

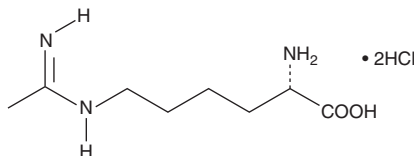
PRODUCT INFORMATION



L-NIL (hydrochloride)

Item No. 80310

CAS Registry No.: 159190-45-1
Formal Name: N6-(1-iminoethyl)-L-lysine, dihydrochloride
MF: C₈H₁₇N₃O₂ • 2HCl
FW: 260.2
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

L-NIL (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the L-NIL (hydrochloride) in the solvent of choice, which should be purged with an inert gas. L-NIL (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. It is also soluble in water. The solubility of L-NIL (hydrochloride) in ethanol is approximately 1 mg/ml and approximately 15 mg/ml in DMSO and DMF and in water is approximately 50 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-NIL (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of L-NIL (hydrochloride) in PBS (pH 7.2) is approximately 30 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

L-NIL is a relatively selective inhibitor of iNOS. It exhibits IC₅₀ values of 0.4-3.3 μM for iNOS as opposed to 8-38 and 17-92 μM for eNOS and nNOS, respectively.¹⁻³ L-NIL effectively inhibits iNOS both *in vitro* and *in vivo*.³⁻⁵ L-NIL has been used to demonstrate a critical role for iNOS in the immune response to infection by the protozoan *L. major*.^{3,6}

References

1. Moore, W.M., Webber, R.K., Jerome, G.M., et al. L-N6-(1-iminoethyl)lysine: A selective inhibitor of inducible nitric oxide synthase. *J. Med. Chem.* **37**, 3886-3888 (1994).
2. Grant, S.K., Green, B.G., Stiffey-Wilusz, J., et al. Structural requirements for human inducible nitric oxide synthase substrates and substrate analogue inhibitors. *Biochemistry* **37**, 4174-4180 (1998).
3. Stenger, S., Thuring, H., Rollinghoff, M., et al. L-N6-(1-iminoethyl)-lysine potently inhibits inducible nitric oxide synthase and is superior to NG-monomethyl-arginine *in vitro* and *in vivo*. *Eur. J. Pharmacol.* **294(2-3)**, 703-712 (1995).
4. Budziński, M., Misterek, K., Gumulka, W., et al. Inhibition of inducible nitric oxide synthase in persistent pain. *Life Sci.* **66**, 301-305 (2000).
5. Faraci, W.S., Nagel, A.A., Verdries, K.A., et al. 2-Amino-4-methylpyridine as a potent inhibitor of inducible NO synthase activity *in vitro* and *in vivo*. *Br. J. Pharmacol.* **119**, 1101-1108 (1996).
6. Diefenbach, A., Schindler, H., Donhauser, N., et al. Type 1 interferon (IFNα/β) and type 2 nitric oxide synthase regulate the innate immune response to a protozoan parasite. *Immunity* **8(1)**, 77-87 (1998).

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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