Product Information

25-hydroxy Vitamin D₃
Item No. 9000683

CAS Registry No.: 19356-17-3
Formal Name: 4-[(2Z)-2-[(5S)-5-hydroxy-2-methylenecyclohexylidene]ethylidene]octahydro-α,α,ε,7a-tetramethyl-(αR,1R,3aS,4E,7aR)-1H-indene-1-pentanol
Synonyms: 25-hydroxy Cholecalciferol, RO 8-8892, Rovimix Hy-D, U 32070E
MF: C₂₇H₄₄O₂
FW: 400.6
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λmax: 213, 265 nm

Laboratory Procedures

For long term storage, we suggest that 25-hydroxy vitamin D₃ be stored as supplied at -20°C. It should be stable for at least two years.

25-hydroxy Vitamin D₃ is supplied as a crystalline solid. A stock solution may be made by dissolving the 25-hydroxy vitamin D₃ in the solvent of choice. 25-hydroxy Vitamin D₃ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of 25-hydroxy vitamin D₃ in these solvents is approximately 10 mg/ml.

25-hydroxy Vitamin D₃ is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 25-hydroxy vitamin D₃ should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 25-hydroxy Vitamin D₃ has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Deficiency of vitamin D leads to abnormal calcium and phosphorus metabolism, contributing to deficiencies in bone formation, neuromuscular function, and inflammatory response. 25-hydroxy Vitamin D₃ is an intermediate in the pathway leading to the production of 1,25-dihydroxy vitamin D₃, the most receptor-active form of vitamin D. 25-hydroxy Vitamin D₃, produced in the liver from vitamin D₃, is metabolized in the kidney to 1,25-dihydroxy vitamin D₃. Plasma or serum levels of 25-hydroxy vitamin D₃ are commonly used as an indicator of an individual's vitamin D status.¹

Reference


Related Products

For a list of related products please visit: www.caymanchem.com/catalog/9000683

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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