Natural Products

ChemFaces

Calycosin-7-O-beta-D-glucoside Datasheet

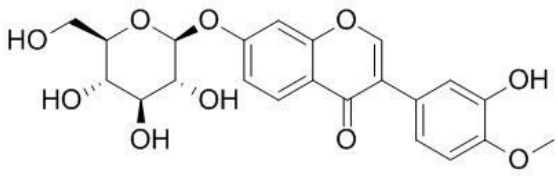
4th Edition (Revised in July, 2016)

[Product Information]

Name: Calycosin-7-O-beta-D-glucoside

Catalog No.: CFN99141

Cas No.: 20633-67-4



Purity: > 98%

M.F: $C_{22}H_{22}O_{10}$

M.W: 446.40

Physical Description: Yellow powder

Synonyms:3-(3-Hydroxy-4-methoxyphenyl)-7-((2S,3R,4S,5S,6R)-3,4,5-trihydroxy-6-(hydroxymethyl)-tetrahydro-2H-pyran-2-yloxy)-4H-chromen-4-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 herb of *Astragalus membranaceus Bge. var. mongholicus.*

[Biological Activity or Inhibitors]

Calycosin-7-O-β-d-glucoside(CG) treatment can significantly reduce infarct volume, histological damage and BBB permeability in the in vivo MCAO ischemia–reperfusion rat model; inhibit the expression and activities of MMPs, and secure the expression of cav-1 and tight junction proteins in the microvessels isolated from ischemic rat cortex; scavenge NO, inhibit the activities of MMP-2 and MMP-9, and attenuate cell death in the in vitro cultured brain microvascular endothelial cells under OGD condition; thus CG could protect BBB integrity in experimental cerebral ischemia–reperfusion injury via regulating NO/cav-1/MMPs pathway.[1]

Calycosin-7-O-β-D-glucoside can promote oxidative stress-induced cytoskeleton reorganization through integrin-linked kinase signaling pathway in vascular endothelial cells.[2]

Calycosin-7-O-β-d-glucoside attenuates ischemia-reperfusion injuryin vivovia activation of the PI3K/Akt pathway.[3]

Calycosin-7-O-β-D-glucoside has effects on cell apoptosis in cervical cancer HeLa cells and expression of Bcl-2/Bax.[4]

[Solvent]

Pyridine, DMSO, Ethanol, Methanol.

[HPLC Method][5]

Mobile phase: Acetonitrile-H2O=30:70 ;

Flow rate: 1.0 ml/min ;

Column temperature: 30 ℃;

The wave length of determination: 260 nm.

[Storage]

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

[References]

[1] Fu S, Gu Y, Jiang J Q, *et al. J. Ethnopharmacol.. 2014,155(1): 692–701.*

[2] Jiang Y H, Sun W, Li W, *et al. Bmc Compl. Altern. M., 2015, 15(1):1-11.*

[3] Ren M, Wang XD, Du G Q, *et al. Mol. Med. Rep., 2015, 13(1):235–45.*

[4] Zhang D M. *Chinese Traditional & Herbal Drugs, 2015, 46(10):1498-502.*

[5] Song C Y, Feng J F. *Chinese J. Exp. Trad. Med. Formulae, 2013, 19(11):115-7.*

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