Natural Products

ChemFaces

Tectorigenin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Tectorigenin

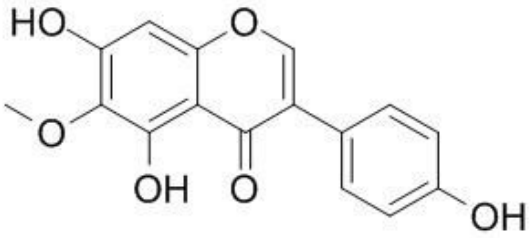
Catalog No.: CFN99920

Cas No.: 548-77-6

Purity: > 98%

M.F: $C_{16}H_{12}O_6$

M.W: 300.26



Physical Description: Yellow cryst.

Synonyms: 5,7-Dihydroxy-3-(4-hydroxyphenyl)-6-methoxy-1-benzopyran-4-one.

[Intended Use]

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

[Source]

The rhizomes of *Iris tectorrum*.

[Biological Activity or Inhibitors]

Tectorigenin (Tg) and tectoridin (Td) are the major compounds isolated from the rhizomes of iridaceous plant Belamcanda chinensis which is well known as a chinese traditional medicine for the treatment of inflammatory diseases; tectorigenin inhibits IFN-γ/LPS-induced inflammatory responses in murine macrophage RAW 264.7 cells, it appears to have the potential to prevent inflammation.[1]

Tectorigenin and several other phytochemicals downregulate PDEF, PSA and IGF-1 receptor mRNA expression in vitro, the downregulation of PDEF, PSA, hTERT and IGF-1 receptor gene expression by tectorigenin demonstrates the antiproliferative potential of these agents, they may be new and established targets for therapies in prostate cancer.[2]

Tectorigenin and kaikasaponin III have hypoglycemic and hypolipidemic effects in the streptozotocin-induced diabetic rat and their antioxidant activity.[3]

Tectorigenin-paclitaxel-induces nuclear translocation of NFκB and the phosphorylation of IκB and IKK, suggests that tectorigenin could sensitize paclitaxel-resistant human ovarian cancer cells through inactivation of the Akt/IKK/IκB/NFκB signaling pathway, and promise a new intervention to chemosensitize paclitaxel-induced cytotoxicity in ovarian cancer.[4]

Tectorigenin has inhibitory effect of the activities of plasma ALT, the effects is much more potent than that of a commercially available dimethyl diphenyl bicarboxylate; orally administered tectoridin shows hepatoprotective activity; tectorigenin also protects against the cytotoxicity of HepG2 cells induced by t-BHP, this protection may have originated from the inhibition of apoptosis; tectorigenin may be hepatoprotective and tectoridin should be a prodrug that is transformed to tectorigenin.[5]

Tectorigenin inhibits the in vitro proliferation and enhances miR-338* expression of pulmonary fibroblasts in rats with idiopathic pulmonary fibrosis.[6]

[Solvent]

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

[HPLC Method][7]

Mobile phase: Methanol- Acetonitrile- H2O=2:1:2 ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 265 nm.

[Storage]

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

[References]

[1] Pan C H, Kim E S, Sang H J, *et al. Arch. Pharm. Res., 2008, 31(11):1447-56.*

[2] Thelen P, Scharf J G, Burfeind P, *et al. Carcinogenesis, 2005, 26(8):1360-7.*

[3] Lee K T, Sohn I C, Dong H K, *et al. Arch. Pharm. Res., 2000, 23(5):461-6.*

[4] Genead R, Fischer H, Hussain A, *et al. Carcinogenesis, 2012, 33(12):2488-98.*

[5] Lee H U, Bae E A, Kim D H. *J. Pharmacol. Sci., 2005, 97(97):541-4.*

[6] Zhang H, Liu X, Shi C, *et al. J. Ethnopharmacol., 2010, 131(1):165-73.*

[7] Zhao N, Liu D, Wang Y P, *et al. J. Pharm. Practice, 2012, 3.*

[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