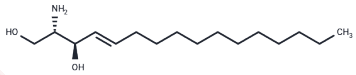
Data Sheet (Cat.No.T85010)

TargetMol

Sphingosine (d16:1)

Chemical Properties



CAS No. : 6982-09-8

Formula: C16H33NO2

Molecular Weight: 271.4

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	Sphingosine (d16:1), an unconventional sphingolipid, is synthesized through enzymatic reactions starting with the condensation of myristoyl-CoA and serine by serine palmitoyltransferase long-chain base subunit 3 (SPTLC3), which shows a preference for myristoyl-CoA. This compound is found in minute quantities in its free form in human plasma and as a component of various plasma sphingolipids, such as sphingosine-1-phosphate, ceramides, sphingomyelins, and in brain cerebrosides, albeit at lower concentrations than the more common d18:1 sphingoid base. Sphingosine (d16:1) acts as an inhibitor of PKC in mixed micelle assays and diminishes superoxide production triggered by phorbol 12-myristate 13-acetate in isolated human neutrophils, as well as inhibiting the growth of CHO cells with IC50 values of 1 and 3.2 μM, respectively. Additionally, the concentration of sphingolipids containing sphingosine (d16:1) in the plasma is linked to the dietary consumption of saturated fatty acids and protein among ethnic Chinese populations.
Targets(IC50)	Others

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.6846 mL	18.423 mL	36.846 mL
5 mM	0.7369 mL	3.6846 mL	7.3692 mL
10 mM	0.3685 mL	1.8423 mL	3.6846 mL
50 mM	0.0737 mL	0.3685 mL	0.7369 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.

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