

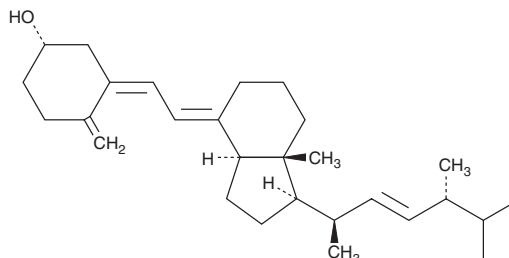
PRODUCT INFORMATION



Vitamin D₂ Item No. 11791

CAS Registry No.: 50-14-6
Formal Name: (1S)-4-methylene-3Z-[2E-
[(1R,3aS,7aR)-octahydro-7a-methyl-
1-[(1R,2E,4R)-1,4,5-trimethyl-2-
hexen-1-yl]-4H-inden-4-ylidene]
ethylidene]-cyclohexanol
Synonyms: Calciferol, Ergocalciferol, Fortodyl,
Infron, Mulsiferol, NSC 62792,
Radiostol, Uvesterol D

MF: C₂₈H₄₄O
FW: 396.7
Purity: ≥98%
UV/Vis.: λ_{max}: 212, 265 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

Vitamin D₂ is supplied as a crystalline solid. A stock solution may be made by dissolving the vitamin D₂ in the solvent of choice, which should be purged with an inert gas. Vitamin D₂ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of vitamin D₂ in ethanol and DMF is approximately 20 mg/ml and approximately 2 mg/ml in DMSO.

Description

Vitamin D aids in the absorption of calcium and has central roles in bone formation and maintenance, hypertension, cancer and immunity.^{1,2} Vitamin D may be obtained from many dietary sources, including eggs and fish, and is synthesized in the skin by the conversion of 7-dehydrocholesterol to vitamin D₃ by ultraviolet light.³ Vitamin D₂ is produced in fungi, including yeast, and invertebrates from ergosterol in response to ultraviolet radiation. In vertebrates as well as host organisms, vitamin D₂ is metabolized first to 25-hydroxyvitamin D₂ and subsequently to the active 1,25-dihydroxyvitamin D₂.^{1,4} Differences in the metabolism and action of vitamin D₂ vs. vitamin D₃ in mammals is a current topic of research interest.⁴

References

1. Holick, M.F. Vitamin D deficiency. *N. Engl. J. Med.* **357(3)**, 266-281 (2007).
2. Peterlik, M., Boonen, S., Cross, H.S., et al. Vitamin D and calcium insufficiency-related chronic diseases: An emerging world-wide public health problem. *Int. J. Environ. Res. Public Health* **6(10)**, 2585-607 (2009).
3. Rosen, C.J. Vitamin D insufficiency. *N. Engl. J. Med.* **364(3)**, 248-54 (2011).
4. Houghton, L.A. and Vieth, R. The case against ergocalciferol (vitamin D₂) as a vitamin supplement. *Am. J. Clin. Nutr.* **84(4)**, 694-697 (2006).

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.

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