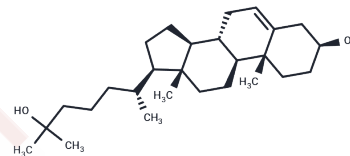


25-Hydroxycholesterol

Chemical Properties

CAS No. :	2140-46-7
Formula:	C ₂₇ H ₄₆ O ₂
Molecular Weight:	402.65
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	25-Hydroxycholesterol is a steroid derivative that suppresses the cleavage of sterol regulatory element binding proteins (SREBPs). It inhibits HMG-CoA reductase and so it also plays a significant role in the in vivo regulation of cholesterol biosynthesis after an acute dietary cholesterol challenge. 25-hydroxycholesterol is a potent (EC ₅₀ ≈65 nM) and selective suppressor of IgA production by B cells.
Targets(IC50)	Endogenous Metabolite, HMG-CoA Reductase

Solubility Information

Solubility	Ethanol: 20 mg/mL (49.67 mM), Sonication is recommended. Chloroform: 50 mg/mL (124.18 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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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

McDonald JG, et al. Editorial: 25-Hydroxycholesterol: a new life in immunology. J Leukoc Biol. 2010 Dec;88(6): 1071-2.

Lan Q, Wang C, Zhou J, et al. 25-Hydroxycholesterol-Conjugated EK1 Peptide with Potent and Broad-Spectrum Inhibitory Activity against SARS-CoV-2, Its Variants of Concern, and Other Human Coronaviruses. International Journal of Molecular Sciences. 2021, 22(21): 11869.

Zhang L, Yi Y, Wang T, et al. 25-Hydroxycholesterol inhibits classical swine fever virus entry into porcine alveolar macrophages by depleting plasma membrane cholesterol. Veterinary Microbiology. 2023: 109668.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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