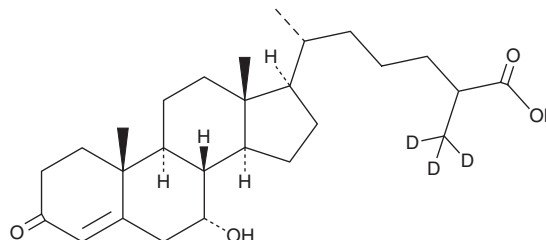


PRODUCT INFORMATION



7 α -Hydroxy-3-oxocholest-4-enoic Acid-d₃ Item No. 29537

CAS Registry No.: 2342573-89-9
Formal Name: 7 α -hydroxy-3-oxo-cholest-4-en-26-oic-27,27,27-d₃ acid
MF: C₂₇H₃₉D₃O₄
FW: 433.6
Chemical Purity: $\geq 98\%$ (7 α -Hydroxy-3-oxocholest-4-enoic Acid)
Deuterium Incorporation: $\geq 99\%$ deuterated forms (d₁-d₃); $\leq 1\%$ d₀
UV/Vis.: λ_{max} : 243 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥ 4 years



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

Laboratory Procedures

7 α -Hydroxy-3-oxocholest-4-enoic acid-d₃ is intended for use as an internal standard for the quantification of 7 α -hydroxy-3-oxocholest-4-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).

7 α -Hydroxy-3-oxocholest-4-enoic acid-d₃ is supplied as a solid. A stock solution may be made by dissolving the 7 α -hydroxy-3-oxocholest-4-enoic acid-d₃ in the solvent of choice, which should be purged with an inert gas. 7 α -Hydroxy-3-oxocholest-4-enoic acid-d₃ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 7 α -hydroxy-3-oxocholest-4-enoic acid-d₃ in these solvents is approximately 20 mg/ml.

Description

7 α -Hydroxy-3-oxocholest-4-enoic acid is a metabolite of the endogenous liver X receptor (LXR) agonist 25(R)-27-hydroxy cholesterol (Item No. 14790) and a bile acid precursor.^{1,2} Plasma levels of 7 α -hydroxy-3-oxocholest-4-enoic acid are reduced in patients with relapsing-remitting multiple sclerosis (RRMS).²

References

1. Iuliano, L., Crick, P.J., Zerbinati, C., *et al.* Cholesterol metabolites exported from human brain. *Steroids* **99**(Pt B), 189-193 (2015).
2. Crick, P.J., Griffiths, W.J., Zhang, J., *et al.* Reduced plasma levels of 25-hydroxycholesterol and increased cerebrospinal fluid levels of bile acid precursors in multiple sclerosis patients. *Mol. Neurobiol.* **54**(10), 8009-8020 (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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM