

PRODUCT INFORMATION



Tauro-d₄-deoxycholic Acid (sodium salt)

Item No. 45772

Formal Name: 2-[[[(3 α ,5 β ,12 α)-3,12-dihydroxy-24-oxocholan-24-yl]amino]ethanesulfonic acid-1,1,2,2-d₄, monosodium salt

Synonyms: Sodium Tauro-d₄-deoxycholic, TDCA-d₄

MF: C₂₆H₄₀D₄NO₆S • Na

FW: 525.7

Chemical Purity: ≥98% (taurodeoxycholic acid)

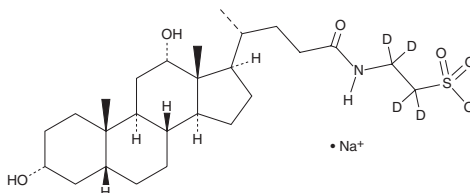
Deuterium

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

Supplied as: A 1 mg/ml solution in methanol

Storage: -20°C

Stability: ≥4 years



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

Laboratory Procedures

Tauro-d₄-deoxycholic acid (sodium salt) is intended for use as an internal standard for the quantification of taurodeoxycholic acid (Item Nos. 44869 | 15935) 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).

Description

Taurodeoxycholic acid is a taurine-conjugated form of the secondary bile acid deoxycholic acid (Item Nos. 20756 | 18231).¹ Taurodeoxycholic acid stimulates chloride ion secretion through calcium-activated chloride ion channels and cystic fibrosis transmembrane conductance regulator (CFTR) in Calu-3 airway epithelial cell monolayers when applied basolaterally.² Serum levels of taurodeoxycholic acid increase approximately 5-fold within two hours during an oral lipid tolerance test in humans.¹

References

1. Schmid, A., Neumann, H., Karrasch, T., *et al.* Bile acid metabolome after an oral lipid tolerance test by liquid chromatography-tandem mass spectrometry (LC-MS/MS). *PLoS One* **11**(2), e0148869 (2016).
2. Hendrick, S.M., Mroz, M.S., Greene, C.M., *et al.* Bile acids stimulate chloride secretion through CFTR and calcium-activated Cl⁻ channels in Calu-3 airway epithelial cells. *Am. J. Physiol. Lung. Cell. Mol. Physiol.* **307**(5), L407-L418 (2014).

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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