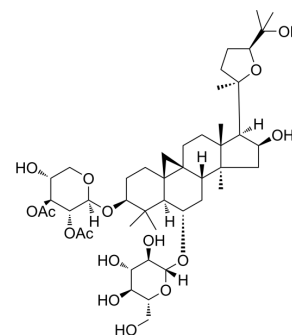


## Astragaloside I

<b>Cat. No.:</b>	HY-N0432		
<b>CAS No.:</b>	84680-75-1		
<b>Molecular Formula:</b>	C <sub>45</sub> H <sub>72</sub> O <sub>16</sub>		
<b>Molecular Weight:</b>	869.04		
<b>Target:</b>	Wnt; $\beta$ -catenin		
<b>Pathway:</b>	Stem Cell/Wnt		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 50 mg/mL (57.53 mM; Need ultrasonic)					
		Solvent Concentration	Mass	1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM		1.1507 mL	5.7535 mL	11.5070 mL
		5 mM		0.2301 mL	1.1507 mL	2.3014 mL
10 mM			0.1151 mL	0.5753 mL	1.1507 mL	
Please refer to the solubility information to select the appropriate solvent.						
<b>In Vivo</b>	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: $\geq$ 3.25 mg/mL (3.74 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: $\geq$ 3.25 mg/mL (3.74 mM); Clear solution					

### BIOLOGICAL ACTIVITY

<b>Description</b>	Astragaloside I, one of the main active ingredients in Astragalus membranaceus, has osteogenic properties. Astragaloside I stimulates osteoblast differentiation through the Wnt/ $\beta$ -catenin signaling pathway <sup>[1]</sup> .	
<b>In Vitro</b>	Astragaloside I (10-40 $\mu$ M) upregulates the express of $\beta$ -catenin, Runx2, BGP and OPG, RANKL (osteogenesis marker genes) in MC3T3-E1 cells <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Western Blot Analysis <sup>[1]</sup> .	
	Cell Line:	MC3T3-E1 cells.

Concentration:	0, 10, 20, 40 $\mu$ M.
Incubation Time:	5 days.
Result:	Stimulated the expression of $\beta$ -catenin and Runx2.

#### Cell Cytotoxicity Assay<sup>[1]</sup>.

Cell Line:	MC3T3-E1 cells.
Concentration:	0, 10, 20, 40 $\mu$ M.
Incubation Time:	1, 3 or 6 days (The media was changed every 2 days).
Result:	No obvious cytotoxic effect was observed in the MC3T3-E1 cells.

## REFERENCES

[1]. Xun Cheng, et al. Astragaloside I Stimulates Osteoblast Differentiation Through the Wnt/ $\beta$ -catenin Signaling Pathway. *Phytother Res.* 2016 Oct;30(10):1680-1688.

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA