bio-techne
TOCRIS

Print Date: Mar 31st 2025

Certificate of Analysis

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Product Name: **DL-AP4** **Catalog No.: 0101** **Batch No.: 11**

CAS Number: 6323-99-5

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_4H_{10}NO_5P.¾H_2O$

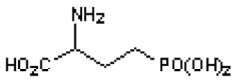
Batch Molecular Weight: 196.61

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

TLC: R_f = 0.42 (Pyridine:Acetic acid:Water:Butanol [3:8:11:33])

Melting Point: At 216°C

^{1}H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	24.43	5.9	7.12
Found	24.04	5.91	7.29

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Product Name: **DL-AP4** **Catalog No.: 0101** **Batch No.: 11**

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:

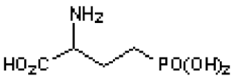
Batch Molecular Formula: $C_4H_{10}NO_5P.¾H_2O$

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.