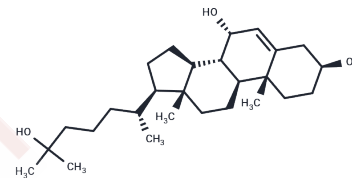


7 α ,25-Dihydroxycholesterol

Chemical Properties

CAS No. :	64907-22-8
Formula:	C ₂₇ H ₄₆ O ₃
Molecular Weight:	418.65
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	7 α ,25-dihydroxycholesterol (7 α ,25-OHC) is a potent and selective agonist, as well as an endogenous ligand, of the orphan GPCR receptor EB12 (GPR183). It serves as a chemokine directing the migration of B cells, T cells, and dendritic cells and exhibits high potency in activating EB12 (EC ₅₀ =140 pM; K _d =450 pM) [1][2].
Targets(IC50)	EB12/GPR183,Endogenous Metabolite
In vitro	7 α , 25-dihydroxycholesterol (7 α ,25-OHC) stimulates the migration of EB12-expressing mouse B and T cells with half-maximum effective concentration values around 500 pM in vitro. However, it had no effect on EB12-deficient cells[1].
In vivo	In vivo, B cells lacking EB12 or normal B cells rendered insensitive through pre-treatment with 7 α ,25-Dihydroxycholesterol (1 μ M; 1.5 hours) display decreased migration to spleen follicular regions[1].

Solubility Information

Solubility	DMSO: 1 mg/mL (2.39 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.0478 mL	0.2389 mL	0.4777 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

Liu C, et al. Oxysterols direct B-cell migration through EB12. Nature. 2011 Jul 27;475(7357):519-23.

Hannedouche S, et al. Oxysterols direct immune cell migration via EB12. Nature. 2011 Jul 27;475(7357):524-7.

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