Natural Products

ChemFaces

Flavokawain B Datasheet

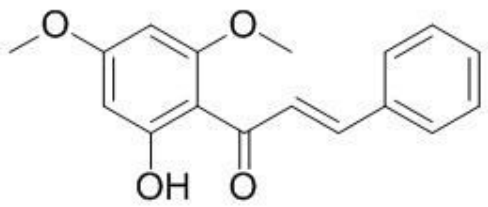
4th Edition (Revised in July, 2016)

[Product Information]

Name: Flavokawain B

Catalog No.: CFN92661

Cas No.: 1775-97-9



Purity: > 98%

M.F: $C_{17}H_{16}O_4$

M.W: 284.3

Physical Description: Powder

Synonyms: (E)-1-(2-hydroxy-4,6-dimethoxyphenyl)-3-phenyl-2-propen-1-one; 2'-Hydroxy-4',6'-dimethoxychalcone.

[Intended Use]

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

[Source]

The roots of *Piper methysticum.*

[Biological Activity or Inhibitors]

Flavokawain B(FKB), a kava chalcone, induces apoptosis via up-regulation of death-receptor 5 and Bim expression in androgen receptor negative, hormonal refractory prostate cancer cell lines and reduces tumor growth; the robust mechanisms for FKB induction of apoptosis preferentially for HRPC and the potential usefulness of FKB for prevention and treatment of HRPC in an adjuvant setting.[1]

Flavokawain B acts through ROS generation and GADD153 up-regulation to regulate the expression of Bcl-2 family members, thereby inducing mitochondrial dysfunction and apoptosis in HCT116 cells.[2]

Flavokawain B inhibits growth of human squamous carcinoma cells, involved with apoptosis and cell cycle dysregulation in vitro and in vivo.[3]

Flavokawain B has in vivo antitumor and antimetastatic effects in 4T1 breast cancer cell-challenged mice.[4]

Flavokawain B has anti-inflammatory activity, it significantly inhibits production of NO and PGE(2) in LPS-induced RAW 264.7 cells, it also strongly suppresses LPS-induced iNOS, COX-2, and NF-kappaB proteins expression in mouse liver.[5]

Flavokawin B has antinociceptive activity, the NO/cyclic guanosine monophosphate/PKC/ ATP-sensitive K^+ channel pathway possibly participated in the antinociceptive action induced by FKB.[6]

[Solvent]

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

[HPLC Method][7]

Mobile phase: Acetonitrile- 40 mM Formic acid H2O, gradient eiution;

Flow rate: 1.0 ml/min;

Column temperature: 40 ℃;

The wave length of determination: 350 nm.

[Storage]

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

[References]

[1] Tang Y, Li X, Liu Z,*et al. Int. J. Cancer, 2010, 127(8):1758-68.*

[2] Kuo Y F, Su Y Z, Tseng Y H, *et al. Free Radical. Biol. Med., 2010, 49(2):214-26.*

[3] Lin E, Lin W H, Wang S Y, *et al. J. Nutr. Biochem., 2012, 23(4):368-78.*

[4] Abu N, Mohamed N E, Yeap S K, *et al. Drug Des. Dev. Ther., 2015, 9:1401-17.*

[5] Lin C T, Kumar K J S, Tseng Y H*, et al. J. Agr. Food Chem., 2009, 57(14):6060-5.*

[6] Mohamad A S, Akhtar M N, Khalivulla S I, *et al. Basic. Clin. Pharmacol. , 2011, 108(6): 400-5.*

[7] Kubínová R, PoŘízková R, Bartl T, *et al. Boletin Latinoamericano Y Del Caribe De Plantas Medicinales Y Aromaticas, 2014, 13(6):506-16.*

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