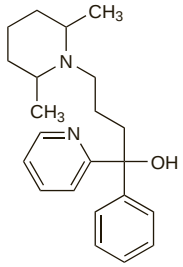
Pirmenol Hydrochloride *(USAN, rINNM)*

CI-845; CL-845; Hidrocloruro de pirmenol; Pirménol, Chlorhydrate de; Pirmenoli Hydrochloridum. (±)-*cis*-2,6-Dimethyl-α-phenyl-α-2-pyridyl-1-piperidinebutanol hydrochloride.

Пирменола Гидрохлорид

$C_{22}H_{30}N_2O,HCl$ = 374.9.

CAS — 68252-19-7 (pirmenol); 61477-94-9 (pirmenol hydrochloride).



(pirmenol)

Profile

Pirmenol hydrochloride is an antiarrhythmic with class Ia activity (p.1153).

◊ References.

1. Hampton EM, *et al.* Initial and long-term outpatient experience with pirmenol for control of ventricular arrhythmias. *Eur J Clin Pharmacol* 1986; **31:** 15–22.
2. Stringer KA, *et al.* Enhanced pirmenol elimination by rifampin. *J Clin Pharmacol* 1988; **28:** 1094–7.
3. Janiczek N, *et al.* Pharmacokinetics of pirmenol enantiomers and pharmacodynamics of pirmenol racemate in patients with premature ventricular contractions. *J Clin Pharmacol* 1997; **37:** 502–13.

Pitavastatin *(rINN)*

Itavastatin; Nisvastatin; NK-104; Pitavastatina; Pitavastatine; Pitavastatinum. (3*R*,5*S*,6*E*)-7-[2-Cyclopropyl-4-(*p*-fluorophenyl)-3-quinolyl]-3,5-dihydroxy-6-heptenoic acid.

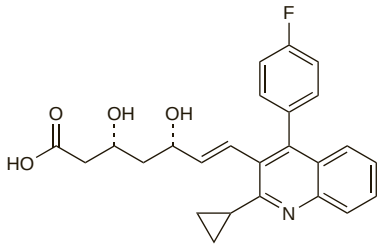
Питавастатин

$C_{25}H_{24}FNO_4$ = 421.5.

CAS — 147511-69-1 (pitavastatin); 147526-32-7 (pitavastatin calcium).

ATC — C10AA08.

ATC Vet — QC10AA08.



Profile

Pitavastatin, a hydroxymethylglutaryl coenzyme A (HMG-CoA) reductase inhibitor (or statin), is a lipid regulating drug with similar properties to simvastatin (p.1390). It is used as the calcium salt in the treatment of hyperlipidaemias.

Preparations

Proprietary Preparations (details are given in Part 3)
Jpn: Livalo.

Plant Stanols and Sterols

Phytosterols.

Станолы и Стерины из Растений

Phytosterol

Fitosterolis; Fitoszterin; Fytosterol; Fytosteroli; Phytosterin; Phytostérol; Phytosterolum.

Фитостерин; Фитостерол

Pharmacopoeias. In *Eur.* (see p.vii).

Ph. Eur. 6.2 (Phytosterol). A natural mixture of sterols obtained from plants of the genera *Hypoxis*, *Pinus*, and *Picea*. It contains not less than 70% β-sitosterol, calculated with reference to the dried substance. A white or almost white powder. Practically insoluble in water; soluble in tetrahydrofuran; sparingly soluble in ethyl acetate. Store in airtight containers. Protect from light.

Sitostanol

Dihydro-β-sitosterol; Fucostanol; β-Sitostanol; Stigmastanol. (3β,5α)-Stigmastan-3-ol.

Ситостанол

$C_{29}H_{52}O$ = 416.7.

CAS — 83-45-4.

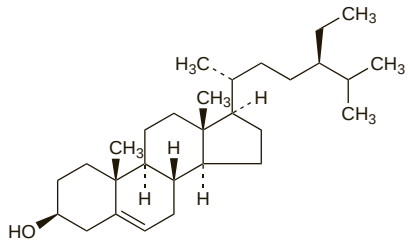
Sitosterol

β-Sitosterin; β-Sitosterol. (3β)-Stigmast-5-en-3-ol.

Ситостерин; Ситостерол

$C_{29}H_{50}O$ = 414.7.

CAS — 83-46-5.



