

Product Name: PPPA

Catalog No.: 2274

Batch No.: 1

CAS Number: 113190-92-4

IUPAC Name: (2*R**,4*S**)-4-(3-Phosphonopropyl)-2-piperidinecarboxylic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₉H₁₈NO₅P·½H₂O

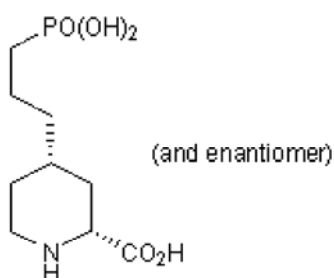
Batch Molecular Weight: 260.23

Physical Appearance: White solid

Solubility: water to 100 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.49 (Pyridine:Acetic acid:Water:Butanol [3:8:11:22])

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	41.54	7.36	5.38
Found	41.8	7.29	5.64

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Competitive NMDA receptor antagonist that displays moderate selectivity for NR2A-containing receptors (K_i values are 0.13, 0.47, 1.10 and 3.86 μ M for GluN2A, GluN2B, GluN2C and GluN2D subunits respectively). Please refer to IUPHAR Guide to Pharmacology for the most recent naming conventions.

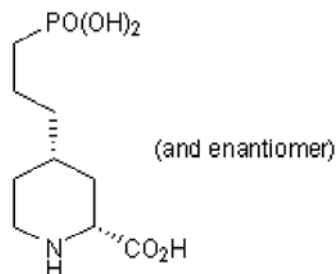
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References:

Feng *et al* (2005) The effect of competitive antagonist chain length on NMDA receptor subunit selectivity. *Neuropharmacology* **48** 354. PMID: 15721167.

Kinarsky *et al* (2005) Identification of subunit- and antagonist-specific amino acid residues in the *N*-methyl-D-aspartate receptor glutamate-binding pocket. *J.Pharmacol.Exp.Ther.* **313** 1066. PMID: 15743930.

Benveniste and Mayer (1992) Effect of extracellular pH on the potency of *N*-methyl-D-aspartic acid receptor competitive antagonists. *Mol.Pharmacol.* **42** 679. PMID: 1435743.

Storage: Desiccate at RT

Solubility & Usage Info:

water to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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