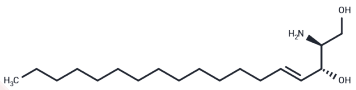
Data Sheet (Cat.No.T5891)

TargetMol

D-ERYTHRO-SPHINGOSINE

Chemical Properties



CAS No. : 123-78-4

Formula: C18H37NO2

Molecular Weight: 299.49

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	D-erythro-Sphingosine (trans-4-Sphingenine) is a protein kinase C (PKC) inhibitor. D-erythro-Sphingosine (Erythrosphingosine) is also a PP2A activator
Targets(IC50)	Endogenous Metabolite,Phosphatase,PKC
In vitro	D-erythro-Sphingosine inhibits protein kinase C in vitro[1]. D-erythro-Sphingosine has been shown to inhibit protein kinase C, which affects cell regulation and several signal transduction pathways, and exhibits antitumor promoter activities in various mammalian cells[2].

Solubility Information

Solubility	DMSO: 42.08 mg/mL (140.51 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (16.7 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	3.339 mL	16.695 mL	33.3901 mL
5 mM	0.6678 mL	3.339 mL	6.678 mL
10 mM	0.3339 mL	1.6695 mL	3.339 mL
50 mM	0.0668 mL	0.3339 mL	0.6678 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

Khan W A , Dobrowsky R , El T S , et al. Protein kinase C and platelet inhibition by D-erythro-sphingosine: comparison with N,N-dimethylsphingosine and commercial preparation.[J]. Biochemical & Biophysical Research Communications, 1990, 172(2):683-691.
Yan H, Huang X, Zhou Y, et al.Disturbing Cholesterol/Sphingolipid Metabolism by Squalene Epoxidase Arises Crizotinib Hepatotoxicity.Advanced Science.2025: 2414923.
Pham V T , Joo J E , Tian Y S , et al. A concise synthesis of a promising protein kinase C inhibitor: D-erythro-sphingosine[J]. Archives of Pharmacal Research (Seoul), 2007, 30(1):22-27.