



LKT Laboratories, Inc.

Astragaloside IV

Phone: 888-558-5227

651-644-8424

Fax: 888-558-7329

Email: getinfo@lktlabs.com

Web: lktlabs.com

Product Information

Product ID A7578

CAS No. 83207-58-3

Chemical Name

Synonym

Formula $C_{41}H_{68}O_{14}$

Formula Wt. 784.97

Melting Point 295-296°C

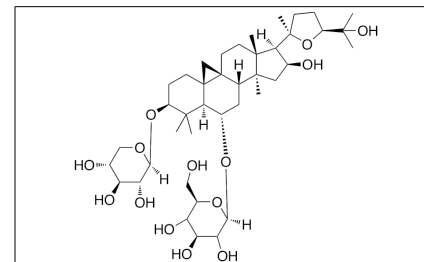
Purity $\geq 98\%$

Solubility Soluble in DMSO (10 mg/mL), ethanol. Insoluble in water.

Store Temp Ambient

Ship Temp Ambient

Description Astragaloside IV is an active compound found in *Astragalus membranaceus* that exhibits cardioprotective, antioxidative, and pro-angiogenic activities. Astragaloside IV prevents LPS-induced increases in Ca^{2+} , activation of CaN and GATA-4, and nuclear factor of activated T cells 3 (NFAT3) translocation, inhibiting cardiac hypertrophy. Additionally, astragaloside IV decreases expression of matrix metalloproteinase 9 (MMP-9) and prevents ischemia/reperfusion-induced myocardial infarction and myocardial apoptosis in animal models. In other animals, astragaloside IV prevented increases in ROS, pro-inflammatory cytokines, and downregulation of superoxide dismutase (SOD), glutathione, and tau phosphorylation induced by experimental autoimmune encephalitis (EAE); this compound also prevents related decreases in the Bcl-2/Bax ratio and changes in T cell differentiation and migration. In endothelial cells, astragaloside IV activates JAK/STAT and ERK 1/2 signaling and upregulates production of eNOS and NO, promoting tube/vessel formation.



Bulk quantities available upon request

Product ID	Size
A7578	10 mg
A7578	25 mg
A7578	100 mg

References Lu M, Wang H, Wang J, et al. Astragaloside IV Protects against Cardiac Hypertrophy via Inhibiting the Ca^{2+} /CaN Signaling Pathway. *Planta Med.* 2013 Dec 11. [Epub ahead of print]. PMID: 24338553.

Wang SG, Xu Y, Chen JD, et al. Astragaloside IV stimulates angiogenesis and increases nitric oxide accumulation via JAK2/STAT3 and ERK1/2 pathway. *Molecules.* 2013 Oct 16;18(10):12809-19. PMID: 24135938.

He Y, Du M, Gao Y, et al. Astragaloside IV attenuates experimental autoimmune encephalomyelitis of mice by counteracting oxidative stress at multiple levels. *PLoS One.* 2013 Oct 4;8(10):e76495. PMID: 24124567.

Li M, Ma RN, Li LH, et al. Astragaloside IV reduces cerebral edema post-ischemia/reperfusion correlating the suppression of MMP-9 and AQP4. *Eur J Pharmacol.* 2013 Sep 5;715(1-3):189-95. PMID: 23747593.

Tu L, Pan CS, Wei XH, et al. Astragaloside IV protects heart from ischemia and reperfusion injury via energy regulation mechanism. *Microcirculation.* 2013 Jun 28. [Epub ahead of print]. PMID: 23809007.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.