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: C_{28}H_{44}O
FW: 396.7
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid

UV/Vis.: λ_max: 212, 265 nm

Laboratory Procedures
For long term storage, we suggest that vitamin D₂ be stored as supplied at -20°C. It should be stable for at least two years.

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

Vitamin D₂ is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Vitamin D aids in the absorption of calcium and has central roles in bone formation and maintenance, hypertension, cancer and immunity. 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. 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. Differences in the metabolism and action of vitamin D₂ vs. vitamin D₃ in mammals is a current topic of research interest.

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/11791

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS, NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your Institution.

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