

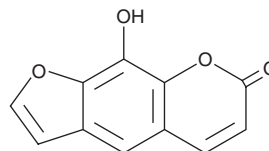
PRODUCT INFORMATION



Xanthotoxol

Item No. 27801

CAS Registry No.: 2009-24-7
Formal Name: 9-hydroxy-7H-furo[3,2-g][1]benzopyran-7-one
Synonyms: 8-Hydroxypsoralen, NSC 401269, Xanthotol
MF: C₁₁H₆O₄
FW: 202.2
Purity: ≥98%
UV/Vis.: λ_{max}: 219, 251, 269, 284, 310 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Angelica dahuricae* radix



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

Laboratory Procedures

Xanthotoxol is supplied as a crystalline solid. A stock solution may be made by dissolving the xanthotoxol in the solvent of choice, which should be purged with an inert gas. Xanthotoxol is soluble in DMSO.

Description

Xanthotoxol is a coumarin and a major component in *C. monnieri* that has diverse biological activities.¹⁻⁵ It inhibits proliferation of HeLa and HepG2 cells *in vitro* (IC₅₀s = 23.59 and 15.57 μM, respectively).¹ Xanthotoxol increases histamine release from mast cells and decreases secretion of TNF-α, IL-4, and IL-1β from RBL-2H3 cells induced by DNP-human serum albumin (DNP-HSA).² It is nematocidal against *M. incognita* (IC₅₀ = 68 mg/L).³ *In vivo*, xanthotoxol inhibits predatory mouse and rat killing behavior in dogs and cats when administered at doses ranging from 3 to 100 mg/kg and 5 to 20 mg/kg, respectively.⁴ It reduces amphetamine-induced hypermobility in mice and hamsters. Xanthotoxol (5 and 10 mg/kg) reduces brain edema, neutrophil infiltration, blood-brain barrier disruption, production of IL-1β, TNF-α, IL-8, and nitric oxide (NO), and levels of intercellular adhesion molecule-1 (ICAM-1) and E-selectin in a rat model of focal cerebral ischemia.⁵

References

1. Bai, Y., Li, D., Zhou, T., *et al.* Coumarins from the roots of *Angelica dahurica* with antioxidant and antiproliferative activities. *J. Funct. Foods* **20**, 453-462 (2016).
2. Li, D. and Wu, L. Coumarins from the roots of *Angelica dahurica* cause anti-allergic inflammation. *Exp. Ther. Med.* **14**(1), 874-880 (2017).
3. Caboni, P., Saba, M., Oplos, C., *et al.* Nematicidal activity of furanocoumarins from parsley against *Meloidogyne* spp. *Pest. Manag. Sci.* **71**(8), 1099-1105 (2015).
4. Sethi, O.P., Anand, K.K., and Gulati, O.D. Evaluation of xanthotoxol for central nervous system activity. *J. Ethnopharmacol.* **36**(3), 239-247 (1992).
5. He, W., Chen, W., Zhou, Y., *et al.* Xanthotoxol exerts neuroprotective effects via suppression of the inflammatory response in a rat model of focal cerebral ischemia. *Cell. Mol. Neurobiol.* **33**(5), 715-722 (2013).

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.

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