Natural Products

ChemFaces

Scutellarein Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Scutellarein

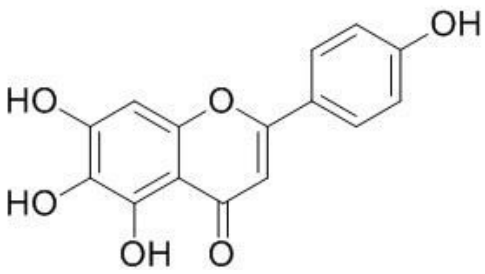
Catalog No.: CFN98557

Cas No.: 529-53-3

Purity: >=98%

M.F: $C_{15}H_{10}O_6$

M.W: 286.24



Physical Description: Powder

Synonyms: 4',5,6,7-Tetrahydroxyflavone;6-HydroxyapigeninYlsocarthamidin; 4H-1-Benzopyran-4-one,5,6,7-trihydroxy-2-(4-hydroxyphenyl)-.

[Intended Use]

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

[Source]

The roots of *Scutellaria baicalensis Georgi.*

[Biological Activity or Inhibitors]

Scutellarin has protective effects against neuronal injury, it can attenuate neuronal cell damage, reduce cerebral water content, regulate the expression of glutamic acid (Glu), aspartic acid (Asp), glycine (Gly), γ-aminobutyric acid (GABA) and taurine (Tau), and improved the Ca(2+)-ATPase and Na(+),K(+)-ATPase activity.[1]

Scutellarein can prevent vascular endothelial dysfunction in diabetic rats, and also potentiate the contraction induced by phenylepherine.[2]

Scutellarein and myricetin potently inhibit the Severe acute respiratory syndrome (SARS) -coronavirus (CoV) helicase protein in vitro by affecting the ATPase activity, but not the unwinding activity, nsP13, they do not exhibit cytotoxicity against normal breast epithelial MCF10A cells; demonstrates for the first time that selected naturally-occurring flavonoids, including myricetin and scultellarein might serve as SARS-CoV chemical inhibitors. [3]

Scutellarein can inhibit proliferation of the human lung cancer cell line A549 through ERK and NFκB mediated by the EGFR pathway.[4]

Abnormal metabolism of platelet cytosolic free calcium concentration (PCFCC) and changes in platelet function play an important role in heart remodeling of spontaneously hypertensive rats (SHR); scutellarein,fosinopril,and enalapril can significantly decrease the PCFCC and rate of platelet aggregation,therefore can improve heart remodeling in SHR.[5]

[Solvent]

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

[HPLC Method][6]

Mobile phase: Acetonitrile -0.1% Acetic acid solution,gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 335 nm.

[Storage]

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

[References]

[1] Tang H, Tang Y, Li N, *et al. Pharmacol. Biochem. Be., 2014, 118(3):51-9.*

[2] Zhu B H, Guan Y Y, He H, *et al. Acta Pharmacol. Sin., 2000, 21(21):353-6.*

[3] Yu M S, Lee J, Jin M L, *et al. Bioorg. Med. Chem. Lett., 2012, 22(22):4049-54.*

[4] Cheng C Y, Hu C C, Yang H J, *et al. Chinese Journal of Physiology, 2014, 57(4):182-7.*

[5] Li W Y , Xu X Y, Li F Q, *et al. Chinese New Drugs Journal, 2004, 13(3):220-3.*

[6] Qiao C F, Han Q B, Song J Z, *et al. Journal of Chinese Pharmaceutical Sciences, 2006, 41(17):1342-4.*

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