1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_5\text{H}_{12}\text{NO}_5\text{P} \)
Batch Molecular Weight: 197.13
Physical Appearance: White solid
Solubility:
- water to 10 mM
- 1eq. NaOH to 100 mM
Storage: Store at RT

2. ANALYTICAL DATA

TLC: \( R_f = 0.26 \) (Pyridine:Acetic acid:Water:Butanol [3:8:11:22])
HPLC: Shows >99.8% purity
\(^1\text{H} \text{NMR:} \) Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

<table>
<thead>
<tr>
<th>Element</th>
<th>Theoretical</th>
<th>Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>30.46</td>
<td>30.54</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>6.14</td>
<td>6.02</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>7.11</td>
<td>7.04</td>
</tr>
</tbody>
</table>
Description:
DL-AP5 is a racemic mixture of the D- and L-isomers of AP5, a selective NMDA receptor antagonist that competes with glutamate binding and is commonly used to inhibit NMDA-dependent synaptic plasticity. D-AP5 (Cat. No. 0106) is the more active isomer and displays approximately 52-fold higher potency than the L-isomer, L-AP5 (Cat. No. 0107). In vitro D-AP5 reduces NMDA-induced depolarization of cortical neurons, with no effect on the response to L-Quisqualic acid (Cat. No. 0188) or Kainic acid (Cat. No. 0222). Following spinal injection of D-AP5, NMDA-response is rapidly reduced, with no effect seen on spontaneously active neurons. D-isomer,... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:
Batch Molecular Formula: C₇H₁₂NO₁₅P
Batch Molecular Weight: 197.13
Physical Appearance: White solid
Minimum Purity: ≥98%

Storage: Store at RT

Solubility & Usage Info:
water to 10 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: