see: Losartan potassium
- N,N-dimethyl-4-methoxyphenylthioacetamide**
(C₁₁H₁₅NOS; 76579-52-7) see: Venlafaxine
- 2,3-dimethyl-4-methylamino-1-phenyl-5- Δ^3 -pyrazolone**
(C₁₂H₁₅N₃O; 519-98-2) see: Metamizole sodium
- N,N-dimethyl-5-[[[(methylamino)sulfonyl]methyl]- α -oxo-1H-indole-3-acetamide**
(C₁₄H₁₇N₃O₄S; 103628-49-5) see: Sumatriptan
- dimethyl N-methylcarbonimidodithioate**
(C₄H₉NS₂; 18805-25-9) see: Ranitidine
- (E)-N,N-dimethyl-3-(4-methylphenyl)-3-phenyl-2-propen-1-amine**
(C₁₈H₂₁N; 58325-63-6) see: Tolpropamine
- dimethyl methylphosphonate**
(C₃H₆O₃P; 756-79-6) see: Iloprost
- cis-2,6-dimethylmorpholine**
(C₆H₁₃NO; 6485-55-8) see: Amorolfine
- dimethyl naphthalene-1,5-disulfonate**
(C₁₂H₁₂O₆S₂; 20779-13-9) see: Aclatonium napadisilate
- dimethyl 5-nitroisophthalate**
(C₁₀H₉NO₆; 13290-96-5) see: Iohexol; Iotalamic acid
- 2,3-dimethyl-4-nitropyridine N-oxide**
(C₇H₈N₂O₃; 37699-43-7) see: Lansoprazole; Rabeprazole sodium
- 2,3-dimethyl-4-nitroso-1-phenyl-5- Δ^3 -pyrazolone**
(C₁₁H₁₁N₃O₂; 885-11-0) see: Aminophenazone
- dimethyl oxalate**
(C₄H₆O₄; 553-90-2) see: Ceftriaxone; Misoprostol; Sulfadoxine

5,5-dimethyl-2,4-oxazolidinedione(C₅H₇NO₃; 695-53-4) see: Trimethadione**4',4''-[[4,5-dimethyl-2-oxazolylimino]disulfonyl]bis-acetamide**(C₂₁H₂₂N₄O₇S₂; 103640-72-8) see: Sulfamoxole**3-(5,5-dimethyl-2-oxido-1,3,2-dioxaphosphorinan-2-yl)-4-(3-nitrophenyl)-3-buten-2-one**(C₁₃H₁₈NO₆P; 111011-78-0) see: Efonidipine hydrochloride ethanol**4,5-dimethyl-2-oxo-1,3-dioxole**(C₅H₆O₃; 37830-90-3) see: Lenampicillin**dimethyl 2-oxoheptylphosphonate sodium salt**(C₉H₁₈NaO₄P; 56886-97-6) see: Dinoprost**[2S-(2 α ,5 α ,6 β)]-3,3-dimethyl-7-oxo-6-[[3-oxo-3-phenoxy-2-(3-thienyl)-1-propenylidene]amino]-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid (4-nitrophenyl)methyl ester**(C₂₉H₂₃N₃O₈S₂) see: Tecmocillin**dimethylloxosulfonium 4-fluoro-2-(methylamino)benzoylmethylide**(C₁₁H₁₄FNO₂S) see: Flosequin**(2S-cis)-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid chloromethyl ester 4,4-dioxide**(C₉H₁₂ClNO₅S; 76247-40-0) see: Sultamicillin**[2S-(2 α ,5 α ,6 β)]-3,3-dimethyl-7-oxo-6-[(trimethylsilyl)amino]-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid trimethylsilyl ester**(C₁₄H₂₈N₂O₃SSi₂; 1160-31-2) see: Mecillinam**3,4-dimethyl-1-phenethylpyridinium bromide**(C₁₅H₁₈BrN; 102-64-7) see: Phenazocine**2,4-dimethylphenol**(C₈H₁₀O; 105-67-9) see: Picotamide**3,5-dimethylphenol**(C₈H₁₀O; 108-68-9) see: Chloroxylenol; Etretnate; Metaxalone**dimethyl-(2-phenoxyethyl)amine**

see under 1-dimethylamino-2-phenoxyethane

[(2,3-dimethylphenoxy)methyl]oxirane(C₁₁H₁₄O₂; 41457-31-2) see: Xibenolol**3-(3,5-dimethylphenoxy)propane-1,2-diol**(C₁₁H₁₆O₃; 59365-66-1) see: Metaxalone**1-(2,6-dimethylphenoxy)-2-propanone**(C₁₁H₁₄O₂; 53012-41-2) see: Mexiletine**1-(2,6-dimethylphenoxy)-2-propanone oxime**(C₁₁H₁₅NO₂; 55304-19-3) see: Mexiletine**(\pm)-N,N-dimethyl-3-phenyl-3-chloropropylamine**(C₁₁H₁₆ClN; 79130-51-1) see: Fluoxetine**(5R,6S)-2,2-dimethyl-6-[[1(R)-1-phenylethyl]amino]-1,3-dioxepan-5-ol**(C₁₅H₂₃NO₃; 188923-19-5) see: Nelfinavir mesylate**(1,1-dimethyl-2-phenylethyl)methylamine**(C₁₁H₁₇N; 100-92-5) see: Oxetacaine**1-[(3,4-dimethylphenyl)dimino]-1-deoxy-D-ribitol**(C₁₃H₁₉NO₄) see: Riboflavin**N-(2,6-dimethylphenyl)-2-iodobutanamide**(C₁₂H₁₆INO; 60119-84-8) see: Etidocaine**[2 α R]-[2 α ,4 β ,4 α β ,6 β ,9 α (4S*,5R*),11 α ,12 α ,12 α ,12 β α]-2,2-dimethyl-4-phenyl-3,5-oxazolidinedicarboxylic acid 5-[12 β -(acetyloxy)-12-(benzyloxy)-2 α ,3,4,4 α ,5,6,9,10,11,12,12 α ,12 β -dodecahydro-11-hydroxy-4 α ,8,13,13-tetramethyl-5-oxo-4,6-bis[(2,2,2-trichloroethoxy)carbonyloxy]-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl] 3-(1,1-dimethylethyl) ester**(C₅₂H₅₉Cl₆NO₁₈; 143527-76-8) see: Docetaxel**(S)-N-(2,6-dimethylphenyl)-2-piperidinecarboxamide**(C₁₄H₂₀N₂O; 27262-40-4) see: Ropivacaine hydrochloride**cis-1,3-dimethyl-4-phenyl-4-piperidinol**(C₁₃H₁₉NO; 15217-63-7) see: Alphaprodine**N-(2,6-dimethylphenyl)-2-(propylamino)butanamide**(C₁₅H₂₄N₂O; 59359-48-7) see: Etidocaine**2,3-dimethyl-1-phenyl-5- Δ^3 -pyrazolone**(C₁₁H₁₂N₂O; 60-80-0) see: Aminophenazone**2,5-dimethyl-1-phenyl-1H-pyrrole-3-carboxaldehyde**(C₁₃H₁₃NO; 83-18-1) see: Pyrvinium embonate**N-(3,4-dimethylphenyl)-D-ribose**(C₁₃H₂₁NO₄; 3051-94-3) see: Riboflavin**N-(3,4-dimethylphenyl)-D-ribonamide**(C₁₃H₁₉NO₅; 64339-92-0) see: Riboflavin**(\pm)-N,N-dimethyl-3-phenyl-3-(4-trifluoromethylphenoxy)propylamine**(C₁₈H₂₀F₃NO; 56225-81-1) see: Fluoxetine**dimethyl phthalate**(C₁₀H₁₀O₄; 131-11-3) see: Diphenadione**cis-2,6-dimethylpiperazine**(C₆H₁₄N₂; 21655-48-1) see: Sparfloxacin**cis-2,6-dimethylpiperidine**(C₇H₁₃N; 766-17-6) see: Pirmenol hydrochloride**cis-2,6-dimethyl-1-piperidinepropanol**(C₁₀H₂₁NO; 63645-16-9) see: Pirmenol hydrochloride**cis-4-(2,6-dimethylpiperidino)butyrophenone**(C₁₇H₂₅NO; 63645-07-8) see: Pirmenol hydrochloride**cis-3-(2,6-dimethyl-1-piperidinyl)propyl]lithium**(C₁₀H₂₀LiN; 78048-67-6) see: Pirmenol hydrochloride**cis-3-(2,6-dimethyl-1-piperidinyl)-1-propynylmagnesium bromide**(C₁₀H₁₆BrMgN) see: Pirmenol hydrochloride**cis- α -(3-(2,6-dimethyl-1-piperidinyl)-1-propynyl)- α -phenyl-2-pyridinemethanol**(C₂₂H₂₆N₂O; 82719-43-5) see: Pirmenol hydrochloride**1,3-dimethyl-4-piperidone**(C₇H₁₃NO; 4629-80-5) see: Alphaprodine**6 β ,17-dimethylpregn-4-ene-3,20-dione**(C₂₃H₃₄O₂; 97905-77-6) see: Medrogestone**2,2-dimethyl-1,3-propanediol**(C₅H₁₂O₂; 126-30-7) see: Brinzolamide; Gestodene; Naproxen**2,2-dimethylpropanethioic acid**(C₅H₁₀OS; 55561-02-9) see: Tixocortol pivalate**2,2-dimethylpropanoic acid 4-[(methylamino)acetyl]-1,2-phenylene ester**(C₁₉H₂₇NO₃; 52245-00-8) see: Dipivefrine**21-(2,2-dimethylpropionyloxy)-3,20-dioxo-6 α -fluoro-17-hydroxy-16 α -methyl-1,4,9(11)-pregnatriene**(C₂₇H₃₈FO₅; 69986-99-8) see: Flumetasone**N,N-dimethyl-2-(propylamino)butanamide**(C₉H₂₀N₂O; 84803-62-3) see: Cropropamide

4'-[[1,4'-dimethyl-2'-propyl[2,6'-bi-1*H*-benzimidazol]-1'-yl]methyl]-[1,1'-biphenyl]-2-carboxylic acid 1,1-dimethyl-ethyl ester

(C₃₇H₃₈N₄O₂; 144702-26-1) see: Telmisartan

1,3-dimethyl-7-propylxanthine

(C₁₀H₁₄N₄O₂; 27760-74-3) see: Propentofylline

2,5-dimethylpyrazine

(C₆H₈N₂; 123-32-0) see: Acipimox

2,5-dimethylpyrazine 1-oxide

(C₆H₈N₂O; 6890-37-5) see: Acipimox

3,5-dimethylpyrazole-1-carboxamide nitrate

(C₆H₁₁N₃O₃; 38184-47-3) see: Eptifibatid

2,3-dimethylpyridine

(C₇H₉N; 583-61-9) see: Rabepazole sodium

3,4-dimethylpyridine

(C₇H₉N; 583-58-4) see: Pentazocine; Phenazocine

2,6-dimethylpyridine 1-oxide

(C₇H₉NO; 1073-23-0) see: Pyridinol carbamate

2,3-dimethylpyridine *N*-oxide

(C₇H₉NO; 22710-07-2) see: Rabepazole sodium

***N,N*-dimethyl-*N'*-(2-pyridyl)ethylenediamine**

see under 2-(2-dimethylaminoethylamino)pyridine

***N*-[4-[[[(2,6-dimethyl-4-pyrimidinyl)amino]sulfonyl]phenyl]acetamide**

(C₁₄H₁₆N₄O₃S; 3163-31-3) see: Sulfisomidine

***N*-(2,6-dimethyl-4-pyrimidinyl)-4-nitrobenzene-sulfonamide**

(C₁₂H₁₂N₄O₄S) see: Sulfisomidine

2,6-dimethyl-4(3*H*)-quinazolinone

(C₁₀H₁₀N₂O; 18731-19-6) see: Raltitrexed

2-dimethylsulfamoylphenothiazine

see under 2-dimethylaminosulfonylphenothiazine

dimethyl sulfate

(C₂H₆O₄S; 77-78-1) see: α -Acetyldigoxin; Adrafinil; Alizapride; Amezinium metilsulfate; Aminophenazone; Azatadine; Betanidine; Bevonium metilsulfate; Brodimoprim; Bromopride; Caffeine; Camazepam; Cefotaxime; Clebopride; Clotiazepam; Diazepam; Diphepanil metilsulfate; Epimestrol; Epirizole; Etazolol; Flosequinan; Flurbiprofen; Gliquidone; Guajacol; Hexamethonium chloride; Hexobarbital; Hexococylum metilsulfate; Isoflurane; Kawain; Ketazolam; Mecobalamin; Medazepam; Mefruside; Mephenytoin; Metamizole sodium; Methoxsalen; Metildigoxin; Metoclopramide; Metrizoic acid; Miltefosine; Nandrolone; Nemonapride; Neostigmine methylsulfate; Nimetazepam; Ondansetron; Paramethadione; Pentetrazol; Picotamide; Promestriene; Propyphenazone; Quinagolide hydrochloride; Setastine; Sildenafil; Sulpiride; Temazepam; Tienilic acid; Tilisolol hydrochloride; Timpetidum bromide; Tipepidine; Trimethadione

dimethyl sulfide

(C₂H₆S; 75-18-3) see: Ketorolac

dimethyl sulfinyl sodium

(C₂H₃NaOS; 15590-23-5) see: Flosequinan; Promestriene

(*R,R*)-dimethyl tartrate

(C₆H₁₀O₆; 608-68-4) see: Naproxen

***N,N*-dimethyl-2-thenylamine**

(C₇H₁₁NS; 26019-17-0) see: Thienium closilate

4,4-di(3-methyl-2-thienyl)-3-butenyl bromide

(C₁₄H₁₃BrS₂; 109857-81-0) see: Tiagabine

di(3-methyl-2-thienyl)cyclopropylcarbinol

(C₁₄H₁₆OS₂; 148319-26-0) see: Tiagabine

di(3-methyl-2-thienyl)ketone

(C₁₁H₁₀OS₂; 30717-55-6) see: Tiagabine

dimethyl 2-thioxo-1,3-dithiole-4,5-dicarboxylate

(C₇H₆O₄S₃; 7396-41-0) see: Malotilate

***N,N*-dimethyl-5-[(1*H*-1,2,4-triazol-1-yl)methyl]-2-trimethylsilyl-1*H*-indol-3-ethanamine**

(C₁₈H₂₇N₅Si) see: Rizatriptan benzoate

2,3-dimethyl-4-(2,2,2-trifluoroethoxy)pyridine 1-oxide

(C₉H₁₀F₃NO₂; 103577-61-3) see: Lansoprazole

(*all-E*)-[3,7-dimethyl-9-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2,4,6,8-nonatetraenylidene]triphenylphosphorane

(C₃₈H₄₃P; 51283-60-4) see: Betacarotene

(*all-E*)-[3,7-dimethyl-9-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2,4,6,8-nonatetraenyl]triphenylphosphonium sulfate

(1:1)

(C₃₈H₄₅O₄PS; 62075-45-0) see: Betacarotene

2,2-dimethyltrimethylene acetonylphosphonate

(C₈H₁₃O₄P; 111011-80-4) see: Efonidipine hydrochloride

ethanol

2,2-dimethyltrimethylene 2-amino-1-propenylphosphonate

(C₈H₁₆NO₃P; 111011-81-5) see: Efonidipine hydrochloride

ethanol

***N,N*-dimethyl-2-trimethylsilyl-1,3-dithiane-2-propan-amine**

(C₁₂H₁₇NS₂Si) see: Rizatriptan benzoate

4,4-dimethyl-3,5,8-trioxabicyclo[5.1.0]octane

(C₇H₁₂O₃; 57280-22-5) see: Iotrolan; Nelfinavir mesylate

***N,N'*-dimethylurea**

(C₃H₈N₂O; 96-31-1) see: Theophylline

dimorpholinophosphinic chloride

(C₈H₁₆ClN₂O₃P; 7264-90-6) see: Dexamethasone

phosphate; Paramethasone; Prednisolone sodium phosphate

(11 β ,16 α)-21-[(di-4-morpholinylphosphinyl)oxy]-9-fluoro-

11,17-dihydroxy-16-methylpregna-1,4-diene-3,20-dione

(C₃₀H₄₄FN₂O₈P; 3864-50-4) see: Dexamethasone phosphate

dimsyl sodium

see under dimethyl sulfinyl sodium

3,5-dinitrobenzoic acid

(C₇H₄N₂O₆; 99-34-3) see: Amidotrizoic acid

3,5-dinitrobenzoyl chloride

(C₇H₃ClN₂O₅; 99-33-2) see: Levofloxacin

(*R*)-3-[[[(3,5-dinitrobenzoyl)oxy]methyl]-9,10-difluoro-2,3-

dihydro-7-oxo-7*H*-pyrido[1,2,3-*de*]-1,4-benzoxazine-6-

carboxylic acid ethyl ester

(C₂₂H₁₅F₂N₃O₁₀; 100993-11-1) see: Levofloxacin

4,4'-dinitrophenyl sulfide

(C₁₂H₈N₂O₄S; 1223-31-0) see: Dapsone

4,4'-dinitrophenyl sulfone

(C₁₂H₈N₂O₆S; 1156-50-9) see: Dapsone

diosgenin

(C₂₇H₄₂O₃; 512-04-9) see: Pregnenolone

2-(1,4-dioxaspiro[4.5]dec-2-ylmethyl)-1*H*-isoindole-

1,3(2*H*)-dione

(C₁₇H₁₉NO₄; 22216-81-5) see: Guanadrel

5,7-dioxa-6-thiaspiro[2.5]octane 6-oxide

(C₅H₈O₃S; 89729-09-9) see: Montelukast sodium

3,17-dioxo-1,4-androstadiene

(C₁₉H₂₄O₂; 897-06-3) see: Estrone

- 3,17-dioxo-1,4,6-androstatriene**
(C₁₉H₂₂O₂; 633-35-2) see: Estrone
- 3,17-dioxo-4-androstene**
see under 4-androstene-3,17-dione
- (5β)-3,7-dioxocholan-24-oic acid hydrate**
(C₂₄H₃₈O₅) see: Ursodeoxycholic acid
- 1-[2-(4,6-dioxo-2,2-dimethyl-1,3-dioxan-5-yl)ethyl]-2-(methylthio)-5-benzoylpyrrole**
(C₂₀H₂₁NO₅S; 83727-08-6) see: Ketorolac
- (1R,1'R)-2,2'-(3,11-dioxo-4,10-dioxatridecamethylene)bis(1,2,3,4-tetrahydro-6,7-dimethoxy-1-veratrylisoquinoline) dioxalate**
(C₅₃H₇₀N₂O₂₀; 96687-52-4) see: Cisatracurium besylate
- 3,20-dioxo-16α,17-epoxy-4,9(11)-pregnadiene**
(C₂₁H₂₆O₃; 94088-90-1) see: Flugestone acetate
- 3,5-dioxo-13-ethyl-17β-hydroxy-4,5-secogon-9-ene**
(C₁₉H₂₈O₃; 4829-83-8) see: Gestrinone
- 2,3-dioxo-1-ethylpiperazine**
(C₆H₁₀N₂O₂; 59702-31-7) see: Piperacillin
- 2,3-dioxo-4-ethyl-1-piperazinecarbonyl chloride**
(C₇H₉ClN₂O₃; 59703-00-3) see: Cefbuperazone; Cefoperazone; Piperacillin
- 2(R)-(2,3-dioxo-4-ethyl-1-piperazinecarboxamido)-3(S)-hydroxybutyric acid**
(C₁₁H₁₇N₃O₆; 76610-81-6) see: Cefbuperazone
- D(-)-α-(2,3-dioxo-4-ethyl-1-piperazinecarbonylamino)-4-hydroxyphenylacetic acid**
(C₁₅H₁₇N₃O₆; 62893-24-7) see: Cefoperazone
- 3,20-dioxo-6α-fluoro-21-hydroxy-16α-methyl-1,4,9(11)-pregnatriene**
(C₂₂H₂₇FO₃; 30656-36-1) see: Clo cortolone
- 3,20-dioxo-6α-fluoro-11β,16α,17,21-tetrahydroxy-4-pregnene**
(C₂₁H₂₉FO₆; 2022-55-1) see: Fludroxycortide; Fluocinolone acetone
- 3,17-dioxo-11β-hydroxy-4-androstene**
(C₁₉H₂₆O₃; 382-44-5) see: Fluoxymesterone
- 3,17-dioxo-11β-hydroxy-4,9-estradiene**
(C₁₈H₂₂O₃; 2417-52-9) see: Moxestrol
- 2,3-dioxo-17β-hydroxy-17-methyl-5α-androstane**
(C₂₀H₃₀O₃; 1162-87-4) see: Furazabol
- 11,20-dioxo-3β-hydroxy-5α-pregnane**
(C₂₁H₃₂O₃; 600-59-9) see: Alfaxalone
- 2,5-dioxo-4-imidazolidinepropionaldehyde 4-(phenylhydrazone)**
(C₁₂H₁₄N₄O₂; 959-44-4) see: L-Tryptophan
- 1,3-dioxolane**
(C₃H₆O₂; 646-06-0) see: Aciclovir
- 2-(1,3-dioxolan-2-yl)ethylamine**
(C₅H₁₁NO₂; 5754-35-8) see: Atorvastatin calcium
- 1-[2-(1,3-dioxolan-2-yl)ethyl]-5-(4-fluorophenyl)-2-(1-methylethyl)-N,4-diphenyl-1H-pyrrole-3-carboxamide**
(C₃₁H₃₁FN₂O₃; 110862-45-8) see: Atorvastatin calcium
- α-[2-(1,3-dioxolan-2-yl)ethyl](2-methyl-1-oxopropyl)-amino]-4-fluorobenzeneacetic acid**
(C₁₇H₂₂FNO₅; 110862-44-7) see: Atorvastatin calcium
- 3,17-dioxo-19-nor-4-androstene**
(C₁₈H₂₄O₂; 734-32-7) see: Methyltestosterone; Norethisterone
- [2S-(2α,5α,6α)]-6-[[1,3-dioxo-3-phenoxy-2-(2-thienyl)propyl]amino]-6-methoxy-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid**
(C₂₂H₂₂N₂O₇S₂; 61291-73-4) see: Temocillin
- [2S-(2α,5α,6α)]-6-[[1,3-dioxo-3-phenoxy-2-(2-thienyl)propyl]amino]-6-methoxy-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid phenylmethyl ester**
(C₂₉H₂₈N₂O₇S₂; 61291-72-3) see: Temocillin
- [2S-(2α,5α,6α)]-6-[[1,3-dioxo-3-phenoxy-2-(3-thienyl)propyl]amino]-6-methoxy-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid (4-nitrophenyl)methyl ester**
(C₂₉H₂₇N₂O₉S₂; 78968-24-8) see: Temocillin
- [2S-(2α,5α,6α)]-6-[[1,3-dioxo-3-(phenylmethoxy)-2-(3-thienyl)propyl]amino]-6-methoxy-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid phenylmethyl ester**
(C₃₀H₃₀N₂O₇S₂; 61545-07-1) see: Temocillin
- 3,20-dioxo-9β,10α-pregna-4,6-diene**
(C₂₁H₂₈O₂; 152-62-5) see: Trengestone
- (Z)-3,11-dioxopregna-4,17(20)-dien-21-oic acid**
(C₂₁H₂₆O₄; 31056-07-2) see: Hydrocortisone
- 3,11-dioxopregna-4,17(20)-dien-21-oic acid methyl ester**
(C₂₂H₂₈O₄; 37002-70-3) see: Cortisone
- 5,5'-[(1,3-dioxo-1,3-propanediyl)bis(methylimino)]bis-[N,N'-bis(6-hydroxy-2,2-dimethyl-1,3-dioxepan-5-yl)-2,4,6-triiodo-1,3-benzenedicarboxamide]**
(C₄₉H₆₄I₆N₆O₁₈; 79957-41-8) see: Iotrolan
- 5,5'-[(1,3-dioxo-1,3-propanediyl)bis(methylimino)]bis-[2,4,6-triiodo-1,3-benzenedicarboxonyl dichloride]**
(C₂₁H₈Cl₄I₆N₂O₆; 80601-33-8) see: Iotrolan
- (R)-4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-N-methyl-3-[(2-nitrophenyl)thio]amino]-4-oxobutanamide**
(C₁₅H₁₆N₄O₇S; 63392-96-1) see: Aspoxicillin
- N-[3-[1,3-dioxo-3-(1H-tetrazol-5-yl)propyl]-2-hydroxyphenyl]acetamide**
(C₁₇H₁₁N₅O₄; 174607-63-7) see: Pranlukast
- diphenamic acid**
(C₁₄H₁₁NO₃; 6747-35-9) see: Azapetine
- diphenhydramine**
(C₁₇H₂₁NO; 58-73-1) see: Dimenhydrinate
- diphenic acid**
(C₁₄H₁₀O₄; 482-05-3) see: Azapetine
- diphenic anhydride**
(C₁₄H₈O₃; 6050-13-1) see: Azapetine
- diphenimide**
(C₁₄H₉NO₂; 3864-08-2) see: Azapetine
- diphenoxyacetic acid**
(C₁₄H₁₂O₄; 729-89-5) see: Medifoxamine
- diphenoxy-N,N-dimethylacetamide**
(C₁₆H₁₇NO₃; 1033-99-4) see: Medifoxamine
- diphenoxylate**
(C₃₀H₃₂N₂O₂; 915-30-0) see: Difenoxin
- [4R-[4α,5β,6β(R*)]]-3-[(diphenoxyphosphinyl)oxy]-6-(1-hydroxyethyl)-4-methyl-7-oxo-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid (4-nitrophenyl) ester**
(C₂₉H₂₇N₂O₁₀P; 90776-59-3) see: Meropenem
- diphenylacetaldehyde**
(C₁₄H₁₂O; 947-91-1) see: Pramiverine

diphenylacetic acid(C₁₄H₁₂O₂; 117-34-0) see: Adiphenine**diphenylacetic pyrrolidide**(C₁₈H₁₉NO; 60678-46-8) see: Dextromoramide**1,1-diphenylacetone**(C₁₅H₁₄O; 781-35-1) see: Diphenadione**diphenylacetone nitrile**(C₁₄H₁₁N; 86-29-3) see: Diisopromine; Diphenoxylate; Doxapram; Fempirerium bromide; Isopropamide iodide; Methadone; Normethadone; Prozapine**diphenylacetyl chloride**(C₁₄H₁₁ClO; 1871-76-7) see: Adiphenine; Dextromoramide; Diphenadione; Piperidolate**diphenylamine**(C₁₂H₁₁N; 122-39-4) see: Dimetacrine; Fencarbamide**4-(1,2-diphenyl-1-butenyl)phenol**(C₂₂H₂₀O; 68684-63-9) see: Tamoxifen**1,2-diphenyl-4-butyl-4-(hydroxymethyl)pyrazolidine-3,5-dione**(C₂₀H₂₂N₂O₅; 23111-33-3) see: Feclobuzone; Suxibuzone**diphenylcarbamoil chloride**(C₁₃H₁₀ClNO; 83-01-2) see: Fencarbamide**diphenyl *N*-cyanoimidocarbonate**(C₁₄H₁₀N₂O₂; 79463-77-7) see: Anagrelide hydrochloride**3,3-diphenyl-3-cyanopropyl bromide**

see under 4-bromo-2,2-diphenylbutyronitrile

4,4-diphenyl-2-cyclohexen-1-one(C₁₈H₁₆O; 4528-64-7) see: Pramiverine**diphenyldiazomethane**(C₁₃H₁₀N₂; 883-40-9) see: Benztropine; Cefbuperazone; Cefixime; Cefoxitin; *cis*-Cefprozil; Cibenzoline; Latamoxef**(*RS,RS*)-1,2-diphenyl-1-[4-[2-(dimethylamino)ethoxy]phenyl]butane-1,4-diol**(C₂₆H₃₁NO₃; 141854-25-3) see: Toremfene**(*Z*)-1,2-diphenyl-1-[4-(2-(dimethylamino)ethoxy)phenyl]-1-buten-4-ol**(C₂₆H₂₉NO₂; 97151-03-6) see: Toremfene**2-[4-(1,2-diphenylethenyl)phenoxy]-*N,N*-diethylethan-amine**(C₂₆H₂₉NO; 19957-52-9) see: Clomifene**(-)-*cis*-2,4-diphenyl-5-(1-ethoxyethoxy)-4,5-dihydro-1,3-oxazin-6-one**(C₂₀H₂₁NO₄; 182072-57-7) see: Paclitaxel**β,β-diphenylethyl methyl ketone**(C₁₆H₁₆O; 5409-60-9) see: Terodiline**1,2-diphenyl-1-(4-ethylphenyl)ethene**(C₂₂H₂₀; 111077-74-8) see: Broparestrol**2,2-diphenyl-4-(hexahydro-1*H*-azepino)butyronitrile**(C₂₂H₂₆N₂; 83898-29-7) see: Prozapine**diphenylmethanethiol**(C₁₃H₁₂S; 4237-48-3) see: Adrafinil**[6*R*-(6*α*,7*α*)]-7-[[3-(diphenylmethoxy)-2-(4-hydroxyphenyl)-1,3-dioxopropyl]amino]-7-methoxy-3-[[[(1-methyl-1*H*-tetrazol-5-yl)thio]methyl]-8-oxo-5-oxa-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester**(C₄₆H₄₀N₆O₉S) see: Latamoxef**diphenylmethyl 7-aminocephalosporanate**(C₂₃H₂₂N₂O₅S; 27266-61-1) see: Cefbuperazone; Cefoxitin; Cefuroxime**diphenylmethyl 7-amino-3-chloromethyl-3-cephem-4-carboxylate hydrochloride**(C₂₁H₂₀Cl₂N₂O₃S; 107837-26-3) see: *cis*-Cefprozil**diphenylmethyl 7-amino-3-chloromethyl-3-cephem-4-carboxylate monohydrochloride**(C₂₁H₂₀Cl₂N₂O₃S; 79349-53-4) see: Cefixime**diphenylmethyl 7-amino-7-methoxycephalosporanate**(C₂₄H₂₄N₂O₆S; 35565-04-9) see: Cefoxitin**diphenylmethyl 7(*R*)-7-amino-7-methoxy-3-(1-methyl-tetrazol-5-ylthiomethyl)-1-oxa-1-dethia-3-cephem-4-carboxylate**(C₂₄H₂₄N₆O₅S; 66510-99-4) see: Latamoxef**diphenylmethyl 7(*R*)-amino-3-(1-methyl-1*H*-tetrazol-5-ylthiomethyl)-3-cephem-4-carboxylate**(C₂₃H₂₂N₆O₅S₂; 53090-86-1) see: Cefbuperazone**diphenylmethyl 7-amino-3-[(*Z*)-1-propenyl]-3-cephem-4-carboxylate**(C₂₃H₂₂N₂O₃S; 106447-41-0) see: *cis*-Cefprozil**diphenylmethyl 7-amino-3-vinyl-3-cephem-4-carboxylate hydrochloride**(C₂₂H₂₁ClN₂O₃S; 79349-67-0) see: Cefixime**diphenylmethyl 7(*S*)-azido-7-bromocephalosporanate**(C₂₃H₁₉BrN₄O₅S; 35565-02-7) see: Cefoxitin**diphenylmethyl 7(*S*)-azido-7-methoxycephalosporanate**(C₂₄H₂₂N₄O₆S; 35565-03-8) see: Cefoxitin**diphenylmethyl 7*α*-benzamido-3-chloromethyl-1-oxa-3-cephem-4-carboxylate**(C₂₈H₂₃ClN₂O₅; 68314-04-5) see: Flomoxef; Latamoxef**diphenylmethyl 7-[5-benzamido-5-(diphenylmethoxy-carbonyl)pentanamido]-3-hydroxymethyl-3-cephem-4-carboxylate**(C₄₇H₄₃N₃O₈S; 55779-09-4) see: Cefixime**diphenylmethyl 6-benzamidopenicillanate**(C₂₈H₂₆N₂O₄S; 64324-01-2) see: Latamoxef**diphenylmethyl bromide**

see under benzhydriyl bromide

diphenylmethyl (6*R*,7*R*)-3-(chloromethyl)-8-oxo-7-[(phenylacetyl)amino]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylate(C₂₉H₂₅ClN₂O₄S; 64308-63-0) see: *cis*-Cefprozil**diphenylmethyl 7-diazocephalosporanate**(C₂₃H₁₉N₃O₅S; 35609-55-3) see: Cefoxitin**diphenylmethyl [6*R*-(6*α*,7*β*(*R**))]-7-[[[(1,1-dimethyl-ethoxy)carbonyl]amino][4-hydroxyphenyl)acetyl]amino]-3-(iodomethyl)-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylate**(C₃₄H₃₄I₃O₇S; 92676-82-9) see: *cis*-Cefprozil**4-(diphenylmethylene)-1-methylpiperidine**(C₁₉H₂₁N; 6071-93-8) see: Diphe-manil metilsulfate**diphenylmethyl 6-*epi*-benzamidopenicillanate**(C₂₈H₂₆N₂O₅S; 69780-18-3) see: Latamoxef**diphenylmethyl (6*R*,7*R*)-3-(hydroxymethyl)-8-oxo-7-[(phenylacetyl)amino]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylate**(C₂₉H₂₆N₂O₅S; 35246-64-1) see: *cis*-Cefprozil**diphenylmethyl 7-methoxy-7-[2-(2-thienyl)acetamido]-cephalosporanate**(C₃₀H₂₈N₂O₇S₂; 35565-05-0) see: Cefoxitin

diphenylmethyl 7-phenylacetamido-3-[(Z)-1-propenyl]-3-cephem-4-carboxylate(C₃₁H₂₈N₂O₄S; 106447-45-4) see: *cis*-Cefprozil**diphenylmethyl 7-phenylacetamido-3-[(triphenylphosphoranylidene)methyl]-3-cephem-4-carboxylate**(C₄₇H₃₉N₂O₄PS; 91439-21-3) see: *cis*-Cefprozil**2-(4-diphenylmethyl-1-piperazinyl)ethanol**(C₁₉H₂₄N₂O; 10527-64-7) see: Manidipine**2-(4-diphenylmethyl-1-piperazinyl)ethyl acetoacetate**(C₂₃H₂₈N₂O₃; 89226-49-3) see: Manidipine**3,3-diphenyl-*N*-methylpropylamine**(C₁₆H₁₉N; 28075-29-8) see: Lercanidipine hydrochloride**2-(diphenylmethylthio)acetic acid**

see under (benzhydrylthio)acetic acid

2-[(diphenylmethyl)thio]-*N*-hydroxyacetamide(C₁₄H₁₅NO₂S; 63547-44-4) see: Adrafinil**3,3-diphenyl-2-oxotetrahydrofuran**(C₁₆H₁₄O₂; 956-89-8) see: Loperamide**1,2-diphenyl-4-[2-(phenylthio)ethyl]-3,5-pyrazolidine-dione**(C₂₃H₂₀N₂O₂S; 3736-92-3) see: Sulfinpyrazone**diphenylphosphoryl azide**(C₁₂H₁₀N₃O₃P; 26386-88-9) see: Trovafoxacin mesilate **α,α -diphenyl-1-piperidinebutanenitrile**(C₂₁H₂₄N₂; 5424-08-8) see: Fenpiverinium bromide**3,3-diphenylpropylamine**(C₁₅H₁₇N; 5586-73-2) see: Fendiline; Prenylamine**1-(3,3-diphenyl-*N*-propylamino)-2-methyl-2-propanol**(C₂₀H₂₇NO; 100442-33-9) see: Lercanidipine hydrochloride**2-[(3,3-diphenylpropyl)methylamino]-1,1-dimethylethyl 3-oxobutanoate**(C₂₄H₃₁NO₃; 100427-51-8) see: Lercanidipine hydrochloride***N*,3-diphenyl-2-propynamide**(C₁₅H₁₁NO; 7342-02-1) see: Atorvastatin calcium**diphenylpyraline**(C₁₉H₂₃NO; 147-20-6) see: Ebastine; Piprinhydrinate**1,2-diphenylpyrazolidine-3,5-dione**(C₁₅H₁₃N₂O₂; 2652-77-9) see: Kebuzone **α,α -diphenyl-2-pyridinemethanol**(C₁₈H₁₅NO; 19490-90-5) see: Pipradrol**1,1-diphenyl-2-(2-pyridyl)ethanol**(C₁₉H₁₇NO; 1748-99-8) see: Perhexiline**1,1-diphenyl-2-(2-pyridyl)ethylene**(C₁₉H₁₅N; 5733-76-6) see: Perhexiline **α,α -diphenyl-1-pyrrolidinepropanol**(C₁₉H₂₃NO; 6072-22-6) see: Procyclidine**diphenyl sulfide**(C₁₂H₁₀S; 139-66-2) see: Fenticonazole; Stavudine**diphenyl sulfite**(C₁₂H₁₀O₃S; 4773-12-0) see: Zidovudine**diphosgene**(C₂Cl₄O₂; 503-38-8) see: Zolmitriptan**di-*N*-phthaloyl-L-lysine**(C₂₂H₁₈N₂O₆; 29679-02-5) see: Gusperimus trihydrochloride**dipicolinic acid**(C₇H₅NO₄; 499-83-2) see: Pyridinol carbamate**2 β ,16 β -dipiperidino-5 α -androstane-3 α ,17 β -diol**(C₂₉H₅₀N₂O₂; 13522-16-2) see: Pancuronium bromide; Vecuronium bromide**(2 β ,3 α ,5 α ,16 β ,17 β)-2,16-di-1-piperidinylandrostane-3,17-diol diacetate (ester)**(C₃₃H₅₄N₂O₄; 13529-31-2) see: Vecuronium bromide**1-(3,4-dipivaloyloxyphenyl)-2-(benzylmethylamino)ethan-1-one**(C₂₆H₃₃NO₅; 42146-03-2) see: Dipivefrine**dipropylacetonitrile**(C₈H₁₃N; 13310-75-3) see: Valproic acid**dipropylamine**(C₆H₁₃N; 142-84-7) see: Alpidem; Probenecid; Proglumide; Ropinirole; Tiropramide***N,N*-dipropyl-1-propanamine**(C₉H₂₁N; 102-69-2) see: Perfluamine**dipyridamole**(C₂₄H₄₀N₈O₄; 58-32-2) see: Mopidamol**2,3-di(3-pyridyl)butane-2,3-diol**(C₁₄H₁₆N₂O₂; 4989-59-7) see: Metyrapone**di(2-pyridyl) carbonate**(C₁₁H₈N₂O₃; 1659-31-0) see: Paclitaxel**1-(2,6-dipyrrolidino-4-pyrimidinyl)piperazine**(C₁₆H₂₆N₆; 111641-17-9) see: Tirilazad mesilate**(*S*)-1,4-dithia-7-azaspiro[4.4]nonane-8-carboxylic acid hydrobromide**(C₇H₁₂BrNO₂S₂; 75776-79-3) see: Spirapril**1,3-dithiane**(C₄H₈S₂; 505-23-7) see: Nelfinavir mesylate**2,2'-dithiobisbenzothiazole**(C₁₄H₈N₂S₄; 120-78-5) see: Carumonam; Spirapril**dithioisophthalic acid**(C₈H₆O₂S₂; 46081-47-4) see: Ditophal**1,3-dithiole-2-thione**(C₃H₂S₃; 930-35-8) see: Malotilate**3,5-di-*O*-tosyl-2-deoxyribofuranosyl chloride**(C₁₉H₂₁ClO₇S₂) see: Idoxuridine**divinylcarbinol**(C₅H₈O; 922-65-6) see: Tacrolimus**1-dodecanol**(C₁₂H₂₆O; 112-53-8) see: Polidocanol**dodecylamine**(C₁₂H₂₇N; 124-22-1) see: Domiphen bromide**dodecyl bromide**(C₁₀H₂₁Br; 112-29-8) see: Domiphen bromide**dodecyltrimethylamine**(C₁₄H₃₁N; 112-18-5) see: Dodeclonium bromide**dodecyl(2-phenoxyethyl)amine**(C₂₀H₃₅NO) see: Domiphen bromide**DL-dopa**(C₉H₁₁NO₄; 63-84-3) see: Levodopa**dopamine hydrochloride**(C₈H₁₂ClNO₂; 62-31-7) see: Docarpamine; Tretouquinol**doxifluridine**(C₉H₁₁FN₂O₅; 3094-09-5) see: Capecitabine

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edrophonium bromide(C₁₀H₁₆BrNO; 302-83-0) see: Edrophonium chloride**elliptinium iodide**(C₁₈H₁₇IN₂O; 58447-24-8) see: Elliptinium acetate**embonic acid**(C₂₃H₁₆O₆; 130-85-8) see: Pyrvinium embonate**enalapril**(C₂₀H₂₈N₂O₅; 75847-73-3) see: Enalaprilat**enanthic anhydride**(C₁₄H₂₀O₃; 626-27-7) see: Norethisterone enanthate;

Prasterone enanthate; Testosterone enanthate

1-ephedrine(C₁₀H₁₅NO; 299-42-3) see: Cinnamedrine;

Methamphetamine; Thiadrine

epichlorohydrin(C₃H₅ClO; 106-89-8) see: Acebutolol; Alprenolol;

Atenolol; Befunolol; Bepidilol; Betaxolol; Bevantolol;

Bisoprolol; Bopindolol; Bucumolol; Bufetolol; Bunitrolol;

Bupranolol; Butoconazole; Butofilolol; Cadexomer iodine;

Carazolol; Carnitine; Carteolol; Carvedilol; Celiprolol;

Cromoglicic acid; Detajmium bitartrate; Esmolol; Febuprol;

Ganciclovir; Guanoxan; Indeloxacine; Indenolol;

Levobunolol; Levofloxacin; Mepindolol; Metipranolol;

Metoprolol; Milnacipran hydrochloride; Nadolol; Nadoxolol;

Naftopidil; Nifuratel; Nipradilol; Oxprenolol; Penbutolol;

Pindolol; Prenalterol; Prolonium iodide; Propafenone;

Propranolol; Talinolol; Tertatolol; Tilisolol hydrochloride;

Timolol; Toliprolol; Viloxazine; Xamoterol; Xantanol

nicotinate; Xibenolol

(±)-epichlorohydrin

see under epichlorohydrin

epinastine(C₁₆H₁₅N₃; 80012-43-7) see: Epinastine hydrochloride**DL-epinephrine**(C₉H₁₃NO₃; 329-65-7) see: Epinephrine**epinephrine**(C₉H₁₃NO₃; 51-43-4) see: Carbazochrome**epinine**(C₉H₁₃NO₂; 501-15-5) see: Ibopamine**epithiostanol**(C₁₉H₃₀OS; 2363-58-8) see: Mepitiostane**(±)-epivincamine**(C₂₁H₂₆N₂O₃; 18210-81-6) see: Vincamine**(-)-14-epivincamine**(C₂₁H₂₆N₂O₃; 6835-99-0) see: Vincamine**4,5-epoxyandrostane-3,17-dione**(C₁₉H₂₆O₃; 77057-73-9) see: Formestane**(4α,5α,17β)-4,5-epoxyandrost-2-enol[2,3-d]isoxazol-17-ol**(C₂₀H₂₇NO₃; 20051-76-7) see: Trilostane**3,4-epoxy-1-butene**(C₄H₆O; 930-22-3) see: Retinol**1,2-epoxy-3-(2-cyanophenoxy)propane**(C₁₀H₉NO₂; 38465-16-6) see: Bunitrolol; Epanolol**1,2-epoxy-3-(2-cyclopentylphenoxy)propane**(C₁₄H₁₈O₂; 28163-40-8) see: Penbutolol**(±)-1,2-epoxy-3-[p-[2-(cyclopropylmethoxy)ethyl]phenoxy]propane**(C₁₅H₂₀O₃; 63659-17-6) see: Betaxolol**9β,11β-epoxy-17α,21-dihydroxy-16β-methyl-1,4-pregna-diene-3,20-dione 21-acetate**(C₂₄H₃₀O₆; 912-38-9) see: Betamethasone**(5α)-4,5-epoxy-3,14-dihydroxymorphinan-6-one cyclic 1,2-ethanediyl acetal**(C₁₈H₂₁NO₅; 16739-57-4) see: Naltrexone**16α,17-epoxy-3β,11α-dihydroxy-5α-pregnan-20-one**(C₂₁H₃₂O₄; 113454-48-1) see: Halopredone diacetate**(5α,6α,17Z)-5,6-epoxy-3,3-[1,2-ethanediylbis(oxy)]-11-oxopregn-17(20)-en-21-oic acid methyl ester**(C₂₄H₃₂O₆; 985-95-5) see: Fluprednisolone acetate**9,11β-epoxy-6α-fluoro-16α,17,21-trihydroxy-9β-pregn-4-ene-3,20-dione 16,21-diacetate**(C₂₅H₃₁FO₈; 2265-01-2) see: Fluocinolone acetonide**(2α,3α,5α,16α)-2,3-epoxy-16-hydroxyandrostane-17-one**(C₁₉H₂₈O₃) see: Vecuronium bromide**16α,17-epoxy-3β-hydroxy-6,16-dimethylpregn-5-en-20-one acetate**(C₂₅H₃₆O₄; 101611-21-6) see: Melengestrol acetate**5,6α-epoxy-3β-hydroxy-17-methyl-5α-androstane-17β-carboxylic acid methyl ester**(C₂₂H₃₄O₄; 106598-97-4) see: Medrogestone**(9β,11β,17β)-9,11-epoxy-17-hydroxy-17-methylandrost-4-en-3-one**(C₂₀H₂₈O₃; 1042-33-7) see: Fluoxymesterone**(5α,6α)-5,6-epoxy-17-hydroxypregnane-3,20-dione cyclic bis(1,2-ethanediyl acetal)**(C₂₅H₃₈O₆; 3496-78-4) see: Medoxyprogesterone acetate**(6α,7α)-6,7-epoxy-17-hydroxypregn-4-ene-3,20-dione**(C₂₁H₂₈O₄; 4913-88-6) see: Chlormadinone acetate**(3β,16α)-16,17-epoxy-3-hydroxypregn-5-en-20-one**(C₂₁H₃₀O₃; 974-23-2) see: Hydrocortisone;

Hydroxyprogesterone

16α,17α-epoxy-3-methoxyestra-1,3,5(10)-trien-17-ol acetate(C₂₁H₂₆O₄; 39057-00-6) see: Estriol**1,2-epoxy-3-[4-(2-methoxyethyl)phenoxy]propane**(C₁₂H₁₆O₃; 56718-70-8) see: Metoprolol**1,2-epoxy-3-methoxy-3-phenylpropane**(C₁₀H₁₂O₂; 32785-08-3) see: Zipeprol**2,3-epoxy-1-(1-naphthoxy)propane**(C₁₃H₁₂O₂; 2461-42-9) see: Nadoxolol; Naftopidil;

Propranolol

(2R,3S)-1,2-epoxy-4-penten-3-ol(C₅H₈O₂; 100017-22-9) see: Tacrolimus**6α,7α-epoxy-9β,10α-pregn-4-ene-3,20-dione**(C₂₁H₂₈O₃) see: Trengestone**4-(2,3-epoxypropoxy)carbazole**(C₁₅H₁₃NO₂; 51997-51-4) see: Carazolol; Carvedilol**4-(2,3-epoxypropoxy)phenylacetamide**(C₁₁H₁₃NO₃; 29122-69-8) see: Atenolol**1-(2,3-epoxypropoxy)-2-(tetrahydrofurfuryloxy)benzene**(C₁₄H₁₈O₄; 63342-69-8) see: Bufetolol**5-(2,3-epoxypropoxy)-1,2,3,4-tetrahydroquinolin-2-one**(C₁₂H₁₃NO₃; 51781-14-7) see: Carteolol**5-(2,3-epoxypropoxy)-1-tetralone**(C₁₃H₁₄O₃; 27562-62-5) see: Levobunolol**4-(2,3-epoxypropyl)-N-methylisocabostyryl**(C₁₃H₁₃NO₃; 62775-08-0) see: Tilisolol hydrochloride

- (±)-*N*-(2,3-epoxypropyl)phthalimide
(C₁₁H₉NO₃; 5455-98-1) see: Mosapride citrate
- 2,3-epoxypropyl *m*-tolyl ether**
(C₁₀H₁₂O₂; 2186-25-6) see: Bevantolol; Toliprolol
- (2,3-epoxypropyl)trimethylammonium chloride**
(C₉H₁₄ClNO; 3033-77-0) see: Carnitine
- (2α,3α,5α,16β,17β)-2,3-epoxy-16-(1-pyrrolidinyl)androstan-17-ol**
(C₂₃H₃₇NO₂; 119302-19-1) see: Rocuronium bromide
- (5α,6α,11β)-5,6-epoxy-11,17,21-trihydroxypregnane-3,20-dione cyclic bis(1,2-ethanediyl acetal)**
(C₂₅H₃₈O₈; 76338-55-1) see: Cloprednol; Methylprednisolone
- ergocornine + ergocristine + ergocryptine A (1:1:1)**
(unspecified; 8006-25-5) see: Dihydroergotoxine
- ergocristine**
(C₃₅H₃₉N₅O₅; 511-08-0) see: Dihydroergocristine
- ergocryptine**
(C₃₂H₄₁N₅O₅; 511-09-1) see: Bromocriptine
- ergosterol**
(C₂₈H₄₄O; 57-87-4) see: Ergocalciferol
- ergotamin**
(C₃₃H₃₅N₅O₅; 113-15-5) see: Dihydroergotamine
- erythromycin**
(C₃₇H₆₇NO₁₃; 114-07-8) see: Erythromycin estolate; Erythromycin ethylsuccinate; Erythromycin gluceptate; Erythromycin lactobionate; Erythromycin monopropionate mercaptosuccinate; Erythromycin stearate
- erythromycin monopropionate**
(C₄₀H₇₁NO₁₄; 134-36-1) see: Erythromycin estolate
- estra-4,9-diene-3,17-dione**
(C₁₈H₂₂O₂; 5173-46-6) see: Mifepristone
- estradiol**
(C₁₈H₂₄O₂; 50-28-2) see: Estradiol benzoate; Estradiol cypionate; Estradiol valerate; Estradiol undecylate; Estramustine phosphate; Nandrolone; Promestriene
- 17β-estradiol**
see under estradiol
- estradiol benzoate**
(C₂₅H₂₈O₃; 50-50-0) see: Estradiol cypionate
- estradiol 3-benzoate 17-cyclopentanepropionate**
(C₃₃H₄₀O₄; 124513-50-4) see: Estradiol cypionate
- estradiol diundecanoate**
(C₄₀H₆₄O₄; 1263-57-6) see: Estradiol undecylate
- estradiol divalerate**
(C₂₈H₄₀O₄; 63042-28-4) see: Estradiol valerate
- 4,9,11-estratrien-3,17-dione 3-oxime**
(C₁₈H₂₁NO₂; 846-56-0) see: Norgestrienone
- (17β)-estra-1,3,5(10)-triene-3,17-diol 3-[bis(2-chloroethyl)carbamate]**
(C₂₃H₃₁Cl₂NO₃; 2998-57-4) see: Estramustine phosphat
- (17β)-estra-1,3,5(10)-triene-3,17-diol dicyclopentane-propanoate**
(C₃₄H₄₈O₄; 633-36-3) see: Estradiol cypionate
- estriol**
(C₁₈H₂₄O₃; 50-27-1) see: Estriol succinate
- estrone**
(C₁₈H₂₂O₂; 53-16-7) see: Estradiol; Ethinylestradiol; Quinestrol
- estrone 3-cyclopentyl ether**
(C₂₃H₃₀O₂; 1852-81-9) see: Quinestrol
- estrone 3-methyl ether**
(C₁₉H₂₄O₂; 1624-62-0) see: Estriol; Mestranol; Methyltestosterone; Norethisterone; Noretynodrel; Promegestone
- ethane-1,2-dithiol**
(C₂H₆S₂; 540-63-6) see: Allylestrenol; Anagestone acetate; Desogestrel; Ethylestrenol; Lynestrenol; Spirapril
- N,N'*-1,2-ethanediylbis[*N*-methyl-β-alanine] dimethyl ester**
(C₁₂H₂₄N₂O₄; 14511-01-4) see: Hexobendine
- (*Z*)-3-[1,2-ethanediylbis(oxy)]-11-oxopregna-4,17(20)-dien-21-oic acid**
(C₂₃H₃₀O₅) see: Hydrocortisone
- ethanethioic acid *S*-(3-chloro-2-methyl-3-oxopropyl) ester**
(C₆H₉ClO₂S; 64805-64-7) see: Captopril
- ethanethioic acid potassium salt**
(C₂H₇KOS; 10387-40-3) see: Biotin
- 9,10-ethanoanthracene-9(10*H*)-propionic acid**
(C₁₉H₁₈O₂; 6812-49-3) see: Maprotiline
- 6,14-endo-ethano-7α-[(1*S*)-1-hydroxy-1,2,2-trimethylpropyl]tetrahydronorthebaine**
(C₂₆H₃₇NO₄; 16614-59-8) see: Buprenorphine
- 6,14-endo-ethano-7α-[(1*S*)-1-hydroxy-1,2,2-trimethylpropyl]tetrahydrothebaine**
(C₂₇H₃₉NO₄; 16196-70-6) see: Buprenorphine
- ethanol**
(C₂H₆O; 64-17-5) see: Actarit; Alfentanil; Alibendol; Amfenac sodium; Beclobrate; Candesartan cilexetil; Chloral hydrate; Dicycloverine; Dimethadione; Efonidipine hydrochloride ethanol; Eprazinol; Ethambutol; Ethionamide; Ethoheptazine; Ethyl biscoumacetate; Etiroxate; Fenoxazoline; Flurbiprofen; Indobufen; Indoramin; Isocarboxazid; Lofexidine; Methotrexate; Methylodopate; Methylphenobarbital; Nadoxolol; Naphazoline; Perindopril; Phenobarbital; Propiverine; Protionamide; Proxazole; Pyridoxine; Retinol; Thiamphenicol; Tolazoline; Tribenoside
- ethanolamine**
(C₂H₇NO; 141-43-5) see: Alibendol; Butethamine; Cyclopirox; Cloxazolam; Flomoxef; Haloxazolam; Ioxitalamic acid; Ketanserin; Levamisole; Lomustine; Mabuprofen; Miltefosine; Nicorandil; Oxetacaine; Phenoxybenzamine; Piperazine
- [*S*-(*R**,*S**)-1-[[1-(1-ethenyl-5-ethoxy-2-methoxy-4-pentynyl)oxy]methyl]-4-methoxybenzene**
(C₁₈H₂₄O₄; 118207-37-7) see: Tacrolimus
- [7*R*-(7*R**,8*S**,10*R**)]-7-ethenyl-10-(phenylmethoxy)-8-heneicosanol**
(C₃₀H₅₂O₂; 153011-63-3) see: Orlistat
- [7*S*-(7*R**,8*R**,10*S**)]-7-ethenyl-10-(phenylmethoxy)-8-heneicosanol**
(C₃₀H₅₂O₂; 153064-95-0) see: Orlistat
- 1-ethenyl-1,2,3,4-tetrahydro-6-methoxy-1-naphthalenol**
(C₁₃H₁₆O₂; 3125-36-8) see: Levonorgestrel
- 1,1',1''-(1-ethenyl-2-ylidene)tris[4-methoxybenzene]**
(C₂₃H₂₂O₃; 7109-27-5) see: Chlorotrianisene
- ethisterone**
(C₂₁H₂₈O₂; 434-03-7) see: Danazol; Hydroxyprogesterone
- ethoxalyl chloride**
see under chloroglyoxylic acid ethyl ester
- ethoxyacetyl chloride**
(C₄H₇ClO₂; 14077-58-8) see: Imiquimod

ethoxyacetylene(C₄H₆O; 927-80-0) see: Tacrolimus**β-ethoxyacryloyl chloride**(C₈H₇ClO₂; 6191-99-7) see: Vesnarinone**(3β)-3-ethoxyandrost-5-en-17-one**(C₂₁H₃₂O₂; 62502-29-8) see: Methandriol**2-ethoxyaniline**(C₈H₁₁NO; 94-70-2) see: Actinoquinol**4-ethoxyaniline**(C₈H₁₁NO; 156-43-4) see: Ethacridine; Ethoxzolamide; Lactylphenetid; Phenacetin**2-(4-ethoxyanilino)-4-nitrobenzoic acid**(C₁₅H₁₄N₂O₅; 74859-51-1) see: Ethacridine**2-ethoxybenzoic acid**(C₉H₁₀O₃; 134-11-2) see: Sildenafil**4-ethoxybenzoic acid**(C₉H₁₀O₃; 619-86-3) see: Parethoxycaine**6-ethoxybenzothiazole-2-sulfenamide**(C₉H₁₀N₂OS₂; 5304-15-4) see: Ethoxzolamide**6-ethoxybenzothiazole-2-thiole**(C₉H₉NOS₂; 120-53-6) see: Ethoxzolamide**4-[(2-ethoxybenzoyl)amino]-1-methyl-3-propyl-1H-pyrazole-5-carboxamide**(C₁₇H₂₂N₄O₃; 139756-03-9) see: Sildenafil**2-ethoxybenzoyl chloride**(C₉H₉ClO₂; 42926-52-3) see: Sildenafil**4-ethoxybenzoyl chloride**(C₉H₉ClO₂; 16331-46-7) see: Parethoxycaine**4-(ethoxycarbonylamino)benzenesulfonyl chloride**(C₉H₁₀ClNO₄S; 21208-62-8) see: Sulfaphenazole**2-[(ethoxycarbonyl)amino]benzoic acid ethyl ester**(C₁₂H₁₅NO₄; 108890-73-9) see: Ketanserin**3-ethoxycarbonyl-1-benzyl-4-piperidone**(C₁₅H₁₉NO₃; 41276-30-6) see: Benperidol; Droperidol**N-[(S)-1-ethoxycarbonylbutyl]-L-alanine**(C₁₀H₁₉NO₄; 82834-12-6) see: Perindopril**[2S-[1[R*(R*)],2α,3αβ,7αβ]]-1-[2-[1-(ethoxycarbonyl)butyl]amino]-1-oxopropyl]octahydro-1H-indole-2-carboxylic acid phenylmethyl ester**(C₂₆H₃₈N₂O₅; 122454-52-8) see: Perindopril**4-ethoxycarbonyl-1,2-cyclopentandiol**(C₈H₁₄O₄; 115956-02-0) see: Dolasetron mesilate**3-ethoxycarbonyl-4-(3,4-dichlorophenyl)-4-phenylbut-3-enoic acid**(C₁₉H₁₆Cl₂O₄; 79560-16-0) see: Sertraline**7-ethoxycarbonyl-9-(ethoxycarbonylmethyl)-9-azabicyclo[3.3.1]nonan-3-one**(C₁₅H₂₃NO₃; 115956-03-1) see: Dolasetron mesilate**2-[4-(ethoxycarbonyl)-3-ethoxyphenyl]acetic acid**(C₁₃H₁₆O₅; 99469-99-5) see: Repaglinide**4-ethoxycarbonyl-5-(4-fluorophenyl)-2-methylpent-4-en-3-one**(C₁₅H₁₇FO₃; 122930-45-4) see: Cerivastatin sodium**(±)-trans-3-ethoxycarbonyl-4-(4-fluorophenyl)-N-methylpiperidine-2,6-dione**(C₁₅H₁₆FNO₄; 109887-52-7) see: Paroxetine**β-ethoxycarbonylglutaraldehyde**(C₈H₁₂O₄; 115973-49-4) see: Dolasetron mesilate**N-ethoxycarbonyl-14-hydroxy-3-methoxyisomorphinan**(C₂₀H₂₇NO₄; 58115-90-5) see: Butorphanol**3-ethoxycarbonyl-4-hydroxy-2-methyl-2H-1,2-benzothiazine 1,1-dioxide**(C₁₂H₁₃NO₃S; 24683-26-9) see: Droxicam; Isoxicam**3-ethoxycarbonyl-4-hydroxy-2-methyl-2H-thieno[2,3-e]-1,2-thiazine 1,1-dioxide**(C₁₀H₁₁NO₃S₂; 98827-42-0) see: Tenoxicam**3-ethoxycarbonyl-4-hydroxy-8-trifluoromethylquinoline**(C₁₃H₁₀F₃NO₃; 23851-84-5) see: Floctafenine**3-ethoxycarbonyl-4-hydroxy-6,7,8-trifluoroquinoline**(C₁₂H₈F₃NO₃; 80104-36-5) see: Lomefloxacin**(R)-5-ethoxycarbonyl-2-mercapto-1-(1-phenylethyl)-imidazole**(C₁₄H₁₆N₂O₂S; 84711-26-2) see: Etomidate**N-ethoxycarbonyl-3-methoxy-8,14-didehydromorphinan**(C₂₀H₂₅NO₃; 58025-69-7) see: Butorphanol**2'-ethoxycarbonylmethoxy-4'-(3-methyl-2-butenyloxy)-acetophenone**(C₁₇H₂₂O₃; 64506-46-3) see: Sofalcone**3-ethoxycarbonyl-2-methyl-5,6-dihydro-4H-pyran**(C₉H₁₄O₃) see: Pentoxifylline**(R)-N-(ethoxycarbonylmethyl)-N-formyl-1-phenylethylamine**(C₁₃H₁₇NO₃; 66514-85-0) see: Etomidate**(R)-N-(ethoxycarbonylmethyl)-1-phenylethylamine**(C₁₂H₁₇NO₂; 66512-37-6) see: Etomidate**N¹-ethoxycarbonyl-2-methylpiperazine**(C₈H₁₆N₂O₂; 120737-73-7) see: Temafloxacin**7a-ethoxycarbonylmethylpyrrolizine**(C₁₁H₁₉NO₂; 88069-56-1) see: Pilsicainide**6-ethoxycarbonyl-2-methylthio-5-oxo-5,8-dihydropyridol[2,3-d]pyrimidine**(C₁₁H₁₁N₃O₃S; 34711-92-7) see: Pipemidic acid**4-[[1-(ethoxycarbonyl)-2-oxocyclopentyl]methyl]-α-methylbenzenecetic acid ethyl ester**(C₂₀H₂₆O₅; 68767-26-0) see: Loxoprofen**(S)-N-(1-ethoxycarbonyl-3-oxo-3-phenylpropyl)-L-alanine**(C₁₅H₁₉NO₅; 87269-99-6) see: Ramipril**1-[N-[1-(ethoxycarbonyl)-3-oxo-3-phenylpropyl]-L-alanyl]-L-proline phenylmethyl ester**(C₂₇H₃₂N₂O₆; 105878-11-3) see: Enalapril**17α-(ethoxycarbonyloxy)-11β-hydroxy-3-oxoandrosta-1,4-diene-17-carboxylic acid**(C₂₃H₃₀O₇; 133991-63-6) see: Loteprednol etabonate**(3β,16β,17α,18β,20α)-18-[3-[4-[(ethoxycarbonyl)oxy]-3-methoxyphenyl]-1-oxo-2-propenyl]oxy]-11,17-dimethoxyyohimban-16-carboxylic acid methyl ester**(C₃₆H₄₂N₂O₁₀; 49806-34-0) see: Rescimetol**N-(1-ethoxycarbonyl-3-phenylpropyl)-L-alanine**(C₁₇H₁₃NO₄) see: Quinapril hydrochloride**N-[1(S)-ethoxycarbonyl-3-phenylpropyl]-L-alanine**(C₁₅H₂₁NO₄; 82717-96-2) see: Imidapril; Moexipril; Quinapril hydrochloride; Spirapril; Trandolapril**N-[1(S)-ethoxycarbonyl-3-phenylpropyl]-L-alanine benzo-thiazol-2-ylthio ester**(C₂₃H₂₄N₂O₃S₂; 124492-03-1) see: Spirapril**N-[1(S)-ethoxycarbonyl-3-phenylpropyl]-L-alanine benzyl ester**(C₂₂H₂₇NO₄; 82717-95-1) see: Spirapril

- N*-(1-ethoxycarbonyl-3-phenylpropyl)-L-alanine *tert*-butylester
(C₁₉H₂₉NO₄) see: Quinapril hydrochloride
- N*-[1(*S*)-ethoxycarbonyl-3-phenylpropyl]-L-alanine *tert*-butyl ester
(C₁₉H₂₉NO₄; 80828-38-2) see: Moexipril
- [4*S*-[3(*R**(*R**)),4*R**]-3-[2-[[1-(ethoxycarbonyl)-3-phenylpropyl]amino]-1-oxopropyl]-1-methyl-2-oxo-4-imidazolidinecarboxylic acid 1,1-dimethylethyl ester
(C₂₄H₃₅N₃O₆; 89371-38-0) see: Imidapril
- [3*S*-[2(*R**(*R**)),3*R**]-2-[2-[[1-(ethoxycarbonyl)-3-phenylpropyl]amino]-1-oxopropyl]-1,2,3,4-tetrahydro-3-isoquinolinecarboxylic acid 1,1-dimethylethyl ester
(C₂₉H₃₈N₂O₅; 82586-56-9) see: Quinapril hydrochloride
- (2*S*,6*R*)-6-[[1(*S*)-ethoxycarbonyl-3-phenylpropyl]amino]-5-oxo-2-(2-thienyl)perhydro-1,4-thiazepine
(C₂₁H₂₆N₂O₃S₂; 110143-57-2) see: Temocapril
- (2*S*)-2-[(1*S*)-1-ethoxycarbonyl-3-phenylpropylamino]propionic acid
see under *N*-[1(*S*)-ethoxycarbonyl-3-phenylpropyl]-L-alanine
- (2*S*)-2-[(1*S*)-1-ethoxycarbonyl-3-phenylpropylamino]propionic acid succinimido ester
(C₁₉H₂₄N₂O₆; 89371-34-6) see: Imidapril; Spirapril
- [2*S*-[2α,6β(*R**))] -6-[[1-(ethoxycarbonyl)-3-phenylpropyl]amino]tetrahydro-5-oxo-2-(2-thienyl)-1,4-thiazepine-4(5*H*)-acetic acid 1,1-dimethylethyl ester
(C₂₇H₃₆N₂O₅S₂; 110221-37-9) see: Temocapril
- N*²-[(1*S*)-1-(ethoxycarbonyl)-3-phenylpropyl]-*N*⁶-(trifluoroacetyl)-l-lysyl-l-proline
(C₂₅H₃₄F₃N₃O₆; 103300-91-0) see: Lisinopril
- N*-ethoxycarbonylphthalimide
see under *N*-carbethoxyphthalimide
- 1-ethoxycarbonylpiperazine
see under *N*-carbethoxypiperazine
- 7-[4-(ethoxycarbonyl)-1-piperazinyl]-6-fluoro-1,4-dihydro-4-oxo-1,8-naphthyridine-3-carboxylic acid ethyl ester
(C₁₈H₂₁FN₄O₅; 75167-04-3) see: Enoxacin
- 1-(ethoxycarbonyl)-4-piperidinone
(C₈H₁₃NO₃; 29976-53-2) see: Cisapride; Endralazine; Loratadine
- 4-[3-(ethoxycarbonyl)propyl]-1*H*-imidazole
(C₉H₁₄N₂O₂; 49549-65-7) see: Fadrozole
- 1-(ethoxycarbonyl)-1,2,5,6-tetrahydro-4-(1-pyrrolidinyl)-3-pyridineacetic acid ethyl ester
(C₁₆H₂₆N₂O₄) see: Endralazine
- N*-ethoxycarbonylthiopropionamide
(C₆H₁₁NO₂S; 59812-12-3) see: Nefazodone hydrochloride
- 6-ethoxy-2-dimethylaminobenzothiazole
(C₁₁H₁₄N₂OS; 5304-29-0) see: Dimazole
- 3-ethoxy-2,6-dimethyl-8-(2,6,6-trimethyl-1-cyclohexen-1-yl)-4,6-octadienal diethyl acetal
(C₂₅H₄₄O₃; 114400-84-9) see: Betacarotene
- threo*-2-(1-ethoxyethoxy)-3-(*tert*-butoxycarbonylamino)-3-phenylpropionic acid
(C₁₈H₂₇NO₆) see: Docetaxel
- 4-(1-ethoxyethoxy)-3,4-dihydro-2-(3-methoxypropyl)-2*H*-thieno[3,2-*e*]-1,2-thiazine 1,1-dioxide
(C₁₄H₂₃NO₅S₂; 165116-92-7) see: Brinzolamide
- 4-(1-ethoxyethoxy)-3,4-dihydro-2-(3-methoxypropyl)-2*H*-thieno[3,2-*e*]-1,2-thiazine-6-sulfonamide 1,1-dioxide
(C₁₄H₂₄N₂O₇S₃) see: Brinzolamide
- 3-ethoxy-2-ethoxymethylenepropionitrile
(C₈H₁₃NO₂; 34450-87-8) see: Thiamine
- 4-(3-ethoxy-2-hydroxypropoxy)aniline
(C₁₁H₁₃NO₃; 94056-98-1) see: Suplatast tosilate
- N*-[4-(3-ethoxy-2-hydroxypropoxy)phenyl]-3-(methylthio)propanamide
(C₁₅H₂₃NO₄S; 94057-02-0) see: Suplatast tosilate
- 1-(4-ethoxy-3-methoxybenzyl)-3,4-dihydro-6,7-dimethoxy-3-methylisoquinoline
(C₂₂H₂₇NO₄; 111211-22-4) see: Dimoxylone
- 4-ethoxy-3-methoxyphenylacetic acid
(C₁₁H₁₄O₄; 120-13-8) see: Dimoxylone
- α-(ethoxymethylene)-3,5-dimethoxy-4-(2-methoxyethoxy)benzenepropanoic acid ethyl ester
(C₁₉H₂₈O₇) see: Tetroxoprim
- ethoxymethylenemalonic acid diethyl ester
see under diethyl ethoxymethylenemalonate
- ethoxymethylenemalononitrile
(C₆H₆N₂O; 123-06-8) see: Pemirolast; Thiamine; Zaleplon
- 2-(ethoxymethylene)-3-oxo-*N*-[4-(trifluoromethyl)phenyl]butanamide
(C₁₄H₁₄F₃NO₃; 75706-11-5) see: Leflunomide
- α-(ethoxymethylene)-2,4,5-trifluoro-3-methoxy-β-oxobenzenepropanoic acid ethyl ester
(C₁₅H₁₅F₃O₅; 122375-85-3) see: Moxifloxacin hydrochloride
- 5-ethoxy-4-methoxazole
(C₆H₉NO₂; 5006-20-2) see: Pyridoxine
- 2-ethoxy-5-(4-methylpiperazin-1-ylsulfonyl)benzoic acid
(C₁₄H₂₀N₂O₅S; 194602-23-8) see: Sildenafil
- 4-[[2-ethoxy-5-[(4-methyl-1-piperazinyl)sulfonyl]benzoyl]amino]-1-methyl-3-propyl-1*H*-pyrazole-5-carboxamide
(C₂₂H₃₂N₆O₅S; 200575-15-1) see: Sildenafil
- 2-(ethoxymethyl)-3-(3,4,5-trimethoxyphenyl)-2-propenenitrile
(C₁₅H₁₉NO₄; 50844-85-4) see: Trimethoprim
- 3-ethoxy-4-methyl-6-(2,6,6-trimethyl-1-cyclohexen-1-yl)-4-hexenal diethyl acetal
(C₂₂H₄₀O₃; 114162-01-5) see: Betacarotene
- 2-ethoxy-1-naphthoyl chloride
(C₁₃H₁₁ClO₂; 55150-29-3) see: Nafcillin
- 2-ethoxy-4-nitrobenzoic acid
(C₉H₉NO₃; 2486-66-0) see: Cinitapride
- N*-(2-ethoxy-2-oxoethyl)-4-(methoxycarbonyl)pyridinium bromide
(C₁₁H₁₄BrNO₄) see: Clidinium bromide
- 3-[[[2-(ethoxy-2-oxoethyl)methylamino]sulfonyl]-2-thiophenecarboxylic acid methyl ester
(C₁₁H₁₅NO₆S₂; 59804-24-9) see: Tenoxicam
- 3-ethoxy-17-oxo-19-nor-3,5-androstadiene
(C₂₀H₂₈O₂; 2863-88-9) see: Methyltestosterone; Norethisterone
- 4-[[3-(ethoxy-3-oxopropyl)methylamino]butanoic acid ethyl ester
(C₁₂H₂₃NO₄; 109386-70-1) see: Azelastine

N-(3-ethoxy-3-oxopropyl)-*N*-(phenylmethyl)- β -alanine

ethyl ester

(C₁₇H₂₅NO₄; 6938-07-4) see: Benperidol

2-ethoxyphenol

(C₈H₁₀O₂; 94-71-3) see: Tamsulosin hydrochloride;

Viloxazine

2-ethoxyphenol sodium salt

(C₈H₉NaO₂; 63449-45-6) see: Reboxetine

1-(2-ethoxyphenoxy)-2,3-epoxypropane

(C₁₁H₁₄O₃; 5296-35-5) see: Viloxazine

2-[(2-ethoxyphenoxy)methyl]-4-(phenylmethyl)morpholine

(C₂₀H₂₅NO₃; 47374-79-8) see: Viloxazine

6-[(2-ethoxyphenoxy)methyl]-4-(phenylmethyl)-3-morpholinone

(C₂₀H₂₃NO₄; 70154-82-4) see: Viloxazine

1-(2-ethoxyphenoxy)-3-[(phenylmethyl)amino]-2-propanol

(C₁₈H₂₃NO₃; 23184-52-3) see: Viloxazine

(*R**,*R**)-[(2-ethoxyphenoxy)phenylmethyl]oxirane

(C₁₇H₁₈O₃; 98769-72-3) see: Reboxetine

(*R**,*R**)-3-(2-ethoxyphenoxy)-3-phenyl-1,2-propanediol

2-methanesulfonate 1-(4-nitrobenzoate)

(C₂₅H₂₅NO₆S) see: Reboxetine

5-(2-ethoxyphenyl)-1,4-dihydro-1-methyl-3-propyl-7*H*-pyrazolo[4,3-*d*]pyrimidin-7-one

(C₁₇H₂₀N₄O₂; 139756-21-1) see: Sildenafil

N-(4-ethoxyphenyl)-*N*,*N*-dimethylthiourea

(C₁₁H₁₆N₂OS; 5304-13-2) see: Dimazole

1-(2-ethoxy-2-phenylethyl)piperazine

(C₁₄H₂₂N₂O; 6722-51-6) see: Eprazinone

4-ethoxyphenyl isothiocyanate

(C₉H₉NOS; 3460-49-9) see: Dimazole

3-ethoxypropionitrile

(C₅H₉NO; 2141-62-0) see: Thiamine; Trimethoprim

(1*β*,16*α*)-17,21-[(1-ethoxypropylidene)bis(oxy)]-11-hydroxy-16-methylpregna-1,4,6-triene-3,20-dione

(C₂₇H₃₆O₆; 67212-72-0) see: Alclometasone dipropionate

3-ethoxypropylmagnesium bromide

(C₅H₁₁BrMgO; 121317-16-6) see: Biotin

8-ethoxyquinoline

(C₁₁H₁₁NO; 1555-94-8) see: Actinoquinol

(3*β*,22*E*)-3-ethoxystigmasta-5,22-diene

(C₃₁H₅₂O; 63201-36-5) see: Methandriol

β -ethoxystyrene

(C₁₀H₁₂O; 17655-74-2) see: Bendroflumethiazide

(6*R*-*trans*)-3-[[[(ethoxythioxomethyl)thio]methyl]-8-oxo-7-[(2-thienylacetyl)amino]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid (4-nitrophenyl)methyl ester

(C₂₄H₂₃N₃O₇S₄) see: Cefaclor

4-ethoxy-*N,N,N*-trimethyl-2,4-dioxo-1-butanaminium chloride

(C₉H₁₈ClNO₃; 10485-23-1) see: Carnitine

ethoxytrimethylsilane

(C₅H₁₄OSi; 1825-62-3) see: Dimethicone

2-ethoxy-1-[2'-(1-triphenylmethyltetrazol-5-yl)biphenyl-4-ylmethyl]benzimidazole-7-carboxylic acid

(C₄₃H₃₄N₆O₃; 139481-72-4) see: Candesartan cilexetil

ethyl 2-acetamido-2-(ethoxycarbonyl)-3-(2-oxo-1,2-dihydroquinolin-4-yl)propionate

(C₁₉H₂₂N₂O₆; 4900-38-3) see: Rebamipide

ethyl acetate

(C₄H₈O₂; 141-78-6) see: Meglutol; Methyl dopa; Milrinone; Mofezolac; Perindopril

ethyl acetoacetate

see under acetoacetic acid ethyl ester

(\pm)-ethyl 3-[4-[(6-acetoxy-2,5,7,8-tetramethylchroman-2-yl)methoxy]phenyl]-2-chloropropionate

(C₂₇H₃₃ClO₆; 97322-68-4) see: Troglitazone

ethyl (3*R*,4*R*,5*S*)-4-(acetylamino)-5-azido-3-(1-ethylpropoxy)-1-cyclohexene-1-carboxylate

(C₁₆H₂₆N₄O₄; 204255-06-1) see: Oseltamivir

ethyl acrylate

(C₅H₈O₂; 140-88-5) see: Acrivastine; Azelastine; Benperidol; Benzquinamide; Setipitiline; Troglitazone

ethyl adipoyl chloride

(C₈H₁₃ClO₂; 1071-71-2) see: Dopexamine; Thiocctic acid

ethyl 5-allyl-2-hydroxy-3-methoxybenzoate

(C₁₃H₁₆O₄; 7152-89-8) see: Alibendol

ethylamine

(C₂H₇N; 75-04-7) see: Alverine; Brinzolamide; Cadralazine; Crotetamide; Dorzolamide; Etilerfrine; Mebeverine; Piperidolate; Tropicamide

ethyl (1*α*,5*α*,6*α*)-7-(6-amino-3-azabicyclo[3.1.0]hex-3-yl)-1-(2,4-difluorophenyl)-6-fluoro-1,4-dihydro-4-oxo-1,8-naphthyridine-3-carboxylate

(C₂₂H₁₉F₃N₄O₃; 171176-56-0) see: Alatrofloxacin mesilate

ethyl 4-aminobenzoate

(C₉H₁₁NO₂; 94-09-7) see: Procaine; Tetracaine

L-ethyl 2-aminobutyrate hydrochloride

(C₆H₁₄ClNO₂; 91462-82-7) see: Ethambutol

ethyl *N*-(2-amino-6-chlorobenzyl)glycinate

(C₁₁H₁₅ClN₂O₂) see: Anagrelide hydrochloride

ethyl (3*R*,4*S*)-*rel*-4-[(4-amino-5-chloro-2-methoxybenzoyl)amino]-3-methoxy-1-piperidinecarboxylate

(C₁₇H₂₄ClN₃O₃; 83863-70-1) see: Cisapride

α -ethyl-3-aminocinnamic acid

(C₁₁H₁₃NO₂; 59150-78-6) see: Bunamiodyl

ethyl 3-aminocrotonate

(C₆H₁₁NO₂; 7318-00-5) see: Felodipine; Lacidipine

ethyl 1-amino-1-cyclopentanecarboxylate

(C₈H₁₅NO₂; 1664-35-3) see: Irbesartan

ethyl 5-amino-1-cyclopropyl-6,7,8-trifluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylate

(C₁₅H₁₃F₃N₂O₃; 103772-13-0) see: Sparfloxacin

ethyl 5-amino-2,2-diethyl-3-oxo-4-pentenoate

(C₁₁H₁₉NO₃; 74367-91-2) see: Methpyrlyon; Pyrithyldione

(4*R*-*trans*)-4-(ethylamino)-5,6-dihydro-6-methyl-4*H*-thieno[2,3-*b*]thiopyran-2-sulfonamide 7,7-dioxide

(C₁₀H₁₆N₂O₄S₃; 120279-95-0) see: Dorzolamide

2-(ethylamino)-*N,N*-dimethylbutanamide

(C₈H₁₈N₂O; 84803-61-2) see: Crotetamide

2-(ethylamino)ethanol

(C₇H₁₁NO; 110-73-6) see: Bamifylline;

