

Certificate of Analysis

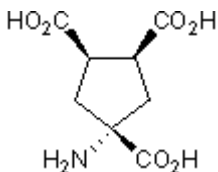
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Product Name: ACPT-I
CAS Number: 194918-76-8
IUPAC Name: (1S,3R,4S)-1-Aminocyclopentane-1,3,4-tricarboxylic acid

Catalog No.: 1111 **Batch No.:** 6

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₈H₁₁NO₆
Batch Molecular Weight: 217.18
Physical Appearance: White solid
Solubility: water to 10 mM
 1.1eq. NaOH to 50 mM
Storage: Desiccate at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.15 (Pyridine:Acetic acid:Water:Butanol [3:8:11:33])
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	44.24	5.11	6.45
Found	44	5.15	6.45

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

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Description:

Agonist for group III mGlu receptors (EC₅₀ values are 7.2 and 8.2 μM for mGlu_{4a} and mGlu₈ respectively). Anticonvulsant in mice.

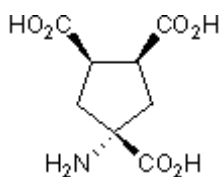
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Solubility & Usage Info:

water to 10 mM

1.1eq. 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:

Acher et al (1997) Synthesis and pharmacological characterization of aminocyclopentanetricarboxylic acids: new tools to discriminate between metabotropic glutamate receptor subtypes. *J.Med.Chem.* **40** 3119. PMID: 9301676.

De Colle et al (2000) Pharmacological characterization of the rat metabotropic glutamate receptor 8a revealed strong similarities and slight differences with the type 4a receptor. *Eur.J.Pharmacol.* **394** 17. PMID: 10771029.

Chapman et al (2001) Anticonvulsant activity of a mGlu_{4a} receptor selective agonist, (1S,3R,4S)-1-aminocyclopentane-1,2,4-tricarboxylic acid. *Eur.J.Pharmacol.* **424** 107. PMID: 11476756.

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