

20(S)-Hydroxycholesterol

Chemical Properties

CAS No. : 516-72-3

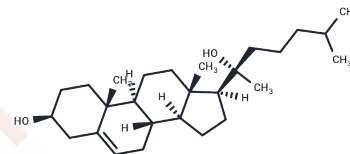
Formula: C₂₇H₄₆O₂

Molecular Weight: 402.65

Store under nitrogen

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	20(S)-Hydroxycholesterol (20 α -Hydroxycholesterol) is an allosteric activator of the oncoprotein smoothened (Smo).
Targets(IC50)	Endogenous Metabolite,Smo
In vitro	20(S)-Hydroxycholesterol activates the hedgehog signaling pathway with an EC ₅₀ of 3 μ M in NIH3T3 cells[2].

Solubility Information

Solubility	Ethanol: 50 mg/mL (124.18 mM),Sonication is recommended. DMSO: 18.1 mg/mL (44.95 mM),Sonication and heating to 60°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 1 mg/mL (2.48 mM),Sonication is recommended. <i>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.</i>

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

Nachtergaele S, et al. Oxysterols are allosteric activators of the oncoprotein Smoothed. Nat Chem Biol. 2012 Jan 8;8(2):211-20.

Nedelcu D, et al, Oxysterol binding to the extracellular domain of Smoothed in Hedgehog signaling. Nat Chem Biol. 2013 Sep;9(9):557-64.

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