

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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# Lieferung & Zahlungsart

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# PRODUCT INFORMATION



## Lathosterol

Item No. 9003102

CAS Registry No.: 80-99-9

Formal Name: 5α-cholest-7-en-3β-ol

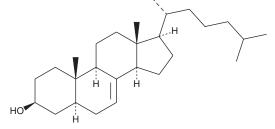
 $\Delta^7$ -Cholestenol,  $\gamma$ -Cholestenol Synonyms:

MF: C<sub>27</sub>H<sub>46</sub>O FW: 386.7 **Purity:** ≥95%

 $\lambda_{max}$ : 210, 272, 282 nm A crystalline solid UV/Vis.: Supplied as:

-20°C Storage: Stability: ≥2 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.<sup>1,2</sup> 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).
- 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.

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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