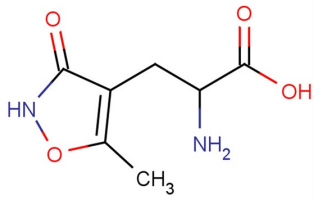
Data Sheet (Cat.No.T16800)

TargetMol
A DRUG SCREENING EXPERT

(RS)-AMPA

Chemical Properties



CAS No.:	77521-29-0
Formula:	C7H10N2O4
Molecular Weight:	186.17
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	(RS)-AMPA ((±)-AMPA) is a glutamate analog. (RS)-AMPA ((±)-AMPA) is an effective and selective excitatory neurotransmitter L-glutamic acid agonist.
Targets(IC_{50})	Others: None
In vitro	(RS)-AMPA exerts its depolarizing effects by activating glutamate/quisqualate receptors without affecting NMDA receptors. (RS)-AMPA causes an increase of the discharge rate of spontaneously firing neurones or sometimes evoked a short burst of action potentials in silent cells. The depolarization by (RS)-AMPA is clearly dose-dependent, although there is great variability of effects between individual neurones. (RS)-AMPA (10-3-10-4 M) induces depolarizations of cultured rat spinal and brainstem neurones. Application of (RS)-AMPA at 10-5 M produces only small depolarizations (3-7 mV), whereas, at 10-4 M, the amplitudes of the depolarizations ranged from 4 to 33 mV [1].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.371 mL	26.857 mL	53.714 mL
5 mM	1.074 mL	5.371 mL	10.743 mL
10 mM	0.537 mL	2.686 mL	5.371 mL
50 mM	0.107 mL	0.537 mL	1.074 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Hösli L, et al. Effects of the glutamate analogue AMPA and its interaction with antagonists on cultured rat spinal and brain stem neurones. Neurosci Lett. 1983 Mar 28;36(1):59-62.
2. Sommer B, et al. Flip and flop: a cell-specific functional switch in glutamate-operated channels of the CNS. Science. 1990 Sep 28;249(4976):1580-5.

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Tel:781-999-4286 E-mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481