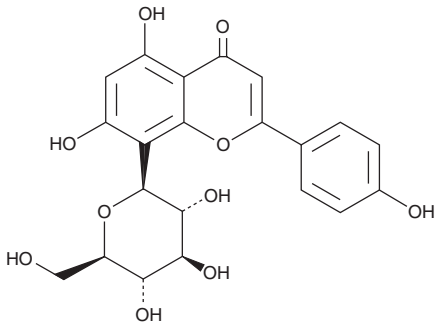
# PRODUCT INFORMATION

## Vitexin

*Item No. 15116*

| | |
|---|---|
| **CAS Registry No.:** | 3681-93-4 |
| **Formal Name:** | 8-β-D-glucopyranosyl-5,7-dihydroxy-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one |
| **Synonym:** | Orientoside |
| **MF:** | $C_{21}H_{20}O_{10}$ |
| **FW:** | 432.4 |
| **Purity:** | ≥98% |
| **UV/Vis.:** | $\lambda_{max}$: 215, 270, 332 nm |
| **Supplied as:** | A crystalline solid |
| **Storage:** | -20°C |
| **Stability:** | ≥4 years |




*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

### Laboratory Procedures

Vitexin is supplied as a crystalline solid. A stock solution may be made by dissolving the vitexin in the solvent of choice, which should be purged with an inert gas. Vitexin is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of vitexin in these solvents is approximately 16.6 and 14.3 mg/ml, respectively.

Vitexin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, vitexin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Vitexin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Vitexin is an apigenin flavone C-glycoside isolated from *Crataegus* spp. (hawthorn), *Passiflora* spp. (passionflower), *P. glaucum* R. Br. (pearl millet), *P. nigra* (bamboo leaves), *V. agnuscastus* L. (chasteberry), and various other tropical plant species.[1-3] It demonstrates antioxidant activity in a DPPH bleaching assay ($IC_{50}$ = 24.2 µM) and also inhibits the activity of the carbohydrate-hydrolyzing enzyme α-glucosidase ($IC_{50}$ = 244 µM).[1,3] It has been shown to have broad anti-tumor activity, activating caspases and inducing apoptosis in cancer xenograft models.[4] Additionally, vitexin at 10 mg/kg exhibits an analgesic effect in several different models of inflammatory pain by targeting TRPV1 channel activity, by preventing the decrease of reduced glutathione levels, and by modulating the production of cytokines.[5]

### References


1. Simirgiotis, M.J., Schmeda-Hirschmann, G., Bórquez, J., *et al.* The *Passiflora tripartita* (banana passion) fruit: A source of bioactive flavonoid C-glycosides isolated by HSCCC and characterized by HPLC-DAD-ESI/MS/MS. *Molecules* **18(2)**, 1672-1692 (2013).
2. Wang, J., Yue, Y.-D., Jiang, H., *et al.* Rapid screening for flavone C-glycosides in the leaves of different species of bamboo and simultaneous quantitation of four marker compounds by HPLC-UV/DAD. *Int. J. Anal. Chem.* 205101 (2012).
3. Chen, Y.-G., Ping, L., Peng, L., *et al.* α-Glucosidase inhibitory effect and simultaneous quantification of three major flavonoid glycosides in *Microctis folium*. *Molecules* **18(4)**, 4221-4232 (2013).
4. Zhou, Y., Liu, Y.E., Cao, J., *et al.* Vitexins, nature-derived lignan compounds, induce apoptosis and suppress tumor growth. *Clin. Cancer Res.* **15(16)**, 5161-5169 (2009).
5. Borghi, S.M., Carvalho, T.T., Staurengo-Ferrari, L., *et al.* Vitexin inhibits inflammatory pain in mice by targeting TRPV1, oxidative stress, and cytokines. *J. Nat. Prod.* **76(6)**, 1141-1149 (2013).





**CAYMAN CHEMICAL**
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
**PHONE:** [800] 364-9897
[734] 971-3335
**FAX:** [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM