Natural Products

ChemFaces

Sappanchalcone Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Sappanchalcone

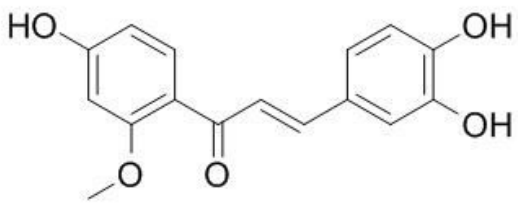
Catalog No.: CFN97522

Cas No.: 94344-54-4

Purity: > 98%

M.F: $C_{16}H_{14}O_5$

M.W: 286.3



Physical Description: Orange powder

Synonyms: (E)-3-(3,4-dihydroxyphenyl)-1-(4-hydroxy-2-methoxyphenyl)-2-propen-1-one.

[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Cosmetic research;
5. Synthetic precursor compounds;
6. Intermediates & Fine Chemicals;
7. Ingredient in supplements, beverages;
8. Others.

[Source]

The herbs of *Caesalpinia sappan*.

[Biological Activity or Inhibitors]

Sappanchalcone, a flavonoid extracted from Caesalpinia sappan , exhibits cytoprotective activity, it suppresses oral cancer cell growth and induces apoptosis through the activation of p53-dependent mitochondrial, p38, ERK, JNK, and NF-κB signaling, thus, it has potential as a chemotherapeutic agent for oral cancer.[1]

Sappanchalcone has anti-inflammatory effects, it reduces clinical arthritis, inflammatory edema in paws and maintains bone mineral density and trabecular structure in collagen-induced arthritis (CIA) mice , it could be used as an anti-inflammatory and bone-protective agent during the treatment of rheumatoid arthritis.[2]

Sappanchalcone possesses the most potent effect against allergic reaction in basophilic leukemic (RBL-2H3) cells with an inhibitory concentration (IC50) value of 7.6 uM, it may have anti-allergic activity.[3]

Sappanchalcone shows xanthine oxidase inhibitory activity, is a xanthine oxidase inhibitor.[4]

[Solvent]

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

[HPLC Method][4]

Mobile phase: 0. 02 M KH_2PO_4: 1% Methanol, gradient elution;

Flow rate: 1.0 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 254 nm.

[Storage]

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

[References]

[1] Lee Y M, Kim Y C, Choi B J, *et al.Toxicol. Vitro, 2011, 25(8):1782-8.*

[2] Jung E G, Han K I, Kwon H J, *et al. Arch. Pharm. Res., 2015, 38(6):973-83.*

[3] Yodsaoue O, Cheenpracha S, Karalai C, *et al. Phytother. Res., 2009, 23(7):1028-31.*

[4] Sun Y L, Zhao H X, Bai H. *Chinese Journal of Pharmaceutical Analysis, 2014, 34(8): 1391-6.*

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