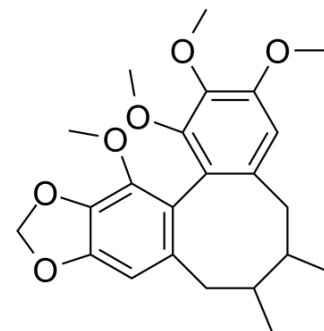


Schisandrin B

Cat. No.:	HY-N0089		
CAS No.:	61281-37-6		
Molecular Formula:	C ₂₃ H ₂₈ O ₆		
Molecular Weight:	400.46		
Target:	Autophagy; Reactive Oxygen Species		
Pathway:	Autophagy; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB		
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 : 14.29 mg/mL (35.68 mM; Need ultrasonic)
 H₂O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.4971 mL	12.4856 mL	24.9713 mL
	5 mM	0.4994 mL	2.4971 mL	4.9943 mL
	10 mM	0.2497 mL	1.2486 mL	2.4971 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 1.43 mg/mL (3.57 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 1.43 mg/mL (3.57 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Schisandrin B (γ-Schisandrin) is a dibenzocyclooctadiene derivative isolated from Fructus Schisandrae, has been shown to produce antioxidant effect on rodent liver and heart. IC₅₀ value: Target: in vitro: Schisandrin B exhibits anti-inflammatory activity through modulation of the redox-sensitive transcription factors Nrf2 and NF-κB. SB inhibited mitogen-induced proliferation and cytokine secretion by lymphocytes [1]. Sch B can protect neuronal cells against oxidative challenge, presumably by functioning as a hormetic agent to sustain cellular redox homeostasis and mitochondrial capacity in neuronal cells [2]. Sch B exerted significant neuroprotective effects against microglial-mediated inflammatory injury in microglia-neuron co-cultures. Sch B significantly downregulated pro-inflammatory cytokines, including nitrite oxide (NO), tumor necrosis factor (TNF)-α, prostaglandin E(2) (PGE(2)), interleukin (IL)-1β and IL-6 [3]. Sch B could inhibit TGF-β induced EMT of 4T1 cells and of primary human breast cancer cells [4]. in vivo: Similar anti-inflammatory effects of SB on lymphocyte

proliferation and cytokine secretion were also observed in vivo [1]. Treatment with Sch B in CsA-treated mice significantly suppressed the elevation of blood urea nitrogen (BUN) and serum creatinine levels and attenuated the histopathological changes. Additionally, Sch B also decreased renal MDA levels and increased GSH levels in CsA-treated mice [5].

CUSTOMER VALIDATION

- Biomater Sci. 2019 Oct.
- Front Pharmacol. 31 July 2020
- Eur J Pharmacol. 2019 Jul 15;855:10-19.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Checker R, et al. Schisandrin B exhibits anti-inflammatory activity through modulation of the redox-sensitive transcription factors Nrf2 and NF- κ B. *Free Radic Biol Med*. 2012 Oct 1;53(7):1421-30.
- [2]. Lam PY, et al. Schisandrin B as a hormetic agent for preventing age-related neurodegenerative diseases. *Oxid Med Cell Longev*. 2012;2012:250825.
- [3]. Zeng KW, et al. Schisandrin B exerts anti-neuroinflammatory activity by inhibiting the Toll-like receptor 4-dependent MyD88/IKK/NF- κ B signaling pathway in lipopolysaccharide-induced microglia. *Eur J Pharmacol*. 2012 Oct 5;692(1-3):29-37.
- [4]. Liu Z, et al. Schisandrin B attenuates cancer invasion and metastasis via inhibiting epithelial-mesenchymal transition. *PLoS One*. 2012;7(7):e40480.
- [5]. Zhu S, et al. Protective effect of schisandrin B against cyclosporine A-induced nephrotoxicity in vitro and in vivo. *Am J Chin Med*. 2012;40(3):551-66.
-

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