Glycolithocholic acid

Cat. No.: HY-116374

CAS No.: 474-74-8

Molecular Formula: $C_{26}H_{43}NO_4$

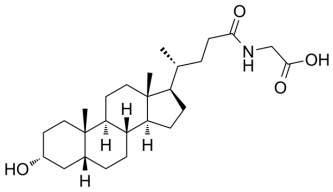
Molecular Weight: 433.62

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (115.31 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3062 mL	11.5308 mL	23.0617 mL
	5 mM	0.4612 mL	2.3062 mL	4.6123 mL
	10 mM	0.2306 mL	1.1531 mL	2.3062 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 1.25 mg/mL (2.88 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1.25 mg/mL (2.88 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Glycolithocholic acid (Lithocholylglycine), an endogenous metabolite, is a glycine-conjugated secondary bile acid. Glycolithocholic acid can be used to diagnose ulcerative colitis (UC), non-alcoholic steatohepatitis (NASH) and primary sclerosing cholangitis (PSC)[1][2][3][4].

IC_{50} & Target

Microbial Metabolite

In Vivo

The concentrations of Glycolithocholic acid in ulcerative colitis (UC) patients were significantly lower than those in healthy controls (HCs)[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Tanno N, et, al. Biliary lipid composition in heterozygous familial hypercholesterolemia and influence of treatment with probucol. Dig Dis Sci. 1994 Jul;39(7):1586-91.

[2]. Ang ZH, et, al. Altered profiles of fecal bile acids correlate with gut microbiota and inflammatory responses in patients with ulcerative colitis. World J Gastroenterol. 2021 Jun 28;27(24):3609-3629.

[3]. Bansal S, et, al. Inhibition of Human Sulfotransferase 2A1-Catalyzed Sulfonation of Lithocholic Acid, Glycolithocholic Acid, and Taurolithocholic Acid by Selective Estrogen Receptor Modulators and Various Analogs and Metabolites. J Pharmacol Exp Ther. 2019 Jun;369(3):389-405.

[4]. Sanyal AJ, et, al. Potent suppression of hydrophobic bile acids by aldafermin, an FGF19 analogue, across metabolic and cholestatic liver diseases. JHEP Rep. 2021 Feb 19;3(3):100255.

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