

PRODUCT INFORMATION



1,25-dihydroxy Vitamin D₂ Item No. 11174

CAS Registry No.: 60133-18-8
Formal Name: (1R,3S,5Z)-4-methylene-5-[(2E)-2-[(1R,3aS,7aR)-octahydro-1-[(1R,2E)-5-hydroxy-1,4,5-trimethyl-2-hexen-1-yl]-7a-methyl-4H-inden-4-ylidene]ethylidene]-1,3-cyclohexanediol

Synonyms: Ercalcitriol, Ro 17-6218

MF: C₂₈H₄₄O₃

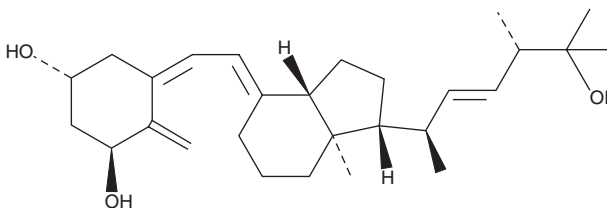
FW: 428.7

Purity: ≥98%

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

1,25-dihydroxy Vitamin D₂ is supplied as a crystalline solid. A stock solution may be made by dissolving the 1,25-dihydroxy vitamin D₂ in the solvent of choice, which should be purged with an inert gas. 1,25-dihydroxy Vitamin D₂ is soluble in the organic solvent ethanol at a concentration of approximately 1 mg/ml.

Description

1,25-dihydroxy Vitamin D₂ is the active circulating metabolite of vitamin D₂ formed by 25-hydroxylase in the liver and 25-hydroxyvitamin D-hydroxylase in the kidney.¹ By binding to the vitamin D receptor (VDR), 1,25-dihydroxy Vitamin D₂ activates VDR to interact with the retinoid X receptor (RXR), forming the VDR/RXR/cofactor complex, which regulates gene transcription.² Because 1,25-dihydroxy Vitamin D₂ circulates at picomolar concentrations and is highly lipophilic, it is difficult to quantify.¹

References

1. Sudsakorn, S., Phatarphekar, A., O'Shea, T., *et al.* Determination of 1,25-dihydroxyvitamin D₂ in rat serum using liquid chromatography with tandem mass spectrometry. *J. Chromatogr. B Analyt. Technol. Biomed. Life Sci.* **879**(2), 139-145 (2011).
2. Kato, S., Kim, M.S., Yamaoka, K., *et al.* Mechanisms of transcriptional repression by 1,25(OH)₂ vitamin D. *Curr. Opin. Nephrol. Hypertens.* **16**(4), 297-304 (2007).

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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