

# Certificate of Analysis

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**Product Name:** DL-AP4

**Catalog No.:** 0101

**Batch No.:** 15

CAS Number: 6323-99-5

IUPAC Name: DL-2-Amino-4-phosphonobutyric acid

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>4</sub>H<sub>10</sub>NO<sub>5</sub>P.¾H<sub>2</sub>O

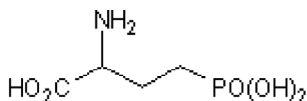
**Batch Molecular Weight:** 196.61

**Physical Appearance:** White solid

**Solubility:** 1eq. NaOH to 100 mM  
water to 50 mM  
phosphate buffered saline to 33 mM  
1eq. HCl to 100 mM

**Storage:** Store at RT

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 99.4% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

Carbon Hydrogen Nitrogen

Theoretical 24.44 5.9 7.12

Found 24.08 6.02 6.96

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

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## Product Information

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**Product Name:** DL-AP4

**Catalog No.:** 0101

**Batch No.:** 15

CAS Number: 6323-99-5

IUPAC Name: DL-2-Amino-4-phosphonobutyric acid

### Description:

DL-AP4 is a broad spectrum EAA ligand. L-isomer also available.

### Physical and Chemical Properties:

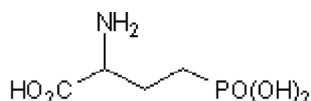
Batch Molecular Formula: C<sub>4</sub>H<sub>10</sub>NO<sub>5</sub>P·<sup>3</sup>/<sub>4</sub>H<sub>2</sub>O

Batch Molecular Weight: 196.61

Physical Appearance: White solid

**Minimum Purity:** ≥98%

### Batch Molecular Structure:



**Storage:** Store at RT

### Solubility & Usage Info:

1eq. NaOH to 100 mM

water to 50 mM

phosphate buffered saline to 33 mM

1eq. HCl 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. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**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.

### References:

**Evans *et al*** (1982) The effect of a series of ω-phosphonic-α-carboxylic amino acids on electrically evoked and amino acid induced responses in isolated spinal cord preparations. *Br.J.Pharmacol.* **75** 65. PMID: 7042024.

**Evans *et al*** (1979) Antagonism of excitatory amino acid-induced responses and of synaptic excitation in the isolated spinal cord of the frog. *Br.J.Pharmacol.* **67** 591. PMID: 316343.

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