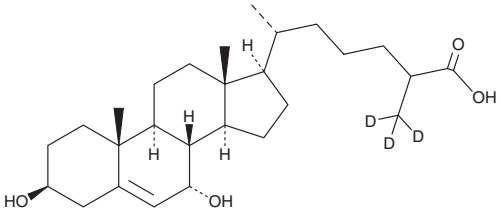
PRODUCT INFORMATION

3β,7α-Dihydroxycholest-5-enoic Acid-d_3

Item No. 29538

CAS Registry No.: 2342573-95-7
Formal Name: 3β,7α-dihydroxy-cholest-5-en-26-oic-27,27,27-d_3
MF: $C_{27}H_{41}D_3O_4$
FW: 435.7
Chemical Purity: ≥95% (mixture of diastereomers) (3β,7α-dihydroxycholest-5-enoic acid)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_3); ≤1% d_0
Supplied as: A crystalline 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

3β,7α-Dihydroxycholest-5-enoic acid-d_3 is intended for use as an internal standard for the quantification of 3β,7α-dihydroxycholest-5-enoic acid 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).

3β,7α-Dihydroxycholest-5-enoic acid-d_3 is supplied as a crystalline solid. A stock solution may be made by dissolving the 3β,7α-dihydroxycholest-5-enoic acid-d_3 in the solvent of choice, which should be purged with an inert gas. 3β,7α-Dihydroxycholest-5-enoic acid-d_3 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 3β,7α-dihydroxycholest-5-enoic acid-d_3 in these solvents is approximately 30 mg/ml.

Description

3β,7α-Dihydroxycholest-5-enoic acid is a metabolite of the cholesterol metabolite cholestenoic acid (Item No. 21859) and a bile acid biosynthetic intermediate.[1,2]

References

1. Meaney, S., Babiker, A.G., Lütjohann, D., *et al.* On the origin of the cholestenoic acids in human circulation. *Steroids* **68(7-8)**, 595-601 (2003).
2. Axelson, M., Mörk, B., and Sjövall, J. Occurrence of 3*β*-hydroxy-5-cholestenoic acid, 3*β*,7*α*-dihydroxy-5-cholestenoic acid, and 7*α*-hydroxy-3-oxo-4-cholestenoic acid as normal constituents in human blood. *J. Lipid. Res.* **29(5)**, 629-641 (1988).

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