Taurocholic acid sodium salt hydrate

Product Number T4009
Store at Room Temperature

Product Description
Molecular Formula: C_{26}H_{44}NO_{7}SNa xH_{2}O
Molecular Weight: 537.7
CAS Number: 345909-26-4
Specific Rotation: [\alpha]^{20}_{D} +24^\circ (30 \text{ mg/ml})
pK_{a}: 1.4
Critical Micelle Concentration (CMC): 3-11 mM
Synonyms: taurocholic acid sodium salt, 3α,7α,12α-trihydroxy-5β-cholan-24-oic acid N-(2-sulfoethyl)amide, 2-[(3α, 7α,12α-trihydroxy-24-oxo-5β-cholan-24-y1)amino]ethanesulfonic acid, cholaic acid sodium salt

Sodium taurocholate, the sodium salt of taurocholic acid, is the conjugation product of cholic acid with taurine and the principal constituent of the bile of carnivorous animals. In vivo, cholesterol is converted to trihydroxycoprostanote and subsequently to choyl CoA, which is then conjugated to the amino group of taurine to form taurocholate. Sodium taurocholate is a known activator of cholesterol esterase. Studies of various lipases incorporate sodium taurocholate as an activator.

Cell culture studies that use taurocholate have included the colonization by Neisseria meningitidis in cultured human nasopharyngeal mucosae, permeation of bile salt and bile salt:acid mixed micellar systems in CaCo2 cells, and the infection of MDBK and HCT-8 cells by the parasite Cryptosporidium parvum. A capillary electrophoresis study of the interactions between aminopenicillanic acid and its derivatives with bile salt micelles has been reported.

Precautions and Disclaimer
For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions
This product is soluble in water (100 mg/ml), yielding a clear, faint yellow solution.

References
1. The Merck Index, 12th ed., Entry# 9242.

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