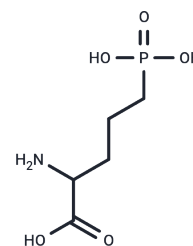


DL-AP5

Chemical Properties

CAS No. : 76326-31-3
Formula: C₅H₁₂NO₅P
Molecular Weight: 197.13
Appearance: no data available
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	DL-AP5 is the racemic form of a selective N-methyl-D-aspartate (NMDA) receptor antagonist with anticonvulsant effects.
Targets(IC ₅₀)	NMDAR
In vivo	DL-AP5, a competitive NMDAR antagonist, on tramadol state-dependent memory.?A single-trial step-down passive avoidance task was used for the assessment of memory retrieval in adult male NMRI mice.?Post-training i.p. administration of an atypical μ-opioid receptor agonist, tramadol (2.5 and 5 mg/kg), dose-dependently induced impairment of memory retention.?Pre-test injection of tramadol (2.5 and 5 mg/kg) induced state-dependent retrieval of the memory acquired under post-training administration of tramadol (5 mg/kg) influence.?Pre-test intra-CA1 injection of NMDA (10 ⁻⁵ and 10 ⁻⁴ μg/mouse) 5 min before the administration of tramadol (5 mg/kg, i.p.) dose-dependently inhibited tramadol state-dependent memory.?Pre-test intra-CA1 injection of DL-AP5 (0.25 and 0.5 μg/mouse) reversed the memory impairment induced by post-training administration of tramadol (5 mg/kg).?Pre-test administration of DL-AP5 (0.25 and 0.5 μg/mouse) with an ineffective dose of tramadol (1.25 mg/kg) restored the retrieval and induced tramadol state-dependent memory.?It can be concluded that dorsal hippocampal NMDAR mechanisms play an important role in the modulation of tramadol state-dependent memory.

Solubility Information

Solubility	H ₂ O: 10 mM, DMSO: Insoluble, (< 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.0728 mL	25.364 mL	50.7279 mL
5 mM	1.0146 mL	5.0728 mL	10.1456 mL
10 mM	0.5073 mL	2.5364 mL	5.0728 mL
50 mM	0.1015 mL	0.5073 mL	1.0146 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.

Reference

Jafari-Sabet M , Mofidi H , Attarian-Khosroshahi M S . NMDA receptors in the dorsal hippocampal area are involved in tramadol state-dependent memory of passive avoidance learning in mice[]]. Canadian Journal of Physiology

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