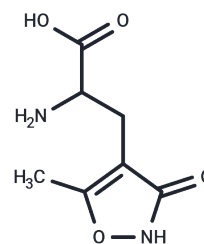


(RS)-AMPA

Chemical Properties

CAS No. :	77521-29-0
Formula:	C7H10N2O4
Molecular Weight:	186.17
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	(RS)-AMPA ((±)-AMPA) is a glutamate analog and an agonist of the effective and selective excitatory neurotransmitter L-glutamic acid.
Targets(IC50)	iGluR
In vitro	(RS)-AMPA activates glutamate/quisqualate receptors to induce depolarizing effects without influencing NMDA receptors. It enhances the discharge rate of spontaneously active neurons or triggers a brief burst of action potentials in inactive cells. The depolarization effect of (RS)-AMPA is dose-dependent but shows significant variability across different neurons. At concentrations of 10 ⁻³ to 10 ⁻⁴ M, (RS)-AMPA causes depolarizations in cultured rat spinal and brainstem neurons. Lower concentrations (10 ⁻⁵ M) result in minimal depolarizations (3-7 mV), while higher concentrations (10 ⁻⁴ M) generate larger depolarizations, varying from 4 to 33 mV [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.3714 mL	26.8572 mL	53.7143 mL
5 mM	1.0743 mL	5.3714 mL	10.7429 mL
10 mM	0.5371 mL	2.6857 mL	5.3714 mL
50 mM	0.1074 mL	0.5371 mL	1.0743 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

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.

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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