

Vicenin -2 Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Vicenin -2

Catalog No.: CFN92031

Cas No.: 23666-13-9

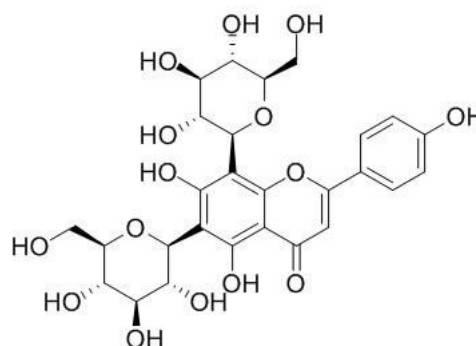
Purity: > 98%

M.F: C₂₇H₃₀O₁₅

M.W: 594.5

Physical Description: Yellow powder

Synonyms: 5,7-dihydroxy-2-(4-hydroxyphenyl)-6,8-bis[(2S,3R,4R,5S,6R)-3,4,5-trihydroxy-6-(hydroxymethyl)-2-oxanyl]-1-benzopyran-4-one.



[Intended Use]

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

[Source]

The herbs of *Chrysanthemi indic* L.

[Biological Activity or Inhibitors]

Vicenin-2 (VCN-2), an active constituent of the medicinal herb *Ocimum Sanctum* Linn or Tulsi, it can effectively induce anti-proliferative, anti-angiogenic and pro-apoptotic effect in CaP cells (PC-3, DU-145 and LNCaP) irrespective of their androgen responsiveness or p53 status;VCN-2 in combination with docetaxel (DTL) synergistically inhibited the growth of prostate tumors in vivo with a greater decrease in the levels of AR, pIGF1R, pAkt, PCNA, cyclin D1, Ki67, CD31, and increase in E-cadherin; it could as a single agent and in combination with DTL in carcinoma of prostate (CaP).^[1]

Vicenin-2 has potential anti-inflammatory activity, can modify LPS-induced total nitrite and TNF- α production, in addition to the LPS-induced translocation of the nuclear factor NF- κ B.^[2]

vicenin-2 and scolymoside, can suppress high-glucose (HG)-induced vascular inflammatory processes in human umbilical vein endothelial cells (HUVECs) and mice, HG-induced vascular inflammatory responses are critical events underlying the development of various diabetic complications; therefore, suggests that vicenin-2 and scolymoside have significant therapeutic benefits against diabetic complications and atherosclerosis.^[3]

Vicenin-2 or scolymoside can reduce cecal ligation and puncture (CLP)-induced septic mortality and pulmonary injury, indicate that vicenin-2 and scolymoside could be a potential therapeutic agent for treatment of various severe vascular inflammatory diseases via inhibition of the TGFBIp signaling pathway.^[4]

Vicenin-2 has antithrombotic and antiplatelet activities.^[5]

[Solvent]

Pyridine, DMSO, Methanol, Hot water, etc.

[HPLC Method]^[6]

Mobile phase: Methanol-0.1 % Phosphoric acid H₂O, gradient elution ;

Flow rate: 0.8 ml/min;

Column temperature: 25 °C;

The wave length of determination: 334 nm.

[Storage]

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

[References]

- [1] Nagaprashantha L D, Vatsyayan R, Singhal J, *et al. Biochem. Pharmacol.*, 2011, 82(9):1100-9.
- [2] Marrassini C, Davicino R, Acevedo C, *et al. J. Nat. Prod.*, 2011, 74(6):1503-7.
- [3] Ku S K, Bae J S. *Can. J. Physiol. Pharm.*, 2016, 3(1): 287-95.
- [4] Lee W, Ku S K, Bae J S. *Inflammation*, 2015, 38(6):2166-77.
- [5] Lee W, Bae J S. *Blood. Coagul. Fibrin.*, 2015, 26(6):628-34.
- [6] Qin L U. *China Pharmacy*, 2015(30):4271-3.

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