

**Product Name:** (2*R*,4*R*)-APDC

**Catalog No.:** 1208

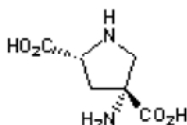
**Batch No.:** 4

CAS Number: 169209-63-6

IUPAC Name: (2*R*,4*R*)-4-Aminopyrrolidine-2,4-dicarboxylate

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>6</sub>H<sub>10</sub>N<sub>2</sub>O<sub>4</sub>.H<sub>2</sub>O  
**Batch Molecular Weight:** 192.18  
**Physical Appearance:** White solid  
**Solubility:** water to 100 mM  
 1eq. NaOH to 100 mM  
**Storage:** Desiccate at RT  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.5 (Pyridine:Acetic acid:Water:Butanol [3:8:11:14])  
**Melting Point:** At 265°C(Dec)  
**HPLC:** Shows >98.5% purity  
<sup>1</sup>H NMR: Consistent with structure  
**Optical Rotation:** [α]<sub>D</sub> = +42.2 (Concentration = 1, Solvent = water)  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen	
Theoretical	37.5	6.29	14.58	0.00
Found	37.32	6.35	14.45	0.00

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

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CAS Number: 169209-63-6

IUPAC Name: (2R,4R)-4-Aminopyrrolidine-2,4-dicarboxylate

**Description:**

A highly selective and relatively potent group II metabotropic glutamate receptor agonist. EC<sub>50</sub> values are 0.4, 0.4, > 100, > 100, > 300 and > 300 μM for human mGlu<sub>2</sub>, mGlu<sub>3</sub>, mGlu<sub>1</sub>, mGlu<sub>5</sub>, mGlu<sub>4</sub> and mGlu<sub>7</sub> receptors respectively. Centrally active following systemic administration in vivo.

**Physical and Chemical Properties:**

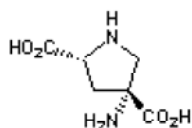
Batch Molecular Formula: C<sub>6</sub>H<sub>10</sub>N<sub>2</sub>O<sub>4</sub>.H<sub>2</sub>O

Batch Molecular Weight: 192.18

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Desiccate at RT

**Solubility & Usage Info:**

water to 100 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.

**Licensing Information:**

Sold with the permission of Eli Lilly and Company

**References:**

**Schoepp et al** (1999) Pharmacological agents acting at subtypes of metabotropic glutamate receptors. *Neuropharmacology* **38** 1431. PMID: 10530808.

**Monn et al** (1996) Synthesis of the four isomers of 4-aminopyrrolidine-2,4-dicarboxylate: identification of a potent, highly selective, and systemically active agonist for metabotropic glutamate receptors negatively coupled to adenylate cyclase. *J.Med.Chem.* **39** 2990. PMID: 8709133.

**Schoepp et al** (1995) Selective inhibition of forskolin-stimulated cyclic AMP formation in rat hippocampus by a novel mGluR agonist, 2R,4R-4-aminopyrrolidine-2,4-dicarboxylate. *Neuropharmacology* **34** 843. PMID: 8532165.

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