

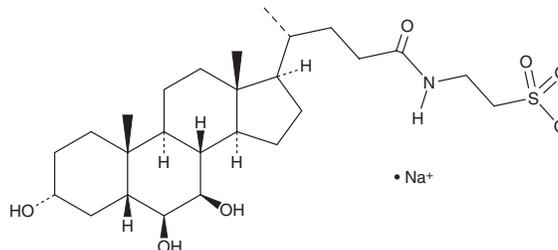
PRODUCT INFORMATION



Tauro- β -muricholic Acid (sodium salt)

Item No. 20289

CAS Registry No.: 145022-92-0
Formal Name: 2-[[[(3 α ,5 β ,6 β ,7 β)-3,6,7-trihydroxy-24-oxocholan-24-yl]amino]ethanesulfonic acid, monosodium salt
Synonyms: Tauro- β -muricholate, T β MCA
MF: C₂₆H₄₄NO₇S • Na
FW: 537.7
Purity: \geq 95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 2 years



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

Laboratory Procedures

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

T β MCA (sodium salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, T β MCA (sodium salt) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. T β MCA (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

T β MCA (sodium salt) is a competitive and reversible antagonist of the farnesoid X receptor (FXR; IC₅₀ = 40 μ M) and a taurine-conjugated form of the murine-specific primary bile acid β -muricholic acid (Item No. 20287).¹ T β MCA accumulates in germ-free mice under normal conditions but is reduced after colonization with feces from a human donor.^{1,2} T β MCA is increased in the intestines of mice resistant to high-fat diet-induced obesity, fatty liver, and diabetes.³

References

1. Sayin, S.I., Wahlström, A., Felin, J., *et al.* Gut microbiota regulates bile acid metabolism by reducing the levels of tauro-beta-muricholic acid, a naturally occurring FXR antagonist. *Cell Metab.* **17(2)**, 225-235 (2013).
2. Wahlström, A., Kovatcheva-Datchary, P., Ståhlman, M., *et al.* Induction of farnesoid X receptor signaling in germ-free mice colonized with a human microbiota. *J. Lipid. Res.* **58(2)**, 412-419 (2017).
3. Qi, Y., Jiang, C., Cheng, J., *et al.* Bile acid signaling in lipid metabolism: Metabolomic and lipidomic analysis of lipid and bile acid markers linked to anti-obesity and anti-diabetes in mice. *Biochim Biophys. Acta.* **1851(1)**, 19-29 (2015).

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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