

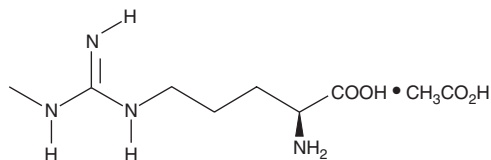
PRODUCT INFORMATION



L-NMMA (acetate)

Item No. 10005031

CAS Registry No.: 53308-83-1
Formal Name: N⁵-[imino(methylamino)methyl]-L-ornithine, monoacetate
Synonym: L-NG-monomethyl Arginine acetate
MF: C₇H₁₆N₄O₂ • C₂H₄O₂
FW: 248.3
Purity: ≥99%
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-NMMA (acetate) is supplied as a crystalline solid. A stock solution may be made by dissolving the L-NMMA (acetate) in the solvent of choice, which should be purged with an inert gas. L-NMMA (acetate) is soluble in organic solvents such as ethanol and DMSO. The solubility of L-NMMA (acetate) in these solvents is approximately 1 and 0.25 mg/ml respectively.

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-NMMA (acetate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of L-NMMA (acetate) 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-NMMA is the archetypal competitive NOS inhibitor to which other inhibitors are often compared.¹ It is a relatively non-selective inhibitor of all NOS isoforms. The K_i values for nNOS (rat), eNOS (human), and iNOS (mouse) are approximately 0.18, 0.4, and 6 μM, respectively.^{2,3}

References

1. Griffith, O.W. and Kilbourn, R.G. Nitric oxide synthase inhibitors: Amino acids. *Methods Enzymol.* **268**, 375-392 (1996).
2. Frey, C., Narayanan, K., McMillan, K., *et al.* L-Thiocitrulline. A stereospecific, heme-binding inhibitor of nitric-oxide synthases. *J. Biol. Chem.* **269(42)**, 26083-26091 (1994).
3. Garvey, F.P., Tuttle, J.V., Covington, K., *et al.* Purification and characterization of the constitutive nitric oxide synthase from human placenta. *Arch. Biochem. Biophys.* **311(2)**, 235-241 (1994).

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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