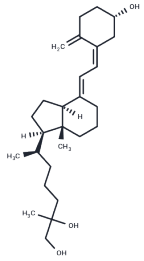
Data Sheet (Cat.No.T13490)

TargetMol

25,26-Dihydroxyvitamin D3

Chemical Properties



CAS No. : 29261-12-9

Formula: C27H44O3

Molecular Weight: 416.64

Storage: Keep away from direct sunlight,Store at low temperature
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	25,26-Dihydroxyvitamin D3 (25,26-Dihydroxycholecalciferol) is a vitamin D3 metabolite and a precursor compound for the synthesis of 25-hydroxyvitamin D.
Targets(IC50)	Endogenous Metabolite,Vitamin
In vitro	24,25 and 25,26 diOHD3 (0.125-0.250 mug) were able to increase calcium absorption in rats maintained on a calcium-deficient diet, but failed to do it in rats on a normal calcium diet. Bilateral nephrectomy suppressed this effect. The 'bone calcium mobilization' of both derivatives was measured in vitamin D and calcium- or phosphorus-deprived rats after one intravenous dose. When serum calcium was initially low, 24,25 and 25,26 diOHD3 increased serum calcium moderately, but the increment was only significant with 24,25 diOHD3 [2].
In vivo	24,25 and 25,26-Dihydroxyvitamin D3 (0.125-0.250 mug) were able to increase calcium absorption in rats maintained on a calcium-deficient diet, but failed to do it in rats on a normal calcium diet. Bilateral nephrectomy suppressed this effect. The "bone calcium mobilization" of both derivatives was measured in vitamin D and calcium- or phosphorus-deprived rats after one intravenous dose. When serum calcium was initially low, 24,25 and 25,26-Dihydroxyvitamin D3 increased serum calcium moderately, but the increment was only significant with 24,25-Dihydroxyvitamin D3 [2].

Solubility Information

Solubility	DMSO: 80 mg/mL (192.01 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4002 mL	12.0008 mL	24.0015 mL
5 mM	0.480 mL	2.4002 mL	4.8003 mL
10 mM	0.240 mL	1.2001 mL	2.4002 mL
50 mM	0.048 mL	0.240 mL	0.480 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

DeLuca HF, et al. 25,26-dihydroxycholecalciferol, a metabolite of vitamin D3 with intestinal calcium transport activity. Biochemistry. 1970 Nov 24;9(24):4776-80.
Miravet L, et al. The biological activity of synthetic 25,26-dihydroxycholecalciferol and 24,25-dihydroxycholecalciferol in vitamin D-deficient rats. Calcif Tissue Res. 1976 Dec 2;21(3):145-52.
Fraher LJ, et al. Determination of circulating 25,26-dihydroxycholecalciferol in man by radioimmunoassay. Clin Sci (Lond). 1980 Oct;59(4):257-63.