

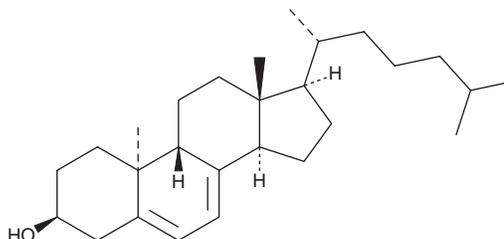
PRODUCT INFORMATION



Lumisterol 3

Item No. 34269

CAS Registry No.: 5226-01-7
Formal Name: (3 β ,9 β ,10 α)-cholesta-5,7-dien-3-ol
Synonym: L3
MF: C₂₇H₄₄O
FW: 384.6
Purity: \geq 90%
Supplied as: A solid
Storage: -80°C
Stability: \geq 2 years
Item Origin: Synthetic



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

Laboratory Procedures

Lumisterol 3 (L3) is supplied as a solid. A stock solution may be made by dissolving the L3 in the solvent of choice, which should be purged with an inert gas. L3 is slightly soluble in chloroform and methanol.

Description

L3 is a photoisomer of previtamin D₃ (Item No. 33409).¹ It is formed by photoisomerization of previtamin D₃ in the epidermis by prolonged UVB exposure and is metabolized by the cytochrome P450 (CYP) isoform CYP11A1 in a variety of tissues to several hydroxylated metabolites, including the active metabolites 20-hydroxy L3, 24-hydroxy L3, and 20,22-dihydroxy L3.^{2,3}

References

1. Slominski, A.T., Chaiprasongsuk, A., Janjetovic, Z., *et al.* Photoprotective Properties of vitamin D and lumisterol hydroxyderivatives. *Cell Biochem. Biophys.* **78(2)**, 165-180 (2020).
2. Holick, M.F. Photosynthesis of vitamin D in the skin: Effect of environmental and life-style variables. *Fed. Proc.* **46(5)**, 1876-1882 (1987).
3. Slominski, A.T., Kim, T.-K., Hobrath, J.V., *et al.* Characterization of a new pathway that activates lumisterol *in vivo* to biologically active hydroxylumisterols. *Sci. Rep.* **7(1)**, 11434 (2017).

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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