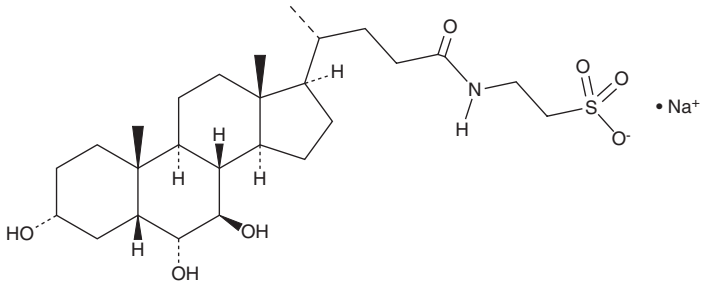
PRODUCT INFORMATION

Tauro-ω-muricholic Acid (sodium salt)

Item No. 28842

CAS Registry No.: 2456348-84-6
Formal Name: 2-[[(3α,5β,6α,7β)-3,6,7-trihydroxy-24-oxocholan-24-yl]amino]-ethanesulfonic acid, monosodium salt
Synonyms: T-ω-MCA, TOMCA
MF: $C_{26}H_{44}NO_7S \bullet Na$
FW: 537.7
Purity: ≥95%
Supplied as: A lyophilized powder
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

Tauro-ω-muricholic acid (sodium salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the tauro-ω-muricholic acid (sodium salt) in the solvent of choice, which should be purged with an inert gas. Tauro-ω-muricholic acid (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of tauro-ω-muricholic acid (sodium salt) in ethanol is approximately 1 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Tauro-ω-muricholic acid (sodium salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, tauro-ω-muricholic acid (sodium salt) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Tauro-ω-muricholic acid (sodium salt) 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

Tauro-ω-muricholic acid is a taurine-conjugated form of the secondary bile acid ω-muricholic acid (Item No. 20292). Hepatic levels of tauro-ω-muricholic acid are decreased in mice following a diet supplemented with cholic, deoxycholic, chenodeoxycholic, or ursodeoxycholic acid and in a high-fat diet-induced mouse model of non-alcoholic fatty liver disease (NAFLD).[1,2] Tauro-ω-muricholic acid is the predominant rare bile acid found in the serum of infants with early-onset neonatal sepsis.[3]

References

1. Zhang, Y. and Klaassen, C.D. Effects of feeding bile acids and a bile acid sequestrant on hepatic bile acid composition in mice. *J. Lipid Res.* **51(11)**, 3230-3242 (2010).
2. Tang, Y., Zhang, J., Li, J., *et al.* Turnover of bile acids in liver, serum and caecal content by high-fat diet feeding affects hepatic steatosis in rats. *Biochim. Biophys. Acta. Mol. Cell Biol. Lipids* **1864(10)**, 1293-1304 (2019).
3. Zöhrer, E., Meinel, K., Fauler, G., *et al.* Neonatal sepsis leads to early rise of rare serum bile acid tauro-omega-muricholic acid (TOMCA). *Pediatr. Res.* **84(1)**, 66-70 (2018).

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