Oroxylin A

Cat. No.: HY-N0560

CAS No.: 480-11-5

Molecular Formula: $C_{16}H_{12}O_5$

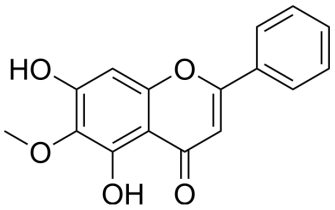
Molecular Weight: 284.26

Target: HIF/HIF Prolyl-Hydroxylase; Autophagy; Virus Protease

Pathway: Metabolic Enzyme/Protease; Autophagy; Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 32 mg/mL (112.57 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.5179 mL	17.5895 mL	35.1791 mL
5 mM	0.7036 mL	3.5179 mL	7.0358 mL
10 mM	0.3518 mL	1.7590 mL	3.5179 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Oroxylin A is an active flavonoid compound with strong anti-cancer effects. Oroxylin A inhibits the IL-6/STAT3 pathway and NF-κB signaling, inhibits cell proliferation and induces apoptosis. Oroxylin A inhibits colitis-related carcinogenesis[1][2][3][4][5].

In Vitro

Oroxylin A (20 μM; 24 h) inhibits the growth, proliferation, and migration of MDA-MB-231 cells. Oroxylin A also inhibits the invasion of MDA-MB-231 and inhibits its epithelial-to-mesenchymal transition (EMT) process[4].

Oroxylin A (20 μM; 24 h) also inhibits the expression of pro-inflammatory cytokines and inhibits the NF-κB signaling pathway[4].

The anti-inflammatory effect of Oroxylin A is abolished by TNF-α[4].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Acta Pharm Sin B. 2021 Jan;11(1):143-155.
- J Adv Res. 2023 Feb 22;S2090-1232(23)00063-2.
- Int Immunopharmacol. 2024 Feb 15:129:111636.
- Front Pharmacol. 2022 Aug 23;13:935937.
- Cancers. 2019 Mar 12;11(3):353.

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REFERENCES

[1]. Zhao K, et al. Oroxylin A promotes PTEN-mediated negative regulation of MDM2 transcription via SIRT3-mediated deacetylation to stabilize p53 and inhibit glycolysis in wt-p53 cancer cells. J Hematol Oncol. 2015 Apr 23;8:41. http://www.ncbi.nlm.nih.gov/pubmed/25902914

[2]. Dai Q, et al. Oroxylin A regulates glucose metabolism in response to hypoxic stress with the involvement of Hypoxia-inducible factor-1 in human hepatoma HepG2 cells. Mol Carcinog. 2015 Aug 10.

[3]. Wei L, et al. Oroxylin A inhibits glycolysis-dependent proliferation of human breast cancer via promoting SIRT3-mediated SOD2 transcription and HIF1α destabilization. Cell Death Dis. 2015 Apr 9

[4]. Sun X, et al. Oroxylin A Suppresses the Cell Proliferation, Migration, and EMT via NF-κB Signaling Pathway in Human Breast Cancer Cells. Biomed Res Int. 2019 Jun 23;2019:9241769.

[5]. Yang X, et al. Oroxylin A inhibits colitis-associated carcinogenesis through modulating the IL-6/STAT3 signaling pathway. Inflamm Bowel Dis. 2013 Aug;19(9):1990-2000.

Caution: Product has not been fully validated for medical applications. For research use only.

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