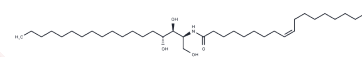


Ceramide Mixture

Chemical Properties

CAS No. :	100403-19-8
Formula:	C ₃₆ H ₇₁ NO ₄
Molecular Weight:	581.967
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	Ceramides Mixture, an endogenous ceramide, consists of hydroxy and non-hydroxy fatty acid-containing ceramides. It is involved in the regulation of cell cycle arrest, growth inhibition, and modulation of telomerase activity.
Targets(IC50)	Telomerase
In vitro	Endogenous Ceramides inhibits mRNA synthesis of telomerase reverse transcriptase and telomerase activity via inactivation of the c-Myc transcription factor in the A549 human lung adenocarcinoma cell line. The sustained generation of long-chain endogenous ceramide requires the biochemical recycling of the sphingosine backbone of C6-ceramide, which involves deacylation and reacylation of ceramide for the generation of endogenous long-chain ceramide, most likely by CoA-dependent ceramide synthase, which is inhibited by fumonisin B1. In A549 cells the generation of long-chain endogenous ceramide mediates the effects of exogenous C6-ceramide on growth inhibition, cell cycle arrest, and the modulation of telomerase activity [1].

Solubility Information

Solubility	Methanol: < 1 mg/mL (insoluble) Ethanol: 1.00 mg/mL (1.72 mM), Sonication and heating for 30 minutes are recommended. H ₂ O: < 1 mg/mL (insoluble) DMSO: < 1 mg/mL (insoluble or slightly soluble) Chloroform: 7.69 mg/mL (13.21 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7183 mL	8.5915 mL	17.183 mL
5 mM	0.3437 mL	1.7183 mL	3.4366 mL
10 mM	0.1718 mL	0.8592 mL	1.7183 mL
50 mM	0.0344 mL	0.1718 mL	0.3437 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

Ogretmen B, et al. Biochemical mechanisms of the generation of endogenous long chain ceramide in response to exogenous short chain ceramide in the A549 human lung adenocarcinoma cell line. Role for endogenous ceramide in mediating the action of exogenous ceramide. *J Biol Chem.* 2002 Apr 12;277(15):12960-9.

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Macheleidt O, et al. Deficiency of epidermal protein-bound omega-hydroxyceramides in atopic dermatitis. *J Invest Dermatol.* 2002 Jul;119(1):166-73.

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