

Cinepazet Maleate (BANM, USAN, piNNM)

Cinépazet, Maléate de; Cinepazeti Maleas; Cinepazic Acid Ethyl Ester Maleate; Maleato de cinepazet. Ethyl 4-(3,4,5-trimethoxycinnamoyl)piperazin-1-ylacetate hydrogen maleate.

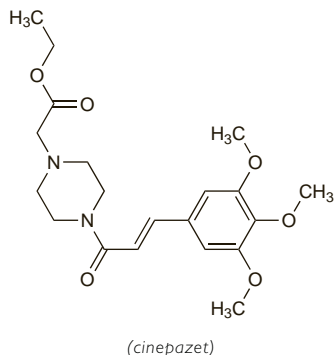
Цинепазета Малеат

$C_{20}H_{28}N_2O_6 \cdot C_4H_4O_4 = 508.5$.

CAS — 23887-41-4 (cinepazet); 50679-07-7 (cinepazet maleate).

ATC — C01DX14.

ATC Vet — QC01DX14.

**Profile**

Cinepazet maleate is a vasodilator that has been used in angina pectoris.

Cinepazide Maleate (BANM, riNNM)

Cinépazide, Maléate de; Cinepazidi Maleas; Maleato de cinepazida; MD-67350. 1-(Piperolidin-1-ylcarbonylmethyl)-4-(3,4,5-trimethoxycinnamoyl)piperazine hydrogen maleate.

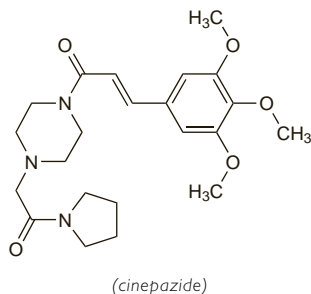
Цинепазид Малеат

$C_{27}H_{31}N_3O_5 \cdot C_4H_4O_4 = 533.6$.

CAS — 23887-46-9 (cinepazide); 26328-04-1 (cinepazide maleate).

ATC — C04AX27.

ATC Vet — QC04AX27.

**Profile**

Cinepazide maleate is a vasodilator that has been used in peripheral vascular disorders, but has been withdrawn from the market in some countries after reports of agranulocytosis.

Ciprofibrate (BAN, USAN, riNN)

Ciprofibrát; Ciprofibrat; Ciprofibratas; Ciprofibrato; Ciprofibratum; Siprofibráatti; Win-35833. 2-[4-(2,2-Dichlorocyclopropyl)phenoxy]-2-methylpropionic acid.

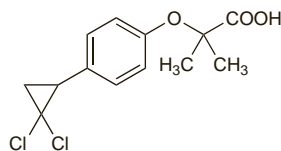
Ципрофибрат

$C_{13}H_{14}Cl_2O_3 = 289.2$.

CAS — 52214-84-3.

ATC — C10AB08.

ATC Vet — QC10AB08.



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

Ph. Eur. 6.2 (Ciprofibrate). A white or slightly yellow, crystal-

line powder. Practically insoluble in water; freely soluble in dehydrated alcohol; soluble in toluene. Store in airtight containers. Protect from light.

Adverse Effects and Precautions

As for Bezafibrate, p.1232.

Interactions

As for Bezafibrate, p.1232.

Pharmacokinetics

Ciprofibrate is readily absorbed from the gastrointestinal tract; peak plasma concentrations occur within 1 to 4 hours. Ciprofibrate is highly protein bound. It is excreted in the urine as unchanged drug and as glucuronide conjugates. The elimination half-life varies from about 38 to 86 hours in patients on long-term therapy.

Uses and Administration

Ciprofibrate, a fibric acid derivative, is a lipid regulating drug with actions on plasma lipids similar to those of bezafibrate (p.1233).

It is used to reduce total cholesterol and triglycerides in the management of hyperlipidaemias (p.1169), including type IIa, type IIb, type III, and type IV hyperlipoproteinaemias. The usual oral dose is 100 mg daily. The dose should be reduced in renal impairment (see below).

Administration in renal impairment. Ciprofibrate is contra-indicated in patients with severe renal impairment. Licensed product information suggests reducing the dose to 100 mg every other day for patients with moderate renal impairment.

Renal clearance of ciprofibrate was reduced and elimination half-life about doubled in patients with severe renal impairment.¹ Mild renal impairment slowed the urinary excretion of ciprofibrate but not its extent. The clearance of ciprofibrate was unaffected by haemodialysis.

1. Ferry N, *et al.* The influence of renal insufficiency and haemodialysis on the kinetics of ciprofibrate. *Br J Clin Pharmacol* 1989; **28**: 675-81.

Preparations

Proprietary Preparations (details are given in Part 3)

Arg.: Estaprol; **Belg.:** Hyperlipen; **Braz.:** Lipless; Oroxadin; **Chile:** Estaprol; **Cz.:** Lipanor; **Fr.:** Lipanor; **Gr.:** Savilen; **Hung.:** Lipanor; **Indon.:** Modalim; **Israel:** Lipanor; **Malaysia:** Modalim; **Mex.:** Oroxadin; **Neth.:** Hyperlipen; **Modalim;** **Philipp.:** Modalim; **Pol.:** Lipanor; **Port.:** Fibratin; Lipanor; **Singapore:** Modalim; **Switz.:** Hyperlipen; **UK:** Modalim; **Venez.:** Hiperlipen.