Hydroxychloroquine

ethyl β -amino- β -ethoxyacrylate

(C₇H₁₃NO₃; 39632-87-6) see: Muzolimine

ethyl 7-aminoheptanoate

(C₉H₁₉NO₃; 1117-66-4) see: Amineptine; Tianeptine

sodium

- ethyl (2R,3S)-3-amino-2-hydroxy-3-phenylpropionate**
(C₁₁H₁₃NO₃; 143615-00-3) see: Docetaxel
- ethyl threo-3-amino-2-hydroxy-3-phenylpropionate**
(C₁₁H₁₃NO₃; 126150-57-0) see: Docetaxel; Paclitaxel
- 2-ethylamino-1-(4-methoxyphenyl)propane**
(C₁₂H₁₉NO; 14367-46-5) see: Mebeverine
- ethyl (±)-cis-4-amino-3-methoxy-1-piperidinecarboxylate**
(C₉H₁₈N₂O₃; 86717-62-6) see: Cisapride
- ethyl 3-amino-4-methyl-2-pentenoate**
(C₈H₁₅NO₂; 70106-45-5) see: Cerivastatin sodium
- ethyl 4-amino-α-methylphenylacetate**
(C₁₁H₁₅NO₂; 32868-25-0) see: Indoprofen
- (-)-(S)-1-ethyl-2-(aminomethyl)pyrrolidine**
(C₇H₁₆N₂; 22795-99-9) see: Remoxipride
- ethyl (2S)-2-amino-4-phenylbutyrate**
(C₁₂H₁₇NO₂; 46460-23-5) see: Imidapril
- ethyl 4-aminopiperidine-1-carboxylate**
(C₈H₁₆N₂O₂; 58859-46-4) see: Astemizole; Domperidone
- 3-(ethylamino)propionitrile**
(C₅H₁₀N₂; 21539-47-9) see: Sulfacitine
- 4-ethylamino-3-propyl-2-hydroxyacetophenone**
(C₁₃H₁₉NO₂; 69049-68-9) see: Nedocromil
- ethyl 5-aminopyrazole-4-carboxylate**
(C₆H₉N₃O₃; 6994-25-8) see: Allopurinol
- ethyl (3S)-3-amino-2,3,4,5-tetrahydro-2-oxo-1H-1-benzazepin-1-acetate**
(C₁₄H₁₈N₂O₃; 86499-52-7) see: Benazepril
- ethyl (Z)-2-(2-aminothiazol-4-yl)-2-hydroxyiminoacetate**
(C₇H₉N₃O₃S; 64485-82-1) see: Carumonam; Cefotaxime
- ethyl 2-(2-amino-4-thiazolyl)-2(Z)-hydroxyiminoacetate**
see under ethyl (Z)-2-(2-aminothiazol-4-yl)-2-hydroxyiminoacetate
- ethyl 2-(2-amino-4-thiazolyl)-2-(methoxyimino)acetate**
(C₈H₁₁N₃O₃S; 60846-15-3) see: Cefotaxime; Ceftriaxone
- 2-ethylaniline**
(C₈H₁₁N; 578-54-1) see: Etodolac
- ethyl 3-anilinoacarbonylacetate**
(C₁₅H₁₆N₂O₂; 37711-28-7) see: Moracizine
- ethyl anthranilate**
(C₉H₁₁NO₂; 87-25-2) see: Ketanserin
- ethyl 3-(1-β-D-arabinofuranosyl-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl)-2-bromo-2-propenoate**
(C₁₄H₁₇BrN₂O₈; 95041-54-6) see: Sorivudine
- ethyl atropate**
(C₁₁H₁₂O₂; 22286-82-4) see: Bomaprine; Tilidine
- ethyl 4-(2-azidoethoxy)acetate**
(C₈H₁₃N₃O₄; 88150-45-2) see: Amlodipine
- ethyl 3-azido-2,3,4,5-tetrahydro-2-oxo-1H-1-benzazepin-1-acetate**
(C₁₄H₁₆N₄O₃; 95384-20-6) see: Benazepril
- 2-ethylbenzenediazonium chloride**
(C₈H₉ClN₂) see: Etodolac
- α-ethylbenzeneethanimidamide**
(C₁₀H₁₄N₂) see: Proxazole
- ethyl benzenesulfonate**
(C₈H₁₀O₃S; 515-46-8) see: Ethylmorphine
- ethyl benzilate**
(C₁₆H₁₆O₃; 52182-15-7) see: Benactyzine; Benzonium bromide; Bevonium metilsulfate; Propiverine; Tropenziline bromide
- 2-ethylbenzofuran**
(C₁₀H₁₀O; 3131-63-3) see: Benzarone
- 2-ethylbenzo[*b*]thiophene**
(C₁₀H₁₀S; 1196-81-2) see: Zileuton
- ethyl 3-benzoylacrylate**
(C₁₂H₁₂O₃; 17450-56-5) see: Enalapril; Ramipril
- ethyl 2-benzoylbutyrate**
(C₁₃H₁₆O₃; 24346-56-3) see: Piperylone
- 4-ethylbenzoyl chloride**
(C₉H₉ClO; 16331-45-6) see: Suprofen
- ethyl 6-benzoyl-hexanoate**
(C₁₅H₂₀O₃; 112665-41-5) see: Seratrodast
- ethyl α-benzylacetacetate**
(C₁₃H₁₆O₃; 620-79-1) see: Diazepam; Nimetazepam
- ethyl (1α,5α,6α)-3-benzyl-2,4-dioxo-3-azabicyclo[3.1.0]hexane-6-carboxylate**
(C₁₅H₁₅NO₄; 134575-06-7) see: Trovafloxacin mesilate
- ethyl 1-benzyl-4-oxo-piperidine-3-carboxylate**
see under 3-ethoxycarbonyl-1-benzyl-4-piperidone
- ethyl 4-benzyloxyphenylacetate**
(C₁₇H₁₈O₃; 56441-69-1) see: Betaxolol
- ethyl (2-benzylphenyl)acetate**
(C₁₇H₁₈O₂; 108976-72-3) - see: Sctiptiline
- ethyl 3-(2-benzylphenyl)-1-methyl-4-oxopiperidine-5-carboxylate**
(C₂₂H₂₅NO₃; 57262-96-1) see: Sctiptiline
- ethyl bicyclohexyl-1-carboxylate**
(C₁₅H₂₆O₂; 60263-55-0) see: Dicycloverine
- ethyl bromide**
(C₂H₅Br; 74-96-4) see: Actinoquinol; Amobarbital; Benzilium bromide; Cyclobarbitol; Edrophonium chloride; Heptabarb; Mephentoin; Methylphenobarbital; Norfloxacin; Oxitropium bromide; Phenobarbital; Remoxipride; Secbutabarbitol; Valdetamide
- ethyl bromoacetate**
(C₄H₇BrO₂; 105-36-2) see: Anagrelide hydrochloride; Benazepril; Carbocromen; Cefazidone; Cicrotoic acid; Clidinium bromide; Endralazine; Pramiracetam hydrochloride; Rofecoxib; Sofalcone
- ethyl 2-bromoacetate**
see under ethyl bromoacetate
- ethyl α-bromobutyrate**
(C₆H₁₁BrO₂; 533-68-6) see: Cyclobutylol
- 2-ethyl-2-bromobutyryl bromide**
(C₆H₁₀Br₂O; 26074-53-3) see: Carbromal
- ethyl bromodifluoroacetate**
(C₄H₅BrF₂O₂; 667-27-6) see: Gemcitabine
- ethyl 2-bromo-2-(4-fluorophenyl)acetate**
(C₁₀H₁₀BrFO₂; 712-52-7) see: Atorvastatin calcium
- ethyl 4-bromo-3(S)-hydroxybutanoate**
(C₆H₁₁BrO₃; 95310-94-4) see: Atorvastatin calcium
- ethyl α-bromoisobutyrate**
see under α-bromoisobutyric acid ethyl ester
- ethyl 4-bromo-2-(methoxyimino)acetate**
(C₇H₁₀BrNO₄; 60845-87-6) see: Cefotaxime
- ethyl 2-bromomethylbenzoate**
(C₁₀H₁₁BrO₂; 7115-91-5) see: Doxepin
- ethyl 4-(bromomethyl)cinnamate**
(C₁₂H₁₃BrO₂; 60682-98-6) see: Ozagrel

- ethyl 5-bromo-3-methyl-4-oxothiazolidin-2-ylideneacetate**
(C₈H₁₀BrNO₃S; 86379-70-6) see: Etozolin
- ethyl 7-bromo-2-oxoheptanoate**
(C₉H₁₅BrO₃; 107871-17-0) see: Cilastatin
- ethyl (±)-3-bromo-4-oxo-1-piperidinecarboxylate**
(C₈H₁₂BrNO₃; 95629-02-0) see: Cisapride
- (±)-ethyl 2-bromo-4-phenylbutanoate**
(C₁₂H₁₅BrO₂; 82586-61-6) see: Moexipril; Quinapril hydrochloride; Temocapril
- ethyl 2-bromo-4-phenylbutyrate**
see under (±)-ethyl 2-bromo-4-phenylbutanoate
- ethyl *N*-(4-bromophenyl)sulfonylmethanimidate**
(C₉H₁₀BrNO₃S; 100981-68-8) see: Ebrotidine
- ethyl 2-bromopropionate**
(C₅H₉BrO₂; 535-11-5) see: Naproxen
- ethyl 5-bromo-3-(2-pyridyl)indole-2-carboxylate 1'-oxide**
(C₁₆H₁₃BrN₂O₃; 29310-54-1) see: Bromazepam
- ethyl bromopyruvate**
(C₅H₇BrO₃; 70-23-5) see: Nizatidine
- 2-ethylbutanenitrile**
(C₆H₁₁N; 617-80-1) see: Valdetamide
- ethyl (2R,3S)-3-*tert*-butoxycarbonylamino-2-hydroxy-3-phenylpropionate**
(C₁₆H₂₃NO₅; 143527-75-7) see: Docetaxel
- ethyl 2-(*tert*-butoxycarbonylamino)-3-nitrobenzoate**
(C₁₄H₁₈N₂O₆; 136285-65-9) see: Candesartan cilexetil
- ethyl (Z)-2-(1-*tert*-butoxycarbonyl-1-methylethoxyimino)-2-(2-tritylaminothiazol-4-yl)acetate**
(C₃₄H₃₇N₃O₅S; 68672-65-1) see: Ceftazidime
- ethyl 4-butoxyphenylacetate**
(C₁₄H₂₀O₃; 4547-58-4) see: Bufexamac
- ethyl 4-butylaminobenzoate**
(C₁₃H₁₉NO₂; 94-32-6) see: Benzonatate
- 2-ethylbutyric acid**
(C₆H₁₂O₂; 88-09-5) see: Carbromal
- ethyl carbamate**
(C₃H₇NO₂; 51-79-6) see: Carisoprodol; Felbamate; Mebutamate; Tybamate
- ethyl carbazate**
(C₃H₈N₂O₂; 4114-31-2) see: Cadralazine
- ethyl (S,S)-2-[(1-carboxyethyl)amino]-4-phenylbutanoate**
see under *N*-[1(S)-ethoxycarbonyl-3-phenylpropyl]-L-alanine
- ethyl chloride**
(C₂H₅Cl; 75-00-3) see: Oxeladin; Phenacetin
- ethyl 2-(2-chloroacetamido-4-thiazolyl)-2-methoxyiminoacetate**
(C₁₀H₁₂ClN₃O₄S; 60846-16-4) see: Ceftriaxone
- ethyl chloroacetate**
(C₄H₇ClO₂; 105-39-5) see: Azimilide hydrochloride; Cloricromen; Etomidate; Ibuprofen; Piracetam; Retinol; Tiaramide; Tienilic acid
- ethyl 2-chloroacetoacetate**
(C₆H₉ClO₃; 609-15-4) see: Cimetidine; Pyridoxine
- ethyl 4-chloroacetoacetate**
(C₆H₉ClO₃; 638-07-3) see: Amlodipine; Carnitine; Folescutol
- ethyl α-(3-chloro-4-aminophenyl)propionate**
(C₁₁H₁₄ClNO₂; 26406-97-3) see: Pirofen
- ethyl 4-(4-chlorobenzhydryl)piperazine-1-carboxylate**
(C₂₀H₂₃ClN₂O₂; 80476-89-7) see: Buclizine; Cetirizine
- 7-ethyl-10-(chlorocarbonyloxy)camptothecin**
(C₂₃H₁₉ClN₂O₆; 97682-31-0) see: Irinotecan
- ethyl 4-chlorocinnamate**
(C₁₁H₁₁ClO₂; 6048-06-2) see: Baclofen
- ethyl 7-chloro-1-(2,4-difluorophenyl)-6-fluoro-1,4-dihydro-4-oxo-1,8-naphthyridine-3-carboxylate**
(C₁₇H₁₀ClF₂N₂O₃; 100491-29-0) see: Tosufloxacin; Trovafloxacin mesilate
- ethyl 7-chloro-1-(2,4-difluorophenyl)-6-fluoro-4-oxo-1,4-dihydro-1,8-naphthyridine-3-carboxylate**
see under ethyl 7-chloro-1-(2,4-difluorophenyl)-6-fluoro-1,4-dihydro-4-oxo-1,8-naphthyridine-3-carboxylate
- ethyl 2-chloro-6-ethyl-isonicotinate**
(C₁₀H₁₂ClNO₂; 4009-26-1) see: Ethionamide
- ethyl 1-(2-chloroethyl)-4-phenylpiperidine-4-carboxylate**
(C₁₆H₂₂ClNO₂; 76100-61-3) see: Diphenoxylate
- ethyl 7-chloro-6-fluoro-4-hydroxyquinoline-3-carboxylate**
(C₁₂H₉ClFNO₃; 70458-93-4) see: Pefloxacin
- ethyl 10-chloro-9-fluoro-7-oxo-2,3-dihydro-7H-pyrido[1,2,3-*de*]-1,4-benzothiazine-6-carboxylate**
(C₁₄H₁₁ClFNO₃S; 101337-97-7) see: Rufloxacin hydrochloride
- ethyl 5-chloro-3-(2-fluorophenyl)indole-2-carboxylate**
(C₁₇H₁₃ClFNO₂; 24106-88-5) see: Flutoprazepam
- ethyl chloroformate**
see under chloroformic acid ethyl ester
- ethyl 6-chloroformyl-hexanoate**
(C₉H₁₅ClO₂; 14794-32-2) see: Seratrodast
- ethyl 2-chloroformyl-3-nitrobenzoate**
(C₁₀H₈ClNO₃; 136285-66-0) see: Candesartan cilexetil
- ethyl 9-chloroformylnonanoate**
(C₁₂H₂₁ClO₂; 6946-46-9) see: Idebenone
- ethyl 3-chloroformylpropionate**
(C₆H₉ClO₃; 14794-31-1) see: Erythromycin ethylsuccinate; Mebeverine
- ethyl 4-chloro-2-hydroxyiminoacetoacetate**
(C₆H₈ClNO₄; 50382-11-1) see: Ceftazidime
- ethyl 5-chloro-4-hydroxy-2-quinolinecarboxylate**
(C₁₂H₁₀ClNO₃; 21640-98-2) see: Chloroquine
- ethyl 7-chloro-4-hydroxy-2-quinolinecarboxylate**
(C₁₂H₁₀ClNO₃; 21640-97-1) see: Chloroquine
- ethyl 7-chloro-4-hydroxy-3-quinolinecarboxylate**
(C₁₂H₁₀ClNO₃; 16600-22-9) see: Chloroquine
- ethyl 2-chloromethylbenzoate**
(C₁₀H₁₁ClO₂; 1531-78-8) see: Indoprofen
- ethyl 6-chloro-α-methyl-1,2,3,4-tetrahydro-9H-carbazole-2-acetate**
(C₁₇H₁₆ClNO₂; 52262-88-1) see: Carprofen
- ethyl 6-chloronicotinate**
(C₈H₈ClNO₂; 49608-01-7) see: Tazarotene
- α-ethyl-*N*-(3-chloro-1-oxopropoxy)benzencethanimidamide**
(C₁₃H₁₇ClN₂O₂) see: Proxazole
- ethyl 3-(4-chlorophenyl)-3-hydroxybutyrate**
(C₁₂H₁₅ClO₃; 21133-98-2) see: Fenpentadiol
- ethyl 5-chloro-3-phenylindole-2-carboxylate**
(C₁₇H₁₄ClNO₂; 21139-32-2) see: Diazepam
- 1-ethyl-3-chloropiperidine**
(C₇H₁₄ClN; 2167-11-5) see: Pipenzolate bromide

ethyl 3-chloropropionate(C₅H₉ClO₂; 623-71-2) see: Dapiprazole**ethyl 2-chloro-6-propylisonicotinate**(C₁₁H₁₄ClNO₂; 100129-70-2) see: Protionamide**1-ethyl-3-chloropyrrolidine**(C₆H₁₂ClN; 3608-70-6) see: Doxapram**ethyl cyanoacetate**(C₅H₇NO₂; 105-56-6) see: Allopurinol; Amlexanox; Bemegride; Ethosuximide; Etozolin; Folic acid; Gabapentin; Paroxetine; Phensuximide; Sulfadimethoxine; Theophylline; Tinoridine; Trimethoprim; Valdetamide; Valproic acid**ethyl 2-(2'-cyanobiphenyl-4-ylmethylamino)-3-nitrobenzoate**(C₂₃H₁₉N₃O₄; 136285-67-1) see: Candesartan cilexetil**ethyl 1-(2'-cyanobiphenyl-4-ylmethyl)-2-ethoxybenzimidazole-7-carboxylate**(C₂₆H₂₃N₃O₃; 139481-41-7) see: Candesartan cilexetil**ethyl 1-cyanocyclohexaneacetimidate**(C₁₁H₁₆N₂O) see: Gabapentin**ethyl (1-cyanocyclohexyl)acetate**(C₁₁H₁₇NO₂; 133481-10-4) see: Gabapentin**ethyl 2-cyano-3-ethoxyacrylate**(C₈H₁₁NO₃; 94-05-3) see: Allopurinol; Pemirolast**ethyl (2-cyanoimino-5,6-dichloro-1,4-dihydroquinazolin-3-yl)acetate**(C₁₃H₁₂Cl₂N₄O₂; 146374-56-3) see: Anagrelide hydrochloride**ethyl 2-cyano-3-(3-methylpyridin-2-ylamino)acrylate**(C₁₂H₁₃N₃O₂; 69372-10-7) see: Pemirolast**ethyl cyclhexylideneacetate**(C₁₀H₁₆O₂; 1552-92-7) see: Gabapentin**ethyl cyclohexanecarboxylate**(C₉H₁₆O₂; 3289-28-9) see: Cyclofenil**ethyl 3-cyclohexyl-2-butenolate**(C₁₂H₂₀O₂; 28811-79-2) see: Cicrotoic acid**ethyl 3-cyclohexyl-3-hydroxybutanoate**(C₁₂H₂₂O₃; 28811-84-9) see: Cicrotoic acid**2-ethyl-1,3-cyclopentanedione**(C₇H₁₀O₂; 823-36-9) see: Levonorgestrel**ethyl 3-cyclopentene-1-carboxylate**(C₈H₁₂O₂; 21622-01-5) see: Dolasetron mesilate**ethyl 3-cyclopropylamino-2-(2,4-dichloro-5-fluorobenzoyl)acrylate**(C₁₅H₁₄Cl₂FNO₃; 86483-53-6) see: Ciprofloxacin**ethyl α-(cyclopropylamino)methylene]-2,3,4,5,6-pentafluoro-β-oxobenzenepranoate**(C₁₅H₁₂F₅NO₃; 107564-01-2) see: Sparfloxacin**ethyl 2-[4-(cyclopropylcarbonyl)phenyl]-2-methylpropionate**(C₁₆H₂₀O₃; 169280-10-8) see: Fexofenadine hydrochloride**ethyl 1-cyclopropyl-6,7-difluoro-5-methyl-1,4-dihydro-4-oxoquinoline-3-carboxylate**(C₁₆H₁₅F₂NO₃; 119915-46-7) see: Grepafloxacin**1-ethylcytosine**(C₆H₉N₃O; 25855-37-2) see: Sulfacitine**ethyl diazoacetate**(C₄H₆N₂O₂; 623-73-4) see: Tranlycypromine; Trovafloxacin mesilate**ethyl dichloroacetate**(C₄H₆Cl₂O₂; 535-15-9) see: Chloramphenicol**ethyl N-(2,3-dichloro-6-aminobenzyl)glycinate**(C₁₁H₁₄Cl₂N₂O₂; 70406-92-7) see: Anagrelide hydrochloride**ethyl 2,4-dichloro-5-fluorobenzoylacetate**(C₁₁H₉Cl₂FO₃; 86483-51-4) see: Ciprofloxacin; Temafloxacin**ethyl 2-(2,4-dichloro-5-fluorobenzoyl)-3-(2,4-difluoroanilino)-2-propenoate**(C₁₈H₁₂Cl₂F₃NO₃; 98105-71-6) see: Temafloxacin**ethyl 2-(2,4-dichloro-5-fluorobenzoyl)-3-ethoxyacrylate**(C₁₄H₁₃Cl₂FO₄; 86483-52-5) see: Ciprofloxacin**ethyl 2,6-dichloro-5-fluoronicotinate**(C₈H₆Cl₂FNO₂; 82671-03-2) see: Tosufloxacin**ethyl 2,6-dichloro-5-fluoronicotinoylacetate**(C₁₀H₈Cl₂FNO₃; 96568-04-6) see: Tosufloxacin**ethyl 6,8-dichlorooctanoate**(C₁₀H₁₈Cl₂O₂; 1070-64-0) see: Thioctic acid**ethyl 2-(2,6-dichlorophenoxy)propionimidate hydrochloride**(C₁₁H₁₄Cl₃NO₂) see: Lofexidine**ethyl 2,6-dichlorophenylacetate**(C₁₀H₁₀Cl₂O₂; 90793-64-9) see: Guanfacine**ethyl 2,2-diethylacetoacetate**(C₁₀H₁₈O₃; 1619-57-4) see: Methylprylon; Pyrithyldione**ethyl 2-(2-diethylaminoethyl)acetoacetate**(C₁₂H₂₃NO₃; 23999-02-2) see: Carbocromen; Chloroquine; Clonicromen**ethyl diethylcyanoacetate**(C₉H₁₅NO₂; 1619-56-3) see: Valdetamide**ethyl 2,2-diethyl-4-(hydroxymethylene)acetoacetate**(C₁₁H₁₈O₄) see: Methylprylon; Pyrithyldione**ethyl diethylphosphinyllacetate**(C₈H₁₇O₃P; 36032-75-4) see: Gabapentin**ethyl diethylphosphonoacetate**(C₈H₁₇O₃P; 867-13-0) see: Acrivastine**ethyl 6,8-difluoro-1,4-dihydro-1-(2-mercaptoethyl)-7-(4-methyl-1-piperazinyl)-4-oxo-3-quinolinecarboxylate**(C₁₉H₂₃F₂N₂O₃S; 165541-89-9) see: Rufloxacin hydrochloride**(±)-ethyl 9,10-difluoro-3-(3,5-dinitrobenzoyloxymethyl)-7-oxo-2,3-dihydro-7H-pyridol[1,2,3-de]-1,4-benzoxazine-6-carboxylate**(C₂₂H₁₅F₂N₃O₁₀; 100986-91-2) see: Levofloxacin**(±)-ethyl 9,10-difluoro-3-hydroxymethyl-7-oxo-2,3-dihydro-7H-pyridol[1,2,3-de]-1,4-benzoxazine-6-carboxylate**(C₁₅H₁₃F₂NO₃; 91040-39-0) see: Levofloxacin**(-)-ethyl 9,10-difluoro-3-hydroxymethyl-7-oxo-2,3-dihydro-7H-pyridol[1,2,3-de]-1,4-benzoxazine-6-carboxylate**(C₁₅H₁₃F₂NO₃; 100986-87-6) see: Levofloxacin**(-)-ethyl 9,10-difluoro-3-iodomethyl-7-oxo-2,3-dihydro-7H-pyridol[1,2,3-de]-1,4-benzoxazine-6-carboxylate**(C₁₅H₁₃F₂INO₃; 106939-33-7) see: Levofloxacin**ethyl (difluoromethylthio)acetate**(C₃H₈F₂O₂S; 83494-29-5) see: Flomoxef**ethyl (1α,5α,6α)-1-(2,4-difluorophenyl)-7-[6-[(1,1-dimethylethoxy)carbonyl]amino]-3-azabicyclo[3.1.0]hex-3-yl]-6-fluoro-1,4-dihydro-4-oxo-1,8-naphthyridine-3-carboxylate**(C₂₇H₂₇F₃N₄O₅; 134575-66-9) see: Alatrofloxacin mesilate; Trovafloxacin mesilate

ethyl (1 α ,5 α ,6 α)-1-(2,4-difluorophenyl)-7-[6-[[1,1-dimethylethoxy]carbonyl]amino]-3-azabicyclo[3.1.0]hex-3-yl]-6-fluoro-1,4-dihydro-4-oxo-1,8-naphthyridine-3-carboxylate

see under ethyl (1 α ,5 α ,6 α)-1-(2,4-difluorophenyl)-7-[6-[[1,1-dimethylethoxy]carbonyl]amino]-3-azabicyclo[3.1.0]hex-3-yl]-6-fluoro-1,4-dihydro-4-oxo-1,8-naphthyridine-3-carboxylate

ethyl 3,4-dihydro-6,7-dimethoxy-1-isoquinolineacetate

(C₁₅H₁₉NO₄; 21271-01-2) see: Benzquinamide

ethyl 3,6-dihydro-4-methoxy-1(2H)-pyridinecarboxylate

(C₉H₁₅NO₃; 203984-87-6) see: Cisapride

3-ethyl-2,5-dihydro-4-methyl-2-oxo-N-(2-phenylethyl)-1H-pyrrole-1-carboxamide

(C₁₆H₂₀N₂O₂; 247098-18-6) see: Glimepiride

6-ethyl-1,2-dihydro-2-oxo-4-pyridinecarboxylic acid

(C₈H₉NO₃; 54881-17-3) see: Ethionamide

N-[4-[[1-ethyl-1,2-dihydro-2-oxo-4-pyrimidinyl]amino]-sulfonyl]phenyl]acetamide

(C₁₄H₁₆N₄O₄S; 25855-46-3) see: Sulfacitine

5-ethyl-2,4-dihydro-4-(2-phenoxyethyl)-3H-1,2,4-triazol-3-one

(C₁₂H₁₅N₃O₂; 95885-13-5) see: Nefazodone hydrochloride

1-ethyl-1,4-dihydro-5H-tetrazol-5-one

(C₇H₆N₄O; 69048-98-2) see: Alfentanil

ethyldiisopropylamine

(C₈H₁₉N; 7087-68-5) see: Mibefradil hydrochloride;

Pinacidil

ethyl 2,6-diisopropyl-4-(4-fluorophenyl)-5-hydroxymethylpyridine-3-carboxylate

(C₂₁H₂₆FNO₃; 124863-80-5) see: Cerivastatin sodium

ethyl N-(3,4-dimethoxyphenethyl)malonamate

(C₁₅H₂₁NO₅; 79641-41-1) see: Benzquinamide

ethyl 2-(dimethylaminomethyl)-4-thiazolecarboxylate

(C₉H₁₄N₂O₂S; 82586-66-1) see: Nizatidine

N-ethyl-N'-[3-(dimethylamino)propyl]carbodiimide

(C₈H₁₇N₃; 1892-57-5) see: Cabergoline

ethyl 1,4-dimethyl-3-ethoxycarbonylpyrrole-2-acetate

(C₁₃H₁₉NO₄; 33369-26-5) see: Zomepirac

ethyl 2-[[2-[3-(1,1-dimethylethoxy)-3-oxo-1-propenyl]phenyl]methylene]-3-oxobutanoate

(C₂₀H₂₄O₅; 108700-28-3) see: Lacidipine

[3 α R-(2E,3 α ,4 α ,5 β ,6 α)]-ethyl 4-[[[(1,1-dimethylethyl)-dimethylsilyl]oxy]methyl]hexahydro-5-hydroxy-2H-cyclopenta[b]furan-2-ylidene]acetate

(C₁₈H₃₂O₅Si; 79745-54-3) see: Iloprost

[3 α S-(3 α ,4 α ,5 β ,6 α)]-ethyl 4-[[[(1,1-dimethylethyl)dime-thylsilyl]oxy]methyl]octahydro-5-hydroxy-2-oxo-1-pentalenecarboxylate

(C₁₈H₃₂O₅Si; 79745-56-5) see: Iloprost

ethyl 7-(1,1-dimethylheptyl)-5-hydroxy-4-methyl-2-oxo-2H-1-benzopyran-3-propionate

(C₂₄H₃₄O₃; 56469-11-5) see: Nabilone

ethyl 2,4-dioxoheptanoate

(C₉H₁₄O₄; 36983-31-0) see: Protonamide; Sildenafil

ethyl 2,4-dioxohexanoate

(C₈H₁₂O₄; 13246-52-1) see: Ethionamide

ethyl 2-[2-(1,3-dioxolan-2-yl)ethylamino]-2-(4-fluorophenyl)acetate

(C₁₅H₂₀FNO₄; 110862-42-5) see: Atorvastatin calcium

[6R-[6 α ,7 α ,7(2R*,3S*)]]-7-[[2-[[4-ethyl-2,3-dioxo-1-piperaziny]carbonyl]amino]-3-hydroxy-1-oxobutyl]amino]-7-methoxy-3-[[[(1-methyl-1H-tetrazol-5-yl)thio]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester

(C₃₅H₃₉N₉O₉S₂; 76610-83-8) see: Cefbuperazone

[6R-[6 α ,7 β (2R*,3S*)]]-7-[[2-[[4-ethyl-2,3-dioxo-1-piperaziny]carbonyl]amino]-3-hydroxy-1-oxobutyl]amino]-3-[[[(1-methyl-1H-tetrazol-5-yl)thio]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester

(C₃₄H₃₇N₉O₈S₂; 76610-82-7) see: Cefbuperazone

ethyl diphenylacetate

(C₁₆H₁₆O₂; 3468-99-3) see: Loperamide

1-ethyl- α,α -diphenyl-3-pyrrolidineacetic acid

(C₂₀H₂₃NO₂; 3471-97-4) see: Doxapram

1-ethyl- α,α -diphenyl-3-pyrrolidineacetonitrile

(C₂₀H₂₂N₂; 3212-87-1) see: Doxapram

ethyl dipropylcyanoacetate

(C₁₁H₁₉NO₂; 66546-90-5) see: Valproic acid

ethyl 1,3-dithiane-2-carboxylate

(C₇H₁₂O₂S₂; 20462-00-4) see: Cilastatin

ethylene

(C₂H₄; 74-85-1) see: Maprotiline; Mibefradil hydrochloride; Thiocotic acid

ethylene carbonate

(C₃H₄O₃; 96-49-1) see: Hexcarbarcholine bromide;

Raloxifene hydrochloride

ethylene chlorohydrin

(C₂H₅ClO; 107-07-3) see: Acetylcholine chloride; Carbachol; Choline chloride; Etofylline; Homofenazine; Metronidazole; Oxypendyl; Tofenacin; Troxerutin

ethylenediamine

(C₂H₈N₂; 107-15-3) see: Apraclonidine; Benzathine benzylpenicillin; Brimonidine; Clonidine; Edetic acid; Epanolol; Fenoxazoline; Indanazoline; Lofexidine; Mazindol; Medazepam; Naphazoline; Oxymetazoline; Tetryzoline; Theophylline ethylenediamine; Tiamenidine; Tinazoline hydrochloride; Tizanidine; Tolazoline; Tolonidine; Tramazoline; Trientine; Xylometazoline

ethylenediaminetetraacetoneitrile

(C₁₀H₁₂N₆; 5766-67-6) see: Edetic acid

ethylenediamine *p*-toluenesulfonate

(C₉H₁₆N₂O₃S; 14034-59-4) see: Cibenzoline

20,20-ethylenedioxy-16 α ,17 α -epoxy-5 β -pregnane-3 α ,11 β -diol

(C₂₃H₃₆O₅; 13643-93-1) see: Betamethasone

3,3-(ethylenedioxy)estra-5(10),9(11)-dien-17-one

(C₂₀H₂₆O₃; 5571-36-8) see: Mifepristone

3,3-ethylenedioxy-13-ethyl-17 β -hydroxy-17 α -ethynylgon-4,9,11-triene

(C₂₃H₂₈O₃; 15343-94-9) see: Gestrinone

3,3-ethylenedioxy-13-ethyl-17-oxogona-5(10),9(11)-diene

(C₂₁H₂₈O₃; 10109-61-2) see: Gestrinone

3,3-ethylenedioxy-17 β -hydroxy-6-methyl-17 α -(1-propenyl)-5-androstene

(C₂₅H₃₆O₃) see: Dimethisterone

3,3-ethylenedioxy-6-methyl-17-oxo-5-androstene

(C₂₂H₃₂O₃) see: Dimethisterone

2,2-(ethylenedioxy)-1-propanol

(C₅H₁₀O₃; 10004-17-8) see: Arandipine

- 2,2-(ethylenedioxy)propyl acetoacetate**
(C₉H₁₄O₅; 86780-80-5) see: Aranidipine
- 2,2-(ethylenedioxy)propyl 2-(2-nitrobenzylidene)acetoacetate**
(C₁₆H₁₇NO₇; 103785-52-0) see: Aranidipine
- 3,3-(ethylenedioxy)-17 α -(1-propynyl)-5 α ,10 α -epoxyestr-9(11)-en-17 β -ol**
(C₂₃H₃₀O₄; 84371-57-3) see: Mifepristone
- 3,3-ethylenedithio-17-hydroxy-6 α -methyl-4-pregnen-20-one**
(C₂₄H₃₆O₂S₂; 13947-23-4) see: Anagestone acetate
- ethylene glycol**
(C₂H₆O₂; 107-21-1) see: Aciclovir; Acrivastine; Betamethasone; Cloprednol; Desogestrel; Doxofylline; Estrone; Etofibrate; Formocortol; Gestrinone; Halopredone diacetate; Hydrocortisone; Hydroxyethyl salicylate; Idarubicin; Iloprost; Kebuzone; Levocabastine; Medroxyprogesterone acetate; Medrysone; Metenolone acetate; Methylprednisolone; Mifepristone; Nabilone; Naltrexone; Timiperone; Triamcinolone; Unoprostone isopropyl
- ethylene oxide**
(C₂H₄O; 75-21-8) see: Acetylcholine chloride; Benfluorex; Chlorambucil; Chloroquine; Choline chloride; Choline hydroxide; Clopidogrel hydrogensulfate; Etofylline; Fenbutrazate; Flutazolam; Hydroxyethyl salicylate; Loperamide; Melphalan; Metronidazole; Miglitol; Nonoxinol 9; Polidocanol; Prozapine; Setastine; Ticlopidine; Tyloxapol; Uramustine
- ethylenethiourea**
(C₃H₆N₂S; 96-45-7) see: Tinazoline hydrochloride
- ethyl (3R,4R,5S)-4,5-epoxy-3-(1-ethylpropoxy)-1-cyclohexene-1-carboxylate**
(C₁₄H₂₂O₄; 204254-96-6) see: Oseltamivir
- ethyl 1-ethoxycarbonylmethyl-1,2,3,4-tetrahydro-6,7-dimethoxy-2-isoquinolinepropionate**
(C₂₀H₂₉NO₆; 52244-03-8) see: Benzoquinamide
- ethyl 1-ethoxycarbonyl-4-oxo-3-piperidylacetate**
(C₁₂H₁₉NO₅; 39716-33-1) see: Endralazine
- ethyl 3-(ethoxycarbonyl)-7-[(tetrahydro-2H-pyran-2-yl)oxy]-9-azabicyclo[3.3.1]nonane-9-acetate**
(C₂₀H₃₃NO₆; 115956-05-3) see: Dolasetron mesilate
- ethyl ethoxymethylenecyanoacetate**
see under ethyl 2-cyano-3-ethoxyacrylate
- ethyl 2-(ethoxymethylene)-3-oxobutanoate**
(C₉H₁₄O₄; 3788-94-1) see: Leflunomide
- ethyl 5-ethoxy-4-methyloxazole-2-carboxylate**
(C₉H₁₃NO₄; 23429-04-1) see: Pyridoxine
- ethyl 2-ethoxy-4-[2-[[[(1S)-3-methyl-1-[2-(1-piperidinyl)phenyl]butyl]amino]-2-oxoethyl]benzoate**
(C₂₉H₄₀N₂O₄; 147770-06-7) see: Repaglinide
- N-ethylethylenediamine**
(C₄H₁₂N₂; 110-72-5) see: Piperacillin
- ethyl 2-ethylisonicotinate**
(C₁₀H₁₃NO₂; 15862-61-0) see: Ethionamide
- ethyl 1-ethyl-4-oxo-7-(4-pyridyl)-1,4-dihydroquinoline-3-carboxylate**
(C₁₉H₁₈N₂O₃; 40034-46-6) see: Rosoxacin
- ethyl (1R,5R,6R)-5-(1-ethylpropoxy)-7-azabicyclo[4.1.0]hept-3-ene-3-carboxylate**
(C₁₄H₂₃NO₃; 204255-02-7) see: Oseltamivir
- ethyl 3,4-O-(1-ethylpropylidene)-5-O-(methanesulfonyl)-shikimate**
(C₁₅H₂₄O₇S; 204254-90-0) see: Oseltamivir
- 13-ethyl-17-ethynyl-11 β ,17 β -dihydroxygona-4,9-diene-3-one**
(C₂₁H₂₆O₃; 23637-82-3) see: Gestrinone
- ethyl fluoroacetate**
(C₄H₇FO₂; 459-72-3) see: Fluorouracil
- ethyl α -(2-fluorobenzyl)acetoacetate**
(C₁₃H₁₅FO₃; 24106-86-3) see: Flutoprazepam
- ethyl α -(2-fluorobenzyl)- α -(4-chlorophenylazo)acetoacetate**
(C₁₉H₁₈ClFN₂O₃; 24106-87-4) see: Flutoprazepam
- ethyl 2-fluoro-4-biphenylacetate**
(C₁₆H₁₅FO₂; 42771-80-2) see: Flurbiprofen
- 1-ethyl-6-fluoro-7-chloro-1,4-dihydro-4-oxoquinoline-3-carboxylic acid**
(C₁₂H₉ClFNO₃; 68077-26-9) see: Norfloxacin; Pefloxacin
- ethyl p-fluorocinnamate**
(C₁₁H₁₁FO₂; 352-03-4) see: Paroxetine
- ethyl 3-(4-fluorophenyl)-1-isopropylindole-2-carboxylate**
(C₂₀H₂₀FNO₂; 119900-80-0) see: Fluvastatin sodium
- ethyl [1-[1-[(4-fluorophenyl)methyl]-1H-benzimidazol-2-yl]-4-piperidinyl]methylcarbamate**
(C₂₃H₂₇FN₄O₂; 108612-48-2) see: Mizolastine
- ethyl formate**
(C₃H₆O₂; 109-94-4) see: Danazol; Drostanolone; Fluorouracil; Formebolone; Metapramine; Oxymetholone; Perhexiline; Stanozolol; Tetroxoprim; Trilostane; Trimethoprim
- ethyl formylacetate**
(C₅H₈O₃; 34780-29-5) see: Chloroquine
- ethyl 3-formylcrotonate**
(C₇H₁₀O₃; 41891-38-7) see: Etretinate; Retinol; Tretinoin
- ethyl glycinate**
(C₄H₉NO₂; 459-73-4) see: Anagrelide hydrochloride; Brotizolam; Cinolazepam; Medazepam
- ethyl glycinate hydrochloride**
(C₄H₁₀ClNO₂; 623-33-6) see: Alprazolam; Anagrelide hydrochloride; Bromazepam; Clotiazepam; Desmopressin; Diazepam; Dolasetron mesilate; Doxefazepam; Estazolam; Flutazolam; Loprazolam; Midazolam; Nitrazepam; Tetrazepam; Triazolam
- ethyl glycolate**
(C₄H₆O₃; 623-50-7) see: Paclitaxel
- 13-ethylgona-5(10),15-diene-3,17-dione cyclic 3-(2,2-dimethyl-1,3-propanediyl acetal)**
(C₂₄H₃₄O₃; 60919-53-1) see: Gestodene
- 13-ethylgona-5,15-diene-3,17-dione cyclic 3-(2,2-dimethyl-1,3-propanediyl acetal)**
(C₂₄H₃₄O₃; 60919-49-5) see: Gestodene
- 13-ethylgona-4,9,11-triene-3,17-dione**
(C₁₉H₂₂O₂; 10109-57-6) see: Gestrinone
- 13-ethylgon-5-ene-3,11,17-triene cyclic 3,17-bis(1,2-ethanediyl acetal)**
(C₂₃H₃₂O₅; 100071-89-4) see: Desogestrel
- ethylheptylamine**
(C₉H₂₁N; 66793-76-8) see: Ibutilide fumarate
- N-ethyl-N-heptyl- γ -oxo-4-[(methylsulfonyl)amino]benzenebutanamide**
(C₂₀H₃₂N₂O₄S; 100632-58-4) see: Ibutilide fumarate

- (12*aS-cis*)-12*a*-ethyl-2,3,5,12,12*a*,12*b*-hexahydro-1*H*,4*H*-3*a*,9*b*-diazabenz[*a*]naphth[2,1,8-*cde*]azulene-10,11-dione 12-oxime
(C₂₀H₂₃N₃O₂; 35226-42-7) see: Vincamine
- ethyl 1,3,4,6,7,11*b*-hexahydro-9,10-dimethoxy-2-oxo-2*H*-benzo[*a*]quinolinizine-3-carboxylate
(C₁₈H₂₃NO₅; 5911-33-1) see: Benzquinamide
- ethyl (3*aR*,5*S*,7*R*,7*aR*)-hexahydro-5-hydroxy-2,2-di-methyl-7-[(methylsulfonyl)oxy]-1,3-benzodioxole-5-carboxylate
(C₁₃H₂₂O₈S; 204254-81-9) see: Oseltamivir
- 1-ethyl-1,2,3,4,6,7-hexahydroindolo[2,3-*a*]quinolizin-5-ium perchlorate
(C₁₇H₂₁ClN₂O₄; 59639-73-5) see: Vincamine
- (13*S-cis*)-13-ethyl-7,11,12,13,16,17-hexahydro-3-methoxy-6*H*-cyclopenta[*a*]phenanthren-17-ol acetate
(C₂₂H₂₆O₃; 2911-81-1) see: Levonorgestrel
- 3-ethylhexahydro-3-(3-methoxyphenyl)-1*H*-azepine
(C₁₅H₂₃NO; 27180-90-1) see: Meptazinol
- 6-ethylhexahydro-6-(3-methoxyphenyl)-2*H*-azepin-2-one
(C₁₅H₂₁NO₂; 27180-89-8) see: Meptazinol
- 3-ethylhexahydro-3-(3-methoxyphenyl)-1-methyl-1*H*-azepine
(C₁₆H₂₅NO; 71556-73-5) see: Meptazinol
- 2-ethyl-1-hexanol
(C₈H₁₈O; 104-76-7) see: Sodium dioctyl sulfosuccinate
- 2-ethylhexylamine
(C₈H₁₉N; 104-75-6) see: Butoctamide; Hexetidine
- N*-(2-ethylhexyl)-3-oxobutanamide
(C₁₂H₂₃NO₂; 32837-36-8) see: Butoctamide
- 13-ethyl-11β-hydroperoxy-17-hydroxy-18,19-dinor-17α-pregna-4,9-dien-20-yn-3-one
(C₂₁H₂₆O₄; 23637-81-2) see: Gestrinone
- ethyl 4-hydroxybenzoic acid
(C₉H₁₀O₃; 120-47-8) see: Gabexate
- ethyl (2-hydroxybenzylamino)acetate
(C₁₁H₁₅NO₃; 57938-78-0) see: Caroxazone
- 7-ethyl-10-hydroxycamptothecin
(C₂₂H₂₀N₂O₅; 86639-52-3) see: Irinotecan
- α-ethyl-3-hydroxycinnamic acid
(C₁₁H₁₂O₃; 59150-87-7) see: Iophenoic acid
- ethyl 3(*R*)-hydroxy-4-cyanobutyrate
(C₇H₁₁NO₃; 141942-85-0) see: Atorvastatin calcium
- α-ethyl-1-hydroxycyclohexaneacetic acid ethyl ester
(C₁₂H₂₂O₃; 51632-39-4) see: Cyclobutryol
- 13-ethyl-17-hydroxy-18,19-dinor-17α-pregna-5(10),9(11)-dien-20-yn-3-one cyclic ethylene acetal
(C₂₃H₃₀O₃; 23637-79-8) see: Gestrinone
- cis*-1-ethyl-1-(2-hydroxy-2-ethoxycarbonyl)ethyl)-1,2,3,4,6,7,12,12*b*-octahydroindolo[2,3-*a*]quinolizine
(C₂₂H₃₀N₂O₅; 43184-10-7) see: Vinburnine
- 5-[ethyl(2-hydroxyethyl)amino]-2-pentanone
(C₉H₁₉NO₂; 74509-79-8) see: Hydroxychloroquine
- 7-ethyl-3-(2-hydroxyethyl)indole
(C₁₂H₁₅NO; 41340-36-7) see: Etodolac
- 3-ethyl-5-(2-hydroxyethyl)-4-methylthiazolium
(C₈H₁₄NOS; 45892-42-0) see: Atorvastatin calcium
- ethyl 2-hydroxyiminoacetoacetate
(C₆H₉NO₄; 5408-04-8) see: Cefotaxime; Ceftazidime
- ethyl (*Z*)-2-hydroxyimino-2-(2-tritylaminothiazol-4-yl)-acetate
(C₂₆H₂₃N₃O₃S; 66338-99-6) see: Ceftazidime
- 2-ethyl-5-hydroxy-*N*-(2-(1*H*-indol-3-yl)ethyl)pentanamide
(C₁₇H₂₄N₂O₂; 52250-53-0) see: Vincamine
- ethyl 2-hydroxyisobutyrate
(C₆H₁₂O₃; 80-55-7) see: Dimethadione; Trimethadione
- ethyl α-hydroxyisobutyrate
see under ethyl 2-hydroxyisobutyrate
- ethyl hydroxymethoxyacetate
(C₅H₁₀O₄; 19757-96-1) see: Retinol
- ethyl 2-hydroxy-3-methoxybenzoate
(C₁₀H₁₂O₄; 35030-98-9) see: Alibendol
- β-ethyl-β-hydroxy-6-methoxy-α,α-dimethyl-2-naphthalenepropanoic acid ethyl ester
(C₂₀H₂₆O₄; 85536-81-8) see: Methallenestriol
- (17β)-13-ethyl-17-hydroxy-11-methylenegon-4-en-3-one cyclic 1,2-ethanediyil mercaptol
(C₂₂H₃₂OS₂; 54024-19-0) see: Desogestrel
- ethyl 4-hydroxy-1,5-naphthyridine-3-carboxylate
(C₁₁H₁₀N₂O₃; 13801-51-9) see: Apalcillin
- (±)-17α-ethyl-17β-hydroxy-3-oxo-18-homo-5(10)-estrene
(C₂₁H₃₂O₂; 900-88-9) see: Norboletone
- 17α-ethyl-17β-hydroxy-3-oxo-19-nor-4-androstene
(C₂₀H₃₀O₂; 52-78-8) see: Ethylestrenol
- ethyl 4-hydroxyphenylacetate
(C₁₀H₁₂O₃; 17138-28-2) see: Betaxolol
- α-ethyl-β-hydroxy-β-phenylbenzenepropanenitrile
(C₁₇H₁₇NO; 22101-20-8) see: Etifelmine
- ethyl (2*R*,3*S*)-2-hydroxy-3-[(*S*)-1-phenylethylamino]-3-phenylpropanoate
(C₁₉H₂₃NO₃) see: Docetaxel
- 1-ethyl-3-hydroxypiperidine
(C₇H₁₅NO; 13444-24-1) see: Piperidolate
- N*-ethyl-2-hydroxypropylamine
(C₅H₁₃NO; 40171-86-6) see: Cadralazine
- 2-ethyl-2-(3-hydroxypropyl)malonic acid
(C₈H₁₄O₅; 52250-47-2) see: Vincamine
- 1-ethyl-3-hydroxypropylidone
(C₆H₁₃NO; 30727-14-1) see: Benzilonium bromide
- ethyl 6-hydroxy-5,7,8-trimethyl-4-oxo-4*H*-chromene-2-carboxylate
(C₁₅H₁₆O₅; 107188-52-3) see: Troglitazone
- 4,6-*O*-(*R*)-ethylidene-2,3-di-*O*-acetyl-β-D-glucopyranose
(C₁₂H₁₈O₈; 118139-63-2) see: Etoposide
- ethylidene triphenylphosphorane
(C₂₀H₁₉P; 1754-88-7) see: Promegestone
- ethyl 4-(1-imidazolylmethyl)cinnamate
(C₁₅H₁₆N₂O₂; 74002-88-3) see: Ozagrel
- ethyl indole-2-carboxylate
(C₁₁H₁₁NO₂; 3770-50-1) see: Perindopril
- ethyl indole-3-glyoxylate
(C₁₂H₁₁NO₃; 51079-10-8) see: Indoramin
- ethyl iodide
(C₂H₅I; 75-03-6) see: Butibufen; Cinoxacin; Diethylstilbestrol; Enoxacin; Ethotoin; Gallamine triethiodide; Imiquimod; Lomefloxacin; Mosapride citrate; Nalidixic acid; Oxolinic acid; Pefloxacin; Pipemidic acid; Tridihexethyl chloride; Zaleplon

- ethyl 4-iodobutyrate**
(C₆H₁₁IO₂; 7425-53-8) see: Meptazinol
- ethyl 4-isobutylphenylacetate**
(C₁₄H₂₀O₂; 15649-02-2) see: Butibufen
- ethyl isobutyrylacetate**
(C₈H₁₄O₃; 7152-15-0) see: Cerivastatin sodium
- ethyl isocyanate**
(C₃H₃NO; 109-90-0) see: Alfentanil; Cabergoline
- ethyl isocyanatoacetate**
(C₅H₇NO₃; 2949-22-6) see: Flumazenil
- ethyl isonicotinate**
(C₈H₉NO₂; 1570-45-2) see: Azacyclonol; Diphepanil metilsulfate; Isoniazid
- 2-ethylisonicotinonitrile**
(C₈H₈N₂; 1531-18-6) see: Ethionamide
- ethyl 3,4-O-isopropylidene-5-O-(methanesulfonyl)-shikimate**
(C₁₃H₂₀O₇S; 204254-84-2) see: Oseltamivir
- ethyl 3,4-O-isopropylideneschikimate**
(C₁₂H₁₈O₅; 136994-78-0) see: Oseltamivir
- ethyl 2-(2-isopropylphenoxy)acetimidate hydrochloride**
(C₁₃H₂₀ClNO₂) see: Fenoxazoline
- ethyl (S)-lactate**
(C₅H₁₀O₃; 687-47-8) see: Naproxen
- ethyl lactimidate hydrochloride**
(C₅H₁₂ClNO₂) see: Lofexidine
- ethylmagnesium bromide**
(C₂H₅BrMg; 925-90-6) see: Amfebutamone; Diethylstilbestrol; Ethylestrenol; Etretnate; Fomocaine; Indanorex; Ketobemidone; Mepivacaine; Methadone; Methallenestril; Methohexital; Normethadone; Olprinone hydrochloride; Retinol
- ethylmalonic acid diethyl ester**
see under diethyl ethylmalonate
- ethylmercaptan**
(C₂H₆S; 75-08-1) see: Raloxifene hydrochloride
- ethyl mercaptoacetate**
(C₄H₈O₂S; 623-51-8) see: Etozolin; Flomoxef; Letosteine
- ethylmercury chloride**
(C₂H₅ClHg; 107-27-7) see: Thiomerseal
- 2-ethyl-3-(4-methoxybenzoyl)benzofuran**
(C₁₈H₁₆O₃; 3343-80-4) see: Benzarone
- (-)-1 α -ethyl-1-(2-methoxycarbonylethyl)-1,2,3,4,6,7,12,12b α -octahydroindolo[2,3-*a*]quinolizine**
(C₂₁H₂₈N₂O₂; 23944-42-5) see: Vincamine
- (\pm)-*cis*-1-ethyl-1-(2-methoxycarbonylethyl)-4-oxo-1,2,3,4,6,7,12,12b-octahydroindolo[2,3-*a*]quinolizine**
(C₂₁H₂₆N₂O₃; 65085-43-0) see: Vincamine
- (\pm)-*trans*-1-ethyl-1-(2-methoxycarbonylethyl)-4-oxo-1,2,3,4,6,7,12,12b-octahydroindolo[2,3-*a*]quinolizine**
(C₂₁H₂₆N₂O₃; 65085-44-1) see: Vincamine
- ethyl 4-methoxycinnamate**
(C₁₃H₁₄O₃; 1929-30-2) see: Anethole trithione
- (17 β)-13-ethyl-3-methoxygona-2,5(10)-dien-17-ol**
(C₂₀H₃₀O₂; 14507-49-4) see: Levonorgestrel
- ethyl 2-(methoxyimino)acetoacetate**
(C₇H₁₁NO₄; 60846-14-2) see: Cefotaxime
- ethyl 2-(methoxyimino)-2-[2-(tritylamino)-4-thiazolyl]-acetate**
(C₂₇H₂₅N₃O₃S; 66215-70-1) see: Cefotaxime
- N*-ethyl-*N*-(*p*-methoxy- α -methylphenethyl)succinamic acid ethyl ester**
(C₁₈H₂₇NO₄; 109554-69-0) see: Mebeverine
- (4*R*,5*R*)-2-ethyl-2-(6-methoxy-2-naphthalenyl)-1,3-dioxolane-4,5-dicarboxylic acid dimethyl ester**
(C₂₀H₂₂O₇; 101154-44-3) see: Naproxen
- ethyl (\pm)-3-methoxy-4-oxo-1-piperidinecarboxylate**
(C₉H₁₅NO₄; 83863-72-3) see: Cisapride
- 4-[ethyl[2-(4-methoxyphenyl)-1-methylethyl]amino]-1-butanol**
(C₁₆H₂₇NO₂; 14367-47-6) see: Mebeverine
- β -ethyl- α -(4-methoxyphenyl)- α -phenylbenzeneethanol**
(C₂₃H₂₄O₂) see: Tamoxifen
- ethyl 4-(methylamino)piperidine-1-carboxylate**
(C₉H₁₈N₂O₂; 73733-69-4) see: Mizolastine
- N*-ethyl-2-methylaniline**
(C₉H₁₃N; 94-68-8) see: Crotamiton
- 3-ethyl-5-methyl 2-[(2-azidoethoxy)methyl]-4-(2-chlorophenyl)-1,4-dihydro-6-methyl-3,5-pyridinedicarboxylate**
(C₂₀H₂₃ClN₄O₅; 88150-46-3) see: Amlodipine
- ethyl 2-methyl-2-bromobutyrate**
(C₇H₁₃BrO₂; 5398-71-0) see: Beclobrate
- 2-ethyl-2-methylbutanedioic acid diammonium salt**
(C₇H₁₈N₂O₄; 75315-43-4) see: Ethosuximide
- ethyl 2-methylbutanoate**
(C₇H₁₄O₂; 7452-79-1) see: Beclobrate
- ethyl(1-methylbutyl)malonic acid diethyl ester**
see under diethyl ethyl(1-methylbutyl)malonate
- (\pm)-*N*-ethyl-*N*-methylcarbamic acid 3-[1-(dimethylamino)-ethyl]phenyl ester**
(C₁₄H₂₂N₂O₂; 105601-20-5) see: Rivastigmine
- N*-ethyl-*N*-methylcarbamoil chloride**
(C₄H₈ClNO; 42252-34-6) see: Rivastigmine
- ethyl 4-methylcinnamate**
(C₁₂H₁₄O₂; 20511-20-0) see: Ozagrel
- 13-ethyl-11-methylenegon-4-en-17-one**
(C₂₀H₂₈O; 54024-21-4) see: Desogestrel
- 3-ethyl-3-methylglutaric acid**
(C₈H₁₄O₄; 5345-01-7) see: Bemegride
- 3-ethyl-3-methylglutaric anhydride**
(C₈H₁₂O₃; 6970-57-6) see: Bemegride
- ethyl 2-methyl-4-hexynoate**
(C₉H₁₄O₂; 116484-93-6) see: Iloprost
- ethyl 5-methylimidazole-4-carboxylate**
(C₇H₁₀N₂O₂; 51605-32-4) see: Cimetidine
- ethyl 5-methylisoxazole-3-carboxylate**
(C₇H₉NO₃; 3209-72-1) see: Isocarboxazid
- ethyl methyl ketone**
see under butanone
- ethyl *N*-methylmalonamate**
(C₆H₁₁NO₃; 71510-95-7) see: Paroxetine
- ethyl 4-methyloxazole-5-carboxylate**
(C₇H₉NO₃; 20485-39-6) see: Pyridoxine
- 5-ethyl-5-methyl-2,4-oxazolidinedione**
(C₆H₉NO₃; 52387-52-7) see: Paremethadione
- 3-ethyl-2-methyl-4-oxo-4,5,6,7-tetrahydroindol**
(C₁₁H₁₅NO; 6116-76-3) see: Molindone
- ethyl 3-methyl-4-oxothiazolidin-2-ylideneacetate**
(C₈H₁₁NO₃S; 27653-75-4) see: Etozolin

ethyl 5-methyl-3-phenylisoxazole-4-carboxylate(C₁₃H₁₃NO₃; 1143-82-4) see: Oxacillin**ethyl 2-methyl-2-phenylpropionate**(C₁₂H₁₆O₂; 2901-13-5) see: Fexofenadine hydrochloride**ethyl 1-methylpiperidine-2-carboxylate**(C₉H₁₇NO₂; 30727-18-5) see: Mepivacaine**5-ethyl-2-methylpyridine**(C₈H₁₁N; 104-90-5) see: Nicotinic acid**3-ethyl-4-methyl- δ^3 -pyrrolin-2-one**(C₇H₁₁NO; 766-36-9) see: Glimpiride**2-ethyl-2-methylsuccinic acid**(C₇H₁₂O₄; 631-31-2) see: Ethosuximide**ethyl 2-(5-methyl-1*H*-tetrazol-1-yl)benzoate**(C₁₁H₁₂N₄O₂; 77177-26-5) see: Imiquimod**ethyl 2-(methylthio)acetate**(C₅H₁₀O₂S; 4455-13-4) see: Bromfenac sodium**8-ethyl-2-methylthio-5-oxo-5,8-dihydropyrido[2,3-*d*]pyrimidine-6-carboxylic acid**(C₁₁H₁₁N₃O₃S; 19572-11-3) see: Pipemidic acid; Piromidic acid**ethyl 2-(2-methyl-3,4,6-trifluorobenzoyl)-3-cyclopropylaminoacrylate**(C₁₆H₁₆F₃NO₃; 119915-45-6) see: Grepafloxacin**ethyl 2-(2-methyl-3,4,6-trifluorobenzoyl)-3-ethoxyacrylate**(C₁₅H₁₅F₃O₄; 119915-44-5) see: Grepafloxacin**ethyl nicotinate**(C₈H₉NO₂; 614-18-6) see: Azatadine; Tipepidine**ethyl nipecotinate**(C₈H₁₅NO₂; 5006-62-2) see: Tiagabine **α -ethyl-4-nitrobenzeneacetic acid**(C₁₀H₁₁NO₄; 7463-53-8) see: Indobufen**ethyl 4-nitrobenzoate**(C₉H₉NO₄; 99-77-4) see: Benzocaine**ethyl 3-nitro-benzylideneacetate**(C₁₃H₁₃NO₃; 39562-16-8) see: Nitrendipine**ethyl *N*-(2-nitro-6-chlorobenzyl)glycinate**(C₁₁H₁₃ClN₂O₄; 50608-25-8) see: Anagrelide hydrochloride **α -ethyl-3-nitrocinnamic acid**(C₁₁H₁₁NO₄; 5253-02-1) see: Bunamiodyl; Iopanoic acid**ethyl 1-(nitromethyl)cyclohexaneacetate**(C₁₁H₁₉NO₄; 133938-45-1) see: Gabapentin**ethyl 8-nitro-4-oxo-1-benzopyran-2-carboxylate**(C₁₂H₉NO₆; 110683-75-5) see: Pranolast**ethyl 5-nitro-3-phenylindol-2-carboxylate**(C₁₇H₁₄N₂O₄; 23515-78-8) see: Nimetazepam**ethyl nortriptyline-*N*-carboxylate**(C₂₂H₂₅NO₂; 16234-88-1) see: Nortriptyline**ethyl *L*-norvalinate hydrochloride**(C₇H₁₆ClNO₂; 40918-51-2) see: Perindopril**ethyl 2,3,4,4a,5,6,7,8-octahydro-3-oxo-6-pyrido[4,3-*c*]pyridazinecarboxylate**(C₁₀H₁₅N₃O₃; 39716-41-1) see: Endralazine**ethyl orthocarbonate**(C₉H₂₀O₄; 78-09-1) see: Candesartan cilexetil; Prednicarbate**ethyl orthoformate**(C₇H₁₆O₃; 122-51-0) see: Allopurinol; Azacitidine; Betacarotene; Ciprofloxacin; Cortivazol; Ebrotidine; Eprosartan; Flumedroxone acetate; Formocortol; Gestodene; Grepafloxacin; Imiquimod; Incadronic acid; Ipriflavone; Leflunomide; Levofloxacin; Meprosicllarin; Methandriol; Methyltestosterone; Moxifloxacin hydrochloride; Norethisterone; Penmesterol; Sparfloxacin; Temafloxacin; Thiamine; Tosufloxacin; Ulobetasol propionate**2-ethyl-2-oxazoline**(C₅H₉NO; 10431-98-8) see: Nefazodone hydrochloride**(\pm)-ethyl 2-oxo-3-benzoylamino-3-phenylpropionate**(C₁₈H₁₇NO₄; 153433-79-5) see: Paclitaxel**ethyl 3-oxoproate**(C₈H₁₄O₃; 3249-68-1) see: Propylthiouracil**ethyl 2-oxocyclohexanecarboxylate**(C₉H₁₄O₃; 1655-07-8) see: Tacrine**ethyl 2-oxocyclopentanecarboxylate**(C₈H₁₂O₃; 611-10-9) see: Loxoprofen**ethyl 6-oxo-6-[2-(3,4-dimethoxyphenyl)ethylamino]hexanoate**(C₁₈H₂₇NO₅; 101889-12-7) see: Dopexamine**ethyl 3-oxopentanoate**(C₇H₁₂O₃; 4949-44-4) see: Etodolac**ethyl 2-oxo-4-phenylbutanoate**(C₁₂H₁₄O₃; 64920-29-2) see: Benazepril; Cilazapril; Enalapril; Lisinopril; Spirapril**ethyl 2-oxo-4-phenylbutyrate**

see under ethyl 2-oxo-4-phenylbutanoate

ethyl 4-oxo-1-piperidinecarboxylate

see under 1-(ethoxycarbonyl)-4-piperidinone

ethyl 4-oxo-1-piperidinecarboxylic acid

see under 1-(ethoxycarbonyl)-4-piperidinone

ethyl (3-oxopropylthio)acetate(C₇H₁₂O₃S; 94088-65-0) see: Letosteine**ethyl 4-oxo-7-(4-pyridyl)-1,4-dihydroquinoline-3-carboxylate**(C₁₇H₁₄N₂O₃; 40034-41-1) see: Rosoxacin**ethyl 2-oxo-1-pyrrolidineacetate**(C₈H₁₃NO₃; 61516-73-2) see: Piracetam; Pramiracetam hydrochloride**ethyl 4-oxothiazolidin-2-ylideneacetate**(C₇H₉NO₃S; 24146-36-9) see: Etozolin; Piprozolin**(3-ethyl-4-oxo-2-thiazolidinylidene)acetic acid ethyl ester**(C₉H₁₃NO₃S; 36958-87-9) see: Piprozolin**ethyl pentafluorobenzoylacetate**(C₁₁H₇F₅O₃; 3516-87-8) see: Sparfloxacin**ethyl pentanimidate**(C₇H₁₅NO; 999-09-7) see: Irbesartan**5-(1-ethylpentyl)hydantoin sodium salt**(C₁₀H₁₇N₂NaO₂) see: Clodantoin**2-ethyl-10*H*-phenothiazine**(C₁₄H₁₃NS; 61852-27-5) see: Etymemazine**ethyl phenothiazine-2-carbamate**(C₁₅H₁₄N₂O₂S; 37711-29-8) see: Moracizine**ethyl 2-phenoxyethylbenzoate**(C₁₆H₁₆O₃; 4504-85-2) see: Doxepin**ethyl phenylacetate**(C₁₀H₁₂O₂; 101-97-3) see: Methylphenobarbital; Phenobarbital

ethyl 2-phenylacetimidate hydrochloride(C₁₀H₁₄ClNO; 5442-34-2) see: Tolazoline**ethyl 2-(phenylacetoxy)acetate**(C₁₂H₁₄O₄; 91497-39-1) see: Rocofexib**1-ethyl-4-phenylacetylbenzene**(C₁₆H₁₆O; 24062-74-6) see: Broparestrol**ethyl 2-phenylacrylate**

see under ethyl atropate

ethyl 2-phenylbicyclo[2.2.1]heptane-2-carboxylate(C₁₆H₂₀O₂; 93963-32-7) see: Bornaprine**ethyl 2-phenylbicyclo[2.2.1]hept-5-ene-2-carboxylate**(C₁₆H₁₈O₂; 93963-29-2) see: Bornaprine**2-ethyl-2-phenylbutyric acid**(C₁₂H₁₆O₂; 5465-28-1) see: Oxeladin**2-ethyl-2-phenylbutyronitrile**(C₁₂H₁₅N; 5336-57-2) see: Oxeladin**ethyl α -phenyl-cyanoacetate**see under α -cyanophenylacetic acid ethyl ester**ethyl 1-phenylcyclohexane-1-carboxylate**(C₁₅H₂₀O₂; 29273-21-0) see: Dicycloverine**ethyl 2-phenylcyclopropanecarboxylate**(C₁₂H₁₄O₂; 97-71-2) see: Tranlycypromine**5-ethyl-5-phenylhydantoin**(C₁₁H₁₂N₂O₂; 631-07-2) see: Mephenytoin**(2-ethylphenyl)hydrazine**(C₈H₁₂N₂; 19275-55-9) see: Etodolac**ethylphenylmalondiamide**(C₁₁H₁₄N₂O₂; 7206-76-0) see: Primidone**ethylphenylmalonic acid diethyl ester**

see under diethyl ethylphenylmalonate

6-ethyl 3-(phenylmethyl) (1 α ,5 α ,6 α)-3-azabicyclo[3.1.0]-hexane-3,6-dicarboxylate(C₁₆H₁₉NO₄; 146726-10-5) see: Trovafloxacin mesilate**ethyl (2R,3R)-3-phenyl-2-oxiranecarboxylate**(C₁₁H₁₂O₃; 126060-73-9) see: Docetaxel**ethyl 4-phenylpiperidine-4-carboxylate**(C₁₄H₁₉NO₂; 77-17-8) see: Anileridine; Diphenoxylate**ethyl 2-phenylpropionate**(C₁₁H₁₄O₂; 2510-99-8) see: Loxoprofen**ethyl phenylpyruvate 4-nitrophenylhydrazone**(C₁₇H₁₇N₃O₄; 33671-11-3) see: Nimetazepam**4-ethylphenyl 2-thienyl ketone**(C₁₃H₁₂OS; 52779-81-4) see: Suprofen**ethylphosphonic acid bis(dimethylamide)**(C₈H₁₇N₂OP; 14655-69-7) see: Tacrolimus**ethyl 1-piperazineacetate**(C₈H₁₆N₂O₂; 40004-08-8) see: Cinpezat**ethyl piperazine-N-carboxylate**

see under N-carbethoxypiperazine

ethyl 3-piperidinopropionate(C₁₀H₁₉NO₂; 19653-33-9) see: Pridinol**ethyl N-(4-piperidyl)carbamate**(C₈H₁₆N₂O₂; 64951-36-6) see: Mizolastine**ethyl 1-propenyl ether**(C₅H₁₀O; 928-55-2) see: Betacarotene; Sulfaperin**4'-ethylpropiofenone**(C₁₁H₁₄O; 27465-51-6) see: Eperisone**2-(ethylpropylamino)ethanol**(C₇H₁₇NO; 2893-56-3) see: Benaprizine**ethyl 2-propylisonicotinate**(C₁₁H₁₅NO₂; 1531-17-5) see: Protonamide**ethyl 3-propylpyrazole-5-carboxylate**(C₉H₁₄N₂O₂; 92945-27-2) see: Sildenafil**ethyl 2',3'-proscillaridinorthoformate**(C₃₃H₄₆O₉; 53910-97-7) see: Meprscillaridin**2-ethylpyridine**(C₇H₉N; 100-71-0) see: Dimetindene**5-ethyl-2-pyridineethanol 4-methylbenzenesulfonate (ester)**(C₁₆H₁₉NO₃S; 144809-27-8) see: Pioglitazone**N-ethyl-4-pyridinemethanamine**(C₈H₁₂N₂; 33403-97-3) see: Tropicamide**4-[2-(5-ethyl-2-pyridinyl)ethoxy]benzaldehyde**(C₁₆H₁₇NO₂; 114393-97-4) see: Pioglitazone**4-[2-(5-ethyl-2-pyridinyl)ethoxy]benzenamine**(C₁₃H₁₈N₂O; 85583-40-0) see: Pioglitazone**4-[2-(5-ethyl-2-pyridinyl)ethoxy]benzoxitrile**(C₁₆H₁₆N₂O; 136402-00-1) see: Pioglitazone**5-[[4-[2-(5-ethyl-2-pyridinyl)ethoxy]phenyl]methylene]-2,4-thiazolidinedione**(C₁₉H₁₈N₂O₃S; 144809-28-9) see: Pioglitazone**5-[[4-[2-(5-ethyl-2-pyridinyl)ethoxy]phenyl]methyl]-2-imino-4-thiazolidinone**(C₁₉H₂₁N₃O₂S; 105355-26-8) see: Pioglitazone**2-(5-ethyl-2-pyridyl)ethanol**(C₉H₁₃NO; 5223-06-3) see: Pioglitazone**4-[2-(5-ethyl-2-pyridyl)ethoxy]-1-nitrobenzene**(C₁₅H₁₆N₂O₂; 85583-54-6) see: Pioglitazone**ethyl 2-pyridylpyruvate 1-oxide**(C₁₀H₁₁NO₄; 27296-38-4) see: Bromazepam**1-ethyl-3-pyrrolidinyl benzilate**(C₂₀H₂₃NO₃; 94576-88-2) see: Benzilium bromide**ethyl shikimate**(C₉H₁₄O₅; 101769-63-5) see: Oseltamivir**ethyl succinyl chloride**

see under ethyl 3-chloroformylpropionate

2-(ethylsulfonyl)ethanol(C₄H₁₀O₃S; 513-12-2) see: Tinidazole**2-(ethylsulfonyl)ethyl p-toluenesulfonate**(C₁₁H₁₆O₅S₂; 19387-92-9) see: Tinidazole**5-(ethylsulfonyl)-2-methoxybenzoic acid**(C₁₀H₁₂O₅S; 4840-63-5) see: Sultopride**ethyl 2,3,4,5-tetrafluorobenzoylacetate**(C₁₁H₈F₄O₂; 94695-50-8) see: Levofloxacin; Rufloxacin hydrochloride**ethyl 5,6,7,8-tetrafluoro-1-cyclopropyl-4-oxo-1,4-dihydroquinoline-3-carboxylate**(C₁₅H₁₁F₄NO₃; 107564-02-3) see: Sparfloxacin**ethyl 1,2,3,4-tetrahydro-6,7-dimethoxy-1-isoquinolineacetate**(C₁₅H₂₁NO₄; 14028-68-3) see: Benzquinamide**N-ethyl-N-(tetrahydrofurfuryl)amine**(C₇H₁₅NO; 7179-86-4) see: Piperidolate**3-ethyltetrahydro-2H-pyran-2-one**(C₇H₁₂O₂; 32821-68-4) see: Vincamine**ethyl 3(R)-(tetrahydropyranoxyl)-6-heptenoate**(C₁₄H₂₄O₄; 89009-89-2) see: Orlistat

ethyl [3*R*-(*Z*)]-3-[(tetrahydro-2*H*-pyran-2-yl)oxy]-6-tetra-**deccenoate**(C₂₁H₃₈O₄; 104801-91-4) see: Orlistat***N*-(5-ethyl-1,3,4-thiadiazol-2-yl)-4-nitrobenzenesulfonamide**(C₁₀H₁₀N₄O₄S₂; 76170-72-4) see: Sulfaethidole**ethyl thiazole-5-carboxylate**(C₆H₇NO₂S; 32955-22-9) see: Ritonavir**3-ethylthioaniline**(C₈H₁₁NS; 1783-82-0) see: Thiethylperazine**3-ethylthiodiphenylamine**(C₁₄H₁₅NS; 68083-49-8) see: Thiethylperazine**2-ethylthiophenothiazine**(C₁₄H₁₃NS₂; 46815-10-5) see: Thiethylperazine***N*-(3-ethylthiophenyl)anthranilic acid**(C₁₅H₁₅NO₂S; 18902-94-8) see: Thiethylperazine**ethyl 4-toluenesulfonylcarbamate**(C₁₀H₁₃NO₄S; 5577-13-9) see: Glibornuride; Gliclazide; Tolazamide**ethyl (*E*)-3-[6-(*p*-toluoyl)-2-pyridinyl]acrylate**(C₁₈H₁₇NO₃; 87848-98-4) see: Acrivastine**ethyl 3-[4-(*o*-tolyl)-1-piperazinyl]propionate**(C₁₆H₂₄N₂O₂; 63853-99-6) see: Dapiprazole**ethyl *N*-(*p*-tolylsulfonyl)carbamate**

see under ethyl 4-toluenesulfonylcarbamate

ethyl trifluoroacetate(C₄H₅F₃O₂; 383-63-1) see: Celecoxib; Efavirenz; Lisinopril**ethyl γ,γ -trifluoroacetoacetate**(C₆H₇F₃O₃; 372-31-6) see: Mefloquine**1-ethyl-6,7,8-trifluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid**(C₁₂H₈F₃NO₃; 75338-42-0) see: Lomefloxacin**1-ethyl-6,7,8-trifluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid ethyl ester**(C₁₄H₁₂F₃NO₃; 100501-62-0) see: Lomefloxacin**ethyl 2-(2,4,5-trifluoro-3-methoxybenzoyl)acetate**(C₁₂H₁₁F₃O₄; 112811-68-4) see: Moxifloxacin hydrochloride**ethyl 2,3,5-trifluoro-4-(4-methyl-1-piperazinyl)benzoylacetate**(C₁₆H₁₉F₃N₂O₃; 108860-30-6) see: Rufloxacin hydrochloride**ethyl 2,3,5-Trifluoro-4-(4-methyl-1-piperazinyl)- α -ethoxymethylenebenzoylacetate**(C₁₉H₂₃F₃N₂O₄) see: Rufloxacin hydrochloride**ethyl 2(*R*)-trifluoromethylsulfonyloxy-4-phenylbutyrate**(C₁₃H₁₅F₃O₃S; 88767-98-0) see: Temocapril**ethyl 3,4,5-trimethoxybenzylcyanoacetate**(C₁₅H₁₉NO₅; 29958-02-9) see: Trimethoprim**ethyl 3-(3,4,5-trimethoxyphenyl)propionate**(C₁₄H₂₀O₅; 70311-20-5) see: Trimethoprim**ethyl (\pm)-3,4,4-trimethoxy-1-piperidinecarboxylate**(C₁₁H₂₁NO₅; 83863-73-4) see: Cisapride**ethyl (triphenylphosphoranylidene)acetate**(C₂₂H₂₁O₂P; 1099-45-2) see: Sorivudine**ethyl 2-(triphenylphosphoranylidene)propanoate**(C₂₃H₂₃O₂P; 5717-37-3) see: Sorivudine**ethyl 1-trityltetrazole-5-carboxylate**(C₂₃H₂₀N₄O₂; 139348-78-0) see: Pranlukast**ethyl 10-undecylenate**(C₁₃H₂₄O₂; 692-86-4) see: Iofendylate**ethylurea**(C₃H₈N₂O; 625-52-5) see: Fenozolone**ethyl vinyl ether**(C₄H₈O; 109-92-2) see: Betacarotene; Brinzolamide; Docetaxel; Paclitaxel**ethylxanthic acid [5-hydroxy-4-(hydroxymethyl)-6-methyl-3-pyridyl]methyl ester**(C₁₁H₁₅NO₃S₂; 92147-37-0) see: Pyritinol**1-ethynylcyclohexanol**(C₈H₁₂O; 78-27-3) see: Ethinamate**17-ethynyl-3 β ,17 β -dihydroxy-5-androstene**(C₂₁H₃₀O₂; 3604-60-2) see: Ethisterone; Spironolactone**6-ethynyl-4,4-dimethyl-3,4-dihydro-2*H*-1-benzothiopyran**(C₁₃H₁₄S; 118292-06-1) see: Tazarotene**17-ethynylestradiol**(C₂₀H₂₄O₂; 57-63-6) see: Quinestrol**17 α -ethynyl-17 β -hydroxy-3-oxo-4-androstene**

see under ethisterone

ethynylmagnesium bromide(C₂HBrMg; 4301-14-8) see: Gestodene; Norgestrienone**[1*R*-(1 α ,2 β ,4 β)]-[4-ethynyl-2-methoxycyclohexyl]oxy]-tris(1-methylethyl)silane**(C₁₈H₃₄O₂Si; 122948-76-9) see: Tacrolimus**17 α -ethynyl-6 β -methyl-3 β ,5 α ,17 β -trihydroxyandrostane**(C₂₂H₃₄O₃; 96707-49-2) see: Dimethisterone**etofylline**(C₉H₁₂N₄O₃; 519-37-9) see: Pyridofylline**etoposide**(C₂₉H₃₂O₁₃; 33419-42-0) see: Etopophos**etynodiol**(C₂₀H₂₈O₂; 1231-93-2) see: Etyndiol acetate**F****farnesylacetic acid**(C₁₇H₂₈O₂; 6040-06-8) see: Gefarnate***rac*-fenfluramine**(C₁₂H₁₆F₃N; 458-24-2) see: Dexfenfluramine**fenpipramide**(C₂₁H₂₆N₂O; 77-01-0) see: Fenpiverinium bromide**fludrocortisone**(C₂₁H₂₉FO₅; 127-31-1) see: Triamcinolone**fludrocortisone 21-acetate**(C₂₃H₃₁FO₆; 514-36-3) see: Fludrocortisone; Isoflupredone acetate**fludroxycortide**(C₂₄H₃₃FO₆; 1524-88-5) see: Flunisolide**flufenamic acid potassium salt**(C₁₄H₉F₃KNO₂; 35982-11-7) see: Etofenamate**flumetasone acetate**(C₂₄H₃₀F₂O₆; 2823-42-9) see: Halometasone**fluocinolone**(C₂₁H₂₆F₂O₆; 807-38-5) see: Fluocinolone acetonide**fluocinolone acetonide**(C₂₄H₃₀F₂O₆; 67-73-2) see: Fluocinonide

fluocortolone

(C₂₂H₂₉FO₄; 152-97-6) see: Fluocortin butyl; Fluocortolone caproate; Fluocortolone trimethylacetate

flouranthene

(C₁₆H₁₀; 206-44-0) see: Florantyrone

fluorene

(C₁₃H₁₀; 86-73-7) see: Indecainide

9-fluorenicarboxamide

(C₁₄H₁₁NO; 7471-95-6) see: Indecainide

9-fluorenicarboxylic acid

(C₁₄H₁₀O₂; 1989-33-9) see: Indecainide

2-[(fluoroacetyl)amino]-N-(2-methylphenyl)-5-nitrobenzamide

(C₁₆H₁₄FN₃O₄; 56287-72-0) see: Afloqualone

fluoroacetyl chloride

(C₂H₃ClFO; 359-06-8) see: Afloqualone

3-fluoroaniline

(C₆H₆FN; 372-19-0) see: Flosequinan

2-fluoroanisole

(C₇H₇FO; 321-28-8) see: Bifluranol

2-fluorobenzaldehyde

(C₇H₅FO; 446-52-6) see: Repaglinide

4-fluorobenzaldehyde

(C₇H₅FO; 459-57-4) see: Atorvastatin calcium; Cerivastatin sodium; Paroxetine; Rosiglitazone; Sulindac

2-[3-(4-fluorobenzamido)-4-hydroxyphenyl]propionic acid

(C₁₆H₁₄FNO₄) see: Flunoxaprofen

4-fluorobenzamine

(C₆H₆FN; 371-40-4) see: Sertindole

fluorobenzene

(C₆H₅F; 462-06-6) see: Bromperidol; Flubendazole; Haloperidol; Suprofen

4-fluorobenzenesulfonyl chloride

(C₆H₄ClFO₂S; 349-88-2) see: Ramatroban

4-fluorobenzonitrile

(C₇H₅FN; 1194-02-1) see: Letrozole; Pioglitazone

2-fluorobenzoyl chloride

(C₇H₄ClFO; 393-52-2) see: Flunitrazepam; Quazepam

4-fluorobenzoyl chloride

(C₇H₄ClFO; 403-43-0) see: Flunoxaprofen

4-(4-fluorobenzoyl)piperidine

(C₁₂H₁₄FNO; 56346-57-7) see: Ketanserin

4-(4-fluorobenzoyl)-1-piperidinecarboxylic acid ethyl ester

(C₁₅H₁₈FNO₃; 23656-28-2) see: Ketanserin

4-fluorobenzylamine

(C₇H₈FN; 140-75-0) see: Flupirtine

N-[1-[1-(4-fluorobenzyl)benzimidazol-2-yl]piperidin-4-yl]-N-methylamine

(C₂₀H₂₃FN₄; 108635-83-2) see: Mizolastine

p-fluorobenzyl chloride

(C₇H₆ClF; 352-11-4) see: Astemizole; Mizolastine

4-fluorobenzyl chloride

see under *p*-fluorobenzyl chloride

N-(4-fluorobenzyl)ethanolamine

(C₉H₁₂FNO; 22116-33-2) see: Mosapride citrate

2-fluoro-4-biphenylacetic acid

(C₁₄H₁₁FO₂; 5001-96-7) see: Flurbiprofen

2-(2-fluoro-4-biphenyl)acrylic acid

(C₁₅H₁₁FO₂; 61466-96-4) see: Flurbiprofen

2-(2-fluoro-4-biphenyl)-2-hydroxypropionic acid

(C₁₅H₁₃FO₃; 61466-95-3) see: Flurbiprofen

(2-fluoro[1,1'-biphenyl]-4-yl)methylpropanedioic acid diethyl ester

(C₂₀H₂₁FO₄; 42771-81-3) see: Flurbiprofen

5-fluoro-2-O,4-N-bis(trimethylsilyl)cytosine

(C₁₀H₂₀FN₃OSi₂; 168332-11-4) see: Capecitabine

4'-fluoro-4-chlorobutyrophenone

see under 4-chloro-4'-fluorobutyrophenone

5-fluorocytosine

(C₄H₄FN₃O; 2022-85-7) see: Capecitabine

6-fluoro-3,4-dihydro-2H-benzopyran-2-carboxaldehyde

(C₁₀H₉FO₂) see: Nebivolol

5-fluoro-3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinecarbonyl chloride

(C₅H₂ClFN₂O₃; 65202-29-1) see: Carmofur

(RS)-6-fluoro-3,4-dihydro-1-isopropyl-2(1H)-naphthalenone

(C₁₃H₁₅FO; 104204-91-3) see: Mibefradil hydrochloride

9-fluoro-2,3-dihydro-10-(4-methyl-1-piperazinyl)-7-oxo-7H-pyrido[1,2,3-de]-1,4-benzothiazine-6-carboxylic acid 1-oxide

(C₁₇H₁₈FN₃O₄S; 101337-89-7) see: Rufloxacin hydrochloride

[(6-fluoro-3,4-dihydro-2-methyl-1(2H)-quinolinyl)methylene]propanedioic acid diethyl ester

(C₁₈H₂₂FNO₄; 105450-09-7) see: Flumequine

6-fluoro-3,4-dihydro-2-oxiranyl-2H-1-benzopyran

(C₁₁H₁₁FO₂; 99199-90-3) see: Nebivolol

(5α,6β,11β,17Z)-6-fluoro-5,11-dihydroxy-3,3-[1,2-ethane-diylbis(oxy)]pregn-17(20)-en-21-oic acid methyl ester

(C₂₄H₃₅FO₆) see: Fluprednisolone acetate

(6α,11β)-9-fluoro-11,17-dihydroxy-21-iodo-6-methylpregn-4-ene-3,20-dione

(C₂₂H₃₀FI₂O₄; 3928-85-6) see: Fluorometholone

(11β,16α)-9-fluoro-11,17-dihydroxy-16-methyl-21-[(methylsulfonyl)oxy]pregna-1,4-diene-3,20-dione

(C₂₃H₃₁FO₇S; 2265-22-7) see: Dexamethasone 21-linolate

(6α,11β,16α)-6-fluoro-11,20-dihydroxy-16-methyl-3-oxopregna-1,4-dien-21-oic acid butyl ester

(C₂₆H₃₇FO₅) see: Fluocortin butyl

(11β,16α)-9-fluoro-11,17-dihydroxy-16-methyl-21-(phosphonoxy)pregna-1,4-diene-3,20-dione monosodium salt

(C₂₂H₂₉FNaO₈P; 1869-92-7) see: Dexamethasone phosphate

9-fluoro-17,21-dihydroxy-16β-methylpregna-1,4-diene-3,11,20-trione 17-butyrate methanesulfonate

