DL-2-Amino-5-phosphonopentanoic acid

Product Number  A 5282
Store at Room Temperature

Product Description
Molecular Formula:  C₅H₁₂NO₅P
Molecular Weight:  197.1
CAS Number:  76326-31-3
Synonyms:  DL-2-amino-5-phosphonovaleric acid; AP-5; APV; 5-phosphono-DL-norvaline

DL-2-Amino-5-phosphonopentanoic acid (AP-5) is a widely used competitive antagonist for N-methyl-D-aspartate (NMDA) receptors.¹-⁴ The microinjection of AP-5 into the nucleus tractus solitarii of rats has been shown to result in a dose-dependent blockade of the bradycardic response.⁵ A review of the use of AP-5 to study serotonin release by GABA and excitatory amino acids in rats has been published.⁶

The use of AP-5 to investigate the synaptic inhibition of neurons in the pedunculopontine tegmental nucleus of rat has been described.⁷ AP-5 has been utilized in a whole cell patch-clamp study of cultured rat embryonic spinal cord and medullary neurons to probe spontaneous inhibitory postsynaptic currents.⁸ A whole-cell voltage-clamp investigation of synaptic currents in the immature rat nucleus tractus solitarii has used AP-5 at 20-50 µM.⁹

Precautions and Disclaimer
For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions
This product is soluble in 1 M NH₄OH (50 mg/ml), yielding a clear, colorless solution. It is also soluble in water (5.6 mg/ml). This product is insoluble in organic solvents.

References