Natural Products

ChemFaces

Proanthocyanidins Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Proanthocyanidins

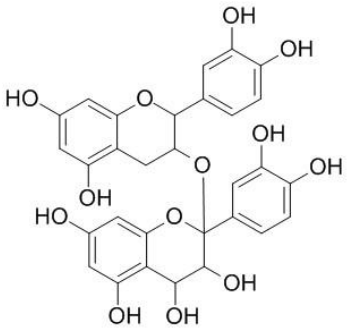
Catalog No.: CFN99556

Cas No.: 4852-22-6

Purity: >=95%

M.F: $C_{30}H_{26}O_{13}$

M.W: 594.52



Physical Description: Red brown powder

Synonyms:2-(3,4-dihydroxyphenyl)-2-[[2-(3,4-dihydroxyphenyl)-5,7-dihydroxy-3,4-dihydro-2H-chromen-3-yl]oxy]-3,4-dihydrochromene-3,4,5,7-tetrol;Procyanidin.

[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 fruits of *Vitis vinifera L.*

[Biological Activity or Inhibitors]

Proanthocyanidins form stable complexes with metal ions and with proteins and are good reducing agents, they may participate in the prevention of cancers, both of the digestive tract and inner organs, they may also protect LDLs against oxidation and inhibit platelet aggregation and therefore prevent cardiovascular diseases.[1]

Proanthocyanidins have anti-inflammatory effect on experimental inflammation in rats and mice, which mechanisms of anti-inflammatory action are relevant to oxygen free radical scavenging, anti-lipid peroxidation, and inhibition of the formation of inflammatory cytokines.[2]

Proanthocyanidins have hypolipidemic effects, they inhibit the processes of intestinal lipid absorption, chylomicron secretion by the intestine and VLDL secretion. [3]

Proanthocyanidins has a significant effect in the protection of heart against myocardial injury induced by isoproterenol.[4]

Dietary proanthocyanidins inhibit photocarcinogenesis in mice through the inhibition of UVB-induced inflammation and mediators of inflammation in mouse skin.[5]

Proanthocyanidins have antiviral and antioxidant activity.[6]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method][7]

Mobile phase: N,N-dimethylformamide(containing 1% acetic acid, 5% water)-0.15 M Lithium chloride,gradient elution;

Flow rate: 1.0 ml/min;

Column temperature: 60 ℃;

The wave length of determination: 280 nm.

[Storage]

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

[References]

[1] Santos-Buelga C, Scalbert A. *J. Sci. Food Agric., 2000, 80(7):1094-17.*

[2] Li W, Zhang X, Wu Y, *et al. Acta Pharmacologica Sinica, 2002, 22(12):1117-20.*

[3] Bladé C, Arola L, Salvadó M J. *Mol. Nutr. Food Res.,2010 Jan;54(1):37-59.*

[4] Karthikeyan K, Bai B R, Devaraj S N. *Int. J. Cardiol., 2007, 115(3):326-33.*

[5] Sharma S D, Katiyar S K, Sarkar F H. *Pharm.Res., 2010, 27(6):1092-102.*

[6] Shahat A A, Cos P, De B T, *et al. Planta Med., 2002, 68(6):539-41.*

[7] Kennedy J A, Taylor A W. *J.Chromatogr. A, 2003, 995(1-2):99-107.*

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