

Astragalus polysaccharide

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

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

Biological Description

Description	Astragalus polysaccharide, a natural product derived from Astragalus propinquus, exhibits anticancer activity and has been shown to be effective in hepatocellular carcinoma (HCC) by inhibiting the M2 polarization of tumor-associated macrophages (TAM).
Targets(IC50)	TAM Receptor
In vitro	Astragalus polysaccharide (APS) (100 µg/mL; PBMCs) induced mature DCs could stimulate the proliferation of allogeneic T lymphocytes. The proliferation index of T cells increased with an increased ratio of stimulator cells to effector cells (P < 0.05). Levels of IL-12 and IFN-gamma in the co-culture supernatant significantly increased in a time-dependent manner (P < 0.05). APS could in vitro induce DCs to mature, promote its antigen-presenting capacity, effectively activate CTLs, and enhance the anti-tumor function of the organism.[2]
In vivo	Astragalus polysaccharide (APS) (20 mg/kg; intragastric; once daily; 10 weeks; diabetes-induced SD rats) administration decreased the rats' fasting plasma glucose (FPG) levels and body weight. APS (20 mg/kg) administration improved the cognitive performance of diabetes-induced rats in the Morris water maze test. APS (20 mg/kg) administration reduced the number of dead cells in the CA1 region of the hippocampus. Furthermore, APS (20 mg/kg) administration obviously upregulated the phosphorylation levels CREB, NMDA, and CaMK II. CONCLUSIONS These results suggest that APS has neuroprotective effects, and it may be a candidate for the treatment of neurodegenerative diseases such as diabetic cognitive impairment.[1]

Solubility Information

Solubility	H2O: 31.25 mg/mL (122.7 mM), Sonication is recommended. DMSO: 127.5 mg/mL (500.61 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Reference

- Li C, et al. Astragalus polysacharin inhibits hepatocellular carcinoma-like phenotypes in a murine HCC model through repression of M2 polarization of tumour-associated macrophages. *Pharm Biol.* 2021;59(1):1533-1539.
- Zhang G, et al. Neuroprotective Effect of Astragalus Polysacharin on Streptozotocin (STZ)-Induced Diabetic Rats. *Med Sci Monit.* 2019;25:135-141.
- Jing XN, et al. In vitro anti-tumor effect of human dendritic cells vaccine induced by astragalus polysacharin: an experimental study. *Zhongguo Zhong Xi Yi Jie He Za Zhi.* 2014;34(9):1103-1107.

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