

PRODUCT INFORMATION



Lithocholic-2,2,4,4-d₄ Acid 3-sulfate (sodium salt)

Item No. 43710

Formal Name: (3 α ,5 β)-3-(sulfooxy)-cholan-24-oic-2,2,4,4-d₄ acid, disodium salt

Synonyms: LCA 3-sulfate-d₄, Lithocholate 3-sulfate-d₄

MF: C₂₄H₃₄D₄O₆S • 2Na

FW: 504.6

Chemical Purity: ≥98% (Lithocholic Acid 3-sulfate)

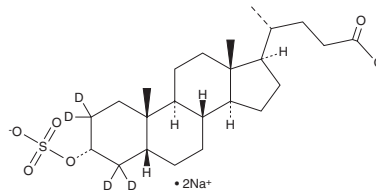
Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀

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

Lithocholic-2,2,4,4-d₄ acid 3-sulfate (sodium salt) is intended for use as an internal standard for the quantification of lithocholic acid 3-sulfate (Item No. 20676) 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).

Lithocholic-2,2,4,4-d₄ acid 3-sulfate (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the lithocholic-2,2,4,4-d₄ acid 3-sulfate (sodium salt) in the solvent of choice, which should be purged with an inert gas. Lithocholic-2,2,4,4-d₄ acid 3-sulfate (sodium salt) is sparingly soluble (1-10 mg/ml) in DMSO.

Description

Lithocholic acid 3-sulfate is a metabolite of the secondary bile acid lithocholic acid (Item No. 20253).¹ It is water soluble and the primary form of lithocholic acid in the bile duct. Lithocholic acid 3-sulfate forms a complex with calcium *in vitro*.² Biliary secretion of lithocholic acid 3-sulfate is increased in a rat model of diabetes induced by streptozotocin (Item No. 13104).³

References

1. Borriello, S.P. and Owen, R.W. The metabolism of lithocholic acid and lithocholic acid-3- α -sulfate by human fecal bacteria. *Lipids* **17**(7), 477-482 (1982).
2. Oelberg, D.G., Dubinsky, W.P., Adcock, E.W., *et al.* Calcium binding by lithocholic acid derivatives. *Am. J. Physiol.* **247**(1 Pt 1), G112-G115 (1984).
3. Kirkpatrick, R.B. and Kraft, B.G. Effect of streptozotocin-induced diabetes on bile acid sulfation in male rat liver. *Am. J. Physiol.* **247**(3 Pt 1), G226-G230 (1984).

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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