

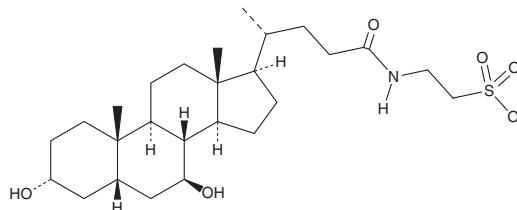
# PRODUCT INFORMATION



## Tauroursodeoxycholic Acid

Item No. 20277

**CAS Registry No.:** 14605-22-2  
**Formal Name:** 2-[[[(3 $\alpha$ ,5 $\beta$ ,7 $\beta$ )-3,7-dihydroxy-24-oxocholan-24-yl]amino]-ethanesulfonic acid  
**Synonyms:** 3 $\alpha$ ,7 $\beta$ -dihydroxy-5 $\beta$ -cholanoyl Taurine, TUDCA, UR-906  
**MF:** C<sub>26</sub>H<sub>45</sub>NO<sub>6</sub>S  
**FW:** 499.7  
**Purity:**  $\geq$ 95%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 4 years



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

### Laboratory Procedures

Tauroursodeoxycholic acid (TUDCA) is supplied as a crystalline solid. A stock solution may be made by dissolving the TUDCA in the solvent of choice, which should be purged with an inert gas. TUDCA is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of TUDCA in ethanol is approximately 1 mg/ml and approximately 10 mg/ml in DMSO and DMF.

TUDCA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, TUDCA should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. TUDCA has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

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

### 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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