D-AP4

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

Product Data Sheet

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 57Co²⁺ influx in cultured cerebellar granule cells ($IC_{50} \ge 100 \ \mu M$)^{[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 57Co2+ 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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