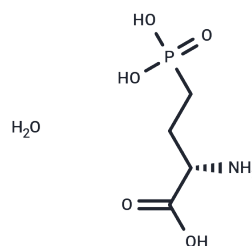


L-AP4 monohydrate

Chemical Properties

CAS No. :	2247534-79-6
Formula:	C ₄ H ₁₂ NO ₆ P
Molecular Weight:	201.115
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	L-AP4 (L-APB) monohydrate is a potent and specific agonist for group III mGluRs, with EC50s of 0.13, 0.29, 1.0, and 249 μM for mGlu4, mGlu8, mGlu6, and mGlu7 receptors, respectively [1][2].
Targets(IC50)	Others, GluR
In vivo	Intrathecal injection of L-AP4 (5-30 μg) over 4-5 days notably enhances the paw withdrawal threshold in response to von Frey filament application in eight nerve-ligated rats, demonstrating a dose-dependent effect. This treatment does not lead to any observable motor dysfunction. Furthermore, a specific dose of 30 μg L-AP4 does not significantly change paw withdrawal latency in normal rats. Additionally, the topical application of 5 to 50 μM L-AP4 directly to the spinal cord markedly reduces the neuronal response to sensory stimuli such as touch, pressure, pinch, and von Frey filaments in a concentration-dependent manner. The experiments were conducted using rat models.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.9722 mL	24.8608 mL	49.7216 mL
5 mM	0.9944 mL	4.9722 mL	9.9443 mL
10 mM	0.4972 mL	2.4861 mL	4.9722 mL
50 mM	0.0994 mL	0.4972 mL	0.9944 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Selvam C, et al. Increased Potency and Selectivity for Group III Metabotropic Glutamate Receptor Agonists Binding at Dual sites. J Med Chem. 2018 Mar 8;61(5):1969-1989.

Chen SR, et al. Distinct roles of group III metabotropic glutamate receptors in control of nociception and dorsal horn neurons in normal and nerve-injured Rats. J Pharmacol Exp Ther. 2005 Jan;312(1):120-6.

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