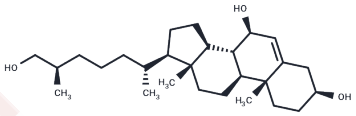
Data Sheet (Cat.No.T36998)

TargetMol

7β,27-dihydroxy Cholesterol

Chemical Properties



CAS No. :	240129-43-5
Formula:	C27H46O3
Molecular Weight:	418.65
Storage:	Powder: -20°C for 3 years | In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.

Biological Description

Description	7β,27-dihydroxy Cholesterol is an oxysterol and agonist of retinoic acid receptor-related orphan receptor γ (RORγ) and RORγt. [1] It activates RORγ- or RORγt-dependent signaling with EC50 values of 691 and 1,045 nM, respectively, in reporter assays using HEK293T cells expressing the recombinant human receptors. 7β,27-dihydroxy Cholesterol is selective for RORγ and RORγt over a panel of eight additional nuclear receptors at 30 μM. It increases IL-17A production in Th17-polarized isolated human na ve CD4+ T cells when used at a concentration of 300 nM. 7β,27-dihydroxy Cholesterol (60 mg/kg) increases IL-17A production in isolated mouse γδ T cells stimulated with 12-myristate 13-acetate and ionomycin .
Targets(IC50)	Others,ROR

Solubility Information

Solubility	Ethanol:PBS (pH 7.2) (1:2): 0.3 mg/mL (0.72 mM),Sonication is recommended. Ethanol: 20 mg/mL (47.77 mM),Sonication is recommended. DMF: 2 mg/mL (4.78 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

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

Soroosh, P., Wu, J., Xue, X., et al.Oxysterols are agonist ligands of RORγt and drive Th17 cell differentiationProc. Natl. Acad. Sci. USA111(33)12163-12168(2014)