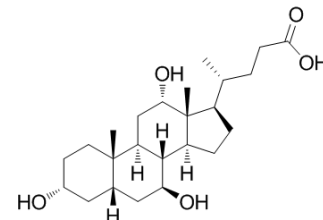


## Ursocholic acid

|                           |  |       |          |
|---------------------------|--|-------|----------|
| <b>Cat. No.:</b>          | HY-113212                                      |       |          |
| <b>CAS No.:</b>           | 2955-27-3                                      |       |          |
| <b>Molecular Formula:</b> | C <sub>24</sub> H <sub>40</sub> O <sub>5</sub> |       |          |
| <b>Molecular Weight:</b>  | 408.57   |       |          |
| <b>Target:</b>            | Endogenous Metabolite                          |       |          |
| <b>Pathway:</b>           | Metabolic Enzyme/Protease                      |       |          |
| <b>Storage:</b>           | Powder   | -20°C | 3 years  |
|                           |  | 4°C   | 2 years  |
|                           | In solvent                                     | -80°C | 6 months |
|                           |  | -20°C | 1 month  |



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 130 mg/mL (318.18 mM; Need ultrasonic)  
 H<sub>2</sub>O : < 0.1 mg/mL (insoluble)

| Concentration             | Solvent | Mass      |            |            |
|---------------------------|---------|-----------|------------|------------|
|                           |         | 1 mg      | 5 mg       | 10 mg      |
| Preparing Stock Solutions | 1 mM    | 2.4476 mL | 12.2378 mL | 24.4756 mL |
|                           | 5 mM    | 0.4895 mL | 2.4476 mL  | 4.8951 mL  |
|                           | 10 mM   | 0.2448 mL | 1.2238 mL  | 2.4476 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: 3.25 mg/mL (7.95 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
 Solubility: ≥ 3.25 mg/mL (7.95 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
 Solubility: ≥ 3.25 mg/mL (7.95 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Ursocholic acid, a bile acid found predominantly in bile of mammals, is transformed into deoxycholic acid by the intestinal microflora in mice. Ursodeoxycholic acid is an inhibitor of 7α-hydroxysteroid dehydrogenase and hepatocyte nuclear factor 1α<sup>[1]</sup>.

#### IC<sub>50</sub> & Target

Human Endogenous Metabolite

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## REFERENCES

- [1]. MacDonald IA, et al. Formation of ursodeoxycholic acid from chenodeoxycholic acid by a 7 beta-hydroxysteroid dehydrogenase-elaborating Eubacterium aerofaciens strain cocultured with 7 alpha-hydroxysteroid dehydrogenase-elaborating organisms. Appl Environ Microbiol. 1982 Nov;44(5):1187-95.
- [2]. Lee HI, et al. Ursodeoxycholic acid, an inhibitor of hepatocyte nuclear factor 1 $\alpha$ , did not increase the systemic exposure of pitavastatin. Int J Clin Pharmacol Ther. 2014 Nov;52(11):981-5.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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