

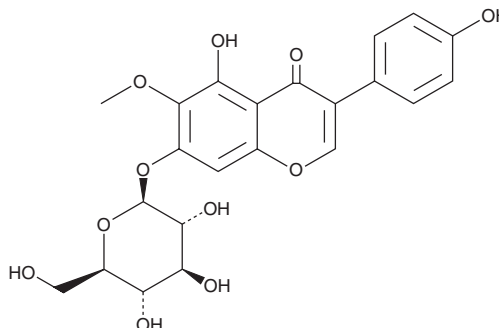
PRODUCT INFORMATION



Tectoridin

Item No. 33969

CAS Registry No.: 611-40-5
Formal Name: 7-(β -D-glucopyranosyloxy)-5-hydroxy-3-(4-hydroxyphenyl)-6-methoxy-4H-1-benzopyran-4-one
Synonym: Tectorigenin 7-O- β -D-glucopyranoside
MF: C₂₂H₂₂O₁₁
FW: 462.4
Purity: \geq 98%
UV/Vis.: λ_{\max} : 268 nm
Supplied as: A solid
Storage: -20°C
Stability: \geq 4 years
Item Origin: Synthetic



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

Laboratory Procedures

Tectoridin is supplied as a solid. A stock solution may be made by dissolving the tectoridin in the solvent of choice, which should be purged with an inert gas. Tectoridin is soluble in the organic solvent DMSO at a concentration of approximately 1 mg/ml. Tectoridin is also slightly soluble in dimethyl formamide.

Description

Tectoridin is a polyketide synthase-derived flavonoid glycoside and phytoestrogen that has been found in *B. chinensis* and has diverse biological activities.¹⁻⁵ It scavenges hydroxyl radicals in a cell-free assay (IC₅₀ = 178 μ g/ml) and inhibits the formation of thiobarbituric acid reactive substances (TBARS) in egg yolk (IC₅₀ = 86 μ g/ml).² Tectoridin (200 μ M) activates thyroid hormone receptor- or estrogen receptor-mediated transcription in GH3 rat pituitary and MCF-7 human breast cancer cells, respectively, in reporter assays.³ It inhibits the production of prostaglandin E₂ (PGE₂; Item No. 14010) induced by thapsigargin (Item No. 10522) in isolated rat peritoneal macrophages when used at concentrations of 10 and 30 μ M.⁴ Tectoridin (60 mg/kg) inhibits trabecular bone loss in a mouse model of osteoporosis induced by ovariectomy.⁵

References

1. Raju, K.S.R., Kadian, N., Taneja, I., *et al.* Phytochemical analysis of isoflavonoids using liquid chromatography coupled with tandem mass spectrometry. *Phytochem. Rev.* **14**(3), 469–498 (2015).
2. Han, T., Cheng, G., Liu, Y., *et al.* In vitro evaluation of tectoridin, tectorigenin and tectorigenin sodium sulfonate on antioxidant properties. *Food Chem. Toxicol.* **50**(2), 409-414 (2012).
3. Shim, M., Bae, J.-Y., Lee, Y.J., *et al.* Tectoridin from *Maackia amurensis* modulates both estrogen and thyroid receptors. *Phytomedicine* **21**(5), 602-606 (2014).
4. Kim, Y.P., Yamada, M., Lim, S.S., *et al.* Inhibition by tectorigenin and tectoridin of prostaglandin E₂ production and cyclooxygenase-2 induction in rat peritoneal macrophages. *Biochim. Biophys. Acta* **1438**(3), 399-407 (1999).
5. Wang, J., Tang, Y., Lv, X., *et al.* Tectoridin inhibits osteoclastogenesis and bone loss in a murine model of ovariectomy-induced osteoporosis. *Exp. Gerontol.* **140**, 111057 (2020).

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

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