Product Name: L-AP4
Catalog No.: 0103
Batch No.: 32
CAS Number: 23052-81-5
IUPAC Name: L-(+)-2-Amino-4-phosphonobutyric acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_4\text{H}_{10}\text{NO}_5\text{P}.\text{H}_2\text{O} \)
Batch Molecular Weight: 201.12
Physical Appearance: White solid
Solubility: water to 5 mM
1eq. NaOH to 100 mM
Storage: Store at RT

2. ANALYTICAL DATA

HPLC: Shows 99.4% purity
Chiral HPLC: Shows 99.4% purity
\(^1\text{H NMR:}\) Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: \([\alpha]_D = +42.4\) (Concentration = 1, Solvent = 6N HCl)
Microanalysis:

<table>
<thead>
<tr>
<th></th>
<th>Theoretical</th>
<th>Found</th>
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<tr>
<td>Carbon</td>
<td>23.89</td>
<td>24.04</td>
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<tr>
<td>Hydrogen</td>
<td>6.01</td>
<td>6.05</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>6.96</td>
<td>7.01</td>
</tr>
</tbody>
</table>

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

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**Product Information**

**Product Name:** L-AP4  
**CAS Number:** 23052-81-5  
**IUPAC Name:** L-(+)-2-Amino-4-phosphonobutyric acid

**Description:**
Selective group III metabotropic glutamate receptor agonist. Synaptic depressant. Agonist at the quisqualate-sensitized AP6 site in hippocampus. Available as part of the Group III mGlu Receptor Tocriset™ and Mixed mGlu Receptor Tocriset™ DL Mixture and D-isomer also available.

**Physical and Chemical Properties:**
- **Batch Molecular Formula:** C_{10}H_{10}NO_{5}P.H_{2}O
- **Batch Molecular Weight:** 201.12
- **Physical Appearance:** White solid
- **Minimum Purity:** >99%

**Batch Molecular Structure:**

![Molecular Structure](image)

**Storage:** Store at RT

**Solubility & Usage Info:**
- water to 5 mM
- 1eq. NaOH 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.

**References:**
- **Tones et al** (1995) The agonist selectivity of a class III metabotropic glutamate receptor, human mGluR4a, is determined by the N-terminal extracellular domain. NeuroReport 7 117. PMID: 8742431.