Oroxylin A

Cat. No.: HY-N0560
CAS No.: 480-11-5
Molecular Formula: C₁₆H₁₂O₅
Molecular Weight: 284.26
Target: HIF/HIF Prolyl-Hydroxylase; Autophagy
Pathway: Metabolic Enzyme/Protease; Autophagy
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.

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Concentration</th>
<th>Mass (μL)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mg</td>
<td>5 mg</td>
</tr>
<tr>
<td>1 mM</td>
<td>3.5179</td>
<td>17.5895</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.7036</td>
<td>3.5179</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.3518</td>
<td>1.7590</td>
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</tbody>
</table>

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].
REFERENCES


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