

## Certificate of Analysis

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**Product Name:** *N*<sup>ω</sup>-Propyl-L-arginine hydrochloride

**Catalog No.:** 1200

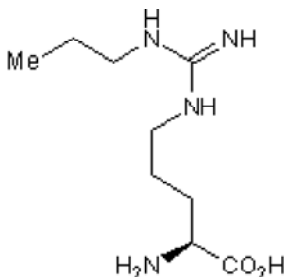
**Batch No.:** 7

CAS Number: 2321366-46-3

IUPAC Name: *N*<sup>ε</sup>-[Imino(propylamino)methyl]-L-ornithine hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>9</sub>H<sub>20</sub>N<sub>4</sub>O<sub>2</sub>.HCl.H<sub>2</sub>O  
**Batch Molecular Weight:** 270.76  
**Physical Appearance:** Colourless lyophilised film  
**Solubility:** water to 100 mM  
DMSO to 100 mM  
**Storage:** Desiccate at RT  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.38 (Isopropanol:Ammonia solution:Water [7:2:1])  
**HPLC:** Shows 98.7% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	39.92	8.56	20.69
Found	40.07	8.84	20.28

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

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**Description:**

Highly selective and potent inhibitor of nNOS ( $K_i = 57$  nM). Displays 3158-fold and 149-fold selectivity over iNOS and eNOS respectively. Hypotensive in vivo.

**Physical and Chemical Properties:**

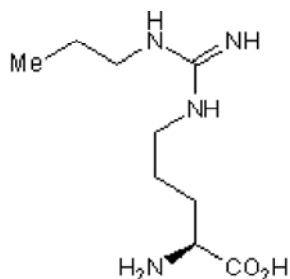
Batch Molecular Formula: C<sub>9</sub>H<sub>20</sub>N<sub>4</sub>O<sub>2</sub>.HCl.H<sub>2</sub>O

Batch Molecular Weight: 270.76

Physical Appearance: Colourless lyophilised film

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Desiccate at RT. This product is packaged under an inert atmosphere.

**Solubility & Usage Info:**

water to 100 mM

DMSO to 100 mM

**CAUTION** - This product is hygroscopic and we recommend that once opened the contents of the vial be used as quickly as possible.

**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:**

**Kakoki *et al*** (2001) The influence of nitric oxide synthase 1 on blood flow and interstitial nitric oxide in the kidney. *Am.J.Physiol.Regul.Integr.Comp.Physiol.* **281** R91. PMID: 11404282.

**Zhang *et al*** (1997) Potent and selective inhibition of neuronal nitric oxide synthase by *N*<sup>ω</sup>-propyl-L-arginine. *J.Med.Chem.* **40** 3869. PMID: 9397167.

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