Natural Products

ChemFaces

Isoliquiritin Datasheet

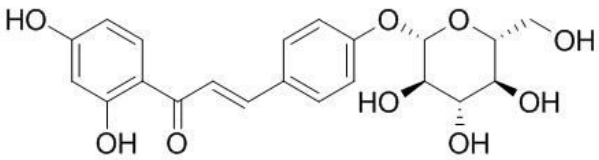
4th Edition (Revised in July, 2016)

[Product Information]

Name: Isoliquiritin

Catalog No.: CFN99155

Cas No.: 5041-81-6



Purity: > 98%

M.F: $C_{21}H_{22}O_9$

M.W: 418.39

Physical Description: White powder

Synonyms:(E)-1-(2,4-dihydroxyphenyl)-3-[4-[[(2S,3R,4S,5S,6R)-3,4,5-trihydroxy-6-(hydroxymethyl)-2-oxanyl]oxy]phenyl]-2-propen-1-one.

[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food and cosmetic research;
4. Synthetic precursor compounds;
5. Intermediates & Fine Chemicals;
6. Ingredient in supplements, beverages;
7. Aromatics;
8. Others.

[Source]

The root of *Glycyrrhiza uralensis Fisch.*

[Biological Activity or Inhibitors]

Insampaedoksan is a traditional herbal medicine used for antipyretic and antiinflammatory diseases, isoliquiritigenin is the main compound of it , thus , isoliquiritigenin has bioactivity effects such as antioxidant, estrogenic and anticancer. [1]

Isoliquiritin, liquiritin,and isoliquirigenin are the active polyphenols present in Glycyrrhiza uralensis which has been used for the treatment of cancer and its complications, they induce apoptotic cell death through upregulating p53 and p21 in the A549 non-small cell lung cancer cells and inhibit the p53-dependent pathway and showed crosstalk between Akt activities,suggests they can be an alternative agent for the treatment of lung cancer.[2]

Isoliquiritin and liquiritin produce significant antidepressant-like effects, and their mechanism of action may be due to increased 5-HT and NE in the mouse hippocampus, hypothalamus and cortex.[3]

Isoliquiritin has antifungal activity, and has inhibitory effect against peronophythora litchi chen through a membrane damage mechanism, it may be used as a natural alternative to commercial fungicides or a lead compound to develop new fungicides for the control of litchi downy blight.[4]

Isoliquiritin has anti-tumor activity, can induce hepatoma cell apoptosis in H22-bearing mice by down-regulating the expression of Bcl-2 and up-regulating expression of Bax, Cyt-c and Caspase-3, it can also induce the apoptosis in MDA-MB-231 cells.[5]

[Solvent]

Pyridine, DMSO, Ethanol, Methanol.

[HPLC Method][6]

Mobile phase: Acetonitrile : 0.04% Formic acid H2O, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 280 nm.

[Storage]

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

[References]

[1] Lee K J, Jung P M, Roh J H, *et al. Asian J. Chem., 2014,26(8):24-5.*

[2] Zhou Y, Ho W S. *Oncol. Rep., 2014, 31(1):298-304.*

[3] Wang W, Hu X, Zhao Z, *et al. Prog Neuro.-Psychoph., 2008, 32(5):1179-84.*

[4] Luo J, Li Z, Wang J, *et al. Molecules, 2016, 21(2):237.*

[5] Luo J, Li Z, Wang J, *et al. Central South Pharmacy, 2015(08):806-10.*

[6] Liu Y, Yang J S. *China Pharm., 2005, 14(4):227-30.*

[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