

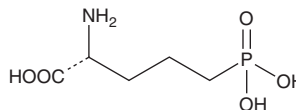
PRODUCT INFORMATION



D-AP5

Item No. 14539

CAS Registry No.: 79055-68-8
Formal Name: 5-phosphono-D-norvaline
Synonyms: D-2-Amino-5-Phosphonovaleric Acid,
D-APV
MF: C₅H₁₂NO₅P
FW: 197.1
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

D-AP5 is supplied as a crystalline solid. Aqueous solutions of D-AP5 can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of D-AP5 in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

D-AP5 is a selective N-methyl-D-aspartate (NMDA) receptor antagonist ($K_d = 1.4 \mu\text{M}$) that competitively inhibits the glutamate binding site of NMDA receptors.¹ Whereas D-AP5 is the active (-)-stereoisomer, its (+)-isomer (L-AP5) demonstrates considerably less potent NMDA receptor antagonist activity.¹ AP5 has been widely used to study the activity of NMDA receptors particularly in regard to researching synaptic plasticity, learning, and memory.²

References

1. Evans, R.H., Francis, A.A., Jones, A.W., *et al.* The Effects of a Series of ω -Phosphonic α -Carboxylic Amino Acids on Electrically Evoked and Excitant Amino Acid-Induced Responses in Isolated Spinal Cord Preparations. *Br. J. Pharmac.* **75**, 65-75 (1982).
2. Morris, R.J. Synaptic Plasticity and Learning: Selective Impairment of Learning in Rats and Blockade of Long-Term Potentiation *in vivo* by the N-Methyl-D-Aspartate Receptor Antagonist AP5. *J. Neurosci.* **9**, 3040-3057 (1989).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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