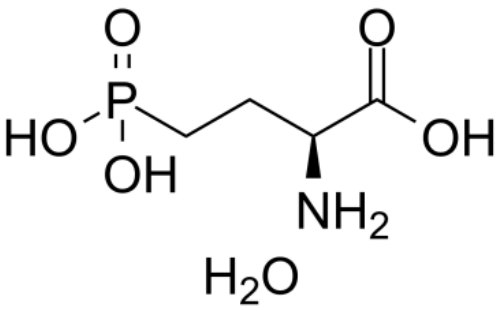
Product Data Sheet

Product Name: L-AP4 monohydrate
Cat. No.: GC61537

Chemical Properties

Cas. No.	2247534-79-6		
SMILES	O=C(O)[C@@H](N)CCP(O)(O)=O.O		
Formula	$C_4H_{12}NO_6P$	M.Wt	201.11
Solubility		Storage	4°C, away from moisture and light
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			



Background

L-AP4 (L-APB) monohydrate is a potent and specific agonist for the group III mGluRs, with EC50s of 0.13, 0.29, 1.0, 249 μM for mGlu4, mGlu8, mGlu6 and mGlu7 receptors, respectively[1][2].

L-AP4 (5-30 μg, intrathecal inhection 4-5 days) significantly increases the paw withdrawal threshold in response to application of von Frey filaments in eight nerve-ligated rats in a dose-dependent manner. Intrathecal administration of different doses of L-AP4 is not associated with any evident motor dysfunction[2].Intrathecal injection of 30 μg of L-AP4 does not significantly alter the paw

withdrawal latency in these normal rats[2].Topical application of 5 to 50 μM L-AP4 to the spinal cord significantly inhibited the evoked response of neurons to touch, pressure, pinch, and von Frey filaments in a concentration-dependent fashion[2]. Animal Model: Rats.[2]

[1]. 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. [2]. 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.

Caution: Product has not been fully validated for medical applications. For research use only.
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