

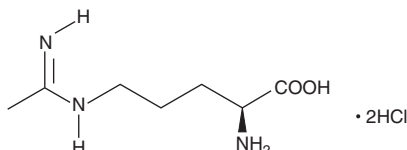
PRODUCT INFORMATION



L-NIO (hydrochloride)

Item No. 80320

CAS Registry No.: 36889-13-1
Formal Name: N⁵-(1-iminoethyl)-L-ornithine, dihydrochloride
MF: C₇H₁₅N₃O₂ • 2HCl
FW: 246.1
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

L-NIO (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the L-NIO (hydrochloride) in the solvent of choice, which should be purged with an inert gas. L-NIO (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide at a concentration of approximately 20 mg/ml. It is also soluble in water at a concentration of approximately 100 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of L-NIO (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of L-NIO (hydrochloride) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

L-NIO is a non-selective inhibitor of all NOS isoforms. The K_i values for nNOS (rat), eNOS (bovine), and iNOS (mouse) are 1.7, 3.9, and 3.9 μM, respectively.¹ L-NIO inhibits endothelial-dependent relaxation induced by acetylcholine in rat aortic rings and hypotensive responses to acetylcholine and bradykinin.²

References

1. Babu, B.R. and Griffith, O.W. N⁵-(1-imino-3-butenyl)-L-ornithine. A neuronal isoform selective mechanism-based inactivator of nitric oxide synthase. *J. Biol. Chem.* **273**(15), 8882-8889 (1998).
2. Rees, D.D., Palmer, R.M.J., Schulz, R., et al. Characterization of three inhibitors of endothelial nitric oxide synthase *in vitro* and *in vivo*. *Br. J. Pharmacol.* **101**(3), 746-752 (1990).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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