Natural Products

ChemFaces

Fisetin Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Fisetin

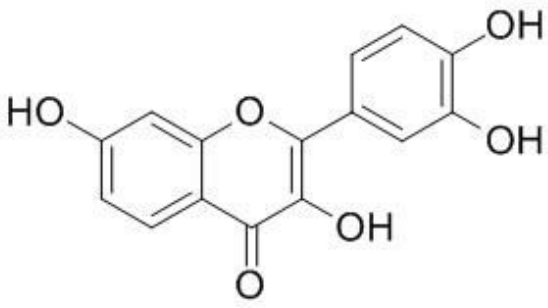
Catalog No.: CFN98176

Cas No.: 528-48-3

Purity: >=98%

M.F: $C_{15}H_{10}O_6$

M.W: 286.24



Physical Description: Yellow cryst.

Synonyms:4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-3,7-dihydroxy-; 3,3',4',7-Tetrahydroxyflavone.

[Intended Use]

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

[Source]

The herbs of *Rhus succedanea L.*

[Biological Activity or Inhibitors]

Fisetin inhibits TH2-type cytokine production by activated human basophils.[1]

Fisetin functions as a dual inhibitor of mTORC1/2 signaling leading to inhibition of prostate cancer (CaP)-dependent translation and induction of autophagic cell death in PC3 cells, suggests that fisetin could be a useful chemotherapeutic agent in treatment of hormone refractory CaP.[2]

Fisetin has anti-inflammatory activity in human mast cells (HMC-1) through the down -regulation of mast cell activation.[3]

Fisetin is an inhibitor of androgen receptor (AR) signaling axis, it could be a useful chemopreventive and chemotherapeutic agent to delay progression of prostate cancer.[4]

Fisetin could be useful in attenuation of UV radiation-induced oxidative stress and the activation of NF-kappaB and MAPK signaling in human lens epithelial cells, which suggests that fisetin has a potential protective effect against cataractogenesis.[5]

Fisetin has direct antioxidant activity, it can also increase the intracellular levels of glutathione (GSH), the major endogenous antioxidant, and fisetin has both neurotrophic and anti-inflammatory activity.[6]

Fisetin shows in vitro antifungal activity(MIC<128 ug/mL) and low toxicity((IC_{50}=158 ug/mL) on animal cells.[7]

[Solvent]

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

[HPLC Method][8]

Mobile phase: 1% Formic acid in water- Acetonitrile,gradient elution;

Flow rate:1.0 ml/min;

Column temperature: 40℃;

The wave length of determination:275 nm.

[Storage]

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

[References]

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[3] Park H H, Lee S, Oh J M, *et al. Pharmacol. Res.,2007 Jan;55(1):31-7.*

[4] Khan N, Asim M, Afaq F, *et al. Cancer Res.,2008, 68(20):8555-63.*

[5] Yao K, Zhang L, Zhang Y D, *et al. Molecular Vision, 2008,14(219-223):1865-71.*

[6] Chiruta C, Schubert D, Dargusch R, *et al. J. Med. Chem.,2012 Jan 12;55(1):378-89.*

[7] Maysa Paula da Costa, Marize Campos Valadares Bozinis, Wanessa Machado Andrade, *et al. BMC Complement. Altern. Med.,2014; 14:245.*

[8] Osman A, Makris D P. *Int. J. Food Sci. Technol.,2010,45(11):2265-71.*

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