Data Sheet (Cat.No.T16816)

TargetMol

S 18986

Chemical Properties

CAS No. : 175340-20-2

Formula: C10H12N2O2S

Molecular Weight: 224.28

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	S 18986 is a selective, orally active, brain-penetrant positive allosteric modulator of AMPA-type receptors that enhances cognition in rodents by inducing the release of noradrenaline and acetylcholine in the rat hippocampus, subsequently improving object-recognition memory.
Targets(IC50)	GluR,iGluR
In vivo	S 18986 displays antiamnesic properties in middle-aged rodents in spatial memory models. S 18986 is robust memory-enhancing effects in middle-aged animals compared with aged ones. S 18986 (5-50 mg/kg; i.p.) obviously enhances both the induction and the maintenance of 4 and 20 bursts tetanus-evoked potentiation [1].

Solubility Information

Solubility	DMSO: 60 mg/mL (267.52 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 2.5 mg/mL (11.15 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.0892 mL	0.4459 mL	0.8917 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Bernard K, et al. DRUG FOCUS: S 18986: A positive allosteric modulator of AMPA-type glutamate receptorspharmacological profile of a novel cognitive enhancer. CNS Neurosci Ther. 2010 Oct;16(5):e193-212.
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):1137-43.