

## Vitamin D3 Datasheet

4<sup>th</sup> Edition (Revised in July, 2016)

### [ Product Information ]

**Name:** Vitamin D3

**Catalog No.:** CFN90027

**Cas No.:** 67-97-0

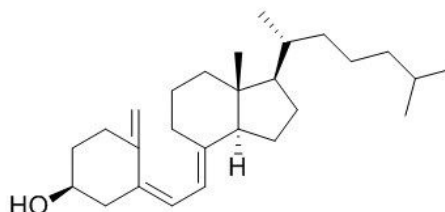
**Purity:** >=99%

**M.F:** C<sub>27</sub>H<sub>44</sub>O

**M.W:** 384.64

**Physical Description:** White powder

**Synonyms:**[3H]-VitaminD3;Cholecalciferol;(1S,3Z)-3-[(2E)-2-[(1R,3aS,7aR)-1-[(1R)-1,5-dimethylhexyl]octahydro-7a-methyl-4H-inden-4-ylidene]ethylidene]-4-methylenecyclohexanol.



### [ Intended Use ]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Synthetic precursor compounds;
5. Intermediates & Fine Chemicals;
6. Others.

### [ Source ]

Not data available.

## **[ Biological Activity or Inhibitors ]**

Supplementation with vitamin D3 and calcium can reduce the risk of hip fractures and other nonvertebral fractures among elderly women.<sup>[1]</sup>

Vitamin D3 can promote the differentiation of colon carcinoma cells by the induction of E-cadherin and the inhibition of  $\beta$ -catenin signaling, nonhypercalcemic vitamin D3 ( $1\alpha,25$ -dehydroxyvitamin D3) analogues are candidate drugs to treat colon neoplasia.<sup>[2]</sup>

Vitamin D3 deficiency may at least partly contribute to the impairment of insulin secretion and probably of insulin action, suggests that vitamin D3 supplementation could be an element in the complex treatment of type 2 diabetes mellitus during the winter. <sup>[3]</sup>

## **[ Solvent ]**

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

## **[ HPLC Method ]<sup>[4]</sup>**

Mobile phase:100% Acetonitrile,gradient elution ;

Flow rate: 1.2 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 264 nm.

## **[ Storage ]**

2-8°C, Protected from air and light, refrigerate or freeze.

## **[ References ]**

[1] Chapuy M C, Arlot M E, Duboeuf F, *et al.* *New Engl. J. Med.*, 1992, 327(23):1637-42.

[2] Pálmer H G, Gonzálezsancho J M, Espada J, *et al.* *J. Cell Biol.*, 2001, 154(2):: 369-88.

[3] Borissova A M, Tankova T, Kirilov G, *et al.* *Int. J. Clin. Pract.*, 2003, 57(4):258-61.

[4] Olkowski A A, Aranda-Osorio G, Mckinnon J. *Int. J. Vitamin Nutr. Res.*, 2003, 73(1):

15-8.

## **[ Contact ]**

**Address:**

S5-3 Building, No. 111, Dongfeng Rd.,  
Wuhan Economic and Technological Development Zone,  
Wuhan, Hubei 430056,  
China

**Email:** [info@chemfaces.com](mailto:info@chemfaces.com)

**Tel:** +86-27-84237783

**Fax:** +86-27-84254680

**Web:** [www.chemfaces.com](http://www.chemfaces.com)

**Tech Support:** [service@chemfaces.com](mailto:service@chemfaces.com)