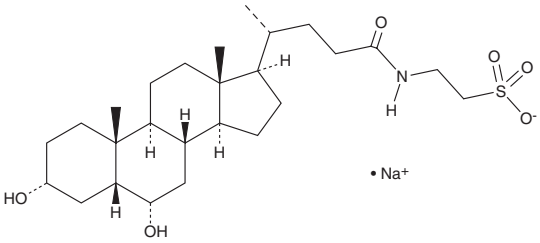
PRODUCT INFORMATION

Taurohyodeoxycholic Acid (sodium salt)

Item No. 21956

CAS Registry No.: 38411-85-7
Formal Name: 2-[[(3α,5β,6α)-3,6-dihydroxy-24-oxocholan-24-yl]amino]-ethanesulfonic acid, monosodium salt
Synonyms: Taurine Hyodeoxycholate, THDCA
MF: $C_{26}H_{44}NO_6S \bullet Na$
FW: 521.7
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

Taurohyodeoxycholic acid (THDCA) (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the THDCA (sodium salt) in the solvent of choice, which should be purged with an inert gas. THDCA (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of THDCA (sodium salt) in ethanol and DMSO is approximately 20 mg/ml and approximately 30 mg/ml in DMF.

THDCA (sodium salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, THDCA (sodium salt) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. THDCA (sodium salt) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

THDCA is a taurine-conjugated form of the secondary bile acid hyodeoxycholic acid (Item No. 20294).[1] THDCA decreases the size and weight of human gallstones *in vitro*. It increases bile flow, biliary cholesterol secretion, and biliary lipid secretion in rats.[2] Co-administration of THDCA with taurochenodeoxycholic acid (TCDCA; Item No. 20275) prevents TCDCA-induced hepatotoxicity, increasing bile flow as well as biliary acid and phospholipid secretion in rats.[3] THDCA also reduces myeloperoxidase activity, expression of TNF-α and IL-6, and colonic damage in a mouse model of TNBS-induced ulcerative colitis.[4]

References

1. Angelico, M., Mogavero, L., Baiocchi, L., *et al.* Dissolution of human cholesterol gallstones in bile salt/lecithin mixtures: Effect of bile salt hydrophobicity and various pHs. *Scand. J. Gastroenterol.* **30(12)**, 1178-1185 (1995).
2. Angelico, M., Baiocchi, L., Nistri, A., *et al.* Effect of taurohyodeoxycholic acid, a hydrophilic bile salt, on bile salt and biliary lipid secretion in the rat. *Dig. Dis. Sci.* **39(11)**, 2389-2397 (1994).
3. Roda, A., Piazza, F., Baraldini, M., *et al.* Taurohyodeoxycholic acid protects against taurochenodeoxycholic acid-induced cholestasis in the rat. *Hepatology* **27(2)**, 520-525 (1998).
4. He, J., Liang, J., Zhu, S., *et al.* Protective effect of taurohyodeoxycholic acid from Pulvis Fellis Suis on trinitrobenzene sulfonic acid induced ulcerative colitis in mice. *Eur. J. Pharmacol.* **670(1)**, 229-235 (2011).

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