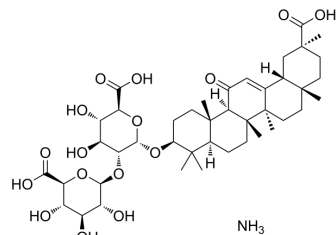


Ammonium glycyrrhizinate

Cat. No.:	HY-76225
CAS No.:	53956-04-0
Molecular Formula:	C ₄₂ H ₆₅ NO ₁₆
Molecular Weight:	839.96
Target:	Others
Pathway:	Others
Storage:	-20°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 (119.05 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	1.1905 mL	5.9527 mL	11.9053 mL
		5 mM	0.2381 mL	1.1905 mL	2.3811 mL
		10 mM	0.1191 mL	0.5953 mL	1.1905 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: ≥ 2.5 mg/mL (2.98 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (2.98 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (2.98 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	<p>Ammonium glycyrrhizinate (Monoammonium glycyrrhizinate) has various pharmacological actions such as anti-inflammatory, antiallergic, antigastric ulcer, and antihepatitis activities. <i>In Vivo</i>: The increase of the lung W/D weight ratios is significantly reduced by high and medium dose of MAG (10 and 30 mg/kg) administration. Pretreatment with MAG (10 and 30 mg/kg) efficiently reduces the production of TNF-α and IL-1β. MAG (10, 30 mg/kg) significantly decreases NF-κB p65 protein expression, compared with LPS. On the contrary, LPS significantly reduces IκB-α protein expression compared with the control group, whereas MAG (10 and 30 mg/kg) significantly increased IκB-α expression, compared with the LPS group^[1]. Low- and high-dose MAG treatment significantly reduces the AST, ALT, TBIL, and TBA levels at 14 and 21 d time points when compared with that of the RIF and INH group, suggesting the protective effect of MAG on RIF- and INH-induced liver injury. MAG treatment groups elevate the hepatic GSH level at 7, 14, and 21 d time points and markedly reduce the MDA level at 14</p>
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and 21 d time points in RIF- and INH-treated rats, suggesting the protective effect of MAG in RIF- and INH induced liver injuries^[2].

CUSTOMER VALIDATION

- Adv Healthc Mater. 2023 Aug 21;e2301808.
- Cell Prolif. 2020 Jun;53(6):e12829.
- Cell Commun Signal. 2023 May 1;21(1):86.
- J Funct Foods. 2021, 104584.
- Front Cell Dev Biol. 2020 Aug 11;8:713.

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REFERENCES

[1]. Huang X, et al. Anti-Inflammatory Effects of Monoammonium Glycyrrhizinate on Lipopolysaccharide-Induced Acute Lung Injury in Mice through Regulating Nuclear Factor-Kappa B Signaling Pathway. Evid Based Complement Alternat Med. 2015;2015:272474.

[2]. Zhou L, et al. Monoammonium glycyrrhizinate protects rifampicin- and isoniazid-induced hepatotoxicity via regulating the expression of transporter Mrp2, Ntcp, and Oatp1a4 in liver. Pharm Biol. 2016;54(6):931-7.

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

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