Product Name: Sodium Tauroursodeoxycholate (TUDC)

Revision Date: 6/30/2016

Chemical Properties

Product Name: Sodium Tauroursodeoxycholate (TUDC)

Cas No.: 35807-85-3

M.Wt: 521.69

Formula: C26H44NNaO6S


Canonical SMILES: C[C@]([C@@]1([H])[CC[C@@]2([H])[C@@][C@](O)([H])[C@@]3([H]
)[C@@]([O](H))[CC[C@@]4([H])[C@@]34C][H])/C@][C@@]34C][H])/C@][C@@]4([H])[CC[C@@]12C][H])CC/C
([O-])=N/CCS(O)(=O)=O.[Na+]

Solubility: >26.1mg/mL in DMSO

Storage: Store at -20°C

General tips: For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shopping Condition: Evaluation sample solution: ship with blue ice
All other available size: ship with RT, or blue ice upon request

Biological Activity

Targets: Others

Pathways: Others

Description: Sodium tauroursodeoxycholate (TUDC) shows therapeutic effect on cholestasis [1, 2]. In human
erythrocytes, it inhibited 2',7'-bis-(carboxypropyl)-5(6)-carboxyfluorescein (BCPCF) efflux induced by bile salts with an IC50 value of 560 µM [3].

Cholestasis is the syndrome resulted from the impairment of the formation of bile, a vital function [4].

cVA-of-CLF means the canalicular vacuolar accumulation of cholyllysylfluorescein [1]. cVA of CLF is a parameter to indicate overall biliary secretion [5]. Incubation with 17βEG dose-dependently decreased the cVA-of-CLF in cells. 17βEG at a concentration of 50 µM decreased cVA-of-CLF by 40%. The simultaneous incubation with TUDC and 17βEG improved the decreased cVA by 24%. The simultaneous incubation with SAMe and 17βEG improved the decreased cVA by 18%. The simultaneous incubation with TUDC, SAMe and 17βEG improved the decreased cVA by 28%. But the effect of TUDC + SAMe was not significantly greater than the effect of either protectant alone [1].

In rats, intrahepatic cholestasis was induced by the administration of phalloidin at an i.p. dose of 500 µg/kg for 7 days. In these treated rats, bile flow was decreased, and activities of glutamic pyruvic transaminase, leucine aminopeptidase, serum alkaline phosphatase, and concentrations of bile acid, phospholipid and cholesterol were increased. But these effects were significantly suppressed by tauroursodeoxycholate. In these rats, excretion rates of biliary cholesterol and phospholipid were significantly improved by tauroursodeoxycholate [2].

Reference:


Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage
recommendations on the product data sheet.