Salvianolic acid C

Cat. No.: HY-N0319

CAS No.: 115841-09-3

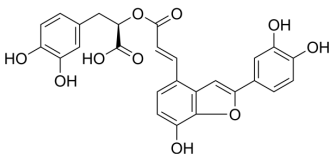
Molecular Formula: $C_{26}H_{20}O_{10}$

Molecular Weight: 492.43

Target: Cytochrome P450

Pathway: Metabolic Enzyme/Protease

Storage: 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (101.54 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.0307 mL	10.1537 mL	20.3075 mL
	5 mM	0.4061 mL	2.0307 mL	4.0615 mL
	10 mM	0.2031 mL	1.0154 mL	2.0307 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 (5.08 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.08 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Salvianolic acid C is a noncompetitive Cytochrome P4502C8 (CYP2C8) inhibitor and a moderate mixed inhibitor of Cytochrome P45022J2 (CYP2J2), with K_is of 4.82 μM and 5.75 μM for CYP2C8 and CYP2J2, respectively.

IC_{50} & Target

CYP2C8	CYP2J2
4.82 μM (Ki)	5.75 μM (Ki)

In Vitro

Salvianolic acid C is a noncompetitive CYP2C8 inhibitor and a moderate mixed inhibitor of CYP2J2, with K_is of 4.82, 5.75 μM for CYP2C8 and CYP2J2, respectively[1]. 1 and 5 μM Salvianolic acid C (SalC) could significantly inhibit the NO production induced by LPS. Salvianolic acid C decreases the expression of iNOS significantly. Salvianolic acid C inhibits LPS-induced TNF-α, IL-1β, IL-6 and IL-10 overproduction. Salvianolic acid C inhibits LPS-induced NF κB activation. Salvianolic acid C also increases the expression of Nrf2 and HO-1 in BV2 microglial cells[2].

	MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Salvianolic acid C (20 mg/kg) treatment could significantly decrease the escape latency. In addition, SalC (10 and 20 mg/kg) treatment significantly increase the platform crossing number compared with the LPS model group. Systemic administration of Salvianolic acid C down regulates the brain TNF-α, IL-1β and IL-6 levels compared with the model group. The iNOS and COX-2 levels in rat brain cortex and hippocampus are higher than that in the control group, while Salvianolic acid C treatment significantly down regulates the cortex and hippocampus regions. Salvianolic acid C (5, 10 and 20 mg/kg) treatment dose-dependently increases the p-AMPK, Nrf2, HO-1 and NQO1 levels in rat brain cortex and hippocampus[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Pharmaceuticals. 2022, 15(12), 1444
- Int J Rheum Dis. 2023 Jun 15.

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REFERENCES

[1]. Xu MJ, et al. Inhibitory Effects of Danshen components on CYP2C8 and CYP2J2. Chem Biol Interact. 2018 Jun 1;289:15-22.

[2]. Song J, et al. Activation of Nrf2 signaling by salvianolic acid C attenuates NF-κB mediated inflammatory response both in vivo and in vitro. Int Immunopharmacol. 2018 Oct;63:299-310.

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