(C₂₇H₃₅FO₈S; 25092-18-6) see: Clobetasone butyrate

(6α,11β,16α)-6-fluoro-11,21-dihydroxy-16-methylpregn-4-ene-3,20-dione

(C₂₂H₃₁FO₄; 387-73-5) see: Fluocortolone

6α-fluoro-17,21-dihydroxy-16α-methylpregn-4-ene-3,20-dione

(C₂₂H₃₁FO₄; 378-59-6) see: Paramethasone

(6α,11β)-9-fluoro-11,17-dihydroxy-6-methylpregn-4-ene-3,20-dione

(C₂₂H₃₁FO₄; 378-36-9) see: Fluorometholone

N-(β-fluoroethyl)nortropine

(C₉H₁₆FNO; 95688-32-7) see: Flutropium bromide

- N-(β -fluoroethyl)nortropine benzilate**
($C_{23}H_{26}FNO_3$; 63516-27-8) see: Flutropium bromide
- 6 β -fluorohydrocortisone 21-acetate**
($C_{23}H_{31}FO_6$; 986-37-8) see: Fluprednisolone acetate
- 5'-fluoro-2'-hydroxybutyropenone**
($C_{10}H_{11}FO_2$; 575-67-7) see: Butoflolol
- (Z)-6 β -fluoro-5-hydroxy-3,11-dioxo-5 α -pregn-17(20)-en-21-*oic acid methyl ester cyclic 3-(ethylene acetal)***
($C_{24}H_{33}FO_6$; 5319-18-6) see: Fluprednisolone acetate
- 9 α -fluoro-16-hydroxyhydrocortisone**
($C_{21}H_{29}FO_6$; 337-02-0) see: Halcinonide
- (11 β ,16 β)-9-fluoro-11-hydroxy-16-methyl-21-[(methylsulfonyl)oxy]-17-(1-oxobutoxy)pregna-1,4-diene-3,20-dione**
($C_{27}H_{37}FO_8S$; 25092-11-9) see: Clobetasone butyrate
- (11 β ,16 β)-9-fluoro-11-hydroxy-16-methyl-21-[(methylsulfonyl)oxy]-17-(1-oxopropoxy)pregna-1,4-diene-3,20-dione**
($C_{26}H_{35}FO_8S$; 15423-80-0) see: Clobetasol propionate
- (6 α ,16 α)-6-fluoro-21-hydroxy-16-methylpregn-4-ene-3,20-dione**
($C_{22}H_{31}FO_3$; 1244-13-9) see: Fluocortolone
- 6 β -fluoro-21-hydroxy-16 α -methylpregn-4-ene-3,20-dione acetate**
($C_{24}H_{33}FO_4$; 1251-27-0) see: Fluocortolone
- 2-fluoro-3-hydroxy-2-propenoic acid ethyl ester**
($C_5H_7FO_3$; 185692-96-0) see: Fluorouracil
- 6-fluoro- γ -(2-iodoethyl)-1,2-benzisoxazole-3-propanol methanesulfonate (ester)**
($C_{13}H_{15}FINO_4S$; 181479-14-1) see: Risperidone
- fluoriodomethane**
(CH_2FI ; 373-53-5) see: Fluticasone propionate
- 5-fluoroisatoic anhydride**
($C_8H_4FNO_3$; 321-69-7) see: Flumazenil
- 1-[4-fluoro-2-(methylamino)phenyl]-2-(methylsulfinyl)ethanone**
($C_{10}H_{12}FNO_2S$; 154639-75-5) see: Flosequinan
- 4-fluoro-N-methylanthranilic acid**
($C_8H_8FNO_2$; 128992-62-1) see: Flosequinan
- 7-fluoro-1-methyl-2H-3,1-benzoxazine-2,4(1H)-dione**
($C_9H_6FNO_3$; 97927-92-9) see: Flosequinan
- 4-fluoro- α -methylcinnamic acid**
($C_{10}H_9FO_2$; 22138-72-3) see: Sulindac
- 7-fluoro-4-methyl-3,4-dihydro-2H-1,4-benzodiazepin-2,5(1H)-dione**
($C_{10}H_9FN_2O_2$; 78755-80-3) see: Flumazenil
- 4-fluoro- α -methylidihydrocinnamic acid**
($C_{10}H_{11}FO_2$; 22138-73-4) see: Sulindac
- 5-fluoro-2',3'-O-(1-methylethylidene)uridine**
($C_{12}H_{15}FN_2O_6$; 2797-17-3) see: Doxifuridine
- 9-fluoro-6 α -methyl-hydrocortisone**
($C_{22}H_{31}FO_3$; 382-51-4) see: Fluorometholone
- 5-fluoro-2-methyl-3-indanone**
($C_{10}H_9FO$; 37794-19-7) see: Sulindac
- 5-fluoro-2-methyl-1H-indene-3-acetic acid**
($C_{12}H_{11}FO_2$; 32004-66-3) see: Sulindac
- 2-(fluoromethyl)-3-(2-methylphenyl)-6-nitro-4(3H)-quinazolinone**
($C_{16}H_{12}FN_3O_3$; 56287-73-1) see: Afloqualone
- 5-fluoro-2-methyl-1-(4-methylthiobenzylidene)indene-3-acetic acid**
($C_{20}H_{17}FO_2S$; 32004-67-4) see: Sulindac
- 6 β -fluoro-16 α -methylpregn-17(20)-ene-3 β ,5 α ,20-triol triacetate**
($C_{28}H_{41}FO_6$; 75083-51-1) see: Flumetasone; Paramethasone
- 7-fluoro-3-(methylthio)-4(1H)-quinolinone**
($C_{10}H_8FNOS$; 76561-48-3) see: Flosequinan
- 5-fluoro-2-methylthiouracil**
($C_5H_5FN_2OS$; 1480-92-8) see: Flucytosine; Fluorouracil
- 4-fluoro-1-nitrobenzene**
($C_6H_4FNO_2$; 350-46-9) see: Nitrefazole; Pioglitazone
- 1-[5-fluoro-2-(oxiranylmethoxy)phenyl]-1-butanone**
($C_{13}H_{15}FO_3$; 94135-58-7) see: Butoflolol
- 6-fluoro-4-oxobenzopyran-2-carboxylic acid**
($C_{10}H_5FO_4$; 99199-59-4) see: Nebivolol
- 4-fluorophenol**
(C_6H_5FO ; 371-41-5) see: Butoflolol; Cisapride; Progabide
- 1-[3-(4-fluorophenoxy)propyl]-3-methoxy-4-piperidinamine**
($C_{15}H_{23}FN_2O_2$; 108913-89-9) see: Cisapride
- trans-1-[3-(4-fluorophenoxy)propyl]-3-methoxy-4-piperidinamine**
($C_{15}H_{23}FN_2O_2$; 104860-54-0) see: Cisapride
- (3R,4S)-rel-1-[3-(4-fluorophenoxy)propyl]-3-methoxy-4-piperidinamine**
($C_{15}H_{23}FN_2O_2$; 104860-26-6) see: Cisapride
- (\pm)-1-[3-(4-fluorophenoxy)propyl]-3-methoxy-4-piperidinone**
($C_{15}H_{20}FNO_3$; 137472-67-4) see: Cisapride
- 4-fluorophenylacetonitrile**
(C_8H_6FN ; 459-22-3) see: Levocabastine
- (-)-trans-4-(4-fluorophenyl)-3-[(1,3-benzodioxol-5-yloxy)-methyl]-1-methylpiperidine**
($C_{20}H_{22}FNO_3$; 110429-36-2) see: Paroxetine
- 1-(4-fluorophenyl)-5-chloro-1H-indole**
($C_{14}H_9ClFN$; 138900-22-8) see: Sertindole
- 1-(4-fluorophenyl)-1-cyano-4-oxo-cyclohexane**
($C_{13}H_{12}FNO$; 56326-98-8) see: Levocabastine
- 5-(2-fluorophenyl)-1,3-dihydro-2H-1,4-benzodiazepin-2-one**
($C_{15}H_{11}FN_2O$; 2648-01-3) see: Flunitrazepam
- 2-(4-fluorophenyl)- β , δ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-N-(1(R)-phenylethyl)-1H-pyrrole-1-heptanamide**
($C_{37}H_{43}FN_2O_5$; 134395-00-9) see: Atorvastatin calcium
- 1-[3-[2-(4-fluorophenyl)-1,3-dioxolan-2-yl]propyl]-N-(2-nitrophenyl)-4-piperidinamine**
($C_{23}H_{28}FN_3O_4$; 60703-66-4) see: Timiperone
- 2-(4-fluorophenyl)ethanol**
(C_8H_9FO ; 7589-27-7) see: Paraflutizide
- (2-fluorophenyl)-(4-fluorophenyl)-phenylchloromethane**
($C_{19}H_{13}ClF_2$; 128092-75-1) see: Flutrimazole
- 2-(4-fluorophenyl)-3-hydroxy-3-methylbutyric acid**
($C_{11}H_{13}FO_3$; 193673-85-7) see: Mibefradil hydrochloride
- (R)-2-(4-fluorophenyl)- δ -hydroxy-5-(1-methylethyl)- β -oxo-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrole-1-heptanoic acid 1,1-dimethylethyl ester**
($C_{37}H_{41}FN_2O_5$; 134394-98-2) see: Atorvastatin calcium

- (*R*)-2-(4-fluorophenyl)- β -hydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1*H*-pyrrole-1-pentanoic acid methyl ester
(C₃₃H₃₃FN₂O₄; 134394-97-1) see: Atorvastatin calcium
- [*S*-(*R**,*S**)]-2-(4-fluorophenyl)- β -hydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1*H*-pyrrole-1-pentanoic acid 2-hydroxy-1,2,2-triphenylethyl ester
(C₅₁H₄₇FN₂O₅; 134394-96-0) see: Atorvastatin calcium
- 4-(4-fluorophenyl)-2-isobutryl-3-phenyl-4-oxo-*N*-phenylbutyramide
(C₂₆H₂₄FN₂O₃; 125971-96-2) see: Atorvastatin calcium
- 3-(4-fluorophenyl)-1-isopropylindole-2-carboxaldehyde
(C₁₈H₁₆FNO; 101125-34-2) see: Fluvastatin sodium
- (*E*)-3-[3-(4-fluorophenyl)-1-isopropylindol-2-yl]propenal
(C₂₀H₁₈FNO; 93957-50-7) see: Fluvastatin sodium
- 4-fluorophenylmagnesium bromide
(C₆H₄BrFMg; 352-13-6) see: Citalopram; Ketanserin; Paroxetine; Pimozide
- (\pm)-*cis*-4-(4-fluorophenyl)-3-methoxycarbonyl-1-methylpiperidine
(C₁₄H₁₈FNO₂; 109887-60-7) see: Paroxetine
- 4-(4-fluorophenyl)-3-methoxycarbonylpyridine
(C₁₃H₁₀FNO₂; 110307-23-8) see: Paroxetine
- [3*R*-[1(*S**),3*R**,5*S**,6*E*]]-7-[4-(4-fluorophenyl)-5-(methoxymethyl)-2,6-bis(1-methylethyl)-3-pyridinyl]-3,5-dihydroxy-*N*-(2-hydroxy-1-phenylethyl)-6-heptenamide
(C₃₄H₄₃FN₂O₅; 143201-13-2) see: Cerivastatin sodium
- [4 α ,6 β (*E*)]-6-[2-[4-(4-fluorophenyl)-5-(methoxymethyl)-2,6-bis(1-methylethyl)-3-pyridinyl]ethenyl]tetrahydro-4-hydroxy-2*H*-pyran-2-one
(C₂₆H₃₂FN₄O₃; 158878-46-7) see: Cerivastatin sodium
- [4*R*-[4 α ,6 β (*E*))] -6-[2-[4-(4-fluorophenyl)-5-(methoxymethyl)-2,6-bis(1-methylethyl)-3-pyridinyl]ethenyl]tetrahydro-4-hydroxy-2*H*-pyran-2-one
(C₂₆H₃₂FN₄O₃; 158878-47-8) see: Cerivastatin sodium
- (*E*)-3-[4-(4-fluorophenyl)-5-(methoxymethyl)-2,6-bis(1-methylethyl)-3-pyridinyl]-2-propenal
(C₂₂H₂₆FN₂O₂; 177964-68-0) see: Cerivastatin sodium
- 4-[1-[4-(4-fluorophenyl)methyl]-1*H*-benzimidazol-2-yl]amino-1-piperidinecarboxylic acid ethyl ester
(C₂₂H₂₅FN₄O₂; 84501-68-8) see: Astemizole
- 2-(4-fluorophenyl)- α -methyl-5-benzoxazoleacetic acid
(C₁₆H₁₂FNO₃; 73952-77-9) see: Flunoxaprofen
- (*RS*)-2-(*p*-fluorophenyl)-3-methylbutyric acid
(C₁₁H₁₃FO₂; 51632-33-8) see: Mibefradil hydrochloride
- 2(*S*)-(4-fluorophenyl)-3-methylbutyric acid
(C₁₁H₁₃FO₂; 55332-37-1) see: Mibefradil hydrochloride
- 2-(4-fluorophenyl)-3-methylcrotonic acid
(C₁₁H₁₁FO₂; 170432-99-2) see: Mibefradil hydrochloride
- (2*R*-*trans*)-5-(4-fluorophenyl)-2-(1-methylethyl)-*N*,4-diphenyl-1-[2-(tetrahydro-4-hydroxy-6-oxo-2*H*-pyran-2-yl)ethyl]-1*H*-pyrrole-3-carboxamide
(C₃₃H₃₃FN₂O₄; 125995-03-1) see: Atorvastatin calcium
- (2*S*-*trans*)-5-(4-fluorophenyl)-2-(1-methylethyl)-*N*,4-diphenyl-1-[2-(tetrahydro-4-hydroxy-6-oxo-2*H*-pyran-2-yl)ethyl]-1*H*-pyrrole-3-carboxamide
(C₃₃H₃₃FN₂O₄; 134523-07-2) see: Atorvastatin calcium
- trans*-5-(4-fluorophenyl)-2-(1-methylethyl)-*N*,4-diphenyl-1-[2-(tetrahydro-4-hydroxy-6-oxo-2*H*-pyran-2-yl)ethyl]-1*H*-pyrrole-3-carboxamide
(C₃₃H₃₃FN₂O₄; 110862-39-0) see: Atorvastatin calcium
- 3-(4-fluorophenyl)-1-(1-methylethyl)-1*H*-indole
(C₁₇H₁₆FN; 93957-49-4) see: Fluvastatin sodium
- 5-(4-fluorophenyl)-2-(1-methylethyl)-1-(3-oxopropyl)-*N*,4-diphenyl-1*H*-pyrrole-3-carboxamide
(C₂₉H₂₇FN₂O₂; 110862-46-9) see: Atorvastatin calcium
- 1-(4-fluorophenyl)-2-[(1-methylethyl)phenylamino]ethanone
(C₁₇H₁₈FNO; 93957-51-8) see: Fluvastatin sodium
- (-)-*trans*-4-(4-fluorophenyl)-*N*-methyl-3-hydroxymethylpiperidine
(C₁₃H₁₈FNO; 105812-81-5) see: Paroxetine
- 4-(4-fluorophenyl)-*N*-methylnipecotoyl chloride (*cis*-/*trans*-mixt.)
(C₁₃H₁₅ClFNO) see: Paroxetine
- N*⁶-[4-(4-fluorophenyl)methyl]-3-nitro-2,6-pyridinediamine
(C₁₂H₁₁FN₄O₂; 33400-49-6) see: Flupirtine
- 4-(4-fluorophenyl)- α -methyl-1-piperazinepropanamine
(C₁₄H₂₂FN₃; 27367-89-1) see: Niaprazine
- 1-[4-(4-fluorophenyl)methyl]-*N*-4-piperidinyl-1*H*-benzimidazol-2-amine
(C₁₉H₂₁FN₄; 75970-99-9) see: Astemizole
- 5-(2-fluorophenyl)-7-nitro-1,3-dihydro-2*H*-1,4-benzodiazepin-2-one
(C₁₅H₁₀FN₃O₃; 2558-30-7) see: Flunitrazepam
- (3*S*,4*R*)-4-(4-fluorophenyl)-1-(phenylmethyl)-3-piperidine-methanol
(C₁₉H₂₂FNO; 216863-61-5) see: Paroxetine
- (4-fluorophenyl)[1-(phenylmethyl)-4-piperidinyl]methanone
(C₁₉H₂₀FNO; 144734-31-6) see: Ketanserin
- 1-(4-fluorophenyl)piperazine dihydrochloride
(C₁₀H₁₅Cl₂FN₂; 64090-19-3) see: Niaprazine
- 4-[4-(4-fluorophenyl)-1-piperazinyl]-2-butanone
(C₁₄H₁₉FN₂O; 27338-59-6) see: Niaprazine
- 4-[4-(4-fluorophenyl)-1-piperazinyl]-2-butanone oxime
(C₁₄H₂₀FN₃O; 27338-60-9) see: Niaprazine
- (3*S*,4*R*)-4-(4-fluorophenyl)-3-piperidine-methanol
(C₁₂H₁₆FNO; 125224-43-3) see: Paroxetine
- (*S*)-4-(4-fluorophenyl)-1,2,3,6-tetrahydro-1-(phenylmethyl)-3-pyridinemethanol
(C₁₉H₂₀FNO) see: Paroxetine
- (4-fluorophenyl)-2-thienylmethanone
(C₁₁H₇FOS; 579-49-7) see: Suprofen
- 6-fluoro-3-(4-piperidinyl)-1,2-benzisoxazole
(C₁₂H₁₃FN₂O; 84163-77-9) see: Risperidone
- 6 α -fluoroprednisolone
(C₂₁H₂₇FO₅; 53-34-9) see: Flunisolide
- 5-fluorosaliclaldehyde
(C₇H₅FO₂; 347-54-6) see: Butofilolol
- (*R*)-4-fluoro-*N*-(2,3,4,9-tetrahydro-1*H*-carbazol-3-yl)benzenesulfonamide
(C₁₈H₁₇FN₂O₂S; 116650-36-3) see: Ramatroban
- (1*S*,2*S*)-2-(6-fluoro-1,2,3,4-tetrahydro-2-hydroxy-2-isopropyl-2-naphthyl)ethyl *p*-toluenesulfonate
(C₂₂H₂₇FO₄S; 104265-58-9) see: Mibefradil hydrochloride

- 6-fluoro-1,2,3,4-tetrahydro-2-methylquinoline**
(C₁₀H₁₂FN; 42835-89-2) see: Flumequine
- 6-fluoro-3-(tetrahydropyran-4-yl)-1,2-benzisoxazole**
(C₁₂H₁₂FNO₂; 181479-12-9) see: Risperidone
(6 α ,11 β ,16 α)-6-fluoro-11,16,17,21-tetrahydroxypregna-1,4-diene-3,20-dione
(C₂₁H₂₇FO₆; 3915-36-4) see: Flunisolide
- 6 β -fluoro-5,11 β ,17,21-tetrahydroxy-5 α -pregnane-3,20-dione 21-acetate**
(C₂₃H₃₃FO₇; 913-49-5) see: Fluprednisolone acetate
- 4-fluorothiophenol**
(C₆H₅FS; 371-42-6) see: Bicalutamide
- 2-fluorotoluene**
(C₇H₇F; 95-52-3) see: Flutoprazepam
- 9-fluoro-11 β ,17,21-trihydroxy-16-methylenepregn-4-ene-3,20-dione 21-acetate**
(C₂₄H₃₁FO₆; 2728-31-6) see: Fluprednidene acetate
- 9-fluoro-11 β ,17,21-trihydroxy-6 α -methylpregn-4-ene-3,20-dione 21-methanesulfonate**
(C₂₃H₃₃FO₇S; 2647-52-1) see: Fluorometholone
- 6 α -fluoro-16 α ,17,21-trihydroxypregna-4,9(11)-diene-3,20-dione 16,21-diacetate**
(C₂₅H₃₁FO₇; 2965-61-9) see: Fluocinolone acetonide
(6 α ,16 α)-6-fluoro-16,17,21-trihydroxypregn-4-ene-3,20-dione
(C₂₁H₂₉FO₅; 804-82-0) see: Fludrocortide
- 5-fluorouracil**
(C₄H₃FN₂O₂; 51-21-8) see: Carmofur; Flucytosine; Tegafur
- 5-fluorouridine**
(C₉H₁₁FN₂O₆; 316-46-1) see: Doxifluridine
- folic acid**
(C₁₉H₁₉N₇O₆; 59-30-3) see: Folinic acid
- formaldehyde**
(CH₂O; 50-00) see: Aciclovir; Alclofenac; Alminoprofen; Alpidem; Altretamine; Amodiaquine; Azithromycin; Bromperidol; Budipine; Calcium pantothenate; Cicloxilic acid; Clofedanol; Clomocycline; Cortivazol; Dextropropoxyphene; Dichlorophen; Domiphen bromide; Edetic acid; Eperisone; Eprozinol; Etacrynic acid; Ethambutol; Etretnate; Fenticonazole; Fluoxetine; Fosphenytoin sodium; Haloperidol; Hepronicate; Hexetidine; Hydrochlorothiazide; Ibuprofen; Lercanidipine hydrochloride; Levorphanol; Loxoprofen; Lymecycline; Meprobamate; Meptazinol; Metampicillin; Methenamine; Methotrexate; Minocycline; Moexipril; Molsidomine; Moperone; Morinamide; Nifurotinol; Noxytiolin; Oxitriptan; Papaverine; Penimipicycline; Phenindamine; Pipebuzone; Pirbuterol; Pranopropine; Quinapril hydrochloride; Rizatriptan benzoate; Salbutamol; Saquinavir; Setipitiline; Sobuzoxane; Sulbentine; Sulfaloxic acid; Suxibuzone; Ticlopidine; Timonacic; Tiotixene; α -Tocopherol; Tolmetin; Topotecan; Trometamol; Tyloxapol; Venlafaxine; Zimeldine; Zolmitriptan; Zolpidem
- formaldehyde dimethyl mercaptal S-oxide**
(C₃H₈OS₂; 33577-16-1) see: Alclofenac
- formaldehyde polymer with 4-(1,1,3,3-tetramethyl-butyl)phenol**
(unspecified; 26678-93-3) see: Tyloxapol
- formamide**
(CH₃NO; 75-12-7) see: Allopurinol; Chlorothiazide; Cimetidine; Fludarabine phosphate; Fluspirilene; Heptaminol; Primidone; Protriptyline; Pyridoxine; Razoxane; Sulfadoxine; Theophylline
- formamidine**
(CH₄N₂; 463-52-5) see: Itraconazole
- formamidine hydrochloride**
(CH₅ClN₂; 6313-33-3) see: Allopurinol
- 7-formamidocephalosporanic acid**
(C₁₁H₁₂N₂O₆S; 27267-35-2) see: Cefamandole
- 2-(2-formamido-4-thiazolyl)-2-methoxyiminoacetic acid**
(C₇H₇N₃O₄S; 83594-38-1) see: Ceftizoxime
- (2-formamidothiazol-4-yl)oxoacetic acid**
(C₆H₄N₂O₄S; 64987-06-0) see: Cefixime
- formic acid**
(CH₂O₂; 64-18-6) see: Abacavir; α -Acetyldigoxin; Apraclonidine; Azacosterol; Cefamandole; Chlorazanic; Cortivazol; Desoxycortone acetate; Diethylcarbamazine; Estazolam; Folinic acid; Formoterol; Gitaloxin; Gitoformate; Hydroxyprogesterone; Pioglitazone; Temocillin
- N-formyl-DL-alanine ethyl ester**
(C₆H₁₁NO₃; 4289-99-0) see: Pyridoxine
- 2-(formylamino)isocamphane**
(C₁₁H₁₉NO; 86351-88-4) see: Mecamylamine
- 3-formylamino-3-methyl-2-phenylbutane**
(C₁₂H₁₇NO; 22876-59-1) see: Pentorex
- 6 β -formylaminopenicillanic acid benzyl ester**
(C₁₆H₁₈N₂O₄S; 53628-26-5) see: Temocillin
- (formylamino)[[5-(phenylmethoxy)-1H-indol-3-yl]methyl]propanedioic acid diethyl ester**
(C₂₄H₂₆N₂O₆) see: Oxitriptan
- [6R-[6 α ,7 β (Z)]]-7-[[[2-(formylamino)-4-thiazolyl](methoxyimino)acetyl]amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid (4-nitrophenyl)methyl ester**
(C₂₁H₁₈N₆O₈S₂; 68401-78-5) see: Ceftizoxime
- [6R-[6 α ,7 β (Z)]]-7-[[[2-(formylamino)-4-thiazolyl](methoxyimino)acetyl]amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid**
(C₁₄H₁₃N₅O₆S₂; 68401-79-6) see: Ceftizoxime
- 5-formyl-1- β -D-arabinofuranosyluracil**
(C₁₀H₁₃N₂O₇; 87877-24-5) see: Sorivudine
- 2-formylcinnamic acid**
(C₁₀H₈O₃; 28873-89-4) see: Lacidipine
- (Z)- β -formylcrotonic acid**
(C₅H₆O₃; 70143-04-3) see: Isotretinoin
- 3-formylcrotyl acetate**
(C₇H₁₀O₃; 14918-80-0) see: Retinol
- 2-formyl-1,4-dihydro-6-methyl-4-(3-nitrophenyl)-3,5-pyridinedicarboxylic acid 3-methyl 5-(1-methylethyl) ester**
(C₁₉H₂₀N₂O₇; 75530-60-8) see: Nilvadipine
- DL-N-formyl-3,5-diiodothyronine**
(C₁₆H₁₃I₂NO₅; 94298-44-9) see: Dextrothyroxine
- L-N-formyl-3,5-diiodothyronine**
(C₁₆H₁₃I₂NO₅) see: Levothyroxine
- D(-)-N-formyl-3,5-diiodothyronine**
(C₁₆H₁₃I₂NO₅; 120408-14-2) see: Dextrothyroxine
- N-formyl-1,5-dimethyl-4-hexenamine**
(C₉H₁₇NO) see: Heptaminol
- 10-formylfolic acid**
(C₂₀H₁₉N₇O₇; 134-05-4) see: Folic acid
- 1-formyl-hexahydroazepine**
(C₇H₁₃NO; 25114-81-2) see: Mecillinam; Pivmecillinam
- 1-formyl-homopiperazine**
(C₆H₁₂N₂O; 29053-62-1) see: Bunazosin

- (*S*)-*N*-formylleucine
(C₇H₁₃NO₃; 6113-61-7) see: Orlistat
- 6-formyl-3-methoxy-17-acetoxy-19-nor-3,5-pregnadien-20-one**
(C₂₄H₃₂O₅; 32420-16-9) see: Nomegestrol acetate
- 4-(formylmethylamino)benzoic acid**
(C₉H₉NO₃; 51865-84-0) see: Methotrexate
- 4-(formylmethylamino)benzoyl chloride**
(C₉H₈ClNO₂; 70124-64-0) see: Methotrexate
- 3-(*N*-formyl-*N*-methylamino)-1-propanol**
(C₅H₁₁NO₂; 1590-48-3) see: Protriptyline
- 3-(*N*-formyl-*N*-methylamino)propyl chloride**
(C₅H₁₀ClNO; 4172-04-7) see: Protriptyline
- 1-(formylmethyl)-3-methyl-2-thiourea diethyl acetal**
(C₈H₁₈N₂O₂S; 90203-43-3) see: Thiamazole
- (3β)-3-(formyloxy)-17-hydroxypregn-5-en-20-one**
(C₂₂H₃₂O₄; 20867-15-6) see: Hydrocortisone; Hydroxyprogesterone
- (3β)-3-(formyloxy)pregna-5,16-dien-20-one**
(C₂₂H₃₀O₃; 14772-76-0) see: Desoxycortone acetate
- 2-formylphenethyl benzoate**
(C₁₆H₁₄O₃; 139122-15-9) see: Ropinirole
- (*E*)-3-(2-formylphenyl)-2-propenoic acid 1,1-dimethyl-ethyl ester**
(C₁₄H₁₆O₃; 103890-69-3) see: Lacidipine
- 1-formylpiperazine**
(C₅H₁₀N₂O; 7755-92-2) see: Trimetazidine
- 4-(3-formylpropyl)-1-(trimethylsilyl)imidazole**
(C₁₀H₁₈N₂OSi; 102676-33-5) see: Fadrozole
- 3-formylrifamycin**
(C₃₈H₄₇NO₁₃; 13292-22-3) see: Rifampicin; Rifapentine
- D-3-formyl-2,2,5,5-tetramethylthiazolidine-4-carboxylic acid**
(C₉H₁₅NO₃S; 40626-23-1) see: D-Penicillamine
- DL-3-formyl-2,2,5,5-tetramethylthiazolidine-4-carboxylic acid**
(C₉H₁₅NO₃S; 55234-12-3) see: D-Penicillamine
- β-D-fructofuranose**
(C₆H₁₂O₆; 470-23-5) see: Nicofuranose
- β-D-fructopyranose**
(C₆H₁₂O₆; 7660-25-5) see: Nicofuranose; Topiramate
- fucoesterol**
(C₂₉H₄₈O; 17605-67-3) see: Tacalcitol
- fumaric acid**
(C₄H₄O₄; 110-17-8) see: Biotin; Ibutilide fumarate; Quetiapine fumarate; Sodium dioctyl sulfosuccinate
- furan-2-carbonyl chloride**
(C₅H₃ClO₂; 527-69-5) see: Diloxanide furoate; Mometasone furoate; Terazosin
- 2(5*H*)-furanone**
(C₄H₄O₂; 497-23-4) see: Rofecoxib
- furfural**
(C₅H₄O₂; 98-01-1) see: Azimilide hydrochloride; Dantrolene; Piperidolate
- furfuryl alcohol**
(C₅H₆O₂; 98-00-0) see: Ranitidine
- furfurylamine**
(C₅H₇NO; 617-89-0) see: Furosemide
- furo[3,4-*b*]pyridine-5,7-dione**
(C₇H₃NO₃; 699-98-9) see: Moxifloxacin hydrochloride
- (3β,25*R*)-furosta-5,20(22)-diene-3,26-diol diacetate**
(C₃₁H₄₆O₅; 2309-38-8) see: Pregnenolone
- 2-furoyl chloride**
see under furan-2-carbonyl chloride
- 1-(2-furoyl)piperazine**
(C₉H₁₂N₂O₂; 40172-95-0) see: Prazosin; Terazosin
- 2-furylgyloxylic acid**
(C₆H₄O₄; 1467-70-5) see: Cefuroxime

G

- gallium**
(Ga; 7440-55-3) see: Gallium nitrate
- gentamicin B sulfate**
(C₁₉H₄₀N₄O₁₄S; 43169-50-2) see: Isepamicin
- geraniol**
(C₁₀H₁₈O; 106-24-1) see: Gefarnate
- Girard's reagent T**
(C₅H₁₄ClN₃O; 123-46-6) see: Demegestone
- gitoxin**
(C₄₁H₆₄O₄; 4562-36-1) see: Gitaloxin; Gitoformate; Pengitoxin
- L-Gln-L-Asn-L-Cys(Bzl)-L-Pro-L-Lys(Tos)-Gly-NH₂**
(C₃₉H₅₆N₁₀O₁₀S₂; 2130-82-7) see: Felypressin
- D-glucoheptonic acid**
(C₇H₁₄O₈; 87-74-1) see: Erythromycin gluceptate
- α-D-glucopyranose**
(C₆H₁₂O₆; 492-62-6) see: Prenalterol
- β-D-glucopyranose**
(C₆H₁₂O₆; 492-61-5) see: Auranofin
- [5*R*-(5α,5aβ,8α,9β)]-9-(β-D-glucopyranosyloxy)-5,8,8a,9-tetrahydro-5-(4-hydroxy-3,5-dimethoxyphenyl)furo-[3',4':6,7]naphtho[2,3-*d*]-1,3-dioxol-6(5*aH*)-one**
(C₂₇H₃₀O₁₃; 23363-35-1) see: Teniposide
- D-glucosamine**
(C₆H₁₃NO₅; 3416-24-8) see: Metrizamide
- α-D-glucosamine hydrochloride**
(C₆H₁₄ClNO₅; 14131-62-5) see: Glucametacin
- glucoscillaren A**
(C₄₂H₆₂O₁₈; 11003-96-6) see: Proscillaridin
- D-glucose**
(C₆H₁₂O₆; 50-99-7) see: Ascorbic acid; Metaraminol; Miglitol; Sorbitol
- 3β-[[*O*-[*O*-(*O*-glucosyldigitoxosyl)digitoxosyl]digitoxosyl]oxy]-14,16β-dihydroxy-5β-card-20(22)-enolide acetate**
(C₄₉H₇₆O₂₀; 17575-21-2) see: α-Acetyldigoxin; Lanatoside C
- 3β-[[*O*-[*O*-(*O*-glucosyldigitoxosyl)digitoxosyl]digitoxosyl]oxy]-14-hydroxy-5β-card-20(22)-enolide acetate**
(C₄₉H₇₆O₁₉; 17575-20-1) see: Acetyldigoxin; α-Acetyldigoxin; Lanatoside C
- D-glucuronic acid**
(C₆H₁₀O₇; 6556-12-3) see: Trimetrexate glucuronate
- D-glucuronolactone**
(C₆H₈O₆; 32449-92-6) see: Glyconiazide
- L-glutamic acid**
(C₅H₉NO₄; 56-86-0) see: Methotrexate; Thalidomide
- DL-glutamic acid**
(C₅H₉NO₄; 617-65-2) see: Proglumide

L-glutamine

(C₅H₁₀N₂O₃; 56-85-9) see: Aceglutamide aluminum; Thalidomide

glutaric acid

(C₅H₈O₄; 110-94-1) see: Gusperimus trihydrochloride

glutethimide

(C₁₃H₁₅NO₂; 77-21-4) see: Aminoglutethimide

D-glyceraldehyde

(C₃H₆O₃; 453-17-8) see: Timolol

glycerin

(C₃H₈O₃; 56-81-5) see: Actinoquinol; Itraconazole; Ketoconazole; Oxyquinoline; Phanquinone; Primaquine; Terconazole

glycerol

see under glycerin

glycerol 1-benzyl ether

(C₁₀H₁₄O₃; 4799-67-1) see: Domiodol

glycerol triricinoleate

(C₅₇H₁₀₄O₉; 2540-54-7) see: Azelaic acid

glycide

(C₃H₆O₂; 556-52-5) see: Chlorphenesin; Diprodon; Diprophylline; Dropropizine; Guaifenesin; lopydol; Mephenesin; Metaxalone; Toloxatone

glycide isobutyl ether

(C₇H₁₄O₂; 3814-55-9) see: Bepriidol

(R)-glycidol

(C₃H₆O₂; 57044-25-4) see: Cidofovir

glycidol

see under glycide

17β-glycidoyl-11β,17-dihydroxyandrosta-1,4-dien-3-one

(C₂₂H₂₈O₅; 102084-59-3) see: Fluperolone acetate

glycidyl *n*-butyl ether

(C₇H₁₄O₂; 2426-08-6) see: Febuprol

(2S)-glycidyl 3-nitrobenzenesulfonate

(C₉H₉NO₆S; 115314-14-2) see: Indinavir sulfate

glycidyl phenyl ether

(C₉H₁₀O₂; 122-60-1) see: Bisoprolol; Febuprol

(2S)-glycidyl tosylate

(C₁₀H₁₂O₄S; 70987-78-9) see: Indinavir sulfate

glycine

(C₂H₅NO₂; 56-40-6) see: Eptifibatide; Levodopa; Loprazolam; Stepronin; Tiopronin

glycine benzyl ester tosylate

(C₁₆H₁₉NO₅S; 1738-76-7) see: Acetorphan

glycine potassium salt

(C₂H₄KNO₂; 15743-44-9) see: Thiamphenicol

glycolic acid

(C₂H₄O₃; 79-14-1) see: Nedaplatin; Roxatidine acetate

glycyrrhetic acid

(C₃₀H₄₆O₄; 471-53-4) see: Carbenoxolone

Gly-OEt.HCl

see under ethyl glycinate hydrochloride

glyoxal

(C₂H₂O₂; 107-22-2) see: Amiloride; Pyrazinamide

glyoxylic acid

(C₂H₂O₃; 298-12-4) see: Allantoin; Ethyl biscoumacetate; Lamivudine; Orotic acid

gold iodide (AuI)

(AuI; 10294-31-2) see: Sodium aurothiomalate

guaiacol

(C₇H₈O₂; 90-05-1) see: Amosulalol; Guaifenesin

guaiene

(C₁₅H₂₄; 88-84-6) see: Guaiazulene

guaifenesin

(C₁₀H₁₄O₄; 93-14-1) see: Methocarbamol

guaiol

(C₁₅H₂₆O; 489-86-1) see: Guaiazulene

guanidine

(CH₅N₃; 113-00-8) see: Abacavir; Amiloride; Folic acid; Guanfacine; Pemoline; Pyrimethamine; Sulfamerazine; Tetroxoprim

guanidine carbonate (1:1)

(C₂H₇N₃O₃; 124-46-9) see: Brodimoprim; Sulfaguanidine; Sulfametoxydiazine; Trimethoprim

guanidine hydrochloride

(CH₆ClN₃; 50-01-1) see: Trimethoprim

guanidine nitrate

(CH₆N₄O₃; 506-93-4) see: Triamterene

4-guanidinobenzoic acid

(C₈H₉N₃O₂; 16060-65-4) see: Camostat; Nafamostat

4-guanidinobenzoyl chloride

(C₈H₈ClN₃O; 60131-35-3) see: Nafamostat

4-guanidinobenzoyl chloride hydrochloride

(C₈H₉Cl₂N₃O; 7035-79-2) see: Camostat

ω-guanidinocaproic acid

(C₇H₁₅N₃O₂; 6659-35-4) see: Gabexate

ω-guanidinocaproyl chloride

(C₇H₁₄ClN₃O; 41651-94-9) see: Gabexate

7-guanidinoheptanamide hydrochloride

(C₈H₁₉ClN₄O; 85503-05-5) see: Gusperimus trihydrochloride

trans-4-(guanidinomethyl)cyclohexanecarboxylic acid

(C₉H₁₇N₃O₂; 38697-86-8) see: Benexate

guanine

(C₅H₅N₅O; 73-40-5) see: Aciclovir; Tioguanine

guanosine

(C₁₀H₁₃N₅O₅; 118-00-3) see: Cladribine

H**H-Asn-Arg-Val-Tyr-Val-His-Pro-Phe-O-CH₃**

(C₅₀H₇₂N₁₄O₁₁; 47917-11-3) see: Angiotensinamide

heptaminol

(C₈H₁₉NO; 372-66-7) see: Acefylline

heptanal

(C₇H₁₄O; 111-71-7) see: Undecylenic acid

[3aR-(3α,4α,5β,6α)]-4-[2-(2-heptyl-1,3-dioxolan-2-yl)ethyl]hexahydro-5-hydroxy-2H-cyclopenta[b]furan-2-one

(C₁₉H₃₂O₅; 118696-65-4) see: Unoprostone isopropyl

hesperidin

(C₂₈H₃₄O₁₅; 520-26-3) see: Diosmin

hexadecanol

(C₁₆H₃₄O; 36653-82-4) see: Miltefosine

2-(hexadecylamino)cyclohexanol

(C₂₂H₄₅NO) see: Cethexonium bromide

2-(hexadecylamino)cyclohexanol hydrobromide

(C₂₂H₄₆BrNO) see: Cethexonium bromide

- 1,1,1,3,3,3-hexafluoro-2-(chloromethoxy)propane**
(C₄H₃ClF₆O; 26103-07-1) see: Sevoflurane
- 1,1,1,3,3,3-hexafluoro-2-methoxypropane**
(C₄H₄F₆O; 13171-18-1) see: Sevoflurane
- hexahydro-1*H*-azepine**
(C₆H₁₃N; 111-49-9) see: Prozapine; Setastine
- hexahydroazepine-1-carboxaldehyde**
see under 1-formyl-hexahydroazepine
- hexahydro-4*H*-azepin-4-one**
(C₆H₁₁NO; 105416-56-6) see: Talipexole
- [1*S*-[1 α (4*S**,6*S**),2 α ,6 β ,8 β ,8 α]]-6-[2-(1,2,6,7,8,8a-hexahydro-8-hydroxy-2,6-dimethyl-1-naphthalenyl)ethyl]-tetrahydro-4-hydroxy-2*H*-pyran-2-one**
(C₁₉H₂₈O₄; 79952-42-4) see: Simvastatin
- [3*R*-[3 α ,4 α (1*E*,3*S**),5 β ,6 α]]-hexahydro-5-hydroxy-4-(3-hydroxy-1-octenyl)-2*H*-cyclopenta[*b*]furan-2-one**
(C₁₅H₂₄O₄) see: Dinoprost
- hexahydro-8-hydroxy-2,6-methano-2*H*-quinolizin-3(4*H*)-one**
(C₁₀H₁₅NO₂; 143343-85-5) see: Dolasetron mesilate
- 1,2,3,7,8,8a-hexahydro-6-hydroxy-5-methoxy-1-methyl-cyclopent[*ij*]isoquinoline-7-carboxaldehyde**
(C₁₄H₁₇NO₃; 58093-59-7) see: Glaziovine
- (3 α ,4 α ,5 β ,6 α)(-)-hexahydro-4-(hydroxymethyl)-2-oxo-2*H*-cyclopenta[*b*]furan-5-yl 1,1'-biphenyl-4-carboxylate**
see under Corey lactone
- (3 α ,4 α ,5 β ,6 α)-hexahydro-4-(3(*S*)-hydroxy-5-phenyl-1-pentenyl)-2*H*-cyclopenta[*b*]furan-2,5-diol**
(C₁₈H₂₄O₄) see: Latanoprost
- endo-hexahydro-6,7-methanoisoidoline**
(C₉H₁₃N; 34970-70-2) see: Triptamide
- 1,2,3,7,8,8a-hexahydro-5-methoxy-7-(methoxymethylene)-1-methylcyclopent[*ij*]isoquinolin-6-ol**
(C₁₅H₁₉NO₃; 54170-10-4) see: Glaziovine
- [5*S*-(4*S**,5*S**,6 α ,10*b* α)]-[2-(1,2,3,4,5a,6-hexahydro-9-methoxy-10*bH*-phenanthro[8*a*,9-*b*]oxiren-10*b*-yl)ethyl]carbamic acid ethyl ester**
(C₂₀H₂₇NO₄; 58115-88-1) see: Butorphanol
- hexahydro-1-methyl-4*H*-azepin-4-one**
(C₇H₁₃NO; 1859-33-2) see: Azelastine
- (3*S*-trans)-hexahydro-2-phenyl-1*H*-pyrrolo[1,2-*c*]imidazole-3-carboxylic acid methyl ester**
(C₁₄H₁₈N₂O₂) see: Troglitazone
- hexahydro-1-(2-propenyl)-4*H*-azepin-4-one**
(C₉H₁₅NO) see: Talipexole
- [3*R*-[3 α ,4 α (1*E*,3*S**),5 β ,6 α]]-hexahydro-5-[(tetrahydro-2*H*-pyran-2-yl)oxy]-4-[3-[(tetrahydro-2*H*-pyran-2-yl)oxy]-1-octenyl]-2*H*-cyclopenta[*b*]furan-2-one**
(C₂₅H₄₀O₆; 37517-42-3) see: Dinoprost
- hexamethonium hydroxide**
(C₁₂H₃₂N₂O₂; 556-81-0) see: Hexamethonium chloride
- hexamethonium sulfate**
(C₁₂H₃₀N₂O₄S; 49719-74-6) see: Hexamethonium chloride
- hexamethyldisilazane**
(C₆H₁₉NSi₂; 999-97-3) see: Aciclovir; Capecitabine; Ganciclovir; Mecillinam; Tegafur; Trifluridine
- 1,1,1,3,3,3-hexamethyldisilazane**
see under: hexamethyldisilazane
- hexamethylenebis(dicyanodiamide)**
(C₁₀H₁₈N₈; 15894-70-9) see: Chlorhexidine
- hexamethylenebis[methylcarbamic acid] di-3-pyridyl ester**
(C₂₀H₂₆N₄O₄; 95701-58-9) see: Distigmine bromide
- hexamethylenediamine**
(C₆H₁₆N₂; 124-09-4) see: Hexamethonium chloride; Hexcarbacholine bromide
- hexamethylenediamine dihydrochloride**
(C₆H₁₈Cl₂N₂; 6055-52-3) see: Chlorhexidine
- 2,2'-(hexamethylenediimino)bis[3',4'-dihydroxyacetophenone]**
(C₂₂H₂₈N₂O₆; 3215-73-4) see: Hexoprenaline
- hexamethylenetetramine**
(C₆H₁₂N₄; 100-97-0) see: Chloramphenicol; Milnacipran hydrochloride
- hexamethylolmelamine hexamethyl ether**
(C₁₅H₃₀N₆O₆; 3089-11-0) see: Altretamine
- 2,5-hexanedione**
(C₆H₁₀O₂; 110-13-4) see: Isocarboxazid
- 1,6-hexanediylbiscarbamic acid bis(2-chloroethyl) ester**
(C₁₇H₂₂Cl₂N₂O₄; 3142-96-9) see: Hexcarbacholine bromide
- 1,6-hexanediylbiscarbamic acid bis(2-hydroxyethyl) ester**
(C₁₂H₂₄N₂O₆; 13027-07-1) see: Hexcarbacholine bromide
- 1,6-hexanediylbis[methylcarbamic chloride]**
(C₁₀H₁₈Cl₂N₂O₂; 99191-71-6) see: Distigmine bromide
- hexanoic acid**
(C₆H₁₂O₂; 142-62-1) see: Hexylresorcinol
- 4-hexanoylresorcinol**
(C₁₂H₁₆O₃; 3144-54-5) see: Hexylresorcinol
- n*-hexylamine**
(C₆H₁₅N; 111-26-2) see: Carmofur
- hexyl bromide**
(C₆H₁₃Br; 111-25-1) see: Exalamide; Orlistat
- n*-hexyl bromide**
see under hexyl bromide
- hexyl chloride**
(C₆H₁₃Cl; 544-10-5) see: Pentifylline
- (6*R*)-3-hexyl-5,6-dihydro-4-hydroxy-6-undecyl-2*H*-pyran-2-one**
(C₂₂H₄₀O₃; 112764-00-8) see: Orlistat
- (6*R*)-3-hexyldihydro-6-undecyl-2*H*-pyran-2,4(3*H*)-dione**
(C₂₂H₄₀O₃; 112836-64-3) see: Orlistat
- 2-hexyl-3,5-dihydroxyhexadecanoic acid**
(C₂₂H₄₄O₄; 112763-99-2) see: Orlistat
- 2-hexyl-2-(hydroxymethyl)-1,3-propanediol**
(C₁₀H₂₂O₃; 4780-31-8) see: Hepronicate
- [2*S*-[1(1*S**,2*R**),2*R**,3*R**,5*S**]]-2-hexyl-3-hydroxy-5-(phenylmethoxy)hexadecanoic acid 2-(dimethylamino)-1-phenylpropyl ester**
(C₄₀H₆₅NO₄; 114264-04-9) see: Orlistat
- 2-hexyl-3-hydroxy-5-[(tetrahydro-2*H*-pyran-2-yl)oxy]-8-hexadecenoic acid**
(C₂₇H₅₀O₅; 111397-17-2) see: Orlistat
- [3*S*-[3 α ,4 β (2*S**,5*Z**)]-3-hexyl-4-(2-hydroxy-5-tridecenyl)-2-oxetanone**
(C₂₂H₄₀O₃; 111466-59-2) see: Orlistat
- (3*S*,4*S*)-3-hexyl-4-[(2*R*)-2-hydroxytridecyl]-2-oxetanone**
(C₂₂H₄₂O₃; 104872-06-2) see: Orlistat
- n*-hexyl isocyanate**
(C₇H₁₃NO; 2525-62-4) see: Carmofur

3-(4-hexyloxyphenyl)propionyl chloride

(C₁₅H₂₁ClO₂) see: Nandrolone hexyloxyphenylpropionate
(2S,3S,5R)-2-hexyl-3-(phenylmethoxy)-5-(tetrahydro-1H-pyran-2-yloxy)hexadecanoic acid
 (C₃₄H₅₈O₅) see: Orlistat

(3S,4S)-3-hexyl-4-[(2R)-2-(phenylmethoxy)tridecyl]-2-oxetanone

(C₂₉H₄₈O₃; 114264-05-0) see: Orlistat

[3R-[3 α ,4 α (R*)]]-3-hexyl-4-[2-(phenylmethoxy)tridecyl]-2-oxetanone

(C₂₉H₄₈O₃; 125638-37-1) see: Orlistat

3-hexyltetrahydro-4-hydroxy-6-undecyl-2H-pyran-2-one

(C₂₂H₄₂O₃; 104801-94-7) see: Orlistat

[3S-(3 α ,4 α ,6 α)]-3-hexyltetrahydro-4-hydroxy-6-undecyl-2H-pyran-2-one

(C₂₂H₄₂O₃; 104801-96-9) see: Orlistat

[3S-[3 α ,4 β (S*)]]-3-hexyl-4-[2-[(tetrahydro-2H-pyran-2-yl)oxy]tridecyl]-2-oxetanone

(C₂₇H₅₀O₄; 112836-65-4) see: Orlistat

3-hexyn-2-ol

(C₆H₁₀O; 109-50-2) see: Methohexital

H-His-OMe.2HCl

(C₇H₁₃Cl₂N₃O₂; 7389-87-9) see: Protirelin

homatropine

(C₁₆H₂₁NO₃; 87-00-3) see: Homatropine methylbromide

homoarginine

(C₇H₁₆N₄O₂; 156-86-5) see: Eptifibatid

homocysteine thiolactone

(C₄H₇NOS; 10593-85-8) see: Erdosteine; Omapatrilat

homomyrtenol

(C₁₁H₁₈O; 128-50-7) see: Myrtecaine

homopiperazine

(C₅H₁₂N₂; 505-66-8) see: Fasudil

homoveratric acid

(C₁₀H₁₂O₄; 93-40-3) see: Papaverine

homoveratronitrile

see under 3,4-dimethoxyphenylacetone nitrile

homoveratrylamine

see under 3,4-dimethoxyphenethylamine

N-homoveratrylhomoveratramide

(C₂₀H₂₅NO₅; 139-76-4) see: Papaverine

H-Pro-NH₂.HCl

(C₅H₁₁ClN₂O; 42429-27-6) see: Protirelin

H-Val-Tyr-Val-His-Pro-Phe-O-CH₃

(C₄₀H₅₄N₈O₈; 40488-86-6) see: Angiotensinamide

hydantoic acid nitrile

(C₃H₅N₃O; 5962-07-2) see: Orotic acid

hydantoin

(C₃H₄N₂O₂; 461-72-3) see: Levodopa

3-(5-hydantoinyl)propionaldehyde

(C₆H₈N₂O₃; 7686-13-7) see: L-Tryptophan

hydralazine

(C₈H₈N₄; 86-54-4) see: Budralazine; Todralazine

hydrallostane 21-acetate

(C₂₃H₃₄O₆; 4004-68-6) see: Prednisolone

hydratropic aldehyde

(C₉H₁₀O; 93-53-8) see: Bemetizide

hydrazine

(H₄N₂; 302-01-2) see: Acetazolamide; Allopurinol; Brotizolam; Carbidopa; Cibenzoline; Desmopressin; Estazolam; Etizolam; Guanadrel; Isoniazid; Itraconazole; Mitopodozide; Nifuroxazide; Nifurtimox; Nitrofurantoin; Phenelzine; Primaquine; Ziprasidone hydrochloride

hydrazine-1,2-bis(thiocarboxamide)

(C₂H₆N₄S₂; 142-46-1) see: Acetazolamide

hydrazinecarboxylic acid phenylmethyl ester

(C₈H₁₀N₂O₂; 5331-43-1) see: Ceruletide

hydrazine hydrate

(H₆N₂O; 7803-57-8) see: Alprazolam; Betazole; Dapiprazole; Dihydralazine; Endralazine; Epirizole; Flurazepam; Fomepizole; Guanoclor; Gusperimus trihydrochloride; Hydralazine; Isocarboxazid; Nefazodone hydrochloride; Nifuratel; Pantethine; Pildralazine; Pimobendan; Pramipexole hydrochloride; Propentofylline; Sildenafil; Tofisopam; Zaleplon

2-hydrazinoacetic acid

(C₂H₆N₂O₂; 14150-64-2) see: Nitrofurantoin

4-hydrazinobenzenesulfonamide

(C₆H₉N₃O₂S; 4392-54-5) see: Celecoxib

(S)-5-(4-hydrazinobenzyl)-2,4-imidazolidinedione hydrochloride

(C₁₀H₁₃ClN₄O₂) see: Zolmitriptan

(S)-4-(4-hydrazinobenzyl)-2-oxazolidinone hydrochloride

(C₁₀H₁₄ClN₃O₂; 139264-57-6) see: Zolmitriptan

 α -hydrazino-3,4-dimethoxy- α -methylbenzenepropane-nitrile

(C₁₂H₁₇N₃O₂; 40248-74-6) see: Carbidopa

2-hydrazinoethanol

(C₂H₈N₂O; 109-84-2) see: Furazolidone

2-hydrazino- Δ^2 -imidazole

(C₃H₈N₄; 51420-32-7) see: Bisantrene

2-hydrazino-4-methoxy-2-methylpyrimidine

(C₆H₁₀N₄O; 36951-92-5) see: Epirizole

4-hydrazino-1-methylpiperidine dihydrochloride

(C₆H₁₇Cl₂N₃; 53242-78-7) see: Piperylone

2-(4-hydrazinophenyl)-N-methylethanesulfonamide

(C₉H₁₅N₃O₂S) see: Naratriptan

4-hydrazinophenyl-N-methylmethanesulfonamide

(C₈H₁₃N₃O₂S; 139272-29-0) see: Sumatriptan

1-[(4-hydrazinophenyl)methyl]-1H-1,2,4-triazole

(C₉H₁₁N₅; 144035-22-3) see: Rizatriptan benzoate

2-hydrazino- Δ^1 -tetrahydroazepine

(C₆H₁₃N₃; 31030-25-8) see: Pentetrazol

hydrazobenzene

(C₁₂H₁₂N₂; 122-66-7) see: Kebuzone; Phenylbutazone; Sulfinpyrazone

hydridocobalamin

(C₆₂H₈₉CoN₁₃O₁₄P; 18534-66-2) see: Cobamide; Mecobalamin

hydrocinnamoyl chloride

(C₉H₉ClO; 645-45-4) see: Indinavir sulfate

hydrocodone

(C₁₈H₂₁NO₃; 125-29-1) see: Thebacon

hydrocortisone

(C₂₁H₃₀O₅; 50-23-7) see: Bendacort; Cloprednol; Desonide; Hydrocortisone acetate; Hydrocortisone 17-butyrate; Hydrocortisone sodium phosphate; Methylprednisolone; Prednisolone

hydrocortisone 21-acetate

see under cortisol 21-acetate

hydrogen cyanide

(CHN; 74-90-8) see: L-Alanine; Alfentanil; Dimethadione; Edetic acid; Ibuprofen; Indanorex; Mecamylamine; Molsidomine; Nadoxolol; D-Penicillamine; Phensuximide; L-Tryptophan; Vetrabutine

hydrogen peroxide(H₂O₂; 7722-84-1) see: Benzoyl peroxide; Rofecoxib**hydroquinone**(C₆H₆O₂; 123-31-9) see: Gentisic acid; Monobenzene**hydroquinone monobenzyl ether**

see under 4-benzyloxyphenol

hydroquinone monomethyl ether(C₇H₈O₂; 150-76-5) see: Dextrothyroxine; Etiroxate; Mefexamide**hydroxocobalamin**(C₆₂H₈₉CoN₁₃O₁₅P; 13422-51-0) see: Cobamamide; Mecobalamin**4-hydroxyacetanilide**(C₈H₉NO₂; 103-90-2) see: Ambroxol; Benorilate; Propacetamol**hydroxyacetone**(C₃H₆O₂; 116-09-6) see: Enoximone***o*-hydroxyacetophenone**(C₈H₈O₂; 118-93-4) see: Croconazole**3'-hydroxyacetophenone**(C₈H₈O₂; 121-71-1) see: Etilefrine; Fenoprofen; Norfenefrine**4'-hydroxyacetophenone**(C₈H₈O₂; 99-93-4) see: Bamethan; Bufexamac; Paracetamol; Pifoxime; Salbutamol**4-hydroxy-L-allothreonine monosodium salt**(C₄H₈NNaO₄; 117095-55-3) see: Carumonam**4'-hydroxy-2-aminoacetophenone**(C₈H₉NO₂; 77369-38-1) see: Octopamine**2-hydroxy-4-aminobenzoic acid sodium salt**(C₇H₇NNaO₃; 133-10-8) see: Nemonapride**2(R)-hydroxy-1(S)-aminoindane**(C₉H₁₁NO; 126456-43-7) see: Indinavir sulfate**(3β,5α)-3-hydroxyandrostane-17-one**(C₁₉H₃₀O₂; 481-29-8) see: Estrone**(5α,17β)-17-hydroxyandrostane-3-one**(C₁₉H₃₀O₂; 521-18-6) see: Drostanolone; Estradiol**7β-hydroxy-4-androsteno[2,3-d]isoxazole**(C₂₀H₂₇NO₂; 60413-79-8) see: Trilostane***N*-hydroxy-3-azaspiro[5.5]undecane-2,4-dione**(C₁₀H₁₅NO₃; 64744-41-8) see: Gabapentin**3-hydroxybenzaldehyde**(C₇H₆O₂; 100-83-4) see: Iophenoic acid; Roxatidine acetate**4-hydroxybenzaldehyde**(C₇H₆O₂; 123-08-0) see: Itopride hydrochloride; Pioglitazone; Trimethobenzamide; Troglitazone**4-hydroxybenzeneacetic acid methyl ester**(C₉H₁₀O₃; 14199-15-6) see: Atenolol**4-hydroxybenzhydrazide**(C₇H₈N₂O₂; 5351-23-5) see: Nifuroxazide**2-hydroxybenzotrile**(C₇H₇NO; 611-20-1) see: Bunitrolol**4-hydroxybenzotrile**(C₇H₇NO; 767-00-0) see: Pentamidine**4-hydroxybenzophenone**(C₁₃H₁₀O₂; 1137-42-4) see: Clomifene; Tamoxifen; Toremfene**5-hydroxy-5H-[1]benzopyrano[2,3-*b*]pyridine**(C₁₂H₉NO₂; 6722-09-4) see: Pranoprofen**4-hydroxybenzyl alcohol**(C₇H₈O₂; 623-05-2) see: Bisoprolol**2-(3-hydroxybenzyl)butyric acid**(C₁₁H₁₄O₃) see: Iophenoic acid**4-hydroxybenzyl cyanide**(C₈H₇NO; 14191-95-8) see: Atenolol**5-(4-hydroxybenzyl)-5-methylhydantoin**(C₁₁H₁₂N₂O₃; 13500-25-9) see: Etiroxate; Metirosine**(±)-1-(4-hydroxybenzyl)-1,2,3,4,5,6,7,8-octahydroisoquinoline**(C₁₆H₂₁NO; 74570-02-8) see: Levallorphan**(-)-1-(4-hydroxybenzyl)-1,2,3,4,5,6,7,8-octahydroisoquinoline**(C₁₆H₂₁NO; 94006-09-4) see: Levallorphan**4-hydroxybutanal**(C₄H₈O₂; 25714-71-0) see: Etodolac**(±)-5-(2-hydroxy-3-*tert*-butylaminopropoxy)-1-tetralone**(C₁₇H₂₅NO₃; 27591-01-1) see: Levobunolol**10-hydroxycamptothecin**(C₂₀H₁₆N₂O₅; 19685-09-7) see: Topotecan**4-hydroxycarbazole**(C₁₂H₉NO; 52602-39-8) see: Carazolol; Carvedilol**8-hydroxycarboxtyril**(C₉H₇NO₂; 15450-76-7) see: Procaterol**3β-hydroxycholest-5-en-24-one**(C₂₇H₄₄O₂; 17752-16-8) see: Tacalcitol**25-hydroxycholesterol 3-acetate**(C₂₉H₄₈O₃; 10525-22-1) see: Calcifediol**14-hydroxycodeinone**(C₁₈H₁₉NO₄; 508-54-3) see: Oxycodone; Oxymorphone**4-hydroxycoumarin**(C₉H₆O₃; 1076-38-6) see: Acenocoumarol; Ethyl biscoumaracetate; Tiocloamarol; Warfarin; Zonisamide**α-(1-hydroxycyclohexyl)-4-methoxybenzeneacetonitrile**(C₁₃H₁₉NO₂; 93413-76-4) see: Venlafaxine**(4S)-3-[[[(1S,2R)-2-hydroxy-3-cyclopenten-1-yl]carbonyl]-****4-(phenylmethyl)-2-oxazolidinone**(C₁₆H₁₇NO₄; 178327-18-9) see: Abacavir**α-(1-hydroxycyclopentyl)phenylacetic acid**(C₁₃H₁₆O₃; 25209-52-3) see: Cyclopentolate**6-hydroxy-3,4-dihydrocarboxtyril**(C₉H₉NO₃; 54197-66-9) see: Cilostazol**5-hydroxy-10,11-dihydro-5H-dibenz[*a,d*]cycloheptene**(C₁₅H₁₄O; 1210-34-0) see: Amineptine; Deptropine**14-hydroxydihydronormorphinone**(C₁₆H₁₇NO₄; 33522-95-1) see: Nalbuphine; Naloxone**2'-hydroxy-4'-(2,5-dihydro-5-oxo-3-furyl)acetophenone**(C₁₂H₁₀O₄; 3447-63-0) see: Benfurodil hemisuccinate***O*-(4-hydroxy-3,5-diiodophenyl)-3,5-diiodo-α-methyl-tyrosine**(C₁₆H₁₃I₄NO₄; 3414-34-4) see: Etiroxate**2-hydroxy-3,4-dimethoxy-6-methylbenzenedecanoic acid**(C₁₉H₃₀O₅; 58185-85-6) see: Idebene

- 9-(2-hydroxy-3,4-dimethoxy-6-methylbenzoyl)nonanoic acid**
(C₁₉H₂₈O₆; 58185-79-8) see: Idebenone
- (S)- α -hydroxy-2,5-dimethoxy- α ,3,4,6-tetramethylbenzenebutanal**
(C₁₆H₂₄O₄; 85148-24-9) see: Troglitazone
- 6-hydroxy-6-(3-dimethylaminopropyl)-6,12-dihydrobenzofuro[3,2-c][1]benzoxepin**
(C₂₁H₂₃NO₃; 27450-47-1) see: Oxetorone
- 2'-hydroxy-5,9-dimethylbenzo-6-morphen**
(C₁₄H₁₉NO; 25144-78-9) see: Pentazocine
- 11 β -hydroxy-6,16 α -dimethyl-17,20:20,21-bis(methylene-dioxy)pregna-4,6-dien-3-one**
(C₂₅H₃₄O₆; 4968-27-8) see: Cortivazol
- D(-)-2-hydroxy-3,3-dimethylbutanolide**
(C₆H₁₀O₃; 599-04-2) see: Calcium pantothenate; Dexpanthenol
- 5-hydroxy-6 β ,17-dimethyl-5 α -pregnane-3,20-dione**
(C₂₃H₃₆O₃; 95565-52-9) see: Medrogestone
- 3 β -hydroxy-6,17-dimethylpregn-5-en-20-one**
(C₂₃H₃₆O₂; 95565-41-6) see: Medrogestone
- 15 α -hydroxy-3,3-(2,2-dimethyltrimethylenedioxy)-13-ethyl-5(10)-gonen-17-one**
(C₂₄H₃₆O₄; 60919-51-9) see: Gestodene
- 15 α -hydroxy-3,3-(2,2-dimethyltrimethylenedioxy)-13-ethyl-5-gonen-17-one**
(C₂₄H₃₆O₄; 60919-47-3) see: Gestodene
- 5-[(4-hydroxy-3,5-dinitrophenyl)methyl]-5-methyl-2,4-imidazolidinedione**
(C₁₁H₁₀N₄O₇; 56891-54-4) see: Etiroxate
- 3-hydroxy-2,5-dioxocyclopentaneheptanoic acid**
(C₁₂H₁₈O₅; 22935-43-9) see: Misoprostol
- 4-(hydroxydiphenylmethyl)-1-methylpyridinium methyl sulfate (salt)**
(C₂₀H₂₁NO₅S; 148302-52-7) see: Diphemanil metilsulfate
- 4-[4-[4-(hydroxydiphenylmethyl)-1-piperidinyl]-1-oxobutyl]- α , α -dimethylbenzeneacetalddehyde**
(C₃₂H₃₇NO₃; 191155-95-0) see: Fexofenadine hydrochloride
- 4-[4-[4-(hydroxydiphenylmethyl)-1-piperidinyl]-1-oxobutyl]- α , α -dimethylbenzeneacetic acid**
(C₃₂H₃₇NO₄; 76811-98-8) see: Fexofenadine hydrochloride
- 4-[4-[4-(hydroxydiphenylmethyl)-1-piperidinyl]-1-oxobutyl]- α , α -dimethylbenzeneacetic acid ethyl ester**
(C₃₄H₄₁NO₄; 76812-02-7) see: Fexofenadine hydrochloride
- 3 α -hydroxy-2 β ,16 β -dipiperidino-5 α -androstan-17-one**
(C₂₆H₄₈N₂O₂; 13522-14-0) see: Pancuronium bromide; Vecuronium bromide
- 9-hydroxyellipticine**
(C₁₇H₁₄N₂O; 51131-85-2) see: Elliptinium acetate
- 3-hydroxyestra-1,3,5(10),6-tetraen-17-one**
(C₁₈H₂₀O₂; 2208-12-0) see: Estrone
- 17 β -hydroxy-4-estrene**
(C₁₈H₂₆O; 3646-30-8) see: Allylestrenol; Lynestrenol
- 11 β -hydroxy- δ^4 -estrene-3,17-dione**
(C₁₈H₂₄O₃; 15313-96-9) see: Desogestrel
- (11 β)-11-hydroxyestr-5-ene-3,17-dione cyclic bis(1,2-ethanediy acetal)**
(C₂₂H₃₂O₅; 59017-03-7) see: Desogestrel
- (17 β)-17-hydroxyestr-4-en-3-one cyclic 1,2-ethanediy dithioacetal**
(C₂₀H₃₀OS₂; 74531-93-4) see: Allylestrenol; Ethylestrenol; Lynestrenol
- 2-(2-hydroxyethoxy)ethyl chloride**
(C₄H₉ClO₂; 628-89-7) see: Etofenamate; Hydroxyzine; Quetiapine fumarate
- 1-[2-(2-hydroxyethoxy)ethyl]piperazine**
(C₈H₁₈N₂O₂; 13349-82-1) see: Dixyrazine; Quetiapine fumarate
- (5 α ,17 β)-17-hydroxy-2-(ethoxymethylene)androstan-3-one**
(C₂₂H₃₄O₃) see: Drostanolone
- 3'-hydroxy-2-ethylamino-acetophenone**
(C₁₀H₁₃NO₂; 22510-12-9) see: Etilefrine
- 3-[(2-hydroxyethyl)amino]carbonyl]-5-nitrobenzoic acid**
(C₁₀H₁₀N₂O₆; 22871-56-3) see: Ioxitalamic acid
- α -[(2-hydroxyethyl)amino]methyl]benzenemethanol**
(C₁₀H₁₃NO₂; 4397-15-3) see: Levamisole
- 2-(2-hydroxyethylamino)-1-phenyl-1-propanol**
(C₁₁H₁₇NO₂; 54804-28-3) see: Phenmetrazine
- [(3S)-(1R)]-3-(1-hydroxyethyl)-2-azetidione**
(C₅H₉NO₂; 120236-28-4) see: Faropenem sodium
- 2-(1-hydroxyethyl)benzo[*b*]thiophene**
(C₁₀H₁₀OS; 51868-95-2) see: Zileuton
- 15 α -hydroxy-13-ethyl-4-gonene-3,17-dione**
(C₁₉H₂₆O₃; 60919-46-2) see: Gestodene
- 1-(2-hydroxyethyl)hexahydro-1*H*-azepine**
(C₈H₁₇NO; 20603-00-3) see: Prozapine
- N*-(2-hydroxyethyl)-2-hydroxypropylamine**
(C₅H₁₃NO₂; 6579-55-1) see: Levocabastine
- (2-hydroxyethyl)(2-hydroxypropyl)sulfide**
(C₅H₁₂O₂S; 6713-03-7) see: Nifurtimox
- 2-(1-hydroxyethyl)-2-imidazoline**
(C₅H₁₀N₂O; 22995-60-4) see: Lofexidine
- 3-(2-hydroxyethyl)indole**
(C₁₀H₁₁NO; 526-55-6) see: Indoramin
- α -[(2-hydroxyethyl)methylamino]methyl]benzenemethanol**
(C₁₁H₁₇NO₂; 23175-16-8) see: Mianserin
- 2-[[[(2-hydroxyethyl)methylamino]methyl]- α -phenylbenzenemethanol**
(C₁₇H₂₁NO₂; 60725-36-2) see: Nefopam
- α -[*N*-(2-hydroxyethyl)methylamino]propiofenone**
(C₁₂H₁₇NO₂) see: Phendimetrazine
- 1-(2-hydroxyethyl)-4-(2-methylbenzyl)piperazine**
(C₁₃H₂₀N₂O; 40004-66-8) see: Chlorbenzoxamine
- [2*R*]-[2 α (*R**),3 β (*R**)]-3-(1-hydroxyethyl)- γ -methyl- β ,4-dioxo-2-azetidinebutanoic acid (4-nitrophenyl)methyl ester**
(C₁₇H₂₀N₂O₇; 90822-23-4) see: Meropenem
- 4-(2-hydroxyethyl)-3-methyl-2-phenylmorpholine**
(C₁₃H₁₉NO₂; 92197-26-7) see: Fenbutrazate
- 3-(2-hydroxyethyl)-2-methyl-4*H*-pyrido[1,2-*a*]pyrimidin-4-one**
(C₁₁H₁₂N₂O₂; 41078-67-5) see: Risperidone
- 5-(2-hydroxyethyl)-4-methylthiazole**
(C₆H₉NOS; 137-00-8) see: Thiamine
- N*-(2-hydroxyethyl)-5-nitrosophthalamic acid methyl ester**
(C₁₁H₁₂N₂O₆; 28179-40-0) see: Ioxitalamic acid

1-(2-hydroxyethyl)piperazine

(C₆H₁₄N₂O; 103-76-4) see: Acetophenazine; Carfenazine; Clopenthixol; Flupentixol; Manidipine; Pipramol; Penimipicycline; Perphenazine; Tiaramide

1-(2-hydroxyethyl)piperidine

(C₇H₁₅NO; 3040-44-6) see: Flavoxate

4-(2-hydroxyethyl)piperidine

(C₇H₁₅NO; 622-26-4) see: Piperacetazine; Pipotiazine

N-(2-hydroxyethyl)-3-pyridinecarboxamide

(C₈H₁₀N₂O₂; 6265-73-2) see: Nicorandil

3-(2-hydroxyethyl)-2,4(1H,3H)-quinazolinone

(C₁₀H₁₀N₂O₃; 1207-75-6) see: Ketanserin

1-(2-hydroxyethyl)-1H-tetrazole-5-thiol

(C₃H₆N₄OS; 56610-81-2) see: Flomoxef

4-[1-hydroxy-4-[4-(hydroxydiphenylmethyl)-1-piperidyl]butyl]- α,α -dimethylbenzeneacetic acid ethyl ester

(C₃₃H₄₃NO₄; 174483-06-8) see: Fexofenadine hydrochloride

(17 β)-17-hydroxy-2-(hydroxymethylene)androst-4-en-3-one

(C₂₀H₂₈O₃; 40996-87-0) see: Trilostane

(11 β ,16 α)-11-hydroxy-2-(hydroxymethylene)-6,16-dimethyl-17,20:20,21-bis[methylenebis(oxy)]pregna-4,6-dien-3-one

(C₂₈H₃₄O₇; 5059-58-5) see: Cortivazol

(5 α ,17 β)-17-hydroxy-2-(hydroxymethylene)-17-methyl-androstan-3-one

(C₂₁H₃₂O₃; 434-07-1) see: Stanazolol

(17 α)-17-hydroxy-2-(hydroxymethylene)pregn-4-en-20-yn-3-one

(C₂₂H₂₈O₃; 2787-02-2) see: Danazol

4-hydroxy- α -(4-hydroxy-2-oxo-2H-1-benzopyran-3-yl)-2-oxo-2H-1-benzopyran-3-acetic acid

(C₂₀H₁₂O₈; 567-83-9) see: Ethyl biscoumacetate

(-)-1-hydroxy-1-(3-hydroxyphenyl)acetone

(C₉H₁₀O₃; 82499-20-5) see: Metaraminol

6-hydroxy-2-(4-hydroxyphenyl)benzo[b]thiophene

(C₁₄H₁₀O₂S; 63676-22-2) see: Raloxifene hydrochloride

17 β -hydroxy-17-(3-hydroxypropyl)-4-androsten-3-one

(C₂₂H₃₄O₃; 55542-27-3) see: Spironolactone

17 β -hydroxy-17-(3-hydroxy-1-propynyl)-4-androsten-3-one

(C₂₂H₃₀O₃; 55542-26-2) see: Spironolactone

2-[1-(hydroxyimino)ethyl]benzo[b]thiophene

(C₁₀H₉NOS; 118564-88-8) see: Zileuton

2-hydroxyimino-3'-hydroxyacetophenone

(C₈H₇NO₃; 103656-55-9) see: Norfenefrine

2-(hydroxyimino)-N-[2-(trifluoromethyl)phenyl]acetamide

(C₉H₇F₃N₂O₂; 444-93-9) see: Mefloquine

4-hydroxy-1-indanone

(C₉H₈O₂; 40731-98-4) see: Indeloxacine

N-[2(R)-hydroxy-1(S)-indanyl]-3-phenylpropanamide

(C₁₈H₁₉NO₂; 142479-00-3) see: Indinavir sulfate

4-hydroxyindene

(C₉H₈O; 1194-60-1) see: Indenolol

7-hydroxyindene

(C₉H₈O; 2059-92-9) see: Indenolol

4-hydroxyindole

(C₈H₇NO; 2380-94-1) see: Pindolol

5-hydroxyindole

(C₈H₇NO; 1953-54-4) see: Oxitriptan

(3 β)-3-hydroxy-21-iodo-20,23-dioxo-21-norchol-5-en-24-*oic acid ethyl ester*

(C₂₅H₃₅IO₅) see: Desoxycortone acetate

17 α -hydroxy-21-iodo-16-methylpregna-1,4,9(11)-triene-3,20-dione

(C₂₂H₂₇IO₃; 40242-35-1) see: Betamethasone

4-hydroxy-3-iodo-5-nitrobenzaldehyde

(C₇H₄INO₄; 3861-58-3) see: Dextrothroxine

17-hydroxy-16 β -iodopregna-4,9(11)-diene-3,20-dione

(C₂₁H₂₇IO₃; 106196-48-9) see: Flugestone acetate

(3 β)-3-hydroxy-21-iodopregn-5-en-20-one

(C₂₁H₃₁IO₂; 86602-55-3) see: Desoxycortone acetate

3-hydroxy-1(3H)-isobenzofuranone

(C₈H₆O₃; 16859-59-9) see: Hydralazine

1-(2-hydroxy-3-isobutoxypropyl)pyrrolidine

(C₁₁H₂₃NO₂; 49571-03-1) see: Bepidil

 α -hydroxyisobutyramide

(C₄H₈NO₂; 13027-88-8) see: Dimethadione

D(-)-3-hydroxyisobutyric acid

(C₄H₈O₃; 1910-47-0) see: Captopril

 α -hydroxyisobutyric acid

(C₄H₈O₃; 594-61-6) see: Dimethadione

2-hydroxy-4-isopropoxyphenyl benzyl ketone

(C₁₇H₁₈O₃; 50561-04-1) see: Ipriflavone

2-hydroxy-5-isopropylacetophenone

(C₁₁H₁₄O₂; 1634-36-2) see: Amlexanox

hydroxylamine

(H₃NO; 7803-49-8) see: Adrafinil; Amlexanox; Bromidoprim; Ciclopirox; Clebopride; Cloxacillin; Cycloserine; Danazol; Dezocine; Dicloxacillin; Dimoxyline; Fenfluramine; Fluvoxamine; Fotemustine; Ibuproxam; Imolamine; Leflunomid; Lorazepam; Metapramine; Mexiletine; Mofezolac; Nadoxolol; Nemonapride; Nilvadipine; Norgestrienone; Noxiptiline; Obidoxime chloride; Oxacillin; Pifoxime; Pralidoxime iodide; Prasterone; Rimantadine; Sulfafurazole; Zonisamide

hydroxylamine hydrochloride

(ClH₄NO; 5470-11-1) see: Bufenamac; Clopidogrel hydrogensulfate; Furazabol; Guanoxabenz; Hydroxycarbamide; Mefloquine; Niaprazine; Norgestimate; Oxametacin; Oxiconazole; Risperidone; Trilostane; Zileuton

hydroxylamine sulfate

(H₈N₂O₆S; 10039-54-0) see: Paracetamol

hydroxylamine-O-sulfonic acid

(H₃NO₄S; 2950-43-8) see: Brinzolamide

4-hydroxy-2-mercapto-6-methylpyrimidine

(C₅H₆N₂OS; 56-04-2) see: Dipyridamole

2-hydroxy-3-methoxybenzaldehyde

(C₈H₈O₃; 148-53-8) see: Alibendol; Befunolol; Nipradilol

(-)-3-hydroxy-3-methoxycarbonyl-1,2-didehydrospido-spermidine-9-oxide

(C₂₁H₂₆N₂O₄; 38199-36-9) see: Vincamine

D(-)-4-hydroxy-N-(2-methoxycarbonyl-1-methylethenyl)phenylglycine

(C₁₃H₁₅NO₃; 53487-89-1) see: Cefadroxil

D(-)-4-hydroxy-N-(2-methoxycarbonyl-1-methylethenyl)phenylglycine sodium salt

see under DANE salt

- (11 β)-3-hydroxy-11-methoxyestra-1,3,5(10)-trien-17-one**
(C₁₉H₂₄O₃; 21375-11-1) see: Moxestrol
- 4-hydroxy-3-methoxy-4'-methylbenzophenone**
(C₁₅H₁₄O₃; 134612-39-8) see: Tolcapone
- α -hydroxy-6-methoxy- α -methyl-2-naphthaleneacetic acid**
(C₁₄H₁₄O₄; 32721-11-2) see: Naproxen
- 4-hydroxy-3-methoxy-4'-methyl-5-nitrobenzophenone**
(C₁₅H₁₃NO₅; 134612-80-9) see: Tolcapone
- [S-(R*,R*)]- α -hydroxy-4-methoxy- β -[(2-nitrophenyl)-thio]benzenepropanoic acid**
(C₁₆H₁₅NO₆S; 42399-45-1) see: Diltiazem
- (R*,R*)-(\pm)- α -hydroxy-4-methoxy- β -[(2-nitrophenyl)-thio]benzenepropanoic acid methyl ester**
(C₁₇H₁₇NO₆S; 42399-43-9) see: Diltiazem
- 3-hydroxy-2-methoxy-5-oxo-1-cyclopentene-1-heptanoic acid methyl ester**
(C₁₄H₂₂O₅; 32406-04-5) see: Misoprostol
- 4-hydroxy-2-methoxy-5-oxo-1-cyclopentene-1-heptanoic acid methyl ester**
(C₁₄H₂₂O₅; 32561-42-5) see: Misoprostol
- 5-[1-hydroxy-2-[[2-(2-methoxyphenoxy)ethyl](phenylmethyl)amino]ethyl]-2-methylbenzenesulfonamide**
(C₂₅H₃₀N₂O₅S; 70958-78-0) see: Amosulalol
- (4-hydroxy-3-methoxyphenyl)acetone**
(C₁₀H₁₂O₃; 2503-46-0) see: Methylropa
- 5-[(4-hydroxy-3-methoxyphenyl)methylene]-2,4-imidazolidinedione**
(C₁₁H₁₀N₂O₄; 52036-16-5) see: Levodopa
- N-[5-[1-hydroxy-2-[[2-(4-methoxyphenyl)-1-methylethyl](phenylmethyl)amino]ethyl]-2-(phenylmethoxy)phenyl]-formamide**
(C₃₃H₃₆N₂O₄; 43229-70-5) see: Formoterol
- 1-(4-hydroxy-3-methoxyphenyl)-1,2-propanediol 2-formate**
(C₁₁H₁₄O₅) see: Methylropa
- 17-hydroxy-20-methoxypregna-4,20-dien-3-one**
(C₂₂H₃₂O₃; 63973-94-4) see: Hydroxyprogesterone
- 6-hydroxy-5-methoxy-4(1H)-pyrimidinone**
(C₅H₆N₂O₃; 5193-84-0) see: Sulfadoxine
- 6-hydroxy-2-methoxy-2,5,7,8-tetramethylchromane**
(C₁₄H₂₀O₃; 53209-24-8) see: Troglitazone
- 4'-hydroxy-2-methylaminoacetophenone**
(C₉H₁₁NO₂; 21213-89-8) see: Synephrine
- (17 β)-17-hydroxy-17-methylandrosta-4,9(11)-dien-3-one**
(C₂₀H₂₈O₂; 1039-17-4) see: Fluoxymesterone
- 17 β -hydroxy-17-methylandrosta-4,6-dien-3-one**
(C₂₀H₂₈O₂; 5585-85-3) see: Bolasterone
- (5 α ,17 β)-17-hydroxy-17-methylandrosta-2,3-dione di-oxime**
(C₂₀H₃₂N₂O₃; 3137-81-3) see: Furazabol
- 5-(hydroxymethyl)-1- β -D-arabinofuranosyluracil**
(C₁₀H₁₄N₂O₇; 28608-82-4) see: Sorivudine
- (1 α ,5 α ,6 α)-6-(hydroxymethyl)-3-azabicyclo[3.1.0]hexane**
(C₆H₁₁NO; 134575-13-6) see: Trovafloxacin mesilate
- [7(S)-(1 α ,2 β ,4 β ,5 α ,7 β)]- α (hydroxymethyl)benzeneacetic acid 9-ethyl-3-oxa-9-azatricyclo[3.3.1.0^{2,4}]non-7-yl ester**
(C₁₈H₂₃NO₄; 67009-40-9) see: Oxitropium bromide
- [7(S)-(1 α ,2 β ,4 β ,5 α ,7 β)]- α -(hydroxymethyl)benzeneacetic acid 3-oxa-9-azatricyclo[3.3.1.0^{2,4}]non-7-yl ester**
(C₁₆H₁₉NO₄; 4684-28-0) see: Oxitropium bromide
- 3-hydroxy-2-methylbenzoic acid**
(C₈H₈O₃; 603-80-5) see: Nelfinavir mesylate
- (11 β ,16 α)-11-hydroxy-16-methyl-17,21-bis(1-oxopropoxy)pregna-1,4,6-triene-3,20-dione**
(C₂₈H₃₆O₇; 67212-74-2) see: Alclometasone dipropionate
- 2'-hydroxy-4'-(3-methyl-2-butenyloxy)acetophenone**
(C₁₃H₁₆O₃; 24672-83-1) see: Sofalcone
- 2-hydroxy-2-methylbutyric acid ethyl ester**
(C₇H₁₄O₃; 77-70-3) see: Paramethadione
- 2-hydroxy-2-methylbutyronitrile**
(C₅H₉NO; 4111-08-4) see: Paramethadione
- 5(R)-(hydroxymethyl)-2-cyclopenten-1(R)-ol**
(C₆H₁₀O₂; 143395-28-2) see: Abacavir
- 2-[1-(hydroxymethyl)cyclopropyl]acetone nitrile**
(C₆H₉NO; 152922-71-9) see: Montelukast sodium
- (\pm)-cis-2-hydroxymethyl-N,N-diethyl-1-phenylcyclopropanecarboxamide**
(C₁₅H₂₁NO₂; 131091-01-5) see: Milnacipran hydrochloride
- 2-hydroxymethyl-2,3-dihydro-1,4-benzodioxin**
(C₉H₁₀O₃; 3663-82-9) see: Guanoxan
- 2-hydroxymethyl-3,4-dimethoxypyridine**
(C₈H₁₁NO₃; 72830-08-1) see: Pantoprazole sodium
- 2-(hydroxymethyl)-3,5-dimethyl-4-methoxypyridine**
(C₉H₁₃NO₂; 86604-78-6) see: Omeprazole
- 4-hydroxy-6,7-methylenedioxyquinoline**
(C₉H₆N₂O₃; 28657-76-3) see: Cinoxacin
- 4-hydroxy-6,7-methylenedioxyquinoline-3-carboxylic acid ethyl ester**
(C₁₃H₁₁NO₅; 14205-65-3) see: Oxolinic acid
- α -(hydroxymethylene)-3,4,5-trimethoxybenzene-propanoic acid ethyl ester**
(C₁₅H₂₀O₆; 72830-04-7) see: Trimethoprim
- [1R][1 α ,5 α ,6(R*)]- α -[1-(hydroxymethyl)ethenyl]-7-oxo-3-phenyl-4-oxa-2,6-diazabicyclo[3.2.0]hept-2-ene-6-acetic acid diphenylmethyl ester**
(C₂₈H₂₄N₂O₅; 67977-88-2) see: Latamoxef
- 8-hydroxy-5-[2-[(1-methylethyl)amino]-1-oxobutyl]-2(1H)-quinolinone**
(C₁₆H₂₀N₂O₃; 63235-39-2) see: Procatenol
- 4-[2-hydroxy-3-[(1-methylethyl)amino]propoxy]phenol**
(C₁₂H₁₉NO₃; 62340-37-8) see: Prenalterol
- 2-hydroxy-2-methyl-3-(4-fluorophenylthio)propionic acid**
(C₁₀H₁₁FO₃S) see: Bicalutamide
- 4-hydroxy-2-methylindole**
(C₉H₉NO; 35320-67-3) see: Bopindolol; Mepindolol
- 3(S)-hydroxymethyl-7-methoxy-7-[2-(2-thienyl)acetamido]-3-cephem-4-carboxylic acid potassium salt**
(C₁₅H₁₅KN₂O₆S₂; 37051-16-4) see: Cefoxitin
- 4-hydroxymethyl-5-methylimidazole hydrochloride**
(C₅H₉ClN₂O; 38585-62-5) see: Cimetidine
- 2-hydroxymethyl-1-methylpiperidine**
(C₇H₁₃NO; 20845-34-5) see: Bevonium metilsulfate
- α -hydroxy- α -methyl-4-(2-methylpropyl)benzene-acetonitrile**
(C₁₃H₁₇NO; 63367-12-4) see: Ibuprofen
- α -hydroxy- α -methyl-4-(2-methylpropyl)benzeneethanimidic acid methyl ester hydrochloride**
(C₁₄H₂₂ClNO₂) see: Ibuprofen
- 2-hydroxymethyl-5-methylpyrazine**
(C₆H₈N₂O; 61892-95-3) see: Acipimox

