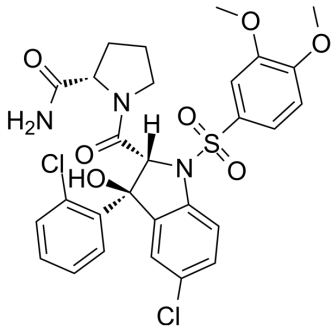
SR 49059

Cat. No.:	HY-18345
CAS No.:	150375-75-0
Molecular Formula:	$C_{28}H_{27}Cl_2N_3O_7S$
Molecular Weight:	620.5
Target:	Vasopressin Receptor
Pathway:	GPCR/G Protein
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 : 100 mg/mL (161.16 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.6116 mL	8.0580 mL	16.1160 mL
	5 mM	0.3223 mL	1.6116 mL	3.2232 mL
	10 mM	0.1612 mL	0.8058 mL	1.6116 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 (4.03 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.03 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

SR 49059 (SR-49059) is a potent, orally active, selective vasopressin V1a antagonist with a K_i vaule of 1.4 nM[1].

IC_{50} & Target

K_i: 1.4±0.3 nM (vasopressin V1a)[1].

In Vivo

SR 49059 (SR-49059) (2 mg/kg and 30 mg/kg; i.p.; once) shows neuroprotective effects in ischemic brain injury when injected early after occlusion of the middle cerebral artery (MCA)[2].

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

Animal Model:	Male Wistar rats, weighing 300 to 350 g, cerebral focal ischemia model[2]

Dosage:	2 mg/kg and 30 mg/kg dissolved in 10% dimethyl sulfoxide
Administration:	Intraperitoneal injection, once
Result:	Significantly reduced infarction volume measured at 48 hours after the arterial occlusion. Reduced neurological deficits and ischemic brain edema.

CUSTOMER VALIDATION

- Br J Pharmacol. 2023 Jan 26.

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REFERENCES

[1]. Shuaib A, et al. Effects of nonpeptide V(1) vasopressin receptor antagonist SR-49059 on infarction volume and recovery of function in a focal embolic stroke model. Stroke. 2002 Dec;33(12):3033-7.

[2]. Serradeil-Le Gal C, et al. Effect of SR-49059, a vasopressin V1a antagonist, on human vascular smooth muscle cells. Am J Physiol. 1995 Jan;268(1 Pt 2):H404-10.

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