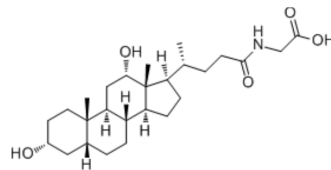


Glycodeoxycholic Acid

| | | | |
|---------------------------|---|-------|---------|
| Cat. No.: | HY-125731 | | |
| CAS No.: | 360-65-6 | | |
| Molecular Formula: | C ₂₆ H ₄₃ NO ₅ | | |
| Molecular Weight: | 449.62 | | |
| Target: | Endogenous Metabolite; STAT; Autophagy | | |
| Pathway: | Metabolic Enzyme/Protease; JAK/STAT Signaling; Stem Cell/Wnt; Autophagy | | |
| Storage: | Powder | -20°C | 3 years |
| | | 4°C | 2 years |
| | In solvent | -80°C | 2 years |
| | | -20°C | 1 year |



SOLVENT & SOLUBILITY

| | | | | | |
|---|---|--------------------------|--------------|------------|------------|
| In Vitro | DMSO : 125 mg/mL (278.01 mM; ultrasonic and warming and heat to 60°C) | | | | |
| | | Solvent Concentration | Mass 1 mg | 5 mg | 10 mg |
| | Preparing Stock Solutions | 1 mM | 2.2241 mL | 11.1205 mL | 22.2410 mL |
| | | 5 mM | 0.4448 mL | 2.2241 mL | 4.4482 mL |
| 10 mM | | 0.2224 mL | 1.1121 mL | 2.2241 mL | |
| Please refer to the solubility information to select the appropriate solvent. | | | | | |
| In Vivo | <ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (4.63 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (4.63 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (4.63 mM); Clear solution | | | | |

BIOLOGICAL ACTIVITY

| | |
|--------------------|--|
| Description | Glycodeoxycholic Acid is a natural product found in <i>Streptomyces nigrificans</i> , <i>Trypanosoma brucei</i> and <i>C. elegans</i> . Glycodeoxycholic Acid induces hepatocyte necrosis and autophagy in patients with obstructive cholestasis ^{[1][2][3]} . |
| In Vitro | Glycodeoxycholic Acid (200 μM, 24-48 h) induces stemness and chemotherapy resistance of hepatocellular carcinoma cells through STAT3 signaling pathway ^[1] . Glycodeoxycholic Acid (50 μM, pretreatment for 1 h) can eliminate UCB-induced cytochrome c oxidase inhibition, and significantly prevent oxidative stress, metabolic changes and cell death ^[2] . |

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

Cell Viability Assay^[1]

| | |
|------------------|---|
| Cell Line: | Huh7, LM3 |
| Concentration: | 200 μ M |
| Incubation Time: | 24, 48 h |
| Result: | Increased cell viability treated with 5-FU and cisplatin. |

Western Blot Analysis^[1]

| | |
|------------------|---|
| Cell Line: | Huh7, LM3 |
| Concentration: | 200 μ M |
| Incubation Time: | 24, 48 h |
| Result: | Suppressed the expression of apoptotic genes and increased anti-apoptotic genes. Promoted the expression of Sox2, Sox9, Nanog and CD133. Down-regulated the level of E-cadherin and up-regulated vimentin. Decreased the levels of SOCS2, SOCS5, PTPN1 and PTPN11. |

In Vivo

Glycodeoxycholic Acid (11.20 mg/kg, biliary and pancreatic duct injection) can induce acute pancreatitis in rhesus monkeys [3].

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

| | |
|-----------------|--|
| Animal Model: | Experimental macaque model ^[3] |
| Dosage: | 11.20 mg/kg |
| Administration: | injected along the biliopancreatic duct |
| Result: | Increased the levels of Serum amylase and lipase. Elevated Blood pressure and heart rate. |

REFERENCES

- [1]. Shi C, et al. Glycochenodeoxycholic acid induces stemness and chemoresistance via the STAT3 signaling pathway in hepatocellular carcinoma cells. *Aging (Albany NY)*. 2020 Aug 3;12(15):15546-15555.
- [2]. Vaz AR, et al. Bilirubin selectively inhibits cytochrome c oxidase activity and induces apoptosis in immature cortical neurons: assessment of the protective effects of glycodeoxycholic acid. *J Neurochem*. 2010 Jan;112(1):56-65.
- [3]. Fauzi A, et al. Role of glycodeoxycholic acid to induce acute pancreatitis in *Macaca nemestrina*. *J Med Primatol*. 2022 Jun;51(3):134-142. doi: 10.1111/jmp.12577. Epub 2022 Mar 20. PMID: 35306662; PMCID: PMC9310849.

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

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