[ Product Information ]

Name: Vitexin
Catalog No.: CFN98601
Cas No.: 3681-93-49
Purity: >=98%
M.F: C_{21}H_{20}O_{10}
M.W: 432.38
Physical Description: Yellow powder

Synonyms:
5,7-Dihydroxy-8-beta-D-glucopyranosyl-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one;
5,7-Dihydroxy-2-(4-hydroxyphenyl)-8-[(2S,3R,4R,5S,6R)-3,4,5-trihydroxy-6-(hydroxymethyl)oxan-2-yl]chromen-4-one.

[ Intended Use ]

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

[ Source ]
The seeds of *Vitex trifolia* L.

**[Biological Activity or Inhibitors]**

Vitexin is a class of nature lignan compounds, whose action and anticancer effect is mediated by the mechanisms different from the classic lignans, vitexin-induced antitumor effect and cytotoxic activity is exerted through proapoptotic process, which is mediated by a decreased Bcl-2/Bax ratio and activation of caspases.\[^{[1]}\]

Mung bean extract and its constituents vitexin and isovitexin have inhibitory effect on the formation of advanced glycation endproducts, the anti-glycation activities may mainly be due to their free radical scavenging capacity.\[^{[2]}\]

Vitexin can be effectively used for the prevention of UV-induced adverse skin reactions such as free radical production and skin cell damage.\[^{[3]}\]

Vitexin has spasmyolytic effects, because it non-competitively inhibits Ach but not the Ca(2+) influx.\[^{[4]}\]

Vitexin, an HIF-1alpha inhibitor, it has anti-metastatic potential in PC12 cells.\[^{[5]}\]

Vitexin has anti-inflammatory and antinociceptive activities, it can inhibit inflammatory pain in mice by targeting TRPV1, oxidative stress, and cytokines.\[^{[6]}\]

Vitexin exhibits significant protective effect against myocardial I/R injury in isolated rat heart, which is related to inhibition of the release of inflammatory cytokines and the apoptosis of cardiac muscle cell via up-regulating protein expression of Bcl-2 as well as down-regulating Bax and NF-κBp65.\[^{[7]}\]

Vitexin has anticonvulsant effects in the brain, possibly through interaction at the benzodiazepine site of the γ-aminobutyric acid type A receptor complex.\[^{[8]}\]

Vitexin has anti-depressant effects, the mechanism is mediated through an increase in catecholamine levels in the synaptic cleft as well as through interactions with the serotonergic 5-HT1A, noradrenergic α2, and dopaminergic D1, D2, and D3 receptors.\[^{[9]}\]

**[Solvent]**
Pyridine, Methanol, Ethanol, etc.

[HPLC Method] \(^{[10]}\)

Mobile phase: THF-CH3CN-H2O-H3P04=30:5:125:0.1;
Flow rate: 1.0 ml/min;
Column temperature: Room Temperature;
The wave length of determination: 270 nm.

[Storage]

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

[References]


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