Profile

Stanols and sterols occur naturally in plants and are chemically related to cholesterol. The term phytosterol is used to describe both unsaturated plant sterols and their saturated (hydrogenated) counterparts, plant stanols (phytostanols). Sitosterol, campesterol, and stigmasterol are the commonest phytosterols; their respective stanols are found in lower amounts naturally, but can be produced by hydrogenation of sterols.

Dietary phytosterols have a cholesterol-lowering action; they reduce cholesterol absorption from the intestine and may also have other mechanisms. Sitosterol has been used as a lipid regulating drug, and both sterol and stanol esters (formed by esterification with unsaturated fatty acids) have been incorporated into margarines and other food products for use in the dietary management of hypercholesterolaemia. Sitosterol, sitostanol, and other phytosterols, are also used in nutritional supplements.

Sitosterol is also used in benign prostatic hyperplasia (p.2178), although its mechanism of action is not clear. It is given orally in usual initial doses of 20 mg three times daily.

There have been reports of bleeding complications associated with supplements containing phytosterols.

◊ References.

1. Wilt T, *et al.* Beta-sitosterols for benign prostatic hyperplasia. Available in The Cochrane Database of Systematic Reviews; Issue 3. Chichester: John Wiley; 1999 (accessed 24/06/05).
2. Law M. Plant sterol and stanol margarines and health. *BMJ* 2000; **320:** 861–4.
3. Lichtenstein AH, Deckelbaum RJ. Stanol/sterol ester-containing foods and blood cholesterol levels: a statement for healthcare professionals from the Nutrition Committee of the Council on Nutrition, Physical Activity, and Metabolism of the American Heart Association. *Circulation* 2001; **103:** 1177–9. Also available at: http://circ.ahajournals.org/cgi/reprint/103/8/1177.pdf (accessed 01/06/08)
4. Katan MB, *et al.* Efficacy and safety of plant stanols and sterols in the management of blood cholesterol levels. *Mayo Clin Proc* 2003; **78:** 965–78.
5. Health Canada. Sterol and sterolin-containing products: hematologic adverse reactions. *Can Adverse React News* 2004; **14** (2): 1–2. Also available at: http://www.hc-sc.gc.ca/dhp-mps/alt_formats/hpfb-dgpsa/pdf/medeff/carn-bcei_v14n2-eng.pdf (accessed 19/08/08)
6. Miettinen TA, Gylling H. Plant stanol and sterol esters in prevention of cardiovascular diseases: a review. *Int J Clin Pharmacol Ther* 2006; **44:** 247–50.
7. Devaraj S, Jialal I. The role of dietary supplementation with plant sterols and stanols in the prevention of cardiovascular disease. *Nutr Rev* 2006; **64:** 348–54.
8. Moruisi KG, *et al.* Phytosterols/stanols lower cholesterol concentrations in familial hypercholesterolemic subjects: a systematic review with meta-analysis. *J Am Coll Nutr* 2006; **25:** 41–8.
9. Naruszewicz M, Kozlowska-Wojciechowska M. Plant sterols beyond low-density lipoprotein-cholesterol. *Br J Nutr* 2007; **98:** 454–5.
10. Weingärtner O, *et al.* Pflanzliche Sterole als Nahrungsmittelzusatz oder -additiva zur Prävention kardiovaskulärer Erkrankungen. *Dtsch Med Wochenschr* 2008; **133:** 1201–4.

Preparations

Proprietary Preparations (details are given in Part 3)
Arg.: Prostacur; ***Austria:*** Harzol; ***Ger.:*** Azuprostat; Flemun†; Harzol; Prostasal†; Sito-Lande†; Sitosterin; Triastonal; ***Indon.:*** Cholbalance; ***Pol.:*** Prostalizyna; Prosterol; ***Thai.:*** Mebo; ***UAE:*** Mebo.

Multi-ingredient: ***Arg.:*** Cholesterol Reducing Plan†; Sojasterol†; SX-22; ***Fr.:*** Bakol; ***Hong Kong:*** Basikol; Physiogel; ***Rus.:*** Herbion Urtica (Гербион Уртика); ***UK:*** Kolestop; Lestrin; ***USA:*** Better Cholesterol; Better Prostate†; Cholesterol Support; Prostate Support; Super Beta Prostate.

