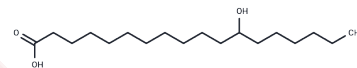


12-hydroxy Stearic Acid

Chemical Properties

CAS No. :	106-14-9
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	12-Hydroxy Stearic Acid is a low molecular weight organogel that prevents benzo(a) pyrene and squalene peroxide-induced hyperpigmentation in the skin.
Targets(IC50)	Others

Solubility Information

Solubility	Ethanol: 10 mg/mL (33.28 mM),Sonication is recommended. DMF: 10 mg/mL (33.28 mM),Sonication is recommended. DMSO: 125 mg/mL (416 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 10 mg/mL (33.28 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Corn Oil: 1 mg/mL (3.33 mM),Sonication is recommended. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (33.28 mM),Solution. <i>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.</i>

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

Burkhardt M, et al. Organogels based on 12-hydroxy stearic acid as a leitmotif: Dependence of gelation properties on chemical modifications. *J Colloid Interface Sci.* 2016 Mar 15;466:369-76.

A, Anne Laure Fameau, et al. The curious case of 12-hydroxystearic acid – the Dr. Jekyll & Mr. Hyde of molecular gelators - *ScienceDirect. Current Opinion in Colloid & Interface Science* 45(2020):68-82.

He W, et al. Core-shell structured gel-nanocarriers for sustained drug release and enhanced antitumor effect. *Int J Pharm.* 2015 Apr 30;484(1-2):163-71.

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