

## Produktinformation



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- Expressversand

### SZABO-SCANDIC HandelsgmbH

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# **PRODUCT** INFORMATION



7β-hydroxy Cholesterol-d<sub>7</sub>

Item No. 25548

CAS Registry No.: Formal Name:	349553-97-5 (3β,7β)-cholest-5-ene- 25,26,26,26,27,27,27-d <sub>7</sub> -3,7-diol
MF:	$C_{27}H_{39}D_7O_2$
FW:	409.7 D
<b>Chemical Purity:</b>	≥98% (7β-hydroxy Cholesterol)
Deuterium	
Incorporation:	≥99% deuterated forms (d <sub>1</sub> -d <sub>7</sub> ); ≤1% d <sub>0</sub>
Supplied as:	A 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

 $7\beta$ -hydroxy Cholesterol-d<sub>7</sub> is intended for use as an internal standard for the quantification of  $7\beta$ -hydroxy cholesterol by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

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

#### Description

7β-hydroxy Cholesterol is an oxysterol formed by enzymatic and non-enzymatic oxidation of cholesterol.<sup>1</sup> 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  $7\beta$ -hydroxy cholesterol positively correlate with mortality in coronary heart disease in human males.<sup>2</sup>

#### References

- 1. Lizard, G., Monier, S., Cordelet, C., et al. Characterization and comparison of the mode of cell death, apoptosis versus necrosis, induced by  $7\beta$ -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.

#### SAFFTY 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.

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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