

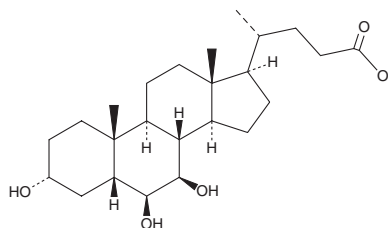
PRODUCT INFORMATION



β-Muricholic Acid

Item No. 20287

CAS Registry No.: 2393-59-1
Formal Name: (5β)-3α,6β,7β-trihydroxy-cholan-24-oic acid
Synonyms: 5β-Cholanic Acid-3α,6β,7β-triol, β-MCA
MF: C₂₄H₄₀O₅
FW: 408.6
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

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

β-MCA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, β-MCA should first be dissolved in DMF and then diluted with the aqueous buffer of choice. β-MCA 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

β-Muricholic acid (β-MCA) is a murine-specific primary bile acid.^{1,2} Dietary administration of β-MCA reduces HMG-CoA reductase activity in liver microsomes from mice fed a high cholesterol and cholic acid diet.³ Dietary administration of β-MCA also dissolves 100% of gallstones in a gallstone-susceptible mouse model of diet-induced cholesterol gallstones.⁴

References

1. Eyssen, H.J., Parmentier, G.G., and Mertens, J.A. Sulfate bile acids in germ-free and conventional mice. *Eur. J. Biochem.* **66**(3), 507-514 (1976).
2. Wahlström, A., Sayin, S.I., Marshall, H.-I., et al. Intestinal crosstalk between bile acids and microbiota and its impact on host metabolism. *Cell Metab.* **24**(1), 41-50 (2016).
3. Fujino, Y., Nakayama, K., Yoshimura, K., et al. Suppression of hepatic HMG-CoA reductase activity by β-muricholic acid in mice fed a diet containing cholesterol and cholic acid. *Jpn. J. Pharmacol.* **46**(4), 421-423 (1988).
4. Wang, D.Q.-H. and Tazuma, S. Effect of β-muricholic acid on the prevention and dissolution of cholesterol gallstones in C57L/J mice. *J. Lipid. Res.* **43**(11), 1960-1968 (2002).

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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