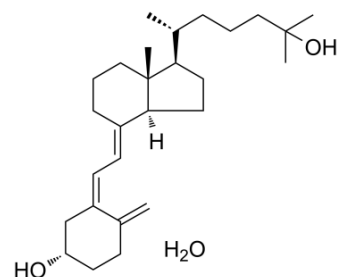


Calcifediol monohydrate

Cat. No.:	HY-32351A
CAS No.:	63283-36-3
Molecular Formula:	C ₂₇ H ₄₆ O ₃
Molecular Weight:	418.65
Target:	VD/VDR; Endogenous Metabolite
Pathway:	Vitamin D Related; Metabolic Enzyme/Protease
Storage:	4°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (238.86 mM)
* "≥" means soluble, but saturation unknown.

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.3886 mL	11.9432 mL	23.8863 mL
	5 mM	0.4777 mL	2.3886 mL	4.7773 mL
	10 mM	0.2389 mL	1.1943 mL	2.3886 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: ≥ 2.5 mg/mL (5.97 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (5.97 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Calcifediol monohydrate (25-hydroxy Vitamin D3 monohydrate), a major circulating metabolite of vitamin D3, is a potent VDR inhibitor ^{[1][2]} .
IC₅₀ & 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.
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Caution: Product has not been fully validated for medical applications. For research use only.

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