

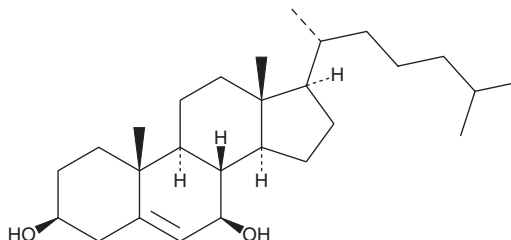
PRODUCT INFORMATION



7 β -hydroxy Cholesterol

Item No. 20099

CAS Registry No.: 566-27-8
Formal Name: (3 β ,7 β)-cholest-5-ene-3,7-diol
Synonyms: 7 β -Hydroxycholesterol, 7 β -OHC
MF: C₂₇H₄₆O₂
FW: 402.7
Purity: \geq 98%
UV/Vis.: λ_{max} : 237 nm
Supplied as: A 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

7 β -hydroxy Cholesterol is supplied as a solid. A stock solution may be made by dissolving the 7 β -hydroxy cholesterol in the solvent of choice, which should be purged with an inert gas. 7 β -hydroxy Cholesterol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 7 β -hydroxy cholesterol in these solvents is approximately 20, 0.1, and 2 mg/ml, respectively.

7 β -hydroxy Cholesterol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 7 β -hydroxy cholesterol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 7 β -hydroxy Cholesterol 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

7 β -hydroxy Cholesterol is an oxysterol formed by enzymatic and non-enzymatic oxidation of cholesterol.¹ It is the primary oxysterol found in LDL and induces apoptosis and cell death of human umbilical vein endothelial cells (HUVECs) *in vitro* in a concentration-dependent manner. Increased plasma levels of 7 β -hydroxy cholesterol positively correlate with mortality in coronary heart disease in human males.²

References

1. Lizard, G., Monier, S., Cordelet, C., *et al.* Characterization and comparison of the mode of cell death, apoptosis versus necrosis, induced by 7 β -hydroxycholesterol and 7-ketocholesterol in the cells of the vascular wall. *Arterioscler. Thromb. Vasc. Biol.* **19**(5), 1190-1200 (1999).
2. Ziedén, B., Kaminskas, A., Kristenson, M., *et al.* Increased plasma 7 β -hydroxycholesterol concentrations in a population with a high risk for cardiovascular disease. *Artioscler. Thromb. Vasc. Biol.* **19**(4), 967-971 (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.

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