

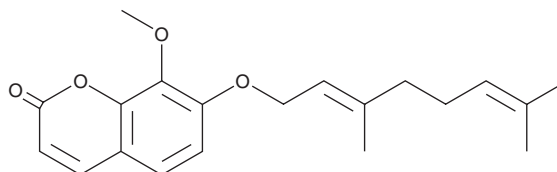
PRODUCT INFORMATION



Collinin

Item No. 29946

CAS Registry No.: 34465-83-3
Formal Name: 7-[[[(2E)-3,7-dimethyl-2,6-octadien-1-yl]oxy]-8-methoxy-2H-1-benzopyran-2-one
Synonym: NSC 31870
MF: C₂₀H₂₄O₄
FW: 328.4
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥2 years
Item Origin: Plant/*Flindersia maculosa*



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

Laboratory Procedures

Collinin is supplied as a solid. A stock solution may be made by dissolving the collinin in the solvent of choice, which should be purged with an inert gas. Collinin is soluble in ethanol, methanol, DMSO, and dimethyl formamide.

Description

Collinin is a coumarin that has been found in *Z. schinifolium* and has diverse biological activities.¹⁻⁴ It is active against drug-susceptible and -resistant strains of *M. tuberculosis* (MIC_{50s} = 3.13-6.25 µg/ml).¹ Collinin inhibits LPS-induced nitric oxide (NO) production (IC₅₀ = 5.9 µM) and reduces COX-2 protein levels in RAW 264.7 cells.² It completely inhibits aggregation of isolated rabbit platelets induced by arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607), collagen, or platelet activating factor (PAF) when used at a concentration of 100 µM.³ Dietary administration of collinin (0.05% w/w) reduces the number of mice with tumors and the number of tumors per mouse in a mouse model of colitis-related carcinogenesis.⁴

References

1. Kim, S., Seo, H., Al Mahmud, H., et al. *In vitro* activity of collinin isolated from the leaves of *Zanthoxylum schinifolium* against multidrug- and extensively drug-resistant *Mycobacterium tuberculosis*. *Phytomedicine* **46**, 104-110 (2018).
2. Nguyen, P.-H., Zhao, B.T., Kim, O., et al. Anti-inflammatory terpenylated coumarins from the leaves of *Zanthoxylum schinifolium* with α-glucosidase inhibitory activity. *J. Nat. Med.* **70(2)**, 276-281 (2016).
3. I.S., C., Lin, Y.C., Tsai, I.L., et al. Coumarins and anti-platelet aggregation constituents from *Zanthoxylum schinifolium*. *Phytochemistry* **39(5)**, 1091-1097 (1995).
4. Kohno, H., Suzuki, R., Curini, M., et al. Dietary administration with prenyloxycoumarins, auraptene and collinin, inhibits colitis-related colon carcinogenesis in mice. *Int. J. Cancer* **118(12)**, 2936-2942 (2006).

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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