Product Name	:	DL-AP5
Synonyms	:	——
Cat No.	:	M22758
CAS Number	:	76326-31-3
Molecular Formula	:	C5H12NO5P
Formula Weight	:	197.13
Chemical Name	:	——
Description	:	DL-AP5 is the racemic version of the selective N-methyl-D-aspartate (NMDA) receptor antagonist,with anticonvulsant.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.
Pathway	:	Membrane Transporter/Ion Channel
Target	:	NMDAR
Receptor	:	NMDA
Solubility	:	——
SMILES	:	NC(CCCP(O)(O)=O)C(O)=O
Storage	:	(-20℃)
Stability	:	≥ 2 years
Reference	:	

1.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[J]. Canadian Journal of Physiology and Pharmacology, 2017:cjpp-2017-0228.