Natural Products

ChemFaces

Astragaloside II Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Astragaloside II

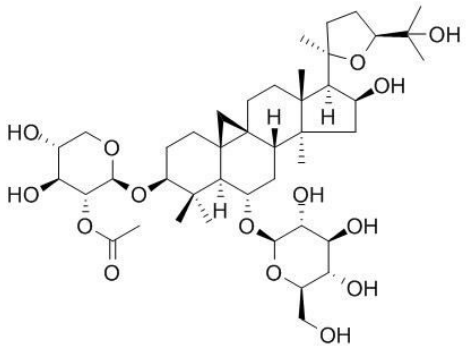
Catalog No.: CFN99173

Cas No.: 84676-89-1

Purity: > 98%

M.F: $C_{43}H_{70}O_{15}$

M.W: 827.02



Physical Description: White cryst.

Synonyms:b-D-Glucopyranoside,(3b,6a,16b,20R,24S)-3-[(2-O-acetyl-b-D-xylopyranosyl) oxy]-20,24-epoxy-16,25-dihydroxy-9,19-cyclolanostan-6-yl.

[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Cosmetic research;
5. Synthetic precursor compounds;
6. Intermediates & Fine Chemicals;
7. Ingredient in supplements, beverages;
8. Others.

[Source]

The root of *Astragalus membranaceus (Fisch.) Bunge.*

[Biological Activity or Inhibitors]

Astragaloside II can downregulate the expression of the P-gp and mdr1 gene, suppress phosphorylation of extracellular signal regulated kinase 1/2, p38 and c-Jun N-terminal kinase, suggests that Astragaloside II is a potent multidrug resistance (MDR) reversal agent and may be a potential adjunctive agent for hepatic cancer chemotherapy.[1]

Astragaloside II induces osteogenic activities of osteoblasts through the bone morphogenetic protein-2/MAPK and Smad1/5/8 pathways, it may become a novel candidate that is beneficial for stimulating the osteoblastic activity resulting in bone formation.[2]

Astragaloside II has immunomodulating activity, can trigger T cell activation through regulation of CD45 protein tyrosine phosphatase activity.[3]

Astragaloside II in conjunction with cisplatin can significant reduce cell viability, and arrest in S phase and increased apoptosis, suggests that astragaloside II can be served as autophagy inhibitor which restores chemosensitivity of anticancer agent cisplatin and enhances tumor cell death.[4]

[Solvent]

Pyridine, Methanol, Ethanol, Hot water, etc.

[HPLC Method][5]

Mobile phase: Acetonitrile- 0.01 M Phosphate buffer(pH 6.8), gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 205 nm.

[Storage]

2-8℃, Protected from air and light, refrigerate or freeze.

[References]

[1] Huang C, Xu D, Xia Q, *et al. J. Pharm. Pharmacol., 2012, 64(12):1741-50.*

[2] Kong X H, Niu Y B, Song X M, *et al. Int. J. Mol. Med., 2012, 29(6):1090-8.*

[3] Chun-ping, Li-xin, Li-fei, *et al. Acta Pharm. Sin., 2013, 34(4):522-30.*

[4] Yang C, Wu C, Xu D, *et al. Biomed. Pharmacother., 2016, 81:166-75.*

[5] Zhao J, Yan W, Dai G. *Chromatographia, 2005, 62(9-10):543-6.*

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