2-hydroxymethyl-1-methylpyrrolidine(C₆H₁₃NO; 3554-65-2) see: Oxypyrrolonium bromide**2-hydroxymethyl-3-methyl-4-(2,2,2-trifluoroethoxy)-pyridine**(C₉H₁₀F₃NO₂; 103577-66-8) see: Lansoprazole**(±)-3-hydroxy-N-methylmorphinan**(C₁₇H₂₃NO; 297-90-5) see: Dextromethorphan; Levorphanol**2-hydroxymethylmorpholine**(C₅H₁₁NO₂; 103003-01-6) see: Indeloxacin**(±)-2-(hydroxymethyl)morpholine**

see under 2-hydroxymethylmorpholine

4-hydroxy-7-methyl-1,8-naphthyridine-3-carboxylic acid(C₁₀H₈N₂O₃; 13250-97-0) see: Nalidixic acid**4-hydroxy-7-methyl-1,8-naphthyridine-3-carboxylic acid ethyl ester**(C₁₂H₁₂N₂O₃; 13250-96-9) see: Nalidixic acid**2-(hydroxymethyl)-2-nitro-1,3-propanediol**(C₄H₉NO₃; 126-11-4) see: Trometamol**17β-hydroxy-17-methyl-3-oxo-1,4,6-androstatriene**(C₂₀H₂₆O₂; 28816-02-6) see: Testosterone**17β-hydroxy-17α-methyl-3-oxo-1-androstene**(C₂₀H₃₀O₂; 65-04-3) see: Oxandrolone**(2S-trans)-(1-hydroxy-2-methyl-4-oxo-3-azetidiny)carbamic acid 1,1-dimethylethyl ester**(C₉H₁₆N₂O₄; 80542-48-9) see: Aztreonam**17β-hydroxy-17-methyl-1-oxo-1,2-seco-A-nor-5α-androstan-2-oic acid**(C₁₉H₃₀O₄; 901-87-1) see: Oxandrolone**1-hydroxy-3-methyl-2-penten-4-yne**(C₆H₈O; 105-29-3) see: Retinol**3-hydroxy-3-methyl-1-penten-4-yne**(C₆H₈O; 3230-69-1) see: Retinol**cis-2-(hydroxymethyl)-1-phenylcyclohexanol**(C₁₃H₁₈O₂; 56086-94-3) see: Cicloxilic acid**2-(hydroxymethyl)-1-phenylcyclopropanecarboxylic acid**(C₁₁H₁₂O₃; 70209-83-5) see: Milnacipran hydrochloride**(4S-cis)-5-(hydroxymethyl)-4-(phenylmethyl)-2-oxazolidinone**(C₁₁H₁₃NO₃; 147976-16-7) see: Saquinavir**2-hydroxy-5-[[[1-methyl-3-phenylpropyl](phenylmethyl)amino]acetyl]benzamide**(C₂₆H₂₈N₂O₃; 81579-50-2) see: Labetalol**9-[1-hydroxy-3-(4-methyl-1-piperazinyl)propyl]-N,N-dimethyl-9H-thioxanthene-2-sulfonamide**(C₂₃H₃₁N₄O₃S₂) see: Tiotixene**4-hydroxy-1-methylpiperidine**(C₆H₁₃NO; 106-52-5) see: Diphenylpyraline; Naratriptan; Pentapiperide; Propiverine**21-hydroxy-16α-methylpregna-1,4-diene-3,11,20-trione 3,20-discimcarbazono acetate (ester)**(C₂₆H₃₆N₆O₅; 1063-85-0) see: Desoximetasone**11β-hydroxy-2'-methyl-5'βH-pregna-1,4-dieno[17,16-d]oxazole-3,20-dione**(C₂₃H₂₉NO₄; 13649-88-2) see: Deflazacort**3α-hydroxy-16α-methylpregnane-11,20-dione**(C₂₇H₃₄O₃; 115303-29-2) see: Dexamethasone**3α-hydroxy-16α-methyl-5β-pregnane-11,20-dione**(C₂₇H₃₄O₃; 1048-87-9) see: Desoximetasone**3β-hydroxy-2'-methyl-5α,5'βH-pregnano[17,16-d]oxazole-11,20-dione**(C₂₃H₃₃NO₄; 5070-98-4) see: Deflazacort**17α-hydroxy-16β-methylpregna-1,4,9(11)-triene-3,20-dione**(C₂₂H₂₈O₃; 14135-32-1) see: Betamethasone**17α-hydroxy-16β-methyl-5β-pregn-9(11)-ene-3,20-dione**(C₂₂H₃₂O₃; 13656-78-5) see: Betamethasone**21-hydroxy-2'-methyl-5βH-5α-pregn-9(11)-eno[17,16-d]-oxazole-3,20-dione acetate (ester)**(C₂₅H₃₃NO₅; 19890-71-2) see: Fluazacort**3β-hydroxy-2'-methyl-5'βH-5α-pregn-9(11)-eno[17,16-d]-oxazol-20-one acetate (ester)**(C₂₅H₃₅NO₄; 19890-68-7) see: Fluazacort**17-hydroxy-6α-methylprogesterone**(C₂₂H₃₂O₃; 520-85-4) see: Anagestone acetate; Medroxyprogesterone acetate; Megestrol acetate**N-[(+)-1-(hydroxymethyl)propyl]-D-isolysergamide**(C₂₀H₂₅N₃O₂; 29477-88-1) see: Methylergometrine**2-hydroxymethylpyridine**(C₆H₇NO; 586-98-1) see: Pimeprofen**1-(3-hydroxymethyl-2-pyridinyl)-2-phenyl-4-methylpiperazine**(C₁₇H₂₁N₃O; 61337-89-1) see: Mirtazapine**3-hydroxy-2-methyl-4-pyrone**(C₆H₆O₃; 118-71-8) see: Deferiprone**3-hydroxy-1-methylpyrrolidine**(C₅H₁₁NO; 13220-33-2) see: Glycopyrronium bromide; Heteronium bromide**8-hydroxy-2-methylquinoline**(C₁₀H₉NO; 826-81-3) see: Chlorquinaldol**threo-β-hydroxy-4-(methylsulfonyl)-DL-phenylalanine ethyl ester**(C₁₂H₁₇NO₃S; 31925-27-6) see: Thiamphenicol**5-(hydroxymethyl)thiazole**(C₄H₅NOS; 38585-74-9) see: Ritonavir**2'-hydroxy-2-(methylthio)acetophenone**(C₉H₁₀O₂S; 56986-82-4) see: Neticonazole hydrochloride**α-hydroxy-α-methyl-2-thiopheneacetic acid**(C₇H₈O₃S; 54955-42-9) see: Tiaprofenic acid**3-hydroxy-4-morpholino-1,2,5-thiadiazole**(C₆H₉N₃O₂S; 30165-97-0) see: Timolol**2-[(hydroxy-4-morpholinylphosphinyl)oxy]-N,N,N-trimethylethanaminium inner salt**(C₉H₂₁N₂O₄P; 30115-52-7) see: Citicoline**3-hydroxy-4-(1-naphthalenyloxy)butanimidamide**(C₁₄H₁₆N₂O₂) see: Nadoxolol**3-hydroxy-4-(1-naphthalenyloxy)butanimidic acid ethyl ester**(C₁₆H₁₉NO₃) see: Nadoxolol**3-hydroxy-4-(1-naphthoxy)butyronitrile**(C₁₄H₁₃NO₂; 20804-76-6) see: Nadoxolol**4-hydroxy-1,5-naphthyridine-3-carboxylic acid**(C₉H₆N₂O₃; 53512-10-0) see: Apalcillin**4-hydroxy-3-nitrobenzoic acid**(C₇H₅NO₃; 616-82-0) see: Proxymetacaine**3-hydroxy-4-nitrobenzoic acid ethyl ester**(C₉H₉NO₃; 717-01-1) see: Oxybuprocaine**2-hydroxy-3-nitro-4-methylpyridine**(C₆H₆N₂O₃; 21901-18-8) see: Nevirapine

- (4-hydroxy-3-nitrophenyl)arsonic acid**
(C₆H₆AsNO₆; 121-19-7) see: Acetarsol
- 4-hydroxy-3-nitroquinoline**
(C₉H₆N₂O₃; 50332-66-6) see: Imiquimod
- 8-hydroxy-5-nitrosoquinoline**
(C₉H₆N₂O₂; 3565-26-2) see: Nitroxoline
- 4-hydroxynorephedrine**
(C₉H₁₃NO₂; 552-85-2) see: Buphenine; Isoxsuprine
- L-ε-hydroxynorleucine methyl ester**
(C₇H₁₅NO₃; 167090-40-6) see: Omapatrilat
- 17β-hydroxy-19-norpregna-4,9,11-trien-20-yn-3-one oxime**
(C₂₀H₂₃NO₂; 19636-23-8) see: Norgestrienone
- 17-hydroxy-19-norprogesterone**
(C₂₀H₂₈O₃; 2137-18-0) see: Gestonorone caproate
- trans-5-hydroxy-1,3-oxathiolane-2-carboxylic acid**
(C₄H₆O₄S; 147027-04-1) see: Lamivudine
- 17β-hydroxy-3-oxo-5α-androst-1-ene**
(C₁₉H₂₈O₂; 65-06-5) see: Mesterolone; Metenolone acetate
- 3β-hydroxy-17-oxo-5-androstene**
see under androstenolone
- 3-(17β-hydroxy-3-oxo-4-androsten-17-yl)propionic acid lactone**
(C₂₂H₃₀O₃; 976-70-5) see: Potassium canrenoate; Spironolactone
- 3-hydroxy-5-oxo-1-cyclopentene-1-heptanoic acid methyl ester**
(C₁₃H₂₀O₄; 40098-26-8) see: Misoprostol
- 17β-hydroxy-3-oxo-4,9,11-estratriene**
(C₁₈H₂₂O₂; 10161-33-8) see: Norgestrienone; Trenbolone hexahydrobenzyl carbonate
- (S)-2-[3-hydroxy-2-oxo-1-(phenylmethyl)propyl]-1H-indole-1,3(2H)-dione**
(C₁₈H₁₅NO₄; 136465-82-2) see: Saquinavir
- [S-(R*,S*)]-[2-hydroxy-3-oxo-1-[(phenylthio)methyl]propyl]carbamic acid phenylmethyl ester**
(C₁₈H₁₉NO₄S; 197302-37-7) see: Nelfinavir mesylate
- 3β-hydroxy-20-oxo-5,16-pregnadiene**
see under 16-dehydropregnenolone
- (4S)-3-[(2S,3R)-3-hydroxy-1-oxo-2-(2-propenyl)-4-pentenyl]-4-(phenylmethyl)-2-oxazolidinone**
(C₁₈H₂₁NO₄; 178327-17-8) see: Abacavir
- 5-[[4-(4-hydroxyphenoxy)-3,5-diiodophenyl]methyl]-5-methyl-2,4-imidazolidinedione**
(C₁₇H₁₄I₂N₂O₄; 5165-06-0) see: Efiroxate
- 4-hydroxyphenylacetamide**
(C₈H₉NO₂; 17194-82-0) see: Atenolol
- 4-hydroxyphenylacetic acid**
(C₈H₈O₃; 156-38-7) see: Atenolol; Camostat
- 4-hydroxyphenylacetone**
(C₉H₁₀O₂; 770-39-8) see: Pholedrine
- (-)-1-hydroxy-1-phenylacetone**
(C₉H₁₀O₂; 1798-60-3) see: L(-)-Ephedrine
- 1-(4-hydroxyphenyl)-4-acetylpiperazine**
(C₁₂H₁₆N₂O₂; 67914-60-7) see: Itraconazole; Ketoconazole
- 1-(4-hydroxyphenyl)-2-amino-1-propanol**
see under 4-hydroxynorephedrine
- (3R,4S)-3-hydroxy-4-phenyl-2-azetidinone**
(C₉H₉NO₂; 132127-34-5) see: Paclitaxel
- α-hydroxy-α-phenylbenzeneacetic acid 1-azabicyclo[2.2.2]oct-3-yl ester**
(C₂₁H₂₃NO₃; 6581-06-2) see: Clidinium bromide
- α-hydroxy-α-phenylbenzeneacetic acid 1-ethyl-3-piperidinyl ester**
(C₂₁H₂₅NO₃; 3567-12-2) see: Pipenzolate bromide
- 3endo-α-hydroxy-α-phenylbenzeneacetic acid 6-methoxy-8-methyl-8-azabicyclo[3.2.1]oct-3-yl ester**
(C₂₃H₂₇NO₄) see: Tropenziline bromide
- α-hydroxy-α-phenylbenzeneacetic acid 1-methyl-4-piperidinyl ester**
(C₂₀H₂₃NO₃; 3608-67-1) see: Propiverine
- (-)-(1S,2S)-N-(2-hydroxy-1-phenyl-3-butenyl)benzamide**
(C₁₇H₁₇NO₂; 136693-02-2) see: Paclitaxel
- [hydroxy(4-phenylbutyl)phosphinyl]acetic acid phenylmethyl ester**
(C₁₉H₂₃O₄P; 87460-09-1) see: Fosinopril
- 1-(4-hydroxyphenyl)ethanone oxime**
(C₈H₉NO₂; 34523-34-7) see: Paracetamol
- 4-hydroxy-1-(2-phenylethyl)-4-piperidinecarbonitrile**
(C₁₄H₁₈N₂O; 23804-59-3) see: Fenspiride
- N-[3-(2-hydroxy-2-phenylethyl)-2-thiazolidinylidene]acetamide**
(C₁₃H₁₆N₂O₂S; 5028-81-9) see: Levamisole
- 4-hydroxy-3-phenyl-2(5H)-furanone**
(C₁₀H₈O₃; 23782-85-6) see: Rofecoxib
- D-4-hydroxyphenylglycine**
(C₈H₉NO₃; 22818-40-2) see: Aspoxicillin
- DL-4-hydroxyphenylglycine**
(C₈H₉NO₃; 938-97-6) see: Atenolol
- D(-)-4-hydroxyphenylglycine sodium salt**
(C₈H₈NNaO₃; 55361-61-0) see: Cefoperazone
- D-p-hydroxyphenylglycyl chloride hydrochloride**
(C₈H₉Cl₂NO₃; 51431-08-4) see: Amoxicillin; Cefatrizine; cis-Cefprozil
- D(-)-2-(4-hydroxyphenyl)glycyl chloride hydrochloride**
see under D-p-hydroxyphenylglycyl chloride hydrochloride
- 7-hydroxy-7-phenylheptanoic acid**
(C₁₃H₁₈O₃; 103187-18-4) see: Seratrodast
- [R-(R*,S*)]-[2-hydroxy-1-[[phenylmethoxyamino]carbonyl]propyl]carbamic acid 1,1-dimethylethyl ester**
(C₁₆H₂₄N₂O₅; 75624-31-6) see: Aztreonam
- (R)-3-hydroxy-7-[[phenylmethoxy]carbonyl]amino]heptanoic acid**
(C₁₅H₂₁NO₃) see: Gusperimus trihydrochloride
- 4-[hydroxy[5-[[phenylmethoxy]carbonyl]amino]pen-tyl]amino]-4-oxobutanoic acid**
(C₁₇H₂₄N₂O₆; 106410-46-2) see: Deferoxamine
- D-α-(4-hydroxyphenyl)-α-(2-methoxycarbonyl-1-methyl-ethenylamino)acetic acid anhydride with monoethyl carbonate**
(C₁₆H₁₉NO₇; 78858-51-2) see: Amoxicillin
- [1S-(1α,4α,5β)]-4-hydroxy-5-[(phenylmethoxy)methyl]-2-cyclopentene-1-acetic acid**
(C₁₅H₁₈O₄; 41787-51-3) see: Dinoprost
- N-[2-[[2-hydroxy-3-[4-(phenylmethoxy)phenoxy]propyl]-amino]ethyl]-4-morpholinecarboxamide**
(C₂₃H₃₁N₃O₅; 69630-21-3) see: Xamoterol

- [6R-(6 α ,7 α)]-7-[[2-(4-hydroxyphenyl)-3-[(4-methoxyphenyl)methoxy]-1,3-dioxopropyl]amino]-7-methoxy-3-[[1-methyl-1H-tetrazol-5-yl]thio]methyl]-8-oxo-5-oxa-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid diphenylmethyl ester**
(C₄₁H₃₈N₆O₁₀S) see: Latamoxef
- 2-[(2-hydroxyphenyl)methyl]amino]acetamide**
(C₉H₁₂N₂O₂; 57938-79-1) see: Caroxazone
- 2-(hydroxyphenylmethyl)-N-methylbenzamide**
(C₁₅H₁₅NO₂; 15496-40-9) see: Nefopam
- D-2-(4-hydroxyphenyl)-N-[N-methyl-N²-(2-nitrophenyl)-thio]-D-asparaginylglycine**
(C₁₉H₂₀N₄O₇S; 63340-87-4) see: Aspicillin
- (E)-1-[1-(2-hydroxyphenyl)-2-(methylthio)vinyl]-1H-imidazole**
(C₁₂H₁₂N₂OS; 138206-46-9) see: Neticonazole hydrochloride
- 1-(4-hydroxyphenyl)-2-oxo-1-propanol**
(C₉H₁₀O₃; 35263-55-9) see: Oxilofrine
- 2-(4-hydroxyphenyl)propionitrile**
(C₉H₉NO; 21850-61-3) see: Benoxapofen; Flunoxapofen
- 2'-hydroxy-3-phenylpropiophenone**
(C₁₅H₁₄O₂; 3516-95-8) see: Etafenone; Propafenone
- (2S-cis)-4-hydroxy-4-phenyl-1,2-pyrrolidinedicarboxylic acid 1-(phenylmethyl) ester**
(C₁₉H₁₉NO₅; 78464-03-6) see: Fosinopril
- α -hydroxy- α -phenyl-2-thiopheneacetic acid 2-diethylaminoethyl ester**
(C₁₈H₂₃NO₃S; 101782-33-6) see: Oxitefonium bromide
- α -hydroxy- α -phenyl-2-thiopheneacetic acid ethyl ester**
(C₁₄H₁₄O₃S; 28569-78-0) see: Oxitefonium bromide
- 3-hydroxypiperidine**
(C₅H₁₁NO; 6859-99-0) see: Benidipine
- 4-hydroxypiperidine**
(C₅H₁₁NO; 5382-16-1) see: Ebastine; Periciazine; Perimetazine
- 2-hydroxy-N-[3-[3-(1-piperidinylmethyl)phenoxy]propyl]acetamide**
(C₁₇H₂₆N₂O₃; 78273-80-0) see: Roxatidine acetate
- β -hydroxypivalaldehyde**
(C₅H₁₀O₂; 597-31-9) see: Calcium pantothenate
- 16 α -hydroxyprednisolone**
(C₂₁H₂₈O₆; 13951-70-7) see: Budesonide; Desonide
- 17-hydroxypregna-4,6-diene-3,20-dione**
(C₂₁H₂₈O₃; 2477-60-3) see: Chlormadinone acetate
- 21-hydroxypregna-4,17(20)-diene-3,11-dione acetate**
(C₂₃H₃₀O₄; 112483-95-1) see: Cortisone
- 11 α -hydroxy-5 α -pregnane-3,20-dione**
(C₂₁H₃₂O₃; 565-96-8) see: Alfaxalone
- 17-hydroxypregn-5-ene-3,20-dione cyclic bis(1,2-ethanediy) acetal)**
(C₂₅H₃₈O₅; 3386-00-3) see: Medroxyprogesterone acetate
- 17-hydroxyprogesterone**
(C₂₁H₃₀O₃; 68-96-2) see: Chlormadinone acetate; Cyproterone acetate; Hydroxyprogesterone caproate; Medroxyprogesterone acetate
- 11 α -hydroxyprogesterone**
(C₂₁H₃₀O₃; 80-75-1) see: Alfaxalone; Cortisone; Hydrocortisone
- trans-L-hydroxyproline**
(C₅H₉NO₃; 51-35-4) see: Fosinopril; Meropenem; Oxaceprol
- 5,5'-[(2-hydroxy-1,3-propanediyl)bis(oxy)]bis[4-oxo-4H-1-benzopyran-2-carboxylic acid] diethyl ester**
(C₂₇H₂₄O₁₁; 16150-45-1) see: Cromoglicic acid
- 1,1'-[(2-hydroxy-1,3-propanediyl)bis[oxy(6-hydroxy-2,1-phenylene)]]bisethanone**
(C₁₉H₂₀O₇; 16150-44-0) see: Cromoglicic acid
- 3'-hydroxypropiophenone**
(C₉H₁₀O₂; 13103-80-5) see: Metaraminol
- 4'-hydroxypropiophenone**
(C₉H₁₀O₂; 70-70-2) see: Buphenine; Dienestrol; Diethylstilbestrol; Fenalcomine; Ifenprodil
- 9-(3-hydroxypropyl)anthracene**
(C₁₇H₁₆O; 22689-05-0) see: Maprotiline
- 10-(3-hydroxypropyl)-N,N-dimethylphenothiazine-2-sulfonamide p-toluenesulfonate**
(C₂₄H₂₆N₂O₅S₃; 97013-40-6) see: Pipotiazine
- 4-(3-hydroxypropyl)-1H-imidazole**
(C₆H₁₀N₂O; 49549-75-9) see: Fadzole
- 4-[[5-(3-hydroxypropyl)-1H-imidazol-1-yl]methyl]benzoxonitrile**
(C₁₄H₁₅N₃O; 102676-29-9) see: Fadzole
- 1-(3-hydroxypropyl)piperazine**
(C₇H₁₆N₂O; 5317-32-8) see: Fluphenazine
- 4-(3-hydroxypropyl)-1-piperazinecarboxaldehyde**
(C₈H₁₆N₂O₂; 210553-81-4) see: Fluphenazine
- 1 α -hydroxyprovitamin D₃**
(C₂₇H₄₄O₂; 43217-89-6) see: Alfacalcidol
- 3-hydroxypyrazine-2-carboxamide**
(C₅H₅N₃O₂; 55321-99-8) see: Sulfalene
- 3-hydroxypyridine**
(C₅H₅NO; 109-00-2) see: Distigmine bromide; Pirbuterol; Pyridostigmine bromide
- 4-hydroxypyridine**
(C₅H₅NO; 626-64-2) see: Torasemide
- 5-hydroxy-3-pyridinecarboxylic acid**
(C₆H₅NO₃; 27828-71-3) see: Timepidium bromide
- 4-hydroxy-3-pyridinesulfonic acid**
(C₅H₅NO₃S; 51498-37-4) see: Torasemide
- α -hydroxy-N-2-pyrindinylbenzeneacetamide**
(C₁₃H₁₂N₂O₂; 1759-00-8) see: Fenyramidol
- (2S-trans)-4-hydroxy-1,2-pyrrolidinedicarboxylic acid 1-(1,1-dimethylethyl) 2-(phenylmethyl) ester**
(C₁₇H₂₃NO₅; 89813-47-8) see: Fosinopril
- 6-[1-hydroxy-3-pyrrolidino-1-(p-tolyl)propyl]-2-pyridinecarboxaldehyde**
(C₂₀H₂₄N₂O₂; 87849-04-5) see: Acrivastine
- 11 β -hydroxy-3-(1-pyrrolidiny)androsta-3,5-dien-17-one**
(C₂₃H₃₃NO₂; 13872-21-4) see: Fluoxymesterone
- 4-hydroxyquinoline**
(C₉H₇NO; 611-36-9) see: Imiquimod
- 4-hydroxy-2(1H)-quinolinone**
(C₉H₇NO₂; 86-95-3) see: Imiquimod
- 3-hydroxyquinuclidine**
(C₇H₁₃NO; 1619-34-7) see: Aceclidine; Clidinium bromide
- (1 α ,3 β ,5 α)-3-hydroxy Spiro[8-azoniabicyclo[3.2.1]octane-8,1'-pyrrolidinium] chloride**
(C₁₁H₂₀ClNO; 3464-71-9) see: Trosipium chloride

hydroxystenozole(C₂₁H₃₀N₂O; 19120-01-5) see: Stanozolol**N-hydroxysuccinimide**(C₄H₅NO₃; 6066-82-6) see: Amprenavir; Aspoxicillin; Cefotiam; Imidapril; Nateglinide; Ritonavir; Romurtide; Spirapril**(S)-(+)-3-hydroxytetrahydrofuran**(C₄H₈O₃; 86087-23-2) see: Amprenavir**2-[2(R)-hydroxy-3-[(tetrahydro-2H-pyran-2-yl)oxy]-1(S)-(phenylmethyl)propyl]-1H-isoindole-1,3(2H)-dione**(C₂₃H₂₅NO₃) see: Saquinavir**5-hydroxy-1,2,3,4-tetrahydroquinolin-2-one**(C₉H₉NO₂; 30389-33-4) see: Carteolol**5-hydroxy-1-tetralone**(C₁₀H₁₀O₂; 28315-93-7) see: Levobunolol**(±)-6-hydroxy-2,5,7,8-tetramethylchroman-2-carboxylic acid**(C₁₄H₁₈O₄; 53188-07-1) see: Troglitazone**(±)-6-hydroxy-2,5,7,8-tetramethylchroman-2-ylmethanol**(C₁₄H₂₀O₃; 79907-49-6) see: Troglitazone**8-hydroxythiochroman**(C₉H₁₀OS; 30073-50-8) see: Tertatolol**α-hydroxy-2-thiopheneacetonitrile**(C₆H₅NOS; 89380-68-7) see: Temocapril**4-hydroxy-4-(p-tolyl)piperidine**(C₁₂H₁₇NO; 57988-60-0) see: Moperone**6-hydroxy-2,4,5-triaminopyrimidine**(C₄H₇N₅O; 1004-75-7) see: Folic acid**4-hydroxy-4-(3-trifluoromethylphenyl)piperidine**(C₁₂H₁₄F₃NO; 2249-28-7) see: Trifluperidol**4-hydroxy-8-trifluoromethylquinoline**(C₁₀H₆F₃NO; 23779-96-6) see: Floctafenine**4-hydroxy-8-(trifluoromethyl)-3-quinolinecarboxylic acid**(C₁₁H₆F₃NO₃; 23779-95-5) see: Floctafenine**2¹-hydroxy-2,5,9-trimethylbenzo-6-morphen**(C₁₅H₂₁NO; 25144-79-0) see: Pentazocine**4-hydroxy-2,4,6-trimethyl-2,5-cyclohexadien-1-one**(C₉H₁₂O₂; 16404-66-3) see: Metipranolol**α-hydroxy-N,N,6-trimethyl-2-(4-methylphenyl)imidazo-[1,2-a]pyridine-3-acetamide**(C₁₉H₂₁N₃O₂; 118026-14-5) see: Zolpidem**(22E)-23-hydroxy-3,11,20-trioxo-21-norchola-4,22-dien-24-oic acid ethyl ester sodium salt**(C₂₅H₃₁NaO₆; 74220-39-6) see: Cortisone; Hydrocortisone**(+)-(S)-5-hydroxy-γ-valerolactone**(C₅H₈O₃; 32780-06-6) see: Stavudine**25-hydroxyvitamin D₂**(C₂₈H₄₄O₂; 21343-40-8) see: Paricalcitol**L-hyoscyamine**(C₁₇H₂₃NO₃; 101-31-5) see: Butropium bromide;

Fentonium bromide

hyoscyamine

see under L-hyoscyamine

hypochlorous acid sodium salt

(ClNaO; 7681-52-9) see: Halazone

hypoxanthine(C₅H₄N₄O; 68-94-0) see: Mercaptopurine**I****ibuprofen**(C₁₃H₁₈O₂; 15687-27-1) see: Ibuprofen lysinate; Ibuproxam; Mabuprofen**ibuprofen methyl ester**(C₁₄H₂₀O₂; 61566-34-5) see: Ibuprofen**ibuprofen sodium salt**(C₁₃H₁₇NaO₂; 31121-93-4) see: Pimeprofen**imidazole**(C₃H₄N₂; 288-32-4) see: Bifonazole; Butoconazole; Clotrimazole; Eprosartan; Fenticonazole; Isoconazole; Ketoconazole; Miconazole; Neticonazole hydrochloride; Omoconazole nitrate; Oxiconazole; Ozagrel**1H-imidazole lithium salt**(C₃H₃LiN₂; 55986-39-5) see: Flutrimazole**2-imidazolidinone**(C₃H₆N₂O; 120-93-4) see: Azlocillin; Mezlocillin**2-[1-(1H-imidazol-1-yl)ethenyl]phenol**(C₁₁H₁₀N₂O; 74204-47-0) see: Croconazole**1-imidazo[1,2-a]pyridin-6-yl-2-propanone**(C₁₀H₁₀N₂O; 116355-08-9) see: Olprinone hydrochloride**2-imino-1,3-benzoxathiol-6-ol**(C₇H₅NO₂S) see: Tioxolone**iminodibenzyl**(C₁₄H₁₃N; 494-19-9) see: Carpipramine; Desipramine; Imipramine; Quinupramine; Tiracizine; Trimipramine**2-imino-α-phenyl-3-thiazolidineethanol**(C₁₁H₁₄N₂OS; 10060-88-5) see: Levamisole**iminostilbene**(C₁₄H₁₁N; 256-96-2) see: Carbamazepine; Opipramol; Oxcarbazepine**2-iminothiazolidine**(C₃H₆N₂S; 1779-81-3) see: Levamisole**2-(2-imino-3-thiazolidinyl)-1-phenylethanone**(C₁₁H₁₂N₂OS; 6649-73-8) see: Levamisole**imipramine**(C₁₉H₂₄N₂; 50-49-7) see: Desipramine**1,3-indanedione**(C₉H₆O₂; 606-23-5) see: Diphenadione**5-indanol**(C₉H₁₀O; 1470-94-6) see: Carindacillin**2-indanone**(C₉H₈O; 615-13-4) see: Aprindine; Indanorex**N-(4-indanyl)-N'-benzoylthiourea**(C₁₇H₁₆N₂OS; 40507-75-3) see: Indanazoline**N-(2-indanylidene)aniline**(C₁₅H₁₃N; 3201-41-0) see: Aprindine**2-indanyl methanesulfonate**(C₁₀H₁₂O₃S; 777-72-0) see: Aprindine**(5-indanyloxy)carbonylphenylketene**(C₁₈H₁₄O₃; 58137-69-2) see: Carindacillin**indazole-3-carboxylic acid**(C₈H₆N₂O₂; 4498-67-3) see: Granisetron; Lonidamine**indene**(C₉H₈; 95-13-6) see: Indinavir sulfate**[(1H-inden-4-yloxy)methyl]oxirane**(C₁₂H₁₂O₂; 64966-57-0) see: Indenolol**[(1H-inden-7-yloxy)methyl]oxirane**(C₁₂H₁₂O₂; 30190-85-3) see: Indenolol

- indole**
(C₈H₇N; 120-72-9) see: Indalpine; Indoramin; Tinazoline hydrochloride; Trandolapril
- indole-3-carbonyl chloride**
(C₉H₆ClNO; 59496-25-2) see: Tropisetron
- indole-3-carboxylic acid**
(C₉H₇NO₂; 771-50-6) see: Dolasetron mesilate; Tropisetron
- 1*H*-indole-3-carboxylic acid anhydride with trifluoroacetic acid**
(C₁₁H₆F₃NO₃; 125483-31-0) see: Dolasetron mesilate
- indole-3-carboxylic acid imidazolidine**
(C₁₂H₈N₃O; 99445-26-8) see: Tropisetron
- (*S*)-indoline-2-carboxylic acid**
(C₉H₉NO₂; 79815-20-6) see: Perindopril
- (*E*)-2-(1*H*-indol-5-yl)-*N*-methylethanesulfonamide**
(C₁₁H₁₂N₂O₂S; 98623-49-5) see: Naratriptan
- 5-(3-indolylmethyl)hydantoin**
(C₁₂H₁₁N₃O₂; 21753-16-2) see: L-Tryptophan
- 3-indolyl-4-piperidylmethyl ketone**
(C₁₅H₁₈N₂O; 74385-65-2) see: Indalpine
- indometacin**
(C₁₉H₁₆ClNO₂; 53-86-1) see: Acemetacin; Glucametacin; Indometacin farnesil; Oxametacin; Proglumetacin
- myo-inositol**
(C₆H₁₂O₆; 87-89-8) see: Inositol nicotinate
- iodine monochloride**
(ClI; 7790-99-0) see: Bunamiodyl; Iocetamic acid; Iopamidol; Iopanoic acid; Iophenoic acid; Iotalamic acid; Rizatriptan benzoate
- 1-(3-iodo-4-aminobenzyl)-1,2,4-triazole**
(C₉H₉IN₄; 160194-26-3) see: Rizatriptan benzoate
- iodobenzene**
(C₆H₅I; 591-50-4) see: Iofendylate
- 2-iodobenzoic acid**
(C₇H₅IO₂; 88-67-5) see: Chlorprothixene
[α*S*-[α*R**(1*R**,3*S**),β*R**,δ*S**]]-α-(4-iodo-1-methoxy-3-methylbutyl)-β-methoxy-δ-methyl-1,3-dithiane-2-butanol
(C₁₆H₃₁IO₂S₂; 118246-96-1) see: Tacrolimus
- 3-iodo-4-(4-methoxyphenoxy)-5-nitrobenzaldehyde**
(C₁₄H₁₀INO₃; 92060-22-5) see: Dextrothyroxine
- 4-[3-iodo-4-(*p*-methoxyphenoxy)-5-nitrobenzylidene]-2-methyl-2-oxazolin-5-one**
(C₁₈H₁₃IN₂O₆; 88589-97-3) see: Dextrothyroxine
- 2-iodo-5-methylbenzenesulfonyl chloride**
(C₇H₆ClIO₂S) see: Mesulfen
[1*R*-{1α,5α,6(*R**)}]α-[1-(iodomethyl)ethenyl]-7-oxo-3-phenyl-4-oxa-2,6-diazabicyclo[3.2.0]hept-2-ene-6-acetic acid diphenylmethyl ester
(C₂₈H₂₃IN₂O₄; 67977-89-3) see: Latamoxef
- iodomethyl penicillanate *S,S*-dioxide**
(C₉H₁₂INO₃S; 76247-39-7) see: Sultamicillin
- iodomethyl pivalate**
(C₆H₁₁IO₂; 53064-79-2) see: Cefditoren pivoxil
- 21-iodo-16α-methylpregna-1,4,9(11)-triene-3,20-dione**
(C₂₂H₂₇IO₂; 111668-07-6) see: Tirilazad mesilate
- 3-iodo-4-[4-(methylthio)phenyl]-2(5*H*)-furanone**
(C₁₁H₉O₂S; 162012-29-5) see: Rofecoxib
- 5-iodo-monomercuriuracil**
(C₄HHgN₂O₂; 5116-49-4) see: Idoxuridine
- 21-iodopregn-4-ene-3,20-dione**
(C₂₁H₂₉IO₂; 20576-46-9) see: Desoxycortone acetate
- 1-iodo-2-propanone**
(C₃H₅IO; 3019-04-3) see: Efonidipine hydrochloride ethanol
- N*-iodosuccinimide**
(C₄H₄INO₂; 516-12-1) see: Desoxycortone acetate; Tacrolimus
- 4-iodotoluene-3-sulfonic acid**
(C₇H₇IO₂S) see: Mesulfen
- 4-iodotoluene-3-sulfonic acid**
(C₇H₇IO₂S; 139778-27-1) see: Mesulfen
- 4-iodo-2-trifluoromethylaniline**
(C₇H₅F₃IN; 97760-97-9) see: Mabuterol
- 5-iodouracil**
(C₄H₃IN₂O₂; 696-07-1) see: Idoxuridine
- β-ionone**
(C₁₃H₂₀O; 79-77-6) see: Retinol
- β-ionylideneacetaldehyde**
(C₁₅H₂₂O; 1209-68-3) see: Retinol
- isatin**
(C₈H₅NO₂; 91-56-5) see: Amfenac sodium; Cinchocaine; Oxyphenisatin acetate; Tacrine
- isethionic acid**
(C₂H₆O₄S; 107-36-8) see: Hydroxystilbamidine isethionate
- isallospirostane-3β,11α-diol**
(C₂₇H₄₄O₄; 69686-33-5) see: Halopredone diacetate
- isoamyl alcohol**
(C₅H₁₂O; 123-51-3) see: Amixetrine; Mizolastine; Repirinast
- isoamyl bromide**
(C₅H₁₁Br; 107-82-4) see: Amobarbital; Tiocarlid
- isoamyl nitrite**
(C₅H₁₁NO₂; 110-46-3) see: Desmopressin; Halofantrine; Norfenefrine
- α-isoamyloxyphenethyl bromide**
(C₁₃H₁₉BrO; 5452-50-6) see: Amixetrine
- isobutanal**
(C₄H₈O; 78-84-2) see: Calcium pantothenate; D-Penicillamine
- isobutanol**
(C₄H₁₀O; 78-83-1) see: Bepriidil
- isobutene**
(C₄H₈; 115-11-7) see: Captopril; Ibuprofen; Quinapril hydrochloride
- isobutyl acetoacetate**
(C₈H₁₄O₃; 7779-75-1) see: Nisoldipine
- 4'-isobutylacetophenone**
(C₁₂H₁₆O; 38861-78-8) see: Ibuprofen
- isobutylamine**
(C₄H₁₁N; 78-81-9) see: Amprenavir; Imiquimod
- 2-isobutylaminoethanol**
(C₆H₁₅NO; 17091-40-6) see: Butethamine
- 4-isobutylamino-3-nitroquinoline**
(C₁₃H₁₃N₃O₂; 99009-85-5) see: Imiquimod
- 5-isobutylbarbituric acid**
(C₈H₁₂N₂O₃; 42846-91-3) see: Butalbital
- isobutylbenzene**
(C₁₀H₁₄; 538-93-2) see: Ibuprofen

4-isobutylbenzyl chloride(C₁₁H₁₅Cl; 60736-79-0) see: Ibuprofen**isobutyl bromide**(C₄H₉Br; 78-77-3) see: Butalbital**isobutyl chloride**(C₄H₉Cl; 513-36-0) see: Butethamine; Olprinone hydrochloride**isobutyl chloroformate**

see under chloroformic acid isobutyl ester

isobutylene

see under isobutene

isobutylene chloride(C₄H₇Cl; 563-47-3) see: Alminoprofen**isobutyl 2-(2-nitrobenzylidene)acetoacetate**(C₁₃H₁₇NO₅; 61312-59-2) see: Nisoldipine**2-(4-isobutylphenyl)acetonitrile**(C₁₂H₁₅N; 40784-95-0) see: Butibufen; Ibuprofen**1-(4-isobutylphenyl)ethanol**(C₁₂H₁₈O; 40150-92-3) see: Ibuprofen**2-(4-isobutylphenyl)propionaldehyde**(C₁₃H₁₈O; 51407-46-6) see: Ibuprofen**(RS)-2-(4-isobutylphenyl)propionyl chloride**(C₁₃H₁₇ClO; 34715-60-1) see: Mabuprofen; Pimeprofen**2-(4-isobutylphenyl)propionyl chloride**

see under (RS)-2-(4-isobutylphenyl)propionyl chloride

isobutyraldehyde

see under isobutanal

isobutyric acid(C₄H₈O₂; 79-31-2) see: Captopril**2-isobutyrylacetanilide**(C₁₂H₁₅NO₂; 124401-38-3) see: Atorvastatin calcium**isobutyryl chloride**(C₄H₇ClO; 79-30-1) see: Atorvastatin calcium; Flutamide; lbpamine; Mibefradil hydrochloride; Ritonavir**isochroman**(C₉H₁₀O; 493-05-0) see: Ropinirole**2-isocyanatodiphenylmethane**(C₁₄H₁₁NO; 146446-96-0) see: Perlapine**1-[3-isocyanato-4-(phenylmethoxy)phenyl]ethanone**(C₁₆H₁₃NO₃; 35037-75-3) see: Carbuterol**6β-isocyanopenicillanic acid benzyl ester**(C₁₆H₁₆N₂O₃S; 53628-27-6) see: Temocillin**isoeugenol**(C₁₀H₁₂O₂; 97-54-1) see: Methyl dopa**(+)-isoisopulegol**(C₁₀H₁₈O; 96612-21-4) see: (-)-Menthol**D-isolysergazide**(C₁₆H₁₅N₅O) see: Methylergometrine**(±)-isomenthol**(C₁₀H₂₀O; 3623-52-7) see: (-)-Menthol**isoniazid**(C₄H₇N₃O; 54-85-3) see: Glyconiazide; lproniazid; Nialamide; Pasiniazid; Streptoniazid**isonicotinamide**(C₆H₆N₂O; 1453-82-3) see: Cefsulodin**isonicotinic acid 2-(2-carboxyethyl)hydrazide methyl ester**(C₁₀H₁₃N₃O₃; 90872-10-9) see: Nialamide**isonicotinoyl chloride**(C₆H₄ClNO; 14254-57-0) see: Dexamethasone 21-isonicotinate**α-isonitrosopropiophenone**(C₉H₉NO₂; 119-51-7) see: Phenylpropanolamine**isopentyl bromide**

see under isoamyl bromide

4-isopentyloxyaniline(C₁₁H₁₇NO; 5198-05-0) see: Tiocarlide**4-isopentyloxy-1-nitrobenzene**(C₁₁H₁₅NO₃; 7244-79-3) see: Tiocarlide**isophthalaldehyde**(C₈H₆O₂; 626-19-7) see: Montelukast sodium**isophthaloyl chloride**(C₈H₄Cl₂O₂; 99-63-8) see: Ditophal**isophytol**(C₂₀H₄₀O; 505-32-8) see: α-Tocopherol**isoprene**(C₅H₈; 78-79-5) see: Troglitazone**isoprenyl bromide**(C₉H₉Br; 870-63-3) see: Pentazocine; Sofalcone; Tazarotene**isopropanol**(C₃H₈O; 67-63-0) see: Fenofibrate; Imiquimod; Isoflurophate; Nimodipine**isopropenyl acetate**(C₅H₈O₂; 108-22-5) see: Desoxycortone acetate; Estriol; Pancuronium bromide; Pipecuronium bromide; Vecuronium bromide**4-isopropenyltoluene**(C₁₀H₁₂; 1195-32-0) see: Moperone**4-isopropoxybenzoyl chloride**(C₁₀H₁₁ClO₂; 36823-82-2) see: Sulfaproxyline**2-isopropoxyethanol**(C₅H₁₂O₂; 109-59-1) see: Bisoprolol**4-[(2-isopropoxyethoxy)methyl]phenol**(C₁₂H₁₈O₃; 177034-57-0) see: Bisoprolol**5-[4-[(2-isopropoxyethoxy)methyl]phenoxyethyl]-3-isopropyl-2-oxazolidinone**(C₁₉H₂₉NO₅; 87844-84-0) see: Bisoprolol**2-[14-(2-isopropoxyethoxy)methyl]phenoxyethyl]oxirane**(C₁₅H₂₂O₄; 66722-57-4) see: Bisoprolol**isopropyl acetoacetate**(C₇H₁₂O₃; 542-08-5) see: Isradipine; Nilvadipine; Nimodipine**isopropyl alcohol**

see under isopropanol

isopropylamine(C₃H₉N; 75-31-0) see: Acebutolol; Alprenolol; Atenolol; Befunolol; Betaxolol; Bisoprolol; Carazolol; Carisoprodol; Clorprenaline; Esmolol; Indecainide; Indenolol; Isoctarine; Isoprenaline; Mepindolol; Metipranolol; Metoprolol; Nifenalol; Nipradilol; Orciprenaline; Oxaflozane; Oxprenolol; Pindolol; Pramiverine; Prenalterol; Procarbazine; Procaterol; Proguanil; Propranolol; Sotalol; Toliprolol**isopropyl 3-aminocrotonate**(C₇H₁₃NO₂; 14205-46-0) see: Nimodipine**2-isopropylamino-3',5'-dimethoxyacetophenone**(C₁₃H₁₉NO₃) see: Orciprenaline**2-isopropylamino-4-methylbenzophenone**(C₁₇H₁₉NO; 23070-81-7) see: Proquazone**N-isopropylaniline**(C₉H₁₃N; 768-52-5) see: Fluvastatin sodium

5-isopropylbarbituric acid(C₇H₁₀N₂O₃; 7391-69-7) see: Aprobarbital; Propallylonal**isopropyl bromide**(C₃H₇Br; 75-26-3) see: Cyclopentolate; Ipriflavone**isopropyl chloride**(C₃H₇Cl; 75-29-6) see: Gallopamil; Isoaminile; Verapamil**isopropyl chloroacetate**(C₅H₉ClO₂; 105-48-6) see: Clopidogrel hydrogensulfate**1-isopropyl-3-(4-chloro-3-pyridylsulfonyl)urea**(C₉H₁₂ClN₃O₃S; 69300-04-5) see: Torasemide**trans-4-isopropylcyclohexanecarbonyl chloride**(C₁₀H₁₇ClO; 84855-54-9) see: Nateglinide**trans-4-isopropylcyclohexanecarboxylic acid**(C₁₀H₁₈O₂; 7077-05-6) see: Nateglinide**2-isopropyl-4,7-dihydro-1,3-dioxepin**(C₈H₁₄O₂; 5417-35-6) see: Pyridoxine**1,2-O-isopropylidene- α -D-glucofuranose**(C₉H₁₆O₆; 18549-40-1) see: Prenalterol; Tribenoside**isopropylidene-D-glyceraldehyde**(C₆H₁₀O₃; 15186-48-8) see: Gemcitabine; Timolol**(R)-2,3-O-isopropylidene-glyceraldehyde**

see under isopropylidene-D-glyceraldehyde

1,2-O-isopropylidene-3-O-propyl- α -D-glucofuranose(C₁₂H₂₂O₆; 33736-41-3) see: Clobenoside**3,4^g-O-isopropylidene-pyridoxine**(C₁₁H₁₅NO₃; 1136-52-3) see: Cicletanine**3,4-isopropylidene-pyridoxine hydrochloride**(C₁₁H₁₆ClNO₃; 6953-28-2) see: Pirsudanol**3,4-O-isopropylidene-1,5-quinic lactone**(C₁₀H₁₄O₅; 32384-42-2) see: Oseltamivir**2',3'-O-isopropylidene 5'-O-tosyladenosine**(C₂₀H₂₃N₅O₆S; 5605-63-0) see: Cobamamide**1,2-O-isopropylidene- α -D-xylofuranose**(C₈H₁₄O₃; 20031-21-4) see: Stavudine**isopropyl iodide**(C₃H₇I; 75-30-9) see: Latanoprost; Unoprostone isopropyl**isopropyl isocyanate**(C₄H₇NO; 1795-48-8) see: Torasemide**isopropylmagnesium bromide**(C₃H₇BrMg; 920-39-8) see: Nicoclonate**2-isopropyl-4-(methylaminomethyl)thiazole**(C₈H₁₄N₂S; 154212-60-9) see: Ritonavir**5-isopropyl 3-methyl 2-(dimethoxymethyl)-6-methyl-4-(3-nitrophenyl)-1,4-dihydropyridine-3,5-dicarboxylate**(C₂₁H₂₇NO₆; 75535-90-9) see: Nilvadipine**4-isopropyl-3-methyl-1-phenyl-5- Δ^2 -pyrazolone**(C₇H₁₂N₂O; 131882-37-6) see: Propyphenazone**isopropyl 2-(3-nitrobenzylidene)acetoacetate**(C₁₄H₁₅NO₃; 39562-25-9) see: Nilvadipine**N-isopropylnoratropine**(C₁₉H₂₇NO₃; 22235-81-0) see: Ipratropium bromide**6-isopropyl-4-oxo-4H-1-benzopyran-3-carbonitrile**(C₁₃H₁₁NO₂; 50743-32-3) see: Amlexanox**6-isopropyl-4-oxo-4H-1-benzopyran-3-carboxaldehyde**(C₁₃H₁₂O₃; 49619-58-1) see: Amlexanox**2-isopropylphenoxyacetonitrile**(C₁₁H₁₃NO; 71432-53-6) see: Fenoxazoline**(-)-isopulegol**(C₁₀H₁₈O; 89-79-2) see: (-)-Menthol**isoquinoline**(C₉H₇N; 119-65-3) see: Fasudil; Praziquantel**5-isoquinolinesulfonic acid**(C₉H₇NO₃S; 27655-40-9) see: Fasudil**isoquinoline-5-sulfonyl chloride**(C₉H₆ClNO₂S; 84468-15-5) see: Fasudil**isosorbide**(C₈H₁₀O₄; 652-67-5) see: Isosorbide dinitrate; Isosorbide mononitrate**isosorbide 2-acetate**(C₈H₁₂O₅; 13042-39-2) see: Isosorbide mononitrate**isosorbide 5-acetate**(C₈H₁₂O₅; 65940-93-4) see: Isosorbide mononitrate**isosorbide 2-acetate-5-nitrate**(C₈H₁₁NO₇; 39813-48-4) see: Isosorbide mononitrate**1-isothiocyanato-2-nitrobenzene**(C₇H₄N₂O₂S; 2719-30-4) see: Astemizole**isovaleraldehyde**(C₅H₁₀O; 590-86-3) see: Butizide**isovaleric acid**(C₅H₁₀O₂; 503-74-2) see: Bromisoval**trans-isozeaxanthin**(C₄₀H₅₆O₂; 29065-03-0) see: Canthaxanthin**K****kanamycin A**(C₁₈H₃₆N₄O₁₁; 59-01-8) see: Amikacin**ketoprofen**(C₁₆H₁₄O₃; 22071-15-4) see: Dexketoprofen trometamol;

Piketoprofen

(\pm)-ketoprofen

see under ketoprofen

L**DL-lactic acid**(C₃H₆O₃; 50-21-5) see: Lactylphenetidid**lactobionic acid**(C₁₂H₂₂O₁₂; 96-82-2) see: Erythromycin lactobionate**DL-lactonitrile**(C₃H₃NO; 78-97-7) see: L-Alanine; Lofexidine**lactose**(C₁₂H₂₂O₁₁; 63-42-3) see: Lactulose**lanatoside A**see under 3 β -[[[O-[O-(O-glucosyldigitoxosyl)digitoxosyl]-digitoxosyl]oxy]-14-hydroxy-5 β -card-20(22)-enolide acetate**lanatoside B**see under 3 β -[[[O-[O-(O-glucosyldigitoxosyl)digitoxosyl]-digitoxosyl]oxy]-14,16 β -dihydroxy-5 β -card-20(22)-enolide acetate**lanatoside C**(C₄₉H₇₆O₂₀; 17575-22-3) see: α -Acetyldigoxin**lauryl sulfate**(C₁₂H₂₆O₄S; 151-41-7) see: Erythromycin estolate**lead tetraacetate**(C₈H₁₂O₈Pb; 546-67-8) see: Alfadolone acetate; Bisantrene; Oxandrolone**L-leucine**(C₆H₁₃NO₂; 61-90-5) see: Cetrorelix

leucomycin V 3,4B-dipropanoate 2A,3B,9-triacetate
(C₄₇H₇₃NO₁₈; 55881-06-6) see: Midecamycin acetate

leuco-1,4,5,8-tetrahydroxyanthraquinone
(C₁₄H₈O₆; 81-60-7) see: Mitoxantrone

levonorgestrel acetate
(C₂₃H₃₀O₃; 13732-69-9) see: Norgestimate

levulinic acid
(C₅H₈O₃; 123-76-2) see: Acemetacin; Cinmetacin; Indometacin

lincomycin
(C₁₈H₃₄N₂O₆S; 154-21-2) see: Clindamycin

lipstatin
(C₂₉H₄₉NO₅; 96829-59-3) see: Orlistat

lithium acetylide (Li(C2H))
(C₂HLi; 1111-64-4) see: Levonorgestrel

lithium ethyl acetate
(C₄H₇LiO₂; 189811-59-4) see: Iloprost

lithium tri-sec-butylborohydride
(C₁₂H₂₈BLi; 38721-52-7) see: Rosiglitazone

loratadine
(C₂₂H₂₃ClN₂O₂; 79794-75-5) see: Desloratadine

lovastatin
(C₂₄H₃₆O₅; 75330-75-5) see: Simvastatin

lumazine
(C₆H₄N₄O₂; 487-21-8) see: Amiloride

lumilysergol 10-methyl ether
(C₁₇H₂₂N₂O₂; 35121-60-9) see: Nicergoline

lumilysergol 10-methyl ether 8-O-(5-bromonicotinate)
(C₂₃H₂₄BrN₃O₃; 35264-46-1) see: Nicergoline

2,6-lutidine
(C₇H₉N; 108-48-5) see: Pyridinol carbamate; Raltitrexed

D-lysergazole
(C₁₆H₁₅N₅O; 62074-28-6) see: Methylethergometrine

D-lysergic acid
(C₁₆H₁₆N₂O₂; 82-58-6) see: Ergometrine; Pergolide

lysergic acid
see under D-lysergic acid

lysergol
(C₁₆H₁₈N₂O; 602-85-7) see: Nicergoline

L-lysine
(C₆H₁₄N₂O₂; 56-87-1) see: Eptifibatide; Gusperimus trihydrochloride; Ibuprofen lysinate; Lisinopril; Lymecycline

M

magnesium monoperoxyphthalate
(C₈H₄MgO₅; 109536-69-8) see: Rofecoxib

maleic acid monoureide
(C₅H₆N₂O₄; 105-61-3) see: Orotic acid

maleic anhydride
(C₄H₂O₃; 108-31-6) see: Azintamide

(S)-malic acid
(C₄H₆O₅; 97-67-6) see: Barnidipine; Orlistat

L-malic acid
see under (S)-malic acid

malic acid
(C₄H₆O₅; 6915-15-7) see: Bucumolol; Methoxsalen

malonic acid
(C₃H₄O₄; 141-82-2) see: Acrivastine; Pilsicainide

malononitrile
(C₃H₂N₂; 109-77-3) see: Thiamine; Triamterene; Trimethoprim

malonyl chloride
(C₃H₂Cl₂O₂; 1663-67-8) see: Iotrolan

(±)-mandelic acid
(C₈H₈O₃; 90-64-2) see: Cyclandelate; Fenzolone; Fenylramidol; Homatropine; Micinicate

D(-)-mandelic acid
(C₈H₈O₃; 611-71-2) see: Sertraline

mandelic acid ethyl ester
(C₁₀H₁₂O₃; 4358-88-7) see: Pemoline

mandelonitrile
(C₈H₇NO; 532-28-5) see: Ethotoin

D-mannitol
(C₆H₁₄O₆; 69-65-8) see: Mitobronitol

MCPBA
see under *m*-chloroperbenzoic acid

medroxyprogesterone
see under 17-hydroxy-6α-methylprogesterone

megestrol
(C₂₂H₃₀O₃; 3562-63-8) see: Megestrol acetate

melamine
(C₃H₆N₆; 108-78-1) see: Altretamine

menadiol
(C₁₁H₁₀O₂; 481-85-6) see: Menadiol sodium diphosphate

menadiol 1-acetate
(C₁₃H₁₂O₃; 2211-27-0) see: Phytomenadione

menadiol diacetate
(C₁₅H₁₄O₄; 573-20-6) see: Phytomenadione

menadione
(C₁₁H₈O₂; 58-27-5) see: Menadiol diacetate; Menadiol sodium diphosphate; Menadione sodium bisulfite

(+)-*p*-mentha-2,8-dien-1-ol
(C₁₀H₁₆O) see: Dronabinol

(1S-cis)-*p*-menth-2-ene-1,8-diol
(C₁₀H₁₈O₂; 15910-72-2) see: Dronabinol

(±)-menthol
(C₁₀H₂₀O; 89-78-1) see: (-)-Menthol

(-)-menthol
(C₁₀H₂₀O; 2216-51-5) see: Paroxetine

(±)-menthyl benzoate
(C₁₇H₂₄O₂; 38649-18-2) see: (-)-Menthol

(±)-mepromazine
(C₁₉H₂₄N₂OS; 51019-87-5) see: Levomepromazine

mercaptoacetaldehyde dimethyl acetal
(C₄H₁₀O₂S; 89055-43-6) see: Epitezide; Lamivudine

3-mercaptoanisole
(C₇H₆OS; 15570-12-4) see: Raloxifene hydrochloride

2-mercaptobenzimidazole
(C₇H₆N₂S; 583-39-1) see: Lansoprazole

2-mercapto-4-(5-carbamoyl-2-thienyl)thiazole
(C₈H₆N₂OS₃; 52560-89-1) see: Arotinolol

cis-4-mercapto-*N,N*-dimethyl-1-(*p*-nitrobenzyloxycarbonyl)-L-prolinamide
(C₁₅H₁₉N₃O₅S; 96034-64-9) see: Meropenem

2-mercaptoethanol
(C₂H₆OS; 60-24-2) see: Nifurtimox; Tiadenol

(+)-mercaptolactic acid
(C₃H₆O₃S; 30163-03-2) see: Lamivudine

2-[1-(mercaptomethyl)cyclopropyl]acetic acid(C₆H₁₀O₂S; 162515-68-6) see: Montelukast sodium**2-mercapto-5-methyl-1,3,4-thiadiazole**(C₃H₄N₂S₂; 29490-19-5) see: Cefazedone; Cefazolin**2-mercaptopropionic acid**(C₃H₆O₂S; 79-42-5) see: Stepronin**3-mercaptopropionic acid**(C₃H₆O₂S; 107-96-0) see: Chlormezanone; Eptifibatid**α-mercaptopropionylglycine**(C₅H₉NO₃S; 1953-02-2) see: Stepronin**mercaptapurine**(C₅H₄N₄S; 50-44-2) see: Azathioprine**4-mercaptopyridine**(C₅H₄NS; 4556-23-4) see: Cefapirin**2-mercaptopyridine oxide**(C₅H₃NOS; 1121-31-9) see: Pyriithione zinc**2-mercapto-1,3,4-thiadiazole**(C₂H₂N₂S₂; 18686-82-3) see: Ceftezole**4-mercapto-1,2,3-triazole**(C₂H₃N₃S; 6440-06-8) see: Cefatrizine**mercuric diacetate**(C₄H₆HgO₄; 1600-27-7) see: Chlormerodrin; Idoxuridine; Phenylmercuric borate**mercury(II) acetate**

see under mercuric diacetate

mercury(II) oxide

(HgO; 21908-53-2) see: Merbromin

mesityl oxide(C₆H₁₀O; 141-79-7) see: Budralazine**mestanolone**(C₂₀H₃₂O₂; 521-11-9) see: Oxymetholone; Stanazolol**mesyl chloride**(CH₃ClO₂S; 124-63-0) see: Amidephrine mesilate; Amsacrine; Aztreonam; Busulfan; Carumonam; Clobetasol propionate; Clobetasone butyrate; Delavirdine mesilate; Dexamethasone 21-linolate; Eptiostanol; Fluazacort; Fluorometholone; Fluperolone acetate; Fluprednidene acetate; Gemcitabine; Gestodene; Halcinonide; Halopredone diacetate; Hydrocortisone sodium phosphate; Ibutilide fumarate; Indinavir sulfate; Itraconazole; Ketoconazole; Levofloxacin; Mezlocillin; Mometasone furoate; Montelukast sodium; Naproxen; Nimesulide; Olsalazine sodium; Oseltamivir; Paclitaxel; Paricalcitol; Pergolide; Prednisolone sodium sulfobenzoate; Raloxifene hydrochloride; Reboxetine; Risperidone; Rizatriptan benzoate; Saquinavir; Sotalol; Stavudine; Sufentanil; Terconazole; Zidovudine**(±)-metaraminol**(C₉H₁₃NO₂; 4956-27-8) see: Metaraminol**metenolone**(C₂₀H₃₀O₂; 153-00-4) see: Metenolone acetate**methacrylic acid**(C₄H₆O₂; 79-41-4) see: Captopril; locetamic acid**methacryloyl chloride**(C₄H₅ClO; 920-46-7) see: Bicalutamide**methacycline**(C₂₂H₂₂N₂O₈; 914-00-1) see: Doxycycline**(±)-methamphetamine**(C₁₀H₁₅N; 7632-10-2) see: Propylhexedrine; Selegiline**(-)-methamphetamine**(C₁₀H₁₅N; 33817-09-3) see: Selegiline**(-)-methamphetamine (+)-tartrate**(C₁₄H₂₁NO₆; 93777-08-3) see: Selegiline**methanesulfochloride**

see under mesyl chloride

methanesulfonanilide(C₇H₉NO₂S; 1197-22-4) see: Ibutilide fumarate; Sotalol**methanesulfonic acid**(CH₃O₃S; 75-75-2) see: Alatrofloxacin mesilate; Alendronate sodium; Dolasetron mesilate; Glaziovine; Nelfinavir mesylate; Tirilazad mesilate; Trovafloxacin mesilate**methanesulfonic anhydride**(C₂H₆O₅S₂; 7143-01-3) see: Dofetilide; Improsulfan; Rofecoxib**2-(methanesulfonyl)-5-benzoylpyrrole**(C₁₂H₁₁NO₃S; 80965-03-3) see: Ketorolac**1-methanesulfonyl-2-imidazolidinone**(C₄H₈N₂O₃S; 41730-79-4) see: Mezlocillin**methanol**(CH₄O; 67-56-1) see: Amiloride; Atenolol; Aztreonam; Bromopride; Cefoxitin; Chenodeoxycholic acid; Chlorambucil; Chlormerodrin; Clopidogrel hydrogensulfate; Codeine; Cycloserine; Dextromethorphan; Eprozinol; Guajacol; Methoxyflurane; Methylphenidate; Metoclopramide; Moxestrol; Moxifloxacin hydrochloride; Nicergoline; Nicorandil; Omeprazole; Paricalcitol; Piretanide; Protizinic acid; Pyrazinamide; Retinol; Spirapril; Sulfametrole; Temocillin; Zipeprol**methanol lithium salt**(CH₃LiO; 865-34-9) see: Flomoxef**1-methionine**(C₂H₁₁NO₂S; 63-68-3) see: Methylmethionine sulfonium chloride**"methotrexate ester"**(C₂₄H₃₀N₈O₅; 43170-88-3) see: Methotrexate**3-methoxyacetophenone**(C₉H₁₀O₂; 586-37-8) see: Oxyfedrine**3-methoxy-17-acetoxy-19-nor-3,5-pregnadien-20-one**(C₂₃H₃₂O₄; 32420-15-8) see: Nomegestrol acetate**methoxyacetyl chloride**(C₃H₅ClO₂; 38870-89-2) see: Mibefradil hydrochloride**2-methoxy-4-amino-5-chlorobenzoic acid**(C₈H₈ClNO₂S; 7206-70-4) see: Cisapride; Clebopride**6α-methoxy-6β-aminopenicillanic acid benzyl ester**(C₁₆H₂₀N₂O₄S; 35353-32-3) see: Temocillin**2-methoxy-3-aminopyridine**(C₆H₈N₂O; 20265-38-7) see: Nevirapine**(R)-(-)-2-(4-methoxy-3-aminosulfonylphenyl)-1-methyl-ethylamine**(C₁₀H₁₆N₂O₃S; 112101-81-2) see: Tamsulosin hydrochloride**4-methoxyaniline**(C₇H₉NO; 104-94-9) see: Acemetacin; Mepacrine; Paclitaxel**4-methoxybenzhydriyl chloride**(C₁₄H₁₃ClO; 6731-11-9) see: Medrylamine**8-methoxy-2H-1-benzopyran-3-carbonitrile**(C₁₁H₉NO₂; 57543-69-8) see: Nipradilol**8-methoxy-2H-1-benzopyran-3-carboxylic acid**(C₁₁H₁₀O₄; 57543-59-6) see: Nipradilol

- 8-methoxy-2H-1-benzopyran-3(4H)-one**
(C₁₀H₁₀O₃; 91520-00-2) see: Nipradilol
- 4-(4-methoxybenzoylamino)butyric acid**
(C₁₂H₁₅NO₄; 72432-14-5) see: Aniracetam
- 2-methoxybenzoyl chloride**
(C₈H₇ClO₂; 21615-34-9) see: Losartan potassium
- 3-methoxybenzoyl chloride**
(C₈H₇ClO₂; 1711-05-3) see: Nelfinavir mesylate
- p-methoxybenzyl alcohol**
(C₈H₁₀O₂; 105-13-5) see: Efavirenz; Raloxifene hydrochloride
- 4-methoxybenzylamine**
(C₈H₁₁NO; 2393-23-9) see: Idarubicin
- 2-(4-methoxybenzylamino)pyridine**
(C₁₃H₁₄N₂O; 52818-63-0) see: Mepyramine
- 4-methoxybenzyl bromide**
(C₈H₉BrO; 2746-25-0) see: Tacrolimus
- 4-methoxybenzyl 3-(chloromethyl)-7(R)-(phenylacetamido)-3-cephem-4-carboxylate**
(C₂₄H₂₃ClN₂O₅S; 104146-10-3) see: Cefditoren pivoxil
- N-(4-methoxybenzyl)-4-chloro-2-(trifluoroacetyl)aniline**
(C₁₆H₁₃ClF₃NO₂; 173676-54-5) see: Efavirenz
- 3-methoxybenzyl cyanide**
(C₉H₉NO; 19924-43-7) see: Ketobemidone
- 2-(4-methoxybenzyl)-3,4-dimethyl-1-phenethyl-1,2,5,6-tetrahydropyridine**
(C₂₃H₂₉NO; 1100-37-4) see: Phenazocine
- 1-(4-methoxybenzyl)-3,4,5,6,7,8-hexahydroisoquinoline**
(C₁₇H₂₁NO; 51072-35-6) see: Levorphanol
- 17,21-O-(α-methoxybenzylidene)betamethasone**
(C₃₀H₃₅FO₆; 31020-77-6) see: Betamethasone benzoate
- 4-methoxybenzylmagnesium chloride**
(C₈H₉ClMgO; 38769-92-5) see: Chlorotrianisene; Pentazocine; Phenazocine
- 5-(4-methoxybenzyl)-5-methylhydantoin**
(C₁₂H₁₄N₂O₃; 13500-24-8) see: Etiroxate; Metirosine
- 4-methoxybenzyl methyl ketone**
(C₁₀H₁₂O₂; 122-84-9) see: Etiroxate; Mebeverine; Metirosine; Tamsulosin hydrochloride
- 1-(4-methoxybenzyl)-2-methyl-1,2,3,4,5,6,7,8-octahydroisoquinoline**
(C₁₈H₂₅NO; 38969-65-2) see: Levorphanol
- 1-(4-methoxybenzyl)-1,2,3,4,5,6,7,8-octahydroisoquinoline**
(C₁₇H₂₃NO; 51072-36-7) see: Levallorphan; Levorphanol
- (±)-1-(4-methoxybenzyl)-1,2,3,4,5,6,7,8-octahydroisoquinoline**
see under 1-(4-methoxybenzyl)-1,2,3,4,5,6,7,8-octahydroisoquinoline
- 2-(4-methoxybenzyl)-1,3,4-trimethyl-1,2,5,6-tetrahydropyridine**
(C₁₆H₂₃NO; 33216-38-5) see: Pentazocine
- 4-methoxy-α,α-bis(4-methoxyphenyl)benzeneethanol**
(C₂₃H₂₄O₄; 1817-87-4) see: Chlorotrianisene
- 3-methoxycarbazole**
(C₁₃H₁₁NO; 18992-85-3) see: Ramatroban
- 4-methoxycarbonyl-2-azaspiro[4.5]decan-3-one**
(C₁₁H₁₇NO₃; 128262-17-9) see: Gabapentin
- 2-(methoxycarbonyl)benzenediazonium chloride**
(C₈H₇ClN₂O₂; 35358-78-2) see: Saccharin
- 2-methoxycarbonylbenzenesulfonamide**
(C₈H₉NO₄S; 57683-71-3) see: Saccharin
- 1-methoxycarbonyl-3-cyclopentene oxide (cis/trans-mixt.)**
(C₇H₁₀O₃) see: Dolasetron mesilate
- 8β-methoxycarbonylergoline**
(C₁₆H₁₈N₂O₂; 30341-92-5) see: Cabergoline; Pergolide
- D-8β-methoxycarbonylergoline**
see under 8β-methoxycarbonylergoline
- β-methoxycarbonylglutaraldehyde**
(C₇H₁₀O₄) see: Dolasetron mesilate
- (methoxycarbonylmethylene)triphenylphosphorane**
(C₂₁H₁₉O₂P; 2605-67-6) see: Latanoprost; Tirofiban hydrochloride
- N-(2-methoxycarbonyl-1-methylethenyl)-D(-)-phenylglycine sodium salt**
(C₁₃H₁₄NNaO₄; 13291-96-8) see: Ampicillin; Cefalexin
- 3-methoxycarbonyl-4-oxo-3,4-dihydro-2H-1,2-benzothiazine 1,1-dioxide**
(C₁₀H₉NO₅S; 29209-29-8) see: Piroxicam
- 4-methoxycarbonyl-4-[(1-oxopropyl)phenylamino]piperidine**
(C₁₆H₂₂N₂O₃; 72996-78-2) see: Remifentanyl
- 4-methoxycarbonyl-1-piperidineacetic acid ethyl ester**
(C₁₁H₁₉NO₄) see: Clidinium bromide
- (1R-cis)-5-methoxy-3-cyclohexene-1-carboxylic acid**
(C₈H₁₂O₃; 118207-41-3) see: Tacrolimus
- 1-methoxycyclopentene**
(C₆H₁₀O; 1072-59-9) see: Mepitiostane
- 10-methoxy-5H-dibenz[b,f]azepine**
(C₁₅H₁₃NO; 4698-11-7) see: Oxcarbazepine
- 10-methoxy-5H-dibenz[b,f]azepine-5-carboxamide**
(C₁₆H₁₄N₂O₂; 28721-09-7) see: Oxcarbazepine
- 3-methoxy-8,14-didehydromorphinan**
(C₁₇H₂₁NO; 54313-11-0) see: Butorphanol
- 7-methoxy-α,10-dimethylphenothiazine-2-malonic acid ethyl methyl ester**
(C₂₁H₂₃NO₅S; 13891-17-3) see: Protizinic acid
- 1-methoxy-4,4-dimethyl-1-phospha-2,6-dioxacyclohexane**
(C₆H₁₃O₃P; 1005-69-2) see: Efonidipine hydrochloride ethanol
- 4-methoxy-3,5-dimethyl-2-pyridinemethanol acetate**
(C₁₁H₁₅NO₃; 91219-90-8) see: Omeprazole
- 9-methoxyellipticine**
(C₁₈H₁₆N₂O; 10371-86-5) see: Elliptinium acetate
- (11β)-11-methoxyestra-4,9-diene-3,17-dione**
(C₁₉H₂₄O₃; 21391-55-9) see: Moxestrol
- (17β)-3-methoxyestra-2,5(10)-dien-17-ol**
(C₁₉H₂₈O₂; 1091-93-6) see: Nandrolone
- 3-methoxyestra-1,3,5(10),16-tetraen-17-ol acetate**
(C₂₁H₂₆O₃; 6038-28-4) see: Estril
- (17β)-3-methoxyestra-1,3,5(10)-trien-17-ol**
(C₁₉H₂₆O₂; 1035-77-4) see: Nandrolone
- 2-methoxyethanol**
(C₃H₈O₂; 109-86-4) see: Nimodipine
- 3-methoxy-4-(ethoxycarbonyloxy)cinnamoyl chloride**
(C₁₃H₁₃ClO₅; 49806-45-3) see: Rescimetol
- 2-methoxyethyl 3-aminocrotonate**
(C₇H₁₃NO₃; 50899-10-0) see: Cilnidipine
- 3-methoxy-13-ethyl-2,5(10)-gonadien-17-one**
(C₂₀H₂₈O₂; 2322-77-2) see: Gestodene

- 2-methoxyethyl 2-(3-nitrobenzylidene)acetoacetate**
(C₁₄H₁₅NO₆; 39562-22-6) see: Nimodipine
- 4-(2-methoxyethyl)phenol**
(C₉H₁₂O₂; 56718-71-9) see: Metoprolol
- syn-2-methoxyimino-2-(2-furyl)acetic acid**
(C₇H₇NO₄; 39684-61-2) see: Cefuroxime
- 2-(methoxyimino)-2-(2-tritylamino-thiazol-4-yl)acetic acid**
(C₂₅H₂₁N₃O₃S; 66215-71-2) see: Cefditoren pivoxil; Cefotaxime
- 4-methoxysophthaloyl chloride**
(C₉H₆Cl₂O₃; 13235-60-4) see: Picotamide
- methoxymalonamide**
(C₄H₈N₂O₃; 5018-31-5) see: Sulfadoxine
- 5-methoxy-2-mercaptobenzimidazole**
(C₈H₈N₂OS; 37052-78-1) see: Omeprazole
- 6-methoxy-2-(4-methoxyphenyl)benzo[*b*]thiophene**
(C₁₆H₁₄O₂S; 63675-74-1) see: Raloxifene hydrochloride
- 6-methoxy-2-(4-methoxyphenyl)benzo[*b*]thiophene-3-carbonyl chloride**
(C₁₇H₁₃ClO₃S; 186787-88-2) see: Raloxifene hydrochloride
- (±)-6-(methoxymethoxy)-2,5,7,8-tetramethyl-2-(4-nitrophenoxymethyl)chroman**
(C₂₂H₂₇NO₆; 118070-84-1) see: Troglitazone
- methoxymethyl chloride**
see under chloromethyl methyl ether
- 5-methoxy-1-methyl- α,α -di-2-thienyl-3-piperidine-methanol**
(C₁₆H₂₁NO₂S₂; 35012-51-2) see: Timepidium bromide
- (methoxymethylene)triphenylphosphorane**
(C₂₀H₁₉OP; 20763-19-3) see: Glaziovine
- (7 α)-3-methoxy-7-methylestra-2,5(10)-dien-17-one**
(C₂₀H₂₈O₂; 5210-25-3) see: Tibolone
- (7 α)-3-methoxy-7-methylestra-1,3,5(10)-trien-17-one**
(C₂₀H₂₆O₂; 10449-00-0) see: Tibolone
- 4-methoxy-2-methylindole**
(C₁₀H₁₁NO; 17897-50-6) see: Mepindolol
- 6-methoxy-2-methyl-1*H*-indole**
(C₁₀H₁₁NO; 1968-13-4) see: Clometacin
- 5-methoxy-2-methyl-1*H*-indole-3-acetic acid**
(C₁₂H₁₃NO₃; 2882-15-7) see: Indometacin
- 5-methoxy-2-methyl-1*H*-indole-3-acetic acid 1,1-dimethyl-ethyl ester**
(C₁₆H₂₁NO₃; 1226-02-4) see: Indometacin
- (±)-3-methoxy-*N*-methylmorphinan**
(C₁₈H₂₃NO; 510-53-2) see: Dextromethorphan
- (*S*)-6-methoxy- α -methyl-2-naphthaleneacetic acid**
- 3-hydroxy-2,2-dimethylpropyl ester**
(C₁₀H₂₄O₄; 111198-00-6) see: Naproxen
- 3-methoxy-4-[(1-methyl-5-nitro-1*H*-indol-3-yl)methyl]-*N*-[(2-methylphenyl)sulfonyl]benzamide**
(C₂₅H₂₃N₃O₆S) see: Zafirlukast
- 3-methoxy-4-[(1-methyl-5-nitro-1*H*-indol-3-yl)methyl]-*N*-[(2-methylphenyl)sulfonyl]benzamide compd. with *N,N*-dimethyl-4-pyridinamine (1:1)**
(C₃₂H₃₃N₅O₆S; 143052-96-4) see: Zafirlukast
- 3-methoxy-17-methyl-19-norpregna-2,5(10)-dien-20-ol**
(C₂₂H₃₄O₂; 10110-89-1) see: Promegestone
- (±)-3-methoxy-18-methyl-19-norpregna-2,5(10)-dien-20-yne-17 β -ol**
(C₂₂H₃₀O₂; 799-43-9) see: Norgestrel
- 3-methoxy-17 α -methyl-19-norpregna-1,3,5(10)-trien-20-ol**
(C₂₂H₃₂O₂; 51228-42-3) see: Promegestone
- 3-methoxy-17-methyl-19-norpregna-1,3,5(10)-trien-20-one**
(C₂₂H₃₀O₂; 10110-88-0) see: Demegestone
- (±)-3-methoxy-18-methyl-17-oxo-2,5(10)-estradiene**
(C₂₀H₂₈O₂; 6236-40-4) see: Norgestrel
- (*R*)- α -[(3-methoxy-1-methyl-3-oxo-1-propenyl)amino]-1,4-cyclohexadiene-1-acetic acid monosodium salt**
(C₁₃H₁₆NNaO₄; 26774-89-0) see: Cefradine; Epicillin
- [2*S*-[2 α ,5 α ,6 β](*S**)]-6-[[[(3-methoxy-1-methyl-3-oxo-1-propenyl)amino]phenylacetyl]amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid monopotassium salt**
(C₂₁H₂₄KN₃O₆S; 40126-27-0) see: Talampicillin
- 2-methoxy-5-methylphenol**
(C₈H₁₀O₂; 1195-09-1) see: Bucumolol
- 7-methoxy-10-methylphenothiazine-2-acetic acid**
(C₁₆H₁₅NO₃S; 13993-70-9) see: Protizinic acid
- 7-methoxy-10-methylphenothiazine-2-acetic acid methyl ester**
(C₁₇H₁₇NO₃S; 13623-32-0) see: Protizinic acid
- 7-methoxy-10-methylphenothiazine-2-malonic acid ethyl methyl ester**
(C₂₀H₂₁NO₅S; 13891-16-2) see: Protizinic acid
- 4-[(7-methoxy-10-methylphenothiazin-2-yl)thioacetyl]-morpholine**
(C₂₀H₂₂N₂O₂S₂; 13993-66-3) see: Protizinic acid
- 2-methoxy-5-methyl- γ -phenylbenzenepropanol 4-methylbenzenesulfonate**
(C₂₄H₂₆O₄S; 124937-85-5) see: Tolterodine
- N*-[4-(methoxymethyl)-1-(phenylmethyl)-4-piperidinyl]-*N*-phenylpropanamide**
(C₂₃H₃₀N₂O₂; 61086-12-2) see: Alfentanil
- 4-(methoxymethyl)-*N*-phenyl-1-(phenylmethyl)-4-piperidinamine**
(C₂₀H₂₆N₂O; 61380-02-7) see: Alfentanil
- N*-(4-methoxymethyl-4-piperidyl)propionanilide**
(C₁₆H₂₄N₂O₂; 61086-18-8) see: Alfentanil; Sufentanil
- 2-methoxy-5-(methylsulfonyl)benzoic acid**
(C₉H₁₀O₂S; 50390-76-6) see: Tiapride
- 2-methoxy-10-[2-methyl-3-(*p*-toluenesulfonyloxy)propyl]phenothiazine**
(C₂₄H₂₅NO₄S₂; 95623-31-7) see: Perimetazine
- 2-(methoxymethyl)-3-(3,4,5-trimethoxyphenyl)-2-propenenitrile**
(C₁₄H₁₇NO₄; 7520-69-6) see: Trimethoprim
- 6-methoxy-2-naphthaldehyde**
(C₁₂H₁₀O₂; 3453-33-6) see: Nabumetone
- 2-methoxynaphthalene**
(C₁₁H₁₀O; 93-04-9) see: Naproxen
- 6-methoxy-2-naphthalenecarbonitrile**
(C₁₂H₉NO; 67886-70-8) see: Methallenestril
- (*S*)-1-(6-methoxy-2-naphthalenyl)-2-[(methylsulfonyl)oxy]-1-propanone**
(C₁₅H₁₆O₅S; 87426-45-7) see: Naproxen
- 4-[2-(6-methoxy-2-naphthalenyl)-1-thioxoethyl]morpholine**
(C₁₇H₁₉NO₂S; 53077-21-7) see: Naproxen

