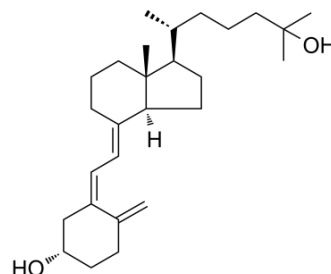


Calcifediol

Cat. No.:	HY-32351		
CAS No.:	19356-17-3		
Molecular Formula:	C ₂₇ H ₄₄ O ₂		
Molecular Weight:	400.64		
Target:	VD/VDR; Endogenous Metabolite		
Pathway:	Vitamin D Related; Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (249.60 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.4960 mL	12.4800 mL	24.9601 mL
	5 mM	0.4992 mL	2.4960 mL	4.9920 mL
	10 mM	0.2496 mL	1.2480 mL	2.4960 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: **10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline**
Solubility: ≥ 2.5 mg/mL (6.24 mM); Clear solution
- Add each solvent one by one: **10% DMSO >> 90% (20% SBE-β-CD in saline)**
Solubility: ≥ 2.08 mg/mL (5.19 mM); Clear solution
- Add each solvent one by one: **10% DMSO >> 90% corn oil**
Solubility: ≥ 2.08 mg/mL (5.19 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Calcifediol (25-hydroxy Vitamin D3), a major circulating metabolite of vitamin D3, is a potent VDR inhibitor ^{[1][2]} .
IC ₅₀ & Target	Human Endogenous Metabolite
In Vitro	Calcifediol in either liposomes or ethanolic solution has no effect on the release of the proinflammatory cytokine KC from Pseudomonas-infected murine epithelial cells. Treatment of infected, human bronchial 16-HBE cells with

Calcifediol liposomes results in a significant reduction in bacterial survival^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- *Int J Mol Sci.* 2017 Dec 19;18(12). pii: E2764.
- *Front Pharmacol.* 2020 Mar 31;11:200.
- *Ther Adv Endocrinol.* 2020 Oct 20.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Castoldi A, et al. Calcifediol-loaded liposomes for local treatment of pulmonary bacterial infections. *Eur J Pharm Biopharm.* 2016 Nov 22.

[2]. Wei Zheng, et al. Vitamin D-induced vitamin D receptor expression induces tamoxifen sensitivity in MCF-7 stem cells via suppression of Wnt/ β -catenin signaling. *Biosci Rep.* 2018 Dec 7;38(6):BSR20180595.

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

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