

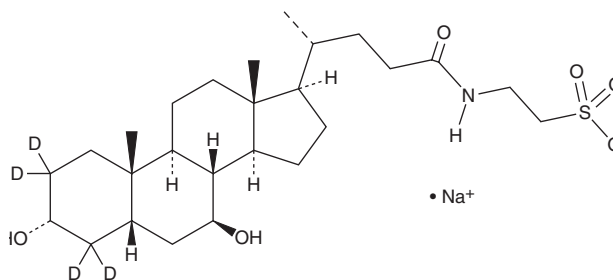
PRODUCT INFORMATION



Tauroursodeoxycholic Acid-d₄ (sodium salt)

Item No. 32985

CAS Registry No.: 2410279-95-5
Formal Name: 2-[[[(3 α ,5 β ,7 β)-3,7-dihydroxy-24-oxocholan-24-yl]-2,2,4,4-d₄]amino]-ethanesulfonic acid, monosodium salt
Synonyms: 3 α ,7 β -dihydroxy-5 β -cholanoyl Taurine-d₄, Sodium Tauroursodeoxycholate-d₄, TUDCA-d₄, UR-906-d₄
MF: C₂₆H₄₀D₄NO₆S • Na
FW: 525.7
Chemical Purity: ≥98% (Tauroursodeoxycholic Acid)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
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

Tauroursodeoxycholic acid-d₄ (sodium salt) is intended for use as an internal standard for the quantification of tauroursodeoxycholic acid (Item Nos. 20277 | 9003379) 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).

Tauroursodeoxycholic acid-d₄ (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the tauroursodeoxycholic acid-d₄ (sodium salt) in the solvent of choice, which should be purged with an inert gas. Tauroursodeoxycholic acid-d₄ (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of tauroursodeoxycholic acid-d₄ (sodium salt) in these solvents is approximately 1, 20, and 25 mg/ml, respectively.

Description

Tauroursodeoxycholic acid (TUDCA) is a taurine-conjugated form of the secondary bile acid ursodeoxycholic acid (Item No. 15121).^{1,2} TUDCA is found in small quantities in human bile but at a higher concentration in the bile of black bears.² It demonstrates anti-apoptotic activity in rodent models of tauopathy, Huntington's disease, ischemic brain injury, and retinal disorders.^{2,3}

References

1. Beuers, U. Effects of bile acids on hepatocellular signaling and secretion. *Yale J. Biol. Med.* **70**(4), 341-346 (1997).
2. Boatright, J.H., Nickerson, J.M., Moring, A.G., *et al.* Bile acids in treatment of ocular disease. *J. Ocul. Biol. Dis. Infor.* **2**(3), 149-159 (2009).
3. Vang, S., Longley, K., Steer, C.J., *et al.* The unexpected uses of urso- and tauroursodeoxycholic acid in the treatment of non-liver diseases. *Glob. Adv. Health Med.* **3**(3), 58-69 (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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