- (*S*)-2-(6-methoxy-2-naphthalenyl)- α ,5,5-trimethyl-1,3-dioxane-2-methanol methanesulfonate
(C₂₀H₂₆O₆S; 111197-92-3) see: Naproxen
- 2-(6-methoxy-2-naphthoyl)-2-methylpropionic acid ethyl ester
(C₁₈H₂₀O₄; 101743-90-2) see: Methallenestril
- 6-methoxy-2-naphthylacetic acid
(C₁₃H₁₂O₃; 23981-47-7) see: Naproxen
- 2-(6-methoxy-2-naphthyl)acrylic acid
(C₁₄H₁₂O₃; 27602-79-5) see: Naproxen
- 4-(6-methoxy-2-naphthyl)-3-buten-2-one
(C₁₅H₁₄O₂; 56600-90-9) see: Nabumetone
- DL-2-(6-methoxy-2-naphthyl)propionic acid
(C₁₄H₁₄O₃; 23981-80-8) see: Naproxen
- 2-methoxy-4-nitroaniline
(C₇H₈N₂O₃; 97-52-9) see: Amsacrine
- 3-methoxy-4-nitroaniline
(C₇H₈N₂O₃; 16292-88-9) see: Amsacrine
- 4-methoxy-2-nitroaniline
(C₇H₈N₂O₃; 96-96-8) see: Primaquine
- 2-methoxy-6-nitrobenzaldehyde
(C₈H₇NO₄; 19689-88-4) see: Mepindolol
- 4-methoxy-2-nitrobenzaldehyde
(C₈H₇NO₄; 22996-21-0) see: Clometacin
- 2-methoxy-6-nitrobenzyl bromide
(C₈H₈BrNO₃; 19689-86-2) see: Mepindolol
- N*-(3-methoxy-4-nitrophenyl)methanesulfonamide
(C₈H₁₀N₂O₅S; 57165-05-6) see: Amsacrine
- 1-(2-methoxy-6-nitrophenyl)-2-nitroprop-1-ene
(C₁₀H₁₀N₂O₅; 75595-49-2) see: Mepindolol
- N*-(2-methoxy-4-nitrophenyl)pentanamide
(C₁₂H₁₆N₂O₄) see: Amsacrine
- 6-methoxy-8-nitroquinoline
(C₁₀H₈N₂O₃; 85-81-4) see: Primaquine
- (17 α)-3-methoxy-19-norpregna-2,5(10)-dien-20-yn-17-ol
(C₂₁H₂₈O₂; 19357-36-9) see: Noretynodrel
- 3-methoxy-19-norpregna-1,3,5(10),17(20)-tetraene
(C₂₁H₂₈O; 32043-13-3) see: Promegestone
- 5-methoxy-1,3-oxathiolane-2-methanol benzoate
(C₁₂H₁₄O₄S; 139253-83-1) see: Lamivudine
- 3-(methoxyoxoacetyl)-2,4,5-trioxocyclopentaneheptanoic acid
(C₁₅H₁₈O₈; 22935-41-7) see: Misoprostol
- methoxyxobutanedioic acid dimethyl ester
(C₇H₁₀O₆; 36797-93-0) see: Sulfadoxine
- 3-methoxy-17-oxo-2,5(10)-estradiene
(C₁₉H₂₆O₂; 17976-32-8) see: Noretynodrel
- 3-methoxy-20-oxo-19-norpregna-1,3,5(10),16-tetraene
(C₂₁H₂₆O₂; 21321-91-5) see: Demegestone; Promegestone
- N*-[3-methoxy-4-[(1-oxopentyl)amino]phenyl]methanesulfonamide
(C₁₃H₂₀N₂O₄S) see: Amsacrine
- α -[(3-methoxy-3-oxopropyl)methylamino]methyl-2-(phenylmethyl)benzeneacetic acid ethyl ester
(C₂₄H₃₁NO₄) see: Scetipiline
- 6-methoxy-3-oxo-2,4-tropanedicarboxylic acid dimethyl ester
(C₁₃H₁₉NO₆) see: Tropenziline bromide
- 4-methoxyphenacyl bromide
(C₉H₉BrO₂; 2632-13-5) see: Raloxifene hydrochloride
- 5-methoxy-4,7-phenanthroline
(C₁₃H₁₀N₂O; 951-06-4) see: Phanquinone
- 2-methoxyphenothiazine
(C₁₃H₁₁NOS; 1771-18-2) see: Levomepromazine; Perimetazine
- (4-methoxyphenoxy)acetic acid
(C₉H₁₀O₄; 1877-75-4) see: Mefexamide
- (4-methoxyphenoxy)acetyl chloride
(C₉H₉ClO₃; 42082-29-1) see: Mefexamide
- 5-[[4-(4-methoxyphenoxy)-3,5-dinitrophenyl]methyl]-5-methyl-2,4-imidazolidinedione
(C₁₈H₁₆N₄O₈; 5487-34-3) see: Etiroxate
- 2-(2-methoxyphenoxy)ethylamine
(C₉H₁₃NO₂; 1836-62-0) see: Carvedilol
- N*-[2-(2-methoxyphenoxy)ethyl]benzylamine
(C₁₆H₁₉NO₂; 3246-03-5) see: Amosulalol
- 5-[[*N*-[2-(2-methoxyphenoxy)ethyl]benzylamino]acetyl]-2-methylbenzenesulfonamide
(C₂₅H₂₈N₂O₅S) see: Amosulalol
- 4-methoxyphenylacetic acid
(C₉H₁₀O₃; 104-01-8) see: Anisindione
- (4-methoxyphenyl)acetone
see under 4-methoxybenzyl methyl ketone
- 4-methoxyphenylacetone
see under 4-methoxybenzyl methyl ketone
- 4-methoxyphenylacetone nitrile
(C₉H₉NO; 104-47-2) see: Venlafaxine
- 4-methoxyphenylacetyl chloride
(C₉H₉ClO₂; 4693-91-8) see: Levorphanol
- 3-methoxy-4-(phenylazo)phenenamine
(C₁₃H₁₃N₃O; 80830-39-3) see: Amsacrine
- N*-[3-methoxy-4-(phenylazo)phenyl]methanesulfonamide
(C₁₄H₁₅N₃O₃S) see: Amsacrine
- 3-methoxy-*N*-phenylbenzamide
(C₁₄H₁₃NO₂; 6833-23-4) see: Nelfinavir mesylate
- 4-(4-methoxyphenyl)-2-butanone
(C₁₁H₁₄O₂; 104-20-1) see: Dobutamine
- 2-(3-methoxyphenyl)butyronitrile
(C₁₁H₁₃NO; 1611-75-2) see: Meptazinol
- 5-(4-methoxyphenyl)-1,2-dithiol-3-one
(C₁₀H₈O₂S₂; 831-30-1) see: Anethole trithione
- 4-methoxy-*o*-phenylenediamine
(C₇H₁₀N₂O; 102-51-2) see: Omeprazole
- [*R*-(*R**,*R**)]-2-methoxy-5-[2-[(1-phenylethyl)amino]propyl]benzenesulfonamide monohydrochloride
(C₁₈H₂₅ClN₂O₃S; 116091-64-6) see: Tamsulosin hydrochloride
- 2-methoxy-2-phenylethyl bromide
(C₉H₁₁BrO; 13685-00-2) see: Eprozinol; Zipeprol
- 2-(4-methoxyphenyl)ethyl methanesulfonate
(C₁₀H₁₄O₄S; 73735-36-1) see: Astemizole
- 1-(2-methoxy-2-phenylethyl)piperazine
(C₁₃H₂₀N₂O; 6722-54-9) see: Eprozinol; Zipeprol
- 3-[4-(2-methoxy-2-phenylethyl)-1-piperazinyl]-1-phenyl-1-propanone
(C₂₂H₂₈N₂O₂) see: Eprozinol
- 4-methoxyphenylhydrazine
(C₇H₁₀N₂O; 3471-32-7) see: Acemetacin; Ramatroban

- (4-methoxyphenyl)hydrazine hydrochloride
(C₇H₁₁ClN₂O; 19501-58-7) see: Cinmetacin; Indometacin
- 4-[(4-methoxyphenyl)hydrazono]pentanoic acid methyl ester**
(C₁₃H₁₈N₂O₅; 53258-38-1) see: Indometacin
- 4-methoxyphenylmagnesium bromide**
(C₇H₇BrMgO; 13139-86-1) see: Cyclofenil; Tamoxifen
- 5-[(4-methoxyphenyl)methoxy]-3-oxopentanoic acid methyl ester**
(C₁₄H₁₈O₅; 118207-58-2) see: Tacrolimus
- 3-(4-methoxyphenyl)-2-methyl-L-alanine**
(C₁₂H₁₇NO₃; 65555-88-6) see: Metirosine
- 4-methoxy-N-(phenylmethylene)benzenamine**
(C₁₄H₁₃NO; 783-08-4) see: Paclitaxel
- 3-[(4-methoxyphenyl)methylene]-1-(3H)-isobenzofuranone**
(C₁₆H₁₂O₃; 4767-61-7) see: Anisindione
- (R)-(-)-2-(4-methoxyphenyl)-1-methylethylamine**
(C₁₀H₁₅NO; 58993-79-6) see: Tamsulosin hydrochloride
- α-[[[2-(4-methoxyphenyl)-1-methylethyl](phenylmethyl)-amino]methyl]-3-nitro-4-(phenylmethoxy)benzenemethanol**
(C₃₂H₃₄N₂O₅; 43229-67-0) see: Formoterol
- 2-[2-(4-methoxyphenyl)-1-methylethyl](phenylmethyl)-amino]-1-[3-nitro-4-(phenylmethoxy)phenyl]ethanone**
(C₃₂H₃₂N₂O₅; 43229-66-9) see: Formoterol
- 1-(4-methoxyphenyl)-4-(1-methylethyl)piperazine**
(C₁₄H₂₂N₂O; 84499-46-7) see: Terconazole
- 4-(3-methoxyphenyl)-1-methyl-4-propionylpiperidine**
(C₁₆H₂₃NO₂; 43152-59-6) see: Ketobemidone
- (±)-(4-methoxyphenyl)oxirane**
(C₉H₁₀O₂; 6388-72-3) see: Fenoldopam mesilate
- 4-(4-methoxyphenyl)-2-oxo-2,5-dihydrofuran**
(C₁₁H₁₀O₃; 3516-65-2) see: Benfurodil hemisuccinate
- 1-(2-methoxyphenyl)piperazine**
(C₁₁H₁₆N₂O; 35386-24-4) see: Fluanisone; Naftopidil
- 1-(4-methoxyphenyl)piperazine**
(C₁₁H₁₆N₂O; 38212-30-5) see: Terconazole
- 1-(2-methoxyphenyl)piperazine carbonate**
(C₁₂H₁₈N₂O₄; 85508-33-4) see: Urapidil
- 20-methoxy-21-(phenylsulfinyl)pregna-4,17(20)-dien-3-one**
(C₂₈H₃₆O₃S; 63973-93-3) see: Hydroxyprogesterone
- 3-(2-methoxyphenylthio)propionic acid**
(C₁₀H₁₂O₃S; 66715-58-0) see: Tertatolol
- 3-methoxy-4-piperidinone**
(C₆H₁₁NO₂) see: Cisapride
- 3-methoxy-1-propanol**
(C₄H₁₀O₂; 1589-49-7) see: Rabeprazole sodium
- 2-methoxy-1-propene**
(C₄H₈O; 116-11-0) see: Docetaxel
- 3-methoxypropionitrile**
(C₄H₇NO; 110-67-8) see: Brodimoprim; Trimethoprim
- 2-methoxy-6-propionyl-naphthalene**
(C₁₄H₁₄O₂; 2700-47-2) see: Naproxen
- 4'-methoxypropiophenone**
(C₁₀H₁₂O₂; 121-97-1) see: Dimestrol
- 4-(3-methoxypropoxy)-2,3-dimethylpyridine N-oxide**
(C₁₁H₁₇NO₃; 117977-18-1) see: Rabeprazole sodium
- 2-[[[4-(3-methoxypropoxy)-3-methyl-2-pyridinyl]methyl]-thio]-1H-benzimidazole**
(C₁₈H₂₁N₃O₂S; 117977-21-6) see: Rabeprazole sodium
- 3-methoxypropylmagnesium chloride**
(C₄H₉ClMgO; 14202-12-1) see: Biotin
- 3-methoxy-pyrazine-2-carboxamide**
(C₆H₇N₃O₂; 21279-63-0) see: Sulfalene
- N-[4-[(3-methoxy-pyrazinyl)amino]sulfonyl]phenyl]acetamide**
(C₁₃H₁₄N₄O₄S; 655-78-7) see: Sulfalene
- N-[4-[(5-methoxy-2-pyrimidinyl)amino]sulfonyl]phenyl]acetamide**
(C₁₃H₁₄N₄O₄S; 3163-35-7) see: Sulfametoxydiazine
- 2-[4-[(6-methoxy-8-quinolinyl)amino]pentyl]-1H-isoin-dole-1,3(2H)-dione**
(C₂₃H₂₃N₃O₃; 83532-78-9) see: Primaquine
- 4-methoxy-1-β-D-ribofuranosyl-s-triazin-2(1H)-one triacetate (ester)**
(C₁₅H₁₉N₃O₉; 4654-67-5) see: Azacitidine
- methoxysuccinaldehyde**
(C₅H₈O₃; 5281-75-4) see: Tropenziline bromide
- 2-methoxy-Δ¹-tetrahydroazepine**
(C₇H₁₃NO; 2525-16-8) see: Pentetrazol; Setastine
- 6-methoxy-2,3,4,5-tetrahydropyridine**
(C₆H₁₁NO; 5693-62-9) see: Dapiprazole
- 5-methoxy-1-tetralone**
(C₁₁H₁₂O₂; 33892-75-0) see: Levobunolol
- 5-methoxy-2-tetralone**
(C₁₁H₁₂O₂; 32940-15-1) see: Quinagolide hydrochloride
- 6-methoxy-1-tetralone**
(C₁₁H₁₂O₂; 1078-19-9) see: Levonorgestrel
- 7-methoxytetralone**
(C₁₁H₁₂O₂; 6836-19-7) see: Butorphanol
- 7-methoxy-2,2-tetramethylenetetralone**
(C₁₅H₁₈O₂; 42281-31-2) see: Butorphanol
- 7-methoxy-7-[2-(2-thienyl)acetamido]cephalosporanic acid potassium salt**
(C₁₇H₁₇KN₂O₇S₂; 53982-54-0) see: Cefoxitin
- 2-methoxythiophenol**
(C₇H₈OS; 7217-59-6) see: Tertatolol
- 4-methoxy-1-(2,3,5-tri-O-benzyl-β-D-arabinofuranosyl)-2(1H)-pyrimidinone**
(C₃₁H₃₂N₂O₆; 3932-96-5) see: Cytarabine
- 6-methoxy-5-(trifluoromethyl)-1-naphthalenecarboxylic acid**
(C₁₃H₉F₃O₃; 84532-72-9) see: Tolrestat
- 4-methoxy-2,3,6-trimethylbenzaldehyde**
(C₁₁H₁₄O₂; 54344-92-2) see: Etretinate
- 4-(4-methoxy-2,3,6-trimethylphenyl)-3-buten-2-one**
(C₁₄H₁₈O₂; 54757-47-0) see: Etretinate
- 1-(4-methoxy-2,3,6-trimethylphenyl)-3-methyl-1,4-penta-dien-3-ol**
(C₁₆H₂₂O₂; 54757-48-1) see: Etretinate
- [5-(4-methoxy-2,3,6-trimethylphenyl)-3-methyl-2,4-penta-dienyl]triphenylphosphonium bromide**
(C₃₄H₃₆BrOP; 54757-44-7) see: Etretinate
- 1-(4-methoxy-2,3,6-trimethylphenyl)-3-methyl-1-penten-4-yn-3-ol**
(C₁₆H₂₀O₂; 54756-70-6) see: Etretinate

- 4-methoxy-2,3,5-trimethylpyridine N-oxide**
(C₉H₁₃NO₂; 86604-80-0) see: Omeprazole
- 7-methoxy-2,4,4-trimethyl-1,2,3,4-tetrahydroisoquinoline-1,3-dione**
(C₁₃H₁₅NO₃; 191988-38-2) see: Gliquidone
- [1R-(1 α ,3 α ,4 β)]-3-methoxy-4-[[tris(1-methylethyl)silyl]-oxy]cyclohexanecarboxylic acid methyl ester**
(C₁₈H₃₀O₄Si; 128684-90-2) see: Tacrolimus
- 6-methoxytropine**
(C₉H₁₇NO₂) see: Tropenziline bromide
- 6-methoxytropinone**
(C₉H₁₅NO₂; 112843-64-8) see: Tropenziline bromide
- exo-2-(6-methoxy-3,4-xylyl)bornane**
(C₁₉H₂₈O; 31467-21-7) see: Xibornol
- methyl 4-acetamido-5-bromo-2-methoxybenzoate**
(C₁₀H₁₀BrNO₄; 89481-86-7) see: Bromopride
- methyl 4-acetamido-5-chloro-2-methoxybenzoate**
(C₁₁H₁₂ClNO₄; 4093-31-6) see: Clebopride; Metoclopramide
- methyl 2-acetamido-3-chloropropionate**
(C₆H₁₀ClNO₃; 87333-22-0) see: Ramipril
- methyl α -acetamido-3,5-diiodo-4-(4-methoxyphenoxy)-cinnamate**
(C₁₉H₁₇I₂NO₅; 94256-36-7) see: Dextrothyroxine
- methyl 4-acetamido-2-methoxybenzoate**
(C₁₁H₁₃NO₄; 4093-29-2) see: Bromopride; Metoclopramide
- methyl 2-acetamido-3-(2-oxocyclopentyl)propionate**
(C₁₁H₁₇NO₄; 87269-85-0) see: Ramipril
- methyl 4-acetamidosalicylate**
(C₁₀H₁₁NO₄; 4093-28-1) see: Bromopride; Metoclopramide; Mosapride citrate
- methyl acetate**
(C₃H₆O₂; 79-20-9) see: Clopidogrel hydrogensulfate; Tiotixene
- methyl acetoacetate**
(C₅H₈O₃; 105-45-3) see: Ampicillin; Cefradine; Cerivastatin sodium; Dicloxacillin; Epicillin; Felodipine; Flucloxacillin; Fluvastatin sodium; Nifedipine; Nitrendipine; Sultamicillin; Talampicillin
- 2-methylacetoacetonitrile**
(C₅H₇NO; 4468-47-7) see: Sulfafurazole
- 4'-methylacetophenone**
(C₉H₁₀O; 122-00-9) see: Celecoxib; Moperone; Triprolidine
- methyl 2-acetoxyacrylate**
(C₆H₈O₄; 686-46-4) see: Vincamine
- 16 α -methyl-21-acetoxy-11 β ,17 α -dihydroxypregna-1,4,6-triene-3,20-dione**
(C₂₄H₃₀O₆; 13796-64-0) see: Alclometasone dipropionate
- methyl (2R,3S)-4-acetoxy-2,3-epoxybutanoate**
(C₇H₁₀O₅; 117069-14-4) see: Carumonam
- methyl 4-[[5-(acetoxymethyl)-2-butylimidazol-1-yl]methyl]benzoate**
(C₁₉H₂₄N₂O₄; 149550-86-7) see: Eprosartan
- methyl 4-(acetylamino)-2-ethoxybenzoate**
(C₁₂H₁₅NO₄; 59-06-3) see: Mosapride citrate
- methyl acetylenecarboxylate**
(C₄H₄O₂; 922-67-8) see: Rosoxacin
- methyl β -(acetyloxy)-2-butyl-1-[[4-(carboxyphenyl)methyl]- α -(2-thienylmethyl)-1H-imidazole-5-propanoate**
(C₂₆H₃₀N₂O₆S) see: Eprosartan
- methyl β -(acetyloxy)-2-butyl-1-[[4-(methoxycarbonyl)phenyl]methyl]- α -(2-thienylmethyl)-1H-imidazole-5-propanoate**
(C₂₇H₃₂N₂O₆S; 133040-05-8) see: Eprosartan
- methyl acetylsalicylate**
(C₁₀H₁₀O₄; 580-02-9) see: Acenocoumarol
- methyl 5-acetylsalicylate**
(C₁₀H₁₀O₄; 16475-90-4) see: Spizofurone
- methyl 6-acetylthio-8-chlorooctanoate**
(C₁₁H₁₉ClO₃S; 923-78-4) see: Octotiamine
- methyl 2-[1-(acetylthiomethyl)cyclopropyl]acetate**
(C₉H₁₄O₃S; 142148-14-9) see: Montelukast sodium
- 9-methylacridine**
(C₁₄H₁₁N; 611-64-3) see: Dimetacrine
- methyl acrylate**
see under acrylic acid methyl ester
- 2-methylallyl 1-piperazinecarboxylate**
(C₉H₁₆N₂O₂) see: Trimazosin
- methylamine**
(CH₅N; 74-89-5) see: Adrenalone; Aspicillin; Benzocetamine; Bethahistine; Betanidine; Butenafine; Carbimazole; Chlordiazepoxide; Chlormezanone; Cimetidine; Cyclopentamine; Deferiprone; Desipramine; Dipivefrine; L(-)-Ephedrine; Epinephrine; Flosequin; Homatropine; Iotalamic acid; Isometheptene; Ketamine; Lorazepam; Lornoxicam; Maprotiline; Mesuximide; Midazolam; Nefopam; Nortriptyline; Oxilofrine; Oxypyrtronium bromide; Phenindamine; Phensuximide; Pholedrine; Ranitidine; Ritonavir; Sertraline; Setipiline; Tofenacin; Tropenziline bromide; Zomepirac
- (methylamino)acetonitrile**
(C₃H₆N₂; 5616-32-0) see: Synephrine
- 4-(methylamino)benzoic acid**
(C₈H₉NO₂; 10541-83-0) see: Methotrexate
- N-[4-(methylamino)benzoyl]-L-glutamic acid**
(C₁₃H₁₆N₂O₅; 52980-68-4) see: Methotrexate
- N-methyl-N-(2-aminobenzyl)-2-hydroxy-2-phenylethylamine**
(C₁₆H₂₀N₂O; 65514-97-8) see: Nomifensine
- N-methyl-N-(2-aminobenzyl)phenacylamine**
(C₁₆H₁₈N₂O; 119810-30-9) see: Nomifensine
- 4-(methylamino)butanoic acid hydrochloride**
(C₅H₁₂ClNO₂; 6976-17-6) see: Azelastine
- methyl 3-amino-2-butenate**
(C₅H₉NO₂; 14205-39-1) see: Amlodipine; Aranidipine; Barnidipine; Bendipine; Isradipine; Lercanidipine hydrochloride; Manidipine; Nicardipine; Nisoldipine; Nitrendipine
- 3-[(methylamino)carbonyl]-5-nitrobenzoic acid**
(C₉H₈N₂O₅; 1954-97-8) see: Iotalamic acid
- methyl 3-amino-5-chlorosalicylate**
(C₈H₈ClNO₃; 5043-81-2) see: Nazasetron
- methyl 3-aminocrotonate**
see under methyl 3-amino-2-butenate
- methyl 6-amino-6-deoxy- α -D-glucopyranoside**
(C₇H₁₅NO₅; 5155-47-5) see: Ranimustine
- methyl 4-amino-3,5-dimethoxybenzoate**
(C₁₀H₁₃NO₄; 56066-25-2) see: Brodimoprim
- methyl 3-amino-4,4-dimethoxycrotonate**
(C₇H₁₃NO₄; 85396-57-2) see: Nilvadipine

2-(methylamino)ethanol

(C₃H₉NO; 109-83-1) see: Cafaminol; Mianserin; Nefopam; Phendimetrazine; Risperiglitzazone; Tofenacin; Xantinol nicotinate

methyl 4-amino-2-methoxybenzoate

(C₉H₁₁NO₃; 27492-84-8) see: Alizapride

methyl 4-(aminomethyl)benzoate

(C₉H₁₁NO₂; 18469-52-8) see: Eprosartan

methyl 4-amino-3-methylbenzoate

(C₉H₁₁NO₂; 18595-14-7) see: Telmisartan

methyl 4-(5-amino-1-methylindol-3-ylmethyl)-3-methoxybenzoate

(C₁₉H₂₀N₂O₃; 107754-14-3) see: Zafirlukast

2-[(methylamino)methyl]- α -phenylbenzenemethanol

(C₁₅H₁₇NO; 15496-39-6) see: Nefopam

 α -[(methylamino)methyl]-2-(phenylmethyl)benzeneacetic acid ethyl ester

(C₁₉H₂₃NO₂) see: Setiptiline

methyl 5-amino-2-methylsulfonyloxybenzoate

(C₉H₁₁NO₅S; 80430-22-4) see: Olsalazine sodium

methyl 3-amino-4-methylthiophene-2-carboxylate

(C₇H₉NO₂S; 85006-31-1) see: Caricaine

methyl 3-(4-amino-3-nitrobenzoyl)butyrate

(C₁₂H₁₄N₂O₅; 74149-71-6) see: Pimobendan

4-(methylamino)phenol

(C₇H₉NO; 150-75-4) see: Diloxanide

methyl 3-amino-4-phenoxy-5-sulfamoylbenzoate

(C₁₄H₁₄N₂O₅S; 56106-57-1) see: Piretanide

***N*-methyl-*N*-(*o*-aminophenyl)anthranilic acid methyl ester**

(C₁₅H₁₆N₂O₂) see: Dibenzepine

2-methylamino-1-phenylethanol

(C₉H₁₃NO; 6589-55-5) see: Nomifensine

4-(methylamino)piperidine

(C₆H₁₄N₂; 45584-07-4) see: Mizolastine

3-(methylamino)propanenitrile

(C₄H₈N₂; 693-05-0) see: Alfuzosin

3-methylamino-1-propanol

(C₄H₁₁NO; 42055-15-2) see: Protriptyline

3-methylaminopropylamine

(C₄H₁₂N₂; 6291-84-5) see: Oxyphencyclimine; Pyrantel

9-(3-methylaminopropyl)anthracene

(C₁₈H₁₉N) see: Maprotiline

2-[3-(methylamino)propyl]benzimidazole

(C₁₁H₁₅N₃; 64137-52-6) see: Mibefradil hydrochloride

methyl 3-aminopyrazine-2-carboxylate

(C₆H₇N₃O₂; 16298-03-6) see: Amiloride

methyl 4-aminosalicylate

(C₈H₉NO₃; 4136-97-4) see: Bromopride; Metoclopramide

(3 α ,5 α ,17 β)-17-methylandrostan-3,17-diol

(C₂₀H₃₄O₂; 641-82-7) see: Mestanolone

(3 β ,5 α ,17 β)-17-methylandrostan-3,17-diol

(C₂₀H₃₄O₂; 641-83-8) see: Mestanolone

(3 β ,17 β)-17-methylandrostan-5-ene-3,17-diol diacetate

(C₂₄H₃₆O₄; 2061-86-1) see: Methandriol

***N*-methylaniline**

(C₇H₉N; 100-61-8) see: Tianeptine sodium

4-methylaniline

(C₇H₉N; 106-49-0) see: Phentolamine

4-methylaniline hydrochloride

(C₇H₁₀ClN; 540-23-8) see: Tacrine

3-(4-methylanilino)phenol

(C₁₃H₁₃NO; 61537-49-3) see: Phentolamine

1-methyl-4-anilino-piperidine

(C₁₂H₁₈N₂; 22261-94-5) see: Bampine; Thenalidine

methyl 3-anilino-propionate

(C₁₀H₁₃NO₂; 21911-84-2) see: Iobenzamic acid

methyl anthranilate

(C₈H₉NO₂; 134-20-3) see: Benzydamine; Floctafenine; Saccharin

4-methyl *D*-aspartate hydrochloride

(C₅H₁₀ClNO₄; 22728-89-8) see: Aspoxicillin

***N*-methylatropine chloride**

(C₁₈H₂₆ClNO₃) see: Atropine methonitrate

***N*-methylatropine sulfate**

(C₃₆H₅₂N₂O₁₀S; 18409-40-0) see: Atropine methonitrate

endo-9-methyl-9-azabicyclo[3.3.1]nonan-3-amine

(C₉H₁₈N₂; 76272-56-5) see: Granisetron

methyl azidoacetate

(C₃H₅N₃O₂; 1816-92-8) see: Azidamfenicol

3-methylbenzaldehyde

(C₈H₈O; 620-23-5) see: Meclozine

methyl benzenesulfonate

(C₇H₈O₃S; 80-18-2) see: Atracurium besilate; Cisatracurium besylate

4-methylbenzenesulfonyl isocyanate

(C₈H₇NO₃S; 4083-64-1) see: Abacavir

2-methylbenzhydrol

(C₁₄H₁₄O; 5472-13-9) see: Tofenacin

2-methylbenzhydryl chloride

(C₁₄H₁₃Cl; 41870-52-4) see: Orphenadrine

methyl benzilate

(C₁₅H₁₄O₃; 76-89-1) see: Benaprizine

2-methyl-1*H*-benzimidazole

(C₈H₈N₂; 615-15-6) see: Chlorimidazole

methyl benzimidazole-5-carboxylate

(C₉H₈N₂O₂; 26663-77-4) see: Ramosetron hydrochloride

3-methylbenzophenone

(C₁₄H₁₂O; 643-65-2) see: Ketoprofen

methyl (2*R*,3*S*)-benzoylamino-2-hydroxy-3-phenylpropionate

(C₁₇H₁₇NO₄; 32981-85-4) see: Paclitaxel

***p*-methylbenzoyl chloride**

(C₈H₇ClO; 874-60-2) see: Bitolterol; Mexenone; Tolcapone; Tolmetin

methyl *N*-benzoyl-3,4-dimethoxy-*L*-phenylalanine

(C₁₉H₂₁NO₅; 109278-11-7) see: Moexipril

methylbenzylamine

see under *N*-benzylmethylamine

***N*-methylbenzylamine**

see under *N*-benzylmethylamine

(*R*)-(+)- α -methylbenzylamine

(C₈H₁₁N; 3886-69-9) see: Atorvastatin calcium; Etomidate; Nelfinavir mesylate; Repaglinide; Tamsulosin hydrochloride

(*S*)- α -methylbenzylamine

(C₈H₁₁N; 2627-86-3) see: Omapatrilat; Ramatroban; Repaglinide

***R*-(+)- α -methylbenzylamine**

see under (*R*)-(+)- α -methylbenzylamine

(*S*)-(-)- α -methylbenzylamine

see under (*S*)- α -methylbenzylamine

methyl 2-benzylaminobenzoate(C₁₅H₁₅NO₂; 55369-69-2) see: Benzydamine**2-(methylbenzylamino)ethyl acetoacetate**(C₁₄H₁₉NO₃; 54527-65-0) see: Nicardipine**methyl 2-(benzylaminomethyl)-3-oxobutanoate**(C₁₃H₁₇NO₃) see: Faropenem sodium**p-methylbenzyl chloroformate**(C₉H₉ClO₂; 39545-34-1) see: Flomoxef**1-(4-methylbenzyl)-1,2,5,6,7,8-hexahydroisoquinoline**(C₁₈H₂₃N; 38973-15-8) see: Dimemorfan**4-methylbenzylmagnesium chloride**(C₈H₉ClMg; 29875-07-8) see: Dimemorfan**p-methylbenzylmercaptopropionic acid**(C₁₁H₁₄O₂S; 78981-22-3) see: Eptifibatide**methyl 4-benzoyloxyphenylacetate**(C₁₆H₁₆O₃; 68641-16-7) see: Epanolol**2-(4'-methylbiphenyl-2-yl)-4,4-dimethyl-2-oxazoline**(C₁₈H₁₉NO; 84392-32-5) see: Losartan potassium**5-(4'-methyl[1,1'-biphenyl]-2-yl)-1-(triphenylmethyl)-1H-tetrazole**(C₃₃H₂₆N₄; 124750-53-4) see: Losartan potassium**methyl bromide**(CH₃Br; 74-83-9) see: Ciclonium bromide; Clidinium bromide; Demecarium bromide; Distigmine bromide; Domiphen bromide; Fenpiverinium bromide; Flutropium bromide; Glycopyrronium bromide; Heteronium bromide; Homatropine methylbromide; Ipratropium bromide; Mepenzolate bromide; Methscopolamine bromide; Methysergide; Octatropine methylbromide; Otilonium bromide; Oxitefonium bromide; Oxitropium bromide; Oxyphenonium bromide; Oxypyrronium bromide; Pancuronium bromide; Paroxetine; Penthiatate methobromide; Pipecuronium bromide; Pipenzolate bromide; Propantheline bromide; Propylramazine bromide; Pyridostigmine bromide; Timepidium bromide; Tiquizium bromide; Tropezilium bromide; Valetamate bromide; Vecuronium bromide**methyl 3-(2-bromoacetylamino)-5-chlorosalicylate**(C₁₀H₉BrClNO₄) see: Nazasetron**methyl 2-bromobenzoate**(C₈H₇BrO₂; 610-94-6) see: Montelukast sodium**methyl 4-bromo-3,5-dimethoxybenzoate**(C₁₀H₁₁BrO₄; 26050-64-6) see: Brodimoprim**methyl 2-bromo-3-[4-[2-(5-ethyl-2-pyridyl)ethoxy]phenyl]propionate**(C₁₉H₂₂BrNO₃; 105355-25-7) see: Pioglitazone**methyl (4-bromomethyl)benzoate**(C₉H₉BrO₂; 2417-72-3) see: Eprosartan; Procarbazine**methyl 4-bromomethylbenzoate**

see under methyl (4-bromomethyl)benzoate

methyl 4-bromomethyl-3-methoxybenzoate(C₁₀H₁₁BrO₃; 70264-94-7) see: Zafirlukast**2-methyl-2-butene-1,4-diol**(C₈H₁₆O₂; 61842-14-6) see: Troglitazone**3-methyl-2-butenyl bromide**

see under isoprenyl bromide

4-[(3-methyl-2-butenyl)oxy]benzaldehyde(C₁₂H₁₄O₂; 28090-12-2) see: Sofalcone**3-methyl-2-butenyl phenyl sulfide**(C₁₁H₁₄S; 10276-04-7) see: Tazarotene**5-(1-methylbutyl)barbituric acid**(C₉H₁₄N₂O₃; 83-29-4) see: Secobarbital; Vinylbital**N-methyl-4-tert-butylbenzylamine**(C₁₂H₁₉N; 65542-26-9) see: Butenafine**methyl 4-[(2-butyl-4-chloro-5-formylimidazol-1-yl)methyl]benzoate**(C₁₇H₁₉ClN₂O₃; 133040-02-5) see: Eprosartan**methyl (S)-4-(tert-butyl)diphenylsilyloxy)-2-hydroxybutanoate**(C₂₁H₂₈O₄Si; 153011-60-0) see: Orlistat**methyl 2-butyl-4-formyl-1H-imidazole-1-propanoate**(C₁₂H₁₈N₂O₃; 212004-16-5) see: Eprosartan**methyl 4-[(2-butyl-5-formyl-1H-imidazol-1-yl)methyl]benzoate**(C₁₇H₂₀N₂O₃; 133040-03-6) see: Eprosartan**methyl 4-[(2-butyl-5-formyl-4-iodimidazol-1-yl)methyl]benzoate**(C₁₇H₁₉IN₂O₃; 154371-54-7) see: Eprosartan**methyl (E)-α-[[2-butyl-1-[2-(4-methoxycarbonyl)ethyl]-1H-imidazol-4-yl]methylene]-2-thiophenepropanoate**(C₂₀H₂₆N₂O₄S) see: Eprosartan**methyl (E)-α-[[2-butyl-1-[[4-(methoxycarbonyl)phenyl]methyl]-1H-imidazol-5-yl]methylene]-2-thiophenepropanoate**(C₂₅H₂₈N₂O₄S; 133040-06-9) see: Eprosartan**methyl 4-[N-(tert-butyl)oxycarbonyl]piperidin-4-yl]but-2-enoate**(C₁₅H₂₅NO₄; 142355-80-4) see: Tirofiban hydrochloride**methyl 4-butyramido-3-methylbenzoate**(C₁₃H₁₇NO₃) see: Telmisartan**methyl 4-butyramido-3-methyl-5-nitrobenzoate**(C₁₃H₁₆N₂O₅; 152628-01-8) see: Telmisartan**2-methylbutyric acid**(C₅H₁₀O₂; 116-53-0) see: Beclobrate**methyl camphor-3-sulfonate**(C₁₁H₁₈O₄S) see: Camphotamide**methyl carbazate**(C₂H₆N₂O₂; 6294-89-9) see: Nefazodone hydrochloride**D(-)-methyl 3-(α-carboxybenzylamino)crotonate sodium salt**

see under N-(2-methoxycarbonyl-1-methylethenyl)-D(-)-phenylglycine sodium salt

methyl chloride(CH₃Cl; 74-87-3) see: Atropine methonitrate; Clobazam; Dimethyltubocurarinium chloride; Methylmethionine sulfonium chloride; Naproxen; Suxamethonium chloride**methyl chloroacetate**(C₃H₅ClO₂; 96-34-4) see: Cefixime; Clometacin; Diltiazem; Meloxicam; Piroxicam**methyl 4-chlorobenzenesulfonate**(C₇H₇ClO₃S; 15481-45-5) see: Thienem closilate**methyl 2-chlorobenzoate**(C₈H₇ClO₂; 610-96-8) see: Clozapine**methyl chloro(2-chlorophenyl)acetate**(C₉H₈Cl₂O₂; 90055-47-3) see: Clopidogrel hydrogensulfate**1-methyl-3-chloro-6-(2-chlorophenyl)-1,2,3,4-tetrahydro-1,5-benzodiazocine**(C₁₇H₁₆Cl₂N₂; 63062-27-1) see: Metaclozepam**methyl 6-chloro-3,5-diaminopyrazine-2-carboxylate**(C₆H₇ClN₄O₂; 1458-01-1) see: Amiloride

- methyl 2-[2-[4-(4-chlorodiphenylmethyl)-1-piperazinyl]ethoxy]acetate**
(C₂₂H₂₇ClN₃O₃; 83881-46-3) see: Cetirizine
- methyl 2-(2-chloroethoxy)acetate**
(C₅H₉ClO₃; 83881-47-4) see: Cetirizine
- methyl 6-[[[(2-chloroethyl)amino]carbonyl]amino]-6-deoxy- α -D-glucopyranoside**
(C₁₀H₁₉ClN₂O₆; 58994-95-9) see: Ranimustine
- methyl 5-chloro-1-(4-fluorophenyl)-3-hydroxy-1H-indole-2-carboxylate**
(C₁₆H₁₁ClFNO₃; 138900-12-6) see: Sertindole
- methyl chloroformate**
(C₂H₃ClO₂; 79-22-1) see: Abacavir; Flubendazole; Fluoxetine; Glisoxepide; Mebendazole; Saquinavir
- methyl 6-chloro-4-hydroxy-2-methyl-2H-thieno[2,3-e]-1,2-thiazine-3-carboxylate 1,1-dioxide**
(C₉H₈ClNO₂S₂; 70415-50-8) see: Lornoxicam
- 5-methyl-8-(3-chloro-2-hydroxypropoxy)coumarin**
(C₁₃H₁₃ClO₄; 36651-77-1) see: Bucamolol
- methyl 5-chloro-3-[[2-methoxy-2-oxoethyl)methylamino]sulfonyl]-2-thiophenecarboxylate**
(C₁₀H₁₂ClNO₆S₂; 70374-38-8) see: Lornoxicam
- 1-methyl-2-chloromethyl-5-(2-chlorophenyl)-2,3-dihydro-1H-1,4-benzodiazepine**
(C₁₇H₁₆Cl₂N₂; 61677-58-5) see: Metaclozepam
- 1-methyl-3-chloromethylpyrrolidine**
(C₆H₁₂ClN; 58689-43-3) see: Methidiazine
- methyl 5-chloro-3-(methylsulfamoyl)thiophene-2-carboxylate**
(C₇H₈ClNO₄S₂; 70374-37-7) see: Lornoxicam
- S-methyl-N-(2-chloro-4-methyl-3-thienyl)isothiuronium iodide**
(C₇H₁₀ClIN₂S₂) see: Tiamenidine
- methyl 5-chloro-3-nitrosalicylate**
(C₈H₆ClNO₅; 5043-79-8) see: Nazasetron
- 1-methyl-4-(3-chlorophenyl)piperazine**
(C₈H₁₇ClN₂; 104-16-5) see: Butaperazine; Perazine; Prochlorperazine; Thiethylperazine; Thioproperazine; Trifluoperazine
- methyl 2-[(3S)-3-[3-[(1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-hydroxypropyl]benzoate**
(C₂₈H₂₄ClNO₃; 181139-72-0) see: Montelukast sodium
- methyl (R)-1-[[[1-[3-[(E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-[1-methyl-1-[(tetrahydro-2H-pyran-2-yl)oxy]ethyl]phenyl]propyl]thio]methyl]cyclopropaneacetate**
(C₄₁H₄₆ClNO₄S) see: Montelukast sodium
- methyl 2-[3-[3-[(2E)-(7-chloroquinolin-2-yl)vinyl]phenyl]-3-oxopropyl]benzoate**
(C₂₈H₂₂ClNO₃; 149968-11-6) see: Montelukast sodium
- methyl 4-chlorosalicylate**
(C₈H₇ClO₃; 22717-55-1) see: Buclosamide
- methyl 5-chlorosalicylate**
(C₈H₇ClO₃; 4068-78-4) see: Nazasetron
- methyl 2-chlorosulfonylbenzoate**
(C₈H₇ClO₄S; 26638-43-7) see: Saccharin
- methyl 3-chlorosulfonylthiophene-2-carboxylate**
(C₆H₅ClO₄S₂; 59337-92-7) see: Tenoxicam
- methyl cholate**
(C₂₅H₄₂O₅; 1448-36-8) see: Chenodeoxycholic acid
- β -methylcholine chloride**
(C₆H₁₆ClNO; 2382-43-6) see: Bethanechol chloride
- cis-methyl cinnamate**
(C₁₀H₁₀O₂; 19713-73-6) see: Paclitaxel
- trans-methyl cinnamate**
(C₁₀H₁₀O₂; 1754-62-7) see: Paclitaxel
- 16 β -methylcortisone**
(C₂₂H₃₀O₅; 5121-02-8) see: Betamethasone; Meprednisone
- 16 β -methylcortisone 21-acetate**
(C₂₄H₃₂O₆; 1058-03-3) see: Betamethasone
- 3-methylcrotonamide**
(C₅H₉NO; 4479-75-8) see: Sulfadiazamide
- methyl cyanoacetate**
(C₄H₅NO₂; 105-34-0) see: Cyclobarbitol; Heptabarb; Hexobarbitol; Mesuximide
- 4-methyl-2'-cyanobiphenyl**
(C₁₄H₁₁N; 114772-53-1) see: Losartan potassium
- methyl 2-cyano-2-(1-cyclohexenyl)butyrate**
(C₁₂H₁₇NO₂; 84714-19-2) see: Cyclobarbitol
- methyl 2-cyano-2-(1-cyclohexenyl)propionate**
(C₁₁H₁₅NO₂; 69016-12-2) see: Hexobarbitol
- methyl 1-cycloheptylcyanoacetate**
(C₁₁H₁₅NO₂) see: Heptabarb
- methyl 1-cyclohexenylcyanoacetate**
(C₁₀H₁₃NO₂; 80632-53-7) see: Cyclobarbitol; Hexobarbitol
- trans-4-methylcyclohexyl isocyanate**
(C₈H₁₃NO; 32175-00-1) see: Glimepiride
- methyl 5-cyclohexyl-3-methyl-5-hydroxyimino-2-pentenoate**
(C₁₃H₂₁NO₃) see: Ciclopirox
- methyl 5-cyclohexyl-3-methyl-5-oxo-2-pentenoate**
(C₁₃H₂₀O₃; 14619-59-1) see: Ciclopirox
- methyl 3-cyclopentene-1-carboxylate**
(C₇H₁₀O₂; 58101-60-3) see: Dolasetron mesilate
- methyl α -cyclopentylmandelate**
(C₁₄H₁₈O₃; 19833-96-6) see: Glycopyrronium bromide
- methyl 4-[5-(cyclopentylloxycarbonylamino)-1-methylindol-3-ylmethyl]-3-methoxybenzoate**
(C₂₅H₂₈N₂O₅; 107754-19-8) see: Zafirlukast
- methyl 3 α ,7 α -diacetoxy-12 α -hydroxycholanate**
(C₂₉H₄₆O₇; 3749-87-9) see: Chenodeoxycholic acid
- methyl 3 α ,7 α -diacetoxy-12-oxocholanate**
(C₂₉H₄₄O₇; 28535-81-1) see: Chenodeoxycholic acid
- methyl 4,5-diamino-2-methoxybenzoate**
(C₉H₁₂N₂O₃; 59338-85-1) see: Alizapride
- methyl dichloroacetate**
(C₃H₄Cl₂O₂; 116-54-1) see: Chloramphenicol
- methyl 2-(2,3-dichlorobenzylidene)acetacetate**
(C₁₇H₁₀Cl₂O₃; 74073-22-6) see: Felodipine
- (\pm)-**cis-N-methyl-4-(3,4-dichlorophenyl)-1,2,3,4-tetrahydro-1-naphthalenamine**
(C₁₇H₁₇Cl₂N; 79617-95-1) see: Sertraline
- methyl 1,2-dihydro-4-hydroxy-2-methyl-1-oxo-3-isoquinolinecarboxylate**
(C₁₂H₁₁NO₄; 30081-73-3) see: Tilisolol hydrochloride
- methyl dihydrolysergate**
(C₁₇H₂₀N₂O₂; 35470-53-2) see: Pergolide
- methyl (\pm)-erythro-(E)-3,5-dihydroxy-7-[3-(4-fluorophenyl)-1-isopropylindol-2-yl]hept-6-enoate**
(C₂₅H₂₈FNO₄; 93957-53-0) see: Fluvastatin sodium

16 β -methyl-17 α ,21-dihydroxy-1,4,9(11)-pregnatriene-3,20-dione 21-acetate

see under 21-acetoxy-17-hydroxy-16 β -methylpregna-1,4,9(11)-triene-3,20-dione

methyl erythro-(E)-7-[2,6-diisopropyl-4-(4-fluorophenyl)-5-methoxymethyl-3-pyridyl]-3,5-dihydroxy-hept-6-enoate
(C₂₇H₃₆FNO₅; 157242-01-8) see: Cerivastatin sodium**4-methyl-4-(3,4-dimethoxybenzyl)hydantoin**
(C₁₃H₁₆N₂O₄; 892-02-4) see: Methyl dopa**methyl 2-(2,4-dimethoxybenzyloxy)acetate**
(C₁₂H₁₆O₅; 128685-11-0) see: Tacrolimus**methyl 3-dimethylaminoacrylate**
(C₆H₁₁NO₂; 999-59-7) see: Ciprofloxacin**4-[2-(2-methyl-1,3-dioxolan-2-yl)ethyl]-1,2-diphenyl-3,5-pyrazolidinedione**

(C₂₁H₂₂N₂O₄; 116604-64-9) see: Kebuzone

1-methyl- α , α -diphenyl-4-piperidinemethanol

(C₁₉H₂₃NO; 6071-92-7) see: Diphemanil metilsulfate

methyl (S)-1,4-dithia-7-azaspiro[4.4]nonane-8-carboxylate hydrochloride

(C₈H₁₄ClNO₂S₂; 83552-42-5) see: Spirapril

methyl di(2-thienyl)glycolate

(C₁₁H₁₀O₃S₂; 26447-85-8) see: Mazaticol

1-methyl- α , α -di-2-thienyl-3-piperidinemethanol

(C₁₅H₁₉NOS₂; 5166-68-7) see: Tipegidine

methyl dopa

(C₁₀H₁₃NO₄; 555-30-6) see: Methyl dopate

(\pm)-methyl dopa

(C₁₀H₁₃NO₄; 55-40-3) see: Methyl dopa

3,4-methylenedioxyaniline

(C₇H₇NO₂; 14268-66-7) see: Oxolinic acid

1,2-methylenedioxybenzene

(C₇H₈O₂; 274-09-9) see: Oxolinic acid

1-(3,4-methylenedioxybenzyl)piperazine

(C₁₇H₁₆N₂O₂; 32231-06-4) see: Fenoverine; Fipexide; Medibazine; Pifamine; Piribedil

4,5-methylenedioxy-2-nitroacetophenone

(C₉H₇NO₅; 56136-84-6) see: Cinoxacin

3,4-methylenedioxy-1-nitrobenzene

(C₇H₇NO₄; 2620-44-2) see: Oxolinic acid

L-3-(3,4-methylenedioxyphenyl)alanine

(C₁₀H₁₁NO₄; 32161-31-2) see: Levodopa

16-methylenehydrocortisone

(C₂₂H₃₀O₅; 14339-90-3) see: Fluprednidene acetate; Prednylidene

11-methylene-18-methyl- δ^4 -estrene-3,17-dione

(C₂₀H₂₆O₂; 54024-17-8) see: Desogestrel

 α -methylene-4-nitrobenzeneacetic acid methyl ester

(C₁₀H₉NO₄; 28042-27-5) see: Alminoprofen

 α -methylene-2-(phenylmethyl)benzeneacetic acid ethyl ester

(C₁₈H₁₈O₂) see: Setiptiline

methylenetriphenylphosphorane

(C₁₉H₁₇P; 3487-44-3) see: Desogestrel

(-)-N-methylephedrine

(C₁₁H₁₇NO; 552-79-4) see: Orlistat

methyl 2,3-epoxy-2-methylpropionate

(C₅H₈O₃; 58653-97-7) see: Bicalutamide

methyl 3-[4-(2,3-epoxypropoxy)phenyl]propionate

(C₁₃H₁₆O₄; 81147-94-6) see: Esmolol

methylergometrine

(C₂₀H₂₅N₃O₂; 113-42-8) see: Methysergide

(7 α)-7-methylestr-5(10)-ene-3,17-dione

(C₁₉H₂₆O₂; 105186-32-1) see: Tibolone

3-O-methylestrone

see under estrone 3-methyl ether

N-methyl-9,10-ethanoanthracene-9(10H)-propanamide

(C₂₀H₂₁NO; 23716-34-9) see: Maprotiline

[1R-[1 α ,5 α ,6(R*)]]- α -(1-methylethenyl)-7-oxo-3-phenyl-4-oxa-2,6-diazabicyclo[3.2.0]hept-2-ene-6-acetic acid diphenylmethyl ester

(C₂₈H₂₄N₂O₄; 67977-61-1) see: Latamoxef

N-[4-(1-methylethoxy)benzoyl]-4-nitrobenzenesulfonamide

(C₁₆H₁₆N₂O₆S) see: Sulfaproxyline

methyl 1-ethyl-6-acetyl-7-hydroxy-4-oxo-8-propyl-4H-quinoline-2-carboxylate

(C₁₈H₂₁NO₅; 69049-70-3) see: Nedocromil

N-[4-[(1-methylethyl)amino]acetyl]phenyl]methanesulfonamide

(C₁₂H₁₈N₂O₃S; 60735-85-5) see: Sotalol

1-[(1-methylethyl)amino]-3-[4-(phenylmethoxy)phenoxy]-2-propanol

(C₁₉H₂₅NO₃; 34380-47-7) see: Prenalterol

3-[(1-methylethyl)amino]propyl chloride

(C₆H₁₄ClN) see: Indecainide

9-[3-[(1-methylethyl)amino]propyl]-9-cyanofluorene

(C₂₀H₂₂N₂; 74517-92-3) see: Indecainide

1-[3-[(1-methylethyl)amino]-2-pyridinyl]-4-[(5-nitro-1H-indol-2-yl)carbonyl]piperazine

(C₂₁H₂₄N₆O₃; 136817-57-7) see: Delavirdine mesilate

(1-methylethyl)carbamic acid 2-(hydroxymethyl)-2-methylpentyl ester

(C₁₁H₂₃NO₃; 25462-17-3) see: Carisoprodol

4-(1-methylethyl)cyclohexanecarboxylic acid

(C₁₀H₁₈O₂; 62067-45-2) see: Nateglinide

cis-methyl 3,3-ethylenedioxy-11-oxo-5,17(20)-pregnadiene-21-carboxylate

(C₂₄H₃₂O₅; 3546-75-6) see: Fluprednisolone acetate

1,2-O-(1-methylethylidene)- α -D-glucofuranose 6-(4-methylbenzenesulfonate)

(C₁₆H₂₂O₈S; 26275-20-7) see: Prenalterol

1,2-O-(1-methylethylidene)-6-O-[4-(phenylmethoxy)phenyl]- α -D-glucofuranose

(C₂₂H₂₆O₇; 57528-81-1) see: Prenalterol

1,2-O-(1-methylethylidene)-3,5,6-tris-O-(phenylmethyl)- α -D-glucofuranose

(C₃₀H₃₄O₆; 53928-30-6) see: Tribenoside

1,2-O-(1-methylethylidene)- α -D-xylofuranose 3-acetate 5-benzoate

(C₁₇H₂₀O₇; 190003-74-8) see: Stavudine

methyl ethyl ketone

see under butanone

4-[4-(1-methylethyl)-1-piperazinyl]phenol

(C₁₃H₂₀N₂O; 67914-97-0) see: Terconazole

1-[4-[(1-methylethyl)thio]phenyl]-2-(octylamino)-1-propanone

(C₂₀H₃₃NOS; 69708-39-0) see: Suloctidil

methyl 3-(3-fluoroanilino)-2-(methylthio)acrylate

(C₁₁H₁₂FNO₂S; 76561-34-7) see: Flosequinan

methyl (±)-(E)-7-[3-(4-fluorophenyl)-1-isopropylindol-2-yl]-5-hydroxy-3-oxohept-6-enoate

(C₂₅H₂₆FNO₄; 93957-52-9) see: Fluvastatin sodium

methyl 4-(4-fluorophenyl)-N-methylnipicotate (cis-trans-mixt.)

(C₁₄H₁₈FNO₂) see: Paroxetine

N-methylformanilide

(C₈H₉NO; 93-61-8) see: Benzocetamine

methyl formate

(C₂H₄O₂; 107-31-3) see: Felbamate; Flosequinan;

Fluphenazine; Methypylon; Pyrithyldione; Retinol

methyl formimidate hydrochloride

(C₂H₆ClNO; 15755-09-6) see: Imipenem

methyl (E)-2-formyl-2-phenylacetate sodium salt

(C₁₀H₉NaO₃; 246180-40-5) see: Felbamate

N-methylglycine

(C₃H₇NO₂; 107-97-1) see: Flumazenil

methylglyoxal diethyl acetal

(C₇H₁₄O₃; 5774-26-5) see: Betacarotene

4-methyl-1,6-heptadien-4-ol

(C₈H₁₄O; 25201-40-5) see: Meglutol

N-methylhomopiperazine

(C₆H₁₄N₂; 4318-37-0) see: Emedastine

5-methylhydantoin

(C₄H₆N₂O₂; 616-03-5) see: L-Alanine

methylhydrazine

(CH₆N₂; 60-34-4) see: Ceftriaxone

6α-methyl-hydrocortisone

(C₂₂H₃₂O₅; 1625-39-4) see: Methylprednisolone

16β-methylhydrocortisone

(C₂₂H₃₂O₅; 18762-15-7) see: Betamethasone

methyl 3-hydroxyacrylate

(C₄H₆O₃; 86761-97-9) see: Ciprofloxacin

methyl 4-[(hydroxyamino)carbonyl]-3,5-dimethoxybenzoate

(C₁₁H₁₃NO₆; 65566-10-1) see: Brodimoprim

methyl 4-hydroxybenzoate

(C₈H₈O₃; 99-76-3) see: Nifuroxazide; Raloxifene hydrochloride

methyl 4-hydroxy-2H-1,2-benzothiazine-3-carboxylate

1,1-dioxide

(C₁₁H₁₁NO₃S; 35511-15-0) see: Meloxicam

methyl 4-(2-hydroxyethoxy)benzoate

(C₁₀H₁₂O₄; 3204-73-7) see: Raloxifene hydrochloride

methyl N-(2-hydroxyethyl)dithiocarbamate

(C₄H₉NOS₂; 56158-48-6) see: Flomoxef

N-methyl-N-(2-hydroxyethyl)guanidine phosphate

(C₄H₁₄N₃O₃P; 33018-83-6) see: Creatinolfosfate

5-methyl-10-hydroxyimino-10,11-dihydro-5H-dibenz-[b,f]azepine

(C₁₅H₁₄N₂O; 21737-53-1) see: Metapramine

N-methyl-4-hydroxyisocarbostyryl

(C₁₀H₉NO₂; 30236-50-1) see: Tilisolol hydrochloride

N-methylhydroxylamine

(CH₅NO; 593-77-1) see: Fluoxetine

O-methylhydroxylamine hydrochloride

(CH₅ClNO; 593-56-6) see: Cefuroxime; Quinagolide hydrochloride

methyl 3β-hydroxy-17α-methyl-androst-5-ene-17-carboxylate

(C₂₂H₃₄O₃; 25352-87-8) see: Medrogestone

methyl 4-(hydroxymethyl)benzoate

(C₉H₁₀O₃; 6908-41-4) see: Eprosartan

methyl 2-hydroxy-2-methyl-3-(4-fluorophenylthio)propionate

(C₁₁H₁₃FO₃S) see: Bicalutamide

methyl 2-hydroxy-5-[(4-methylsulfonyloxy-3-methoxy-carbonylphenyl)azo]benzoate

(C₁₇H₁₆N₂O₈S; 80622-19-1) see: Olsalazine sodium

methyl 2-hydroxy-5-nitrobenzoate

(C₈H₇NO₃; 17302-46-4) see: Olsalazine sodium

methyl 3-(4-hydroxyphenyl)propionate

(C₁₀H₁₂O₃; 5597-50-2) see: Esmolol

N-methyl-2-hydroxypropylamine

(C₄H₁₁NO; 16667-45-1) see: Pildralazine

methyl (R)-3-hydroxytetradecanoate

(C₁₅H₃₀O₃; 76062-97-0) see: Orlistat

methyl 3-hydroxythiophene-2-carboxylate

(C₆H₆O₃S; 5118-06-9) see: Tenoxicam

2-methylimidazole

(C₄H₆N₂; 693-98-1) see: Metronidazole; Ondansetron; Secnidazole

3-methyl-Δ⁴-imidazol-2-thione

(C₄H₆N₂S; 60-56-0) see: Carbimazole

(2-methyl-1-imidazolyl)acetone

(C₇H₁₀N₂O; 31964-03-1) see: Secnidazole

β,β¹-(methylimino)bis(propiofenone)

(C₁₉H₂₁NO₂; 103756-12-3) see: Phenindamine

methyl 4-[[N-(1-iminopentyl)amino]methyl]benzoate

(C₁₄H₂₀N₂O₂; 198065-80-4) see: Eprosartan

1-methylindazole-3-carbonyl chloride

(C₉H₇ClN₂O; 106649-02-9) see: Granisetron

1-methylindazole-3-carboxylic acid

(C₉H₈N₂O₂; 50890-83-0) see: Granisetron

1-methylindole

(C₉H₉N; 603-76-9) see: Ramosetron hydrochloride

N-methyl-1H-indole-5-methanesulfonamide

(C₁₀H₁₂N₂O₂S; 103628-43-9) see: Sumatriptan

2-methylindoline

(C₉H₁₁N; 6872-06-6) see: Indapamide

methyl iodide

(CH₃I; 74-88-4) see: Alpidem; Astemizole; Azithromycin; Betanidine; Cerivastatin sodium; Cethexonium bromide; Cisapride; Clonidine; Demegestone; Dimestrol; Dimethisterone; Dimethyltubocurarinium chloride; Dofetilide; Ecothiopate iodide; Elliptinium acetate; Emorfazone; Etrinate; Famotidine; Flomoxef; Flunitrazepam; Granisetron; Guanoxabenz; Ibuprofen; Indanazoline; Isopropamide iodide; Ketoprofen; Malotilate; Mecobalamin; Medazepam; Medrogestone; Melitracen; Meloxicam; Mepindolol; Meproscillarlin; Methazolamide; Methyclothiazide; Mizolastine; Nabilone; Naproxen; Nazasetron; Nelfinavir mesylate; Nicergoline; Nortriptyline; Pentazocine; Piroxicam; Pralidoxime iodide; Pranoprofen; Prolonium iodide; Promegestone; Protizinic acid; Tacrolimus; Tetrazepam; Thienium closilate; Tiamenidine; Tibezoneium iodide; Tiemonium iodide; Tolonidine; Tolterodine; Tramazoline; Zafirlukast

methyl 2-iodoacetate

(C₃H₃IO₂; 5199-50-8) see: Lornoxicam

methyl isocyanate(C₂H₃NO; 624-83-9) see: Pyridinol carbamate**methyl isonicotinate**(C₇H₇NO₂; 2459-09-8) see: Clidinium bromide***N*-[methyl-(2-isopropyl-4-thiazolylmethyl)aminocarbonyl]-L-valine**(C₁₄H₂₃N₃O₃S; 154212-61-0) see: Ritonavir**methyl isothiocyanate**(C₂H₃NS; 556-61-6) see: Betanidine; Thiamazole***S*-methylisothiosemicarbazine hydriodide**(C₂H₈IN₃S; 35600-34-1) see: Guanoxabenz***S*-methylisothiourae**(C₂H₆N₂S; 2986-19-8) see: Flubendazole; Zanamivir***S*-methylisothiuronium sulfate**(C₂H₈N₂O₄S₂; 14527-26-5) see: Debrisoquin**5-methylisoxazole-4-carbonyl chloride**(C₅H₄ClNO₂; 67305-24-2) see: Leflunomide**5-methylisoxazole-3-carboxylic acid**(C₅H₅NO₃; 3405-77-4) see: Glisoxepide; Isocarboxazid**5-methylisoxazole-4-carboxylic acid**(C₅H₅NO₃; 42831-50-5) see: Leflunomide**5-methyl-3-isoxazolecarboxylic acid hydrazide**(C₅H₇N₃O₂; 62438-03-3) see: Isocarboxazid**3-methyl-5-isoxazolecarboxylic acid****(phenylmethylene)hydrazide**(C₁₂H₁₁N₃O₂; 1085-33-2) see: Isocarboxazid***N*-[4-[(5-methyl-3-isoxazolyl)amino]sulfonyl]phenyl]acetamide**(C₁₂H₁₃N₃O₄S; 21312-10-7) see: Sulfamethoxazole**[[4-[2-[(5-methyl-3-isoxazolyl)carbonyl]amino]ethyl]phenyl]sulfonyl]carbamate methyl ester**(C₁₅H₁₇N₃O₆S; 24489-02-9) see: Glisoxepide**methyl levulinate**(C₆H₁₀O₃; 624-45-3) see: Indometacin**methyl lithium**(CH₃Li; 917-54-4) see: Calusterone**methyl lysergate**(C₁₇H₁₈N₂O₂; 4579-64-0) see: Nicergoline**methylmagnesium bromide**(CH₃BrMg; 75-16-1) see: Betamethasone; Binedaline; Bolasterone; Cyclopentamine; Desogestrel; Desoximetasone; Dihydroxydibutyl ether; Dimetacrine; Flumetasone; Fluoxymesterone; Gestrinone; Medrogestone; Medroxyprogesterone acetate; Mestanolone; Metenolone acetate; Methyltestosterone; Mibolerone; Misoprostol; Montelukast sodium; Moperone; Penmesterol; Pentorex; Retinol; Setastine; Spironolactone**methylmagnesium chloride**(CH₃ClMg; 676-58-4) see: Chlorphenoxamine; Clemastine**methylmagnesium iodide**(CH₃IMg; 917-64-6) see: Calcifediol; Dexamethasone; Fenpentadiol; Indalpine; Mesterolone; Methyltestosterone; Nabilone; Paramethasone; Tiaprofenic acid; Troglitazone**methyl malonamate**(C₄H₇NO₃; 51513-29-2) see: Cefotetan**methyl malonate lithium salt**(C₄H₅LiO₄; 63460-24-2) see: Misoprostol**methyl mercaptane**(CH₄S; 74-93-1) see: Neticonazole hydrochloride; Nifuratel; Pergolide**methyl methacrylate**(C₅H₈O₂; 80-62-6) see: Bicalutamide***N*-methylmethanamine sodium salt**(C₂H₆NNa; 14314-59-1) see: Proguanil**methyl 2-methoxy-4-acetamido-5-chlorobenzoate**

see under methyl 4-acetamido-5-chloro-2-methoxybenzoate

methyl methoxyacetate(C₄H₈O₃; 6290-49-9) see: Sulfadoxine**methyl 3-methoxyacrylate**(C₅H₈O₃; 34846-90-7) see: Mofezolac**methyl 6-methoxybenzotriazole-5-carboxylate**(C₉H₉N₃O₃; 59338-86-2) see: Alizapride**methyl 3-[4-(4-methoxybenzoylamino)-3-nitrobenzoyl]-butyrate**(C₂₀H₂₀N₂O₇; 74149-72-7) see: Pimobendan**methyl methoxycarbonyl disulfide**(C₃H₆O₂S₂; 55048-60-7) see: Temocillin**methyl 2-[[methoxycarbonylmethyl]methylamino]carbamoyl]benzoate**(C₁₃H₁₅NO₃; 83073-63-6) see: Tilisolol hydrochloride**1-methyl-2-[[4-(methoxycarbonyl)phenyl]methyl]-1,2-hydrazinedicarboxylic acid bis(phenylmethyl) ester**(C₂₆H₂₆N₂O₆) see: Procarbazine**5-methyl-8-methoxycoumarin**(C₁₁H₁₀O₃; 36651-80-6) see: Bucumolol**methyl 6-methoxy-5-iodo-1-naphthalenecarboxylate**(C₁₃H₁₁IO₃; 84532-68-3) see: Tolrestat**1-methyl-10 α -methoxylumilysergol**(C₁₈H₂₄N₂O₂; 35155-28-3) see: Nicergoline**(\pm)-methyl 4-methoxymandelate**(C₁₀H₁₂O₄; 13305-14-1) see: Fenoldopam mesilate**methyl 3-methoxy-4-methylbenzoate**(C₁₀H₁₂O₃; 3556-83-0) see: Zafirlukast**1-methyl-2-methoxymethyl-5-(2-chlorophenyl)-2,3-dihydro-1*H*-1,4-benzodiazepine**(C₁₈H₁₉ClN₂O; 103380-39-8) see: Metaclozepam**methyl 5-methoxy-2-methylindole-3-acetate**(C₁₃H₁₅NO₃; 7588-36-5) see: Indometacin**methyl 3-methoxy-4-(1-methyl-5-nitroindol-3-ylmethyl)-benzoate**(C₁₉H₁₈N₂O₅; 107754-15-4) see: Zafirlukast**methyl 3-(2-methoxy-5-methylphenyl)-3-phenylpropionate**(C₁₈H₂₀O₃; 124937-62-8) see: Tohterodine**methyl 2-methoxy-4-(*N*-methyl-*N*-tosylamino)benzoate**(C₁₇H₁₉NO₃S; 78784-42-6) see: Nemonapride**methyl 6-methoxy-1-naphthalenecarboxylate**(C₁₃H₁₂O₃; 61109-48-6) see: Tolrestat**methyl 6-methoxy-2-naphthylacetate**(C₁₄H₁₄O₃; 23981-48-8) see: Naproxen**methyl DL-2-(6-methoxy-1-naphthyl)propionate**(C₁₅H₁₆O₃; 30012-51-2) see: Naproxen**methyl 3-methoxy-4-(5-nitroindol-3-ylmethyl)benzoate**(C₁₈H₁₆N₂O₅; 107786-36-7) see: Zafirlukast**5 α -methyl-3-methoxy-5,6,7,8,9,10,11 α ,12-octahydro-5,11-methanobenzocyclodecen-13-one oxime**(C₁₇H₂₃NO₃; 42263-97-8) see: Dezocine**(2*R*,3*S*)-methyl 3-(4-methoxyphenyl)glycidate**(C₁₁H₁₂O₄; 105560-93-8) see: Diltiazem

- (±)-**trans**-methyl 3-(4-methoxyphenyl)glycidate
(C₁₁H₁₂O₄; 96125-49-4) see: Diltiazem
- 1-methyl-7-methoxy-2-tetralone**
(C₁₂H₁₄O₂; 1204-23-5) see: Dezocine
- α**-[methyl[2-(methylamino)-1,2-diphenylethyl]amino]-3-pyridinemethanol
(C₂₂H₂₅N₃O) see: Paroxetine
- 2-methyl-2-(methylaminomethyl)tetrahydrofuran**
(C₇H₁₃NO; 7179-95-5) see: Mefruside
- methyl N-methylanthranilate**
(C₉H₁₁NO₂; 85-91-6) see: Dibenzepine
- methyl 3-methylanthranilate**
(C₉H₁₁NO₂; 22223-49-0) see: Tolycaine
- 4-methyl-6-(1-methylbenzimidazol-2-yl)-2-propylbenzimidazole**
(C₁₉H₂₀N₄; 152628-02-9) see: Telmisartan
- methyl 4-methylbenzoate**
(C₉H₁₀O₂; 99-75-2) see: Procarbazine
- 1-methyl-5-(4-methylbenzoyl)-1H-pyrrole-2-acetonitrile**
(C₁₅H₁₄N₂O; 26171-22-2) see: Tolmetin
- 1-methyl-2-(3,4-methylenedioxyphenyl)ethylamine**
(C₁₀H₁₃NO₂; 4764-17-4) see: Protokylol
- 1-methyl-2-[[4-[(1-methylethyl)amino]carbonyl]phenyl]-methyl]-1,2-hydrazinedicarboxylic acid bis(phenylmethyl) ester**
(C₂₈H₃₁N₃O₅; 58914-41-3) see: Procarbazine
- methyl 4-(1-methylethyl)cyclohexanecarboxylate**
(C₁₁H₂₀O₂; 175284-00-1) see: Nateglidine
- methyl N-methylglycinate**
(C₄H₉NO₂; 5473-12-1) see: Tilisolol hydrochloride; Tolrestat
- methyl S-methylisothiouraea-N-carboxylate**
(C₄H₈N₂O₂S; 39259-32-0) see: Mebendazole
- methyl 10-O-methyl-lumilysergate**
(C₁₈H₂₂N₂O₃; 23495-64-9) see: Nicergoline
- methyl N-methyl-5-methoxynepeotate**
(C₉H₁₇NO₃; 35012-50-1) see: Timepidium bromide
- 3-[1-methyl-4-[1-methyl-4-(1-methyl-4-nitropyrrole-2-carboxamido)pyrrole-2-carboxamido]pyrrole-2-carboxamido]propionitrile**
(C₂₁H₂₂N₈O₅; 2522-28-3) see: Stallimycin
- 3-[1-methyl-4-(1-methyl-4-nitropyrrole-2-carboxamido)pyrrole-2-carboxamido]propionitrile**
(C₁₅H₁₆N₆O₄; 3185-94-2) see: Stallimycin
- 6-methyl-2-(4-methylphenyl)imidazo[1,2-a]pyridine**
(C₁₅H₁₄N₂; 88965-00-8) see: Zolpidem
- 3-methyl-1-[(4-methylphenyl)sulfonyl]-4-phenyl-4-piperidinecarbonitrile**
(C₂₀H₂₂N₂O₂S; 83863-65-4) see: Levocabastine
- 3-methyl-1-[(4-methylphenyl)sulfonyl]-4-phenyl-4-piperidinecarboxylic acid**
(C₂₀H₂₃NO₄S; 80138-94-9) see: Levocabastine
- trans-3-methyl-1-[(4-methylphenyl)sulfonyl]-4-phenyl-4-piperidinecarboxylic acid phenylmethyl ester**
(C₂₇H₂₉NO₄S; 104907-69-9) see: Levocabastine
- (E)-N-methyl-2-[3-(1-methyl-4-piperidiny)-1H-indol-5-yl]ethenesulfonamide**
(C₁₇H₂₃N₃O₂S; 121679-24-1) see: Naratriptan
- (αS)-α-methyl-N-[3-methyl-1-[2-(1-piperidiny)phenyl]butylidene]benzenemethanamine**
(C₂₄H₃₇N₂; 147770-02-3) see: Repaglinide
- α-methyl-4-(2-methylpropyl)benzeneacetaldehyde oxime**
(C₁₃H₁₉NO; 58609-72-6) see: Ibuprofen
- α-methyl-4-(2-methylpropyl)benzeneacetamide**
(C₁₃H₁₉NO; 59512-17-3) see: Ibuprofen
- α-methyl-4-(2-methylpropyl)benzeneacetonitrile**
(C₁₃H₁₇N; 58609-73-7) see: Ibuprofen
- α-methyl-4-(2-methylpropyl)benzeneethanimidic acid methyl ester hydrochloride**
(C₁₄H₂₂ClNO) see: Ibuprofen
- 3-methyl-3-[4-(2-methylpropyl)phenyl]oxiranecarboxylic acid ethyl ester**
(C₁₆H₂₂O₃; 58609-71-5) see: Ibuprofen
- methyl 1-[(methylsulfonyl)oxy]methyl]cyclopropaneacetate**
(C₈H₁₄O₅S; 170721-48-9) see: Montelukast sodium
- methyl 2-methylsulfonyloxy-5-nitrobenzoate**
(C₉H₉NO₇S; 80430-23-5) see: Olsalazine sodium
- (E)-N-methyl-2-[3-(1-methyl-1,2,3,6-tetrahydro-4-pyridinyl)-1H-indol-5-yl]vinylsulfonamide**
(C₁₇H₂₁N₃O₂S; 166306-28-1) see: Naratriptan
- methyl (methylthio)acetate**
(C₄H₈O₂S; 16630-66-3) see: Flosequin
- methyl (3R,4R,7aR)-2-methyl-4-[(1S,2R)-1,2,3-triacetoxypropyl]-3a,7a-dihydro-4H-pyrano[3,4-d]oxazole-6-carboxylate**
(C₁₈H₂₃NO₁₀; 78850-37-0) see: Zanamivir
- N-methylmorpholine**
(C₅H₁₁NO; 109-02-4) see: Nazasetron; Temocapril
- N-methylmorpholine oxide**
(C₅H₁₁NO₂; 7529-22-8) see: Paclitaxel
- 2-methylnaphthalene**
(C₁₁H₁₀; 91-57-6) see: Menadione
- N-methyl-1-naphthylmethylamine**
(C₁₂H₁₃N; 14489-75-9) see: Butenafine; Naftifine; Terbinafine
- methyl nicotinate**
(C₇H₇NO₂; 93-60-7) see: Nicorandil; Paroxetine
- methyl nitrate**
(CH₃NO₃; 598-58-3) see: Atropine methonitrate
- methyl nitrite**
(CH₃NO₂; 624-91-9) see: Molindone; Phenylpropanolamine
- 4-methyl-2-nitroaniline**
(C₇H₈N₂O₂; 89-62-3) see: Azapropazone
- 2-methyl-3-nitroanisole**
(C₈H₉NO₃; 4837-88-1) see: Mepindolol
- N-methyl-2-nitrobenzylamine**
(C₈H₁₀N₂O₂; 56222-08-3) see: Nomifensine
- N-methyl-N-(2-nitrobenzyl)-2-hydroxy-2-phenylethylamine**
(C₁₆H₁₈N₂O₃; 85660-33-9) see: Nomifensine
- N-methyl-N-(2-nitrobenzyl)phenacylamine**
(C₁₆H₁₆N₂O₃; 102436-67-9) see: Nomifensine
- 2-methyl-5-nitro-4,6-dihydroxypyrimidine**
(C₅H₅N₃O₄; 53925-27-2) see: Moxonidine
- 2-methyl-5-nitroimidazole**
(C₄H₅N₃O₂; 88054-22-2) see: Metronidazole; Secnidazole; Tinidazole

- 2-methyl-4-nitro-1H-imidazole sodium salt**
(C₄H₄N₃NaO₂; 74571-67-8) see: Nitrefazole
- N-methylnitron**
(C₂H₅NO; 54125-41-6) see: Fluoxetine
- 2-methyl-N-(m-nitrophenyl)-β-alanine**
(C₁₀H₁₂N₂O₄; 16034-75-6) see: Iocetamic acid
- N-methyl-N-(o-nitrophenyl)anthranilic acid methyl ester**
(C₁₅H₁₄N₂O₄; 16813-63-1) see: Dibenzepine
- N-methyl-2-(4-nitrophenyl)ethylamine**
(C₉H₁₂N₂O₂; 85176-37-0) see: Dofetilide
- N-[4-[2-[methyl[2-(4-nitrophenyl)ethyl]amino]ethoxy]phenyl]methanesulfonamide**
(C₁₈H₂₃N₃O₃S; 115256-44-5) see: Dofetilide
- 1-methyl-5-nitro-3-phenyl-1H-indole-2-carbonitrile**
(C₁₆H₁₁N₃O₂; 30008-52-7) see: Nimetazepam
- 1-methyl-5-nitro-3-phenyl-1H-indole-2-carboxylic acid**
(C₁₆H₁₂N₂O₄; 30016-53-6) see: Nimetazepam
- 2-methyl-2-nitro-1-phenyl-1-propanol**
(C₁₀H₁₃NO₃; 33687-74-0) see: Phentermine
- N⁴-methyl-N²-(o-nitrophenylsulfenyl)-D-asparagine**
(C₁₁H₁₃N₃O₃S; 63329-61-3) see: Asposicillin
- [2S-(2α,5α,6β)]-N-methyl-N²-[(2-nitrophenyl)thio]-D-asparaginyln-N-(2-carboxy-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]hept-6-yl)-D-2-(4-hydroxyphenyl)glycinamide**
(C₂₇H₃₀N₆O₆S₂; 63329-62-4) see: Asposicillin
- 2-methyl-2-nitropropane-1,3-diol**
(C₄H₉NO₄; 77-49-6) see: Hexetidine
- 1-methyl-4-nitro-3-propyl-1H-pyrazole-5-carboxamide**
(C₈H₁₂N₄O₃; 139756-01-7) see: Sildenafil
- 1-methyl-4-nitro-1H-pyrrole-2-carbonyl chloride**
(C₆H₅ClN₂O₃; 28494-51-1) see: Stallimycin
- 3-(1-methyl-4-nitropyrrole-2-carboxamido)propionitrile**
(C₉H₁₀N₄O₃; 3185-95-3) see: Stallimycin
- 1-methyl-4-nitro-1H-pyrrole-2-carboxylic acid**
(C₆H₆N₂O₄; 13138-78-8) see: Stallimycin
- methyl 4-nitrosalicylate**
(C₈H₇NO₅; 13684-28-1) see: Propoxycaine
- 2-methyl-1-nitrosoindoline**
(C₉H₁₀N₂O; 85440-79-5) see: Indapamide
- O-methyl-N-nitrosourea**
(C₂H₅N₃O₂; 85503-10-2) see: Gusperimus trihydrochloride
- 17-methyl-19-norpregn-5(10)-ene-3,20-dione**
(C₂₁H₃₀O₂; 10110-91-5) see: Promegestone
- (±)-4-methyl-1-octyn-4-ol**
(C₉H₁₆O; 22128-43-4) see: Misoprostol
- 2-methyl-1,4-oxathiane**
(C₅H₁₀OS; 7670-56-6) see: Nifurtimox
- 2-methyl-1,4-oxathiane 4,4-dioxide**
(C₅H₁₀O₃S; 26475-39-8) see: Nifurtimox
- 4-methyloxazole**
(C₄H₅NO; 693-93-6) see: Pyridoxine
- 4-methyloxazole-5-carboxamide**
(C₅H₆N₂O₂; 4866-00-6) see: Pyridoxine
- 2-methyl-4-(oxiranylmethoxy)-1H-indole**
(C₁₂H₁₃NO₂; 62119-47-5) see: Bopindolol; Mepindolol
- (2S-trans)-(2-methyl-4-oxo-3-azetidiny)carbamic acid 1,1-dimethylethyl ester**
(C₉H₁₆N₂O₃; 80582-03-2) see: Aztreonam
- 2-methyl-4-oxo-3,1-benzoxazine**
(C₉H₇NO₂; 525-76-8) see: Imiquimod
- methyl 5-oxo-4,5-bis(4-methoxyphenyl)-3-pentenoate**
(C₂₀H₂₀O₅; 139475-11-9) see: Mofezolac
- 2-methyl-3-oxo-2-butanol**
(C₅H₁₀O₂; 115-22-0) see: Phenaglycodol
- 5-methyl-10-oxo-10,11-dihydro-5H-dibenz[*b,f*]azepine**
(C₁₅H₁₃NO; 4904-83-0) see: Metapramine
- 2-methyl-6-oxo-2-heptene**
(C₈H₁₄O; 110-93-0) see: Heptaminol; Isometheptene
- (3-methyl-2-oxo-5-heptynyl)phosphonic acid dimethyl ester**
(C₁₀H₁₇O₄P; 70073-58-4) see: Iloprost
- 4-methyl-1-(2-oxo-2-phenylethyl)piperazine**
(C₁₃H₁₈N₂O; 41298-85-5) see: Hexocyclium metilsulfate
- (2S-trans)-[2-methyl-4-oxo-1-(phenylmethoxy)-3-azetidiny]carbamic acid 1,1-dimethylethyl ester**
(C₁₆H₂₂N₂O₄; 75659-16-4) see: Aztreonam
- [S-(R*,R*)]-α-[[1-methyl-2-oxo-2-(phenylmethoxy)ethyl]-amino]-γ-oxobenzenebutanoic acid ethyl ester**
(C₂₂H₂₅NO₃; 87269-98-5) see: Ramipril
- N-[2-methyl-1-oxo-2-[(phenylmethyl)thio]propyl]-S-(phenylmethyl)-L-cysteine**
(C₂₁H₂₅NO₃S₂; 65002-16-6) see: Bucillamine
- 6α-methyl-11-oxoprogesterone**
(C₂₂H₃₀O₃; 3642-85-1) see: Medrysone
- [[2-methyl-1-(1-oxopropoxy)propoxy](4-phenylbutyl)-phosphinyl]acetic acid**
(C₁₉H₂₉O₆P; 123599-78-0) see: Fosinopril
- [S-(R*,S*)]-[[2-methyl-1-(1-oxopropoxy)propoxy](4-phenylbutyl)phosphinyl]acetic acid**
(C₁₉H₂₉O₆P; 128948-00-5) see: Fosinopril
- [[2-methyl-1-(1-oxopropoxy)propoxy](4-phenylbutyl)-phosphinyl]acetic acid phenylmethyl ester**
(C₂₆H₃₅O₆P; 123599-80-4) see: Fosinopril
- (6R-trans)-3-methyl-8-oxo-7-[(trimethylsilyl)amino]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid trimethylsilyl ester**
(C₁₄H₂₆N₂O₃SSi₃; 31461-05-9) see: Cefalexin
- methyl palmitate**
(C₁₇H₃₄O₂; 112-39-0) see: Retinol
- 2-methylpentane-2,4-diol**
(C₆H₁₄O₂; 107-41-5) see: Chloralodol
- 4-methyl-2-pentanone**
(C₆H₁₂O; 108-10-1) see: Ramatroban
- 3-(methylpentylamino)propionic acid**
(C₉H₁₉NO₂) see: Ibandronate sodium monohydrate
- (1-methyl-2-pentynyl)propanedioic acid diethyl ester**
(C₁₃H₂₀O₄; 78800-00-7) see: Methohexital
- 3-methylphenol**
(C₇H₈O; 108-39-4) see: Bevantolol; Toliprolol
- 4-[(10-methylphenothiazin-2-yl)thioacetyl]morpholine**
(C₁₉H₂₀N₂O₂S; 13611-85-3) see: Metiazinic acid
- α-methyl-3-phenoxybenzeneacetonitrile**
(C₁₅H₁₃NO; 32852-95-2) see: Fenoprofen
- α-methyl-3-phenoxybenzenemethanol**
(C₁₄H₁₄O₂; 32852-93-0) see: Fenoprofen
- 2-[(1-methyl-2-phenoxyethyl)amino]-1-[4-(phenylmethoxy)phenyl]-1-propanone**
(C₂₅H₂₇NO₃; 1860-67-9) see: Isoxsuprine

- N-methyl-N-(2-phenoxyethyl)-1-dodecanamine**
(C₂₁H₃₇NO) see: Domiphen bromide
- N-(1-methyl-2-phenoxyethyl)ethanolamine**
(C₁₁H₁₇NO₂; 103-39-9) see: Phenoxybenzamine
- N-methyl-N-(2-phenoxyethyl)-2-thiophenemethanamine**
(C₁₄H₁₇NOS) see: Thienium closilate
- 3-(3-methylphenoxy)propylene oxide**
see under 2,3-epoxypropyl *m*-tolyl ether
- methyl phenylacetate**
(C₉H₁₀O₂; 101-41-7) see: Felbamate
- α-methyl-DL-phenylalanine hydrochloride**
(C₁₀H₁₄ClNO₂; 14603-95-3) see: Metirosine
- 3-(methylphenylamino)acrolein**
(C₁₀H₁₁NO; 14189-82-3) see: Fluvastatin sodium
- α-methyl-α-phenylbicyclo[2.2.1]hept-5-ene-2-methanol**
(C₁₅H₁₈O; 70772-77-9) see: Ciclonium bromide
- 2-methyl-2-phenylbutanedioic acid**
(C₁₁H₁₂O₄; 34862-03-8) see: Mesuximide
- 3-methyl-2-phenyl-3-butanol**
(C₁₁H₁₆O; 3280-08-8) see: Pentorex
- 3-methyl-2-phenylbutyronitrile**
(C₁₁H₁₃N; 5558-29-2) see: Isoaminile
- 6-methyl-4-phenyl-3,4-dihydro-2H-1-benzopyran-2-one**
(C₁₆H₁₄O₂; 40546-94-9) see: Tolterodine
- 2-methyl-9-phenyl-2,3-dihydro-1H-indeno[2,1-*c*]pyridine**
(C₁₉H₁₇N) see: Phenindamine
- 2,2'-(5-methyl-*m*-phenylene)bis(2-methylpropionitrile)**
(C₁₅H₁₈N₂; 120511-72-0) see: Anastrozole
- N-methyl-*o*-phenylenediamine**
(C₇H₁₀N₂; 4760-34-3) see: Telmisartan
- 1-methyl-2-phenylethylamine**
see under 2-amino-1-phenylpropane
- 1-[4-[2-[(1-methyl-2-phenylethyl)amino]ethoxy]phenyl]-1-propanone**
(C₂₀H₂₅NO₂) see: Fenalcomine
- 3-[(1-methyl-2-phenylethyl)amino]-1-propanol**
(C₁₂H₁₉NO; 4720-38-1) see: Mefenorex
- methyl phenylglyoxylate**
(C₉H₈O₃; 15206-55-0) see: Glycopyrronium bromide
- 1-methyl-4-phenyliminopiperidine**
(C₁₂H₁₆N₂; 36796-46-0) see: Bamipine; Thenalidine
- 2-methyl-3-phenyl-1H-indole-7-acetic acid ethyl ester**
(C₁₉H₁₉NO₂; 51135-34-3) see: Amfenac sodium
- 5-methyl-3-phenyl-4-isoxazolecarbonyl chloride**
(C₁₁H₈ClNO₂; 16883-16-2) see: Oxacillin
- 5-methyl-3-phenyl-4-isoxazolecarboxylic acid**
(C₁₁H₉NO₃; 1136-45-4) see: Oxacillin
- 2-methyl-5-phenylisoxazolidine**
(C₁₀H₁₃NO; 68408-65-1) see: Fluoxetine
- 2-(4-methylphenyl)-6-methylimidazo[1,2-*a*]pyridine-3-acetonitrile**
(C₁₇H₁₅N₃) see: Zolpidem
- N-[3-methyl-5-[(phenylmethyl)thio]-1,3,4-thiadiazol-2(3H)-ylidene]acetamide**
(C₁₂H₁₃N₃OS₂; 95046-30-3) see: Methazolamide
- 3-methyl-2-phenylpentanenitrile**
(C₁₂H₁₅N; 5558-32-7) see: Pentapiperide; Valethamate bromide
- 3-methyl-2-phenylpentanoic acid**
(C₁₂H₁₆O₂; 7782-37-8) see: Pentapiperide; Valethamate bromide
- 3-methyl-2-phenylpentanoyl chloride**
(C₁₂H₁₅ClO; 100388-64-5) see: Pentapiperide
- 1-methyl-3-phenylpiperazine**
(C₁₁H₁₆N₂; 5271-27-2) see: Mirtazapine
- 2-(4-methyl-2-phenyl-1-piperazinyl)benzenemethanol**
(C₁₈H₂₂N₂O; 57321-32-1) see: Mianserin
- 2-(4-methyl-2-phenyl-1-piperazinyl)-3-pyridinecarbo-nitrile**
(C₁₇H₁₈N₄; 61337-88-0) see: Mirtazapine
- 2-methyl-2-phenyl-1-propanol**
(C₁₀H₁₄O; 100-86-7) see: Fexofenadine hydrochloride
- 2-methyl-2-phenylpropionic acid**
(C₁₀H₁₂O₂; 826-55-1) see: Fexofenadine hydrochloride
- 1-methyl-3-phenylpropylamine**
(C₁₀H₁₅N; 22374-89-6) see: Buphenine
- 3-methyl-1-phenyl-5-Δ²-pyrazolone**
(C₁₀H₁₀N₂O; 89-25-8) see: Propyphenazone
- 3-methyl-1-phenyl-5-Δ³-pyrazolone**
(C₁₀H₁₀N₂O; 19735-89-8) see: Aminophenazone
- methyl phenyl(2-pyridyl)acetate**
(C₁₄H₁₃NO₂; 26483-64-7) see: Methylphenidate
- α-(4-methylphenyl)-α-[2-(1-pyrrolidinyl)ethyl]-2-pyri-dinemethanol**
(C₁₉H₂₄N₂O; 70708-28-0) see: Triprolidine
- N-methyl-2-phenylsuccinamic acid**
(C₁₁H₁₃NO₃; 73294-89-0) see: Phensuximide
- (2S-trans)-4-[[[(4-methylphenyl)sulfonyl]oxy]-1,2-pyrroli-dinedicarboxylic acid 1-(1,1-dimethylethyl) 2-(phenylme-thyl) ester**
(C₂₄H₂₉NO₇S; 96314-27-1) see: Fosinopril
- N-methyl-4-[[2-(phenylthio)ethylidene]hydrazino]ben-zenemethanesulfonamide**
(C₁₆H₁₉N₃O₂S₂; 103628-42-8) see: Sumatriptan
- 3-[(4-methylphenyl)thio]propanoic acid**
(C₁₀H₁₂O₂S; 13739-35-0) see: Meticrane
- (-)-3-methyl-4-phenyl-1-tosyl-4-piperidinecarboxylic acid**
(C₂₀H₂₃NO₄S; 83863-68-7) see: Levocabastine
- 3-methyl-2-phenylvaleric acid**
see under 3-methyl-2-phenylpentanoic acid
- 3-methyl-2-phenylvaleronitrile**
see under 3-methyl-2-phenylpentanenitrile
- N-methylpiperazine**
(C₅H₁₂N₂; 109-01-3) see: Azimilide hydrochloride; Chlorcyclizine; Clozapine; Cyclizine; Diethylcarbamazine; Fleroxacin; Hexocyclium metilsulfate; Levofloxacin; Loprazolam; Loxapine; Ofloxacin; Olanzapine; Pefloxacin; Perlapine; Pipebuzone; Pirenzepine; Prochlorperazine; Rufloxacin hydrochloride; Sildenafil; Tiotixene
- 2-methylpiperazine**
(C₅H₁₂N₂; 109-07-9) see: Grepafloxacin; Lomefloxacin
- 3-[4-(4-methyl-1-piperazinyl)butyl]-1-[(phenylmethylene)-amino]-2,4-imidazolidinedione**
(C₁₉H₂₇N₅O₂) see: Azimilide hydrochloride
- 9-[3-(4-methyl-1-piperazinyl)-1-oxopropyl]-N,N-dimethyl-9H-thioxanthene-2-sulfonamide**
(C₂₃H₂₉N₃O₃S₂) see: Tiotixene

- 2-methylpiperidine**
(C₆H₁₃N; 109-05-7) see: Cyclomethycaine; Piperocaine
- 4-methylpiperidine**
(C₆H₁₃N; 626-58-4) see: Melperone
- 1-methyl-3-piperidinecarboxylic acid ethyl ester**
(C₉H₁₇NO₂; 5166-67-6) see: Tipepidine
- 3-(2-methylpiperidino)-1-propanol**
(C₉H₁₉NO; 94-88-2) see: Cyclomethycaine
- 3-(2-methylpiperidino)propyl chloride**
(C₉H₁₈ClN; 66773-94-2) see: Cyclomethycaine
- 2-(1-methyl-4-piperidinyl)acetaldehyde**
(C₈H₁₅NO; 10333-64-9) see: Naratriptan
- 2-(methyl-4-piperidinylamino)-4(3H)-pyrimidinone**
(C₁₀H₁₆N₄O; 108612-74-4) see: Mizolastine
- 1-methyl-4-[10-(1-piperidinyl)-4H-benzo[4,5]cyclohepta-[1,2-b]thien-4-ylidene]piperidine**
(C₂₄H₂₈N₂S; 59743-86-1) see: Ketotifen
- 1-methyl-4-[9-(1-piperidinyl)-4H-benzo[4,5]cyclohepta-[1,2-b]thien-4-ylidene]piperidine**
(C₂₄H₂₈N₂S; 59743-85-0) see: Ketotifen
- 5-(1-methyl-4-piperidinyl)-5H-dibenzo[*a,d*]cyclohepten-5-ol**
(C₂₁H₂₃NO; 3967-32-6) see: Cyproheptadine
- 1-methylpiperidin-4-ylmagnesium chloride**
(C₆H₁₂ClMgN; 63463-36-5) see: Azatadine; Cyproheptadine; Ketotifen; Loratadine; Pizotifen
- 3-methyl-1-[2-(1-piperidinyl)phenyl]-1-butanimine**
(C₁₆H₂₄N₂; 147769-96-8) see: Repaglinide
- 3-methyl-1-[2-(1-piperidinyl)phenyl]-1-butanone**
(C₁₆H₂₃NO; 147770-03-4) see: Repaglinide
- N*-[(1*E*)-3-methyl-1-[2-(1-piperidinyl)phenyl]-1-butenyl]-acetamide**
(C₁₈H₂₆N₂O; 147769-95-7) see: Repaglinide
- N*-[(1*Z*)-3-methyl-1-[2-(1-piperidinyl)phenyl]-1-butenyl]-acetamide**
(C₁₈H₂₆N₂O; 147769-97-9) see: Repaglinide
- (*S*)-3-methyl-1-[2-(1-piperidinyl)phenyl]butylamine**
(C₁₆H₂₆N₂; 147769-93-5) see: Repaglinide
- (±)-3-methyl-1-[2-(1-piperidinyl)phenyl]butylamine**
(C₁₆H₂₆N₂; 108157-52-4) see: Repaglinide
- (1-methyl-4-piperidinyl)[3-(2-phenylethyl)-2-pyridinyl]-methanone**
(C₂₀H₂₄N₂O; 38093-13-9) see: Azatadine
- (*αR*)-*α*-methyl-*N*-[[2-(1-piperidinyl)phenyl]methylene]-benzenemethanamine**
(C₂₀H₂₄N₂; 147770-05-6) see: Repaglinide
- 1-methyl-4-piperidone**
(C₆H₁₁NO; 1445-73-4) see: Bampine; Mebhydrolin; Naratriptan; Piperylone; Thenalidine
- 1-methyl-4-piperidylmagnesium chloride**
see under 1-methylpiperidin-4-ylmagnesium chloride
- (1-methyl-2-piperidylmethyl) benzilate**
(C₂₁H₂₅NO₃; 94909-90-7) see: Bevonium metilsulfate
- 16β-methylprednisolone**
(C₂₂H₃₀O₅; 2597-76-4) see: Betamethasone
- 16α-methylprednisolone 21-acetate**
(C₂₄H₃₂O₆; 13209-52-4) see: Alclometasone dipropionate
- 16β-methylprednisolone 21-acetate**
(C₂₄H₃₂O₆; 18769-24-9) see: Betamethasone; Betamethasone acetate
- 16α-methyl-1,4,9(11)-pregnatriene-17α,21-diol-3,20-dione 21-acetate**
(C₂₄H₃₀O₅; 10106-41-9) see: Mometasone furoate
- 16α-methylpregnenolone 3β-acetate**
(C₂₄H₃₆O₃; 1863-41-8) see: Flumetasone; Fluocortolone; Paramethasone
- 2-methylpropanethioamide**
(C₄H₉NS; 13515-65-6) see: Ritonavir
- 2-methyl-2-propanethiol**
(C₄H₁₀S; 75-66-1) see: Raloxifene hydrochloride
- 2-methylpropanoic acid anhydride**
(C₈H₁₄O₃; 97-72-3) see: Ibudilast
- 2-methyl-2-propenal**
(C₄H₆O; 78-85-3) see: Fomepizole
- 2-methyl-2-propenyl acetate**
(C₆H₁₀O₂; 820-71-3) see: Fexofenadine hydrochloride
- 6-(2-methyl-2-propenyl)imidazo[1,2-*a*]pyridine**
(C₁₁H₁₂N₂; 116355-20-5) see: Olprinone hydrochloride
- (+)-(R)-β-methylpropiolactone**
(C₄H₆O₂; 32082-74-9) see: Dorzolamide
- methyl propionate**
(C₄H₈O₂; 554-12-1) see: Pyrimethamine
- 3'-methyl-4'-propionyloxy-propiofenone**
(C₁₃H₁₆O₃; 137937-51-0) see: Methestrol dipropionate
- 4'-methylpropiofenone**
(C₁₀H₁₂O; 5337-93-9) see: Tolperisone
- 2-[(2-methylpropyl)amino]ethanol 4-nitrobenzoate (ester)**
(C₁₃H₁₈N₂O₄) see: Butethamine
- α-(1-methylpropyl)benzeneacetic acid 2-(diethylamino)-ethyl ester**
(C₁₈H₂₉NO₂; 26878-41-1) see: Valetamate bromide
- 7-methyl-2-propyl-1*H*-benzimidazole-5-carboxylic acid**
(C₁₂H₁₄N₂O₂; 152628-03-0) see: Telmisartan
- 1-(2-methylpropyl)-*N,N*-bis(phenylmethyl)-1*H*-imidazo[4,5-*c*]quinolin-4-amine**
(C₂₈H₂₈N₄; 157875-56-4) see: Imiquimod
- N*⁴-(2-methylpropyl)-*N*²,*N*²-bis(phenylmethyl)-2,3,4-quinolinetriamine**
(C₂₇H₃₀N₄) see: Imiquimod
- 5-methyl-5-propyl-1,3-dioxan-2-one**
(C₈H₁₄O₃; 7148-50-7) see: Tybamate
- 1-(2-methylpropyl)-1*H*-imidazo[4,5-*c*]quinoline 5-oxide**
(C₁₄H₁₅N₃O; 99010-63-6) see: Imiquimod
- N*-[1-(2-methylpropyl)-1*H*-imidazo[4,5-*c*]quinolin-4-yl]-benzamide**
(C₂₁H₂₀N₄O; 144660-62-8) see: Imiquimod
- 6-(2-methylpropyl)-6*H*-imidazo[4,5-*c*]tetrazolo[1,5-*a*]quinoline**
(C₁₄H₁₄N₆; 201030-97-9) see: Imiquimod
- (2-methylpropyl)magnesium bromide**
(C₄H₉BrMg; 926-62-5) see: Repaglinide; Sibutramine hydrochloride
- 2-methylpropylmagnesium bromide**
see under (2-methylpropyl)magnesium bromide
- methyl 2-propyl-4-methylbenzimidazole-6-carboxylate**
(C₁₃H₁₆N₂O₂; 152628-00-7) see: Telmisartan
- N*-(2-methylpropyl)-4-nitrobenzenesulfonamide**
(C₁₀H₁₄N₂O₄S; 89840-80-2) see: Amprenavir

N*⁴-(2-methylpropyl)-3-nitro-*N*²,*N*²-bis(phenylmethyl)-2,4-quinolinediamine**(C₂₇H₂₈N₄O₂; 157875-54-2) see: Imiquimod**(*αS*)- α -(2-methylpropyl)-*N*-[(1*R*)-1-phenylethyl]-2-(1-piperidiny)benzenemethanamine**(C₂₄H₃₄N₂; 219922-07-3) see: Repaglinide**2-methyl-2-propyl-1,3-propanediol**(C₇H₁₆O₂; 78-26-2) see: Carisoprodol; Meprobamate; Tybamate**2-methyl-2-propyl-1,3-propanediol monocarbamate**(C₈H₁₇NO₃; 1471-56-3) see: Tybamate**1-methyl-3-propyl-1*H*-pyrazole-5-carboxylic acid**(C₈H₁₂N₂O₂; 139755-99-0) see: SildenafilN*⁴-(2-methylpropyl)-3,4-quinolinediamine**(C₁₃H₁₇N₃; 99010-09-0) see: Imiquimod***N*⁵-(2-methylpropyl)tetrazolo[1,5-*a*]quinoline-4,5-diamine**(C₁₃H₁₆N₆; 201031-00-7) see: Imiquimod**1-(2-methylpropyl)-*N*-(triphenylphosphoranylidene)-1*H*-imidazo[4,5-*c*]quinolin-4-amine**(C₃₂H₂₉N₄P; 201030-98-0) see: Imiquimod**3-methyl-7-propylxanthine**(C₉H₁₂N₄O₂; 55242-64-3) see: Propentofylline**(3 β ,5 α ,6 β ,17 β)-6-methyl-17-(1-propynyl)androstane-3,5,17-triol**(C₂₃H₃₆O₃; 35363-65-6) see: Dimethisterone**methyl pyrazine-2-carboxylate**(C₆H₆N₂O₂; 6164-79-0) see: Pyrazinamide**5-methyl-2-pyrazinecarboxylic acid**(C₆H₆N₂O₂; 5521-55-1) see: Acipimox; Glipizide**5-methylpyrazine-2-carboxylic acid**

see under 5-methyl-2-pyrazinecarboxylic acid

5-methylpyrazinemethanol acetate (ester)(C₉H₁₀N₂O₂; 98006-89-4) see: Acipimox**6-methyl-3-(2*H*)-pyridazone**(C₅H₆N₂O; 13327-27-0) see: Emorfazone**6-methyl-2-pyridinemethanol acetate (ester)**(C₉H₁₁NO₂; 13287-64-4) see: Pyridinol carbamate**6-methyl-2-pyridinemethanol acetate (ester) 1-oxide**(C₉H₁₁NO₃) see: Pyridinol carbamate**2-(methyl-2-pyridinylamino)ethanol**(C₈H₁₂N₂O; 122321-04-4) see: Rosiglitazone**4-[2-(methyl-2-pyridinylamino)ethoxy]benzaldehyde**(C₁₅H₁₆N₂O₂; 122321-03-3) see: Rosiglitazone**(*SZ*)-5-[[4-[2-(methyl-2-pyridinylamino)ethoxy]phenyl]-methylene]-2,4-thiazolidinedione**(C₁₈H₁₇N₃O₃S; 160596-25-8) see: Rosiglitazone**[[3-(methyl-2-pyridinyl)amino]methylene]propane-dinitrile**(C₁₀H₈N₄; 51991-84-5) see: Pemirolast**[[6-(methyl-2-pyridinyl)amino]methylene]propanedioic acid diethyl ester**(C₁₄H₁₈N₂O₄; 13250-95-8) see: Nalidixic acid**3-(3-methylpyridin-2-ylamino)-2-(1*H*-tetrazol-5-yl)acrylonitrile**(C₁₀H₉N₇; 132056-87-2) see: Pemirolast***N*-methyl-*N*-2-pyridinylformamide**(C₇H₈N₂O; 67242-59-5) see: Eprosartan***N*-[4-[[4-(methyl-2-pyrimidinyl)amino]sulfonyl]phenyl]-acetamide**(C₁₃H₁₄N₄O₃S; 127-73-1) see: Sulfamerazine**1-methylpyrrole**(C₅H₇N; 96-54-8) see: Tolmetin**1-methyl-2-pyrrolidinone**(C₅H₉NO; 872-50-4) see: Azelastine**7 α -methyl-3-pyrrolidino-19-norandrosta-3,5-dien-17-one**(C₂₃H₃₃NO; 13611-32-0) see: Mibolerone**4'-methyl-3-pyrrolidinopropiophenone**(C₁₄H₁₉NO; 87849-03-4) see: Acrivastine; Triprolidine**(1-methyl-2-pyrrolyl)acetonitrile**(C₇H₈N₂; 24437-41-0) see: Tolmetin**methyl reserpate**(C₂₃H₃₀N₂O₅; 2901-66-8) see: Rescimetol; Syrosingopine**2-methyl-1-(β -D-ribofuranosylcarbamoyl)pseudourea****2',3',5'-triacetate**(C₁₄H₂₁N₃O₉; 6734-35-6) see: Azacitidine***N*-methylsaccharin**(C₈H₇NO₃S; 15448-99-4) see: Piroxicam**methyl salicylate**(C₈H₈O₃; 119-36-8) see: Acenocoumarol; Olsalazine sodium; Salbutamol; Salicylamide**2-methyl-L-serine**(C₄H₉NO₃; 16820-18-1) see: Metirosine**methyl 3-succinimido-4-phenoxy-5-sulfamoylbenzoate**(C₁₈H₁₆N₂O₅S; 57939-05-6) see: Piretanide**1-(2-methylsulfinyl-2-methylthiovinyl)-4-allyloxy-3-chlorobenzene**(C₁₃H₁₅ClO₂S₂; 64264-30-8) see: Alclofenac**2-methylsulfinyl-phenothiazine**(C₁₃H₁₁NOS₂; 27612-10-8) see: Mesoridazine**4'-(methylsulfonyl)acetophenone**(C₉H₁₀O₃S; 10297-73-1) see: Rofecoxib**3-methylsulfonylaminoacetophenone**(C₉H₁₁NO₃S; 2417-42-7) see: Amidephrine mesilate**4-[(methylsulfonyl)amino]- γ -oxobenzenebutanoic acid**(C₁₁H₁₃NO₅S; 100632-57-3) see: Ibutilide fumarate**4-(methylsulfonyl)benzaldehyde**(C₈H₈O₃S; 5398-77-6) see: Thiamphenicol**3-methylsulfonyl-2,5-dihydrofuran**(C₅H₈O₃S; 41409-84-1) see: Pyridoxine**[6-[(methylsulfonyl)oxy]-2-[4-[(methylsulfonyl)oxy]phenyl]benzo[*b*]thien-3-yl][4-[2-(1-piperidinyl)ethoxy]phenyl]methanone hydrochloride**(C₃₀H₃₂ClNO₈S₃; 84449-85-4) see: Raloxifene hydrochloride**2-[4-[(methylsulfonyl)oxy]phenyl]benzo[*b*]thiophene-6-ol methanesulfonate**(C₁₆H₁₄O₆S₃; 84449-65-0) see: Raloxifene hydrochloride**(*S*)-2-[(methylsulfonyl)oxy]propanoic acid ethyl ester**(C₈H₁₂O₅S; 63696-99-1) see: Naproxen**(*S*)-2-[(methylsulfonyl)oxy]propanoyl chloride**(C₄H₇ClO₄S; 85277-55-0) see: Naproxen**2-methylsulfonylphenothiazine**(C₁₃H₁₁NO₂S₂; 23503-68-6) see: Metopimazine; Sulforidazine**1-(methylsulfonyl)-4-(phenylethynyl)benzene**(C₁₅H₁₂O₂S; 33592-56-2) see: Rofecoxib**methyltestosterone**(C₂₀H₃₀O₂; 58-18-4) see: Mestanolone; Metandienone; Oxymesterone

17 α -methyltestosterone 4,5-epoxide(C₂₀H₃₀O₃; 51154-09-7) see: Oxymesterone**N¹-methyl-N²-tetrahydrofuroyltrimethylenediamine**(C₉H₁₈N₂O₂; 81403-67-0) see: Alfuzosin**2-methyl-5,6,7,8-tetrahydroisoquinolinium bromide**(C₁₀H₁₄BrN) see: Dimemorfan**methyl 7-[3(RS)-tetrahydropyran-2-yloxy-5-oxocyclopent-1-en-1-yl]heptanoate**(C₁₈H₂₈O₅; 40098-24-6) see: Misoprostol**1-methyl-1H-tetrazole-5-thiol**(C₂H₄N₄S; 13183-79-4) see: Cefbuperazone; Cefmenoxime; Cefoperazone; Cefotetan**1-methyl-1H-tetrazole-5-thiol sodium salt**(C₂H₃N₄NaS; 51138-06-8) see: Cefamandole; Latamoxef**2-(5-methyl-1H-tetrazol-1-yl)benzoic acid**(C₉H₈N₄O₂; 72470-51-0) see: Imiquimod**N-methyl-2-thenylamine**(C₆H₉NS; 58255-18-8) see: Thenium closilate**N-(5-methyl-1,3,4-thiadiazol-2-yl)-4-nitrobenzenesulfonamide**(C₉H₈N₄O₄S₂) see: Sulfamethizole**4-methylthiazole-5-carboxaldehyde**(C₅H₅NOS; 82294-70-0) see: Cefditoren pivoxil**[6R-[3(Z),6 α ,7 β]-3-[2-(4-methyl-5-thiazolyl)ethenyl]-8-oxo-7-(phenylacetyl)amino]-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid (4-methoxyphenyl)methyl ester**(C₂₉H₂₇N₃O₅S₂; 138514-31-5) see: Cefditoren pivoxil**methyl[4-(2-thienylcarbonyl)phenyl]propanedioic acid diethyl ester**(C₁₉H₂₀O₅S; 52779-57-4) see: Suprofen**methyl 3-(2-thienyl)propionate**(C₈H₁₀O₂S; 16862-05-8) see: Eprosartan**4'-methylthioacetophenone**(C₉H₁₀OS; 1778-09-2) see: Rofecoxib**6 α -methylthio-6 β -aminopenicillanic acid benzyl ester**(C₁₆H₂₀N₂O₃S₂; 40514-98-5) see: Temocillin**3-methylthioaniline**(C₇H₉NS; 1783-81-9) see: Thioridazine**4-(methylthio)benzaldehyde**(C₈H₈OS; 3446-89-7) see: Sulindac**4-(methylthio)benzoyl chloride**(C₈H₇CLOS; 1442-06-4) see: Enoximone**6-methylthiochroman**(C₁₀H₁₂S; 71153-74-7) see: Meticrane**6-methylthiochroman 1,1-dioxide**(C₁₀H₁₂O₂S; 1077-61-8) see: Meticrane**6-methyl-thiochroman-4-one**(C₁₀H₁₀OS; 6948-34-1) see: Meticrane**3-methylthiodiphenylamine**(C₁₃H₁₃NS; 13313-45-6) see: Thioridazine**2-methylthio-1,3-dithiolium iodide**(C₄H₅S₃; 53059-74-8) see: Malotilate**(3-methylthio-2-hydroxypropyl)hydrazine**(C₄H₁₂N₂OS; 14359-97-8) see: Nifuratel**6 α -methylthio-6 β -isocyanopenicillanic acid benzyl ester**(C₁₇H₁₈N₂O₃S₂; 53628-34-5) see: Temocillin**1-(methylthio)-2-nitro-N-methylethylenamine**(C₄H₈N₂O₂S; 61832-41-5) see: Nizatidine; Ranitidine **α -methyl-2-thiopheneacetic acid**(C₇H₈O₂S; 54955-39-4) see: Tiaprofenic acid**methyl 2-thiophenepropanoate**

see under methyl 3-(2-thienyl)propionate

4-methylthiophenol(C₇H₈S; 106-45-6) see: Meticrane**2-methylthiophenothiazine**(C₁₃H₁₁NS₂; 7643-08-5) see: Mesoridazine; Thioridazine**N-(3-methylthiophenyl)anthranilic acid**(C₁₄H₁₃NO₂S; 18902-93-7) see: Thioridazine**[4-(methylthio)phenyl]boronic acid**(C₇H₉BO₂S; 98546-51-1) see: Rofecoxib**4-[4-(methylthio)phenyl]-2(5H)-furanone**(C₁₁H₁₀O₂S; 162012-28-4) see: Rofecoxib**4-[4-(methylthio)phenyl]-3-phenyl-2(5H)-furanone**(C₁₇H₁₄O₂S; 162012-30-8) see: Rofecoxib**3-(methylthio)propionyl chloride**(C₄H₇CLOS; 7031-23-4) see: Suplatast tosilate**[[[2-(methylthio)-4-pyrimidinyl]amino]methylene]propanedioic acid diethyl ester**(C₁₃H₁₇N₃O₄S; 37917-93-4) see: Pipemidic acid**2-(methylthio)pyrrole**(C₅H₇NS; 53391-61-0) see: Ketorolac**2-S-methylthiouracil**(C₅H₆N₂OS; 5751-20-2) see: Mizolastine**methylthiourea**(C₂H₆N₂S; 598-52-7) see: Noxytiolin**S-methylthiuronium chloride**(C₂H₇ClN₂S; 53114-57-1) see: Benexate**S-methylthiuronium sulfate**(C₂H₈N₂O₄S₂; 2260-00-6) see: Fluorouracil; Guanadrel; Guanethidine sulfate; Guanoclor; Guanoxan; Mebendazole**methyl 4-toluenesulfonate**(C₈H₁₀O₃S; 80-48-8) see: Acriflavinium chloride; Binedaline; Suplatast tosilate**2-methyl-3-(*p*-toluenesulfonyloxy)propyl chloride**(C₁₁H₁₅ClO₃S; 123094-45-1) see: Perimetazine**N-methyl-3-toluidine**(C₈H₁₁N; 696-44-6) see: Tolnaftate**methyl 1-(2,3,5-tri-*O*-acetyl- β -D-ribofuranosyl)-1,2,4-triazole-3-carboxylate**(C₁₅H₁₉N₃O₉; 39925-10-5) see: Ribavirin**methyl 1,2,4-triazole-3-carboxylate**(C₄H₃N₃O₂; 4928-88-5) see: Ribavirin**methyl 2,3,6-trideoxy-3-amino- α -L-lyxo-hexopyranoside**(C₇H₁₃NO₃; 18977-92-9) see: Epirubicin**methyl 2,3,6-trideoxy-3-[(trifluoroacetyl)amino]- α -L-arabino-hexopyranoside**(C₉H₁₄F₃NO₄; 56390-11-5) see: Epirubicin**methyl 2,3,6-trideoxy-3-[(trifluoroacetyl)amino]- α -L-lyxo-hexopyranoside**(C₉H₁₄F₃NO₄; 56390-10-4) see: Epirubicin**methyl 2,3,6-trideoxy-3-[(trifluoroacetyl)amino]- α -L-threo-hexopyranosid-4-ulose**(C₉H₁₂F₃NO₄; 56354-07-5) see: Epirubicin**(\pm)-(*E*)-4-methyl-4-triethylsilyloxy-1-octenyl iodide**(C₁₅H₃₁IOSi; 58682-78-3) see: Misoprostol**(*E*)-[4-methyl-4-[(triethylsilyl)oxy]-1-octenyl]-1-pentynylcuprate(1-) lithium**(C₂₀H₃₈CuLiOSi) see: Misoprostol**2-methyl-3,4,6-trifluorobenzoic acid**(C₈H₅F₃O₂; 119916-22-2) see: Grepafloxacin

2-[3-methyl-4-(2,2,2-trifluoroethoxy)pyrid-2-ylmethyl-thio]benzimidazole(C₁₆H₁₄F₃N₃O₃; 103577-40-8) see: Lansoprazole**methyl *N*-[[5-(trifluoromethyl)-6-methoxy-1-naphthyl]-carbonyl]-*N*-methylglycinate**(C₁₇H₁₆F₃NO₄; 84533-46-0) see: Tolrestat**2-[[1-methyl-2-[3-(trifluoromethyl)phenyl]ethyl]amino]-ethanol**(C₁₂H₁₆F₃NO; 31173-14-5) see: Benfluorex**16β-methyl-3α,17α,21-trihydroxypregnane-11,20-dione 21-acetate**(C₂₄H₃₆O₆; 5489-07-6) see: Betamethasone**16β-methyl-3α,11α,17α-trihydroxy-5β-pregnan-20-one**(C₂₂H₃₆O₄; 5078-94-4) see: Betamethasone**3-methyl-3-[2-(2,6,6-trimethyl-1-cyclohexen-1-yl)ethenyl]-oxiranecarboxylic acid ethyl ester**(C₁₇H₂₆O₃) see: Retinol**(*E,E*)-4-methyl-6-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2,4-hexadienal**(C₁₆H₂₄O; 5560-91-8) see: Betacarotene**(*E,E*)-[3-methyl-5-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2,4-pentadienyldiene]triphenylphosphorane**(C₃₃H₃₇P; 71987-74-1) see: Betacarotene; Retinol; Tretinoin**[3-methyl-5-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2,4-pentadienyldiene]triphenylphosphorane**(C₃₃H₃₇P; 103266-63-3) see: Isotretinoin**(*E,E*)-[3-methyl-5-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2,4-pentadienyl]sulfonylbenzene**(C₂₁H₂₈O₂S; 38987-91-6) see: Retinol**[3-methyl-5-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2,4-pentadienyl]triphenylphosphonium bromide**(C₃₃H₃₈BrP; 1180-79-6) see: Isotretinoin**(*E,E*)-[3-methyl-5-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2,4-pentadienyl]triphenylphosphonium chloride**(C₃₃H₃₈ClP; 53282-28-3) see: Retinol; Tretinoin**(*E*)-3-methyl-1-(2,6,6-trimethyl-1-cyclohexen-1-yl)-1-penten-4-yn-3-ol**(C₁₅H₂₂O; 17974-59-3) see: Retinol***N*-methyltrimethylenediamine**

see under 3-methylaminopropylamine

methyltriphenoxyphosphonium iodide(C₁₉H₁₈IO₃P; 17579-99-6) see: Doxifluridine; Levofloxacin**methyltriphenylphosphonium bromide**(C₁₉H₁₈BrP; 1779-49-3) see: Latanoprost; Nalmefene**α-methyl-DL-tyrosine**(C₁₀H₁₃NO₃; 658-48-0) see: Metirosine**6-methyluracil**

see under 2,4-dihydroxy-6-methylpyrimidine

methylurea(C₂H₆N₂O; 598-50-5) see: Methohexital;

Methylphenobarbital

5-methyluridine(C₁₀H₁₄N₂O₆; 1463-10-1) see: Stavudine**2-methylvaleraldehyde**(C₆H₁₂O; 123-15-9) see: Meprobamate**methyl valerimidate hydrochloride**(C₆H₁₄ClNO; 39739-46-3) see: Eprosartan**4'-methylvalerophenone**(C₁₂H₁₆O; 1671-77-8) see: Pyrovalerone**methyl *N*-valeryl-*N*-[(2'-cyanobiphenyl-4-yl)methyl]-L-valinate**(C₂₅H₃₀N₂O₃; 137863-90-2) see: Valsartan**methyl L-valinate hydrochloride**(C₆H₁₄ClNO₂; 6306-52-1) see: Valsartan**methyl vinyl ketone**(C₄H₆O; 78-94-4) see: Biperidene; Buprenorphine; Glaziovine; Kebuzone; Pramiverine; Retinol; Troglitazone**2-methyl-2-vinylloxirane**(C₅H₈O; 1838-94-4) see: Troglitazone***N*-methylvinylsulfonamide**(C₃H₇NO₂S; 27325-97-9) see: Naratriptan**metrizoic acid**(C₁₂H₁₁I₃N₂O₄; 1949-45-7) see: Metrizamide**metrizoyl chloride**(C₁₂H₁₀ClI₃N₂O₃; 31209-30-0) see: Ioxaglic acid; Metrizamide**mevastatin**(C₂₃H₃₄O₅; 73573-88-3) see: Pravastatin**midecamycin**(C₄₁H₆₇NO₁₅; 35457-80-8) see: Midecamycin acetate**mol. phosphorus (P₄)**(P₄; 12185-10-3) see: Etidronic acid**"monoacetylaclovir"**(C₁₀H₁₃N₃O₄; 110104-37-5) see: Aciclovir**mono(diphenylmethyl) 4-hydroxymalonate**(C₂₂H₁₈O₅; 64952-56-3) see: Latamoxef**monoethyl adipate**(C₈H₁₄O₄; 626-86-8) see: Dopexamine**monoethyl malonate**(C₅H₈O₄; 1071-46-1) see: Levofloxacin; Tosufloxacin**monoethyl malonyl chloride**(C₅H₇ClO₃; 36239-09-5) see: Clobazam**monoethyl pimelate**(C₉H₁₆O₄; 33018-91-6) see: Seratrodast**mono(4-methoxybenzyl) 4-tetrahydropyran-2-yloxyphenylmalonate**(C₂₂H₂₄O₇; 70653-29-1) see: Latamoxef**monomethyl azelate**(C₁₀H₁₈O₄; 2104-19-0) see: Misoprostol**monomethyl 5-nitroisophthalate**(C₉H₇NO₆; 1955-46-0) see: Iotalamic acid; Ioxitalamic acid**monomethyl 2-(2-thienylmethyl)malonate**(C₉H₁₀O₄S; 122308-24-1) see: Eprosartan**monoperoxyphthalic acid**(C₈H₆O₅; 2311-91-3) see: Chlormadinone acetate; Rofecoxib**monoperphthalic acid**

see under monoperoxyphthalic acid

monophenyl phenylmalonate(C₁₅H₁₂O₄; 21601-78-5) see: Carfecillin**(±)-moramide**(C₂₅H₃₂N₂O₂; 545-59-5) see: Dextromoramide**moranoline**(C₆H₁₃NO₄; 19130-96-2) see: Miglitol**morphine**(C₁₇H₁₉NO₃; 57-27-2) see: Apomorphine; Codeine; Ethylmorphine; Hydromorphone; Nalorphine; Pholcodine

morpholine

(C₄H₉NO; 110-91-8) see: Bufexamac; Citicoline; Doxapram; Emorfazone; Fenclofenac; Folescutol; Fomocaine; Metiazinic acid; Molindone; Moracizine; Morinamide; Moroxydine; Naproxen; Protizinic acid; Rocuronium bromide; Sulmetozin; Tiemonium iodide; Timolol; Trimetozine

2-morpholinoethanol

(C₆H₁₃NO₂; 622-40-2) see: Mycophenolate mofetil

2-morpholinoethyl chloride

(C₆H₁₂ClNO; 3240-94-6) see: Floredil; Morelofone; Nimorazole; Pholcodine

3-morpholinopropionitrile

(C₇H₁₂N₂O; 4542-47-6) see: Brodimoprim

3-morpholinopropyl chloride

(C₇H₁₄ClNO; 7357-67-7) see: Pramocaine

(4-morpholinylamino)acetonitrile

(C₆H₁₁N₃O; 16142-26-0) see: Molsidomine

(4-morpholinylnitrosoamino)acetonitrile

(C₆H₁₀N₄O₂; 26687-79-6) see: Molsidomine

mucochloric acid

(C₄H₂Cl₂O₃; 87-56-9) see: Amezinium metilsulfate

mycophenolic acid chloride

(C₁₇H₁₉ClO₅; 111512-13-1) see: Mycophenolate mofetil

N

naltrexone

(C₂₀H₂₃NO₄; 16590-41-3) see: Nalmefene

nandrolone

(C₁₈H₂₆O₂; 434-22-0) see: Allylestrenol; Ethylestrenol; Lynestrenol; Methyllestrenolone; Nandrolone decanoate; Nandrolone hexyloxypheylpropionate; Nandrolone phenylpropionate; Nandrolone undecylate

naphthalene

(C₁₀H₈; 91-20-3) see: Perflunafene

1-naphthalenecarboxaldehyde

(C₁₁H₈O; 66-77-3) see: Butenafine

1-naphthalenecarboxylic acid

(C₁₁H₈O₂; 86-55-5) see: Butenafine

1,6-naphthalenediol

(C₁₀H₈O₂; 575-44-0) see: Quinagolide hydrochloride

1-naphthaleneethanimidic acid ethyl ester hydrochloride

(C₁₄H₁₆ClNO; 43002-67-1) see: Naphazoline

1-naphthol

(C₁₀H₈O; 90-15-3) see: Nadoxolol; Naftopidil; Propranolol

2-naphthol

(C₁₀H₈O; 135-19-3) see: Naproxen; Tolnaftate

3-(1-naphthoxy)propylene oxide

see under 2,3-epoxy-1-(1-naphthoxy)propane

(1-naphthyl)acetonitrile

(C₁₂H₉N; 132-75-2) see: Naphazoline

2-naphthyl-D-alanine

(C₁₃H₁₃NO₂; 76985-09-6) see: Cetrorelix

(1-naphthylmethyl)methylamine

see under *N*-methyl-1-naphthylmethylamine

1-(1-naphthoxy)-2,3-epoxypropane

see under 2,3-epoxy-1-(1-naphthoxy)propane

2-naphthylsulfonyl chloride

(C₁₀H₇ClO₂S; 93-11-8) see: Orlistat

3-(1-naphthyl)-2-(tetrahydrofurfuryl)propanoic acid

(C₁₈H₂₀O₃; 25379-26-4) see: Naftidrofuryl

naproxen

(C₁₄H₁₄O₃; 22204-53-1) see: Piproxen

(+)-neoisopulegol

(C₁₀H₁₈O; 144541-38-8) see: (-)-Menthol

(+)-neoisopulegol

(C₁₀H₁₈O; 20549-46-6) see: (-)-Menthol

(±)-neomenthol

(C₁₀H₂₀O; 3623-51-6) see: (-)-Menthol

nicethamide

(C₁₀H₁₄N₂O; 59-26-7) see: Camphotamide

nicotinic acid

(C₆H₅NO₂; 59-67-6) see: Aluminum nicotinate; Inositol nicotinate; Micinicate; Nicorandil; Nicotinamide; Nicotinic acid benzyl ester; Nikethamide; Xantinel nicotinate

nicotinonitrile

(C₆H₄N₂; 100-54-9) see: Nicotinamide; Nicotiny alcohol

nicotinoyl chloride

(C₆H₄ClNO; 10400-19-8) see: Etofibrate; Hepronicate; Inositol nicotinate; Micinicate; Niaprazine; Niceritrol; Nicoclonate; Nicotafuryl; Nifenazone; Ronifibrate

nicotinoyl chloride hydrochloride

(C₆H₅Cl₂NO; 20260-53-1) see: Nicofuranose

nitric acid

(HNO₃; 7697-37-2) see: Gallium nitrate

4'-nitroacetophenone

(C₈H₇NO₃; 100-19-6) see: Chloramphenicol; Clenbuterol

3-nitro-5-acetyl-10,11-dihydro-5H-dibenz[*b,j*]azepine

(C₁₆H₁₄N₂O₃; 79752-03-7) see: Tiracizine

***p*-nitroaniline**

(C₆H₆N₂O₂; 100-01-6) see: Dantrolene; Nimetazepam; Vesnarinone

2-nitroaniline

(C₆H₆N₂O₂; 88-74-4) see: Astemizole

3-nitroaniline

(C₆H₆N₂O₂; 99-09-2) see: Iocetamic acid

4-nitroaniline

see under *p*-nitroaniline

2-(2-nitroanilino)-5-methylthiophene-3-carbonitrile

(C₁₂H₉N₃O₂S; 138564-59-7) see: Olanzapine

4-(2-nitroanilino)piperidine

(C₁₁H₁₅N₃O₂; 57718-44-2) see: Timiperone

5-nitroanthranilic acid

(C₇H₆N₂O₄; 616-79-5) see: Afoqualone

nitro-L-arginine methyl ester hydrochloride

(C₇H₁₆ClN₅O₄; 51298-62-5) see: Angiotensinamide

4-nitrobenzalacetone

(C₁₀H₉NO₃; 3490-37-7) see: Acenocoumarol

2-nitrobenzaldehyde

(C₇H₅NO₃; 552-89-6) see: Aranidipine; Nifedipine; Nisoldipine

3-nitrobenzaldehyde

(C₇H₅NO₃; 99-61-6) see: Barnidipine; Benidipine; Efonidipine hydrochloride ethanol; Iopanoic acid; Lercanidipine hydrochloride; Manidipine; Nicardipine; Nilvadipine; Nimodipine; Nitrendipine; Rosoxacin

nitrobenzene

(C₆H₅NO₂; 98-95-3) see: Oxyquinoline

- 4-nitrobenzenoacetic acid**
(C₈H₇NO₄; 104-03-0) see: Alminoprofen
- 4-nitrobenzenediazonium chloride**
(C₆H₄ClN₃O₂; 100-05-0) see: Dantrolene
- 4-nitrobenzenesulfonamide**
(C₆H₆N₂O₄S; 6325-93-5) see: Sulfaproxyline
- 4-nitrobenzenesulfonyl chloride**
(C₆H₄ClNO₄S; 98-74-8) see: Amprenavir; Saquinavir; Sulfaethidole; Sulfamethizole; Sulfisomidine
- 3-nitrobenzoic acid**
(C₇H₅NO₄; 121-92-6) see: Acetrizic acid; Mesalazine
- 4-nitrobenzoic acid**
(C₇H₅NO₄; 62-23-7) see: Procaine
- 4-nitrobenzoic acid 2-(diethylamino)ethyl ester**
(C₁₃H₁₈N₂O₄; 13456-39-8) see: Procaine
- 3-nitrobenzonitrile**
(C₇H₄N₂O₂; 619-24-9) see: Tazanolast
- N-(4-nitrobenzoyl)-β-alanine**
(C₁₀H₁₀N₂O₅; 59642-21-6) see: Balsalazide sodium
- p-nitrobenzoyl chloride**
(C₇H₅ClNO₂; 122-04-3) see: Balsalazide sodium; Butacaine; Butethamine; Leucinocaine; Methotrexate; Procinamide; Procaine; Reboxetine
- 2-nitrobenzoyl chloride**
(C₇H₄ClNO₂; 610-14-0) see: Glafenine; Pirenzepine
- N-(4-nitrobenzoyl)-L-glutamic acid**
(C₁₂H₁₂N₂O₇; 6758-40-3) see: Methotrexate
- 4-nitrobenzyl 3-acetyloxy-7(R)-phenylacetamidocepham-4-carboxylate**
(C₂₄H₂₃N₃O₈S) see: Cefprozime
- 4-nitrobenzyl 7(R)-amino-3-cephem-4-carboxylate**
(C₁₄H₁₃N₃O₅S; 68180-69-8) see: Cefprozime
- 4-nitrobenzyl 7-amino-3-chloro-3-cephem-4-carboxylate hydrochloride**
(C₁₄H₁₃Cl₂N₃O₅S; 53483-70-8) see: Cefaclor
- 2-nitrobenzyl bromide**
(C₇H₆BrNO₂; 3958-60-9) see: Bromhexine
- 4-nitrobenzyl bromide**
(C₇H₆BrNO₂; 100-11-8) see: Rizatriptan benzoate
- 2-nitrobenzyl chloride**
(C₇H₆ClNO₂; 612-23-7) see: Nomifensine
- 4-nitrobenzyl chloride**
(C₇H₆ClNO₂; 100-14-1) see: Clozapine
- 4-nitrobenzyl 3-chloro-7-(2-thienylacetamido)-3-cephem-4-carboxylate**
(C₂₀H₁₆ClN₃O₆S₂; 53483-68-4) see: Cefaclor
- (2-nitrobenzyl)(cyclohexyl)methylamine**
(C₁₄H₂₀N₂O₂; 80638-08-0) see: Bromhexine
- 4-nitrobenzyl 3-hydroxy-7(R)-phenylacetamidocepham-4-carboxylate**
(C₂₂H₂₁N₃O₇S) see: Cefprozime
- 4-nitrobenzyl 3-hydroxy-7(R)-phenylacetamido-3-cephem-4-carboxylate**
(C₂₂H₁₉N₃O₇S; 53116-50-0) see: Cefprozime
- 4-nitrobenzyl 3-hydroxy-7-(2-thienylacetamido)-3-cephem-4-carboxylate**
(C₂₀H₁₇N₃O₇S₂; 53116-47-5) see: Cefaclor
- 4-nitrobenzyl 3-methylene-7-(2-thienylacetamido)cepham-4-carboxylate**
(C₂₁H₁₉N₃O₆S₂; 37795-05-4) see: Cefaclor
- trans-1-(p-nitrobenzyloxycarbonyl)-4-hydroxy-L-proline p-methoxybenzyl ester**
(C₂₁H₂₂N₂O₈; 96034-58-1) see: Meropenem
- 4-nitrobenzyl 7(R)-phenylacetamido-3-cephem-4-carboxylate**
(C₂₂H₁₉N₃O₆S; 63821-64-7) see: Cefprozime
- 4-nitrobenzyl 7-(2-thienylacetamido)cephalosporanate**
(C₂₃H₂₁N₃O₆S₂; 41625-53-0) see: Cefaclor
- 1-(4-nitrobenzyl)-1,2,4-triazole**
(C₉H₈N₄O₂; 119192-09-5) see: Rizatriptan benzoate
- 5-nitro-N,N'-bis(2,3-dihydroxypropyl)isophthalamide**
(C₁₄H₁₉N₃O₈; 76820-34-3) see: Iohexol
- 4'-nitro-2-bromoacetophenone**
see under 2-bromo-4'-nitroacetophenone
- 2-nitro-1-butanol**
(C₄H₉NO₂; 609-31-4) see: Ethambutol
- 2-nitro-6-chlorobenzyl chloride**
(C₇H₅Cl₂NO₂; 15258-72-7) see: Anagrelide hydrochloride
- 1-(2-nitro-3-chlorophenyl)-1,3-butanedione**
(C₁₀H₈ClNO₄; 19089-02-2) see: Pyrrolnitrin
- 2-nitrodiphenyl ether**
(C₁₂H₉NO₂; 2216-12-8) see: Nimesulide
- o-nitrodiphenyl sulfide**
(C₁₂H₉NO₂S; 4171-83-9) see: Quetiapine fumarate
- nitroethane**
(C₂H₅NO₂; 79-24-3) see: Clometacin; Hexetidine; Mepindolol
- 2-(2-nitrothienyl)thiophene**
(C₆H₅NO₂S; 874-84-0) see: Temocapril
- 2-nitro-5-fluorobenzoic acid**
(C₇H₄FNO₄; 320-98-9) see: Flumazenil
- 2-nitro-5-fluorotoluene**
(C₇H₄FNO₂; 446-33-3) see: Flumazenil
- 5-nitrofurfural**
(C₅H₃NO₄; 698-63-5) see: Furazolidone; Nifuratel; Nifuroxazide; Nifurpazine; Nifurtimox; Nitrofurantoin
- 1-(5-nitrofurfurylideneamino)hydantoin**
(C₈H₆N₄O₅; 67-20-9) see: Nifurtimox
- 3-(5-nitro-2-furyl)acrolein**
(C₇H₅NO₄; 1874-22-2) see: Nifurzide
- 2-(3-nitro-4-hydroxyphenyl)propionitrile**
(C₉H₈N₂O₃; 51234-22-1) see: Flunoxaprofen
- 4-nitro-1H-imidazole sodium salt**
(C₃H₂N₃NaO₂; 58031-81-5) see: Nimorazole
- 5-nitroindole**
(C₈H₆N₂O₂; 6146-52-7) see: Zafirlukast
- 5-nitroindole-2-carboxylic acid**
(C₉H₆N₂O₄; 16730-20-4) see: Delavirdine mesilate
- nitromethane**
(CH₃NO₂; 75-52-5) see: Baclofen; Gabapentin; Midazolam; Pirbuterol; Ranitidine; Ropinirole; Trometamol
- 1-(2-nitro-4-methoxyphenyl)-2-nitropropene**
(C₁₀H₁₀N₂O₅; 25803-11-6) see: Clometacin
- 4-(5-nitro-1-methylindol-3-ylmethyl)-3-methoxybenzoic acid**
(C₁₈H₁₆N₂O₅; 138681-67-1) see: Zafirlukast
- α⁶-(nitromethyl)-3-(phenylmethoxy)-2,6-pyridine-dimethanol**
(C₁₅H₁₆N₂O₅) see: Pirbuterol

5-nitroorotic acid(C₅H₃N₃O₆; 17687-24-0) see: Dipyridamole**5-nitro-1-pentanamine**(C₅H₁₂N₂O₂) see: Deferoxamine**(5-nitropentyl)carbamic acid benzyl ester**(C₁₃H₁₈N₂O₄; 92034-20-3) see: Deferoxamine**4-nitrophenethylamine hydrochloride**(C₈H₁₁ClN₂O₂; 29968-78-3) see: Dofetilide**4-nitrophenetole**(C₈H₉NO₃; 100-29-8) see: Phenacetin**4-nitrophenol**(C₆H₅NO₃; 100-02-7) see: Paracetamol; Phenacetin; Talinolol; Troglitazone***N*-[(4-nitrophenoxy)carbonyl]-L-valine methyl ester**(C₁₃H₁₆N₂O₆; 162537-10-2) see: Ritonavir**(±)-1-(4-nitrophenoxy)-2-hydroxy-3-(*tert*-butylamino)-propane**(C₁₃H₂₀N₂O₄; 133228-95-2) see: Talinolol**4-(*p*-nitrophenoxy)-3-methyl-2-buten-1-ol**(C₁₁H₁₃NO₄; 171180-10-2) see: Troglitazone**4-(*p*-nitrophenoxy)-3-methyl-2-butenyl acetate**(C₁₃H₁₅NO₅; 171180-09-9) see: Troglitazone**2-[4-(*p*-nitrophenoxy)-3-methyl-2-butenyl]-3,5,6-trime-thylhydroquinone**(C₂₀H₂₃NO₄; 171180-12-4) see: Troglitazone**1-(4-nitrophenoxy)-5-(4-nitrophenyl)-3-methyl-3-azapen-tane**(C₁₇H₁₉N₃O₅; 115287-37-1) see: Dofetilide**1-(4-nitrophenoxy)-2-propanone**(C₉H₉NO₄; 6698-72-2) see: Troglitazone**3-nitro-4-phenoxy-5-sulfamoylbenzoic acid**(C₁₃H₁₀N₂O₅S; 28328-53-2) see: Bumetanide; Piretanide**4-nitro-L-phenylalanine**(C₉H₁₀N₂O₄; 949-99-5) see: Melphalan; Zolmitriptan**4-nitro-L-phenylalanine ethyl ester monohydrochloride**(C₁₁H₁₃ClN₂O₄; 58816-66-3) see: Melphalan**3-[(2-nitrophenyl)amino]-1-propanol**(C₉H₁₂N₂O₃; 56636-93-2) see: Domperidone**4-[[[(2-nitrophenyl)amino]thioxomethyl]amino]-1-piperi-dinecarboxylic acid ethyl ester**(C₁₅H₂₀N₄O₄S) see: Astemizole**5-nitro-6-phenylbicyclo[2.2.1]hept-2-ene**(C₁₃H₁₃NO₂; 92028-79-0) see: Fencamfamin**2-(4-nitrophenyl)butyronitrile**(C₁₀H₁₀N₂O₂; 94814-82-1) see: Aminoglutethimide**4-nitrophenyl chloroformate**(C₇H₄ClNO₄; 7693-46-1) see: Ritonavir**2-(4-nitrophenyl)ethyl bromide**(C₈H₈BrNO₂; 5339-26-4) see: Anileridine**2-(4-nitrophenyl)-2-ethylglutarimide**(C₁₃H₁₄N₂O₄; 38527-73-0) see: Aminoglutethimide**5-(4-nitrophenyl)-2-furancarboxaldehyde**(C₁₁H₇NO₄; 7147-77-5) see: Dantrolene**5-nitro-3-phenyl-1*H*-indole-2-carboxylic acid**(C₁₅H₁₀N₂O₄; 14182-37-7) see: Nimetazepam**2-(3-nitrophenylmethylene)butyric acid**see under α -ethyl-3-nitrocinnamic acid**4,4'-[(3-nitrophenyl)methylene]bismorpholine**(C₁₅H₂₃N₃O₄; 40891-03-0) see: Efonidipine hydrochloride ethanol**2-[(3-nitrophenyl)methylene]-3-oxobutanoic acid 2-[(3,3-diphenylpropyl)methylamino]-1,1-dimethylethyl ester**
(C₃₁H₃₄N₂O₅; 210579-45-6) see: Lercanidipine hydrochloride**2-[(2-nitrophenyl)methylene]-3-oxobutanoic acid methyl ester**(C₁₂H₁₁NO₅; 39562-27-1) see: Aranidipine**4-nitrophenyl-*N*-methylmethanesulfonamide**(C₈H₁₀N₂O₄S; 85952-29-0) see: Sumatriptan**4-(3-nitrophenyl)pyridine**(C₁₁H₈N₂O₂; 4282-48-8) see: Rosoxacin***o*-nitrophenylsulfenyl chloride**(C₆H₄ClNO₂S; 7669-54-7) see: Aspxocillin**5-(3-nitrophenyl)tetrazole**(C₇H₅N₅O₂; 21871-44-3) see: Tazanolast***N*-[(2-nitrophenyl)thio]-D-aspartic acid 4-methyl ester**(C₁₁H₁₂N₂O₆S; 63341-33-3) see: Aspxocillin**3-nitrophthalic acid**(C₈H₅NO₆; 603-11-2) see: Candesartan cilexetil**1-nitropropane**(C₃H₇NO₂; 108-03-2) see: Ethambutol; Moxaverine**2-nitropropane**(C₃H₇NO₂; 79-46-9) see: Phentermine**3-nitro-4-propoxybenzoic acid**(C₁₀H₁₁NO₅; 35288-44-9) see: Proxymetacaine**4-nitro-2-propoxybenzoic acid**(C₁₀H₁₁NO₅; 103204-41-7) see: Propoxycaine**3-nitro-4-propoxybenzoic acid 2-(diethylamino)ethyl ester**(C₁₆H₂₄N₂O₅) see: Proxymetacaine**4-nitro-2-propoxybenzoic acid 2-(diethylamino)ethyl ester**(C₁₆H₂₄N₂O₅) see: Propoxycaine**1-(3-nitro-2-pyridyl)piperazine**(C₉H₁₂N₄O₂; 87394-48-7) see: Delavirdine mesilate**3-nitro-5-(4-pyridyl)-2(1*H*)-pyridinone**(C₁₀H₇N₃O₃; 62749-33-1) see: Amrinone**5-nitrosalicylic acid**(C₇H₅NO₅; 96-97-9) see: Mesalazine**4-nitrosothymol**(C₁₀H₁₃NO₂; 2364-54-7) see: Moxisylyte**5-nitroso-2,4,6-triaminopyrimidine**(C₄H₆N₆O; 1006-23-1) see: Triamterene **β -nitrostyrene**(C₈H₇NO₂; 102-96-5) see: Fencamfamin**4-nitrostyrene oxide**(C₈H₇NO₃; 6388-74-5) see: Nifenalol**nitrosyl chloride ((NO)Cl)**

(ClNO; 2696-92-6) see: Aldosterone

4-nitrotetrazolo[1,5-*a*]quinolin-5-yl trifluoroacetate(C₁₁H₄F₃N₅O₄) see: Imiquimod**8-nitro-2-(tetrazol-5-yl)-1-benzopyran-4-one**(C₁₀H₅N₅O₄; 141283-42-3) see: Pranolast***S*-[2-nitro-1-(2-thienyl)ethyl]-*N*-*tert*-butoxycarbonyl-L-cysteine**(C₁₄H₂₀N₂O₆S₂; 102090-86-8) see: Temocapril**5-nitro-2-thiophenecarbohydrazide**(C₅H₅N₃O₃S; 39978-44-4) see: Nifurzide**2-nitrothiophenol**(C₆H₅NO₂S; 4875-10-9) see: Diltiazem

7-nitro-4,5,6-triethoxyphthalide(C₁₄H₁₇NO₅; 4995-54-4) see: Tritoqualine**4-nitro-3-trifluoromethylaniline**(C₇H₅F₃N₂O₂; 393-11-3) see: Flutamide; Nilutamide**1-nitro-3-(trifluoromethyl)benzene**(C₇H₄F₃NO₂; 98-46-4) see: Flutamide**2-nitro-4-trifluoromethylphenylacetic acid**(C₉H₆F₃NO₄; 1735-91-7) see: Halofantrine**2-(2-nitro-4-trifluoromethylphenyl)-2,4-dichlorocinnamic acid**(C₁₆H₈Cl₂F₃NO₄; 38635-54-0) see: Halofantrine**5-nitrovanillin**(C₈H₇NO₃; 6635-20-7) see: Entacapone**nonaethylene glycol monomethyl ether**(C₁₉H₄₀O₁₀; 6048-68-6) see: Benzonatate**4-nonylphenol**(C₁₅H₂₄O; 104-40-5) see: Nonoxinol 9**norbornane-2 α ,3 α -dicarboxylic acid anhydride**(C₉H₁₀O₃; 14166-28-0) see: Tandospirone**norborn-5-ene-2 α ,3 α -dicarboxylic acid anhydride**(C₉H₈O₃; 2746-19-2) see: Tandospirone**L-norephedrine**(C₉H₁₃NO; 492-41-1) see: Cafedrine; D-Norpseudoephedrine; Oxyfedrine**norethisterone**(C₂₀H₂₆O₃; 68-22-4) see: Norethandrolone; Norethisterone acetate; Norethisterone enanthate; Quingestanol acetate**norethisterone acetate**(C₂₂H₂₈O₃; 51-98-9) see: Etyndiol acetate**19-norpregna-3,5-dien-20-yne-3,17 β -diol diacetate**(C₂₄H₃₀O₄; 2205-78-9) see: Norethisterone acetate**(3 β ,17 α)-19-norpregn-4-ene-3,17-diol**(C₂₀H₃₂O₂; 7389-60-8) see: Ethylestrenol**nortropine**(C₇H₁₃NO; 538-09-0) see: Flutropium bromide; Trospium chloride**nortropine benzilate**(C₂₁H₂₃NO₃; 16444-19-2) see: Flutropium bromide**L-norvaline**(C₅H₁₁NO₂; 6600-40-4) see: Perindopril**"nosylate"**(C₁₇H₁₆N₂O₇S; 162221-28-5) see: Saquinavir**novoldiamine**

see under 2-amino-5-diethylaminopentane

O**3',4',6',7',8',9',16',17'-octadehydro-4'-deoxy-9',17'-dihydro-7',8'-secovincalculoblastinium mono(trifluoroacetate), salt with trifluoroacetic acid**(C₅₀H₃₆F₆N₄O₁₂; 74816-86-7) see: Vinorelbine**octahydroazocine**(C₇H₁₃N; 1121-92-2) see: Guanethidine sulfate**octahydroazocine-1-acetonitrile**(C₉H₁₆N₂; 84803-55-4) see: Guanethidine sulfate**(3 α ,4 $\alpha\beta$,10 α)-1,2,3,4,4a,5,10,10a-octahydro-1,6-dimethoxybenzo[g]quinoline-3-carboxylic acid 1,1-dimethylethyl ester**(C₂₀H₂₉NO₄; 87098-98-4) see: Quinagolide hydrochloride**octahydro- α , α -di-2-thienyl-2H-quinolizine-3-methanol**(C₁₈H₂₃NOS₂; 72730-71-3) see: Tiquizium bromide**[3S-(3 α ,3 α ,9 α ,9 β)]-1,2,3,3a,8,9,9a,9b-octahydro-3-hydroxy-3a-methyl-6-(3-oxobutyl)-7H-benz[e]inden-7-one benzoate**(C₂₅H₂₈O₄) see: Trenbolone acetate**octahydroimidazo[1,2-a]pyridine-3-spiro-4'-piperidin-2-one**(C₁₁H₁₉N₃O; 81022-38-0) see: Mosapramine**(2S,3aR,7aS)-octahydro-1H-indole-2-carboxylic acid**(C₉H₁₅NO₂; 145438-94-4) see: Trandolapril**(2S,3aS,7aS)-octahydroindole-2-carboxylic acid**(C₉H₁₅NO₂; 80875-98-5) see: Perindopril**[2S-(2 α ,3 α ,7 $\alpha\beta$)]-octahydro-1H-indole-2-carboxylic acid phenylmethyl ester**(C₁₆H₂₁NO₂; 144540-71-6) see: Trandolapril**[2S-(2 α ,3 $\alpha\beta$,7 $\alpha\beta$)]-octahydro-1H-indole-2-carboxylic acid phenylmethyl ester 4-methylbenzenesulfonate**(C₂₃H₂₉NO₃S; 94062-52-9) see: Perindopril**(3 α ,4 $\alpha\beta$,10 α)-1,2,3,4,4a,5,10,10a-octahydro-6-methoxybenzo[g]quinoline-3-carboxylic acid methyl ester**(C₁₆H₂₁NO₃; 87099-04-5) see: Quinagolide hydrochloride**(3 α ,4 $\alpha\beta$,10 α)-1,2,3,4,4a,5,10,10a-octahydro-6-methoxy-1-propylbenzo[g]quinoline-3-carboxylic acid methyl ester**(C₁₉H₂₇NO₃; 148905-73-1) see: Quinagolide hydrochloride**(+)-1,2,3,4,5,6,7,8-octahydro-2-methyl-1-[(4-methylphenyl)methyl]isoquinoline**(C₁₈H₂₅N) see: Dimemorfan**(\pm)-1,2,3,4,5,6,7,8-octahydro-2-methyl-1-[(4-methylphenyl)methyl]isoquinoline**(C₁₈H₂₅N; 38973-16-9) see: Dimemorfan**octahydro-2-nitrosocyclopenta[c]pyrrole**(C₇H₁₂N₂O; 54786-86-6) see: Gliclazide**[4S-(4 α ,7 α ,10 $\alpha\beta$)]-octahydro-5-oxo-4-[(phenylmethoxy)-carbonylamino]-7H-pyrido[2,1-b][1,3]thiazepine-7-carboxylic acid methyl ester**(C₁₉H₂₄N₂O₅S; 167305-43-3) see: Omapatrilat**(4aS,7aS)-octahydro-6-(phenylmethyl)-1H-pyrrolo[3,4-b]pyridine**(C₁₄H₂₀N₂; 151213-39-7) see: Moxifloxacin hydrochloride**octahydro-2H-quinolizine-3-carboxylic acid ethyl ester**(C₁₂H₂₁NO₂; 76211-05-7) see: Tiquizium bromide**octanal**(C₈H₁₆O; 124-13-0) see: Heprionate**octanoic acid**(C₈H₁₆O₂; 124-07-2) see: Orlistat**octanoyl chloride**(C₈H₁₅ClO; 111-64-8) see: Orlistat**octylamine**(C₈H₁₉N; 111-86-4) see: Suloctidil**4-(2-octyloxybenzoylamino)benzoic acid**(C₂₂H₂₇NO₄; 51444-79-2) see: Otilonium bromide**4-(2-octyloxybenzoylamino)benzoyl chloride**(C₂₂H₂₆ClNO₃) see: Otilonium bromide**2-octyloxybenzoyl chloride**(C₁₅H₂₁ClO₂; 54090-39-0) see: Otilonium bromide**octyltriphenylphosphonium bromide**(C₂₆H₃₂BrP; 42036-78-2) see: Orlistat**oleic acid**(C₁₈H₃₄O₂; 112-80-1) see: Azelaic acid

- olivetol**
(C₁₁H₁₆O₂; 500-66-3) see: Dronabinol
- orthoacetic acid triethyl ester**
(C₈H₁₈O₃; 78-39-7) see: Acetyldigitoxin; Alprazolam; Brotizolam; Diazoxide
- orthoformic acid triethyl ester**
see under ethyl orthoformate
- oxalic acid**
(C₂H₂O₄; 144-62-7) see: Gestodene; Gestrinone; Oxaliplatin; Pyridoxine
- oxalic acid diethyl ester**
see under diethyl oxalate
- oxalic acid monochloride butyl ester**
(C₆H₉ClO₃; 20963-23-9) see: Tazanolast
- oxalyl chloride**
(C₂Cl₂O₂; 79-37-8) see: Cefuroxime; Diclofenac; Dorzolamide; Fexofenadine hydrochloride; Granisetron; Gusperimus trihydrochloride; Indoramin; Maprotiline; Micinicate; Ritonavir; Saquinavir; Sumatriptan; Tacrolimus; Tirofiban hydrochloride; Tropisetron; Viminol
- 8-oxaspiro[4.5]decane-7,9-dione**
(C₉H₁₂O₃; 5662-95-3) see: Buspirone
- 1-[2-(oxiranylmethoxy)phenyl]-3-phenyl-1-propanone**
(C₁₈H₁₈O₃; 22525-95-7) see: Propafenone
- 4-[4-(oxiranylmethoxy)-1,2,5-thiadiazol-3-yl]morpholine**
(C₉H₁₃N₃O₃S; 58827-68-2) see: Timolol
- O-(2-oxiranylmethyl)-2-acetyl-4-butyramidophenol**
(C₁₅H₁₉NO₄; 28197-66-2) see: Acebutolol
- 3-oxo-4-androstene-17β-carboxylic acid**
(C₂₀H₂₈O₃; 302-97-6) see: Finasteride
- 3-oxo-4-aza-5α-androstane-17β-carboxylic acid**
(C₁₉H₂₉NO₃; 103335-55-3) see: Finasteride
- 3-oxo-1,2-benzisothiazole-2(3H)-acetic acid ethyl ester 1,1-dioxide**
(C₁₁H₁₁NO₃S₂; 24683-20-3) see: Piroxicam
- 5-oxo-5H-[1]benzopyrano[2,3-b]pyridine**
(C₁₂H₇NO₂; 6537-46-8) see: Pranoprofen
- 3-oxobutanoic acid 2-methoxyethyl ester**
(C₇H₁₂O₄; 22502-03-0) see: Nimodipine
- 3-oxo-1,4,6-cholestatriene**
(C₂₇H₄₀O; 3464-60-6) see: Alfalcaldol
- 3-oxo-1,5,7-cholestatriene**
(C₂₇H₄₀O; 54604-58-9) see: Alfalcaldol
- 4-oxo-4-(4-cyclohexylphenyl)butyric acid**
(C₁₆H₂₀O₃; 35288-13-2) see: Bucloxic acid
- 9-oxodecanoic acid**
(C₁₀H₁₈O₃; 1422-26-0) see: Misoprostol
- 4-oxo-9,10-dihydro-4H-benzofuro[4,5]cyclohepta[1,2-b]thio-
phene**
(C₁₃H₁₀OS; 1622-55-5) see: Ketotifen; Pizotifen
- 6-oxo-6,12-dihydrobenzofuro[3,2-c][1]benzoxepin**
(C₁₆H₁₀O₃; 28763-77-1) see: Oxetorone
- 6-oxo-5,6-dihydro-11H-dibenz[b,e]azepine**
(C₁₄H₁₁NO; 1211-06-9) see: Perlapine
- 5-oxo-10,11-dihydro-5H-dibenzo[a,d]cycloheptene**
see under dibenzosuberone
- 11-oxo-6,11-dihydrodibenzo[b,e]thiepin**
(C₁₄H₁₀OS; 1531-77-7) see: Dosulepin
- 11-oxo-6,11-dihydrodibenz[b,e]oxepin**
(C₁₄H₁₀O₂; 4504-87-4) see: Doxepin
- 3-(2-oxo-1,2-dihydroquinolin-4-yl)alanine**
(C₁₂H₁₂N₂O₃; 5162-90-3) see: Rebamipide
- 6-oxo-6-[2-(3,4-dimethoxyphenyl)ethylamino]hexanoic
acid**
(C₁₆H₂₃NO₅; 7574-86-9) see: Dopexamine
- (2S)-3-oxo-1,4-dioxaspiro[4.5]decane-2-acetic acid**
(C₁₀H₁₄O₅; 153011-57-5) see: Orlistat
- 3-oxo-2,7-dioxo-5-thiabiocyclo[2.2.1]heptane**
(C₈H₄O₃S; 161683-18-7) see: Lamivudine
- 17-oxo-4-estrene**
(C₁₈H₂₆O; 3646-28-4) see: Allylestrenol; Ethylestrenol; Lynestrenol
- 2-oxo-L-gulonic acid**
(C₆H₁₀O₇; 526-98-7) see: Ascorbic acid
- θ-oxo-1H-imidazole-1-nonanoic acid methyl ester**
(C₁₃H₂₀N₂O₃; 112497-48-0) see: Misoprostol
- N-(2-oxoimidazolidinocarbonyl)-D-phenylglycine**
(C₁₂H₁₃N₃O₄; 37091-70-6) see: Azlocillin
- 2-(1-oxoindan-4-ylloxymethyl)-4-(triphenylmethyl)mor-
pholine**
(C₃₃H₃₁NO₃; 60929-58-0) see: Indeloxacine
- 11-oxo-5-methyl-10,11-dihydro-5H-dibenzo[b,e][1,4]di-
azepine**
(C₁₄H₁₂N₂O; 5026-42-6) see: Dibenzepine
- 3-oxo-17α-methyl-20-hydroxy-19-norpregn-5(10)-ene**
(C₂₁H₃₂O₂; 10110-90-4) see: Demegestone; Promegestone
- 1-oxo-3-morpholino-1-(2-thienyl)propane**
(C₁₁H₁₅NO₂S; 3339-36-4) see: Tiemonium iodide
- (2-oxononyl)phosphonic acid dimethyl ester**
(C₁₁H₂₃O₄P; 37497-25-9) see: Unoprostone isopropyl
- (S)-4-[[4-[(2-oxo-4-oxazolidinyl)methyl]phenyl]hydrazo-
no]butanenitrile**
(C₁₄H₁₆N₄O₂; 139264-80-5) see: Zolmitriptan
- (4S)-3-(1-oxo-4-pentenyl)-4-(phenylmethyl)-2-oxazoli-
dinone**
(C₁₅H₁₇NO₃; 104266-88-8) see: Abacavir
- 3-oxo-N-phenylbutanamide**
(C₁₀H₁₁NO₂; 102-01-2) see: Rebamipide
- 3-oxo-2-phenylbutane**
(C₁₀H₁₂O; 769-59-5) see: Pentorex
- (2-oxo-4-phenylbutyl)phosphonic acid dimethyl ester**
(C₁₂H₁₇O₄P; 41162-19-0) see: Latanoprost
- 2-oxo-4-phenylbutyric acid**
(C₁₀H₁₀O₃; 710-11-2) see: Lisinopril
- 2-oxo-5-phenyl-2,3-dihydro-1H-1,4-benzodiazepine**
(C₁₅H₁₂N₂O; 2898-08-0) see: Nitrazepam
- N-[3-(2-oxo-2-phenylethyl)-2-thiazolidinylidene]acet-
amide**
(C₁₃H₁₄N₂O₂S; 6649-36-1) see: Levamisole
- (4S-cis)-2-oxo-4-(phenylmethyl)-5-oxazolidinecarboxylic
acid**
(C₁₁H₁₁NO₄; 147976-18-9) see: Saquinavir
- (±)-2-oxo-1-phenyl-3-oxabicyclo[3.1.0]hexane**
(C₁₁H₁₀O₂; 63106-93-4) see: Milnacipran hydrochloride
- 2-oxo-1-phenylpentane**
(C₁₁H₁₄O; 6683-92-7) see: Prolintane
- 1-(3-oxo-3-phenylpropyl)-4-phenyl-4-piperidinecarb-
oxylic acid ethyl ester**
(C₂₃H₂₇NO₃; 4310-87-6) see: Phenoperidine

β -oxo- α -phenyl-3-pyridinepropanenitrile(C₁₄H₁₀N₂O; 14578-20-2) see: Azatadine**4-oxo-1-phenyl-1,3,8-triazaspiro[4.5]decane**(C₁₃H₁₇N₃O; 1021-25-6) see: Fluspirilene; Spiperone**(2S,6R)-5-oxo-6-phthalimido-2-(2-thienyl)perhydro-1,4-thiazepine**(C₁₇H₁₄N₂O₃S₂) see: Temocapril**4-oxo-1-piperidinecarboxylic acid methyl ester**(C₇H₁₁NO₃; 29976-54-3) see: Penfluridol**11-oxoprogesterone**(C₂₁H₂₈O₃; 516-15-4) see: Cortisone; Hydrocortisone**2-oxopropanoic acid**(C₃H₄O₃; 127-17-3) see: Perindopril**(2-oxopropyl)phosphonic acid dimethyl ester**(C₅H₁₁O₄P; 4202-14-6) see: Latanoprost**11-oxo-3-(1-pyrrolidinyl)pregna-3,5,17(20)-trien-21-oic acid methyl ester**(C₂₆H₃₅NO₃; 82182-54-5) see: Cortisone**10-[1-oxo-2-(1-pyrrolidinyl)propyl]-10H-phenothiazine**(C₁₉H₂₀N₂OS; 63834-18-4) see: Propyramazine bromide**3-oxoquinuclidine**(C₇H₁₁NO; 3731-38-2) see: Clidinium bromide**(3R)-6-oxo-3-[(tetrahydro-2H-pyran-2-yl)oxy]hexanoic acid ethyl ester**(C₁₃H₂₂O₅; 104801-90-3) see: Orlistat**11-oxotigogenin**(C₂₇H₄₂O₄; 4802-74-8) see: Alfaxalone**3-oxoundecanedioic acid dimethyl ester**(C₁₃H₂₂O₅; 35851-47-9) see: Misoprostol**oxycodone**(C₁₈H₂₁NO₄; 76-42-6) see: Naloxone; Oxymorphone**4,4'-oxydi(2-butanone)**(C₈H₁₄O₃; 90113-31-8) see: Dihydroxydiethyl ether**3,3'-oxydipropionitrile**(C₆H₈N₂O; 1656-48-0) see: Dihydroxydiethyl ether**oxygen**(O₂; 7782-44-7) see: Etidronic acid**oxymorphone**(C₁₇H₁₉NO₄; 76-41-5) see: Naloxone; Naltrexone**oxyphenisatin**(C₂₀H₁₅NO₃; 125-13-3) see: Oxyphenisatin acetate**oxyquinoline**(C₉H₇NO; 148-24-3) see: Actinoquinol; Broxyquinoline;

Clioquinol; Diiodohydroxyquinoline; Halquinol; Nitroxoline

oxytetracycline(C₂₂H₂₄N₂O₆; 79-57-2) see: Doxycycline; Metacycline**P****D-pantolactone**

see under D(-)-2-hydroxy-3,3-dimethylbutanolide

DL-pantolactone(C₆H₁₀O₃; 79-50-5) see: Calcium pantothenate**L-pantolactone**(C₆H₁₀O₃; 5405-40-3) see: Calcium pantothenate**pantothenic acid**(C₉H₁₇NO₅; 79-83-4) see: Calcium hopantenate**D-pantothenic acid methyl ester**(C₁₀H₁₉NO₅; 50692-78-9) see: Pantethine**D-pantothenic hydrazide**(C₆H₁₄N₂O₃; 66254-70-4) see: Pantethine**paracetamol**

see under 4-hydroxyacetanilide

paraformaldehyde((CH₂O)_x; 30525-89-4) see: Betahistine; Biperidene; Bisoprolol; Clofedanol; Cyerimine; Dexrazoxane; Dyclonine; Eprazinone; Feclobuzone; Fluoxetine; Fomocaine; Ganciclovir; Hexachlorophene; Hydrochlorothiazide; Hydroflumethiazide; Mepivacaine; Molindone; Oxybutynin; Oxyfedrine; Oxymetazoline; Phenoperidine; Pridinol; Procyclidine; Pyrrobutamine; Ranitidine; Rolitetracycline; Sorivudine; Tiemonium iodide; Tolperisone; Tolpropamine; Tridihexethyl chloride; Trihexyphenidyl; Trimetazidine; Triprolidine**paraldehyde**(C₆H₁₂O₃; 123-63-7) see: Nicotinic acid**paramethasone**(C₂₂H₂₉FO₅; 53-33-8) see: Paramethasone**pelargonic acid**(C₉H₁₈O₂; 112-05-0) see: Azelaic acid**D-penicillamine Hg²⁺ complex**(C₅H₁₁Cl₂HgNO₂S; 14062-65-8) see: D-Penicillamine**D-penicillamine hydrochloride**(C₅H₁₂ClNO₂S; 2219-30-9) see: D-Penicillamine**DL-penicillamine hydrochloride**(C₅H₁₂ClNO₂S; 22572-05-0) see: D-Penicillamine**penicillin G**

see under benzylpenicillin

4-O,5-N,7-O,8-O,9-O-pentaacetyl-2,3-didehydro-2-deoxy-neuraminic acid methyl ester(C₂₀H₂₇NO₁₂; 73960-72-2) see: Zanamivir**(RS)-1-pentadecen-4-ol**(C₁₅H₃₀O; 76828-23-4) see: Orlistat**(4R)-1-pentadecen-4-ol**(C₁₅H₃₀O; 125946-59-0) see: Orlistat**pentaerythritol**(C₅H₁₂O₄; 115-77-5) see: Niceritol; Pentaerythryl tetranitrate**pentafluorobenzoic acid**(C₇HF₅O₂; 602-94-8) see: Sparfloxacin**pentafluorobenzonitrile**(C₇F₅N; 773-82-0) see: Moxifloxacin hydrochloride**pentamethylene diacrylate**(C₁₁H₁₆O₄; 36840-85-4) see: Atracurium besilate; Cisatracurium besylate**pentanamidine**(C₅H₁₂N₂; 109-51-3) see: Eprosartan**pentane-1,5-diol**(C₅H₁₂O₂; 111-29-5) see: Atracurium besilate; Cisatracurium besylate**2,3-pentanedione 2-oxime**(C₅H₉NO₂; 32818-79-4) see: Molindone**2-pentanol**(C₅H₁₂O; 13403-73-1) see: Scobarbital**2-pentanone**(C₅H₁₀O; 107-87-9) see: Protionamide; Sildenafil**4-pentenoic pivalic anhydride**(C₁₀H₁₆O₃; 178327-16-7) see: Abacavir**pentyl bromide**(C₅H₁₁Br; 110-53-2) see: Neficonazole hydrochloride

2-pentyl bromide

(C₅H₁₁Br; 107-81-3) see: Pentobarbital; Secobarbital; Thiopental

pentyl chloroformate

(C₆H₁₁ClO₂; 638-41-5) see: Capecitabine

n-pentylmagnesium bromide

(C₅H₁₁BrMg; 693-25-4) see: Nabilone

1-pentynylcopper(I) bis(hexamethylphosphoric triamide)

