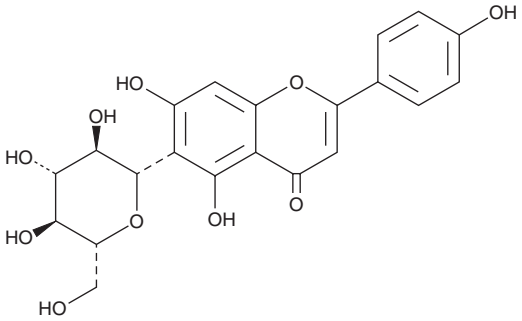
PRODUCT INFORMATION

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:	$C_{21}H_{20}O_{10}$
FW:	432.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 216, 272, 335 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 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.[1-5] It scavenges 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) radicals in a cell-free assay (IC_{50} = 370 µg/ml).[2] Isovitexin (50 and 100 µg/ml) is cytotoxic to HepG2 hepatic, MCF-7 breast, and HCT116 colorectal cancer cells.[3] 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.[4] Isovitexin (200 µg/ml) reduces cytotoxicity induced by amyloid-β (25-35) (Aβ (25-35)) in PC12 cells.[5]

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).

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