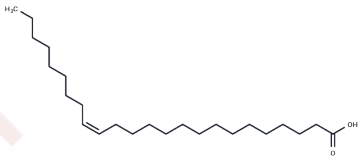
Data Sheet (Cat.No.T4944)

TargetMol

Nervonic acid

Chemical Properties



CAS No. : 506-37-6

Formula: C24H46O2

Molecular Weight: 366.62

Storage: Store at low temperature
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	Nervonic acid (Selacholeic acid) is a long chain unsaturated fatty acid that is enriched in sphingomyelin. It consists of choline, sphingosine, phosphoric acid, and fatty acid. Nervonic acid may enhance the brain functions and prevent demyelination (Chemical Land21). Research shows that there is negative relationship between nervonic acid and obesity-related risk factors. Demyelination in adrenoleukodystrophy (ALD) is associated with an accumulation of very long chain saturated fatty acids stemming from a genetic defect in the peroxisomal beta oxidation system responsible for the chain shortening of these fatty acids. Sphingolipids from post mortem ALD brain have decreased levels of nervonic acid, 24:1(n-9), and increased levels of stearic acid, 18:0.
Targets(IC50)	NF-κB,Endogenous Metabolite

Solubility Information

Solubility	DMSO: 50 mg/mL (136.38 mM),Sonication is recommended. H2O: 1 mg/mL (2.73 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: 1 mg/mL (2.73 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	2.7276 mL	13.6381 mL	27.2762 mL
5 mM	0.5455 mL	2.7276 mL	5.4552 mL
10 mM	0.2728 mL	1.3638 mL	2.7276 mL
50 mM	0.0546 mL	0.2728 mL	0.5455 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

Amminger GP, et al. Decreased nervonic acid levels in erythrocyte membranes predict psychosis in help-seekingultra-high-risk individuals. Mol Psychiatry. 2012 Dec;17(12):1150-2.