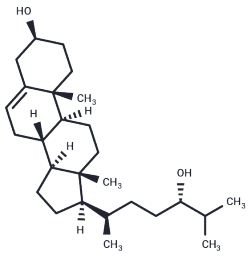
Data Sheet (Cat.No.T21562)

TargetMol

24(S)-hydroxy Cholesterol

Chemical Properties



CAS No. : 474-73-7

Formula: C27H46O2

Molecular Weight: 402.65

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	24(S)-hydroxy Cholesterol (24S-OHC) is the terminal product of the cholesterol elimination pathway in neural tissues. It is an LXR agonist and a selective positive allosteric modulator of NMDARs. It can serve as a biomarker for NPD, induce cognitive decline in mice, and is useful for studying neurological diseases.
Targets(IC50)	Endogenous Metabolite,iGluR,Liver X Receptor
In vitro	24(S)-hydroxy Cholesterol (1, 10, 30 μM) was able to effectively protect the isolated rat retina from damage caused by elevated hydrostatic pressure. [1]

Solubility Information

Solubility	Ethanol: 16 mg/mL (39.74 mM),Sonication is recommended. DMSO: 10 mg/mL (24.84 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4835 mL	12.4177 mL	24.8355 mL
5 mM	0.4967 mL	2.4835 mL	4.9671 mL
10 mM	0.2484 mL	1.2418 mL	2.4835 mL
50 mM	0.0497 mL	0.2484 mL	0.4967 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

Ishikawa M, et al. 24(S)-Hydroxycholesterol protects the ex vivo rat retina from injury by elevated hydrostatic pressure. Sci Rep. 2016 Sep 22;6:33886.
Kimura Y, et al. Tocopherol suppresses 24(S)-hydroxycholesterol-induced cell death via inhibition of CaMKII phosphorylation. Biochimie. 2018 Oct;153:203-209.
Shafaati M, et al. Enhanced production of 24S-hydroxycholesterol is not sufficient to drive liver X receptor target genes in vivo. J Intern Med. 2011 Oct;270(4):377-87.
Paul SM, et al. The major brain cholesterol metabolite 24(S)-hydroxycholesterol is a potent allosteric modulator of N-methyl-D-aspartate receptors. J Neurosci. 2013 Oct 30;33(44):17290-300.

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