

Product Name: (1*S*,3*R*)-ACPD

Catalog No.: 0284 **Batch No.:** 29

CAS Number: 111900-32-4

IUPAC Name: (1*S*,3*R*)-1-Aminocyclopentane-1,3-dicarboxylic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₇H₁₁NO₄
Batch Molecular Weight: 173.17
Physical Appearance: white solid
Solubility: water to 30 mM
 1eq. NaOH to 100 mM
Storage: Store at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.16 (Pyridine:Acetic acid:Water:Butanol [3:8:11:33])
Chiral HPLC: Shows 99.2% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = -22 (Concentration = 0.5, Solvent = Water)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	48.55	6.4	8.09
Found	48.28	6.44	8.03

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

Product Name: (1S,3R)-ACPD

Catalog No.: 0284 **Batch No.:** 29

CAS Number: 111900-32-4

IUPAC Name: (1S,3R)-1-Aminocyclopentane-1,3-dicarboxylic acid

Description:

Active isomer of (±)-trans-ACPD (Cat. No. 0187). Agonist at both group I and II mGlu receptors (EC₅₀ values are 5, 15, 42 and 60 μM at mGluR₂, mGluR₅, mGluR₁ and mGluR₆ respectively). NPEC-caged-(1S,3R)-ACPD also available (Cat. No. 3331). (±)-trans-ACPD (Cat. No. 0187) and cis-ACPD (Cat. No. 0186) also available.

Physical and Chemical Properties:

Batch Molecular Formula: C₇H₁₁NO₄

Batch Molecular Weight: 173.17

Physical Appearance: white solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

water to 30 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:

Knopfel et al (1995) Metabotropic glutamate receptors: novel targets for drug development. *J.Med.Chem.* **38** 1417. PMID: 7738999.

Mistry and Challis (1996) Differences in agonist and antagonist activities for two indicies of metabotropic glutamate receptor-stimulated phosphoinositide turnover. *Br.J.Pharmacol.* **117** 1735. PMID: 8732284.

Conti et al (2002) Synthesis and pharmacology of 3-hydroxy-Δ²-isoxazoline-cyclopentance analogues of glutamic acid. *Farmaco* **57** 889. PMID: 12484537.

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