

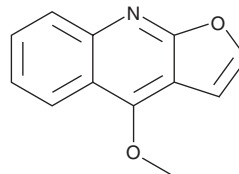
PRODUCT INFORMATION



Dictamnine

Item No. 34646

CAS Registry No.: 484-29-7
Formal Name: 4-methoxy-furo[2,3-b]quinoline
MF: C₁₂H₉NO₂
FW: 199.2
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

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

Description

Dictamnine is an alkaloid that has been found in *D. dasycarpus* and has diverse biological activities.¹⁻³ It inhibits platelet aggregation induced by arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607), collagen, thrombin, or platelet-activating factor (PAF) in washed isolated rabbit platelets when used at a concentration of 100 µg/ml.² Dictamnine is cytotoxic to human KB oral, HeLa cervical, and DLD-1 colon cancer cells (EC₅₀s = 20.55, 2.5, and 6.4 µg/ml, respectively) and induces apoptosis in A549, PC-9, and EBC-1 human lung cancer cells when used at concentrations ranging from 50 to 200 µM.^{1,2} It increases serum alanine aminotransferase (ALT) and alkaline phosphatase (ALP) activities and induces hepatocyte necrosis in mice when administered at doses of 150 or 200 mg/kg.³

References

1. Yu, J., Zhang, L., Peng, J., *et al.* Dictamnine, a novel c-Met inhibitor, suppresses the proliferation of lung cancer cells by downregulating the PI3K/AKT/mTOR and MAPK signaling pathways. *Biochem. Pharmacol.* **195**, 114864 (2022).
2. Wu, T.-S., Shi, L.-S., Wang, J.-J., *et al.* Cytotoxic and antiplatelet aggregation principles of *Ruta graveolens*. *J. Chin. Chem. Soc.* **50(1)**, 171-178 (2003).
3. Lin, Q., Guan, H., Ma, C., *et al.* Biotransformation patterns of dictamnine *in vitro/in vivo* and its relative molecular mechanism of dictamnine-induced acute liver injury in mice. *Environ. Toxicol. Pharmacol.* **85**, 103628 (2021).

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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