Plasminogen *(BAN)*

Plasminógeno.

CAS — 9001-91-6.

Profile

Plasminogen is the specific substance derived from plasma which, when activated to plasmin, has the property of lysing fibrinogen, fibrin, and some other proteins. Its role in the control of haemostasis is described further on p.1045. Plasminogen has been investigated as a thrombolytic and has been used with other blood products in wound-sealant preparations.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: ***Arg.:*** Tissucol Duo Quick†; ***Austria:*** Tissucol; Tissucol Duo Quick; ***Belg.:*** Tissucol Duo; ***Canad.:*** Tisseel; ***Cz.:*** Tissucol; ***Denm.:*** Tisseel Duo Quick; ***Fin.:*** Tisseel Duo Quick; ***Fr.:*** Tissucol; ***Ger.:*** Tissucol Duo S; Tissucol-Kit; ***Hong Kong:*** Tisseel; ***Hung.:*** Tissucol-Kit; ***Israel:*** Tisseel; ***Mex.:*** Tissucol†; ***Spain:*** Tissucol Duo; ***Swed.:*** Tisseel Duo Quick; ***Switz.:*** Tissucol; Tissucol Duo S; ***UK:*** Tisseel.

Policosanol

Поликосанол

CAS — 142583-61-7.

ATC — C10AX08.

ATC Vet — QC10AX08.

Octacosanol

Cluytyl Alcohol; Montanyl Alcohol; Octacosyl Alcohol. 1-Octacosanol.

Октакосанол

$C_{28}H_{58}O$ = 410.8.

CAS — 557-61-9.

Profile

Policosanol is a mixture of higher primary aliphatic alcohols (fatty alcohols) derived from plant waxes such as sugar cane wax; it is also found in beeswax and in wheat-germ oil (p.2415). The main component is octacosanol. Policosanol appears to have cholesterol-lowering properties and has been used in the treatment of hypercholesterolaemias, although its benefit has been disputed. Both policosanol and octacosanol are used in nutritional supplements.

◊ References.

1. Gouni-Berthold I, Berthold HK. Policosanol: clinical pharmacology and therapeutic significance of a new lipid-lowering agent. *Am Heart J* 2002; **143:** 356–65.
2. Pepping J. Policosanol. *Am J Health-Syst Pharm* 2003; **60:** 1112–5.
3. Berthold HK, *et al.* Effect of policosanol on lipid levels among patients with hypercholesterolemia or combined hyperlipidemia: a randomized controlled trial. *JAMA* 2006; **295:** 2262–9.

Preparations

Proprietary Preparations (details are given in Part 3)
Arg.: Lipex; ***Austral.:*** Policor; ***Chile:*** PPG; ***Indon.:*** Polikos; ***Mex.:*** Mercol; ***S.Afr.:*** Phytocor; ***Venez.:*** Dupla†.

Multi-ingredient: ***Ital.:*** Colesterase; Novostatin; ***UK:*** Chol-Aid; Octacosanol.

Polythiazide *(BAN, USAN, rINN)* ⊗

NSC-108161; P-2525; Politiazida; Polythiazidum; Polytiatsidi; Polytiazid. 6-Chloro-3,4-dihydro-2-methyl-3-(2,2,2-trifluoroethylthiomethyl)-2*H*-1,2,4-benzothiadiazine-7-sulphonamide 1,1-dioxide.

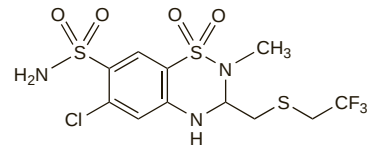
Политиазид

$C_{11}H_{13}ClF_3N_3O_4S_3$ = 439.9.

CAS — 346-18-9.

ATC — C03AA05.

ATC Vet — QC03AA05.



Pharmacopoeias. In *Br.*

BP 2008 (Polythiazide). A white or almost white, crystalline powder with an alliaceous odour. Practically insoluble in water and in chloroform; sparingly soluble in alcohol.

Adverse Effects, Treatment, and Precautions

As for Hydrochlorothiazide, p.1307.

Interactions

As for Hydrochlorothiazide, p.1309.

Pharmacokinetics

Polythiazide is fairly readily absorbed from the gastrointestinal tract. The estimated plasma elimination half-life is about 26 hours. More than 80% may be bound to plasma proteins. It is