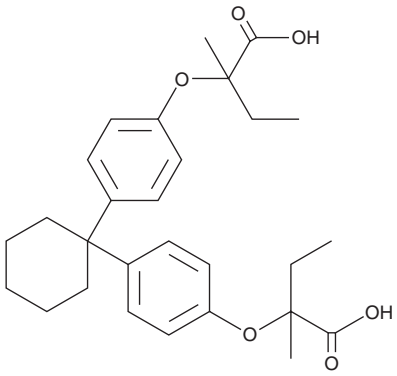
PRODUCT INFORMATION

Clinofibrate

Item No. 31109



CAS Registry No.:	30299-08-2
Formal Name:	2,2′-[cyclohexylidenebis(4,1-phenyleneoxy)]*bis*[2-methyl-butanoic acid
Synonym:	S-8527
MF:	$C_{28}H_{36}O_6$
FW:	468.6
Purity:	≥95%
UV/Vis.:	λ_{max}: 232 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Clinofibrate is supplied as a crystalline solid. A stock solution may be made by dissolving the clinofibrate in the solvent of choice, which should be purged with an inert gas. Clinofibrate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of clinofibrate in ethanol and DMF is approximately 30 mg/ml and approximately 15 mg/ml in DMSO.

Clinofibrate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, clinofibrate should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Clinofibrate has a solubility of approximately 0.16 mg/ml in a 1:5 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Clinofibrate is a hypolipidemic agent.[1] It inhibits HMG-CoA reductase (IC_{50} = 0.47 mM) and stimulates the S-indan-1-ol dehydrogenase activity of the human liver 3α-hydroxysteroid dehydrogenase isoform AKR 1C4 in a concentration-dependent manner.[2] Clinofibrate (10 and 30 mg/kg) reduces serum cholesterol and triglyceride levels in rats fed a normal chow pellet diet or a semisynthetic diet containing sucrose as the only carbohydrate source.

References

1. Toki, K., Nakamura, Y., Agatsuma, K., *et al.* Hypolipidemic action of a new aryloxy compound (S-8527) in rats. *Atherosclerosis* **18(1)**, 101-108 (1973).
2. Matsuura, K., Hara, A., Kato, M., *et al.* Activation of human liver 3α-hydroxysteroid dehydrogenase by clofibrate derivatives. *J. Pharmacol. Exp. Ther.* **285(3)**, 1096-1103 (1998).

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