

5,6-trans-Vitamin D3

Chemical Properties

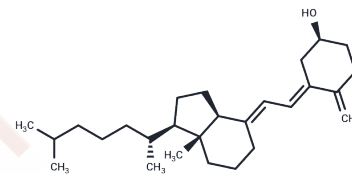
CAS No. : 22350-41-0

Formula: C₂₇H₄₄O

Molecular Weight: 384.64

Storage: Keep away from direct sunlight, Store under nitrogen
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	5,6-trans-Vitamin D3 (5,6-trans-Cholecalciferol) is an isoform of Vitamin D3, which is converted from Vitamin D3 on the skin surface after light exposure.
Targets (IC50)	Vitamin
In vitro	The dissociation constants of vitamin D receptor (VDR) for 25-hydroxytachysterol3, 25-hydroxy-5,6-trans-vitamin D3, and 5,6-trans-vitamin D3 were 22, 58, and 560 nM, respectively. The dissociation constants for 7-dehydrocholesterol, tachysterol, and lumisterol were greater than 20 microM. In conclusion, vitamin D3, its photoisomers and the photoisomers of previtamin D3 have antiproliferative activity in cultured human keratinocytes.[1].

Solubility Information

Solubility	Ethanol: 30 mg/mL (78 mM), Sonication is recommended. DMF: 10 mg/mL (26 mM), Sonication is recommended. Ethyl Acetate: 20 mg/mL (52 mM), Sonication is recommended. DMSO: 1 mg/mL (2.6 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	2.5998 mL	12.9992 mL	25.9983 mL
5 mM	0.520 mL	2.5998 mL	5.1997 mL
10 mM	0.260 mL	1.2999 mL	2.5998 mL
50 mM	0.052 mL	0.260 mL	0.520 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

Chen TC, et al. An evaluation of the biologic activity and vitamin D receptor binding affinity of the photoisomers of vitamin D3 and previtamin D3. J Nutr Biochem. 2000 May;11(5):267-72.

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