Natural Products

ChemFaces

Prunin Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Prunin

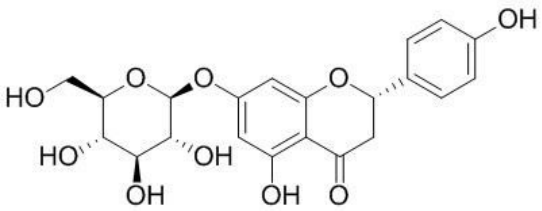
Catalog No.: CFN99818

Cas No.: 529-55-5

Purity: > 95%

M.F: $C_{21}H_{22}O_{10}$

M.W: 434.4



Physical Description: Powder

Synonyms: Naringenin 7-O- β -D-glucoside;Naringenin-7-O-glucoside.

[Intended Use]

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

[Source]

The herbs of *Swertia bimaculata*.

[Biological Activity or Inhibitors]

Prunin and hesperetin 7-O-glucoside are direct precursors of naringin and neohesperidin, respectively, in C. aurantium.[1]

Prunin exhibits a markedly enhanced solubility compared to naringenin and naringin while maintaining the in vitro inhibition of HMG-CoA reductase, shows that the naringinase produced by A. sojae will be useful in enhancing the potential bioavailability of naringin by efficiently converting it to prunin as a food component in citrus.[2]

Prunin acts as a growth inhibitor of wheat coleoptile elongation. [3]

Prunin can inhibit protein tyrosine phosphatase 1B (PTP1B) and stimulate glucose uptake in insulin-resistant HepG2 cells, it has significant potential as a selective PTP1B inhibitor and may possess anti-diabetic properties by improving insulin resistance.[4]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method][5]

Mobile phase: Acetonitrile-0.1% Phosphoric acid solution,gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 35 ℃;

The wave length of determination: 283 nm.

[Storage]

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

[References]

[1] Castillo J, Benavente O, Jadel R. *J. Agr. Food Chem. 1993, 41(11):1920-4.*

[2] Chang H Y, Lee Y B, Bae H A, *et al. Food Chem., 2011, 124(1):234-41.*

[3] Lavee S. *Plant Physiol., 1969, 44(3):342-6.*

[4] Jung H A, Ali M Y, Bhakta H K, *et al. Arch. Pharm. Res., 2016:1-12.*

[5] Chen S H, Zou Y Q, Wei W U, *et al. Chinese Traditional & Herbal Drugs, 2011, 42(7):1-2.*

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