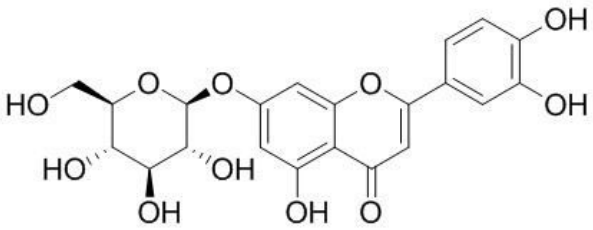
Natural Products

ChemFaces

Luteolin-7-O-glucoside Datasheet

4th Edition (Revised in July, 2016)

[Product Information]



Name: Luteolin-7-O-glucoside

Catalog No.: CFN98565

Cas No.: 5373-11-5

Purity: > 98%

M.F: $C_{21}H_{20}O_{11}$

M.W: 448.38

Physical Description: Yellow powder

Synonyms: Luteolin 7-O-β-D-glucoside.

[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. Others.

[Source]

The herb of *Dracocephalum ruyschiana L.*

[Biological Activity or Inhibitors]

Luteolin-7-O-glucoside and luteolin at concentrations lower than 20 muM, significantly suppresses the productions of nitric oxide and prostaglandin E-2 (PGE(2)) in bacterial lipopolysaccharide activated-mouse macrophage RAW264.7 cells without introducing cytotoxicity; the inhibitory effects were further attributed to the suppression of both inducible nitric oxide synthase (iNOS) and cyclooxygenase-2 (COX-2) protein expression, and not reduced enzymatic activity.[1]

Luteolin-7-O-glucoside from Ailanthus altissima has antiasthmatic activity through the downregulation of T helper 2 cytokine expression and inhibition of prostaglandin E2 production in an ovalbumin-induced asthma model.[2]

Luteolin-7-O-Glucoside can induce apoptosis by scavenging ROS and suppressing the expression of β-catenin in COLO 320 DM cells and effectively inhibit ACF development in DMH-induced experimental carcinogenesis, Hence it can be a potent anticancer drug for colon carcinogenesis.[3]

Luteolin-7-O-glucoside and luteolin can inhibit lipopolysaccharide-induced inflammatory responses through modulation of NF-κB/AP-1/PI3K-Akt signaling cascades in RAW 264.7 cells.[4]

Luteolin-7-O-glucoside has anti-asthmatic activity, can suppress leukotriene C(4) production and degranulation by inhibiting the phosphorylation of mitogen activated protein kinases and phospholipase Cγ1 in activated mouse bone marrow-derived mast cells.[5]

[Solvent]

Pyridine, DMSO, Ethanol, Methanol.

[HPLC Method][6]

Mobile phase: Acetonitrile-0.5% Acetic acid H2O, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 25 ℃;

The wave length of determination: 350 nm.

[Storage]

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

[References]

[1] Hu C, Kitts D. *Mol. Cell. Biochem., 2004, 265(1-2):107-13.*

[2] Jin M, Yang J H, Lee E, *et al. Biol. Pharm. Bull., 2009, 32(9):1500-3.*

[3] Baskar A A, Ignacimuthu S, Michael G P, *et al. Nutr. Cancer, 2011, 63(1):130-8.*

[4] Chungmu P, Song Y S. *Nutr. Res. Pract., 2013, 7(6):423-9.*

[5] Jin M, Son K H, Chang H W. *Biol. Pharm. Bull., 2011, 34(7):1032-6.*

[6] Ma Li Y, Yao L W, Ma S C, *et al. Chinese J. Pharm. Anal., 2009,29(9):1469-500.*

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