

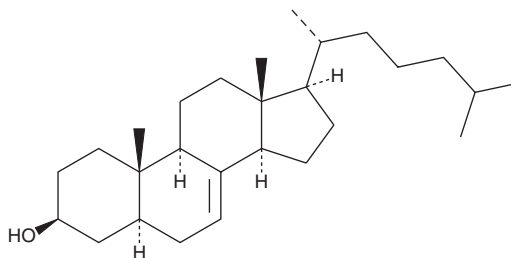
PRODUCT INFORMATION



Lathosterol

Item No. 9003102

CAS Registry No.: 80-99-9
Formal Name: 5 α -cholest-7-en-3 β -ol
Synonyms: Δ^7 -Cholestenol, γ -Cholestenol
MF: C₂₇H₄₆O
FW: 386.7
Purity: \geq 95%
UV/Vis.: λ_{max} : 210, 272, 282 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

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

Lathosterol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, lathosterol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Lathosterol 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.

Description

Lathosterol is an intermediate in the biosynthesis of cholesterol.^{1,2} Serum levels of lathosterol correlate with cholesterol synthesis and have been used as biomarkers of excess cholesterol production. Lathosterol accumulates in lathosterolosis, a disorder characterized by a deficiency of lathosterol 5-desaturase, the enzyme that converts lathosterol to 7-dehydro cholesterol (Item No. 14612).³

References

1. Kempen, H.J., Glatz, J.F., Gevers Leuven, J.A., *et al.* Serum lathosterol concentration is an indicator of whole-body cholesterol synthesis in humans. *J. Lipid Res.* **29(9)**, 1149-1155 (1988).
2. Wu, A.H., Ruan, W., Todd, J., *et al.* Biological variation of β -sitosterol, campesterol, and lathosterol as cholesterol absorption and synthesis biomarkers. *Clin. Chim. Acta* **430**, 43-47 (2014).
3. Krakowiak, P.A., Wassif, C.A., Kratz, L., *et al.* Lathosterolosis: An inborn error of human and murine cholesterol synthesis due to lathosterol 5-desaturase deficiency. *Hum. Mol. Genet.* **12(13)**, 1631-1641 (2003).

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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