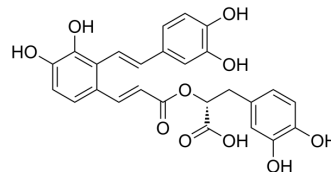


Salvianolic acid A

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, 1 year; -20°C, 6 months (protect from light)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 83.33 mg/mL (168.53 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	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: Saline Solubility: 20 mg/mL (40.45 mM); Clear solution; Need ultrasonic						
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.06 mM); Clear solution						
	3. 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						
	4. 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 metalloproteinase 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.

CUSTOMER VALIDATION

- Evid Based Complement Alternat Med. 05 Oct 2022.

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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.

Caution: Product has not been fully validated for medical applications. For research use only.

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