(C₁₇H₄₃CuN₆O₆P₂; 67840-54-4) see: Misoprostol

peracetic acid

(C₂H₄O₃; 79-21-0) see: Oxcarbazepine

perbenzoic acid

(C₇H₆O₃; 93-59-4) see: Pipecuronium bromide

perchloryl fluoride

(ClFO₃; 7616-94-6) see: Ulobetasol propionate

(S)-(-)-perillic acid

(C₁₀H₁₄O₂; 23635-14-5) see: Nateglidine

perphenazine

(C₂₁H₂₆ClN₃O₃S; 58-39-9) see: Thiopropazate

phenacetin

(C₁₀H₁₃NO₂; 62-44-2) see: Phenacaine

phenacyl bromide

see under 2-bromoacetophenone

1-phenacyl-2-tetralone

(C₁₈H₁₆O₂; 57859-83-3) see: Fendosal

p-phenetidine

see under 4-ethoxyaniline

phenmetrazine

(C₁₁H₁₅NO; 134-49-6) see: Fenbutrazate

phenobarbital

(C₁₂H₁₂N₂O₃; 50-06-6) see: Barbexaclone

phenobarbital-4-imine

(C₁₂H₁₃N₃O₂; 58042-96-9) see: Phenobarbital

phenol

(C₆H₆O; 108-95-2) see: Beclobrate; Bisacodyl; Bisoprolol; Carfecillin; Clinofibrate; Doxepin; Febuprol; Fenticlor; Fomocaine; Medifoxamine; Nefazodone hydrochloride; Normolaxol; Octopamine; Oxetorone; Oxypheisatin acetate; Paracetamol; Phenolphthalein; Phenoxybenzamine; Pranoprofen; Propofol; Synéprine

phenothiazine

(C₁₂H₉NS; 92-84-2) see: Alimemazine; Aminopromazine; Dimethoxanate; Dixirazine; Fenoverine; Mequitazine; Methdilazine; Oxomemazine; Pecazine; Perazine; Profenamine; Promazine; Promethazine; Propyramazine bromide

phenothiazine-10-carbonyl chloride

(C₁₃H₈ClNOS; 18956-87-1) see: Dimethoxanate

phenoxyacetone

(C₉H₁₀O₂; 621-87-4) see: Racefemine

3'-phenoxyacetophenone

(C₁₄H₁₂O₂; 32852-92-9) see: Fenoprofen

1-phenoxy-2-bromopropane

(C₉H₁₁BrO; 90561-10-7) see: Isoxsuprine

2-phenoxybutyric acid

(C₁₀H₁₂O₃; 13794-14-4) see: Propicillin

2-phenoxy-carbonylaminopyridine

(C₁₂H₁₀N₂O₂; 20951-00-2) see: Droxicam

[1-[(2-phenoxyethyl)amino]propylidene]hydrazinecarboxylic acid methyl ester

(C₁₃H₁₉N₃O₃; 99153-69-2) see: Nefazodone hydrochloride

2-phenoxyethyl bromide

(C₈H₉BrO; 589-10-6) see: Domiphen bromide; Nefazodone hydrochloride; Thienium closilate

N-(2-phenoxyethyl)dimethylamine

see under 1-dimethylamino-2-phenoxyethane

N-(2-phenoxyethyl)propanamide

(C₁₁H₁₅NO₂; 99153-71-6) see: Nefazodone hydrochloride

N-(2-phenoxyethyl)-2-thiophenemethanamine

(C₁₃H₁₅NOS) see: Thienium closilate

1-phenoxy-3-isopropylamino-2-propanol

(C₁₂H₁₉NO₂; 7695-63-8) see: Bisoprolol

2'-phenoxy-methanesulfonanilide

(C₁₃H₁₃NO₃S; 51765-51-6) see: Nimesulide

2-(phenoxy-methyl)benzoic acid

(C₁₄H₁₂O₃; 724-98-1) see: Doxepin

4-(phenoxy-methyl)benzotrile

(C₁₄H₁₁NO; 57928-75-3) see: Fomocaine

3-phenoxy-methylcoumarilic acid ethyl ester

(C₁₈H₁₆O₄) see: Oxetorone

3-phenoxy-methylcoumariloyl chloride

(C₁₆H₁₁ClO₃) see: Oxetorone

5-phenoxy-methyl-3-isopropyl-2-oxazolidinone

(C₁₃H₁₇NO₃; 39631-50-0) see: Bisoprolol

phenoxy-methylpenicillin

(C₁₆H₁₈N₂O₅S; 87-08-1) see: Penimepicycline

3-(4-phenoxy-methylphenyl)propyl chloride

(C₁₆H₁₇ClO; 69156-40-7) see: Fomocaine

4-[3-[4-(phenoxy-methyl)phenyl]-1-thioxopropyl]morpholine

(C₂₀H₂₃NO₂S; 65053-11-4) see: Fomocaine

4'-phenoxy-methylpropiophenone

(C₁₆H₁₆O₂; 65053-10-3) see: Fomocaine

2-phenoxy-nicotinic acid

(C₁₂H₉NO₃; 35620-71-4) see: Pranoprofen

2-phenoxy-4-nitroaniline

(C₁₂H₁₀N₂O₃; 5422-92-4) see: Nimesulide

N-(2-phenoxyphenyl)acetamide

(C₁₄H₁₃NO₂; 143359-96-0) see: Nimesulide

1-phenoxy-2-propanol

(C₉H₁₂O₂; 770-35-4) see: Phenoxybenzamine

2-phenoxypropionic acid

(C₉H₁₀O₃; 940-31-8) see: Phenticillin

1-phenoxy-2-propyl chloride

(C₉H₁₁ClO; 53491-30-8) see: Phenoxybenzamine

7-(phenylacetamido)cephalosporanic acid sodium salt

(C₁₈H₁₇N₂NaO₆S; 26382-85-4) see: *cis*-Cefprozil

phenylacetic acid

(C₈H₈O₂; 103-82-2) see: *cis*-Cefprozil; Deptropine; Rofecoxib; Sulbenicillin

phenylacetic acid ethyl ester

see under ethyl phenylacetate

phenylacetic acid sodium salt

(C₈H₇NaO₂; 114-70-5) see: Cyclopentolate; Rofecoxib

phenylacetone

(C₉H₁₀O; 103-79-7) see: Amfenac sodium; Fenetylline; Mefenorex; Metirosine; Prenylamine

phenylacetoneitrile

see under benzyl cyanide

phenylacetylcarbinol

see under (-)-1-hydroxy-1-phenylacetone

phenylacetyl chloride

(C₉H₇ClO; 103-80-0) see: Bendroffumethiazide; Moxaverine; Phenacemide; Phenazocine

D-phenylalanine

(C₉H₁₁NO₂; 673-06-3) see: Nateglinide; Omapatrilal

L-phenylalanine

(C₉H₁₁NO₂; 63-91-2) see: Melphalan; Quinapril hydrochloride; Saquinavir

L-phenylalanine *tert*-butyl ester hydrochloride

(C₁₃H₂₀ClNO₂; 15100-75-1) see: Alacepril

D-phenylalanine methyl ester

(C₁₀H₁₃NO₂; 21685-51-8) see: Nateglinide

L-phenylalanine methyl ester hydrochloride

(C₁₀H₁₄ClNO₂; 7524-50-7) see: Angiotensinamide

4-(phenylamino)-1-(phenylmethyl)-4-piperidinecarboxylic acid ethyl ester

(C₂₁H₂₆N₂O₂; 63260-82-2) see: Alfentanil

α-phenyl-1-aziridineethanol

(C₁₀H₁₃NO; 17918-11-5) see: Levamisole

5-phenylazosalicylic acid sodium salt

(C₁₃H₉N₂NaO₃; 10143-07-4) see: Mesalazine

S-phenyl benzenethiosulfonate

(C₁₂H₁₀O₂S₂; 1212-08-4) see: Quinagolide hydrochloride

(±)-4-phenylbenzhydrol

(C₁₉H₁₆O; 7598-80-3) see: Bifonazole

4-phenylbenzophenone

(C₁₉H₁₄O; 2128-93-0) see: Bifonazole

4-phenylbenzoyl chloride

(C₁₃H₉ClO; 14002-51-8) see: Dinoprost

2-phenylbicyclo[2.2.1]heptane-2-carbonyl chloride

(C₁₄H₁₅ClO; 100709-94-2) see: Bornaprine

2-phenylbicyclo[2.2.1]heptane-2-carboxylic acid

(C₁₄H₁₆O₂; 93963-31-6) see: Bornaprine

phenylboronic acid

(C₆H₇BO₂; 98-80-6) see: Rofecoxib

(±)-*cis*-1-phenyl-2-(bromomethyl)cyclopropanecarboxylic acid

(C₁₁H₁₁BrO₂; 69160-63-0) see: Milnacipran hydrochloride

4-phenyl-1-butanol

(C₁₀H₁₄O; 3360-41-6) see: Salmeterol

phenylbutazone

(C₁₉H₂₀N₂O₂; 50-33-9) see: Bumadizone; Clofezone; Feclobuzone; Pipebuzone; Suxibuzone

4-phenyl-1-butene

(C₁₀H₁₂; 768-56-9) see: Fosinopril

1-[(1-phenyl-3-butenyl)oxy]-4-(trifluoromethyl)benzene

(C₁₇H₁₅F₃O; 201658-94-8) see: Fluoxetine

4-(4-phenylbutoxy)benzoic acid

(C₁₇H₁₈O₃; 30131-16-9) see: Pranlukast

(±)-1-phenyl-1-(*tert*-butoxycarbonylamino)-2-hydroxy-3-butene

(C₁₄H₂₁NO₃; 138811-47-9) see: Docetaxel

***syn*-(±)-1-phenyl-1-(*tert*-butoxycarbonylamino)-2-(2,2,2-trichloroethoxymethoxy)-3-butene**

(C₁₇H₂₄Cl₃NO₄) see: Docetaxel

4-phenylbutylphosphonous acid

(C₁₀H₁₅O₂P; 86552-32-1) see: Fosinopril

2-phenylbutyramidoxime

(C₁₀H₁₄N₂O; 42404-24-0) see: Proxazole

2-phenylbutyric acid

(C₁₀H₁₂O₂; 90-27-7) see: Butetamate; Indobufen; Pheneturide

2-phenylbutyrimidic acid ethyl ester

(C₁₂H₁₇NO; 91562-89-9) see: Proxazole

2-phenylbutyronitrile

(C₁₀H₁₁N; 769-68-6) see: Aminoglutethimide; Glutethimide; Proxazole

2-phenylbutyrophenone

(C₁₆H₁₆O; 16282-16-9) see: Tamoxifen

2-phenylbutyryl chloride

(C₁₀H₁₁ClO; 36854-57-6) see: Butamirate; Fenbutrazate; Pheneturide

2-phenyl-2-chloroacetic acid 2-(diethylamino)ethyl ester

(C₁₄H₂₀ClNO₂) see: Bietamiverine

phenyl(chlorocarbonyl)ketene

(C₉H₅ClO₂; 17118-70-6) see: Carindacillin

phenyl chloroformate

(C₇H₅ClO₂; 1885-14-9) see: Alacepril; Camazepam; Itraconazole; Paroxetine

O-phenyl chlorothioformate

(C₇H₅ClOS; 1005-56-7) see: Cladribine

4-phenylcinnoline

(C₁₄H₁₀N₂; 21874-06-6) see: Binedaline

phenylcyclohexane

(C₁₂H₁₆; 827-52-1) see: Bucloxic acid; Clidanac

1-phenylcyclohexene

(C₁₂H₁₄; 771-98-2) see: Cicloxic acid

1-phenylcyclopentanecarbonyl chloride

(C₁₂H₁₃ClO; 17380-62-0) see: Pentoxyverine

1-phenylcyclopentanecarboxylic acid

(C₁₂H₁₄O₂; 77-55-4) see: Pentoxyverine

***trans*-2-phenylcyclopropanecarbonyl chloride**

(C₁₀H₉ClO; 939-87-7) see: Tranlycypromine

***trans*-2-phenylcyclopropanecarboxylic acid**

(C₁₀H₁₀O₂; 939-90-2) see: Tranlycypromine

***o*-phenylenediamine**

(C₆H₈N₂; 95-54-5) see: Benperidol; Droperidol; Mibefradil hydrochloride; Pyrazinamide; Tiabendazole; Tibezoneum iodide

1-phenyl-1,2-ethanediol

(C₈H₁₀O₂; 93-56-1) see: Styramate

(*R*)-1-phenyl-ethylamine

see under (*R*)-(+)-α-methylbenzylamine

(*R*)-1-phenylethylamine

see under (*R*)-(+)-α-methylbenzylamine

(*S*)-1-phenylethylamine

see under (*S*)-α-methylbenzylamine

2-phenylethylamine

(C₈H₁₁N; 64-04-0) see: Dopexamine; Glibenclamide

2-(2-phenylethyl)benzoic acid

(C₁₅H₁₄O₂; 4890-85-1) see: Deptropine

2-phenylethyl bromide

(C₈H₉Br; 103-63-9) see: Anileridine; Enalapril; Latanoprost; Phenazocine; Phenelzine

2-phenylethyl chloride

(C₈H₉Cl; 622-24-2) see: Fentanyl

2-phenylethyl isocyanate

(C₉H₉NO; 1943-82-4) see: Glimepiride

1-(2-phenylethyl)-4-piperidone(C₁₃H₁₇NO; 39742-60-4) see: Fenspiride**3-(2-phenylethyl)pyridine**(C₁₃H₁₃N; 6312-09-0) see: Azatadine**3-(2-phenylethyl)pyridine 1-oxide**(C₁₃H₁₃NO; 14578-22-4) see: Azatadine**phenyl glycidyl ether**

see under glycidyl phenyl ether

(S)-phenylglycine(C₈H₉NO₂; 2935-35-5) see: Docetaxel**D(-)-α-phenylglycine**(C₈H₉NO₂; 875-74-1) see: Azlocillin; Cefradine; Epicillin**D(-)-α-phenylglycine chloride hydrochloride**(C₈H₉Cl₂NO; 39878-87-0) see: Ampicillin**phenylglycine isopentyl ester**(C₁₃H₁₉NO₂; 84580-27-8) see: Camylofin**D(-)-phenylglycine sodium salt**(C₈H₈NNaO₂; 56337-83-8) see: Ampicillin**(+)-(S)-phenylglycinol**(C₈H₁₁NO; 20989-17-7) see: Cerivastatin sodium**5-phenylhydantoin**(C₉H₈N₂O₂; 89-24-7) see: Ethotoin**phenylhydrazine**(C₆H₈N₂; 100-63-0) see: Amezinium metilsulfate; Aminophenazone; Cortivazol; Lonazolac; Mofebutazone; D-Penicillamine; Propyphenazone; Sulfaphenazole; L-Tryptophan**3-(2-phenylhydrazino)propanenitrile**(C₉H₁₁N₃; 26955-79-3) see: Sulfaphenazole**(±)-3-phenyl-3-hydroxy-1-propanamine**(C₉H₁₃NO; 5053-63-4) see: Fluoxetine**N-(3-phenyl-1H-indol-1-yl)acetamide**(C₁₆H₁₄N₂O; 57647-16-2) see: Binedaline**phenyl isocyanate**(C₇H₅NO; 103-71-9) see: Diperon**phenyllithium**(C₆H₅Li; 591-51-5) see: Alphaprodine**phenylmagnesium bromide**(C₆H₅BrMg; 100-58-3) see: Azacyclonol; Biperidene; Broparestrol; Budipine; Clemastine; Clofedanol; Clotrimazole; Diphemanil metilsulfate; Dipotassium clorazepate; Doxylamine; Flutrimazole; Fosinopril; Hexestrol; Lercanidipine hydrochloride; Medazepam; Oxitefonium bromide; Pridinol; Procyclidine; Propiverine; Tiemonium iodide**phenylmalonic acid**(C₉H₈O₄; 2613-89-0) see: Carfecillin; Carindacillin**phenylmalonic acid benzyl ester chloride**(C₁₆H₁₃ClO₃; 35353-13-0) see: Carbenicillin**phenylmalonic acid diethyl ester**

see under diethyl phenylmalonate

phenylmercuric acetate(C₈H₈HgO₂; 62-38-4) see: Phenylmercuric borate**phenylmercuric hydroxide**(C₆H₆HgO; 100-57-2) see: Phenylmercuric borate**N-[(phenylmethoxy)carbonyl]-DL-homocysteine acetate (ester)**(C₁₄H₁₇NO₅S) see: Omapatrilat**N-[(phenylmethoxy)carbonyl]-L-homocysteine acetate (ester)**(C₁₄H₁₇NO₅S; 167305-82-0) see: Omapatrilat**4-(phenylmethoxy)-1H-indole-2-acetic acid**(C₁₇H₁₅NO₃) see: Mepindolol**anti-8-[(phenylmethoxy)methyl]-2-oxabicyclo[3.2.1]oct-6-en-3-one**(C₁₅H₁₆O₃; 50889-56-0) see: Dinoprost**6-O-[4-(phenylmethoxy)phenyl]-α-D-glucofuranose**(C₁₉H₂₂O₇) see: Prenalterol**[4-(phenylmethoxy)phenyl]hydrazine**(C₁₃H₁₄N₂O; 51145-58-5) see: Oxitriptan**5-(phenylmethoxy)-N-[(phenylmethoxy)carbonyl]-L-tryptophan**(C₂₆H₂₄N₂O₅; 3520-59-0) see: Oxitriptan**1-[4-(phenylmethoxy)phenyl]-2-[[2-[4-(phenylmethoxy)phenyl]ethylamino]-1-propanone**(C₃₁H₃₁NO₃) see: Ritodrine**1-[4-(phenylmethoxy)phenyl]-2-[4-(phenylmethyl)-1-piperidinyl]-1-propanone**(C₂₈H₃₁NO₂; 35133-39-2) see: Ifenprodil**1-[3-(phenylmethoxy)phenyl]-1,2-propanedione 2-oxime**(C₁₆H₁₅NO₃) see: Metaraminol**(±)-1-phenyl-3-(methylamino)propan-1-ol**(C₁₀H₁₅NO; 42142-52-9) see: Fluoxetine**N-phenyl-N-methyl-N'-(2-chlorobenzoyl)-2-hydroxy-1,3-diaminopropane**(C₁₇H₁₉ClN₂O₂; 61677-60-9) see: Metaclozepam**(R)-phenylmethyl [3-chloro-2-oxo-1-[(phenylthio)methyl]-propyl]carbamate**(C₁₈H₁₈ClNO₃S; 159878-01-0) see: Nelfinavir mesylate**3-[(phenylmethylene)amino]-2-oxazolidinone**(C₁₀H₁₀N₂O₂; 4341-14-4) see: Furazolidone**3-(phenylmethylene)-1(3H)-isobenzofuranone**(C₁₅H₁₀O₂; 575-61-1) see: Deptopine**N-phenyl-N-methyl-2-hydroxy-1,3-diaminopropane**(C₁₀H₁₆N₂O; 63062-22-6) see: Metaclozepam**α,α'-[[[(phenylmethyl)imino]bis(methylene)]bis[6-fluoro-3,4-dihydro-2H-1-benzopyran-2-methanol] stereoisomer**(C₂₉H₃₁F₂NO₄; 129050-28-8) see: Nebivolol**2-[(phenylmethyl)methylamino]-1-[4-(phenylmethoxy)phenyl]-1-propanone**(C₂₄H₂₅NO₂) see: Oxilofrine**[S-(R*,S*)]-phenylmethyl [1-oxiranyl-2-(phenylthio)ethyl]carbamate**(C₁₈H₁₉NO₃S; 163462-16-6) see: Nelfinavir mesylate**1-(phenylmethyl)-4-piperidinone oxime**(C₁₂H₁₆N₂O; 949-69-9) see: Clebopride**N-[1-(phenylmethyl)-4-piperidinylidene]benzamine**(C₁₈H₂₀N₂; 1155-57-3) see: Fentanyl**6-(phenylmethyl)-5H-pyrrolo[3,4-b]pyridine-5,7(6H)-dione**(C₁₄H₁₀N₂O₂; 18184-75-3) see: Moxifloxacin hydrochloride**1-phenyl-3-morpholino-1-propanone**(C₁₃H₁₇NO₂; 2298-48-8) see: Tiemonium iodide**phenylloxalacetic acid diethyl ester**

see under diethyl 3-oxo-2-phenylsuccinate

cis-3-phenylloxiranecarboxylic acid methyl ester(C₁₀H₁₀O₃; 40956-18-1) see: Paclitaxel**(2R,3R)-rel-3-phenylloxiranemethanol**(C₉H₁₀O₂; 40641-81-4) see: Reboxetine**4-phenylphenacyl bromide**(C₁₄H₁₁BrO; 135-73-9) see: Fentonium bromide

2-phenyl-4-phenylacetamido-3-pyrazolin-5-one(C₁₇H₁₅N₃O₂; 60588-53-6) see: D-Penicillamine**N-phenyl-N-[1-(phenylmethyl)-4-piperidinyl]propanamide**(C₂₁H₂₆N₂O; 1474-02-8) see: Fentanyl**3-phenylphthalide**(C₁₄H₁₀O₂; 5398-11-8) see: Nefopam**2(S)-[2-phenyl-1(S)-phthalimidoethyl]oxirane**(C₁₈H₁₅NO₃; 136465-80-0) see: Saquinavir**1-phenylpiperazine**(C₁₀H₁₄N₂; 92-54-6) see: Dropropizine; Oxypertine**4-phenyl-4-piperidinecarboxylic acid ethyl ester hydrochloride**(C₁₄H₂₀ClNO₂; 24465-45-0) see: Phenoperidine**phenyl 2-piperidinoethyl ether hydrochloride**(C₁₃H₂₀ClNO; 92196-25-3) see: Raloxifene hydrochloride**trans-4-phenyl-L-proline**(C₁₁H₁₃NO₂; 96314-26-0) see: Fosinopril**2-phenyl-1,3-propanediol**(C₉H₁₂O₂; 1570-95-2) see: Felbamate**3-phenyl-1-propanol**(C₉H₁₂O; 122-97-4) see: Fomocaine; Phenprobamate**3-phenyl-2-propenoic acid**(C₉H₈O₂; 621-82-9) see: Docetaxel

[2αR-(2α,4β,4αβ,6β,9α,11α,12α,12α,12β)]-3-phenyl-2-propenoic acid 12b-(acetyloxy)-12-(benzoyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-11-hydroxy-4a,8,13,13-tetramethyl-5-oxo-4,6-bis[[2,2,2-trichloroethoxy]-carbonyloxy]-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl ester

(C₄₄H₄₄Cl₆O₁₅; 95603-45-5) see: Docetaxel**3-phenyl-2-propenoic acid 1-(4-methoxyphenyl)hydrazide**(C₁₆H₁₆N₂O₂; 40093-54-7) see: Cinmetacin**3-phenylpropionic anhydride**(C₁₈H₁₈O₃; 15781-96-1) see: Nandrolone phenylpropionate**3-phenylpropyl chloride**(C₉H₁₁Cl; 104-52-9) see: Alverine; Fomocaine**3-phenylpropylmagnesium bromide**(C₉H₁₁BrMg; 1462-75-5) see: Vetrabutine**(1-phenylpropyl)malonic acid diethyl ester**(C₁₆H₂₂O₄; 37556-02-8) see: Phenprocoumon**p-[(1-phenylpyrazol-5-yl)sulfamoyl]carbanilic acid ethyl ester**(C₁₈H₁₈N₄O₄S; 93880-94-5) see: Sulfaphenazole**phenyl(2-pyridyl)acetonitrile**(C₁₃H₁₀N₂; 5005-36-7) see: Disopyramide;

Methylphenidate; Pheniramine

1-phenyl-1-(2-pyridyl)ethanol(C₁₃H₁₃NO; 19490-92-7) see: Doxylamine**phenylsuccinic acid**(C₁₀H₁₀O₄; 635-51-8) see: Phensuximide**phenylsuccinic acid bis(methylammonium) salt**(C₁₂H₂₀N₂O₄; 157399-22-9) see: Phensuximide**phenylsuccinic anhydride**(C₁₀H₈O₃; 1131-15-3) see: Phensuximide**phenylsulfinyl chloride**(C₆H₅ClOS; 4972-29-6) see: Hydroxyprogesterone**21-(phenylsulfinyl)pregna-4,17(20),20-trien-3-one**(C₂₇H₃₂O₂S; 63973-92-2) see: Hydroxyprogesterone**3-phenylsulfonyloxyquinuclidine**(C₁₃H₁₇NO₃S; 64099-43-0) see: Quinupramine**phenyl(2-thienyl)glycolic acid**(C₁₂H₁₀O₃S; 28560-51-2) see: Heteronium bromide; Oxitefonium bromide**α-phenyl-α-2-thienyl-4-morpholinepropanol**(C₁₇H₂₁NO₂S; 1227-99-2) see: Tiemonium iodide**(phenylthio)acetaldehyde**(C₈H₈OS; 66303-55-7) see: Sumatriptan**(4-phenylthiobenzoyl)dithioacetic acid**(C₁₅H₁₂OS₃; 41054-41-5) see: Tibeonium iodide**4-(phenylthio)benzyl chloride**(C₁₃H₁₁ClS; 1208-87-3) see: Fenticonazole**α-phenyl-2-thiophenecycolic acid 1-methyl-3-pyrrolidiny ester**(C₁₇H₁₉NO₃S; 93407-60-4) see: Heteronium bromide**4-(4-phenylthiophenyl)-1,3-dihydro-2H-1,5-benzodiazepine-2-thione**(C₂₁H₁₆N₂S₂; 41054-49-3) see: Tibeonium iodide**o-(phenylthio)phenyl isocyanate**(C₁₃H₉NOS; 13739-55-4) see: Quetiapine fumarate**(α-phenyl-o-tolyl)oxalacetic acid diethyl ester**(C₂₁H₂₂O₅; 22360-45-8) see: Setiptiline**4-phenyl-1,2,4-triazolidine-3,5-dione**(C₈H₇N₃O₂; 15988-11-1) see: Alfacalcidol**4-phenyl-1-(triphenylphosphoranylidene)-2-butanone**(C₂₈H₂₅OP; 16640-69-0) see: Latanoprost**2-(1-phenylvinyl)aniline**(C₁₄H₁₃N; 64097-92-3) see: Binedaline**phenytoin**(C₁₅H₁₂N₂O₂; 57-41-0) see: Fosphenytoin sodium**Phe-OMe**(C₁₀H₁₃NO₂; 2577-90-4) see: Aspartame; Desmopressin**phloroglucinol**(C₆H₆O₃; 108-73-6) see: Flopropione**phosgene**

(CCl₂O; 75-44-5) see: Amprenavir; Azlocillin; Bethanechol chloride; Biotin; Carbachol; Carbamazepine; Carbutamide; Carbuterol; Carisoprodol; Carmofur; Caroxazone; Chlorphenesin carbamate; Chlorzoxazone; Clomipramine; Cynarine; Demecarium bromide; Dimethoxanate; Distigmine bromide; Efavirenz; Enalapril; Estramustine phosphate; Ethinamate; Felbamate; Fencarbamide; Flosequin; Flumazenil; Glymidine; Irinotecan; Lenampicillin; Lisinopril; Meprobamate; Mezlocillin; Nefazodone hydrochloride; Nilutamide; Oxcarbazepine; Oxitropium bromide; Perlapine; Phenprobamate; Pinacidil; Pipazetate; Piperacillin; Pyridoxine; Quetiapine fumarate; Raloxifene hydrochloride; Styramate; Sulfaperin; Temocillin; Zileuton; Zolmitriptan

phosphoric acid mono(2-aminoethyl) monohexadecyl ester(C₁₈H₄₀NO₄P; 57303-02-3) see: Miltefosine**phosphoric acid mono(2-bromoethyl) monohexadecyl ester**(C₁₈H₃₈BrO₄P; 72358-41-9) see: Miltefosine**phosphorochloridic acid bis(1-methylethyl) ester**(C₆H₁₄ClO₃P; 2574-25-6) see: Isoflurophate**phosphorochloridic acid diphenyl ester**(C₁₂H₁₀ClO₃P; 2524-64-3) see: Meropenem**phosphorodichloridic acid 2,2,2-trichloroethyl ester**(C₂H₂Cl₅O₂P; 18868-46-7) see: Triclofos

phosphorothioic acid S-[2-(dimethylamino)ethyl]**O,O-diethyl ester**(C₈H₂₀NO₃PS; 3147-20-4) see: Ecothiopate iodide**phosphorus trichloride**(Cl₃P; 7719-12-2) see: Isoflurophate**phosphoryl chloride**(Cl₃OP; 10025-87-3) see: Cyclophosphamide; Estramustine phosphate; Etopophos; Ifosfamide; Miltefosine; Torasemide; Vidarabine**phosphorylcholine chloride**(C₅H₁₅ClNO₄P; 107-73-3) see: Citicoline**phthalaldehyde**(C₈H₆O₂; 643-79-8) see: Lacidipine**phthalazone**(C₈H₆N₂O; 119-39-1) see: Hydralazine**phthalic anhydride**(C₈H₆O₃; 85-44-9) see: Anisindione; Chlortalidone; Cilazapril; Deptropine; Fluorescein; Hydralazine; Indobufen; Indoprofen; Melfhalan; Phenolphthalein; Phthalylsulfathiazole; Pizotifen; Pramipexole hydrochloride; Saquinavir; Sulfaloxic acid; Thalidomide; Tilisolol hydrochloride**phthalide**(C₈H₆O₂; 87-41-2) see: Anisindione; Bromindione; Hydralazine; Indoprofen**phthalimide**(C₈H₅NO₂; 85-41-6) see: Guanadrel**phthalimide potassium**(C₈H₄KNO₂; 1074-82-4) see: Milnacipran hydrochloride; Zidovudine**phthalimidoacetyl chloride**(C₁₀H₆ClNO₃; 6780-38-7) see: Flurazepam; Ioxaglic acid; Prazepam**4-(phthalimido)cyclohexanol**(C₁₄H₁₅NO₃; 104618-31-7) see: Pramipexole hydrochloride**4-(phthalimido)cyclohexanone**(C₁₄H₁₃NO₃; 104618-32-8) see: Pramipexole hydrochloride**6-(phthalimidomethyl)-11H-dibenz[*b,e*]azepine**(C₂₃H₁₆N₂O₃; 74860-00-7) see: Epinastine hydrochloride**6-(phthalimidomethyl)-6,11-dihydro-5H-dibenz[*b,e*]azepine**(C₂₃H₁₈N₂O₃; 143878-20-0) see: Epinastine hydrochloride**phthalonitrile**(C₈H₄N₂; 91-15-6) see: Dihydralazine**N-phthaloyl-L-cysteine benzhydryl ester**(C₂₄H₁₉NO₄S; 102089-87-2) see: Temocapril**N-phthaloylglutamic acid**(C₁₃H₁₁NO₆; 6349-98-0) see: Thalidomide**N-phthaloylglutamic anhydride**(C₁₃H₉NO₅; 3343-28-0) see: Thalidomide**N-phthaloyl-L-glutamine**(C₁₃H₁₂N₂O₅; 3343-29-1) see: Thalidomide**N-phthaloylglucyl chloride**

see under phthalimidoacetyl chloride

phthalylglycylglycyl chloride(C₁₂H₉ClN₂O₄; 59180-28-8) see: Rilmazafone**phytol**(C₂₀H₄₀O; 150-86-7) see: Phytomenadione**phytomenadiol 1-acetate**(C₃₃H₅₀O₃; 50281-47-5) see: Phytomenadione**2-picoline**(C₆H₇N; 109-06-8) see: Betahistine; Bromazepam; Ibudilast; Perhexiline**4-picoline**(C₆H₇N; 108-89-4) see: Milrinone; Tirofiban hydrochloride**2-picoline 1-oxide**(C₆H₇NO; 931-19-1) see: Bromazepam**picolinic acid**(C₆H₅NO₂; 98-98-6) see: Rimiterol**picolinic acid 2,6-xylylide**(C₁₄H₁₄N₂O; 39627-98-0) see: Bupivacaine; Mepivacaine**2',6'-picolinoylylide**

see under picolinic acid 2,6-xylylide

3-picolyamine

see under 3-(aminomethyl)pyridine

3-picoly chloride(C₆H₆ClN; 3099-31-8) see: Indinavir sulfate**(±)-α-pinene**(C₁₀H₁₆; 80-56-8) see: Sobrerol**(±)-α-pinene oxide**(C₁₀H₁₆O; 95044-43-2) see: Sobrerol**L-pipecolic acid**(C₆H₁₁NO₂; 3105-95-1) see: Ropivacaine hydrochloride**pipecolinic acid 2,6-xylylide**(C₁₄H₂₀N₂O; 15883-20-2) see: Bupivacaine; Mepivacaine**pipecolinoyl chloride**(C₆H₁₀ClNO; 130606-00-7) see: Bupivacaine**L-pipecoloyl chloride**(C₆H₁₀ClNO) see: Ropivacaine hydrochloride**piperazine**(C₄H₁₀N₂; 110-85-0) see: Acefylline; Ciprofloxacin; Delavirdine mesilate; Doxazosin; Eprazinone; Eprozinol; Norfloxacin; Pipecuronium bromide; Pipemidic acid; Pipobroman; Piproxen; Quetiapine fumarate; Terazosin; Tirilazad mesilate; Zipeprol; Ziprasidone hydrochloride**piperazinoacetic acid pyrrolidide**(C₁₀H₁₉N₃O; 39890-45-4) see: Cinepazide**11-piperazinodibenzo[*b,f*][1,4]thiazepine**(C₁₇H₁₇N₃S; 5747-48-8) see: Quetiapine fumarate**6-piperazino-3,4-dihydro-2(1H)-quinolinone**(C₁₃H₁₇N₃O; 87154-95-8) see: Vesnarinone**2-piperazinoethanol**

see under 1-(2-hydroxyethyl)piperazine

10-(3-piperazinopropyl)-10H-pyrido[3,2-*b*][1,4]benzothiazine(C₁₈H₂₂N₄S; 42351-33-7) see: Oxypendyl**10-(3-piperazinopropyl)-2-trifluoromethylphenothiazine**(C₂₀H₂₂F₃N₃S; 2804-16-2) see: Fluphenazine; Oxaflumazine**2-(1-piperaziny)ethanol**

see under 1-(2-hydroxyethyl)piperazine

piperidine(C₅H₁₁N; 110-89-4) see: Acrivastine; Benproperine; Bietamiverine; Biperidene; Cycrimine; Dipiperodon; Dipyridamole; Dyclonine; Eperisone; Etazolol; Ketotifen; Minoxidil; Pancuronium bromide; Pifoxone; Pifoxolan; Piprozolol; Pridinol; Primaperone; Pyrvinium embonate; Raloxifene hydrochloride; Repaglinide; Roxatidine acetate; Trihexyphenidyl; Vecuronium bromide**4-piperidineacetic acid**(C₇H₁₃NO₂; 51052-78-9) see: Indalpine

piperidine-4-carboxamide(C₈H₁₂N₂O; 39546-32-2) see: Metopimazine; Pipamazine**piperidine-2-carboxylic acid (2,6-dimethylanilide)**

see under pipercolinic acid 2,6-xylylide

2-piperidineethanol(C₇H₁₅NO; 1484-84-0) see: Tiquizium bromide**piperidine hydrochloride**(C₅H₁₂ClN; 6091-44-7) see: Pipamperone; Tolperisone**2-(2-piperidinoethoxy)ethanol**(C₉H₁₉NO₂; 3603-43-8) see: Pipazetate**2-piperidinoethyl chloride**see under *N*-(2-chloroethyl)piperidine**2-(2-piperidino-1-methylethylamino)pyridine**(C₁₃H₂₁N₃; 16571-91-8) see: Propiram**4-piperidinopiperidine**(C₁₀H₂₀N₂; 4897-50-1) see: Irinotecan**4-piperidinopiperidine-4-carboxamide**

see under 4-carbamoyl-4-piperidinopiperidine

3-piperidinopropionaldehyde diethyl acetal(C₁₂H₂₅NO₂; 3770-69-2) see: Pipoxolan**3-piperidinopropiophenone**(C₁₄H₁₉NO; 73-63-2) see: Biperidene; Cycrimine; Pridinol; Trihexyphenidyl**2-(3-piperidinopropyl)-5-norbornene**(C₁₅H₂₃NO; 93778-71-3) see: Biperidene**2-(1-piperidinyl)benzaldehyde**(C₁₂H₁₅NO; 34595-26-1) see: Repaglinide***N*-4-piperidinyl-1,2-benzenediamine**(C₁₁H₁₇N₃; 83732-53-0) see: Timiperone**2-(1-piperidinyl)benzonitrile**(C₁₂H₁₄N₂; 72752-52-4) see: Repaglinide**4-[2-(1-piperidinyl)ethoxy]benzoyl chloride**(C₁₄H₁₈ClNO₂; 166975-76-4) see: Raloxifene hydrochloride**3-(1-piperidinylmethyl)phenol**(C₁₂H₁₇NO; 73279-04-6) see: Roxatidine acetate**3-[3-(1-piperidinylmethyl)phenoxy]propylamine**(C₁₅H₂₄N₂O; 73278-98-5) see: Roxatidine acetate**2-[3-[3-(1-piperidinylmethyl)phenoxy]propyl]-1*H*-iso-****indole-1,3(2*H*)-dione**(C₂₃H₂₆N₂O₃; 78273-91-3) see: Roxatidine acetate**4-piperidone**(C₅H₉NO; 41661-47-6) see: Sertindole**1-(4-piperidyl)-2-benzimidazolinone**(C₁₂H₁₅N₃O; 20662-53-7) see: Benperidol; Pimozide**1-(4-piperidyl)-2-benzimidazolone**

see under 1-(4-piperidyl)-2-benzimidazolinone

1-(4-piperidyl)-1,3-dihydro-2*H*-benzimidazole-2-thione(C₁₂H₁₅N₃S; 57648-17-6) see: Timiperone***N*-(4-piperidyl)propionanilide**(C₁₄H₂₀N₂O; 1609-66-1) see: Fentanyl**piperonal**(C₈H₆O₃; 120-57-0) see: Levodopa**1-piperonylpiperazine**

see under 1-(3,4-methylenedioxybenzyl)piperazine

piroxicam(C₁₅H₁₃N₃O₄S; 36322-90-4) see: Ampiroxicam; Piroxicam cyclodextrin**pivalic anhydride**(C₁₀H₁₈O₃; 1538-75-6) see: Clacortolone; Fluocortolone trimethylacetate**pivaloyl chloride**(C₅H₉ClO; 3282-30-2) see: Cefazolin; Ceftezole; Dexamethasone pivalate; Dipivefrine; Efavirenz; Prednisolone 21-trimethylacetate**pivaloyloxymethyl 6-aminopenicillanate tosylate**(C₂₁H₃₀N₂O₈S₂; 25031-03-2) see: Pivmecillinam**podophyllotoxin**(C₂₂H₂₂O₈; 518-28-5) see: Mitopodozide**potassium acetate**(C₂H₃KO₂; 127-08-2) see: Alfadolone acetate; Alfaxalone; Betamethasone; Carumonam; Dexamethasone; Diflorasone diacetate; Dorzolamide; Fluazacort; Flumetasone; Fluocortolone; Fluperolone acetate; Fluprednidene acetate; Ganciclovir; Halopredone diacetate; Paramethasone; Prednylidene**potassium L-aspartate**(C₄H₆KNO₄; 14007-45-5) see: *N*-Carbamoyl-L-aspartic acid calcium salt**potassium 2-bromobenzoate**(C₇H₄BrKO₂; 16497-87-3) see: Meclofenamic acid; Mefenamic acid**potassium *tert*-butylate**(C₄H₉KO; 865-47-4) see: Quinestrol**potassium cyanate**(CKNO; 590-28-3) see: Carbamazepine; *N*-Carbamoyl-L-aspartic acid calcium salt; Carbidopa; Dipyridamol; Domperidone; Nitrofurantoin; Sulfacarbamide; Sulfacitine**potassium cyanide**

(CKN; 151-50-8) see: Carbidopa; Clidanac; Etiroxate; Fenspiride; Fluspirilene; Gabapentin; Mesuximide; Methyl dopa; Metirosine; Papaverine; Phenytoin; Pipamperone; Pranoprofen; Praziquantel; Troglitazone

potassium dichloroiodate(Cl₂IK; 14459-64-4) see: Amidotrizoic acid; Iodamide**potassium ethyl malonate**(C₅H₇KO₄; 6148-64-7) see: Moxifloxacin hydrochloride; Sparfloxacin**potassium ethylxanthogenate**(C₃H₅KOS₂; 140-89-6) see: Cefaclor; Omeprazole; Pantoprazole sodium; Protizinic acid; Pyritinol**potassium hexachloroplatinate(IV)**(Cl₆K₂Pt; 16921-30-5) see: Cisplatin**potassium hydrogen phthalate**(C₈H₅KO₄; 877-24-7) see: Dolasetron mesilate**potassium hydroxylamine-*O*-sulfonate**(H₂KNO₄S; 49559-20-8) see: Ibudilast**potassium linolate**(C₁₈H₃₁KO₂; 3414-89-9) see: Dexamethasone 21-linolate**potassium monoethyl malonate**

see under potassium ethyl malonate

potassium phenolate(C₆H₅KO; 100-67-4) see: Nimesulide**potassium rhodanide**

(CKNS; 333-20-0) see: Carbimazole; Ceftriaxone; Etomidate; Riluzole

potassium tetrachloroplatinate(II)(Cl₄K₂Pt; 10025-99-7) see: Cisplatin; Oxaliplatin**potassium thiocyanate**

see under potassium rhodanide

prajmalium bromide(C₂₃H₃₃BrN₂O₂; 14046-99-2) see: Prajmalium bitartrate

prajmalium hydroxide (aldehyde base)(C₂₃H₃₂N₂O₂) see: Prajmalium bitartrate**prasterone**

see under androstrenolone

precholecalciferol(C₂₇H₄₄O; 1173-13-3) see: Colecalciferol**prednisolone**(C₂₁H₂₈O₅; 50-24-8) see: Loteprednol etabonate; Prednicarbate; Prednimustine; Prednisolamate; Prednisolone sodium phosphate; Prednisolone sodium succinate; Prednisolone sodium sulfobenzoate; Prednisolone steaglate; Prednisolone tebutate; Prednisolone 21-trimethylacetate; Prednival acetate**prednisolone-21-acetate**(C₂₃H₃₀O₆; 52-21-1) see: Dichlorisone**prednisolone 17,21-diethyl orthocarbonate**(C₂₆H₃₆O₇; 26129-79-3) see: Prednicarbate**prednisolone 17-ethylcarbonate**(C₂₄H₃₂O₇; 104286-02-4) see: Prednicarbate**prednisolone 21-phosphate (monosodium salt)**(C₂₁H₂₈NaO₈P; 2681-16-5) see: Prednisolone sodium phosphate**prednisolone 17-valerate**(C₂₆H₃₆O₆; 15180-00-4) see: Prednival acetate**prednylidene**(C₂₂H₂₈O₅; 599-33-7) see: Prednylidene diethylaminoacetate**preergocalciferol**(C₂₈H₄₄O; 21307-05-1) see: Ergocalciferol**(3β)-pregna-5,16,20-triene-3,20-diol 20-acetate 3-formate**(C₂₄H₃₂O₄; 62490-12-4) see: Desoxycortone acetate**pregnenolone**(C₂₁H₃₂O₂; 145-13-1) see: Desoxycortone acetate; Progesterone**pregnenolone acetate**(C₂₃H₃₄O₃; 1778-02-5) see: Prasterone**progesterone**(C₂₁H₃₀O₂; 57-83-0) see: Alfaxalone; Cortisone; Desoxycortone acetate; Hydrocortisone; Testolactone**proglumide**(C₁₈H₂₆N₂O₄; 6620-60-6) see: Proglumetacin**L(-)-prolinamide**(C₅H₁₀N₂O; 7531-52-4) see: Remoxipride**L-proline**(C₅H₉NO₂; 147-85-3) see: Captopril; Cetreorelix; Enalapril; Eptifibatide; Lisinopril**L-proline benzyl ester**(C₁₂H₁₅NO₂; 41324-66-7) see: Enalapril**L-proline benzyl ester hydrochloride**(C₁₂H₁₆ClNO₂; 16652-71-4) see: Lisinopril**L-proline tert-butyl ester**(C₉H₁₇NO₂; 2812-46-6) see: Captopril**L-Pro-L-Lys(Tos)-Gly-NH₂**(C₂₀H₃₁N₅O₅S; 6697-01-4) see: Felypressin**(S)-1,2-propanediamine**(C₃H₁₀N₂; 15967-72-3) see: Dexrazoxane**propanedioic acid mono[(4-nitrophenyl)methyl] ester magnesium salt**(C₂₀H₁₆MgN₂O₁₂; 105995-50-4) see: Meropenem**(R)-1,2-propanediol**(C₃H₈O₂; 4254-14-2) see: Levofloxacin**1,3-propanediol**(C₃H₈O₂; 504-63-2) see: Simfibrate**1,3-propanedithiol**(C₃H₈S₂; 109-80-8) see: Tacrolimus**4,4'-[1,3-propanediylbis(oxy)]bis[3-bromobenzonitrile]**(C₁₇H₁₂Br₂N₂O₂; 93840-60-9) see: Dibrompropamidine**propane sultone**(C₃H₆O₃S; 1120-71-4) see: Pyrantel; Sultroponium**propanoic anhydride**(C₆H₁₀O₃; 123-62-6) see: Alclometasone dipropionate; Alfentanil; Alphaprodine; Beclometasone; Dextropropoxyphene; Diethylstilbestrol dipropionate; Fentanyl; Propiran; Sulindac; Testosterone propionate**propanol**(C₃H₈O; 71-23-8) see: Propiverine; Propylidone**propargyl alcohol**(C₃H₄O; 107-19-7) see: Spironolactone**propargyl bromide**(C₃H₃Br; 106-96-7) see: Haloprogin; Pargyline; Parsamide; Pinazepam; Selegiline**2-propenyl (3S,4R)-3-[(1R)-1-[[[(1,1-dimethylethyl)dime-thylsilyl]oxy]ethyl]-2-oxo-4-[(2R)-[(tetrahydro-2-furanyl)-carbonyl]thio]-α-hydroxy-1-azetidineacetate**(C₂₁H₃₃NO₇SSi) see: Faropenem sodium[5R-3(R*),5α,6α(R*)]-2-propenyl 6-[1-[[[(1,1-dimethyl-ethyl)dimethylsilyl]oxy]ethyl]-7-oxo-3-(tetrahydro-2-fura-nyl)-4-thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylate (C₂₁H₃₃NO₅SSi; 120705-67-1) see: Faropenem sodium

[[[(1R)-1-(2-propenyl)dodecyl]oxy]methyl]benzene

(C₂₂H₃₆O; 152906-18-8) see: Orlistat**9-(2-propenylidene)-2-(trifluoromethyl)-9H-thioxanthene**(C₁₇H₁₁F₃S; 28973-34-4) see: Flupentixol**9-(2-propenyl)-2-(trifluoromethyl)-9H-thioxanthen-9-ol**(C₁₇H₁₃F₃OS) see: Flupentixol**Pro-Phe-O-CH₃**(C₁₅H₂₀N₂O₃; 54793-80-5) see: Angiotensinamide**propionaldehyde**(C₃H₆O; 123-38-6) see: Amorfline; Anethole; Ethiazide; Pramipexole hydrochloride; Proligestone; Retinol**propionaldehyde thiosemicarbazone**(C₄H₉N₃S; 22042-87-1) see: Sulfaethidole**propionic acid**(C₃H₆O₂; 79-09-4) see: Imiquimod**propionic anhydride**

see under propanoic anhydride

propionimidoylphloroglucinol(C₉H₁₁NO₃; 109817-53-0) see: Flopropione**propionitrile**(C₃H₅N; 107-12-0) see: Flopropione**propionyl chloride**(C₃H₅ClO; 79-03-8) see: Betamethasone butyrate propionate; Betamethasone dipropionate; Docarpamine; Erythromycin estolate; Erythromycin monopropionate mercaptosuccinate; Flavoxate; Fluticasone propionate; Naproxen; Prednicarbate; Quinethazone**2-propionyloxybenzoic acid**(C₁₀H₁₀O₄; 6328-44-5) see: Flavoxate**2-propionylphenothiazine**(C₁₅H₁₃NOS; 92-33-1) see: Carfenazine**3-propionylsalicylic acid**(C₁₀H₁₀O₄; 35888-92-7) see: Flavoxate

propiophenone

(C₉H₁₀O; 93-55-0) see: Amfepramone;
Dextropropoxyphene; Eprazinone; Mephenytoin;
Phendimetrazine; Phenmetrazine; Phenylpropanolamine;
Tamoxifen

(17β)-3-propoxyestra-1,3,5(10)-trien-17-ol

(C₂₁H₃₀O₂; 22034-63-5) see: Promestriene

2-propoxy-4-nitrobenzoic acid methyl ester

(C₁₁H₁₃NO₅) see: Propoxycaine

propylamine

(C₃H₉N; 107-10-8) see: Carticaine; Cropropamide;
Etidocaine; Prilocaine; Propafenone

propyl benzenesulfonate

(C₉H₁₂O₃S; 80-42-2) see: Propoxycaine

propyl bromide

(C₃H₇Br; 106-94-5) see: Prajmalium bitartrate;
Promestriene; Ropivacaine hydrochloride; Valproic acid

propylene

(C₃H₆; 115-07-1) see: Propofol

propylene oxide

(C₃H₆O; 75-56-9) see: Benproperine; Cadralazine;
Nifurtimox; Phenoxybenzamine; Protheobromine;
Proxiphylline; Secnidazole

(-)-propylhexedrine

(C₁₀H₂₁N; 6192-97-8) see: Barbexaclone

propyl homovanillate sodium salt

(C₁₂H₁₅NaO₄) see: Propanidid

D-6-propyl-8β-hydroxymethylergoline

(C₁₈H₂₄N₂O; 63719-21-1) see: Pergolide

propyl iodide

(C₃H₇I; 107-08-4) see: Pergolide

propyl isocyanate

(C₄H₇NO; 110-78-1) see: Chlorpropamide

2-propylisonicotinate

(C₉H₁₂N₂O; 80944-48-5) see: Protionamide

2-propylisonicotinonitrile

(C₉H₁₀N₂; 33744-19-3) see: Protionamide

propylmagnesium bromide

(C₃H₇BrMg; 927-77-5) see: Butofilolol; Venlafaxine

propyl 3-nitro-4-propoxybenzoate

(C₁₃H₁₇NO₅) see: Proxymetacaine

6-propyl-2-pyridone-4-carboxylic acid

(C₉H₁₁NO₃; 76594-12-2) see: Protionamide

propyl p-toluenesulfonate

(C₁₀H₁₄O₃S; 599-91-7) see: Proxymetacaine

2-propylvaleryl chloride

(C₈H₁₅ClO; 2936-08-5) see: Octatropine methylbromide

2-propynyl bromide

see under propargyl bromide

1-propynylmagnesium bromide

(C₃H₃BrMg; 16466-97-0) see: Dimethisterone;
Mifepristone

proscillaridin

(C₃₀H₄₂O₈; 466-06-8) see: Meproscillarin

prostaglandin F₂ 9,11-bis(tetrahydropyranyl ether)

(C₃₀H₅₀O₇; 67899-19-8) see: Dinoprostone

prostaglandin F_{2α} 11,15-bis(tetrahydropyran-2-yl ether)

(C₃₀H₅₀O₇; 37786-09-7) see: Epoprostenol

prostaglandin F_{2α} methyl ester

(C₂₁H₃₆O₅; 33854-16-9) see: Epoprostenol

purpureaglycoside A

(C₄₇H₇₄O₁₈; 19855-40-4) see: Digitoxin

pyrazinamide

(C₅H₅N₃O; 98-96-4) see: Morinamide

pyrazinecarbonitrile

(C₅H₃N₃; 19847-12-2) see: Indinavir sulfate

pyrazine-2-carboxylic acid

(C₅H₄N₂O₂; 98-97-5) see: Pyrazinamide

pyrazine-2,3-dicarboxylic acid

(C₆H₄N₂O₄; 89-01-0) see: Pyrazinamide

pyrazine-2,3-dicarboxylic anhydride

(C₆H₂N₂O₃; 4744-50-7) see: Zopiclone

pyrazole-1-carboximidine

(C₄H₆N₄; 4023-00-1) see: Zanamivir

(3-pyrazolyl)acetaldehyde hydrazone

(C₅H₈N₄; 17417-42-4) see: Betazole

Pyr-Gln-Asp-Tyr-N₃

(C₂₃H₂₈N₈O₉) see: Ceruletide

Pyr-Gln-Asp-Tyr-NH-NH₂

(C₂₃H₃₁N₇O₉; 17664-77-6) see: Ceruletide

Pyr-Gln-Asp-Tyr(SO₃H)-Thr(Ac)-Gly-Trp-Met-Asp-Phe-NH₂

(C₆₀H₇₅N₁₃O₂₂S₂; 88457-89-0) see: Ceruletide

pyridine

(C₅H₅N; 110-86-1) see: Carbinoxamine; Cefaloridine;
Cetylpyridinium chloride; Chlorphenamine; Diodone;
Pheniramine

4-pyridineacetic acid

(C₇H₇NO₂; 28356-58-3) see: Amrinone; Tirofiban
hydrochloride

4-pyridinebutanol

(C₉H₁₃NO; 5264-15-3) see: Tirofiban hydrochloride

pyridine-2-carbonyl chloride

(C₅H₄ClNO; 29745-44-6) see: Bupivacaine

pyridine-2-carboxaldehyde

(C₆H₅NO; 1121-60-4) see: Bisacodyl; Mefloquine;
Pralidoxime iodide

pyridine-3-carboxaldehyde

(C₆H₅NO; 500-22-1) see: Paroxetine

pyridine-4-carboxaldehyde

(C₆H₅NO; 872-85-5) see: Obidoxime chloride

pyridine-2-carboxaldehyde oxime

(C₆H₆N₂O; 873-69-8) see: Pralidoxime iodide

pyridine-4-carboxaldehyde oxime

(C₆H₆N₂O; 696-54-8) see: Obidoxime chloride

(±)-3-pyridinecarboxylic acid carboxyphenylmethyl ester

(C₁₄H₁₁NO₄; 101977-74-6) see: Micinicate

4-pyridinecarboxylic acid (1-methylethylidene)hydrazide

(C₉H₁₁N₃O; 4813-04-1) see: Iproniazid

pyridine-3-carboxylic anhydride

(C₁₂H₈N₂O₃; 16837-38-0) see: Micinicate

2,3-pyridinedicarboxylic acid

(C₇H₅NO₄; 89-00-9) see: Moxifloxacin hydrochloride

pyridinium p-toluenesulfonate

(C₁₂H₁₃NO₃S; 24057-28-1) see: Orlistat

4-(4-pyridinyl)butyl chloride

(C₉H₁₂ClN; 5264-17-5) see: Tirofiban hydrochloride

N-(2-pyridinylmethyl)-2,5-bis(2,2,2-trifluoroethoxy)benzamide

(C₁₇H₁₄F₆N₂O₃; 57415-36-8) see: Flecainide

(4-pyridinylmethyl)lithium(C₆H₆LiN; 26954-25-6) see: Tirofiban hydrochloride**(4-pyridinylthio)acetyl chloride**(C₇H₆ClNOS; 52998-13-7) see: Cefapirin**4(1H)-pyridone**(C₅H₄NO; 108-96-3) see: Diodone; Propylidone**pyridoxine**(C₈H₁₁NO₃; 65-23-6) see: Cicletanine; Pyridofylline**pyridoxine hydrochloride**(C₈H₁₂ClNO₃; 58-56-0) see: Pirsudanol**2-(3-pyridyl)acetic acid**(C₇H₇NO₂; 501-81-5) see: Risedronate sodium**3-pyridyl-D-alanine**(C₈H₁₀N₂O₂; 70702-47-5) see: Cetrorelix**α-2-pyridyl-2,8-bis(trifluoromethyl)-4-quinolinemethanol**(C₁₇H₁₀F₆N₂O; 68496-04-8) see: Mefloquine**N-(2-pyridyl)chloroacetamide**(C₇H₇ClN₂O; 5221-37-4) see: Piroxicam**2-(4-pyridyl)-3-dimethylaminoacrolein**(C₁₀H₁₂N₂O; 26866-49-9) see: Amrinone**4-pyridyldiphenylcarbinol**(C₁₈H₁₅N; 1620-30-0) see: Azacyclonol; Diphepanil metilsulfate**2-(2-pyridyl)ethanol**(C₇H₉NO; 103-74-2) see: Betahistine**4-pyridyl isothiocyanate**(C₆H₄N₂S; 76105-84-5) see: Pinacidil**2-pyridyllithium**(C₅H₄LiN; 17624-36-1) see: Mefloquine; Pirmenol hydrochloride**3-pyridyllithium**(C₅H₄LiN; 60573-68-4) see: Zimeldine**2-pyridylmagnesium bromide**(C₅H₄BrMgN; 21970-13-8) see: Mefloquine**4-pyridylmalonaldehyde**(C₈H₇NO₂; 51076-46-1) see: Amrinone**1-(4-pyridyl)-2-propanone**(C₈H₉NO; 6304-16-1) see: Milrinone**1-(4-pyridyl)pyridinium chloride**(C₁₀H₉ClN₂; 22752-98-3) see: Diodone**4-pyridylthioacetic acid**(C₇H₇NO₂S; 10351-19-6) see: Cefapirin**N-(4-pyridyl)-N'-(1,2,2-trimethylpropyl)thiourea**(C₁₂H₁₉N₃S; 67027-06-9) see: Pinacidil**N-[4-[(2-pyrimidinylamino)sulfonyl]phenyl]acetamide**(C₁₂H₁₂N₄O₃S; 127-74-2) see: Sulfadiazine**1-(pyrimidin-2-yl)piperazine**(C₈H₁₂N₄; 20980-22-7) see: Buspirone; Tansospirone**4-[4-(pyrimidin-2-yl)piperazin-1-yl]butylamine**(C₁₂H₂₁N₅; 33386-20-8) see: Buspirone; Tansospirone**1-(2-pyrimidyl)-4-(4-aminobutyl)piperazine**

see under 4-[4-(pyrimidin-2-yl)piperazin-1-yl]butylamine

4-(2-pyrimidyl)-1-(3-cyanopropyl)piperazine(C₁₂H₁₇N₅; 33386-14-0) see: Buspirone**1-(2-pyrimidyl)piperazine**

see under 1-(pyrimidin-2-yl)piperazine

pyrocatechol

see under catechol

pyrogallol(C₆H₆O₃; 87-66-1) see: Exifone; Gallamine triethiodide; Methoxsalen**DL-pyroglutamic acid**(C₅H₇NO₃; 149-87-1) see: Arginine pidolate**4H-pyrone**(C₅H₄O₂; 108-97-4) see: Betazole**pyrrole**(C₄H₅N; 109-97-7) see: Ketorolac**pyrrolidine**(C₄H₉N; 123-75-1) see: Amixetrine; Bepridil; Buflomedil; Clemizole; Cortisone; Dextromoramide; Endralazine; Fendosal; Fluoxymesterone; Piromidic acid; Procyclidine; Prolintanc; Propyramazine bromide; Pyrovalerone; Pyrrobutamine; Pyrrocaine; Ramosetron hydrochloride; Rocuronium bromide; Rolitetracycline; Tirilazad mesilate; Triprolidine; Vincamine**1-pyrrolidino-1-butene**(C₈H₁₅N; 13937-89-8) see: Vincamine**4-pyrrolidinobutyronitrile**(C₈H₁₄N₂; 35543-25-0) see: Buflomedil**(RS)-5-pyrrolidinocarbonyl-4,5,6,7-tetrahydro-1H-benzimidazole hydrochloride**(C₁₂H₁₈ClN₃O; 132036-42-1) see: Ramosetron hydrochloride**1-pyrrolidinocyclopentene**(C₉H₁₅N; 7148-07-4) see: Ramipril**2-pyrrolidino-3,4-dihydronaphthalene**(C₁₄H₁₇N; 21403-95-2) see: Fendosal**(2-pyrrolidinoethyl)triphenylphosphonium bromide**(C₂₄H₂₇BrNP; 23072-03-9) see: Acrivastine**3-pyrrolidinomethylrifamycin SV**(C₄₂H₅₆N₂O₁₂; 4075-42-7) see: Rifampicin**3-pyrrolidinopropiophenone**(C₁₃H₁₇NO; 94-39-3) see: Procyclidine; Pyrrobutamine**4-pyrrolidinopyridine**(C₉H₁₂N₂; 2456-81-7) see: Simvastatin**1-pyrrolidino-3-(4-tolyl)propan-3-one**

see under 4'-methyl-3-pyrrolidinopropiophenone

3-(1-pyrrolidinyl)pregna-3,5,17(20)-triene-11β,21-diol(C₂₅H₃₇NO₂; 115486-29-8) see: Cortisone**2-pyrrolidone**(C₄H₇NO; 616-45-5) see: Aniracetam; Piracetam; Pramiracetam hydrochloride**pyruvaldehyde**(C₃H₄O₂; 78-98-8) see: Folic acid**pyrvinium iodide**(C₂₆H₂₈IN₃; 35648-29-4) see: Pyrvinium embonate**Q****quinaldic acid**(C₁₀H₇NO₂; 93-10-7) see: Saquinavir**(-)-quinic acid**(C₇H₁₂O₆; 77-95-2) see: Oseltamivir**quinic acid γ-lactone**(C₇H₁₀O₅; 27783-00-2) see: Cynarine**quinine**(C₂₀H₂₄N₂O₂; 130-95-0) see: Quinidine

quinoline-2-carboxaldehyde(C₁₀H₇NO; 5470-96-2) see: Normolaxol**N²-(2-quinolinylcarbonyl)-L-asparagine**(C₁₄H₁₃N₃O₄; 136465-98-0) see: Saquinavir**quinoxaline**(C₈H₆N₂; 91-19-0) see: Pyrazinamide

R

Reichstein's substance S(C₂₁H₃₀O₄; 152-58-9) see: Hydrocortisone**reserpine**(C₃₃H₄₀N₂O₉; 50-55-5) see: Bietaserpine; Rescimetol**resorcinol**(C₆H₆O₂; 108-46-3) see: Carboxocromen; Fluorescein; Hexylresorcinol; Hymecromone; Phentolamine; Tioxolone**retinal**(C₂₀H₂₈O; 116-31-4) see: Betacarotene; Canthaxanthin; Retinol**retinol**(C₂₀H₃₀O; 68-26-8) see: Betacarotene**retinol acetate**(C₂₂H₃₂O₂; 127-47-9) see: Retinol**retinyl chloride**(C₂₀H₂₉Cl; 39668-34-3) see: Betacarotene**retinyl phenyl sulfone**(C₂₆H₃₄O₂S; 39668-37-6) see: Betacarotene**retroprogesterone**(C₂₁H₃₀O₂; 2755-10-4) see: Dydrogesterone**β-D-ribofuranosyl chloride triacetate**(C₁₁H₁₅ClO₇; 53402-29-2) see: Azacitidine**β-D-ribofuranosyl isocyanate 2,3,5-triacetate**(C₁₂H₁₅NO₈; 59285-13-1) see: Azacitidine**D-ribonic acid lactone**(C₅H₈O₅; 5336-08-3) see: Riboflavin**D-ribose**(C₅H₁₀O₅; 50-69-1) see: Riboflavin**ricinoleic acid**(C₁₈H₃₄O₃; 141-22-0) see: Azelaic acid; Undecylenic acid**ricinolic acid**

see under ricinoleic acid

rifamycin B(C₃₉H₄₉NO₁₄; 13929-35-6) see: Rifampicin**rifamycin O**(C₃₉H₄₇NO₁₄; 14487-05-9) see: Rifampicin**rifamycin S**(C₃₇H₄₅NO₁₂; 13553-79-2) see: Rifampicin; Rifaximin**rifamycin SV**(C₃₇H₄₇NO₁₂; 6998-60-3) see: Rifampicin**rutoside**(C₂₇H₃₀O₁₆; 153-18-4) see: Troxerutin

S

saccharin(C₇H₅NO₃S; 81-07-2) see: Meloxicam**saccharin sodium**(C₇H₄NNaO₃S; 128-44-9) see: Piroxicam**sarcosine ethyl ester**(C₅H₁₁NO₂; 13200-60-7) see: Tenoxicam**salicylaldehyde**(C₇H₆O₂; 90-02-8) see: Benzarone**salicylamide**(C₇H₇NO₂; 65-45-2) see: Chlorthenoxazine; Ethenzamide; Exalamide; Salacetamide**salicylic acid**(C₇H₆O₃; 69-72-7) see: Acetylsalicylic acid; Balsalazide sodium; Flavoxate; Hydroxyethyl salicylate; Mesalazine; Salazosulfapyridine; Salsalate**salicylic acid sodium salt**(C₇H₅NaO₃; 54-21-7) see: Choline salicylate; Mesalazine; Salicylic acid**sarcosine morpholide**(C₇H₁₄N₂O₂; 41458-73-5) see: Fominoben**scillaren A**(C₃₆H₅₂O₁₃; 124-99-2) see: Proscillaridin**scopolamine**(C₁₇H₂₁NO₄; 51-34-3) see: Butylscopolammonium bromide; Cimetropium bromide; Methscopolamine bromide; Oxitropium bromide**(-)-scopolamine**

see under scopolamine

(1α,3β,6Z)-9,10-secocholesta-5(10),6-diene-1,3-diol(C₂₇H₄₆O₂; 57102-19-9) see: Alfalcidol**(3β,6Z)-9,10-secocholesta-5(10),6,8-triene-3,25-diol 3-acetate**(C₂₉H₄₆O₃; 142886-05-3) see: Calcifediol**(1α,3β,6Z)-9,10-secocholesta-5(10),6,8-triene-1,3,25-triol**(C₂₇H₄₄O₃; 57102-09-7) see: Calcitriol**[(1α,3β,5E,7E,22E)-9,10-secoergosta-5,7,10(19),22-tetraene-1,3-diyl]bis(oxy)bis[(1,1-dimethylethyl)dimethylsilane]**(C₄₀H₇₂O₂Si₂; 111594-58-2) see: Calcipotriol**semicarbazide**(CH₅N₃O; 57-56-7) see: Azimilide hydrochloride; Carbazochrome; Cortisone; Fluazacort; Trazodone**semicarbazide hydrochloride**(CH₆ClN₃O; 563-41-7) see: Desoximetasone; Hydrocortisone; Nitrofuraz**semicarbazidoacetic acid**(C₃H₇N₃O₃; 138-07-8) see: Nitrofurantoin**D-serine**(C₃H₇NO₃; 312-84-5) see: Cycloserine**L-serine**(C₃H₇NO₃; 56-45-1) see: Cetrorelix; Oxitriptan**DL-serine hydrazide**(C₃H₉N₃O₂; 64616-76-8) see: Benserazide**D-serine methyl ester hydrochloride**(C₄H₁₀ClNO₃; 5874-57-7) see: Cycloserine**N-(DL-seryl)-2,3,4-trihydroxybenzaldehyde hydrazone**(C₁₀H₁₃N₃O₅) see: Benserazide**(-)-shikimic acid**(C₇H₁₀O₅; 138-59-0) see: Oseltamivir**silver dibenzyl phosphate**(C₁₄H₁₄AgO₄P; 50651-75-7) see: Fosphenytoin sodium**silver difluoride**(AgF₂; 7783-95-1) see: Perflunafene

silver dihydrogen phosphate(AgH₂O₄P; 18725-91-2) see: Betamethasone phosphate**silver nitrate**(AgNO₃; 7761-88-8) see: Carboplatin**silver sulfate**(Ag₂O₄S; 10294-26-5) see: Carboplatin**sisomicin**(C₁₉H₃₇N₅O₇; 32385-11-8) see: Netilmicin**sodium acetate**(C₂H₃NaO₂; 127-09-3) see: α-Acetyldigoxin; Dextrothyroxine; Fluazacort; Fluprednidene acetate; Pioglitazone; Pyrrocaine**sodium acetoacetic acid ethyl ester**(C₆H₉NaO₃; 19232-39-4) see: Pentoxifylline**sodium acetylide (Na(C2H))**(C₂HNa; 1066-26-8) see: Retinol**sodium amide**(H₂NNa; 7782-92-5) see: Milnacipran hydrochloride**sodium 5-(3-aminopropyl)-4,6-dihydroxy-1,3,2,4,6-dioxatriphosphorinan-5-olate 2,4,6-trioxide**(C₄H₁₁NNaO₈P₃) see: Alendronate sodium**sodium azide**(N₃Na; 26628-22-8) see: Alfentanil; Azosemide; Benazepril; Docetaxel; Fluazacort; Imiquimod; Irbesartan; Midodrine; Oseltamivir; Paclitaxel; Pemirolast; Pranlukast; Tazanolast; Tranylcypromine; Zanamivir; Zidovudine**sodium benzenesulfinate**(C₆H₅NaO₂S; 873-55-2) see: Betacarotene; Retinol**sodium 1,2-benzisoxazole-3-methanesulfonate**(C₈H₆NNaO₄S; 73101-64-1) see: Zonisamide**sodium benzoate**(C₇H₅NaO₂; 532-32-1) see: Benzyl benzoate; Flavoxate; Stavudine**sodium chloroacetate**(C₂H₂ClNaO₂; 3926-62-3) see: Betaine hydrate**sodium 2-(4-chlorophenoxy)-2-methylpropionate**(C₁₀H₁₀ClNaO₃; 7314-47-8) see: Ronifibrate**sodium cyanate**

(CNNaO; 917-61-3) see: Carisoprodol; Hydroxycarbamide; Orotic acid; Prazosin

sodium cyanide

(CNNa; 143-33-9) see: Alclofenac; Alpidem; Amphetamine; Atorvastatin calcium; Azatidine; Calcium pantothenate; Carnitine; Clopidogrel hydrogensulfate; Clortermine; Dexrazoxane; Diclofenac; Diloxanide; Edetic acid; Epinastine hydrochloride; Ethosuximide; Ethotoin; Fenoprofen; Ibuprofen; Irbesartan; Ketoprofen; Lonazolac; Mephenytoin; Mepindolol; Montelukast sodium; Nabilone; Oxymetazoline; Paramethadione; Pentorex; Saquinavir; Suprofen; Thiamphenicol; Tolmetin; Trimazosin; Zolpidem

sodium cyanoborohydride(CH₃BNNa; 25895-60-7) see: Fluoxetine; Netilmicin; Rizatriptan benzoate**sodium 2,6-dimethylphenolate**(C₈H₉NaO; 16081-16-6) see: Mexiletine**sodium ethylate**(C₂H₅NaO; 141-52-6) see: Azelastine; Emorfazone; Methypylon; Oseltamivir; Pentobarbital; Promestriene; Propallylonal; Protonamide**sodium 2-ethylhexanoate**(C₈H₁₅NaO₂; 19766-89-3) see: Faropenem sodium**sodium formaldehydesulfoxalate**(CH₃NaO₃S; 149-44-0) see: Sulfoxone sodium**sodium formate**(CHNaO₂; 141-53-7) see: D-Penicillamine**sodium [2S-(2R*,3R*,5S*)]-2-hexyl-5-hydroxy-3-(phenyl-methoxy)hexadecanoate**(C₂₉H₄₉NaO₄) see: Orlistat**sodium 3-hydroxy-2-naphthoate**(C₁₁H₇NaO₃; 14206-62-3) see: Bephenium hydroxynaphthoate**sodium D(-)-α-(4-hydroxyphenyl)-α-(2-methoxycarbonyl-1-methylethenylamino)acetate**

see under DANE salt

sodium methylate(CH₃NaO; 124-41-4) see: Atorvastatin calcium; Brinzolamide; Ciprofloxacin; Cisapride; Dextrothyroxine; Epirizole; Hydroxyprogesterone; Metaclozepam; Moxifloxacin hydrochloride; Moxonidine; Oxcarbazepine; Pantoprazole sodium; Sulfadimethoxine; Sulfalene; Sulfamethoxypyridazine; Tacrolimus; Vincamine**sodium 3,4-(methylenedioxy)phenolate**(C₇H₅NaO₃; 51114-03-5) see: Paroxetine**sodium 4-nitrophenolate**(C₆H₄NNaO₃; 824-78-2) see: Dofetilide; Tiocarlid**sodium orotate**(C₅H₃N₂NaO₄; 154-85-8) see: Orazamide**sodium phenolate**(C₆H₅NaO; 139-02-6) see: Bephenium hydroxynaphthoate; Bumetanide; Fomocaine; Salicylic acid**sodium phenylacetate**

see under phenylacetic acid sodium salt

sodium phenylmercaptide(C₆H₅NaS; 930-69-8) see: Ox fendazole**sodium phenylsulfinate**

see under sodium benzenesulfinate

sodium phosphite(HNa₂O₃P; 13708-85-5) see: Fosinopril**sodium pyruvate**(C₃H₃NaO₃; 113-24-6) see: Flurbiprofen**sodium salicylate**

see under salicylic acid sodium salt

sodium 3-sulfobenzoate(C₇H₅NaO₃S; 17625-03-5) see: Prednisolone sodium sulfobenzoate**sodium S-tetrahydrofurfuryl thiosulfate**(C₅H₉NaO₄S₂; 77339-73-2) see: Fursultiamine**sodium 1,2,4-triazolide**(C₂H₂N₃Na; 41253-21-8) see: Anastrozole; Rizatriptan benzoate**D-sorbitol**(C₆H₁₄O₆; 50-70-4) see: Ascorbic acid; Isosorbide dinitrate**L-sorbose**(C₆H₁₂O₆; 87-79-6) see: Ascorbic acid**stearic acid**(C₁₈H₃₆O₂; 57-11-4) see: Choline stearate**stearoyl chloride**(C₁₈H₃₃ClO; 112-76-5) see: Erythromycin stearate**stearoylglycoloyl chloride**(C₂₁H₃₇ClO₃; 7454-39-9) see: Prednisolone stearate**N-(stearoyloxy)-5-norbornene-2,3-dicarboximide**(C₂₇H₄₃NO₄; 77290-17-6) see: Romurtide

stigmasterol(C₂₉H₄₈O; 83-48-7) see: Methandriol**streptomycin hydrochloride**(C₂₁H₄₀ClN₇O₁₂; 7177-57-3) see: Streptoniazid**streptomycin sulfate**(C₄₂H₆₄N₁₄O₃₆S₃; 3810-74-0) see: Dihydrostreptomycin sulfate**k-strophanthin-β**(C₃₆H₅₄O₁₄; 560-53-2) see: k-Strophanthin-α**k-strophanthin-γ**(C₄₂H₆₄O₁₉; 33279-57-1) see: k-Strophanthin-α**k-strophanthoside**

see under k-strophanthin-γ

styrene(C₈H₈; 100-42-5) see: Amixetrine; Ciprofibrate; Eprazinone; Eprozinol; Fluoxetine; Tranlylcypromine; Zipeprol**styrene oxide**(C₈H₈O; 96-09-3) see: Fenyramidol; Levamisole; Mianserin**succinaldehyde**(C₄H₆O₂; 638-37-9) see: Homatropine**succinic anhydride**(C₄H₄O₃; 108-30-5) see: Benfurodil hemisuccinate; Bucloxic acid; Carboxolone; Chlorambucil; Deferoxamine; Estriol succinate; Fenbufen; Florantyrone; lbutilide fumarate; Oxaprozin; Piretanide; Pirsudanol; Prednisolone sodium succinate; Succinylsulfathiazole; Suxibuzone**succinimido 4-hydroxy-6-methylnicotinate**(C₁₁H₁₀N₂O₅; 80388-37-0) see: Cefpiramide**succinimido (S)-3-tetrahydrofuryl carbonate**(C₉H₁₁NO₆; 138499-08-8) see: Amprenavir**succinyl chloride**(C₄H₄Cl₂O₂; 543-20-4) see: Suxamethonium chloride**sucrose**(C₁₂H₂₂O₁₁; 57-50-1) see: L(-)-Ephedrine; Sucralfate**sulbactam**(C₈H₁₁NO₅S; 68373-14-8) see: Sultamicillin**sulfacarbamide**(C₇H₉N₃O₃S; 547-44-4) see: Sulfaloxic acid**sulfachlorpyridazine**(C₁₀H₉ClN₃O₂S; 80-32-0) see: Sulfamethoxypyridazine**sulfafurazole**(C₁₁H₁₃N₃O₃S; 127-69-5) see: Acetylsulfafurazole**sulfaguanidine**(C₇H₁₀N₄O₂S; 57-67-0) see: Sulfaperin**sulfamide**(H₄N₂O₂S; 7803-58-9) see: Famotidine**4-sulfamoylbenzoic acid**(C₇H₇NO₄S; 138-41-0) see: Halazone**sulfamoyl chloride**(ClH₂NO₂S; 7778-42-9) see: Topiramate**3-sulfamoyl-4-chlorobenzenesulfonyl chloride**(C₆H₅Cl₂NO₄S₂; 61450-06-4) see: Mefruside**3-sulfamoyl-4-chlorobenzoic acid**

see under 4-chloro-3-sulfamoylbenzoic acid

3-sulfamoyl-4-chlorobenzoyl chloride

see under 4-chloro-3-sulfamoylbenzoyl chloride

5-sulfamoyl-4-chloro-N-ethoxycarbonylanthranilic acid(C₁₀H₁₁ClN₂O₆S; 35442-36-5) see: Metolazone**4-sulfamoyl-5-chloro-N-ethoxycarbonyl-2-methylaniline**(C₁₀H₁₃ClN₂O₄S; 35442-35-4) see: Metolazone**6-sulfamoyl-7-chloroisatoic anhydride**(C₈H₅ClN₂O₅S; 23380-53-2) see: Metolazone**5-sulfamoyl-4-chloro-3-nitrobenzoic acid**(C₇H₅ClN₂O₆S; 22892-96-2) see: Bumetanide**7-sulfamoyl-6-chloro-3-oxo-3,4-dihydro-2H-1,2,4-benzothiadiazine 1,1-dioxide**

see under 6-chloro-3,4-dihydro-3-oxo-2H-1,2,4-benzothiadiazine-7-sulfonamide S,S-dioxide

5-sulfamoyl-4,5-dichlorobenzoic acid(C₇H₅Cl₂NO₄S; 2736-23-4) see: Furosemide**5-sulfamoyl-3-nitro-4-phenoxybenzoic acid**

see under 3-nitro-4-phenoxy-5-sulfamoylbenzoic acid

sulfanilamide(C₆H₈N₂O₂S; 63-74-1) see: Sulfabenzamide; Sulfacetamide; Sulfachlorpyridazine; Sulfaguanidine; Sulfametrole; Sultiame**sulfanilic acid**(C₆H₇NO₃S; 121-57-3) see: Mesalazine**sulfapyridine**(C₁₁H₁₁N₃O₂S; 144-83-2) see: Salazosulfapyridine**sulfathiazole**(C₉H₉N₃O₂S₂; 72-14-0) see: Phthalylsulfathiazole; Succinylsulfathiazole**sulfathiourea**(C₇H₉N₃O₂S₂; 515-49-1) see: Mafenide**1,1'-sulfinylbisimidazole**(C₆H₆N₄OS; 3005-50-3) see: Bifonazole; Croconazole; Misoprostol**4-sulfobenzendiazonium sulfate (1:1)**(C₆H₆N₂O₇S₂; 65365-61-9) see: Mesalazine**2-sulfobenzoic acid 1-methyl ester**(C₈H₈O₅S; 57897-77-5) see: Saccharin**N¹-sulfo-N²-benzyloxycarbonyl-O-methylsulfonyl-L-threoninamide tetrabutylammonium salt**(C₂₉H₅₃N₃O₉S₂; 80082-56-0) see: Aztreonam**3-sulfonamido-4-(3-methylanilino)pyridine**(C₁₂H₁₃N₃O₂S; 72811-73-5) see: Torasemide**"sulfone C₄₀"**(C₄₆H₆₂O₂S; 39668-35-4) see: Betacarotene**[[[(1α,3β,7E,22E)-6,19-sulfonyl-9,10-secoergosta-5(10),7,22-triene-1,3-diyl]bis(oxy)]bis[(1,1-dimethyl-ethyl)dimethylsilane]**(C₄₀H₇₂O₄SSi₂; 170081-46-6) see: Calcipotriol**(3β,7E,22E)-6,19-sulfonyl-9,10-secoergosta-5(10),7,22-trien-3-ol**(C₂₈H₄₄O₃S; 87680-65-7) see: Calcipotriol**α-sulfophenylacetic acid**(C₈H₈O₃S; 41360-32-1) see: Sulbenicillin**(R)-α-sulfophenylacetyl chloride**(C₈H₇ClO₄S; 39925-35-4) see: Cefsulodin**5-(4-sulfophenylazo)salicylic acid**(C₁₃H₁₀N₂O₆S; 21542-82-5) see: Mesalazine**5-sulfosalicylic acid**(C₇H₆O₆S; 97-05-2) see: Domiodol**3-sulfo-2-thiophenecarboxylic acid**(C₅H₄O₃S₂; 59337-95-0) see: Tenoxicam**sulfuric acid zinc salt (1:1) heptahydrate**(H₁₄O₅SZn; 7446-20-0) see: Pyriithione zinc

sulfur trioxide-2-picoline complex
(C₆H₇NO₃S; 18370-14-4) see: Carumonam

T

(-)-tabersonine

(C₂₁H₂₄N₂O₂; 4429-63-4) see: Vincamine

cis,trans-tamoxifen

(C₂₆H₂₉NO; 7728-73-6) see: Tamoxifen

L-tartaric acid

(C₄H₆O₆; 87-69-4) see: Detajmium bitartrate; Prajmalium bitartrate; Selegiline

testosterone

(C₁₉H₂₈O₂; 58-22-0) see: Drostanolone; Testosterone cypionate; Testosterone enanthate; Testosterone propionate; Trilostane

2,3,4,6-tetra-O-acetyl-β-D-glucopyranose

(C₁₄H₂₀O₁₀; 3947-62-4) see: Teniposide

S-(2,3,4,6-tetra-O-acetyl-β-D-glucopyranosyl)thiuronium bromide

(C₁₅H₂₃BrN₂O₉S; 40591-65-9) see: Auranofin

1,2,3,5-tetra-O-acetyl-β-D-ribofuranose

(C₁₃H₁₈O₉; 13035-61-5) see: Azacitidine; Ribavirin

2,2',4,4'-tetraaminodiphenylmethane

(C₁₃H₁₆N₄; 181189-62-8) see: Acriflavinium chloride

2,4,5,6-tetraaminopyrimidine

(C₄H₈N₆; 1004-74-6) see: Fludarabine phosphate; Methotrexate

2,4,5,6-tetraaminopyrimidine dihydrobromide

(C₄H₁₀Br₂N₆; 158754-80-4) see: Methotrexate

tetrabromopyrocatechol

(C₆H₂Br₄O₂; 488-47-1) see: Bibrocatol

tetrabutylammonium (3S,4S)-3-(benzyloxycarbonylamino)-4-hydroxymethyl-2-oxoazetidine-1-sulfonate

(C₂₈H₄₉N₃O₇S; 92973-33-6) see: Carumonam

tetrabutylammonium hydrogen sulfate

(C₁₆H₃₇NO₄S; 32503-27-8) see: Aztreonam; Carumonam

tetrachloromethane

(CCl₄; 56-23-5) see: Tienilic acid

2,4,6,8-tetrachloropyrimido[5,4-d]pyrimidine

(C₆Cl₄N₄; 32980-71-5) see: Dipyridamol

tetracycline

(C₂₂H₂₄N₂O₈; 60-54-8) see: Lymecycline; Penimepicycline; Rolitetracycline

2,3,7,8-tetradecoxy-2,8-dimethyl-4,6-di-O-methyl-L-glycero-L-manno-nonaric acid dimethyl ester

