Natural Products

ChemFaces

6-Prenylnaringenin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: 6-Prenylnaringenin

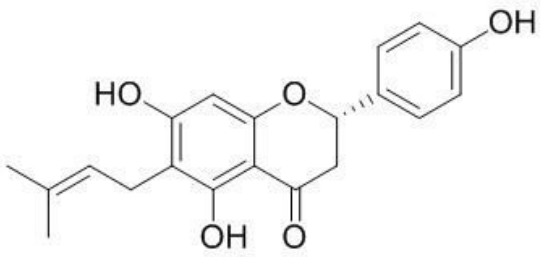
Catalog No.: CFN92017

Cas No.: 68236-13-5

Purity: > 95%

M.F: $C_{20}H_{20}O_5$

M.W: 340.4



Physical Description: Powder

Synonyms:2S)-2,3-Dihydro-5,7-dihydroxy-2-(4-hydroxyphenyl)-6-(3-methyl-2-butenyl)-4 H-1-benzopyran-4-one.

[Intended Use]

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

[Source]

The herbs of *Humulus lupulus.*

[Biological Activity or Inhibitors]

6-Prenylnaringenin is a chiral prenylflavonoid found most prevalently in hops (Humulus lupulus) and present in hops and hop products, it is an isomer of the potent phytoestrogen, 8-prenylnaringenin.[1]

6-Prenylnaringenin and 8-prenylnaringenin have anti-cancer potential , dose-dependent reduction of cellular proliferation of human PC-3 prostate cancer and UO.31 renal carcinoma cells upon treatment.[2]

6-Prenylnaringenin can inhibit 12-O-tetradecanoylphorbol 13-acetate (TPA)-induced inflammation (1μg/ear) in mice, it also exhibits inhibitory effects on skin-tumor promotion in anin vivo two-stagemouse-skin carcinogenesis test based on 7,12-dimethylbenz[a]-anthracene (DMBA) as initiator and with TPA as promoter. [3]

6-Prenylnaringenin exhibits both mixed and non-competitive inhibitory characteristics against tyrosinase, tyrosinase is the rate-limiting enzyme for the production of melanin and other pigments via the oxidation of l-tyrosine.[4]

[Solvent]

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

[HPLC Method][5]

Mobile phase: Acetonitrile -Phosphoric acid aqueous solution (pH=1.6) ,gradient elution ;

Flow rate: 1.5 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 314 nm.

[Storage]

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

[References]

[1] Martinez S E, Davies N M. *Research in Pharmaceutical Sciences, 2015, 10(3):182-91.*

[2] Busch C, Noor S, Leischner C, *et al. Wiener Medizinische Wochenschrift, 2015, 165(11):1-4.*

[3] Akazawa H, Kohno H, Tokuda H*, et al. Chem. Biodivers., 2012, 9(6):1045-54.*

[4] Kim D W, Woo H S, Kim J Y, *et al. J. Enzym. Inhib. Med. Ch., 2016, 31(5):1-6.*

[5] Kao T H, Wu G Y. *Food Chem., 2013, 141(2):1218-26.*

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