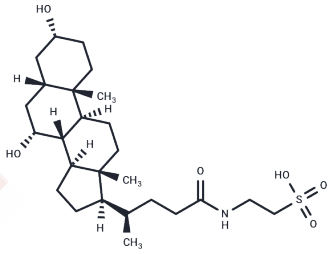
Data Sheet (Cat.No.T2A2481)

TargetMol

Taurochenodeoxycholic Acid

Chemical Properties



CAS No. : 516-35-8

Formula: C26H45NO6S

Molecular Weight: 499.7

Storage: Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Taurochenodeoxycholic Acid (12-Deoxycholyltaurine) is one of the main bioactive substances of animals' bile acid.
Targets(IC50)	Apoptosis,Caspase,Endogenous Metabolite,TNF
In vitro	Studies have suggested that taurochenodeoxycholic acid as a signaling molecule shows obvious anti-inflammatory and immune regulation properties. Taurochenodeoxycholic acid dramatically improves the apoptosis rate of NR8383 cells in a concentration-dependent manner. In the meantime, PKC mRNA levels and activities are significantly augmented by taurochenodeoxycholic acid treatments. In addition, JNK, caspase-3 and caspase-8 mRNA expression levels and activities are increased by taurochenodeoxycholic acid.
In vivo	Taurochenodeoxycholic acid significantly normalizes the clinical inflammatory parameters, prevented indomethacin-induced increases in the biliary contents of secondary bile acids and hydrophobicity index, and tended to attenuate the intestinal inflammation. Taurochenodeoxycholic acid significantly suppresses paw swelling and polyarthritis index, increases the loss body weight and index of thymus and spleen, and amends radiologic changes in AA rats. The overproduction and mRNA expression of TNF-α, IL-1β and IL-6 are remarkably suppressed in serum and synovium tissue of all TCDCA-treated rats.Taurochenodeoxycholic acid in dosages of 0.05 and 0.1g/kg can decrease the pulmonary coefficient in the model mice, taurochenodeoxycholic acid in dosages of 0.05 and 0.1g/kg reduce the pathological damages on their lungs; it can decrease the expression levels of TNF-α and TIMP-2 in pulmonary tissues in the pulmonary fibrosis mice, the expression level of MMP-9 increases, while it has no significant effects on MMP2.

Solubility Information

Solubility	H2O: 100 mg/mL (200.12 mM),Sonication is recommended. DMSO: 50 mg/mL (100.06 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0012 mL	10.006 mL	20.012 mL
5 mM	0.4002 mL	2.0012 mL	4.0024 mL
10 mM	0.2001 mL	1.0006 mL	2.0012 mL
50 mM	0.040 mL	0.2001 mL	0.4002 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Wang X, et al. Taurochenodeoxycholic acid induces NR8383 cells apoptosis via PKC/JNK-dependent pathway. Eur J Pharmacol. 2016 Sep 5;786:109-15.

Qiu Q, Guo G, Guo X, et al.P53 Deficiency Accelerate Esophageal Epithelium Intestinal Metaplasia Malignancy. Biomedicines.2023, 11(3): 882.

Zhou C, et al. The effects of taurochenodeoxycholic acid in preventing pulmonary fibrosis in mice. Pak J Pharm Sci. 2013 Jul;26(4):761-5.

Uchida A, et al. Taurochenodeoxycholic acid ameliorates and ursodeoxycholic acid exacerbates small intestinal inflammation. Am J Physiol. 1997 May;272(5 Pt 1):G1249-57.

Liu M, et al. Effects of taurochenodeoxycholic acid on adjuvant arthritis in rats. Int Immunopharmacol. 2011 Dec;11 (12):2150-8.