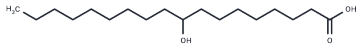
Data Sheet (Cat.No.T37067)

TargetMol

9-hydroxy Stearic Acid

Chemical Properties



CAS No. : 3384-24-5

Formula: C18H36O3

Molecular Weight: 300.48

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	9-hydroxy Stearic Acid is a hydroxy fatty acid that is the active metabolite of 9-PAHSA. 9-hydroxy Stearic Acid is formed from 9-PAHSA through carboxyl ester lipase in the liver and pancreas. The 9-hydroxy Stearic Acid (5 μM) was stearic acid, which inhibited the expression of histone deacetylase 1 (HDAC1) in the lysate of HT-29 colon cancer cells. 3. When the concentration was 100 μM.1, the proliferation of HT-29 cells was inhibited and cell cycle arrest was induced in G0/ g1 phase.
Targets(IC50)	HDAC
In vitro	9-hydroxy Stearic acid is a hydroxy fatty acid and an active metabolite of 9-PAHSA .[1][2] It is formed from 9-PAHSA by liver and pancreatic carboxyl ester lipases.2 9-hydroxy Stearic acid (5 μM) inhibits histone deacetylase 1 (HDAC1) in HT-29 colon cancer cell lysates.[3] It inhibits the proliferation of, and induces cell cycle arrest at the G0/G1 phase in, HT-29 cells when used at a concentration of 100 μM.1.[1]

Solubility Information

Solubility	DMSO: 250 mg/mL (832 mM),Sonication is recommended. Chloroform: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2.5 mg/mL (8.32 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.328 mL	16.640 mL	33.2801 mL
5 mM	0.6656 mL	3.328 mL	6.656 mL
10 mM	0.3328 mL	1.664 mL	3.328 mL
50 mM	0.0666 mL	0.3328 mL	0.6656 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

Calonghi N, et al. 9-Hydroxystearic acid upregulates p21(WAF1) in HT29 cancer cells. Biochem Biophys Res Commun. 2004;314(1):138-14

Kolar MJ, et al. Branched Fatty Acid Esters of Hydroxy Fatty Acids Are Preferred Substrates of the MODY8 Protein Carboxyl Ester Lipase. Biochemistry. 2016;55(33):4636-4641.

Calonghi N, et al. Histone deacetylase 1: a target of 9-hydroxystearic acid in the inhibition of cell growth in human colon cancer. J Lipid Res. 2005;46(8):1596-1603.

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