

## Certificate of Analysis

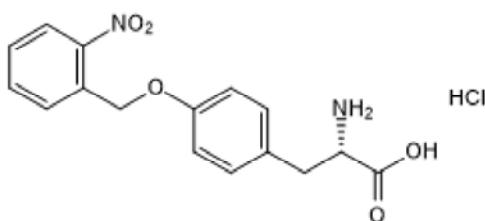
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**Product Name:** NB-caged Tyrosine hydrochloride  
**CAS Number:** 207727-86-4  
**IUPAC Name:** O-[(2-Nitrophenyl)methyl]-L-tyrosine hydrochloride

**Catalog No.:** 6121 **Batch No.:** 1

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>16</sub>H<sub>16</sub>N<sub>2</sub>O<sub>5</sub>.HCl  
**Batch Molecular Weight:** 352.77  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 97.7% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	54.47	4.86	7.94
Found	54.36	4.85	7.97

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

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## Product Information

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**Batch No.:** 1

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### Description:

L-Tyrosine caged with photosensitive ortho-nitrobenzyl side chain. Rapidly releases tyrosine when photolyzed (300-350 nm excitation). Is readily incorporated into E.coli proteins via inclusion in growth media.

### Physical and Chemical Properties:

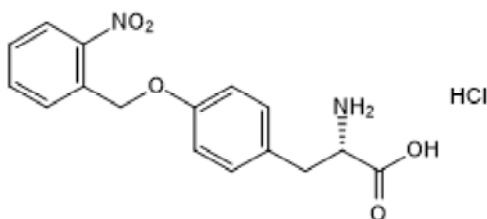
Batch Molecular Formula: C<sub>16</sub>H<sub>16</sub>N<sub>2</sub>O<sub>5</sub>.HCl

Batch Molecular Weight: 352.77

Physical Appearance: White solid

**Minimum Purity:** >97%

### 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:

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:

**Wang et al** (2019) Time-resolved protein activation by proximal decaging in living systems. *Nature* **569** 509. PMID: 31068699.

**Monk et al** (2017) Rapid and inexpensive evaluation of nonstandard amino acid incorporation in *Escherichia coli*. *ACS.Synth.Biol.* **6** 45. PMID: 27648665.

**Miller et al** (1998) Flash decaging of tyrosine sidechains in an ion channel. *Neuron*. **20** 619. PMID: 9581754.

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