

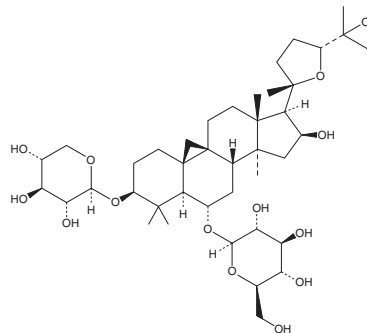
# PRODUCT INFORMATION



## Astragaloside A

Item No. 16677

**CAS Registry No.:** 83207-58-3  
**Formal Name:** 20,24R-epoxy-16 $\beta$ ,25-dihydroxy-3 $\beta$ -( $\beta$ -D-xylopyranosyloxy)-9,19-cyclolanostan-6 $\alpha$ -yl- $\beta$ -D-glucopyranoside  
**Synonyms:** AS-A, AST-A, Astramembrannin I  
**MF:** C<sub>41</sub>H<sub>68</sub>O<sub>14</sub>  
**FW:** 785.0  
**Purity:**  $\geq$ 98%  
**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 A is supplied as a crystalline solid. A stock solution may be made by dissolving the astragaloside A in the solvent of choice. Astragaloside A is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of astragaloside A in these solvents is approximately 30 and 20 mg/ml, respectively.

Astragaloside A is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, astragaloside A should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Astragaloside A 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

Astragalosides are bioactive saponins isolated from dried roots of plants of the genus *Astragalus*, which is used in traditional Chinese medicine.<sup>1</sup> Astragaloside A is known to have diverse protective effects for the cardiovascular, immune, digestive, and nervous systems.<sup>1,2</sup> More specifically, it protects cardiomyocytes from apoptosis resulting from ischemia/reperfusion and inhibits inflammation signaled through TNF- $\alpha$ .<sup>3,4</sup> Furthermore, astragaloside A stimulates angiogenesis, promotes the differentiation of neural stem cells, and increases neuroregeneration.<sup>2,5,6</sup>

### References

1. Ren, S., Zhang, H., Mu, Y., et al. *J. Tradit. Chin. Med.* **33(3)**, 413-416 (2013).
2. Si, Y.C., Li, Q., Xie, C.E., et al. *Chin. Med.* **9(1)**, 13 (2014).
3. Liu, Q., Wang, H., Sun, A., et al. *PLoS One* **9(7)**, 1-9 (2014).
4. Si, J., Wang, N., Wang, H., et al. *PLoS One* **9(9)**, 1-10 (2014).
5. Wang, S.-G., Xu, Y., Chen, J.-D., et al. *Molecules* **18(10)**, 12809-12819 (2013).
6. Zhang, X. and Chen, J. *Neural Regen. Res.* **8(24)**, 2256-2265 (2013).

#### 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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