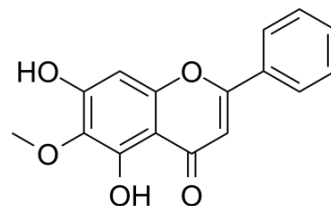


Oroxylin A

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 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 32 mg/mL (112.57 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		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.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.08 mg/mL (7.32 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Oroxylin A is a natural active flavonoid with strong anticancer effects. IC50 value: Target: In vitro: Oroxylin A suppressed the MDM2-mediated degradation of p53 via downregulating MDM2 transcription in wt-p53 cancer cells [1]. Oroxylin A remarkably reduced the generation of lactate and glucose uptake under hypoxia in HepG2 cells, inhibited HIF-1α expression and its stability [2]. Oroxylin A promotes superoxide dismutase (SOD2) gene expression through SIRT3-regulated DNA-binding activity of FOXO3a and increases the activity of SOD2 by promoting SIRT3-mediated deacetylation [3]. In vivo: Oroxylin A inhibited the tumor growth of nude mice-inoculated MCF-7 or HCT116 cells. The expression of MDM2 protein in tumor tissue was downregulated by oroxylin A as well [1].

CUSTOMER VALIDATION

- Acta Pharm Sin B. 2021 Jan;11(1):143-155.
- Cancers. 2019 Mar 12;11(3):353.
- Biol Pharm Bull. 2020;43(10):1511-1518.

See more customer validations on www.MedChemExpress.com

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 HIF1 α destabilization. Cell Death Dis. 2015 Apr 9

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA