

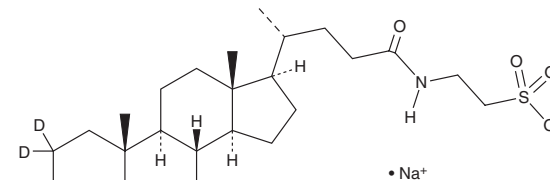
PRODUCT INFORMATION



Taurochenodeoxycholic Acid-d₄ (sodium salt)

Item No. 21905

CAS Registry No.: 2410279-85-3
Formal Name: 2-[[[(3 α ,5 β ,7 α)-3,7-dihydroxy-24-oxocholan-24-yl]-2,2,4,4-d₄]amino]ethanesulfonic acid, monosodium salt
Synonyms: Taurochenodeoxycholate-d₄, TCDCA-d₄
MF: C₂₆H₄₀D₄NO₆S • Na
FW: 525.7
Chemical Purity: ≥98% (Taurochenodeoxycholic Acid)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
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

Taurochenodeoxycholic acid-d₄ (TCDCA-d₄) (sodium salt) is intended for use as an internal standard for the quantification of TCDCA (Item No. 20275) 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).

TCDCA-d₄ (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the TCDCA-d₄ (sodium salt) in the solvent of choice, which should be purged with an inert gas. TCDCA-d₄ (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of TCDCA-d₄ (sodium salt) in these solvents is approximately 2, 20, and 25 mg/ml, respectively.

Description

TCDCA is a taurine-conjugated form of the primary bile acid chenodeoxycholic acid (CDCA; Item No. 10011286).¹ Serum levels of TCDCA increase approximately 5-fold within two hours and begin to decrease within four hours during an oral lipid tolerance test in humans.² Serum levels of TCDCA are increased in patients with liver cirrhosis and may serve as a marker of disease progression.³

References

1. Hoffman, A.F. The continuing importance of bile acids in liver and intestinal disease. *Arch. Intern. Med.* **159**(22), 2647-2658 (1999).
2. 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).
3. Wang, X., Xie, G., Zhao, A., *et al.* Serum bile acids are associated with pathological progression of hepatitis B-induced cirrhosis. *J. Proteome Res.* **15**(4), 1126-1134 (2016).

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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