

Genipin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Genipin

Catalog No.: CFN99142

Cas No.: 6902-77-8

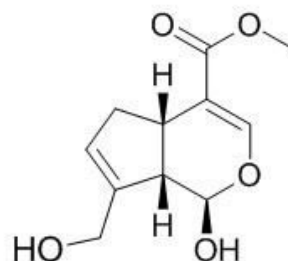
Purity: > 98%

M.F: C₁₁H₁₄O₅

M.W: 226.23

Physical Description: White powder

Synonyms: (1R,4aS,7aS)-1-hydroxy-7-(hydroxymethyl)-1,4a,5,7a-tetrahydrocyclopenta[c]pyran-4-carboxylic acid methyl ester.



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Others.

[Source]

The fruits of *Gardenia jasminoides* Ellis.

[Biological Activity or Inhibitors]

Genipin inhibits UCP2-mediated proton leak and acutely reverses obesity- and high glucose-induced β cell dysfunction in isolated pancreatic islets in a -dependent manner, it represents that comprise a starting point for the of therapies aimed at treating beta cell dysfunction.^[1]

Genipin and geniposide, two known constituents in gardenia fruit , show acute anti-inflammatory activities in carrageenan-induced rat paw edema, genipin, rather than geniposide, is the major anti-inflammatory component of gardenia fruit.^[2]

Genipin cross-linked electrospun gelatin mats loaded with vascular endothelial growth factor (VEGF) could be part of a useful strategy to stimulate and induce angiogenesis in tissue engineered applications.^[3]

Genipin shows an antithrombotic effect in vivo due to the suppression of platelet aggregation, phospholipase A(2) (PLA(2)) inhibition by geniposide is one possible anti-platelet mechanism.^[4]

Genipin-induced apoptosis in hepatoma cells is mediated by reactive oxygen species/c-Jun NH 2 -terminal kinase-dependent activation of mitochondrial pathway.^[5]

Genipin may enhance the bile acid-independent secretory capacity of hepatocytes, mainly by stimulation of exocytosis and insertion of Mrp2 in the bile canaliculi, Inchin-ko-to (ICKT) may be a potent therapeutic agent for a number of cholestatic liver diseases.^[6]

Genipin induces cyclooxygenase-2 expression via NADPH oxidase, MAPKs, AP-1, and NF- κ B in RAW 264.7 cells^[7]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method]^[8]

Mobile phase: 0.1% Formic acid in water- 0.1% Formic acid in acetonitrile, gradient elution;

Flow rate: 1.0 ml/min;

Column temperature: 28 °C;

The wave length of determination: 238 nm.

[Storage]

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

[References]

- [1] Zhang C Y, Parton L E, Ye C P, *et al. Cell. Metab.*, 2006, 3(6):417-27.
- [2] Koo H J, Lim K H, Jung H J, *et al. J. Ethnopharmacol.*, 2006, 103(3):496-500.
- [3] Gaudio C D, Baiguera S, Boieri M, *et al. Biomaterials*, 2013, 34(31):7754-65.
- [4] Suzuki Y, Kondo K, Ikeda Y, *et al. Planta Med.*, 2001, 67(9):807-10.
- [5] Kim B C, Kim H G, Lee S A, *et al. Biochem. Pharmacol.*, 2005, 70(9):1398-407.
- [6] Shoda J, Miura T, Utsunomiya H, *et al. Hepatology*, 2004, 39(1):167-78.
- [7] Khanal T, Kim H G, Do M T, *et al. Food Chem. Toxicol.* , 2014, 64:126-34.
- [8] Chen C, Han F, Zhang Y, *et al. Biomed. Chromatogr.*, 2008, 22(7):753-7.

[Contact]

Address:

S5-3 Building, No. 111, Dongfeng Rd.,
Wuhan Economic and Technological Development Zone,
Wuhan, Hubei 430056,
China

Email: info@chemfaces.com

Tel: +86-27-84237783

Fax: +86-27-84254680

Web: www.chemfaces.com

Tech Support: service@chemfaces.com