Natural Products

ChemFaces

Isoquercitrin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Isoquercitrin

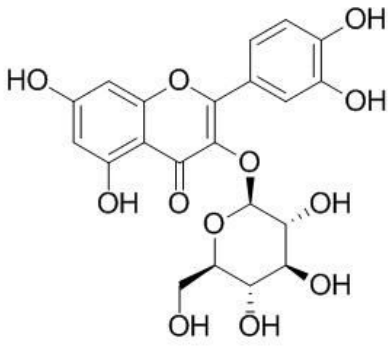
Catalog No.: CFN98753

Cas No.: 482-35-9

Purity: >=98%

M.F: $C_{21}H_{20}O_{12}$

M.W: 464.38



Physical Description: Yellow powder

Synonyms: Isoquercetin ; Isoquercitroside ; 2-(3,4-Dihydroxyphenyl)-5,7-dihydroxy-4-oxo-4H-chromen-3-yl beta-D-glucopyranoside; 2-(3,4-Dihydroxyphenyl)-5,7-dihydroxy-3-[(2R,3S,4R,5S,6S)-3,4,5-trihydroxy-6-(hydroxy methyl)tetrahydropyran-2-yl]oxy-chromen-4-one.

[Intended Use]

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

[Source]

The herbs of *Prunella vulgaris L.*

[Biological Activity or Inhibitors]

Isoquercitrin is the most effective antioxidant in the plant Thuja orientalis and able to counteract oxidative-induced damage to a transformed cell line (RGC-5 cells); isoquercitrin can be tolerated when taken orally, suggests that this substance may reach the retina and therefore be potentially useful for treating glaucoma, in which oxidative stress is thought to play a major role in the demise of retinal ganglion cells.[1]

Isoquercitrin and quercetin have anti-inflammatory activity in experimental murine allergic asthma, they are effective eosinophilic inflammation suppressors, suggesting a potential for treating allergies.[2]

Isoquercitrin has antihypertensive effect, it-induced hypotension in rats is an event dependent on the inhibition of angiotensin II generation by angiotensin converting enzyme (ACE). [3]

Isoquercitrin inhibits carbachol and leukotriene D4 -induced contraction in guinea-pig airways, it may be highly useful in treatment of asthma.[4]

Coadministration of enzymatically modified isoquercitrin (EMIQ) or melatonin (MLT) T suppresses the hepatocellular tumor-promoting activity of oxfendazole (OX) in rats through the decrease in ROS production by the activation of CYPs.[5]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method][6]

Mobile phase: Acetonitrile-0.5% Aqueous acetic acid =17:83;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 350 nm.

[Storage]

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

[References]

[1] Sang H J, Kim B J, Lee E H, *et al. Neurochem. Int., 2010, 57(7):713-21.*

[2] Rogerio A P, Kanashiro A, Fontanari C, *et al. Inflamm. Res., 2007, 56(10):402-8.*

[3] Junior A G, Gasparotto F M, Lourenço E L B, *et al. J. Ethnopharmacol., 2011, 134(2):363-72.*

[4] Fernandez J, Reyes R, Ponce H, *et al. Eur. J. Pharmacol., 2005, 522(522):108-15.*

[5] Motoyama K, Koyama H, Moriwaki M, *et al. Nutrition, 2009, 25(4):421-7.*

[6] Li J, Wang Z W, Zhang L, *et al. Biomed. Chromatogr., 2008, 22(4):374-8.*

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