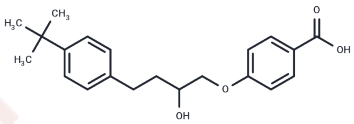
Data Sheet (Cat.No.T27832)

TargetMol

Lifibrol

Chemical Properties



CAS No. : 96609-16-4

Formula: C21H26O4

Molecular Weight: 342.43

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Lifibrol (U-83860) is an inhibitor of cholesterol synthesis.Lifibrol has anticholesterol and hypolipidemic properties and promotes the conversion of LDL Apo B-100 in patients with hypercholesterolemia and mixed hyperlipidemia.
Targets(IC50)	Others,Lipid
In vivo	Resident peritoneal macrophages isolated from rats pretreated with Lifibrol (50 mg/kg/7 days; mixed into the feed) showed a decreased capacity to synthesize cholesteryl esters from labeled precursors ([1-14C]oleate and [4-14C]cholesterol). Modification of lipid metabolism in atherosclerotic aortae from swine and Watanabe heritable hyperlipidemic (WHHL) rabbits was also observed when the tissues were incubated in vitro in the presence of exogenous Lifibrol.[5] Concentrations of lifibrol of up to 50 micrograms/mL in the incubations selectively reduced the formation of cholesteryl esters from [1-14C]acetate by 60-75%, whereas higher concentrations (100 micrograms/mL) resulted in a generalized inhibition of lipid biosynthesis of about 50% and of cholesteryl ester formation by up to 90%. The ability of lifibrol to directly affect these targets (i.e. macrophages and arterial tissue) has implications that extend beyond its confirmed plasma cholesterol-lowering activity.[5]

Solubility Information

Solubility	DMSO: 50 mg/mL (146.02 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9203 mL	14.6015 mL	29.203 mL
5 mM	0.5841 mL	2.9203 mL	5.8406 mL
10 mM	0.292 mL	1.4602 mL	2.9203 mL
50 mM	0.0584 mL	0.292 mL	0.5841 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Locker PK, et al. Lifibrol: a novel lipid-lowering drug for the therapy of hypercholesterolemia. Lifibrol Study Group. Clin Pharmacol Ther. 1995;57(1):73-88.
Winkler K, et al. Lifibrol enhances the low density lipoprotein apolipoprotein B-100 turnover in patients with hypercholesterolemia and mixed hyperlipidemia. Atherosclerosis. 1999;144(1):167-175.
Scharnagl H, et al. The effects of lifibrol (K12.148) on the cholesterol metabolism of cultured cells: evidence for sterol independent stimulation of the LDL receptor pathway. Atherosclerosis. 2000;153(1):69-80.
Sun EL, et al. Biotransformation of lifibrol (U-83860) to mixed glyceride metabolites by rat and human hepatocytes in primary culture. Drug Metab Dispos. 1996;24(2):221-231.
Bell FP. Effect of the lipid-lowering drug lifibrol on lipid metabolism in rat macrophages and in atherosclerotic arteries from swine and WHHL rabbits, in vitro. Implications in atherogenesis. Biochem Pharmacol. 1993;46(8):1475-1480.