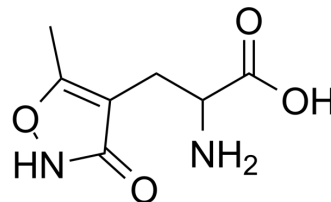


## (RS)-AMPA

Cat. No.:	HY-100815B
CAS No.:	77521-29-0
Molecular Formula:	C <sub>7</sub> H <sub>10</sub> N <sub>2</sub> O <sub>4</sub>
Molecular Weight:	186.17
Target:	iGluR
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	(RS)-AMPA ((±)-AMPA) is a glutamate analogue and a potent and selective excitatory neurotransmitter L-glutamic acid agonist. (RS)-AMPA does not interfere with binding sites for kainic acid or NMDA receptors <sup>[1][2]</sup> .
<b>In Vitro</b>	(RS)-AMPA (10 <sup>-3</sup> -10 <sup>-4</sup> M) causes depolarizations of cultured rat spinal and brainstem neurones. The depolarization by (RS)-AMPA is clearly dose-dependent, although there is a great variability of effects between individual neurones. Application of (RS)-AMPA at 10 <sup>-5</sup> M produces only small depolarizations (3-7 mV), whereas at 10 <sup>-4</sup> M, the amplitudes of the depolarizations ranged from 4 to 33 mV. (RS)-AMPA also causes an increase of the discharge rate of spontaneously firing neurones or sometimes evoked a short burst of action potentials in silent cells. (RS)-AMPA exerts its depolarizing effects by activating glutamate/quisqualate receptors without affecting NMDA receptors <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

[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.

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

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