

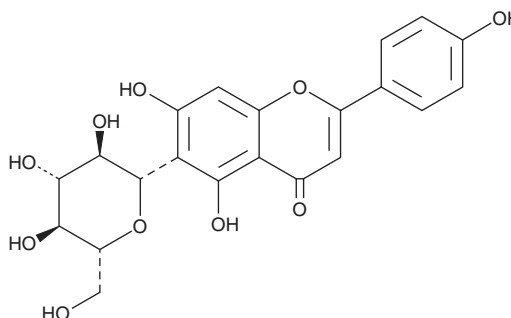
# PRODUCT INFORMATION



## Isovitexin

Item No. 31212

**CAS Registry No.:** 38953-85-4  
**Formal Name:** 6-β-D-glucopyranosyl-5,7-dihydroxy-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one  
**MF:** C<sub>21</sub>H<sub>20</sub>O<sub>10</sub>  
**FW:** 432.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 216, 272, 335 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years  
**Item Origin:** Plant/*Lophatherum gracile*



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

### Laboratory Procedures

Isovitexin is supplied as a crystalline solid. A stock solution may be made by dissolving the isovitexin in the solvent of choice, which should be purged with an inert gas. Isovitexin is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of isovitexin in these solvents is approximately 30 mg/ml.

Isovitexin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, isovitexin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Isovitexin has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Isovitexin is a C-glycosylated flavone that has been found in *Patrinia villosa* and has diverse biological activities.<sup>1-5</sup> It scavenges 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) radicals in a cell-free assay (IC<sub>50</sub> = 370 μg/ml).<sup>2</sup> Isovitexin (50 and 100 μg/ml) is cytotoxic to HepG2 hepatic, MCF-7 breast, and HCT116 colorectal cancer cells.<sup>3</sup> It inhibits LPS-induced production of TNF-α and IL-6 and decreases inducible nitric oxide synthase (iNOS) and COX-2 levels in RAW 264.7 cells when used at a concentration of 50 μg/ml.<sup>4</sup> Isovitexin (200 μg/ml) reduces cytotoxicity induced by amyloid-β (25-35) (Aβ (25-35)) in PC12 cells.<sup>5</sup>

### References

1. He, M., Min, J.-W., Kong, W.-L., *et al.* A review on the pharmacological effects of vitexin and isovitexin. *Fitoterapia*. **115**, 74-85 (2016).
2. Zhang, J., Yuan, K., Zhou, W.-L., *et al.* Studies on the active components and antioxidant activities of the extracts of *Mimosa pudica* Linn. from southern China. *Pharmacogn. Mag.* **7(25)**, 35-39 (2011).
3. Mohammed, R.S., Zeid, A.H.A., Hawary, S.S.E., *et al.* Flavonoid constituents, cytotoxic and antioxidant activities of *Gleditsia triacanthos* L. leaves. *Saudi J. Biol. Sci.* **21(6)**, 547-553 (2014).
4. Lv, H., Yu, Z., Zheng, Y., *et al.* Isovitexin exerts anti-inflammatory and anti-oxidant activities on lipopolysaccharide-induced acute lung injury by inhibiting MAPK and NF-κB and activating HO-1/Nrf2 pathways. *Int. J. Biol. Sci.* **12(1)**, 72-86 (2016).
5. Guimarães, C.C., Oliveira, D.D., Valdevite, M., *et al.* The glycosylated flavonoids vitexin, isovitexin, and quercetrin isolated from *Serjania erecta* Radlk (Sapindaceae) leaves protect PC12 cells against amyloid-β25-35 peptide-induced toxicity. *Food Chem. Toxicol.* **86**, 88-94 (2015).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 08/26/2020

#### 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