

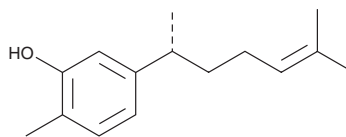
PRODUCT INFORMATION



Xanthorrhizol

Item No. 14668

CAS Registry No.: 30199-26-9
Formal Name: 5-[(1R)-1,5-dimethyl-4-hexen-1-yl]-2-methyl-phenol
MF: $C_{15}H_{22}O$
FW: 218.3
Purity: $\geq 97\%$
UV/Vis.: λ_{\max} : 276 nm
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥ 1 year
Item Origin: Plant/*Curcuma xanthorrhiza*



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

Laboratory Procedures

Xanthorrhizol is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Xanthorrhizol is soluble in DMSO and slightly soluble in water.

Description

Xanthorrhizol is a sesquiterpenoid isolated from the rhizome of *C. xanthorrhiza* that exhibits antibacterial and antifungal activity, neuroprotective activity, and protective effects against chemotherapeutic drug-induced hepatotoxicity and nephrotoxicity.¹ Xanthorrhizol suppresses the expression of ornithine decarboxylase, cyclooxygenase-2, and inducible nitric oxide synthase at concentrations as low as $0.3 \mu\text{M}$.^{2,3} It exhibits an anti-metastasis effect and anti-tumor promoter activity in various mouse models of carcinogenesis.^{2,3} Xanthorrhizol inhibits the proliferation of human colon cancer HCT116 cells with an IC_{50} value of $54.8 \mu\text{M}$ by inducing cell cycle arrest and apoptosis.¹

References

1. Kang, Y.-J., Park, K.-K., Chung, W.-Y., *et al.* Xanthorrhizol, a natural sesquiterpenoid, induces apoptosis and growth arrest in HCT116 human colon cancer cells. *J. Pharmacol. Sci.* **111**(3), 276-284 (2009).
2. Chung, W.Y., Park, J.H., Kim, M.J., *et al.* Xanthorrhizol inhibits 12-O-tetradecanoylphorbol-13-acetate-induced acute inflammation and two-stage mouse skin carcinogenesis by blocking the expression of ornithine decarboxylase, cyclooxygenase-2 and inducible nitric oxide synthase through mitogen-activated protein kinases and/or the nuclear factor- κB . *Carcinogenesis* **28**(6), 1224-1231 (2007).
3. Choi, M.-A., Kim, S.H., Chung, W.-Y., *et al.* Xanthorrhizol, a natural sesquiterpenoid from *Curcuma xanthorrhiza*, has an anti-metastatic potential in experimental mouse lung metastasis model. *Biochem. Biophys. Res. Commun.* **326**(1), 210-217 (2005).

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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