

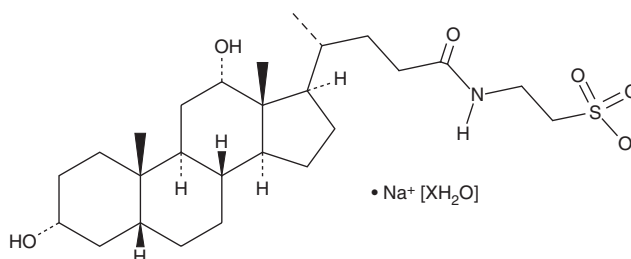
# PRODUCT INFORMATION



## Taurodeoxycholic Acid (sodium salt hydrate)

Item No. 15935

**CAS Registry No.:** 207737-97-1  
**Formal Name:** 2-[[[(3 $\alpha$ ,5 $\beta$ ,12 $\alpha$ )-3,12-dihydroxy-24-oxocholan-24-yl]amino]ethanesulfonic acid, monosodium salt, hydrate  
**Synonym:** TDCA  
**MF:** C<sub>26</sub>H<sub>44</sub>NO<sub>6</sub>S • Na [XH<sub>2</sub>O]  
**FW:** 521.7  
**Purity:** ≥95%  
**Supplied as:** A crystalline 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

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

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of taurodeoxycholic acid (sodium salt hydrate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of taurodeoxycholic acid (sodium salt hydrate) in PBS (pH 7.2) is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Taurodeoxycholic acid is a taurine-conjugated form of the secondary bile acid deoxycholic acid (Item Nos. 20756 | 18231).<sup>1</sup> 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.<sup>2</sup> Serum levels of taurodeoxycholic acid increase approximately 5-fold within two hours during an oral lipid tolerance test in humans.<sup>1</sup>

### References

- 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).
- Hendrick, S.M., Mroz, M.S., Greene, C.M., *et al.* Bile acids stimulate chloride secretion through CFTR and calcium-activated Cl<sup>-</sup> 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.

#### WARRANTY AND LIMITATION OF REMEDY

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