Natural Products

ChemFaces

Hyperoside Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Hyperoside

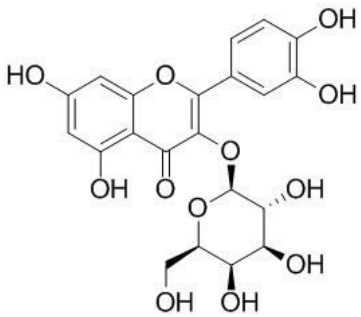
Catalog No.: CFN98754

Cas No.: 482-36-0

Purity: 98%

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

M.W: 464.4



Physical Description: Yellow powder

Synonyms: 3,3′,4′,5,7-Pentahydroxyflavone 3-D-galactoside; 3-O-b-D-Galactopyranosyl quercetin; Quercetin3-galactoside; Quercetin 3-b-galactoside; Quercetin-3-O-galactopyranoside; Quercetin3-O-b-D-galactoside.

[Intended Use]

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

[Source]

The herb of *Hypericum perforatum L.*

[Biological Activity or Inhibitors]

Hyperoside, a flavonoid glycoside isolated from Artemisia capillaris, has protective effects against CCl4-induced acute liver injury, and this protection is likely due to enhancement of the antioxidative defense system and suppression of the inflammatory response.[1]

Hyperoside can protect Aβ-induced primary cultured cortical neurons via PI3K/Akt/Bad/Bcl XL -regulated mitochondrial apoptotic pathway, and they raise the possibility that hyperoside could be developed into a clinically valuable treatment for Alzheimer's disease and other neuronal degenerative diseases associated with mitochondrial dysfunction.[2]

Hyperoside is a strong inhibitor of HBsAg and HBeAgsecretion in 2.2.15 cells and DHBV-DNA levels in the HBV-infected duck model.[3]

Hyperoside isolated from Camptotheca acuminata, has antifungal activity, may serve as leads for the development of fungicides.[4]

Hyperoside has cytoprotective effects against hydrogen peroxide (H2O2)-induced cell damage by scavenging intracellular ROS and enhancing antioxidant enzyme activity, and protects HUVECs against H(2)O(2) damage, at least partially, by activating the ERK signaling pathway. [5,6]

Hyperoside has a variety of pharmacological effects including anti-viral, anti-oxidative, and anti-apoptotic activities and it has anti-Inflammatory activity through the suppression of nuclear factor-κB activation in mouse peritoneal macrophages.[7]

[Solvent]

Pyridine, DMSO, Ethanol, Methanol.

[HPLC Method][8]

Mobile phase: Acetonitrile: 1.0% Acetic acid H2O=16:84;

Flow rate: 0.8 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 360 nm.

[Storage]

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

[References]

[1] Choi J H, Kim D W, Yun N, *et al. J. Nat. Prod., 2011, 74(5):1055-60*.

[2] Zeng K W, Wang X M, Ko H, *et al. Eur. J. Pharmacol., 2011, 672(1-3):45-55.*

[3] Wu L L, Yang X B, Huang Z M , *et al. Acta Pharmacol. Sin., 2007, 28(3):404-9.*

[4] Li S, Zhang Z, Cain A, *et al. J. Agr. Food Chem , 2005, 53(1):32-7.*

[5] Mei J P, Kang K A, Rui Z, *et al. BBA- Biomembranes , 2008, 1780(12):1448-57.*

[6] Li Z L, Liu J C, Hu J, *et al. J. Ethnopharmacol., 2012, 139(139):388-94.*

[7] SuJin Kim, JaeYoung Um, SeungHeon Hong, *et al. Am. J. Chinese Med., 2012, 39(1): 171-81.*

[8] Zhou C L, Sun L L, Bi K S . *Chinese J. Pharm. Anal., 2009, 25(15):6760-71.*

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