

# PRODUCT INFORMATION



## Taurocholic Acid (sodium salt)

Item No. 16215

**CAS Registry No.:** 145-42-6  
**Formal Name:** 2-[[[(3 $\alpha$ ,5 $\beta$ ,7 $\alpha$ ,12 $\alpha$ )-3,7,12-trihydroxy-24-oxocholan-24-yl]amino]ethanesulfonic acid, monosodium salt

**Synonyms:** Ethanesulfonic Acid, TCA

**MF:** C<sub>26</sub>H<sub>44</sub>NO<sub>7</sub>S • Na

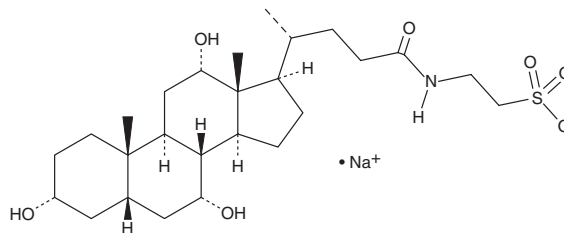
**FW:** 537.7

**Purity:** ≥95%

**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

Taurocholic acid (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the taurocholic acid (sodium salt) in the solvent of choice. Taurocholic acid (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of taurocholic acid (sodium salt) 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 taurocholic acid (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of taurocholic acid (sodium salt) in PBS, pH 7.2, is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Taurocholic acid (TCA) is a taurine-conjugated form of the primary bile acid cholic acid (Item No. 20250).<sup>1</sup> Serum levels of TCA are decreased in patients with Crohn's disease and those with ulcerative colitis with no extraintestinal manifestations, but are increased in patients with ulcerative colitis accompanied by hepatobiliary disease.<sup>2</sup>

### References

1. Lefebvre, P., Cariou, B., Lien, F., *et al.* Role of bile acids and bile acid receptors in metabolic regulation. *Physiol. Rev.* **89**(1), 147-191 (2009).
2. Gnewuch, C., Liebisch, G., Langmann, T., *et al.* Serum bile acid profiling reflects enterohepatic detoxification state and intestinal barrier function in inflammatory bowel disease. *World J. Gastroenterol.* **15**(25), 3134-3141 (2009).

#### 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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