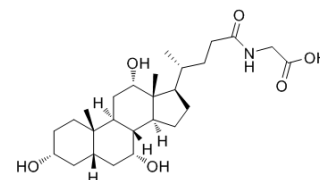


Glycocholic acid

Cat. No.:	HY-N1423		
CAS No.:	475-31-0		
Molecular Formula:	C ₂₆ H ₄₃ NO ₆		
Molecular Weight:	465.62		
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 : ≥ 100 mg/mL (214.77 mM)
 * "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.1477 mL	10.7384 mL	21.4767 mL
	5 mM	0.4295 mL	2.1477 mL	4.2953 mL
	10 mM	0.2148 mL	1.0738 mL	2.1477 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (5.37 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.5 mg/mL (5.37 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (5.37 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Glycocholic acid is a bile acid with anticancer activity, targeting against pump resistance-related and non-pump resistance-related pathways^[1].

IC₅₀ & Target

Human Endogenous Metabolite

In Vitro

Glycocholic acid (GC) increases the cytotoxicity of epirubicin, significantly increases the intracellular accumulation of

epirubicin in Caco-2 cells and the absorption of epirubicin in rat small intestine, and intensified epirubicin-induced apoptosis. Glycocholic acid and epirubicin significantly reduce mRNA expression levels of human intestinal MDR1, MDR-associated protein (MRP)1, and MRP2; downregulate the MDR1 promoter region; suppress the mRNA expression of Bcl-2; induce the mRNA expression of Bax; and significantly increase the Bax-to-Bcl-2 ratio and the mRNA levels of p53, caspase-9 and -3. A combination of anticancer drugs with Glycocholic acid can control MDR via a mechanism that involves modulating P-gp and MRPs as well as regulating apoptosis-related pathways^[1].

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

REFERENCES

[1]. Lo YL, et al. Inhibit multidrug resistance and induce apoptosis by using glycocholic acid and epirubicin. *Eur J Pharm Sci.* 2008 Sep 2;35(1-2):52-67.

Caution: Product has not been fully validated for medical applications. For research use only.

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