

Rhamnocitrin Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Rhamnocitrin

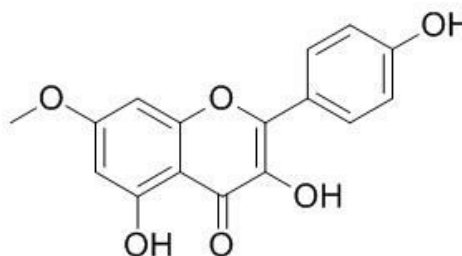
Catalog No.: CFN97724

Cas No.: 569-92-6

Purity: > 95%

M.F: C₁₆H₁₂O₆

M.W: 300.27



Physical Description: Yellow powder

Synonyms: 7-Methylkaempferol; 3,4',5-Trihydroxy-7-methoxyflavone; 3,5-Dihydroxy-2-(4-hydroxyphenyl)-7-methoxychromen-4-one; Kaempferol 7-O-methyl ether.

[Intended Use]

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

[Source]

The herbs of *rhizoma of Alpinia officinarum Hance*.

[Biological Activity or Inhibitors]

Kaempferol and rhamnocitrin are two anti-inflammatory flavonoids commonly found in plants, and they are scavengers of DPPH (1,1-diphenyl-2-picrylhydrazyl) with IC₅₀ of 26.10 +/- 1.33 and 28.38 +/- 3.07 microM, respectively; they not only protect low-density lipoprotein (LDL) from oxidation but also prevent atherogenesis through suppressing macrophage uptake of oxidized low-density lipoprotein (oxLDL).^[1]

Rhamnocitrin shows a significant protection against cloudiness in lenses induced by hydrogen peroxide and hydrocortisone in a dose dependent manner, suggests that rhamnocitrin possesses significant anticataract activity and acts most likely due to its antioxidant property.^[2]

Rhamnocitrin and kaempferol can augment cellular antioxidant defense capacity, at least in part, through regulation of HO-1 expression and MAPK signal transduction.^[3]

Rhamnocitrin in *Oxytropis Falcata* can enhance the immune function, improve the formation of spleen cells of mice serum hemolysin of chicken red blood cell immune.^[4]

[Solvent]

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

[HPLC Method]^[5]

Mobile phase: :0.4% Phosphoric acid in water-Methanol=20:80;

Flow rate:1.0 ml/min;

Column temperature: 30°C;

The wave length of determination:350 nm.

[Storage]

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

[References]

[1] Tu Y C, Lian T W, Yen J H, *et al. J. Agric. Food Chem.*,2007 Nov 28;55(24):9969-76.

[2] Bodakhe S H, Ram A. *Oriental Pharmacy and Experimental Medicine*,2012,12(3):227-32.

[3] Hong J T, Yen J H, Wang L, *et al. Toxicol. Appl. Pharmacol.*,2009 May 15;237(1):59-68.

[4]Guo M, Zhang L, Jiang H. *Chinese Journal of Information on Traditional Chinese Medicine*,2015, 22(5):57-9.

[5]Jiang H, Hu J R, Liu X.*Chinese Journal of Information on Traditional Chinese Medicine*, 2010,17(1):44-5.

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