

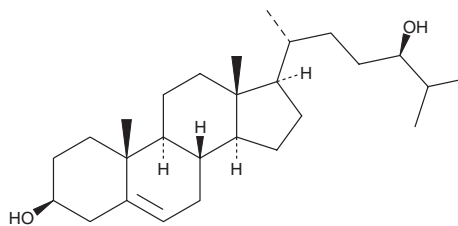
PRODUCT INFORMATION



24(R)-hydroxy Cholesterol

Item No. 10217

CAS Registry No.: 27460-26-0
Formal Name: cholest-5-ene-3b,24R-diol
Synonym: 24-Epicerebrosterol
MF: C₂₇H₄₆O₂
FW: 402.7
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

For long term storage, we suggest that 24(R)-hydroxy cholesterol be stored as supplied at -20°C. It should be stable for at least two years.

24(R)-hydroxy Cholesterol is supplied as a crystalline solid. A stock solution may be made by dissolving the 24(R)-hydroxy cholesterol in the solvent of choice. 24(R)-hydroxy Cholesterol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of 24(R)-hydroxy cholesterol in these solvents is approximately 20, 0.1, and 2 mg/ml, respectively.

24(R)-hydroxy Cholesterol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 24(R)-hydroxy cholesterol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 24(R)-hydroxy Cholesterol has a solubility of approximately 0.5 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.

Description

24(S)-hydroxy Cholesterol is a side-chain substituted oxysterol that is generated from the action of CYP46 on cholesterol found in the brain and plays an important role in cholesterol homeostasis.¹ 24(R)-hydroxy Cholesterol is a synthetic enantiomer of 24(S)-hydroxy cholesterol that activates LXR α and LXR β nuclear receptors with slightly reduced potency (EC₅₀ = 7 and 4 μ M, respectively) compared to the natural isomer (EC₅₀ = 4 and 3 μ M, respectively).^{1,2}

References

1. Vaya, J. and Schipper, H.M. Oxysterols, cholesterol homeostasis, and Alzheimer disease. *J. Neurochem.* **102**, 1727-1737 (2007).
2. Janowski, B.A., Grogan, M.J., Jones, S.A., et al. Structural requirements of ligands for the oxysterol liver X receptors LXR α and LXR β *Proc. Natl. Acad. Sci. USA* **96**(1), 266-271 (1999).

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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