

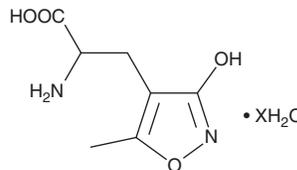
PRODUCT INFORMATION



(R,S)-AMPA (hydrate)

Item No. 14571

Formal Name: α -amino-2,3-dihydro-5-methyl-3-oxo-4-isoxazolepropanoic acid, hydrate
Synonym: α -amino-3-hydroxy-5-methyl-4-isoxazolepropionic Acid
MF: $C_7H_{10}N_2O_4 \cdot XH_2O$
FW: 186.2
Purity: $\geq 95\%$
UV/Vis.: λ_{max} : 218 nm
Supplied as: A solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

(R,S)-AMPA (hydrate) is supplied as a solid. A stock solution may be made by dissolving the (R,S)-AMPA (hydrate) in water. The solubility of (R,S)-AMPA (hydrate) in water is approximately 10 mM. We do not recommend storing the aqueous solution for more than one day.

Description

AMPA is the defining agonist for the AMPA subgroup of ionotropic glutamate receptors, which mediate excitatory neurotransmission.^{1,2} Because AMPA does not interfere with binding sites for kainic acid (Item No. 78050) or NMDA (Item No. 14581), it can be used to distinguish AMPA receptor-specific activity that contributes to a neuronal response. (R,S)-AMPA contains an equal mixture of the active (S)-enantiomer and the inactive (R)-enantiomer.

References

1. Scannevin, R.H. and Huganir, R.L. Postsynaptic organization and regulation of excitatory synapses. *Nat. Rev. Neurosci.* **1(2)**, 133-141 (2000).
2. Gouaux, E. Structure and function of AMPA receptors. *J. Physiol.* **554(2)**, 249-253 (2004).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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