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Taurocholic acid sodium salt hydrate

ProductInformation

Product Number **T4009**
Store at Room Temperature

Product Description

Molecular Formula: $C_{26}H_{44}NO_7SNa\ xH_2O$
Molecular Weight: 537.7
CAS Number: 345909-26-4
Specific Rotation: $[\alpha]^{20}_D$ +24 ° (30 mg/ml)[1]
pK_a: 1.4[1]
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-yl)amino]ethanesulfonic acid, cholaic acid sodium salt[1]

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.[1] *In vivo*, cholesterol is converted to trihydroxycoprostanote and subsequently to cholyl CoA, which is then conjugated to the amino group of taurine to form taurocholate.[2] Sodium taurocholate is a known activator of cholesterol esterase.[3,4] Studies of various lipases incorporate sodium taurocholate as an activator.[5,6]

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:fatty acid mixed micellar systems in CaCo2 cells, and the infection of MDBK and HCT-8 cells by the parasite *Cryptosporidium parvum*.[7,8,9] A capillary electrophoresis study of the interactions between aminopenicillanic acid and its derivatives with bile salt micelles has been reported.[10]

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

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