Astragaloside I

Cat. No.: HY-N0432

CAS No.: 84680-75-1

Molecular Formula: $C_{45}H_{72}O_{16}$

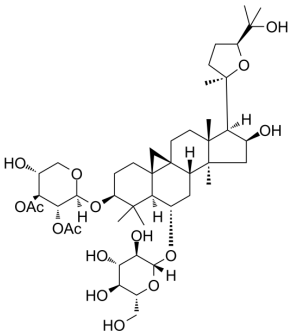
Molecular Weight: 869.04

Target: Wnt; β-catenin

Pathway: Stem Cell/Wnt

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (57.53 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
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.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 3.25 mg/mL (3.74 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 3.25 mg/mL (3.74 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Astragaloside I, one of the main active ingredients in Astragalus membranaceus, has osteogenic properties. Astragaloside I stimulates osteoblast differentiation through the Wnt/β-catenin signaling pathway[1].

In Vitro

Astragaloside I (10-40 μM) upregulates the express of β-catenin, Runx2, BGP and OPG, RANKL (osteogenesis marker genes) in MC3T3-E1 cells[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1].

Cell Line:	MC3T3-E1 cells.

Concentration:	0, 10, 20, 40 μM.
Incubation Time:	5 days.
Result:	Stimulated the expression of β-catenin and Runx2.

Cell Cytotoxicity Assay[1].

Cell Line:	MC3T3-E1 cells.
Concentration:	0, 10, 20, 40 μM.
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/β-catenin Signaling Pathway. Phytother Res. 2016 Oct;30(10):1680-1688.

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