Salvianolic acid A

Cat. No.: HY-N0318

CAS No.: 96574-01-5

Molecular Formula: $C_{26}H_{22}O_{10}$

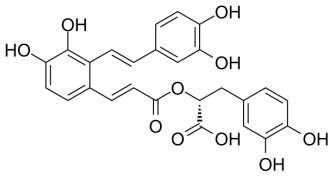
Molecular Weight: 494.45

Target: MMP

Pathway: Metabolic Enzyme/Protease

Storage: 4°C, protect from light

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



SOLVENT & SOLUBILITY

In Vitro

DMSO : 83.33 mg/mL (168.53 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.0224 mL	10.1122 mL	20.2245 mL
	5 mM	0.4045 mL	2.0224 mL	4.0449 mL
	10 mM	0.2022 mL	1.0112 mL	2.0224 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.06 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.17 mg/mL (4.39 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.17 mg/mL (4.39 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Salvianolic acid A could protect the blood brain barrier through matrix metallopeptidase 9 (MMP-9) inhibition and anti-inflammation.

IC_{50} & Target

MMP-9

In Vivo

A significant beneficial effect of Salvianolic acid A (SAA) is observed in the Salvianolic acid A treatment groups. Salvianolic acid A (20 mg/kg) could significantly prolonged the retention time of rats on the plate. While compared with sham operation group, the brain water content in model group significantly increases, which is attenuated significantly by Salvianolic acid A (10 and 20 mg/kg). Compared with the model group, Salvianolic acid A (5, 10, and 20 mg/kg) could maintain the normal

structures of neurons and increase neurons number. It is also found that Salvianolic acid A (20 mg/kg) could significantly reduce I/R induced MMP-9 upregulation. While the MMP-2 expression is not significantly affected by Salvianolic acid A. Tissue inhibitors of metalloproteinases (TIMPs) could inhibit the activity of MMPs through high affinity binding to MMPs catalytic domain[1].

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

REFERENCES

[1]. Zhang W, et al. Salvianolic acid A attenuates ischemia reperfusion induced rat brain damage by protecting the blood brain barrier through MMP-9 inhibition and anti-inflammation. Chin J Nat Med. 2018 Mar;16(3):184-193.

India Contact:
Life Technologies (India) Pvt. Ltd.
306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444
Email: customerservice@lifetechindia.com Website: www.lifetechindia.com