

## Certificate of Analysis

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

**Catalog No.:** 3331

**Batch No.:** 1

CAS Number: 1315379-60-2

IUPAC Name: (1*S*,3*R*)-1-(2-Nitrophenyl)ethylcarboxyamino-cyclopentane-1,3-dicarboxylic acid

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>16</sub>H<sub>18</sub>N<sub>2</sub>O<sub>8</sub>·¼H<sub>2</sub>O

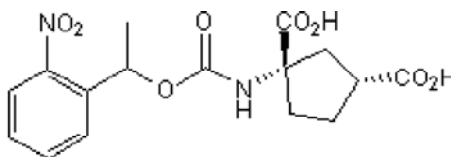
**Batch Molecular Weight:** 370.82

**Physical Appearance:** White solid

**Solubility:** water to 10 mM  
DMSO to 100 mM

**Storage:** Desiccate at RT

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.08 (Dichloromethane:Methanol [9:1])

**HPLC:** Shows 99.7% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

|             | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 51.82  | 5.03     | 7.55     |
| Found       | 51.7   | 5.09     | 7.67     |

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

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

**Catalog No.:** 3331

**Batch No.:** 1

CAS Number: 1315379-60-2

IUPAC Name: (1S,3R)-1-(2-Nitrophenyl)ethylcarboxyamino-cyclopentane-1,3-dicarboxylic acid

**Description:**

(1S,3R)-ACPD (Cat.No. 0284) caged with the photosensitive 1-(2-nitrophenyl)ethoxycarbonyl (NPEC) group. Extinction coefficient ( $\epsilon_{347}$ ) = 660 M<sup>-1</sup>cm<sup>-1</sup>, quantum yield ( $\phi$ ) = 0.64. Suitable for near-UV uncaging. No inhibition of GABA-A receptors at concentrations used experimentally.

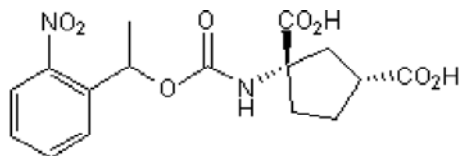
**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>16</sub>H<sub>18</sub>N<sub>2</sub>O<sub>8</sub>·½H<sub>2</sub>O

Batch Molecular Weight: 370.82

Physical Appearance: White solid

**Batch Molecular Structure:**



**Storage:** Desiccate at RT

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

water to 10 mM

DMSO 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:**

Palma-Cerda *et al* (2012) New caged neurotransmitter analogs selective for glutamate receptor sub-types based on methoxynitroindoline and nitrophenylethoxycarbonyl caging groups. *Neuropharmacology*. **63** 624. PMID: 22609535.

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