



上海源叶生物科技有限公司
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产品名称: **D-(-)-2-Amino-5-Phosphonopentanoic Acid**
产品别名: **D-AP5; D-APV; D-2-Amino-5-phosphonovaleric acid**

生物活性:

Description	D-AP5 is a NMDA receptor antagonist.				
IC ₅₀ & Target	NMDA[1]				
In Vivo	D-AP5 is a NMDA receptor antagonist. Chronic intraventricular infusion of D-AP5 causes a parallel dose-dependent impairment of spatial learning and long-term potentiation (LTP) in vivo. Intracerebral concentrations of D-AP5 fail to induce any measurable sensorimotor disturbance when spatial learning is prevented[1]. D-AP5 infusion is associated with a progressive reduction in swim speed over trials. D-AP5 causes sensorimotor disturbances in the spatial task, but these gradually worsened as the animals fail to learn. Rats treated with D-AP5 show a delay-dependent deficit in spatial memory in the delayed matching-to-place protocol for the water maze[2].				
Solvent&Solubility	<i>In Vitro:</i> H₂O : 250 mg/mL (1268.20 mM; Need ultrasonic) H₂O : 50 mg/mL (253.64 mM; Need ultrasonic)				
	Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
		1 mM	5.0728 mL	25.3640 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	
*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液; 一旦配成溶液, 请分装保存, 避免反复冻融造成的产品失效。 储备液的保存方式和期限: -80℃, 6 months; -20℃, 1 month。 -80℃ 储存时, 请在 6 个月内使用, -20℃ 储存时, 请在 1 个月内使用。					
References	[1]. Davis S, et al. The NMDA receptor antagonist D-2-amino-5-phosphonopentanoate (D-AP5) impairs spatial learning and LTP in vivo at intracerebral concentrations comparable to those that block LTP in vitro. J Neurosci. 1992 Jan;12(1):21-34. [2]. Morris RG, et al. N-methyl-d-aspartate receptors, learning and memory: chronic intraventricular infusion of the NMDA receptor antagonist d-AP5 interacts directly with the neural mechanisms of spatial learning. Eur J Neurosci. 2013 Mar;37(5):700-17.				
实验参考:					
Animal Administration	Male Lister hooded rats are used in this study. They are housed individually and have free access to food and water at all times except for 12 hr prior to surgery. Animals are implanted with 30 mM D-AP5 (N=6) and tested in the water maze[1].				
References	[1]. Davis S, et al. The NMDA receptor antagonist D-2-amino-5-phosphonopentanoate (D-AP5) impairs spatial learning and LTP in vivo at intracerebral concentrations comparable to those that block LTP in vitro. J Neurosci. 1992 Jan;12(1):21-34.				



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源叶生物