

PRODUCT INFORMATION

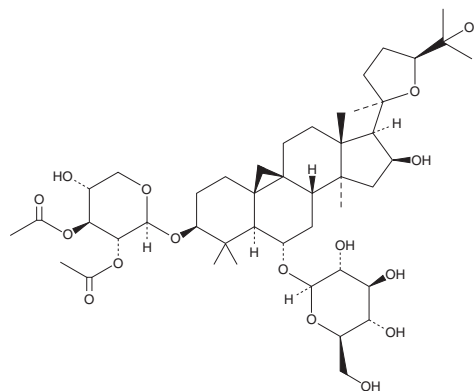


Astragaloside I

Item No. 22431

CAS Registry No.: 84680-75-1
Formal Name: (3 β ,6 α ,16 β ,20R,24S)-3-[(2,3-di-O-acetyl- β -D-xylopyranosyl)oxy]-20,24-epoxy-16,25-dihydroxy-9,19-cyclolanostan-6-yl β -D-glucopyranoside

Synonyms: AS-I, AST-I
MF: C₄₅H₇₂O₁₆
FW: 869.0
Purity: \geq 95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Astragaloside I is supplied as a crystalline solid. A stock solution may be made by dissolving the astragaloside I in the solvent of choice, which should be purged with an inert gas. Astragaloside I is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of astragaloside I in these solvents is approximately 30 and 20 mg/ml, respectively.

Astragaloside I is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, astragaloside I should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Astragaloside I has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Astragaloside I is a saponin originally isolated from the dried plant roots of *Astragalus*, which is used in traditional Chinese medicine.¹ Astragaloside I has osteogenic activities *in vitro*.² It induces differentiation and matrix mineralization of MC3T3-E1 cells, a murine osteoblastic cell line, and increases alkaline phosphatase activity. It also increases the expression of osteoblast-related genes in a concentration-dependent manner (10-40 μ M), including genes in the Wnt/ β -catenin pathway.

References

1. Ren, S., Zhang, H., Mu, Y., *et al.* Pharmacological effects of Astragaloside IV: A literature review. *J. Tradit. Chin. Med.* **33**(3), 413-416 (2013).
2. Chang, X., Wei, B., Sun, L., *et al.* Astragaloside I stimulates osteoblast differentiation through the Wnt/ β -catenin signaling pathway. *Phytother. Res.* **30**(10), 1680-1688 (2016).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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