

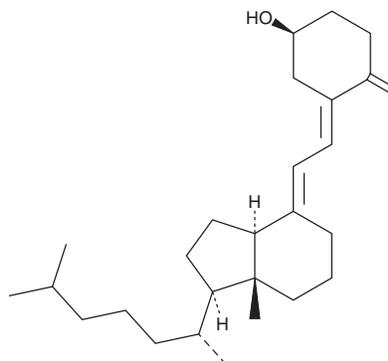
# PRODUCT INFORMATION



## 5,6-*trans*-Vitamin D<sub>3</sub>

Item No. 31225

**CAS Registry No.:** 22350-41-0  
**Formal Name:** (1S,3E)-3-[(2E)-2-[(1R,3aS,7aR)-1-[(1R)-1,5-dimethylhexyl]octahydro-7a-methyl-4H-inden-4-ylidene]ethylidene]-4-methylene-cyclohexanol  
**Synonym:** 5,6-*trans*-Cholecalciferol  
**MF:** C<sub>27</sub>H<sub>44</sub>O  
**FW:** 384.6  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 272 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

5,6-*trans*-Vitamin D<sub>3</sub> is supplied as a crystalline solid. A stock solution may be made by dissolving the 5,6-*trans*-vitamin D<sub>3</sub> in the solvent of choice, which should be purged with an inert gas. 5,6-*trans*-Vitamin D<sub>3</sub> is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 5,6-*trans*-vitamin D<sub>3</sub> in these solvents is approximately 30, 3, and 25 mg/ml, respectively.

### Description

5,6-*trans*-Vitamin D<sub>3</sub> is an isomer of vitamin D<sub>3</sub> (Item No. 11792).<sup>1</sup> *In vivo*, 5,6-*trans*-vitamin D<sub>3</sub> (1, 3, and 10 μg/day) increases tibia ash weight and bone mineralization in vitamin D-deficient chicks. 5,6-*trans*-Vitamin D<sub>3</sub> (25 μg/animal) induces intestinal calcium transport and bone calcium mobilization in anephric rats fed a low-calcium and vitamin D-deficient diet.<sup>2</sup>

### References

1. Boris, A., Hurley, J.F., and Trmal, T. Relative activities of some metabolites and analogs of cholecalciferol in stimulation of tibia ash weight in chicks otherwise deprived of vitamin D. *J. Nutr.* **107**(2), 194-198 (1977).
2. Holick, M.F., Garabedian, M., and DeLuca, H.F. 5,6-Trans isomers of cholecalciferol and 25-hydroxycholecalciferol. Substitutes for 1,25-dihydroxycholecalciferol in anephric animals. *Biochemistry* **11**(14), 2715-2719 (1972).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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