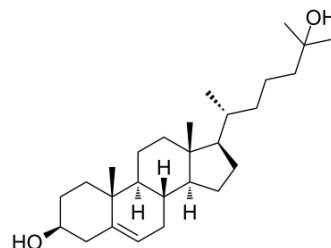


25-Hydroxycholesterol

Cat. No.:	HY-113134		
CAS No.:	2140-46-7		
Molecular Formula:	C ₂₇ H ₄₆ O ₂		
Molecular Weight:	402.65		
Target:	Endogenous Metabolite		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 14.29 mg/mL (35.49 mM; Need ultrasonic)
 DMSO : 5 mg/mL (12.42 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	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.

In Vivo

- Add each solvent one by one: **10% DMSO >> 90% (20% SBE-β-CD in saline)**
 Solubility: ≥ 0.5 mg/mL (1.24 mM); Clear solution
- Add each solvent one by one: **10% DMSO >> 90% corn oil**
 Solubility: ≥ 0.5 mg/mL (1.24 mM); Clear solution
- Add each solvent one by one: **50% PEG300 >> 50% saline**
 Solubility: 10 mg/mL (24.84 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

25-Hydroxycholesterol is a metabolite of cholesterol that is produced and secreted by macrophages in response to Toll-like receptor (TLR) activation. 25-hydroxycholesterol is a potent (EC₅₀≈65 nM) and selective suppressor of IgA production by B cells.

IC₅₀ & Target

Human Endogenous Metabolite

In Vitro

The synthesis of 25-hydroxycholesterol is catalyzed by the enzyme cholesterol 25-hydroxylase, which uses cholesterol and molecular oxygen as substrates and NADPH as a cofactor. 25-hydroxycholesterol is a potent bioactive lipid in the innate and adaptive immune systems^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- **Viruses.** 2020 Jun 10;12(6):E628.
- **Biochem Biophys Res Commun.** 2019 Dec 2. pii: S0006-291X(19)32185-0.

See more customer validations on www.MedChemExpress.com

REFERENCES

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

Caution: Product has not been fully validated for medical applications. For research use only.

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