Sulfuretin

Cat. No.: HY-N1193

CAS No.: 120-05-8

Molecular Formula: $C_{15}H_{10}O_5$

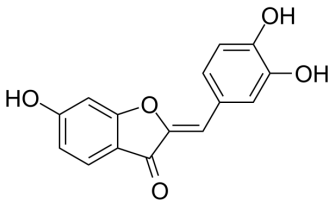
Molecular Weight: 270.24

Target: NF-κB

Pathway: NF-κB

Storage: -20°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 (370.04 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.7004 mL	18.5021 mL	37.0041 mL
	5 mM	0.7401 mL	3.7004 mL	7.4008 mL
	10 mM	0.3700 mL	1.8502 mL	3.7004 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (9.25 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.25 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Sulfuretin inhibits the inflammatory response by suppressing the NF-κB pathway. Sulfuretin can be used for the research of allergic airway inflammation. Sulfuretin reduces oxidative stress, platelet aggregation, and mutagenesis[1]. Sulfuretin is a competitive and potent inhibitor of monophenolase and diphenolase activities with the IC_{50} of 13.64 μM[2].

In Vitro

Sulfuretin is one of the main flavonoids produced by Rhus verniciflua. Sulfuretin efficiently inhibits the infiltration of inflammatory cells and attenuates allergic airway inflammation.

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

In Vivo

Sulfuretin inhibits the inflammatory responses by suppressing the NF-κB pathway in type 1 diabetes models. Sulfuretin (40 μg/kg; single intraperitoneal injection 2 h after the last OVA challenge) suppresses ovalbumin (OVA)-induced chemotaxis and airway inflammation[1].

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

Animal Model:	Pathogen-free male BALB/c mice (7-8 weeks old)[1]
Dosage:	40 μg/kg
Administration:	A single intraperitoneal injection was administered 2 h after the last OVA challenge
Result:	Suppressed OVA-induced chemotaxis and airway inflammation.

REFERENCES

[1]. Mi-Young Song, et al. Sulfuretin attenuates allergic airway inflammation in mice. Biochem Biophys Res Commun. 2010 Sep 10;400(1):83-8.

[2]. Chen, H., et al. Isolation of sulfuretin and butin from Rhus verniciflua Stokes using medium-pressure liquid chromatography and their tyrosinase inhibitory effects. BioRes. 11(1), 759-771.

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