Natural Products

ChemFaces

Isoxanthohumol Datasheet

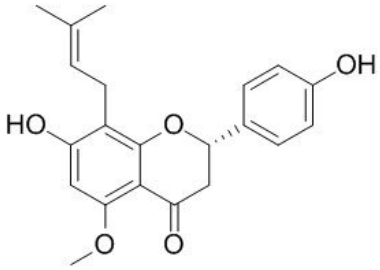
5th Edition (Revised in January, 2017)

[Product Information]

Name: Isoxanthohumol

Catalog No.: CFN90768

Cas No.: 70872-29-6



Purity: >=98%

M.F: $C_{21}H_{22}O_5$

M.W: 354.4

Physical Description: Powder

Synonyms:2-Propen-1-one,1-[2,6-dihydroxy-4-methoxy-3-(3-methyl-2-butenyl)phenyl]-3-phenyl-, (2E)-.

[Intended Use]

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

[Source]

The roots of *Sophora flavescens Ait.*

[Biological Activity or Inhibitors]

Isoxanthohumol can inhibit differentiation of preadipocytes, and induce apoptosis in mature adipocytes.[1]

Isoxanthohumol (56 uM) can strongly decrease the formation of capillary-like tubules of MDA-MB-231 cells on Matrigel, and it can block IFN-γ, IL-4 and IL-6 dependent Jak/Stat signaling and strongly inhibit the induction of pro-inflammatory genes in MonoMac6 cells at the transcriptional level after LPS/TPA treatment.[2]

Isoxanthohumol and 8-prenylnaringenin are traditionally used to add bitterness and flavor to beer, they can affect cAMP-dependent cellular processes up-stream transport of cholesterol into mitochondria. [3]

Isoxanthohumol has weakly estrogenic activity, which can be converted to the more strongly estrogenic 8-prenylnaringenin by the colonic microbiota, they also exert anticancer effects on models of key stages of colon tumourigenesis.[4]

Isoxanthohumol has strong insect antifeedant activity.[5]

[Solvent]

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

[HPLC Method][6]

Mobile phase: Acidified acetonitrile,gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 35 ℃;

The wave length of determination: 270 nm.

[Storage]

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

[References]

[1] Yang J Y, Dellafera M A, Rayalam S, *et al. Apoptosis, 2007, 12(11):1953-63.*

[2] Serwe A, Rudolph K, Anke T, *et al. Invest. New Drugs, 2012, 30(3):898-915.*

[3] Izzo G, Söder O, Svechnikov K. *J. Appl. Toxicol., 2011, 31(6):589-94.*

[4] Allsopp P, Possemiers S, Campbell D, *et al. Biofactors, 2013, 39(4):441-7.*

[5] Stompor M, Dancewicz K, Gabryś B, *et al. J.Agr. Food Chem., 2015, 63(30):6749-56.*

[6] Ullucci P A, Acworth I N, Thomas D H. *Planta Med., 2012, 78(5):147.*

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