(C₁₅H₂₈O₇; 118299-02-8) see: Tacrolimus

2,3,7,8-tetradecoxy-2,8-dimethyl-4,6-di-O-methyl-L-glycero-L-talo-nonuronic acid δ-lactone cyclic 1-(1,3-propanediyl dithioacetal)

(C₁₆H₂₈O₄S₂; 118227-57-9) see: Tacrolimus

2,3,7,8-tetradecoxy-5-[[[(1,1-dimethylethyl)dimethylsilyloxy]-L-arabino-nonanoic acid di-γ-lactone

(C₁₅H₂₆O₅Si) see: Tacrolimus

2,3,7,8-tetradecoxy-2,8-dimethyl-5-O-(phenylmethyl)-L-glycero-L-manno-nonaric acid di-γ-lactone

(C₁₈H₂₂O₅; 118246-95-0) see: Tacrolimus

tetraethyl (cycloheptylamino)methylenebis(phosphonate)

(C₁₆H₃₅NO₆P₂; 124351-81-1) see: Incadronic acid

tetraethylene glycol

(C₈H₁₈O₅; 112-60-7) see: Iotroxic acid

tetraethyl orthocarbonate

see under ethyl orthocarbonate

2,3,4,5-tetrafluorobenzoyl chloride

(C₇HClF₄O; 94695-48-4) see: Levofloxacin; Rufloxacin hydrochloride

(S)-2,3,4,5-tetrafluoro-α-[[[(2-hydroxy-1-methylethyl)amino]methylene]-β-oxobenzenepranoic acid ethyl ester

(C₁₅H₁₅F₄NO₄; 110548-02-2) see: Levofloxacin

1,2,3,4-tetrahydroacridine

(C₁₃H₁₃N; 3295-64-5) see: Tacrine

1,2,3,4-tetrahydro-9-acridinecarboxamide

(C₁₄H₁₄N₂O; 42878-53-5) see: Tacrine

1,2,3,4-tetrahydroacridine N-oxide

(C₁₃H₁₃NO; 24403-51-8) see: Tacrine

1,2,3,4-tetrahydro-9-acridone

(C₁₃H₁₃NO; 13161-85-8) see: Tacrine

2,3,4,5-tetrahydro-1H-benzazepin-2-one

(C₁₀H₁₁NO; 4424-80-0) see: Benzazepil

(RS)-4,5,6,7-tetrahydro-1H-benzimidazole-5-carboxylic acid

(C₈H₁₀N₂O₂; 26751-24-6) see: Ramosetron hydrochloride

(3aS-cis)-tetrahydro-1,3-bis(phenylmethyl)-1H-furo-[3,4-d]imidazole-2,4-dione

(C₁₉H₁₈N₂O₃; 28092-62-8) see: Biotin

1,2,4,9-tetrahydrocarbazol-3-one

(C₁₂H₁₁NO; 51145-61-0) see: Ramatroban

(4aR-cis)-4,4a,5,7a-tetrahydrocyclopenta-1,3-dioxin-2-one

(C₇H₈O₃; 159418-20-9) see: Abacavir

(3aS,8aR)-3,3a,8,8a-tetrahydro-2,2-dimethyl-3-[2(S)-benzyl-5-[4-(tert-butoxycarbonyl)-2(S)-(tert-butylcarbamoyl)-piperazino]-4(R)-hydroxyvaleryl]-2H-indeno[1,2-d]oxazole

(C₃₈H₅₄N₄O₆; 166740-50-7) see: Indinavir sulfate

(3aS,8aR)-3,3a,8,8a-tetrahydro-2,2-dimethyl-3-[2(S)-benzyl-5-[2(S)-(tert-butylcarbamoyl)piperazino]-4(R)-hydroxyvaleryl]-2H-indeno[1,2-d]oxazole

(C₃₃H₄₆N₄O₄; 182950-24-9) see: Indinavir sulfate

(3aS,8aR)-3,3a,8,8a-tetrahydro-2,2-dimethyl-3-[(2S)-2-benzyl-4-pentenoyl]-2H-indeno[1,2-d]oxazole

(C₂₄H₂₇NO₂; 150323-06-1) see: Indinavir sulfate

[3aS-[3[S*(R*)],3α,8α]]-3,3a,8,8a-tetrahydro-2,2-dimethyl-3-[2-(oxiranylmethyl)-1-oxo-3-phenylpropyl]-2H-indeno[1,2-d]oxazole

(C₂₄H₂₇NO₃; 158512-24-4) see: Indinavir sulfate

(3aS,8aR)-3,3a,8,8a-tetrahydro-2,2-dimethyl-3-(3-phenylpropionyl)-2H-indeno[1,2-d]oxazole

(C₂₁H₂₃NO₂; 141018-37-3) see: Indinavir sulfate

9,10,11,12-tetrahydro-9,10-[4,5][1,3]dioxoloanthracen-14-one

(C₁₇H₁₂O₃; 5675-70-7) see: Bisantrene

(R)-(+)-tetrahydrofuran-2-carboxylic acid

(C₅H₈O₃; 87392-05-0) see: Faropenem sodium

(±)-tetrahydrofuran-2-carboxylic acid

(C₅H₈O₃; 16874-33-2) see: Alfuzosin; Faropenem sodium

tetrahydro-2-furancarboxylic acid anhydride with ethyl hydrogen carbonate

(C₈H₁₂O₅; 167391-50-6) see: Alfuzosin

- (*R*)-(±)-tetrahydrofuran-2-thiocarboxylic acid
(C₅H₈O₂S; 153165-72-1) see: Faropenem sodium
- (3*S*)-tetrahydro-3-furanyl [(1*S*,2*R*)-2-hydroxy-3-[(2-methylpropyl)amino]-1-(phenylmethyl)propyl]carbamate
(C₁₉H₃₀N₂O₄; 160232-13-3) see: Amprenavir
- (3*S*)-tetrahydro-3-furanyl [(1*S*,2*R*)-2-hydroxy-3-[(2-methylpropyl)[(4-nitrophenyl)sulfonyl]amino]-1-(phenylmethyl)propyl]carbamate
(C₂₅H₃₃N₃O₈S; 160231-69-6) see: Amprenavir
- (3*S*)-tetrahydro-3-furanyl [(1*S*)-1-(2*S*)-oxiranyl-2-phenylethyl]carbamate
(C₁₅H₁₉NO₄; 160232-70-2) see: Amprenavir
- [*S*-(*R**,*R**)]-tetrahydro-3-furanyl [1-(phenylmethyl)-2-propenyl]carbamate
(C₁₅H₁₉NO₃; 189312-59-2) see: Amprenavir
- tetrahydrofurfuryl acetate
(C₇H₁₂O₃; 637-64-9) see: Oxypyrronium bromide
- tetrahydrofurfuryl alcohol
(C₅H₁₀O₂; 97-99-4) see: Nicotafuryl
- tetrahydrofurfuryl chloride
(C₅H₉ClO; 3003-84-7) see: Naftidrofuryl
- 2-(tetrahydrofurfuryloxy)phenol
(C₁₁H₁₄O₃; 41516-19-2) see: Bufetolol
- N*-(2-tetrahydrofuroyl)piperazine
(C₉H₁₆N₂O₂; 63074-07-3) see: Terazosin
- [5*R*-(5*α*,6*α*,7*β*,8*α*)]-5,6,7,8-tetrahydro-8-hydroxy-7-(hydroxymethyl)-5-(3,4,5-trimethoxyphenyl)naphtho[2,3-*d*]-1,3-dioxole-6-carboxylic acid hydrazide
(C₂₂H₂₆N₂O₈; 78178-41-3) see: Mitopodozide
- [3*aS*-[3(2*S**,4*R**)-3*aα*,8*aα*]]-3,3*a*,8,8*a*-tetrahydro-3-[4-hydroxy-5-iodo-1-oxo-2-(phenylmethyl)pentyl]-2,2-dimethyl-2*H*-indeno[1,2-*d*]oxazole
(C₂₄H₂₈INO₃; 165883-49-8) see: Indinavir sulfate
- 2,3,8*a*-tetrahydro-6-hydroxy-5-methoxycyclopent[*i*]isoquinolin-7(1*H*)-one
(C₁₃H₁₅NO₃; 54192-68-6) see: Glaziovine
- cis*-1,2,3,4-tetrahydro-2-hydroxy-1-(1-methylethyl)-2-naphthaleneethanol
(C₁₅H₂₂O₂; 104204-96-8) see: Mibefradil hydrochloride
- [3*R*-[3*α*(*S**)-5*β*]]-tetrahydro-5-(iodomethyl)- γ -[(4-methoxyphenyl)methoxy]-3-furanpropanol
(C₁₆H₂₃IO₄; 128684-80-0) see: Tacrolimus
- [1*R*-[1*α*[*E*(α *S**, β *S**, γ *S**, ϵ *S**(3*R**,5*S**))]]-3*α*,4*β*]]-tetrahydro-5-(iodomethyl)- ϵ -[(4-methoxyphenyl)methoxy]- α -[2-[3-methoxy-4-[[tris(1-methylethyl)silyl]oxy]cyclohexyl]-1-methylethenyl]- β -methyl- γ -[[tris(1-methylethyl)silyl]oxy]-3-furanpentanol
(C₄₇H₈₅IO₇Si₂; 128684-93-5) see: Tacrolimus
- [3*R*-[3*α*(α *S**(*S**)- γ *S**)-5*β*]]-tetrahydro-5-(iodomethyl)- γ -[(4-methoxyphenyl)methoxy]- α -(1-methyl-2-propenyl)-3-furanpropanol
(C₂₀H₂₉IO₄; 118207-53-7) see: Tacrolimus
- 1,2,3,4-tetrahydroisoquinoline
(C₉H₁₁N; 91-21-4) see: Debrisoquin
- (*S*)-1,2,3,4-tetrahydro-3-isoquinolinecarboxylic acid
(C₁₀H₁₁NO₂; 74163-81-8) see: Quinapril hydrochloride; Saquinavir
- (*S*)-1,2,3,4-tetrahydro-3-isoquinolinecarboxylic acid 1,1-dimethylethyl ester
(C₁₄H₁₉NO₂; 77497-74-6) see: Quinapril hydrochloride
- N*-[(1,2,3,4-tetrahydro-1-isoquinolinyl)methyl]cyclohexanecarboxamide
(C₁₇H₂₄N₂O; 79848-93-4) see: Praziquantel
- 1,3,4,9-tetrahydro-6-methoxy-4*a*(2*H*)-phenanthrene-ethanamine
(C₁₇H₂₃NO; 50282-12-7) see: Butorphanol
- (±)-[2-(1,3,4,9-tetrahydro-6-methoxy-4*a*(2*H*)-phenanthrenyl)ethyl]carbamic acid ethyl ester
(C₂₀H₂₇NO₃; 55171-67-0) see: Butorphanol
- 1,2,3,4-tetrahydro-8-methoxy-3-(methoxyamino)- α -methylene-2-naphthalenepropanoic acid 1,1-dimethylethyl ester
(C₂₀H₂₉NO₄; 103012-87-9) see: Quinagolide hydrochloride
- 1,2,3,9-tetrahydro-9-methyl-4*H*-carbazol-4-one
(C₁₃H₁₃NO; 27387-31-1) see: Ondansetron
- (3*aS*)-tetrahydro-1-methyl-3,3-diphenyl-1*H*,3*H*-pyrrolo[1,2-*c*][1,3,2]oxazaborole
(C₁₈H₂₀BNO; 112022-81-8) see: Brinzolamide
- 1,2,3,9-tetrahydro-3-[(2-methyl-1*H*-imidazol-1-yl)methyl]-4*H*-carbazol-4-one
(C₁₇H₁₇N₃O; 99614-14-9) see: Ondansetron
- 1,4,5,6-tetrahydro-5-methyl-1-phenyl-3*H*-2,5-benzoxazocin-3-one
(C₁₇H₁₇NO₂) see: Nefopam
- (5,6,7,8-tetrahydro-1-naphthalenyl)carbamidithioic acid methyl ester monohydriodide
(C₁₂H₁₇IN₂S; 102612-84-0) see: Tramazoline
- (5,6,7,8-tetrahydro-1-naphthalenyl)thiourea
(C₁₁H₁₄N₂S; 139331-66-1) see: Tramazoline
- 1,2,3,4-tetrahydro-9-nitroacridine *N*-oxide
(C₁₃H₁₂N₂O₃; 17687-36-4) see: Tacrine
- 1,2,3,4-tetrahydro-5-(oxiranylmethoxy)-2,3-naphthalenediol
(C₁₃H₁₆O₄) see: Nadolol
- 3,5,7,8-tetrahydro-3-oxopyrido[4,3-*c*]pyridazine-6(2*H*)-carboxylic acid ethyl ester
(C₁₀H₁₃N₃O₃; 39716-48-8) see: Endralazine
- tetrahydropapaverine
(C₂₀H₂₅NO₄; 13074-31-2) see: Atracurium besilate
- (*R*)-tetrahydropapaverine *N*-acetyl-L-leucinate
(C₂₈H₄₀N₂O₇; 141109-12-8) see: Cisatracurium besylate
- (±)-tetrahydropapaverine hydrochloride
(C₂₀H₂₆ClNO₄; 6429-04-5) see: Cisatracurium besylate
- [*R*-(*R**,*S**)]-2,3,4,9-tetrahydro-*N*-(1-phenylethyl)-1*H*-carbazol-3-amine sulfate (1:1)
(C₂₀H₂₄N₂O₄S; 134748-00-8) see: Ramatroban
- 1,2,3,4-tetrahydro-3-[(phenylmethoxy)carbonyl]isoquinolinium 4-methylbenzenesulfonate
(C₂₄H₂₅NO₅S) see: Saquinavir
- 2,2',2'',2'''-[1,2,3,4-tetrahydro-8-piperidinopyrimido[5,4-*d*]pyrimidine-2,6-diylo]dinitrilo]tetraethanol
(C₁₉H₃₅N₇O₄; 13665-89-9) see: Mopidamol
- tetrahydropyran-4-carbonyl chloride
(C₆H₉ClO₂; 40191-32-0) see: Risperidone
- tetrahydropyran-4-carboxylic acid
(C₆H₁₀O₃; 5337-03-1) see: Risperidone
- [2-[(tetrahydro-2*H*-pyran-2-yl)oxy]ethyl]carbomodithioic acid methyl ester
(C₉H₁₇NO₂S₂; 88570-65-4) see: Flomoxef

- (3'aS,4'R,5'R,6'aR)-5'-[(tetrahydro-2H-pyran-2-yl)oxy]-4'-[(1E,3S)-4-methyl-3-[(tetrahydro-2H-pyran-2-yl)oxy]-1-octen-6-ynyl]-spiro[1,3-dioxolan-2,2'-(1H)pentalene] (C₂₉H₄₄O₆) see: Iloprost
- [3R-(3R*,6Z)]-3-[(tetrahydro-2H-pyran-2-yl)oxy]-6-tetra-decenal (C₁₉H₃₄O₃; 108051-90-7) see: Orlistat
- 1-(1,2,3,6-tetrahydro-4-pyridyl)-2-benzimidazolinone (C₁₂H₁₃N₃O; 2147-83-3) see: Droperidol
- 2,3,5,6-tetrahydro-1H-pyrrolizine (C₇H₁₁N; 20463-30-3) see: Pilsicainide
- 4,6,7,8-tetrahydro-2,5(1H,3H)-quinolinedione (C₉H₁₁NO₂; 5057-12-5) see: Carteolol
- [8S-{8α(S*),10α}]-7,8,9,10-tetrahydro-6,8,10,11-tetrahydroxy-1-methoxy-8-(4-methoxy-2,2-dimethyl-1,3-dioxolan-4-yl)-5,12-naphthacenedione (C₂₅H₂₆O₁₀; 56354-10-0) see: Epirubicin
- 2,3,4,9-tetrahydro-N,N,N,9-tetramethyl-4-oxo-1H-carbazole-3-methanaminium iodide (C₁₇H₂₃IN₂O; 99614-63-8) see: Ondansetron
- 4,5,6,7-tetrahydrothieno[3,2-c]pyridine (C₇H₉NS; 54903-50-3) see: Clopidogrel hydrogensulfate; Ticlopidine
- 1,4,5,8-tetrahydroxyanthraquinone
see under leuco-1,4,5,8-tetrahydroxyanthraquinone
- (5α,6β,11β)-5,11,17,21-tetrahydroxy-6-methylpregnane-3,20-dione (C₂₂H₃₄O₆; 76338-56-2) see: Methylprednisolone
- 3β,11α,17,21-tetrahydroxy-5α-pregnan-20-one 21-acetate (C₂₃H₃₆O₆; 104068-20-4) see: Halopredone diacetate
- 2,4,6,8-tetrahydroxypyrimido[5,4-d]pyrimidine (C₆H₄N₄O₄; 6713-54-8) see: Dipyridamole
- tetraisopropyl (4-chlorophenylthio)methylenediphosphonate (C₁₉H₃₃ClO₆P₂S; 89987-31-5) see: Tiludronate disodium
- tetraisopropyl methylenediphosphonate (C₁₃H₃₀O₆P₂; 1660-95-3) see: Clodronate disodium; Tiludronate disodium
- (S)-N,N,N',N'-tetrakis(cyanomethyl)-1,2-propanediamine (C₁₁H₁₄N₆) see: Dexrazoxane
- 2-tetralone (C₁₀H₁₀O; 530-93-8) see: Fendosal
- tetramethyl 2-butene-1,4-diylbisphosphonate (C₈H₁₈O₆P₂; 3858-16-0) see: Betacarotene
- 4-(1,1,3,3-tetramethylbutyl)phenol (C₁₄H₂₂O; 140-66-9) see: Benzethonium chloride; Clofotol; Tyloxapol
- 2-[2-[4-(1,1,3,3-tetramethylbutyl)phenoxy]ethoxy]ethyl chloride (C₁₈H₂₉ClO₂; 65925-28-2) see: Benzethonium chloride
- γ,2,6,6-tetramethyl-1-cyclohexene-1-sorbaldehyde diethyl acetal (C₂₀H₃₄O₂; 99711-43-0) see: Betacarotene
- N,N,N',N'-tetramethylhexamethylenediamine
see under 1,6-bis(dimethylamino)hexane
- N,N,N',N'-tetramethylmethanediamine (C₅H₁₄N₂; 51-80-9) see: Topotecan
- N,N,N,1-tetramethyl-1H-pyrrole-2-methanaminium iodide (C₉H₁₇IN₂; 54828-80-7) see: Tolmetin
- DL-2,2,5,5-tetramethylthiazolidine-4-carboxylic acid (C₈H₁₅NO₂S; 58131-62-7) see: D-Penicillamine
- 4,7,10,13-tetraoxahexadecanedinitrile (C₁₂H₂₀N₂O₄; 57741-46-5) see: Iodoxamic acid
- 4,7,10,13-tetraoxahexadecanedioyl chloride (C₁₂H₂₀Cl₂O₆; 31127-86-3) see: Iodoxamic acid
- tetraphosphorus hexaoxide (O₆P₄; 12440-00-5) see: Etidronic acid
- 1H-tetrazol-5-carboxylic acid 2-acetyl-6-(acetylamino)-phenyl ester (C₁₂H₁₁N₅O₄) see: Pranlukast
- tetrazole-1-acetic acid (C₃H₄N₄O₂; 21732-17-2) see: Cefazolin; Ceftezole
- tetrazolo[1,5-a]quinolin-5-ol (C₉H₆N₄O; 77177-27-6) see: Imiquimod
- 3-(5-tetrazolyl)aniline (C₇H₇N₅; 73732-51-1) see: Tazanolast
- thebaine (C₁₉H₂₁NO₃; 115-37-7) see: Buprenorphine; Oxymorphone
- thanium iodide (C₁₅H₂₀INOS; 109732-56-1) see: Thanium closilate
- 2-thenoyl chloride (C₅H₃ClOS; 5271-67-0) see: Stepronin; Suprofen; Tenonitrozone; Tienilic acid
- 2-(2-thenoylthio)propionic acid (C₈H₈O₃S₂; 81466-67-3) see: Stepronin
- 2-thenylamine (C₃H₇NS; 27757-85-3) see: Azosemide; Thanium closilate
- 3-thenyl bromide (C₃H₅BrS; 34846-44-1) see: Thenyldiamine
- 2-thenyl chloride (C₃H₅ClS; 765-50-4) see: Methapyrilene; Thenalidine; Thanium closilate
- theobromine (C₇H₈N₄O₂; 83-67-0) see: Pentifylline; Protheobromine
- theobromine sodium salt (C₇H₇N₄NaO₂; 1010-59-9) see: Pentoxifylline
- theophylline (C₇H₈N₄O₂; 58-55-9) see: Acefylline; Cafedrine; Caffeine; Choline theophyllinate; Diprophylline; Doxofylline; Etamiphylline; Etofylline; Lomifylline; Pimefylline; Proxiphylline; Reproterol; Theophylline ethylenediamine; Xantinel nicotinate
- theophylline-7-acetaldehyde (C₉H₁₀N₄O₃; 5614-53-9) see: Doxofylline
- O-[2-(7-theophyllinyl)ethyl] hydrogen sulfate (C₉H₁₂N₄O₆S; 53403-96-6) see: Pyridofylline
- thevin A (C₄₂H₆₄O₁₉; 37933-66-7) see: Peruvoside
- thiamine (C₁₂H₁₇ClN₄OS; 59-43-8) see: Acetiamine; Benfotiamine; Bentiamine; Bisbentiamine; Cocarboxylase; Fursultiamine; Midoriamin
- thiamine bromide (C₁₂H₁₇BrN₄OS; 7019-71-8) see: Thiamine
- thiamine chloride (C₁₂H₁₈Cl₂N₄OS; 67-03-8) see: Octotiamine
- thiamine disulfide (C₂₄H₃₄N₈O₄S₂; 67-16-3) see: Bisbentiamine

4-thiazolecarboxylic acid(C₄H₃NO₂S; 3973-08-8) see: Tiabendazole**(R)-4-thiazolidinecarboxylic acid**(C₄H₇NO₂S; 34592-47-7) see: Telmesteine**2,4-thiazolidinedione**(C₃H₃NO₂S; 2295-31-0) see: Pioglitazone; Rosiglitazone; Troglitazone**N,N'-[(2-thiazolylimino)bis(sulfonyl-4,1-phenylene)]bis[acetamide]**(C₁₉H₁₈N₄O₆S₃; 95219-48-0) see: Sulfathiazole**5-thiazolymethyl 4-nitrophenyl carbonate**(C₁₁H₈N₂O₅S; 144163-97-3) see: Ritonavir**thienamycin**(C₁₁H₁₆N₂O₄S; 59995-64-1) see: Imipenem**thieno[3,2-c]pyridine**(C₇H₅NS; 272-14-0) see: Ticlopidine**2-thienylacetaldehyde**(C₆H₆OS; 15022-15-8) see: Clopidogrel hydrogensulfate**2-thienylacetic acid**(C₆H₆O₂S; 1918-77-0) see: Pizotifen**2-(2-thienyl)acetyl chloride**(C₆H₅ClOS; 39098-97-0) see: Cefalotin; Cefoxitin**3-(2-thienyl)acrylamide**(C₇H₇NOS; 24654-26-0) see: Pyrantel**3-(2-thienyl)acrylonitrile**(C₇H₅NS; 6041-28-7) see: Pyrantel**2-(2-thienyl)ethylamine**(C₆H₉NS; 30433-91-1) see: Clopidogrel hydrogensulfate**2-[2-(2-thienyl)ethyl]benzoic acid**(C₁₃H₁₂O₂S; 1622-54-4) see: Pizotifen**2-thienylglyoxalic acid**(C₆H₄O₃S; 4075-59-6) see: Penthienate methobromide; Tiaprofenic acid**2-thienylglyoxylic acid**

see under 2-thienylglyoxalic acid

2-thienylglyoxylic acid ethyl ester(C₈H₈O₃S; 4075-58-5) see: Oxitefonium bromide; Penthienate methobromide**3-thienyllithium**(C₄H₃LiS; 1192-06-9) see: Cetiedil**2-thienylmagnesium bromide**(C₄H₃BrMgS; 5713-61-1) see: Timepidium bromide; Titepidine; Tiquizium bromide**3-thienylmalonic acid**(C₇H₆O₄S; 21080-92-2) see: Ticarcillin**3-thienylmalonic acid monobenzyl ester monochloride**(C₁₄H₁₁ClO₃S; 50893-38-4) see: Temocillin**3-thienylmalonic acid monophenyl ester monochloride**(C₁₃H₉ClO₃S; 59118-37-5) see: Temocillin**2-thienylmethyl chloride**

see under 2-thenyl chloride

3-(2-thienylmethylene)phthalide(C₁₃H₈O₂S; 74888-10-1) see: Pizotifen**6β-[2-(3-thienyl)-2-(phenoxyacetyl)acetamido]penicillanic acid 4-nitrobenzyl ester**(C₂₈H₂₅N₃O₈S₂) see: Temocillin**(S)-3-(2-thienylthio)butanoic acid**(C₈H₁₀O₂S₂; 133359-80-5) see: Dorzolamide**3-(2-thienylthio)butanoic acid**(C₈H₁₀O₂S₂; 120279-20-1) see: Dorzolamide**thioacetic acid**(C₂H₄OS; 507-09-5) see: Acetorphan; Captopril; Meropenem; Omapatrilat; Spironolactone; Tiomesterone**thioacetone**(C₃H₆S; 4756-05-2) see: Pramipexole hydrochloride**thioanisole**(C₇H₈S; 100-68-5) see: Rofecoxib**thiobenzoic acid**(C₇H₆OS; 98-91-9) see: Stepronin**3α-thiocyanato-5α-androstane-2β,17β-diol 17-acetate**(C₂₂H₃₃NO₃S; 2469-96-7) see: Epiteostanol**thiocyanic acid**

(CHNS; 463-56-9) see: Epiteostanol

thiocyanic acid 2β,17β-dihydroxy-5α-androstan-3α-yl ester 17-acetate 2-methanesulfonate(C₂₃H₃₅NO₅S₂; 2760-03-4) see: Epiteostanol**thioglycolic acid**(C₂H₄O₂S; 68-11-1) see: Cefapirin; Erdosteine; Lamivudine; Rifaxacin hydrochloride**thiomalic acid**(C₄H₆O₄S; 70-49-5) see: Erythromycin monoproprionate mercaptosuccinate; Sodium aurothiomalate**thionyl bromide**(Br₂OS; 507-16-4) see: Milnacipran hydrochloride**thionyl chloride**(Cl₂OS; 7719-09-7) see: Faropenem sodium**N,N'-thionylidimidazole**

see under 1,1'-sulfanylbisimidazolc

thiophene(C₄H₄S; 110-02-1) .see: Clopidogrel hydrogensulfate; Oxitefonium bromide; Penthienate methobromide; Suprofen; 2-Thiophenecarboxylic acid; Tiaprofenic acid; Ticlopidine; Tiemonium iodide; Tienilic acid**2-thiopheneacrylimidic acid ester with 3-hydroxy-1-propanesulfonic acid**(C₁₀H₁₃NO₄S₂; 5685-85-8) see: Pyrantel**thiophene-2-carbonyl chloride**

see under 2-thenoyl chloride

2-thiophenecarbothioic acid sodium salt(C₅H₃NaOS₂; 7028-03-7) see: Stepronin**thiophene-2-carboxaldehyde**(C₅H₄OS; 98-03-3) see: Clopidogrel hydrogensulfate; Pyrantel; Teniposide; Tenylidone**2-thiophenecarboxamide**(C₅H₅NOS; 5813-89-8) see: 2-Thiophenecarboxylic acid**thiophene-2-carboxylic acid**(C₅H₄O₂S; 527-72-0) see: Suprofen**2-thiopheneethanol**(C₆H₈OS; 5402-55-1) see: Sufentanil**2-thiopheneethanol benzenesulfonate**(C₁₂H₁₂O₃S₂; 85567-51-7) see: Clopidogrel hydrogensulfate**2-thiopheneethanol methanesulfonate**(C₇H₁₀O₃S₂; 61380-07-2) see: Sufentanil**2-thiophenethiol**(C₄H₄S₂; 7774-74-5) see: Dorzolamide**2-thiophenethiol lithium salt**(C₄H₃LiS₂; 96010-14-9) see: Dorzolamide**thiophenol**(C₆H₆S; 108-98-5) see: Doxycycline; Nelfinavir mesylate; Quetiapine fumarate; Tazarotene

thiophosgene(CCl₂S; 463-71-8) see: Tizanidine; Tolnaftate**thiophosphoryl chloride**(Cl₃PS; 3982-91-0) see: Thiotepea**thiosalicylic acid**(C₇H₆O₂S; 147-93-3) see: Chlorprothixene; Thiomersal**thiosemicarbazide**(CH₃N₃S; 79-19-6) see: Ambazone; Guanoxabenz**thiourea**(CH₄N₂S; 62-56-6) see: Adrafinil; Amiphenazole; Auranofin; Brinzolamide; Captodiame; Cefixime; Cefmenoxime; Cefotaxime; Ceftriaxone; Dipyridamole; Famotidine; Levamisole; Mesna; Methylthiouracil; Modafinil; Pioglitazone; Pramipexole hydrochloride; Propylthiouracil; Talipexole; Thiamylal; Thiopental; Troglitazone**"thiovandil"**(C₁₂H₁₇NO₂S; 24115-07-9) see: Etamivan**thioxanthene**(C₁₃H₁₀S; 261-31-4) see: Metixene; Tiotixene**9H-thioxanthene-2-sulfonic acid**(C₁₂H₁₀O₃S₂) see: Tiotixene**2-thioxo-1,3-dithiolane**(C₃H₄S₃; 822-38-8) see: Malotilate**2-thioxo-1,3-dithiole-4,5-dicarboxylic acid**(C₃H₂O₄S₃; 1008-62-4) see: Malotilate**threo-ethyl 2-hydroxy-3-amino-3-phenylpropionate**see under ethyl *threo*-3-amino-2-hydroxy-3-phenylpropionate**(±)-threo-methyl 2-hydroxy-3-(2-aminophenylthio)-3-(4-methoxyphenyl)propionate**(C₁₇H₁₉NO₄S; 84645-12-5) see: Diltiazem**DL-threo-3-(4-methylsulfonylphenyl)serine**(C₁₀H₁₃NO₃S; 31925-26-5) see: Thiamphenicol**D_G-threo-3-(4-methylsulfonylphenyl)serine ethyl ester**(C₁₂H₁₇NO₃S; 31925-29-8) see: Thiamphenicol**L-threoninamide**(C₄H₁₀N₂O₂; 49705-99-9) see: Aztreonam**D-threonine**(C₄H₉NO₃; 632-20-2) see: Cefbuparazone**L-threonine**(C₄H₉NO₃; 72-19-5) see: Aztreonam**L-threonine methyl ester hydrochloride**(C₅H₁₂ClNO₃; 39994-75-7) see: Aztreonam**thymidine**(C₁₀H₁₄N₂O₅; 50-89-5) see: Stavudine; Zidovudine**thymine**(C₅H₆N₂O₂; 65-71-4) see: Stavudine**thymol**(C₁₀H₁₄O; 89-83-8) see: (-)-Menthol; Moxisylyte**"cis,trans-tilidine"**(C₁₇H₂₃NO₂; 17243-69-5) see: Tilidine**tinazoline hydriodide**(C₁₁H₁₂N₃S; 55107-59-0) see: Tinazoline hydrochloride**γ-tocopherol**(C₂₈H₄₈O₂; 54-28-4) see: α-Tocopherol**toluene**(C₇H₈; 108-88-3) see: Saccharin**p-toluenesulfamide sodium salt**(C₇H₈NNaO₂S; 18522-92-4) see: Nitrazepam; Tolbutamide**p-toluenesulfochloride**(C₇H₇ClO₂S; 98-59-9) see: Benproperine; Brinzolamide; Carzenide; Cefoxitin; Diazepam; Flurotyl; Fosinopril; Gusperimus trihydrochloride; Idarubicin; Idoxuridine; Indeloxacin; Levocabastine; Mazindol; Medazepam; Mibefradil hydrochloride; Nemonapride; Pioglitazone; Prenalterol; Ropinirole; Tinidazole; Tolterodine**p-toluenesulfonamide**(C₇H₉NO₂S; 70-55-3) see: Carzenide; Tolazamide**2-toluenesulfonamide**(C₇H₉NO₂S; 88-19-7) see: Saccharin; Zafirlukast**p-toluenesulfonamide sodium salt**see under *p*-toluenesulfamide sodium salt**p-toluenesulfonic acid**(C₇H₈O₃S; 104-15-4) see: Cefactor; Ganciclovir; Perindopril**p-toluenesulfonic acid methyl ester**

see under methyl 4-toluenesulfonate

p-toluenesulfonyl chloridesee under *p*-toluenesulfochloride**2-toluenesulfonyl chloride**(C₇H₇ClO₂S; 133-59-5) see: Saccharin**(2R)-2-(p-toluenesulfonyloxy)propionyl chloride**(C₁₀H₁₁ClO₃S; 88081-65-6) see: Imidapril**3-(p-toluenesulfonyloxy)propyl chloride**(C₁₀H₁₃ClO₃S; 632-02-0) see: Periciazine; Pipotiazine**(S)-N-(p-toluenesulfonyl)proline chloride**(C₁₂H₁₄ClNO₃S; 54731-09-8) see: Levofloxacin**m-toluidine**(C₇H₉N; 108-44-1) see: Toloxatone; Torasemide**o-toluidine**(C₇H₉N; 95-53-4) see: Afoqualone; Methaqualone; Metolazone; Prilocaine**3-(m-toluidino)-1,2-propanediol**(C₁₀H₁₅NO₂; 42902-52-3) see: Toloxatone**p-tolunitrile**(C₈H₇N; 104-85-8) see: Acrivastine; Tranexamic acid**p-toluoyl chloride**see under *p*-methylbenzoyl chloride**(E)-3-[6-(p-toluoyl)-2-pyridinyl]acrylic acid**(C₁₆H₁₃NO₃; 94094-27-6) see: Acrivastine**6-[2-(p-tolyl)-1,3-dioxol-2-yl]pyridine-2-carboxaldehyde**(C₁₆H₁₅NO₃; 87848-97-3) see: Acrivastine**4-tolylmagnesium bromide**(C₇H₇BrMg; 4294-57-9) see: Losartan potassium; Tolpropamine**S-tolylmethyl-L-cysteine**(C₁₁H₁₅NO₂S) see: Eptifibatid**1-(o-tolyl)piperazine**(C₁₁H₁₆N₂; 39512-51-1) see: Dapiprazole**3-[4-(o-tolyl)-1-piperazinyl]propionic acid hydrazide**(C₁₄H₂₂N₄O; 72822-10-7) see: Dapiprazole**4-(p-tolyl)-1,2,3,6-tetrahydropyridine**(C₁₂H₁₅N; 59084-09-2) see: Moperone**Tos-Cl**see under *p*-toluenesulfochloride**O-tosyl-3-(tert-butoxycarbonylamino)-1-propanol**(C₁₅H₂₃NO₅S; 80909-96-2) see: Gusperimus trihydrochloride

- tosyl chloride**
see under *p*-toluenesulfochloride
- trandolapril phenylmethyl ester**
(C₃₁H₄₀N₂O₅; 98677-37-3) see: Trandolapril
- tranexamic acid**
(C₈H₁₅NO₂; 1197-18-8) see: Benexate; Ciclometasone
- (3S-trans)-3-amino-4-methyl-2-oxo-1-azetidinesulfonic acid**
(C₄H₈N₂O₄S; 80082-65-1) see: Aztreonam
- trenbolone**
see under 17β-hydroxy-3-oxo-4,9,11-estratriene
- (±)-tretoquinol**
(C₁₉H₂₃NO₅; 21650-42-0) see: Tretoquinol
- 1,2,4-triacetoxybenzene**
(C₁₂H₁₂O₆; 613-03-6) see: Folescutol
- 1-(2,3,5-tri-*O*-acetyl-β-D-arabinofuranosyl)-5-ethyluracil**
(C₁₇H₂₂N₂O₉; 87877-25-6) see: Sorivudine
- 1-(2,3,5-tri-*O*-acetyl-β-D-arabinofuranosyl)-2,4(1*H*,3*H*)-pyrimidinedione**
(C₁₅H₁₈N₂O₉; 14057-18-2) see: Cytarabine
- 1,2,3-tri-*O*-acetyl-5-*O*-benzoyl-α-D-xylofuranose**
(C₁₈H₂₀O₉; 19003-88-4) see: Stavudine
- 1,2,3-triacetyl-5-deoxy-β-D-ribofuranose**
(C₁₁H₁₆O₇; 62211-93-2) see: Capecitabine
- 9-(2,3,5-tri-*O*-acetyl-β-D-ribofuranosyl)-2-amino-6-chloro-purine**
(C₁₆H₁₈ClN₅O₇; 16321-99-6) see: Cladribine
- triamcinolone**
(C₂₁H₂₇FO₆; 124-94-7) see: Amcinonide; Triamcinolone acetonide
- triamcinolone acetonide**
(C₂₄H₃₁FO₆; 76-25-5) see: Triamcinolone benconide; Triamcinolone hexacetonide
- triamcinolone cyclopentanone**
(C₂₆H₃₃FO₆; 55646-99-6) see: Amcinonide
- 2,4,6-triamino-5-methylquinazoline**
(C₉H₁₁N₅; 17511-22-7) see: Trimetrexate glucuronate
- 2,4,6-triaminopyrimidine**
(C₄H₇N₅; 1004-38-2) see: Triamterene
- (1,3,5-triazine-2,4,6-triyltrinitrilo)hexakis-methanol**
(C₉H₁₈N₆O₆; 531-18-0) see: Altretamine
- 1*H*-1,2,4-triazole**
(C₂H₃N₃; 288-88-0) see: Fluconazole; Itraconazole; Letrozole; Terconazole; Zalcitabine
- 1,2,4-triazole sodium salt**
see under sodium 1,2,4-triazolide
- 1,2,4-triazolo[4,3-*a*]pyridin-3(2*H*)-one**
(C₆H₈N₃O; 6969-71-7) see: Trazodone
- α-(1*H*-1,2,4-triazol-1-yl)-2,4-difluoroacetophenone**
(C₁₀H₇F₂N₃O; 86404-63-9) see: Fluconazole
- 4-(1,2,4-triazol-1-ylmethyl)aniline**
(C₉H₁₀N₄; 119192-10-8) see: Rizatriptan benzoate
- 4-(1*H*-1,2,4-triazol-1-ylmethyl)benzotrile**
(C₁₀H₈N₄; 112809-25-3) see: Letrozole
- 5-(1*H*-1,2,4-triazol-1-ylmethyl)-1*H*-indole-3-ethanamine**
(C₁₃H₁₅N₅; 144035-23-4) see: Rizatriptan benzoate
- 5-(1*H*-1,2,4-triazol-1-ylmethyl)-1*H*-indole-3-ethanol**
(C₁₃H₁₄N₄O; 160194-39-8) see: Rizatriptan benzoate
- 5-(1*H*-1,2,4-triazol-1-ylmethyl)-2-(triethylsilyl)-3-[2-[(triethylsilyloxy)ethyl]-1*H*-indole**
(C₂₅H₄₂N₄O_{Si}₂; 160194-32-1) see: Rizatriptan benzoate
- 2,3,5-tri-*O*-benzoyl-α-D-ribofuranosyl acetate**
(C₂₈H₂₄O₉; 70832-64-3) see: Stavudine
- 2,3,5-tri-*O*-benzyl-D-arabinofuranosyl chloride**
(C₂₆H₂₇ClO₄; 52554-29-7) see: Cytarabine
- 9-(2,3,5-tri-*O*-benzyl-β-D-arabinofuranosyl)-2-fluoroadenine**
(C₃₁H₃₀FN₅O₄; 24649-69-2) see: Fludarabine phosphate
- 2,3,5-tri-*O*-benzyl-1-*O*-*p*-nitrobenzoyl-β-D-arabinofuranose**
(C₃₃H₃₁NO₈; 31598-80-8) see: Fludarabine phosphate
- 2,3,5-tri-*O*-benzyl-β-D-ribofuranosyl chloride**
(C₂₆H₂₇ClO₄; 16205-54-2) see: Ribostamycin
- 5,6,21-tribromo-3β,17-dihydroxy-5β-pregnan-20-one 3-formate**
(C₂₂H₃₁Br₃O₄; 102958-34-9) see: Hydrocortisone
- N,N,N*-tributyl-1-butanaminium salt with (2*S*-trans)-2-methyl-4-oxo-3-[[[phenylmethoxy]carbonyl]amino]-1-azetidinesulfonic acid (1:1)**
(C₂₈H₄₉N₃O₆S; 80082-62-8) see: Aztreonam
- 2-(tributylstannyl)vinyl ethyl ether**
(C₁₆H₃₄O₂Sn; 20420-43-3) see: Fluvastatin sodium
- tributyltin azide**
(C₁₂H₂₇N₃Sn; 17846-68-3) see: Irbesartan; Valsartan
- γ,γ,γ-trichloroacetocetyl chloride**
(C₄H₂Cl₄O₂; 58529-91-2) see: Orotic acid
- 1,1,3-trichloroacetone**
(C₃H₃Cl₃O; 921-03-9) see: Folic acid
- 2,2',4'-trichloroacetophenone**
(C₈H₅Cl₃O; 4252-78-2) see: Fenticonazole; Oxiconazole
- trichloroacetyl chloride**
(C₂Cl₄O; 76-02-8) see: Apraclonidine; Orotic acid
- 2,2,2-trichloro-*N*-[3,5-dichloro-4-(formylamino)phenyl]-acetamide**
(C₉H₅Cl₅N₂O₂; 86861-38-3) see: Apraclonidine
- 2,2,2-trichloroethanol**
(C₂H₃Cl₃O; 115-20-8) see: Triclotos
- trichloroethoxycarbonyl chloride**
(C₃H₂Cl₄O₂; 17341-93-4) see: Cefoxitin; Docetaxel
- (2,2,2-trichloroethoxy)methyl bromide**
(C₃H₄BrCl₃O; 84439-58-7) see: Docetaxel
- trichloroethylene**
(C₂HCl₃; 79-01-6) see: Halothane
- trichloromethylsulfenyl chloride**
(CCl₄S; 594-42-3) see: Clodantoin
- 6-(trichloromethyl)uracil**
(C₅H₃Cl₃N₂O₂; 62881-01-0) see: Orotic acid
- 2,4,5-trichlorophenol**
(C₆H₃Cl₃O; 95-95-4) see: Haloprogin; Hexachlorophene
- 2,4,5-trichlorophenylpropargyl ether**
(C₉H₅Cl₃O; 17051-03-5) see: Haloprogin
- 2,2',4'-trichloropropiophenone**
(C₉H₇Cl₃O; 130235-07-3) see: Omoconazole nitrate
- 2,4,6-trichloropyrimidine**
(C₄HCl₃N₂; 3764-01-0) see: Minoxidil; Tirilazad mesilate
- 1-tricyclo[3.3.1.1^{3,7}]dec-1-ylethanone oxime**
(C₁₂H₁₉NO; 1707-40-0) see: Rimantadine

- 2,3,6-trideoxy-1,4-di-O-(trifluoroacetyl)-3-[(trifluoroacetyl)amino]- α -L-arabino-hexopyranose**
(C₁₂H₁₀F₉NO₆) see: Epirubicin
- 2,3,6-trideoxy-3-trifluoroacetamido-4-O-trifluoroacetyl- α -L-arabino-hexopyranosyl chloride**
(C₁₀H₁₀ClF₆NO₄; 56354-09-7) see: Epirubicin
- 2,3,6-trideoxy-3-trifluoroacetamido-4-O-trifluoroacetyl- α -L-lyxo-hexopyranosyl chloride**
(C₁₀H₁₀ClF₆NO₄; 57785-90-7) see: Idarubicin
- 2,3,6-trideoxy-3-[(trifluoroacetyl)amino]- α -L-arabino-hexopyranose**
(C₈H₁₂F₃NO₄; 56354-08-6) see: Epirubicin
- triethanolamine**
(C₆H₁₅NO₃; 102-71-6) see: Trolnitrate
- triethoxymethane**
see under ethyl orthoformate
- 4,5,6-triethoxy-7-nitro-3-(5,6,7,8-tetrahydro-4-methoxy-6-methyl-1,3-dioxol[4,5-g]isoquinolin-5-yl)-1(3H)-isobenzofuranone**
(C₂₆H₃₀N₂O₁₀; 4973-70-0) see: Tritoqualine
- triethylaluminum**
(C₆H₁₅Al; 97-93-8) see: Ibuprofen
- triethylamine**
(C₆H₁₅N; 121-44-8) see: Acrivastine; Carindacillin; Docetaxel
- triethylammonium acetate**
(C₈H₁₉NO₂; 5204-74-0) see: Deflazacort
- triethylene glycol**
(C₆H₁₄O₄; 112-27-6) see: Iodoxamic acid
- triethylene glycol monochlorohydrin**
(C₆H₁₃ClO₃; 5197-62-6) see: Etodroxazine
- triethyl[[(1-methyl-1-(2-propynyl)pentyl]oxy]silane**
(C₁₅H₃₀OSi; 58682-77-2) see: Misoprostol
- triethyl orthoacetate**
see under orthoacetic acid triethyl ester
- triethyl orthoformate**
see under ethyl orthoformate
- triethyl orthopropionate**
(C₉H₂₀O₃; 115-80-0) see: Alclometasone dipropionate; Betametasone dipropionate
- triethyl phosphate**
(C₆H₁₅O₄P; 78-40-0) see: Fludarabine phosphate
- triethyl phosphite**
(C₆H₁₅O₃P; 122-52-1) see: Foscarnet sodium; Gestrinone
- 7-O-triethylsilylbaccatin III**
(C₃₇H₅₂O₁₁Si; 115437-21-3) see: Paclitaxel
- 4-triethylsilyl-3-butyn-1-ol triethylsilyl ether**
(C₁₆H₃₄OSi₂; 160194-28-5) see: Rizatriptan benzoate
- triethylsilyl chloride**
(C₆H₁₅ClSi; 994-30-9) see: Misoprostol; Paclitaxel; Rizatriptan benzoate
- 7-O-triethylsilyl-10-deacetylbaicatin III**
(C₃₅H₅₀O₁₀Si; 115437-18-8) see: Paclitaxel
- [(triethylsilyl)oxy]acetic acid ethyl ester**
(C₁₀H₂₂O₃Si) see: Paclitaxel
- cis-3-(triethylsilyloxy)-4-phenyl-2-azetidinone**
(C₁₅H₂₃NO₂Si) see: Paclitaxel
- trifluoroacetic anhydride**
(C₄F₆O₃; 407-25-0) see: Dofetilide; Dolasetron mesilate; Epirubicin; Imiquimod; Vinorelbine
- 1,1,1-trifluoroacetone**
(C₃H₃F₃O; 421-50-1) see: Mefloquine
- N⁶-trifluoroacetyl-N²-carboxy-L-lysine anhydride**
(C₉H₁₁F₃N₂O₄; 42267-27-6) see: Lisinopril
- N⁶-(trifluoroacetyl)-L-lysine**
(C₈H₁₃F₃N₂O₃; 10009-20-8) see: Lisinopril
- N⁶-(trifluoroacetyl)-L-lysyl-L-proline**
(C₁₃H₂₀F₃N₃O₄; 103300-89-6) see: Lisinopril
- 2,3,4-trifluoroaniline**
(C₆H₄F₃N; 3862-73-5) see: Lomefloxacin
- 2,2,2-trifluoroethanol**
(C₂H₃F₃O; 75-89-8) see: Flurotyl; Fluoxetine; Isoflurane; Lansoprazole
- 2,2,2-trifluoroethanol 4-methylbenzenesulfonate**
(C₉H₉F₃O₃S; 433-06-7) see: Flurotyl
- 2,2,2-trifluoroethanol potassium salt**
(C₂H₂F₃KO; 1652-14-8) see: Fluoxetine
- 2,2,2-trifluoroethanol sodium salt**
(C₂H₂F₃NaO; 420-87-1) see: Flurotyl
- 2,2,2-trifluoroethyl 2,5-bis(2,2,2-trifluoroethoxy)benzoate**
(C₁₃H₉F₉O₄; 50778-57-9) see: Flecainide
- 2,2,2-trifluoroethyl iodide**
(C₂H₂F₃I; 353-83-3) see: Epitizide
- (2,2,2-trifluoroethylthio)acetaldehyde dimethyl acetal**
(C₆H₁₁F₃O₂S; 84455-36-7) see: Epitizide; Polythiazide
- 2,2,2-trifluoroethyl trichloromethanesulfonate**
(C₃H₂Cl₃F₃O₃S; 23199-56-6) see: Quazepam
- 2,2,2-trifluoroethyl trifluoromethanesulfonate**
(C₃H₂F₆O₃S; 6226-25-1) see: Flecainide
- 6,7,8-trifluoro-1-(2-fluoroethyl)-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid**
(C₁₂H₇F₄NO₃; 79660-52-9) see: Fleroxacin
- 6,7,8-trifluoro-4-hydroxy-3-quinolinecarboxylic acid**
(C₁₀H₄F₃NO₃; 151391-68-3) see: Fleroxacin
- trifluoromethanesulfonic acid**
(CHF₂O₃S; 1493-13-6) see: Loratadine; Oseltamivir
- trifluoromethanesulfonic acid 4-[(2-methylpropyl)amino]-3-nitro-2-quinolinyl ester**
(C₁₄H₁₄F₃N₃O₅S; 157875-53-1) see: Imiquimod
- trifluoromethanesulfonic acid 3-nitro-2,4-quinolinediyl ester**
(C₁₁H₄F₆N₂O₈S₂; 157875-58-6) see: Imiquimod
- trifluoromethanesulfonic acid triethylsilyl ester**
(C₇H₁₅F₃O₃SSi; 79271-56-0) see: Tacrolimus
- trifluoromethanesulfonic anhydride**
(C₂F₆O₅S₂; 358-23-6) see: Imiquimod; Zanamivir
- 4-trifluoromethoxyaniline**
(C₇H₆F₃NO; 461-82-5) see: Riluzole
- 2,4,5-trifluoro-3-methoxybenzamine**
(C₇H₆F₃NO; 114214-45-8) see: Moxifloxacin hydrochloride
- 2,4,5-trifluoro-3-methoxybenzoyl chloride**
(C₈H₄ClF₃O₃; 112811-66-2) see: Moxifloxacin hydrochloride
- 1,1,1-trifluoro-2-methoxyethane**
(C₃H₅F₃O; 460-43-5) see: Isoflurane
- 3'-trifluoromethylacetanilide**
(C₈H₈F₃NO; 351-36-0) see: Flutamide; Nilutamide
- 2-trifluoromethylaniline**
(C₇H₆F₃N; 88-17-5) see: Floctafenine; Mabuterol; Mefloquine

3-trifluoromethylaniline

(C₇H₆F₃N; 98-16-8) see: Bendroflumethiazide; Flufenamic acid; Flutamide; Hydroflumethiazide; Niflumic acid

4-trifluoromethylaniline

(C₇H₆F₃N; 455-14-1) see: Leflunomide

(trifluoromethyl)benzene

(C₇H₅F₃; 98-08-8) see: Flutamide

5-(trifluoromethyl)-2,4-bis[(trimethylsilyl)oxy]pyrimidine

(C₁₁H₁₉F₃N₂O₂Si₂; 7057-43-4) see: Trifluridine

2-trifluoromethyl-10-[3-(hexahydro-1,4-diazepino)propyl]phenothiazine

(C₂₁H₂₄F₃N₃S; 3828-13-5) see: Homofenazine

trifluoromethyl hypofluorite

(CF₄O; 373-91-1) see: Fluorouracil

trifluoromethyl iodide

(CF₃I; 2314-97-8) see: Flumedroxone acetate; Tolrestat

7-trifluoromethylisatin

(C₉H₄F₃NO₂; 391-12-8) see: Mefloquine

3'-trifluoromethylisobutyranilide

(C₁₁H₁₂F₃NO; 1939-27-1) see: Flutamide

4'-trifluoromethyl-5-methoxyvalerophenone

(C₁₃H₁₅F₃O₂; 61718-80-7) see: Fluvoxamine

3-trifluoromethyl-4-nitroaniline

see under 4-nitro-3-trifluoromethylaniline

1-(3-trifluoromethyl-4-nitrophenyl)-4,4-dimethyl-5-imino-2-imidazolidinone

(C₁₂H₁₁F₃N₄O₃; 63612-49-7) see: Nilutamide

3-trifluoromethyl-4-nitrophenyl isocyanate

(C₈H₃F₃N₂O₃; 16588-72-0) see: Nilutamide

4-(trifluoromethyl)phenol

(C₇H₅F₃O; 402-45-9) see: Fluoxetine

2-trifluoromethylphenothiazine

(C₁₃H₈F₃NS; 92-30-8) see: Fluphenazine; Homofenazine; Trifluoperazine; Trifluoperazine

4-[3-[2-(trifluoromethyl)-10H-phenothiazin-10-yl]propyl]-1-piperazinecarboxaldehyde

(C₂₁H₂₂F₃N₃OS; 807-57-8) see: Fluphenazine

γ-[4-(trifluoromethyl)phenoxy]benzenepropanamine

(C₁₆H₁₆F₃NO; 83891-03-6) see: Fluoxetine

(3-trifluoromethylphenyl)acetone

(C₁₀H₉F₃O; 21906-39-8) see: Fenfluramine

(3-trifluoromethylphenyl)acetone oxime

(C₁₀H₁₀F₃NO; 834-19-5) see: Fenfluramine

[[[2-(trifluoromethyl)phenyl]amino]methylene]propanedioic acid diethyl ester

(C₁₅H₁₆F₃NO₄; 23779-94-4) see: Floctafenine

4,4,4-trifluoro-1-(4-methylphenyl)butane-1,3-dione

(C₁₁H₉F₃O₂; 720-94-5) see: Celecoxib

3-trifluoromethylphenylmagnesium bromide

(C₇H₄BrF₃Mg; 402-26-6) see: Oxaflazone; Trifluoperidol

2-[4-(3-trifluoromethylphenyl)piperazino]ethanol

(C₁₃H₁₇F₃N₂O; 40004-29-3) see: Antrafenine

2-[[8-(trifluoromethyl)-4-quinoliny]amino]benzoic acid

(2,2-dimethyl-1,3-dioxolan-4-yl)methyl ester

(C₂₃H₂₁F₃N₂O₄; 23779-93-3) see: Floctafenine

2-[[8-(trifluoromethyl)-4-quinoliny]amino]benzoic acid methyl ester

(C₁₈H₁₃F₃N₂O₂; 23779-98-8) see: Floctafenine

2-trifluoromethyl-9-thioxanthone

(C₁₄H₇F₃OS; 1693-28-3) see: Flupentixol

5-trifluoromethyluracil

(C₅H₃F₃N₂O₂; 54-20-6) see: Trifluridine

2,3,4-trifluoro-1-nitrobenzene

(C₆H₂F₃NO₂; 771-69-7) see: Levofloxacin; Ofloxacin; Rufloxacin hydrochloride

2,3,4-trihydroxybenzaldehyde

(C₇H₆O₄; 2144-08-3) see: Benserazide

3,4,5-trihydroxybenzoic acid

(C₇H₆O₅; 149-91-7) see: Exifone

[R-(R*,S*)]-2,3,4-trihydroxybutanoic acid calcium salt (2:1)

(C₈H₁₄CaO₁₀; 70753-61-6) see: Carumonam

1α,3β,24(R)-trihydroxycholesta-5,7-diene

(C₂₇H₄₄O₃; 57701-47-0) see: Tacalcitol

3,16α,17α-trihydroxy-1,3,5(10)-estratriene

(C₁₈H₂₄O₃; 1228-72-4) see: Epimestrol

[1S-(1α,4α,5β,6α)]-[4,5,6-trihydroxy-3-(hydroxymethyl)-

2-cyclohexen-1-yl]carbamic acid phenylmethyl ester

(C₁₅H₁₉NO₆; 83470-76-2) see: Voglibose

[1S-(1α,5β,6α,7β,8α)]-6,7,8-trihydroxy-1-(hydroxy-

methyl)-2-oxa-4-azabicyclo[3.3.1]nonan-3-one

(C₈H₁₃NO₆; 85281-06-7) see: Voglibose

4β,5α,17β-trihydroxy-17-methyl-3-androstanone

(C₂₀H₃₂O₄; 95720-15-3) see: Oxymesterone

3β,17,21-trihydroxy-16-methylenepregn-5-en-20-one 3,21-diacetate

(C₂₆H₃₆O₆; 18882-90-1) see: Fluprednidene acetate; Prednylidene

(11β,16α)-11,17,21-trihydroxy-16-methylpregna-1,4,6-triene-3,20-dione

(C₂₂H₂₈O₅; 13954-10-4) see: Alclometasone dipropionate

11β,17,21-trihydroxypregna-1,4-diene-3,20-dione 21-chloroacetate

(C₂₃H₂₉ClO₆; 100931-13-3) see: Prednisolamate

16α,17,21-trihydroxypregna-4,9(11)-diene-3,20-dione

16,21-diacetate

(C₂₅H₃₂O₇; 98632-54-3) see: Triamcinolone

(3β,5α,11α)-3,11,17-trihydroxypregnan-20-one

(C₂₁H₃₄O₄) see: Halopredone diacetate

(11β)-11,17,21-trihydroxypregna-4-ene-3,20-dione

bis[(aminocarbonyl)hydrazono]

(C₂₃H₃₆N₆O₅; 74298-75-2) see: Hydrocortisone

cis-1,6,7-trihydroxy-5,6,7,8-tetrahydronaphthalene

(C₁₀H₁₂O₃; 35697-16-6) see: Nadolol

2,4,6-triiodo-3-(2-hydroxyethylcarbamoyl)-5-aminoacetamidobenzoic acid

(C₁₂H₁₂I₃N₃O₅; 59017-39-9) see: Ioxaglic acid

2,4,6-triiodo-3-(2-hydroxyethylcarbamoyl)-5-aminobenzoic acid

(C₁₀H₉I₃N₂O₄; 22871-58-5) see: Ioxaglic acid; Ioxitalamic acid

2,4,6-triiodo-5-(methylamino)-1,3-benzenedicarbonyl dichloride

(C₉H₄Cl₂I₃NO₂; 76350-18-0) see: Iotrolan

2,4,6-triiodo-5-methylamino-isophthalic acid

(C₉H₆I₃NO₄; 40976-89-4) see: Iotrolan

2,4,6-triiodo-3-methylcarbamoyl-5-acetylmethylamino-benzoyl chloride

see under metrizoyl chloride

- triisopropyl borate**
(C₉H₂₁BO₃; 5419-55-6) see: Losartan potassium; Rofecoxib
- triisopropyl phosphite**
(C₉H₂₁O₃P; 116-17-6) see: Clodronate disodium
- (3R,4S)-3-(triisopropylsilyloxy)-4-phenyl-2-azetidinone**
(C₁₈H₂₉NO₂Si; 132127-31-2) see: Docetaxel
- triisopropylsilyl trifluoromethanesulfonate**
(C₁₀H₂₁F₃O₃SSi; 80522-42-5) see: Tacrolimus
- 3,4,5-trimethoxybenzaldehyde**
(C₁₀H₁₂O₄; 86-81-7) see: Sulmetozin; Trimethoprim
- 3-(3,4,5-trimethoxybenzamido)pyridine**
(C₁₅H₁₆N₂O₄; 31638-96-7) see: Troxipide
- 3,4,5-trimethoxybenzenamine**
(C₉H₁₃NO₃; 24313-88-0) see: Trimetrexate glucuronate
- 1,2,3-trimethoxybenzene**
(C₉H₁₂O₃; 634-36-6) see: Trimetazidine
- 1,3,5-trimethoxybenzene**
(C₉H₁₂O₃; 621-23-8) see: Buflomedil
- 3,4,5-trimethoxybenzoyl chloride**
(C₁₀H₁₁ClO₄; 4521-61-3) see: Dilazep; Hexobendine; Trimethobenzamide; Trimetozine; Troxipide
- 2,3,4-trimethoxybenzyl chloride**
(C₁₀H₁₃ClO₃; 1133-49-9) see: Trimetazidine
- 3,4,5-trimethoxybenzyl chloride**
(C₁₀H₁₃ClO₃; 3840-30-0) see: Trimethoprim
- 3,4,5-trimethoxycinnamoyl chloride**
(C₁₂H₁₃ClO₄; 10263-19-1) see: Cinepazet; Cinepazide
- 3,4,5-trimethoxyphenylacetone nitrile**
(C₁₁H₁₃NO₃; 13338-63-1) see: Gallopamil
- 3-(3,4,5-trimethoxyphenyl)glycidic acid sodium salt**
(C₁₂H₁₃NaO₆; 39757-38-5) see: Tretiquinol
- 2-(3,4,5-trimethoxyphenyl)-3-methylbutyronitrile**
(C₁₄H₁₉NO₃; 36622-33-0) see: Gallopamil
- [(3,4,5-trimethoxyphenyl)methyl]propanedinitrile**
(C₁₃H₁₂N₂O₃; 5688-82-4) see: Trimethoprim
- 4-[(2,3,4-trimethoxyphenyl)methyl]-1-piperazinecarboxaldehyde**
(C₁₅H₂₂N₂O₄; 92700-82-8) see: Trimetazidine
- 3,4,5-trimethoxytoluene**
(C₁₀H₁₄O₃; 6443-69-2) see: Idebeneone
- trimethylacetyl chloride**
see under pivaloyl chloride
- trimethylamine**
(C₃H₉N; 75-50-3) see: Acetylcholine chloride; Betaine hydrate; Bethanechol chloride; Carbachol; Carnitine; Cetrimonium bromide; Choline chloride; Choline hydroxide; Decamethonium bromide; Hexacarboline bromide; Miltefosine; Prononium iodide
- 2,3,5-trimethylanisole**
(C₁₀H₁₄O; 20469-61-8) see: Etretnate
- 6,6,9-trimethyl-9-azabicyclo[3.3.1]nonan-3β-ol**
(C₁₁H₂₁NO; 36970-58-8) see: Mazaticol
- trimethylchlorosilane**
(C₃H₉ClSi; 75-77-4) see: Amoxicillin; Cefbuperazone; *cis*-Cefprozil; Fadrozole; Gestodene; Indanorex; Orlistat; Trifluridine
- 3,3,5-trimethylcyclohexanol**
(C₉H₁₈O; 116-02-9) see: Cyclandelate
- cis*-3,3,5-trimethylcyclohexanol**
(C₉H₁₈O; 933-48-2) see: Micinicate
- 5-(2,6,6-trimethyl-1-cyclohexen-1-yl)-3-oxo-4-pentenal**
(C₁₄H₂₀O₂) see: Retinol
- (1R-*cis*)-1,2,2-trimethyl-1,3-cyclopentanedicarboxylic acid compd. with (S)-N-ethyl-α-methyl-3-(trifluoromethyl)-benzeneethanamine (1:1)**
(C₂₂H₃₂F₃NO₄; 17325-68-7) see: Dexfenfluramine
- 3',4',6'-trimethyl-2',5'-dihydroxyacetophenone**
(C₁₁H₁₄O₃; 64794-45-2) see: Troglitazone
- 3-(2,5,5-trimethyl-1,3-dioxan-2-yl)thiophene**
(C₁₁H₁₆O₂S; 138890-86-5) see: Brinzolamide
- 3-(2,5,5-trimethyl-1,3-dioxan-2-yl)-2-thiophenesulfonamide**
(C₁₁H₁₇NO₄S₂; 138890-87-6) see: Brinzolamide
- 3,7,11-trimethyl-2,6,10-dodecatrienol**
(C₁₅H₂₆O; 4602-84-0) see: Indometacin farnesil
- 2,2,8-trimethyl-5-formyl-4H-pyrido[3,4-d]-1,3-dioxane**
(C₁₁H₁₃NO₃; 6560-65-2) see: Cicletanine
- 2,3,5-trimethylhydroquinone**
(C₉H₁₂O₂; 700-13-0) see: Seratrodast; α-Tocopherol; Troglitazone
- (S)-2,2,4-trimethyl-4-[2-[(1-methylethyl)thio]ethyl]-1,3-dioxolane**
(C₁₁H₂₂O₂S; 123450-78-2) see: Troglitazone
- (S)-2,3,5-trimethyl-6-[1-[(1-methylethyl)thio]-2-(2,2,4-trimethyl-1,3-dioxolan-4-yl)ethyl]-1,4-benzenediol 4-acetate**
(C₂₂H₃₄O₅S) see: Troglitazone
- N,N,6-trimethyl-2-(4-methylphenyl)imidazo[1,2-a]pyridine-3-methanamine**
(C₁₈H₂₁N₃; 106961-33-5) see: Zolpidem
- trimethylolpropane**
(C₆H₁₄O₃; 77-99-6) see: Propatyl nitrate
- trimethyl orthoacetate**
(C₅H₁₂O₃; 1445-45-0) see: Brinzolamide; Diflorasone diacetate
- trimethyl orthobenzoate**
(C₁₀H₁₄O₃; 707-07-3) see: Betamethasone benzoate
- trimethyl orthobutyrate**
(C₇H₁₆O₃; 43083-12-1) see: Difluprednate
- trimethyl orthoformate**
(C₄H₁₀O₃; 149-73-5) see: Cisapride; Flosequinan; Lamivudine; Pyrimethamine; Troglitazone
- trimethyl orthovalerate**
(C₈H₁₈O₃; 13820-09-2) see: Betamethasone valerate; Prednival acetate
- 2,3,6-trimethyl-4-(oxiranylmethoxy)phenol acetate**
(C₁₄H₁₈O₄; 22664-53-5) see: Metipranolol
- 2,3,5-trimethylphenol**
(C₉H₁₂O; 697-82-5) see: Etretnate
- 2,4,6-trimethylphenol**
(C₉H₁₂O; 527-60-6) see: Metipranolol
- N,N,N-trimethyl-4-(phenylmethoxy)-1H-indole-2-methanaminium iodide**
(C₁₉H₂₃N₂O) see: Mepindolol
- trimethyl phosphate**
(C₃H₉O₄P; 512-56-1) see: Lamivudine
- trimethyl phosphite**
(C₃H₉O₃P; 121-45-9) see: Betacarotene
- 1,2,2-trimethylpropylamine**
(C₆H₁₅N; 3850-30-4) see: Pinacidil

N*-(1,2,2-trimethylpropyl)carbonimidoyl-4-pyridinamine**(C₇H₁₁N₃; 67236-48-0) see: Pinacidil**2,3,5-trimethylpyridine *N*-oxide**(C₈H₁₁NO; 74409-42-0) see: Omeprazole**1,3,4-trimethylpyridinium iodide**(C₉H₁₂N; 6283-41-6) see: PentazocineN*-(trimethylsilyl)acetamide**(C₅H₁₃NOSi; 13435-12-6) see: Cefixime; Cefprozime***N*-(trimethylsilyl)benzaldehyde imine**(C₁₀H₁₅NSi; 17599-61-0) see: Docetaxel; Paclitaxel**trimethylsilyl chloride**

see under trimethylchlorosilane

trimethylsilyl cyanide(C₄H₉NSi; 7677-24-9) see: Trandolapril**2-trimethylsilyl-1,3-dithiane**(C₇H₁₆S₂Si; 13411-42-2) see: Rizatriptan benzoate**trimethylsilyl isocyanate**(C₄H₉NOSi; 1118-02-1) see: Zileuton**(*E*)-1-trimethylsilyl-2-nonene**(C₁₂H₂₆Si; 63922-74-7) see: Orlistat**9-(2-trimethylsilyloxyethoxymethyl)guanine**(C₁₁H₁₉N₅O₃Si) see: Aciclovir**2-(trimethylsilyl)thiazole**(C₆H₁₁NSSi; 79265-30-8) see: Docetaxel**trimethylsilyl triflate**(C₄H₉F₃O₃SSi; 27607-77-8) see: Gemcitabine; Oseltamivir; Zanamivir**trimethylsilyl trifluoromethanesulfonate**

see under trimethylsilyl triflate

trimethylsulfonium iodide(C₃H₉IS; 2181-42-2) see: Fenoldopam mesilate**trimethylsulfoxonium iodide**(C₃H₉IOS; 1774-47-6) see: Flosequinan; Fluconazole; Nebivolol**2,4,4-trimethyl-1,2,3,4-tetrahydroisoquinoline-1,3-dione**(C₁₂H₁₃NO₂; 15787-08-3) see: Gliquidone**trimethyltin azide**(C₃H₉N₃Sn; 1118-03-2) see: Candesartan cilexetil**[*R*-(*R**,*S**)]-*N,N*, α -trimethyl- β -[[1-[(trimethylsilyl)oxy]-1-octenyl]oxy]benzeneethanamine**(C₂₂H₃₉NO₂Si; 114264-03-8) see: Orlistat**trioxane**(C₃H₆O₃; 110-88-3) see: Niaprazine**3,6,9-trioxaundecanedioic acid**(C₈H₁₄O₇; 13887-98-4) see: Iotroxic acid**3,6,9-trioxaundecanedioyl chloride**(C₈H₁₂Cl₂O₅; 31255-25-1) see: Iotroxic acid**3,5,17-trioxo-11-bromo-13-ethyl-4,5-secogon-9-ene**(C₁₉H₂₅BrO₃) see: Gestrinone**2,3,5-trioxocyclopentaneheptanoic acid**(C₁₂H₁₆O₅; 22935-42-8) see: Misoprostol**3,11,20-trioxo-5 α -pregnane**(C₂₁H₂₀O₃; 2089-06-7) see: Alfaxalone**triphenylchloromethane**(C₁₉H₁₅Cl; 76-83-5) see: Candesartan cilexetil; Cefotaxime; Cefazidime; Indeloxacine; Losartan potassium; Remoxipride; Zidovudine**1-(triphenylmethyl)-5-(2-bromophenyl)-1*H*-tetrazol**(C₂₆H₁₉BrN₄; 143945-72-6) see: Losartan potassium**triphenylmethyl chloride**

see under triphenylchloromethane

4-(triphenylmethyl)-2-morpholinemethanol(C₂₄H₂₅NO₂; 131965-77-0) see: Indeloxacine**[2-[1-(triphenylmethyl)-1*H*-tetrazol-5-yl]phenyl]boronic acid**(C₂₆H₂₁BN₄O₂; 144873-97-2) see: Losartan potassium**5'-*O*-(triphenylmethyl)thymidine 3'-methanesulfonate**(C₃₀H₃₀N₂O₇S; 42214-24-4) see: Zidovudine**4-(triphenylmethyl)-2-(*p*-toluenesulfonyloxymethyl)-morpholine**(C₃₁H₃₁NO₄S; 60929-57-9) see: Indeloxacine**triphenylphosphine**(C₁₈H₁₅P; 603-35-0) see: Acrivastine; Betacarotene; Calcipotriol; Canthaxanthin; Cefixime; *cis*-Cefprozil; Etretnate; Iloprost; Imiquimod; Isotretinoin; Repaglinide; Retinol; Tretinoin**5-triphenylphosphoniopentancarboxylate**(C₂₃H₂₃O₂P; 60633-16-1) see: Dinoprost**(triphenylphosphoranylidene)acetic acid 1,1-dimethyl-ethyl ester**(C₂₄H₂₅O₂P; 35000-38-5) see: Lacidipine**5-(triphenylphosphoranylidene)pentanoic acid**(C₂₃H₂₃O₂P; 39968-97-3) see: Latanoprost; Unoprostone isopropyl***cis,trans*-triprolidine**(C₁₉H₂₂N₂; 10191-42-1) see: Triprolidine**(2 α ,5 α ,6 β ,11 α)-5,17,21-tris(acetyloxy)-2-bromo-6-fluoro-****11-[(methylsulfonyl)oxy]pregnane-3,20-dione**(C₂₈H₃₈BrFO₁₁S; 57781-11-0) see: Halopredone diacetate**(3 β ,5 α ,6 β ,16 α)-3,5,21-tris(acetyloxy)-6-fluoro-17-hydroxy-16-methylpregnane-20-one**(C₂₈H₄₁FO₈) see: Flumetasone**1,2,3-tris(2-diethylaminoethoxy)benzene**(C₂₄H₄₅N₃O₃; 153-76-4) see: Gallamine triethiodide**2',3',5'-tris(methanesulfonyl)-5-methyluridine**(C₁₃H₂₀N₂O₁₂S₃; 99614-96-7) see: Stavudine**1,1,2-tris(2-methoxyethoxy)ethane**(C₁₁H₂₄O₆; 83270-35-3) see: Glymidine**[[tris(1-methylethyl)silyl]oxy]acetic acid 2-phenylcyclohexyl ester**(C₂₃H₃₈O₃Si; 152185-73-4) see: Docetaxel**trisodium thiophosphate dodecahydrate**(H₂₄Na₃O₁₅PS; 51674-17-0) see: Amifostine**[*S*-(*R**,*R**)]-*N,N*, α -tris(phenylmethyl)oxiranemethanamine**(C₂₄H₂₅NO; 127927-43-9) see: Saquinavir**tris(trimethylsilyloxy)ethylene**(C₁₁H₂₈O₃Si₃; 69097-20-7) see: Saquinavir**(-)-(*S*)-1-trityl-2-(aminomethyl)pyrrolidine**(C₂₄H₂₆N₂; 98598-84-6) see: Remoxipride**5'-*O*-trityl-2,3'-anhydrothymidine**(C₂₉H₂₆N₂O₄; 25442-42-6) see: Zidovudine**trityl chloride**

see under triphenylchloromethane

tropine(C₈H₁₃NO; 120-29-6) see: Benztropine; Clobenztropine; Deptropine; Homatropine; Octatropine methylbromide; Tropisetron

tropine 2-propylvalerate(C₁₆H₂₉NO₂; 25333-49-7) see: Octatropine methylbromide**tropinone**(C₈H₁₃NO; 532-24-1) see: Homatropine**tropinone-2,4-dicarboxylic acid**(C₁₀H₁₃NO₅) see: Homatropine**Trp-Met-Asp-Phe-NH₂**(C₂₉H₃₆N₆O₆S; 1947-37-1) see: Ceruletide**tryptamine**(C₁₀H₁₂N₂; 61-54-1) see: Vincamine**L-tryptophan**(C₁₁H₁₂N₂O₂; 73-22-3) see: Eptifibatide; Oxitriptan**DL-tryptophan**(C₁₁H₁₂N₂O₂; 54-12-6) see: L-Tryptophan**tyramine**(C₈H₁₁NO; 51-67-2) see: Bezafibrate**Tyr-NH-NH-Z.HCl**(C₁₇H₂₀ClN₃O₄; 17664-73-2) see: Ceruletide**L-tyrosine**(C₉H₁₁NO₃; 60-18-4) see: Bentiromide; Cetrorelix; Levodopa; Tirofiban hydrochloride**DL-tyrosine**(C₉H₁₁NO₃; 556-03-6) see: Tiropramide**Tyr-Phe-OMe.HCl**(C₁₉H₂₃ClN₂O₄; 65918-99-2) see: Desmopressin

U

undecanal(C₁₁H₂₂O; 112-44-7) see: Orlistat**undecanoyl chloride**(C₁₁H₂₁ClO; 17746-05-3) see: Estradiol undecylate; Nandrolone undecylate**10-undecenoyl chloride**(C₁₁H₁₉ClO; 38460-95-6) see: Boldenone undecenylate**uracil**(C₄H₄N₂O₂; 66-22-8) see: Fluorouracil**urea**(CH₄N₂O; 57-13-6) see: Alfuzosin; Allantoin; Amobarbital; Barbitol; Bromisoval; Butalbital; Carbasalate calcium; Carbromal; Cyclopentobarbital; Dimethadione; Dipyrindamole; Enoximone; Ethotoin; Heptabarb; Metaxalone; Methyclothiazide; Orotic acid; Paramethadione; Pentobarbital; Phenacemide; Pheneturide; Phenobarbital; Phenytoin; Proquazone; Secbutabarbital; Secobarbital; Sulfadimethoxine; Thalidomide; Trimethadione

V

valeric anhydride(C₁₀H₁₈O₃; 2082-59-9) see: Estradiol valerate**valeronitrile**(C₅H₉N; 110-59-8) see: Eprosartan**valeryl chloride**(C₅H₉ClO; 638-29-9) see: Amsacrine; Betamethasone divaluate; Diflucortolone valerate; Irbesartan; Valsartan**valienamine**(C₇H₁₃NO₄; 38231-86-6) see: Voglibose**valiolamine**(C₇H₁₅NO₅; 83465-22-9) see: Voglibose**vanillic acid**(C₈H₈O₄; 121-34-6) see: Etamivan**vanillin**(C₈H₈O₃; 121-33-5) see: Cyclovalone; Entacapone; Etamivan; Levodopa**veratraldehyde**(C₉H₁₀O₃; 120-14-9) see: Alfuzosin; Fenoldopam mesilate; Moxaverine; Rimiterol; Vetrabutine**veratrole**(C₈H₁₀O₂; 91-16-7) see: Papaverine; Tolcapone**vidarabine**(C₁₀H₁₃N₅O₄; 5536-17-4) see: Vidarabine**vinblastine**(C₄₆H₅₈N₄O₉; 865-21-4) see: Vindesine**(-)-vincadifformine**(C₂₁H₂₆N₂O₂; 3247-10-7) see: Vincamine**(-)-vincadifformine 9-oxide**(C₂₁H₂₆N₂O₃; 38199-35-8) see: Vincamine**(+)-vincamine**(C₂₁H₂₆N₂O₃; 1617-90-9) see: Vinpocetine**(±)-vincamine**(C₂₁H₂₆N₂O₃; 2122-39-6) see: Vincamine**vinylene carbonate**(C₃H₂O₃; 872-36-6) see: Bisantrene**vinyl-β-ionol**(C₁₅H₂₄O; 5208-93-5) see: Isotretinoin; Retinol; Tretinoin**vinylmagnesium bromide**(C₂H₃BrMg; 1826-67-1) see: Docetaxel; Montelukast sodium; Paclitaxel**vinylmagnesium chloride**(C₂H₃ClMg; 3536-96-7) see: Levonorgestrel**5-vinyl-2-pyrrolidone**(C₆H₉NO; 7529-16-0) see: Vigabatrin**vitamin A acid ethyl ester**(C₂₂H₃₂O₂; 3899-20-5) see: Tretinoin**vitamin D₂**(C₂₈H₄₄O; 50-14-6) see: Calcipotriol

W

Wieland-Gumlich aldehyde(C₁₉H₂₂N₂O₃; 466-85-3) see: Alcuronium chloride**wintergreen oil**

see under methyl salicylate

X

xanthene-9-carbonyl chloride(C₁₄H₉ClO₂; 26454-53-5) see: Propantheline bromide**xanthene-9-carboxylic acid**(C₁₄H₁₀O₃; 82-07-5) see: Propantheline bromide**9H-xanthene-9-carboxylic acid 2-[bis(1-methylethyl)-amino]ethyl ester**(C₂₂H₂₇NO₃; 13347-41-6) see: Propantheline bromide**xanthinol**(C₁₃H₂₁N₅O₄; 2530-97-4) see: Xanthinol nicotinate**2,3-xyleneol**(C₈H₁₀O; 526-75-0) see: Xibenolol

3,4-xylenol(C₈H₁₀O; 95-65-8) see: Xibomol**2,6-xylylidine**

see under 2,6-dimethylaniline

Z**Z-D-Arg(Tos)-Gly-OEt**(C₂₅H₃₃N₅O₇S; 6056-56-0) see: Desmopressin**Z-D-Arg(Tos)-OH**(C₂₁H₂₆N₄O₆S; 5687-59-2) see: Desmopressin**Z-Asn-Arg(NO₂)-O-CH₃**(C₁₉H₂₇N₇O₈; 2785-17-3) see: Angiotensinamide**Z-Asn-Arg(NO₂)-OH**(C₁₈H₂₅N₇O₈; 2677-36-3) see: Angiotensinamide**Z-Asn-Arg(NO₂)-Val-Tyr-Val-His-Pro-Phe-O-CH₃**(C₅₈H₇₇N₁₅O₁₅; 18906-42-8) see: Angiotensinamide**Z-Asn-Cys(Bzl)-Pro-D-Arg(Tos)-Gly-NH₂**(C₄₂H₅₄N₁₀O₁₀S₂; 65918-95-8) see: Desmopressin**Z-Asn-ONp**(C₁₈H₁₇N₃O₇; 3256-57-3) see: Desmopressin**Z-Cys(Bzl)-ONp**(C₂₄H₂₂N₂O₆S; 3401-37-4) see: Desmopressin**Z-Cys(Bzl)-Pro-D-Arg(Tos)-Gly-NH₂**(C₃₈H₄₈N₈O₈S₂; 65918-93-6) see: Desmopressin**zearalenone**(C₁₈H₂₂O₅; 17924-92-4) see: Zeranol**Z-Gln-Asn-Cys(Bzl)-Pro-D-Arg(Tos)-Gly-NH₂**(C₄₇H₆₂N₁₂O₁₂S₂) see: Desmopressin**Z-Gln(Mbh)-His-OH**(C₃₄H₃₇N₅O₈; 35778-63-3) see: Protirelin**Z-Gln(Mbh)-His-OME**(C₃₅H₃₉N₅O₈; 35738-94-4) see: Protirelin**Z-Gln(Mbh)-His-Pro-NH₂**(C₃₉H₄₅N₇O₈; 35738-95-5) see: Protirelin**Z-Gln(Mbh)-OH**(C₂₈H₃₀N₂O₇; 28252-49-5) see: Protirelin**Z-Gln-ONp**(C₁₉H₁₉N₃O₇; 7763-16-8) see: Desmopressin**zinc chloride (ZnCl₂)**(Cl₂Zn; 7646-85-7) see: Polaprezinc**Z-Pro-D-Arg(Tos)-Gly-NH₂**(C₂₈H₃₇N₇O₇S; 6667-83-0) see: Desmopressin**Z-Pro-D-Arg(Tos)-Gly-OEt**(C₃₀H₄₀N₆O₈S; 5995-58-4) see: Desmopressin**Z-Pro-OH**see under *N*-benzyloxycarbonyl-L-proline**Z-Pro-O-Np**(C₁₉H₁₈N₂O₆; 3304-59-4) see: Desmopressin**Z-Pro-Phe-O-CH₃**(C₂₃H₂₆N₂O₅; 23631-72-3) see: Angiotensinamide**Z-Pyr**(C₁₃H₁₃NO₅; 32159-21-0) see: Ceruletide**Z-Pyr-Gln-Asp(OBzl)-Tyr-NH-NH-Z**(C₄₆H₄₉N₇O₁₃; 17664-76-5) see: Ceruletide**Z-Tyr(Bzl)-ONp**(C₃₀H₂₆N₂O₇; 3562-03-6) see: Desmopressin**Z-Tyr(Bzl)-Phe-OME**(C₃₄H₃₄N₂O₆; 65918-98-1) see: Desmopressin**Z-Val-Tyr-Val-His-Pro-Phe-O-CH₃**(C₄₈H₆₀N₈O₁₀; 14331-00-1) see: Angiotensinamide