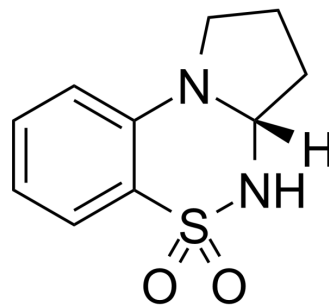


S 18986

Cat. No.:	HY-10936		
CAS No.:	175340-20-2		
Molecular Formula:	C ₁₀ H ₁₂ N ₂ O ₂ S		
Molecular Weight:	224.28		
Target:	iGluR		
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (445.87 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	4.4587 mL	22.2936 mL	44.5871 mL
5 mM	0.8917 mL	4.4587 mL	8.9174 mL
10 mM	0.4459 mL	2.2294 mL	4.4587 mL

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

BIOLOGICAL ACTIVITY

Description

S 18986 is a selective, orally active, brain penetrant positive allosteric modulator of AMPA-type receptors. S 18986 shows cognitive enhancing properties in rodents. S 18986 activates the release of noradrenaline and acetylcholine in rat hippocampus and enhances rat memory in object-recognition tests^{[1][2]}.

In Vivo

S 18986 is robust memory-enhancing effects in middle-aged animals compared with aged ones. S 18986 shows anti-amnesic properties in middle-aged rodents in spatial memory models^[1].

S 18986 (5-50 mg/kg; i.p.) significantly increases both the induction and the maintenance of 4 and 20 bursts tetanus-evoked potentiation^[1].

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

Animal Model:	Middle-aged (14-15-months-old) mice ^[1]
Dosage:	0.3, 1, and 10 mg/kg
Administration:	p.o.

Result:	Showned antiamnesic properties in middle-aged rodents.
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REFERENCES

[1]. Bernard K, et al. DRUG FOCUS: S 18986: A positive allosteric modulator of AMPA-type glutamate receptors pharmacological profile of a novel cognitive enhancer. CNS Neurosci Ther. 2010 Oct;16(5):e193-212.

[2]. Bourasset F, et al. Neuropharmacokinetics of a new alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionic acid (AMPA) modulator, S18986 [(S)-2,3-dihydro-[3,4]cyclopentano-1,2,4-benzothiadiazine-1,1-dioxide], in the rat. Drug Metab Dispos. 2005 Aug;33(8):113

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

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