Gly-β-MCA

Cat. No.: HY-114392

CAS No.: 66225-78-3

Molecular Formula: $C_{26}H_{43}NO_6$

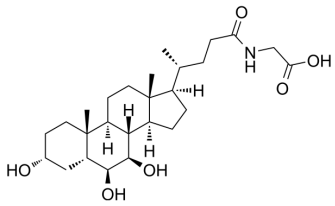
Molecular Weight: 466

Target: FXR; Autophagy

Pathway: Metabolic Enzyme/Protease; Autophagy

Storage:

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



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (214.59 mM; Need ultrasonic)

H_2O : < 0.1 mg/mL (ultrasonic) (insoluble)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.1459 mL	10.7296 mL	21.4592 mL
5 mM	0.4292 mL	2.1459 mL	4.2918 mL
10 mM	0.2146 mL	1.0730 mL	2.1459 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (4.46 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.46 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.46 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Gly-β-MCA, a bile acid, is a potent, sable, intestine-selective and oral bioactive farnesoid X receptor (FXR) inhibitor that may be a candidate for the treatment of metabolic disorders[1].

IC_{50} & Target

FXR[1].

In Vitro

Gly-β-MCA, a bile acid, is a potent, sable and intestine-selective and farnesoid X receptor (FXR) inhibitor[1].
Gly-β-MCA (Gly-MCA,) is resistant to hydrolysis by BSH[1].

	MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Gly-β-MCA (Gly-MCA, p.o. 10 and 50 mg/kg) prevents and treats diet-induced and genetic obesity, along with insulin resistance and hepatic steatosis without systemic, hepatic or intestinal toxicities in mice[1]. Gly-MCA does not increase faecal LCN-2 levels, indicating that Gly-MCA does not induce intestinal inflammation[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cell Metab. 2023 Aug 9;S1550-4131(23)00270-X.
- J Pineal Res. 2022 Jun 2.
- Pharmacol Res. 2023 Aug 30;106902.
- Phytomedicine. 2023 Sep 2, 155054.
- J Transl Med. 2023 Aug 30;21(1):581.

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REFERENCES

[1]. Jiang C, et al. Intestine-selective farnesoid X receptor inhibition improves obesity-related metabolic dysfunction. Nat Commun. 2015 Dec 15;6:10166.

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