

Polydatin Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Polydatin

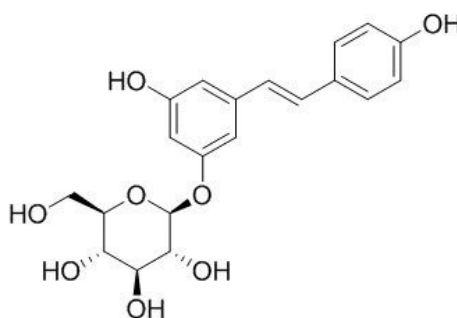
Catalog No.: CFN99159

Cas No.: 27208-80-6

Purity: >=98%

M.F: C₂₀H₂₂O₈

M.W: 390.40



Physical Description: White powder

Synonyms: Resveratrol 3-Glucoside; Resveratrol 3-O-glucoside.

[Intended Use]

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

[Source]

The rhizomes of *Polygonum cuspidatum* Sieb. et Zucc.

[Biological Activity or Inhibitors]

Polydatin is a mitochondria protector for acute severe hemorrhagic shock treatment, the neuronal mitochondrial injury is involved in the genesis of severe shock and polydatin may be the best choice for protection of neuron against mitochondrial injury in severe shock.^[1]

Polydatin has favorable potency to develop a hypolipemic and/or hepatoprotective agent in clinic.^[2]

Polydatin has a protective effect against ischemia/reperfusion injury in rat heart, the cardioprotection of polydatin is mainly mediated by cNOS which leading to an increase in NO production.^[3]

Polydatin is a natural precursor of resveratrol, it can induce β -defensin production and reduce inflammatory response, they reinforce cytoprotective response in stress conditions and suggest their use in cosmetic or pharmaceutical preparations.^[4]

Polydatin modulates inflammation by decreasing NF- κ B activation and oxidative stress by increasing Gli1, Ptch1, SOD1 expression and ameliorates blood-brain barrier permeability for its neuroprotective effect in pMCAO rat brain.^[5]

Polydatin has antioxidant activity.^[6]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method]^[7]

Mobile phase: 0.1% Acetic acid in water- 0.1% Acetic acid in acetonitrile, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 320 nm.

[Storage]

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

[References]

- [1] Wang X, Song R, Chen Y, *et al.* *Expert Opin. Investig. Drugs*, 2013 Feb;22(2):169-79.
- [2] Xing W W, Wu J Z, Jia M, *et al.* *Biomed.Pharmacother.*, 2009, 63(7):457-62.
- [3] Zhang L P, Yang C Y, Wang Y P, *et al.* *Sheng Li Xue Bao*, 2008 Apr 25;60(2):161-8.
- [4] Ravagnan G, De F A, Carteni M, *et al.* *Inflammation*, 2013, 36(1):26-34.
- [5] Ji H, Zhang X, Du Y, *et al.* *Brain Res. Bull.*, 2012 Jan 4;87(1):50-9.
- [6] Tian J W, Yang J X. *Chinese Traditional & Herbal Drugs*, 2001, 51(2):372-372.
- [7] Avula B, Joshi V C, Wang Y H, *et al.* *J. AOAC. Int.*, 2007 Nov-Dec;90(6):1532-8.

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