Natural Products



Procyanidin B1 Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Procyanidin B1 Catalog No.: CFN99557 Cas No.: 20315-25-7 Purity: > 98% M.F: C₃₀H₂₆O₁₂ M.W: 578.52



Physical Description: Powder

Synonyms:2-(3,4-Dihydroxyphenyl)-8-[2-(3,4-dihydroxyphenyl)-3,5,7-trihydroxy-3,4-dihy dro-2H-1-benzopyran-4-yl]-3,4-dihydro-2H-1-benzopyran-3,5,7-triol.

[Intended Use]

- 1. Reference standards;
- 2. Pharmacological research;
- 3. Food research;
- 4. Cosmetic research;
- 5. Synthetic precursor compounds;
- 6. Intermediates & Fine Chemicals;
- 7. Ingredient in supplements, beverages;
- 8. Others.

[Source]

The fruits of Vitis vinifera L.

[Biological Activity or Inhibitors]

Procyanidin B1, one of the major components of Flavangenol, also suppresses fat accumulation and induced mRNA expression of the fatty acid oxidative enzymes.^[1] Procyanidin B1 suppresses HCV RNA synthesis, possibly as a HCV RNA polymerase inhibitor, it may contribute towards the development of more effective inhibitors for HCV infection from natural plants.^[2]

Procyanidin B1 has neuroprotective effects, may attenuate the activation of caspase-3 by inhibiting that of caspase-8 and -9. ^[3]

Procyanidin B1 has anti-inflammatory effect on LPS-treated THP1 cells via interaction with the TLR4 – MD-2 heterodimer and p38 MAPK and NF- κ B signaling.^[4]

Procyanidin B1 strongly inhibits the proliferation of HeLa S3 cells. ^[5]

[Solvent]

Pyridine, Methanol, Ethanol, Hot water, etc.

[HPLC Method]^[6]

Mobile phase: Acetonitrile- 0. 1% Phosphoric acid H2O gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 280 nm.

[<u>Storage</u>]

 $2-8^{\circ}$ C, Protected from air and light, refrigerate or freeze.

[References]

[1] Sano A, Yamakoshi J, Tokutake S, et al. Biosci. Biotech. Bioch., 2003, 67(5):1140-3.

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[3] Kanno H, Kawakami Z, Tabuchi M, et al. J. Ethnopharmacol., 2014, 159:122–8.
[4] Jing Xing, Rui Li, Nan Li, et al. Mol. Cell Biochem., 2015, 407(1-2):89-95.
[5]Okamoto S, Ishihara S, Okamoto T, et al. Molecules, 2014, 19(2):1775-85.
[6] Zhao C Y, Wang M, Zhang G W, et al. J. Shenyang Pharm. Univ., 2014, 31(1):32-5.

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