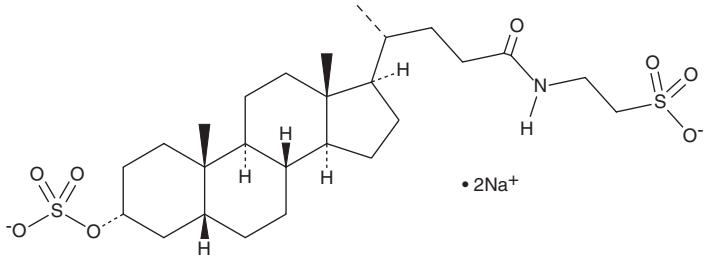
PRODUCT INFORMATION

Taurolithocholic Acid 3-sulfate (sodium salt)

Item No. 18468

CAS Registry No.:	64936-83-0
Formal Name:	2-[[(3α,5β)-24-oxo-3-(sulfooxy) cholan-24-yl]amino]-ethanesulfonic acid, disodium salt
Synonyms:	3-Sulfotaurolithocholic acid, 3S-TLCA, TLCA3S, TLC-S
MF:	$C_{26}H_{43}NO_8S_2$ • 2Na
FW:	607.7
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

Taurolithocholic acid 3-sulfate (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the taurolithocholic acid 3-sulfate (sodium salt) in the solvent of choice. Taurolithocholic acid 3-sulfate (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 taurolithocholic acid 3-sulfate (sodium salt) in these solvents is approximately 1, 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 taurolithocholic acid 3-sulfate (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of taurolithocholic acid 3-sulfate (sodium salt) in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Taurolithocholic acid 3-sulfate (TLCA3S) is a metabolite of the conjugated bile acid taurolithocholic acid (Item No. 17275).[1] TLCA3S has been used to study bile acid transport in cellular models and to induce pancreatitis in mouse models of bile acid infusion pancreatitis.[2,3]

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. Blazquez, A.G., Briz, O., Romero, M.R., *et al.* Characterization of the role of ABCG2 as a bile acid transporter in liver and placenta. *Mol. Pharmacol.* **81(2)**, 273-283 (2012).
3. Muili, K.A., Wang, D., Orabi, A.I., *et al.* Bile acids induce pancreatic acinar cell injury and pancreatitis by activating calcineurin. *J. Biol. Chem.* **288(1)**, 570-580 (2013).

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