

**Product Name:** NPEC-caged-(S)-AMPA

**Catalog No.:** 3840

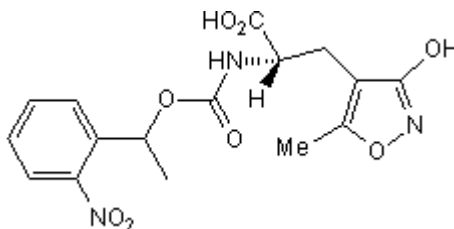
**Batch No.:** 3

**CAS Number:** 1257323-84-4

**IUPAC Name:** (N)-1-(2-Nitrophenyl)ethylcarboxy-(S)- $\alpha$ -1-(2-nitrophenyl)ethylcarboxyamino-3-hydroxy-5-methyl-4-isoxazolepropionic acid

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>16</sub>H<sub>17</sub>N<sub>3</sub>O<sub>8</sub>·½H<sub>2</sub>O  
**Batch Molecular Weight:** 388.33  
**Physical Appearance:** White solid  
**Solubility:** water to 5 mM with gentle warming  
DMSO to 100 mM  
ethanol to 100 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.39 (Dichloromethane:Methanol [9:1])  
**HPLC:** Shows 98.3% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	49.49	4.67	10.82
Found	49.7	4.77	10.66

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

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**Description:**

1-(2-nitrophenyl)ethyl caged version of (S)-AMPA (Cat. No. 0254), agonist at the AMPA receptor. 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:**

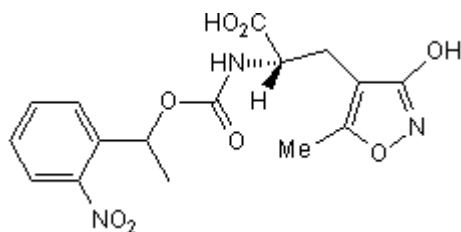
Batch Molecular Formula: C<sub>16</sub>H<sub>17</sub>N<sub>3</sub>O<sub>8</sub> · ½H<sub>2</sub>O

Batch Molecular Weight: 388.33

Physical Appearance: White solid

**Minimum Purity:** >98%

**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 5 mM with gentle warming

DMSO to 100 mM

ethanol 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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