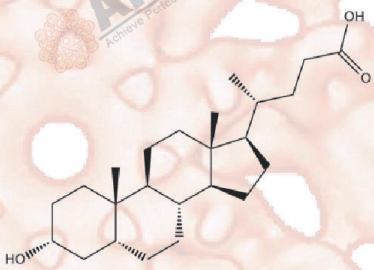
Product Data Sheet

Lithocholic Acid



Cat. No.: A8463
CAS No.: 434-13-9
Formula: C24H40O3
M.Wt: 376.57
Synonyms:
Target: Others
Pathway: Others
Storage: Store at -20°C

Solvent & Solubility

In Vitro

insoluble in H2O; ⩾12.95 mg/mL in DMSO; ⩾26.6 mg/mL in EtOH with ultrasonic

Preparing Stock Solutions

Concentration \ Mass / Solvent	1mg	5mg	10mg
1 mM	2.6555 mL	13.2777 mL	26.5555 mL
5 mM	0.5311 mL	2.6555 mL	5.3111 mL
10 mM	0.2656 mL	1.3278 mL	2.6555 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	Activator of vitamin D receptor,PXR and FXR
IC_{50} & Target	29μM(Ki) (VDR)

In Vitro

Cell Viability Assay

Cell Line:	HL-1 cells
Preparation method:	The solubility of this compound in DMSO is > 13 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below - 20 °C for several months.
Reacting conditions:	50 or 100 μM

	Applications:	In HL-1 cells, Lithocholic Acid reduced and prevented cardiomyocyte apoptosis at the concentrations of 50 and 100 μM, respectively. In the presences of the pro-apoptotic stimulus, Doxazosin, Lithocholic Acid inhibited hyperphosphorylation of EphA2. In addition, Lithocholic Acid increased the expression of total EphA2.
In Vivo	**Animal experiment**	
	Animal models:	Mice
	Dosage form:	0.125 mg/g; i.p.; b.i.d., for 4 days.
	Applications:	In PXR-/- mice, Lithocholic Acid resulted in sticky residues. Analysis of the urine revealed that PXR-/- mice showed substantially increased levels of Lithocholic Acid compared with wild-type animals. In addition, wild-type mice treated with Lithocholic Acid in a shorter term showed significant increases in hepatic Cyp3a11 and Oatp2 expression, whereas Lithocholic Acid treatment exhibited no effect on the expression of those genes in PXR-/- mice.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Jehle J, Staudacher I, Wiedmann F, Schweizer P, Becker R, Katus H, Thomas D. Regulation of apoptosis in HL-1 cardiomyocytes by phosphorylation of the receptor tyrosine kinase EphA2 and protection by lithocholic acid. Br J Pharmacol. 2012 Dec;167(7):1563-72.

[2]. Staudinger JL, Goodwin B, Jones SA, Hawkins-Brown D, MacKenzie KI, LaTour A, Liu Y, Klaassen CD, Brown KK, Reinhard J, Willson TM, Koller BH, Kliewer SA. The nuclear receptor PXR is a lithocholic acid sensor that protects against liver toxicity. Proc Natl Acad Sci U S A. 2001 Mar 13;98(6):3369-74.

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.

APExBIO Technology
www.apexbt.com
7505 Fannin street, Suite 410, Houston, TX 77054.
Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com