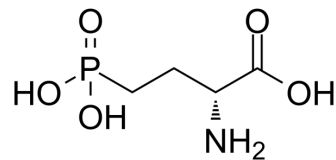


D-AP4

Cat. No.:	HY-100781
CAS No.:	78739-01-2
Molecular Formula:	C ₄ H ₁₀ NO ₅ P
Molecular Weight:	183.1
Target:	iGluR
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

D-AP4 (D-APB; D-2-Amino-4-phosphonobutyric acid), a phosphono analogue of glutamate, is an NMDA broad spectrum excitatory amino acid receptor antagonist. D-AP4 also is an agonist for a quisqualate-sensitized AP6 site in hippocampus. D-AP4 inhibits AMPA receptor-stimulated 57Co^{2+} influx in cultured cerebellar granule cells ($\text{IC}_{50} \geq 100 \mu\text{M}$)^{[1][2][3]}.

REFERENCES

- [1]. Evans RH, et al. The effects of a series of omega-phosphonic alpha-carboxylic amino acids on electrically evoked and excitant amino acid-induced responses in isolated spinal cord preparations. *Br J Pharmacol.* 1982;75(1):65-75.
- [2]. Schulte MK, et al. Utilization of the resolved L-isomer of 2-amino-6-phosphonohexanoic acid (L-AP6) as a selective agonist for a quisqualate-sensitized site in hippocampal CA1 pyramidal neurons. *Brain Res.* 1994;649(1-2):203-207.
- [3]. Toms NJ, et al. Inhibition of AMPA receptor-stimulated 57Co^{2+} influx by D- and L-2-amino-4-phosphonobutanoic acid (D- and L-AP4) and L-serine-O-phosphate (L-SOP) in cultured cerebellar granule cells. *Neuropharmacology.* 1997;36(3):335-343.

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

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