

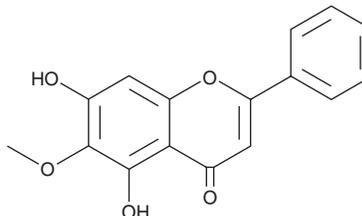
PRODUCT INFORMATION



Oroxylin A

Item No. 27363

CAS Registry No.: 480-11-5
Formal Name: 5,7-dihydroxy-6-methoxy-2-phenyl-4H-1-benzopyran-4-one
Synonym: 6-Methoxybaicalein
MF: C₁₆H₁₂O₅
FW: 284.3
Purity: ≥98%
UV/Vis.: λ_{max}: 215, 273, 321 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Oroxylum indicum*



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

Laboratory Procedures

Oroxylin A is supplied as a solid. A stock solution may be made by dissolving the oroxylin A in the solvent of choice, which should be purged with an inert gas. Oroxylin A is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of oroxylin A in these solvents is approximately 30 mg/ml.

Oroxylin A is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, oroxylin A should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Oroxylin A has a solubility of approximately 0.20 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Oroxylin A is a flavonoid that has been found in *S. radix* and has diverse biological activities.¹⁻³ It inhibits decreases in cell viability and increases in nitric oxide (NO) production induced by polyinosinic-polycytidylic acid (poly(I:C)) in RAW 264.7 macrophages when used at concentrations ranging from 5 to 25 μM.² Oroxylin A (10-50 μM) also inhibits poly(I:C)-induced increases in IL-1α, IL-1β, GM-CSF, IL-6, IL-10, monocyte chemoattractant protein-1 (MCP-1), and TNF-α production in RAW 264.7 cells. Oroxylin A (10 and 20 μM) inhibits hypoxia-induced migration and invasion of MCF-7, DU145, and HepG2 cells in wound healing and cell invasion assays, respectively.³ It is an inhibitor of the UDP-glucuronosyltransferase (UGT) isoform UGT1A1 (IC₅₀ = 9.14 μM) and P-glycoprotein (IC₅₀ = 78.3 μM).^{4,5} Oroxylin A increases the cytotoxicity of the P-glycoprotein substrate paraquat in MDR1-MDCKII cells and paclitaxel (Item No. 10461) in MX-1 and MX-1/T cells.⁵

References

1. Lu, L., Guo, Q., and Zhao, L. *Phytother. Res.* **30(11)**, 1765-1774 (2016).
2. Lee, J.Y. and Park, W. *Exp. Ther. Med.* **12(1)**, 151-156 (2016).
3. Cheng, Y., Zhao, K., Li, G., et al. *Anticancer Drugs* **25(7)**, 778-789 (2014).
4. Liu, X.Y., Lv, X., Wang, P., et al. *Int. J. Biol. Macromol.* **126**, 653-661 (2019).
5. Bai, J., Zhao, S., Fan, X., et al. *Toxicol. Appl. Pharmacol.* **369**, 49-59 (2019).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM