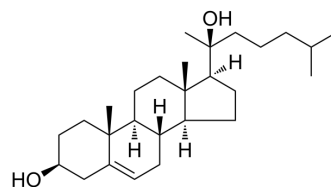


## 20(S)-Hydroxycholesterol

<b>Cat. No.:</b>	HY-12316		
<b>CAS No.:</b>	516-72-3		
<b>Molecular Formula:</b>	C <sub>27</sub> H <sub>46</sub> O <sub>2</sub>		
<b>Molecular Weight:</b>	402.65		
<b>Target:</b>	Smo; Endogenous Metabolite		
<b>Pathway:</b>	Stem Cell/Wnt; Metabolic Enzyme/Protease		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 12.5 mg/mL (31.04 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	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	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 15% Cremophor EL &gt;&gt; 85% Saline Solubility: 14.93 mg/mL (37.08 mM); Suspended solution; Need ultrasonic</li> <li>Add each solvent one by one: 20% HP-β-CD in saline Solubility: 14.93 mg/mL (37.08 mM); Suspended solution; Need ultrasonic</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 1.25 mg/mL (3.10 mM); Clear solution</li> </ol>				

### BIOLOGICAL ACTIVITY

<b>Description</b>	20(S)-hydroxycholesterol (20α-Hydroxycholesterol) is an allosteric activator of the oncoprotein smoothened (Smo) that activates the hedgehog (Hh) signaling pathway with an EC <sub>50</sub> of 3 μM in a gene transcription reporter assay using NIH3T3 cells <sup>[1][2]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	Human Endogenous Metabolite

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## CUSTOMER VALIDATION

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- Curr Res Toxicol. 2023 Aug 14, 5, 100119.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

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- [1]. Nachtergaele S, et al. Oxysterols are allosteric activators of the oncoprotein Smoothed. Nat Chem Biol. 2012 Jan 8;8(2):211-20.
- [2]. 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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**Caution: Product has not been fully validated for medical applications. For research use only.**

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