

## Certificate of Analysis

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**Product Name:** NPEC-caged-D-AP5

**Catalog No.:** 4230

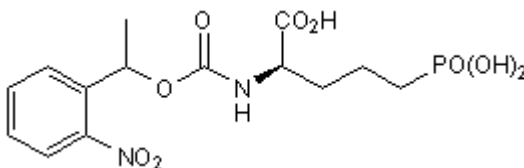
**Batch No.:** 1

CAS Number: 1416943-27-5

IUPAC Name: D-[[1-(2-Nitrophenyl)ethyl]carbamoyl]-2-amino]-5-phosphonopentanoic acid

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>14</sub>H<sub>19</sub>N<sub>2</sub>O<sub>9</sub>P  
**Batch Molecular Weight:** 390.28  
**Physical Appearance:** White solid  
**Solubility:** water to 100 mM  
DMSO to 100 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99.8% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Optical Rotation:** [α]<sub>D</sub> = +7.4 (Concentration = 1, Solvent = Water)  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	43.08	4.91	7.18
Found	43.17	5.12	6.98

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

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**Description:**

D-AP5 (Cat.No. 0106) caged with the photosensitive 1-(2-nitrophenyl)ethoxycarbonyl (NPEC) group. NMDA receptor antagonist.

**Physical and Chemical Properties:**

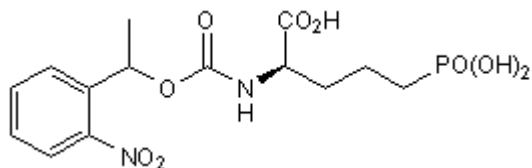
Batch Molecular Formula: C<sub>14</sub>H<sub>19</sub>N<sub>2</sub>O<sub>9</sub>P

Batch Molecular Weight: 390.28

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

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 100 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:**

**Murphy et al** (1997) Activation of NMDA receptors is necessary for the induction of associative long-term potentiation in area CA1 of the rat hippocampal slice. *J.Physiol.* **504** 379. PMID: 9365912.

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