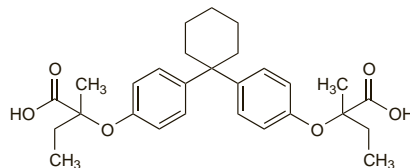
Clinofibrate (riNN)

Clinofibrato; Clinofibratum; S-8527. 2,2'-(Cyclohexylidenebis(4-phenyleneoxy))bis[2-methylbutyric acid].

Клинофибрат

$C_{28}H_{36}O_6 = 468.6$.

CAS — 30299-08-2.



Pharmacopoeias. In *Jpn.*

Profile

Clinofibrate, a fibric acid derivative (see Bezafibrate, p.1232), is a lipid regulating drug used in the treatment of hyperlipidaemias (p.1169). The usual oral dose is 200 mg three times daily.

Preparations

Proprietary Preparations (details are given in Part 3)

Jpn.: Lipoclin.

Clofibrate (BAN, USAN, riNN)

AY-61123; Clofibrato; Clofibratum; Ethyl *p*-Chlorophenoxyisobutyrate; Ethyl Clofibrate; ICI-28257; Klofibráatti; Klofibrát; Klofibrat; Klofibratas; NSC-79389. Ethyl 2-(4-chlorophenoxy)-2-methylpropionate.

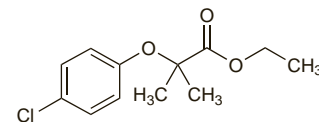
Клофибрат

$C_{13}H_{15}ClO_3 = 242.7$.

CAS — 637-07-0 (clofibrate); 882-09-7 (clofibric acid).

ATC — C10AB01.

ATC Vet — QC10AB01.



Pharmacopoeias. In *Chin.*, *Eur.* (see p.vii), *Jpn.* and *US*.

Ph. Eur. 6.2 (Clofibrate). A clear, almost colourless liquid. Very slightly soluble in water; miscible with alcohol.

USP 31 (Clofibrate). A colourless to pale yellow liquid with a characteristic odour. Insoluble in water; soluble in alcohol, in acetone, in chloroform, and in benzene. Store in airtight containers. Protect from light.

Aluminium Clofibrate (BAN, riNN)

Alufibrato; Aluminii Clofibras; Aluminium, Clofibrate d'; Aluminiumklofibráatti; Aluminiumklofibrat; Aluminium Clofibrato; Clofibrato de aluminio. Bis[2-(4-chlorophenoxy)-2-methylpropionate]hydroxyaluminium.

Алюминия Клофибрат

$C_{30}H_{21}AlCl_2O_7 = 471.3$.

CAS — 24818-79-9; 14613-01-5.

ATC — C10AB03.

ATC Vet — QC10AB03.

Calcium Clofibrate (riNN)

Calcii Clofibras; Clofibrate de Calcium; Clofibrato de calcio.

Кальция Клофибрат

$C_{20}H_{20}CaCl_2O_6 = 467.4$.

CAS — 39087-48-4.

Magnesium Clofibrate (riNN)

Clofibrato de magnesio; Clomag; Magnesii Clofibras; Magnésium, Clofibrate de; UR-112.

Магния Клофибрат

$C_{20}H_{20}Cl_2MgO_6 = 451.6$.

CAS — 14613-30-0.

Profile

Clofibrate, a fibric acid derivative, is a lipid regulating drug with similar properties to bezafibrate (p.1233). It is used to reduce triglycerides and possibly total cholesterol in the management of hyperlipidaemias (p.1169), particularly in patients with hypertriglyceridaemia. Because of the incidence of adverse effects during long-term treatment it should not be used for the prophylaxis of ischaemic heart disease (see Adverse Effects, below).

The usual oral dose is 2 g daily in divided doses.

The aluminium, calcium, and magnesium salts of clofibrate have also been used.

Adverse effects. Large-scale, long-term studies^{1,2} with clofibrate indicated that it was generally well-tolerated but that there was an increased incidence of serious effects, including cholelithiasis, cholecystitis, thromboembolic disorders, and certain cardiac arrhythmias. In one of the studies,² an increased mortality rate was unexpectedly found in patients taking clofibrate, producing serious concern over its long-term safety and its use is now generally restricted; the causes of death were spread over a range of malignant and non-malignant disorders.

1. The Coronary Drug Project Research Group. Clofibrate and nicotinic acid in coronary heart disease. *JAMA* 1975; **231**: 360-80.

2. Oliver MF, *et al.* A co-operative trial in the primary prevention of ischaemic heart disease using clofibrate. *Br Heart J* 1978; **40**: 1069-1118.

Neonatal jaundice. Clofibrate has been used in the treatment of jaundice in term infants^{1,2} and for prophylaxis in premature infants.¹ In a study¹ involving 93 term infants with jaundice, clofibrate 50 mg/kg as a single oral dose reduced the intensity and duration of jaundice compared with placebo. As a prophylactic measure, clofibrate was shown¹ to reduce the degree of jaundice in premature infants when the plasma concentration of clofibric acid reached 140 micrograms/mL within 24 hours of an oral dose. The dose required to achieve this was estimated to be 100 to 150 mg/kg.

1. Gabilan JC, *et al.* Clofibrate treatment of neonatal jaundice. *Pediatrics* 1990; **86**: 647-8.

2. Mohammadzadeh A, *et al.* Effect of clofibrate in jaundiced term newborns. *Indian J Pediatr* 2005; **72**: 123-6.

Preparations

BP 2008: Clofibrate Capsules;

USP 31: Clofibrate Capsules.

Proprietary Preparations (details are given in Part 3)

Arg.: Elpi; **Austria:** Arterioflexin; **Hong Kong:** Lipilim; **Port.:** Atromid-Sf.

Multi-ingredient: **Braz.:** Lipofacton.