Sodium Tauroursodeoxycholate (TUDC)

Catalog No.C13034 Batch:C1303403

Product Datasheet

Technical Data

Formula	$C_{26}H_{44}NNaO_6S$					
Molecular Weight	521.69	**CAS No.**	35807-85-3			
Solubility (25°C)*	In vitro	DMSO	100 mg/mL (191.68 mM)			
		Water	100 mg/mL (191.68 mM)			
		Ethanol	46 mg/mL (88.17 mM)			
	In vivo (Add solvents to the product individually and in order)	Oral Administration	Homogeneous suspension	CMC-NA	≥5mg/ml	Taking the 1 mL working solution as an example, add 5 mg of this product to 1 ml of CMC-Na solution, mix evenly to obtain a homogeneous suspension with a final concentration of 5 mg/ml.

* <1 mg/ml means slightly soluble or insoluble.
* Please note that Capsid Bio tests the solubility of all compounds in-house, and the actual solubility may differ slightly from published values. This is normal and is due to slight batch-to-batch variations.
* Room temperature shipping (Stability testing shows this product can be shipped at 2-8°C for storage purposes.)

Preparing Stock Solutions

Biological Activity

Description	Sodium Tauroursodeoxycholate (TUDC) is a water soluble bile salt, used for the treatment of gallstones and liver cirrhosis.
In vitro	In vitro, Tauroursodeoxycholate shows protective and reversing effects on 17βEG-induced impairment of the cVA-of-CLF. [1] In Mz-ChA-1 cholangiocarcinoma cells, Tauroursodeoxycholate inhibits cell growth via Ca^{2+}-, PKC-, and MAPK-dependent pathways. [3] In isolated rat hepatocytes, Tauroursodeoxycholate inhibits bile acid-Induced Apoptosis via a β1-integrin-mediated formation of cAMP. [4]
In vivo	In phalloidin-induced cholestasis rats, Tauroursodeoxycholate (360 μmol/kg, i.v.) significantly suppresses the decrease in bile flow and increases in serum alkaline phosphatase, leucine aminopeptidase and glutamic pyruvic transaminase activities, cholesterol, phospholipid and bile acid concentrations. [2]

Protocol (from reference)

Cell Assay:[3]

- **Cell lines**
  Mz-ChA-1 cells
- **Concentrations**
  ~200 μM
- **Incubation Time**
  96 h
- **Method**
  After trypsinization, Mz-ChA-1 cells are suspended in CCM at 5 × 10^4 cells/mL, and 200 μL of the cell suspension are seeded into flat-bottomed 96-well plates. After an initial incubation step of 4 h at 37°C in a 5% CO^2 incubator, the cells are incubated at 37°C with TUDCA (0.2–200 μM). After incubation for 24–96 h, [^{3}H]thymidine is put into each well at 5.0 μCi/mL and incubated for additional 4 h. [^{3}H]thymidine incorporation is measured by a scintillation counter. At the end of each incubation period, cell viability is evaluated by trypan blue exclusion.

Animal Study:[2]

- **Animal Models**
  Phalloidin-induced cholestasis rats
- **Dosages**
  360 μmol/kg
- **Administration**
  i.v.

References

https://pubmed.ncbi.nlm.nih.gov/11281545/ https://pubmed.ncbi.nlm.nih.gov/11408049/ https://pubmed.ncbi.nlm.nih.gov/14701718/

+ Expand

RETURN POLICY

Capsid Bio's Unconditional Return Policy ensures a smooth online shopping experience for our customers. If you are in any way unsatisfied with your purchase, you may return any item(s) within 7 days of receiving it. In the event of product quality issues, either protocol related or product related problems, you may return any item(s) within 365 days from the original purchase date. Please follow the instructions below when returning products.

SHIPPING & STORAGE

Capsid Bio products are transported at room temperature. If you receive the product at room temperature, please rest assured, the Capsid Bio Quality Inspection Department has conducted experiments to verify that the normal temperature placement of one month will not affect the biological activity of powder products. After collecting, please store the product according to the requirements described in the datasheet. Most Capsid Bio products are stable under the recommended conditions.

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