Natural Products

ChemFaces

Cirsimaritin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Cirsimaritin

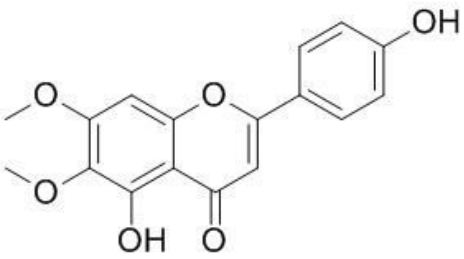
Catalog No.: CFN97126

Cas No.: 6601-62-3

Purity: > 98%

M.F: $C_{17}H_{14}O_6$

M.W: 314.3



Physical Description: Yellow powder

Synonyms: 5-Hydroxy-2-(4-hydroxyphenyl)-6,7-dimethoxy-1-benzopyran-4-one.

[Intended Use]

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

[Source]

The herb of *Microtea debilis.*

[Biological Activity or Inhibitors]

Cirsimaritin, a natural flavone, has been reported to exert various activities including antibacterial, anti- inflammation, anti-tumor, antioxidant, renal protection and so on; it also can mitigate car- diac remodeling and left ventricular dysfunction through augmenting myocardial autophagy and decreasing matrix metalloproteinase-2&9 activities, suggesting its potential use in patients with congestive heart failure.[1]

Cirsimaritin inhibits the growth of tumor cells and induced mitochondrial apoptosis in human gallbladder carcinoma cell line (GBC-SD), it triggers endoplasmic reticulum (ER) stress and down-regulates the phosphorylation of Akt, while knock-down of CHOP dramatically abrogated the inactivation of Akt and reversed the pro-apoptotic effect of cirsimaritin; cirsimaritin provokes the generation of reactive oxygen species in GBC-SD cells, while the antioxidant N-acetyl cysteine almost completely blocked the activation of ER stress and apoptosis; suggesting cirsimaritin-induced reactive oxygen species is an early event that triggers ER stress mitochondrial apoptotic pathways in GBC-SD cells.[2]

Cirsimaritin is an active flavone with methoxy groups, which is isolated from the branches of Lithocarpus dealbatus, cirsimaritin increases tyrosinase activity and melanin content in murine B16F10 melanoma cells by activation of CREB as well as upregulation of MITF and tyrosinase expression in a dose-dependent manner;support the putative application of cirsimaritin in ultraviolet photoprotection and hair coloration treatments.[3]

Cirsimaritin shows moderate anti-proliferative activity against COLO-205 cells with IC 50 values of 13.1uM.[4]

[Solvent]

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

[HPLC Method][5]

Mobile phase: Acetonitrile- Phosphoric acid H2O(pH=3.0), gradient eiution;

Flow rate: 1.0 ml/min;

Column temperature: 35 ℃;

The wave length of determination: 348 nm.

[Storage]

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

[References]

[1] Wu Z H, Wang J J, Zhu S S, *et, al.Int .J. Clin. Exp. Pathol .,2016;9(2):509-20.*

[2] Quan Z, Gu J, Dong P, *et al. Cancer Lett., 2010, 295(2):252-9.*

[3] Kim H J, Kim I S, Yin D, *et al. Int. J. Mol. Sci., 2014, 16(4):8772-88.*

[4] Bai N, He K, Roller M, *et al. Fitoterapia, 2011, 82(2):168-72.*

[5]Gjoshe Stefkov, Marija Karapandzova, Marina Stefova, et al.*Macedonian pharmaceutical bulletin, 2012,58 (1, 2) 39 - 44.*

[Contact]

Address:
S5-3 Building, No. 111, Dongfeng Rd.,
Wuhan Economic and Technological Development Zone,
Wuhan, Hubei 430056,
China

Email: info@chemfaces.com
Tel: +86-27-84237783
Fax: +86-27-84254680
Web: www.chemfaces.com
Tech Support: service@chemfaces.com