

Melinamide

Chemical Properties

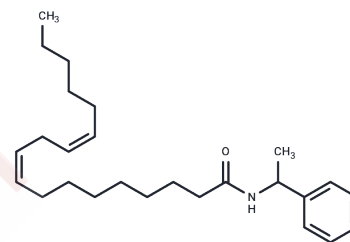
CAS No. : 14417-88-0

Formula: C₂₆H₄₁NO

Molecular Weight: 383.61

Storage: Store at low temperature
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	Melinamide is an antilipidemic compound with pharmacological properties similar to gemfibrozil. Melinamide reduces elevated serum lipids primarily by lowering the triglyceride-rich very low-density lipoprotein (VLDL) fraction. In Type III hyperlipoproteinemia, where cholesterol elevation arises from intermediate-density lipoproteins (IDL), melinamide can decrease serum cholesterol levels.
Targets(IC50)	Acyltransferase,LDL
In vitro	D-Melinamide exhibits greater inhibitory efficacy compared to L-Melinamide. It has been observed that DL-Melinamide effectively suppresses acyl CoA: cholesterol acyltransferase (ACAT) activity in mucosal microsomes, achieving 50% inhibition at an approximate concentration of 0.5 μM. Kinetic analysis has revealed that DL-Melinamide acts as an uncompetitive inhibitor against acyl CoA: cholesterol acyltransferase.[2]
In vivo	Melinamide induces a substantial decrease in the enhanced intestinal ACAT activity in diabetic rats but does not affect intestinal cholesterol esterase activity. Melinamide is a new hypocholesterolaemic drug. A marked improvement of hypercholesterolaemia in cholesterol-fed diabetic rats occurs concomitantly with the drug treatment.[3]

Solubility Information

Solubility	DMSO: 150 mg/mL (391.02 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	---

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6068 mL	13.0341 mL	26.0681 mL
5 mM	0.5214 mL	2.6068 mL	5.2136 mL
10 mM	0.2607 mL	1.3034 mL	2.6068 mL
50 mM	0.0521 mL	0.2607 mL	0.5214 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

Kusunoki J, et al. Effect of F-1394, a potent and selective inhibitor of acyl-CoA:cholesterol acyltransferase (ACAT), on esterification of cholesterol and basolateral secretion of cholesteryl ester in Caco-2 cells Nihon Yakurigaku Zasshi. 1997 Dec;110(6):357-65.

Natori K, et al. Mechanism of the inhibition of cholesterol absorption by DL-melinamide: inhibition of cholesterol esterification. Jpn J Pharmacol. 1986 Dec;42(4):517-23.2

Matsubara K, et al. Cholesterol-lowering effect of N-(alpha-methylbenzyl)linoleamide (melinamide) in cholesterol-fed diabetic rats. Atherosclerosis. 1988 Aug;72(2-3):199-204.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481