

Product Name: L-NIO dihydrochloride

Catalog No.: 0546

Batch No.: 10

CAS Number: 159190-44-0

IUPAC Name: *N*⁵-(1-Iminoethyl)-L-ornithine dihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₇H₁₅N₃O₂·2HCl·¼H₂O

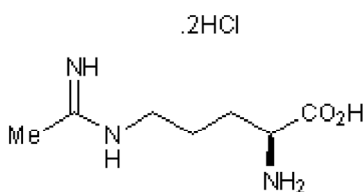
Batch Molecular Weight: 250.63

Physical Appearance: Off White solid

Solubility: water to 100 mM

Storage: Desiccate at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.2 (tert-Butanol/Acetonitrile/Toluene/Acetic acid/Wate)

¹H NMR: Consistent with structure

Optical Rotation: [α]_D = +19.4 (Concentration = 5.57, Solvent = Methanol)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	34.05	7.01	15.47
Found	34.43	6.9	15.77

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

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CAS Number: 159190-44-0

IUPAC Name: *N*⁵-(1-Iminoethyl)-L-ornithine dihydrochloride

Description:

L-NIO dihydrochloride is an Inhibitor of nitric oxide (NO) synthase. Inhibits iNOS, eNOS and nNOS. Active in vivo.

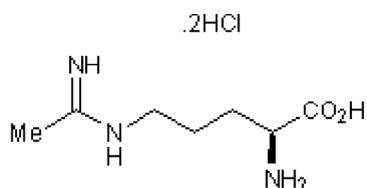
Physical and Chemical Properties:

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Batch Molecular Weight: 250.63

Physical Appearance: Off White solid

Batch Molecular Structure:



Storage: Desiccate at -20°C. This product is packaged under an inert atmosphere.

Solubility & Usage Info:

water to 100 mM

CAUTION - This product is extremely hygroscopic and we recommend that it is desiccated upon arrival. Solutions should be made up as soon as the vial is opened. This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Moncada et al (1997) XIV. International Union of Pharmacology nomenclature in nitric oxide research. *Pharmacol.Rev.* **49** 137. PMID: 9228663.

Mulligan et al (1992) Protective effects of inhibitors of nitric oxide synthase in immune complex-induced vasculitis. *Br.J.Pharmacol.* **107** 1159. PMID: 1281719.

Rees et al (1990) Characterization of three inhibitors of endothelial nitric oxide synthase *in vitro* and *in vivo*. *Br.J.Pharmacol.* **101** 746. PMID: 1706208.

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