

Gum arabic

Chemical Properties

CAS No. : 9000-01-5

Formula:

Molecular Weight:

Storage: Keep away from direct sunlight
 Powder: -20°C for 3 years | In solvent: -80°C for 1 year
 Actual storage temperature shall be subject to the COA.

Gum arabic

Biological Description

Description	Gum arabic is an orally active natural branched polymer primarily composed of a mixture of polysaccharides and glycoproteins. It exhibits biocompatibility, hydrophilicity, and antimicrobial properties, commonly used in biomaterials, stabilizers, emulsifiers, etc. Gum Arabic demonstrates hepatoprotective, cardiovascular protective, anti-obesity, and upregulation of cell maturation marker expression activities.
Targets(IC50)	Apoptosis,ERK,Parasite,TNF
In vitro	Gum arabic (0.5%, 10 min, 60 min, and 120 min) can significantly promote the phosphorylation of ERK1/2 in mouse bone marrow-derived dendritic cells (DCs) [1].
In vivo	Oral administration of Gum arabic (100 g/L for 5 consecutive days) through drinking water significantly reduced acetaminophen-induced hepatotoxicity in male Swiss albino mice [2]. Gum arabic (10% w/w, administered orally via diet for 12 weeks) inhibited high-fat diet-induced obesity in mice, primarily by reducing body weight, decreasing visceral adipose tissue (VAT) mass, lowering blood glucose and plasma lipid (total cholesterol, LDL, VLDL) levels, and regulating hepatic lipid metabolism-related genes [3].

Solubility Information

Solubility	H2O: ≥ 40 mg/mL,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Reference

Xuan NT, et al. Stimulation of mouse dendritic cells by Gum Arabic. Cell Physiol Biochem. 2010;25(6):641-8.

Protective effect of arabic gum against acetaminophen-induced hepatotoxicity in mice. Pharmacological Research. Volume 48, Issue 6, December 2003, Pages 631-635.

Ahmed A A, et al. Gum arabic suppressed diet-induced obesity by alteration the expression of mRNA levels of genes involved in lipid metabolism in mouse liver. Bioactive carbohydrates and dietary fibre, 2016, 7(1): 15-20.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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