Natural Products

ChemFaces

Chrysoeriol Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Chrysoeriol

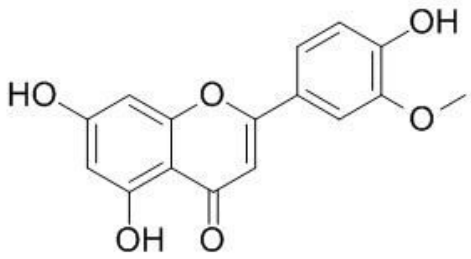
Catalog No.: CFN98785

Cas No.: 491-71-4

Purity: > 95%

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

M.W: 300.3



Physical Description: Yellow powder

Synonyms: 5,7-Dihydroxy-2-(4-hydroxy-3-methoxyphenyl)-4-benzopyrone; 4',5,7-Trihydroxy-3'-methoxyflavone;4H-1-Benzopyran-4-one,5,7-dihydroxy-2-(4-hydroxy-3-methoxyphenyl)-.

[Intended Use]

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

[Source]

The herb of *Medicago sativa.*

[Biological Activity or Inhibitors]

Chrysoeriol is a bioactive flavonoid known for antioxidant, antiinflammatory, antitumor, antimicrobial, antiviral, and free radical scavenging activities, it also shows selective bronchodilator effect.[1]

Chrysoeriol exhibits potent antioxidant activity, it has ability to inhibit lipid peroxidation induced by gamma-radiation, Fe (III) and Fe (II) and inhibit enzymatically produced superoxide anion by xanthine/xanthine oxidase system.[2]

Chrysoeriol can potentially serve as a novel cardioprotective agent against doxorubicin (DOX)-induced cardiotoxicity without affecting the antitumor activity of DOX. [3]

Chrysoeriol and luteolin, released from Alfalfa Seeds, can induce nod genes in rhizobium meliloti.[4]

Chrysoeriol can inhibit the downstream signal transduction pathways of platelet-derived growth factor (PDGF)-Rbeta, including ERK1/2, p38, and Akt phosphorylation, suggests that chrysoeriol may be used for the prevention and treatment of vascular diseases and during restenosis after coronary angioplasty.[5]

Chrysoeriol can protect MC3T3-E1 cells against hydrogen peroxide-induced inhibition of osteoblastic differentiation.[6]

Chrysoeriol can potently inhibit the induction of nitric oxide synthase by blocking activator protein 1 (AP-1) activation and its anti-inflammatory effects.[7]

[Solvent]

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

[HPLC Method][8]

Mobile phase: 0.1% Formic acid in water- Methanol- Acetonitrile,gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 350 nm.

[Storage]

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

[References]

[1] Khan A U, Gilani A H. *Eur. J. Nutr., 2006, 45(8):463-9.*

[2]Mishra B, Priyadarsini K I, Kumar M S,*et al. Bioorg. Med. Chem., 2003, 11(13):2677-85.*

[3] Liu Z, Song XD, Xin Y ,*et al, Chinese Medical Journal, 2009, 122(21):2652-6.*

[4] Hartwig U A, Maxwell C A, Joseph C M, *et al. Plant Physiol., 1990, 92(1):116-22.*

[5] Cha B Y, Shi W L, Yonezawa T, *et al. J. Pharmacol. Sci., 2009, 110(1):105-10.*

[6] Kim Y H, Lee Y S, Choi E M. *J. Appl. Toxicol., 2010, 30(7):666-73.*

[7] Choi D Y, Lee J Y, Kim M R, *et al. J. Biomed. Sci., 2005, 12(6):949-59.*

[8] Chen Z, Kong S, Song F, *et al. Fitoterapia, 2012, 83(8):1616-22.*

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