Irisolidone

Cat. No.: HY-N2412

CAS No.: 2345-17-7

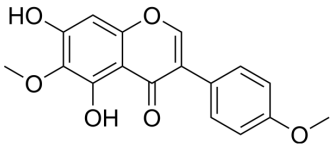
Molecular Formula: $C_{17}H_{14}O_6$

Molecular Weight: 314.29

Target: Chloride Channel

Pathway: Membrane Transporter/Ion Channel

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (318.18 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.1818 mL	15.9089 mL	31.8177 mL
	5 mM	0.6364 mL	3.1818 mL	6.3635 mL
	10 mM	0.3182 mL	1.5909 mL	3.1818 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: ≥ 2.5 mg/mL (7.95 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.95 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Irisolidone is a major isoflavone found in Pueraria lobata flowers. Irisolidone exhibits potent hepatoprotective activity. Irisolidone shows the high efficacy for volume-regulated anion channels (VRAC) blockade (IC_{50}=9.8 μM)[1][2][3].

In Vitro

Irisolidone, an isoflavone metabolite, represses JC virus gene expression via inhibition of Sp1 binding in human glial cells[1]. Irisolidone can inhibit endothelial cell proliferation[3].

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

REFERENCES

[1]. Kim SY, et al. Irisolidone, an isoflavone metabolite, represses JC virus gene expression via inhibition of Sp1 binding in human glial cells. Biochem Biophys Res Commun.

2006 May 26;344(1):3-8.

[2]. Zhang G, et al. Pharmacokinetics of irisolidone and its main metabolites in rat plasma determined by ultra performance liquid chromatography/quadrupole time-of-flight mass spectrometry. J Chromatogr B Analyt Technol Biomed Life Sci. 2015 Nov 15;1005:23-9.

[3]. Xue Y, et al. Natural and synthetic flavonoids, novel blockers of the volume-regulated anion channels, inhibit endothelial cell proliferation. Pflugers Arch. 2018 Oct;470(10):1473-1483.

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