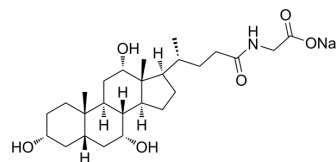


Glycocholic acid sodium

Cat. No.:	HY-N1423A
CAS No.:	863-57-0
Molecular Formula:	C ₂₆ H ₄₂ NNaO ₆
Molecular Weight:	487.6
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (205.09 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.0509 mL	10.2543 mL	20.5086 mL
	5 mM	0.4102 mL	2.0509 mL	4.1017 mL
	10 mM	0.2051 mL	1.0254 mL	2.0509 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 (5.13 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (5.13 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (5.13 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

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

IC₅₀ & Target

Microbial Metabolite 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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