Product Name: (±)-trans-ACPD
CAS Number: 67684-64-4
IUPAC Name: (±)-1-Aminocyclopentane-trans-1,3-dicarboxylic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_7H_{11}NO_4\cdot H_2O$
Batch Molecular Weight: 191.19
Physical Appearance: White solid
Solubility: water to 5 mM with gentle warming
1eq. NaOH to 50 mM
Storage: Store at RT

2. ANALYTICAL DATA

TLC: $R_f = 0.13$ (Pyridine:Acetic acid:Water:Butanol [1:2])
HPLC: Shows 99.6% purity
$^1$H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

<table>
<thead>
<tr>
<th></th>
<th>Carbon</th>
<th>Hydrogen</th>
<th>Nitrogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical</td>
<td>43.98</td>
<td>6.85</td>
<td>7.33</td>
</tr>
<tr>
<td>Found</td>
<td>43.73</td>
<td>6.72</td>
<td>7.25</td>
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</tbody>
</table>

(1:1 mixture of enantiomers)
Description:
Equimolecular mixture of (1S,3R)- and (1R,3S)-ACPD. Selective agonist for metabotropic glutamate receptors; active at both group I and group II mGlu receptors (EC_{50} values are 2, 15, 23 and ~800 μM at mGluR₁, mGluR₂, mGluR₅ and mGluR₆ respectively). (1S,3R)-ACP (Cat. No. 0284) and cis-ACP (Cat. No. 0186) also available.

Physical and Chemical Properties:
Batch Molecular Formula: C_{11}H_{11}NO_{4}.H_{2}O
Batch Molecular Weight: 191.19
Physical Appearance: White solid
Minimum Purity: >99%

Storage: Store at RT

Solubility & Usage Info:
Water to 5 mM with gentle warming
1 eq. NaOH to 50 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: