Data Sheet (Cat.No.T37454)



C16 dihydro Ceramide (d18:0/16:0)

Chemical Properties

CAS No.: 5966-29-0 Formula: C34H69NO3

Molecular Weight: 539.93

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description

C16 dihydro Ceramide is a bioactive sphingolipid and precursor in the de novo synthesis of C16 ceramide (d18:0/16:0) that lacks the 4,5-trans double bond.[1] C16 dihydro Ceramide (0-46 nM) inhibits C16 ceramide-induced membrane permeabilization, measured as cytochrome C oxidation, in rat liver mitochondria in a concentration-dependent manner. It also inhibits C16 ceramide-induced channel formation in liposomes. C16 dihydro ceramide is biologically inactive as a single agent, lacking the ability to induce apoptosis, cytochrome C release, or channel formation in phospholipid membranes in the absence of C16 ceramide.

Solubility Information

Solubility

DMSO: Soluble

Chloroform: Methanol (5:1): Soluble

Ethanol: Soluble

(< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8521 mL	9.2605 mL	18.5209 mL
5 mM	0.3704 mL	1.8521 mL	3.7042 mL
10 mM	0.1852 mL	0.926 mL	1.8521 mL
50 mM	0.037 mL	0.1852 mL	0.3704 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.

Reference

Stiban, J., Fistere, D., and Colombini, M. Dihydroceramide hinders ceramide channel formation: Implications on apoptosis. Apoptosis 11(5), 773-780 (2006).

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