

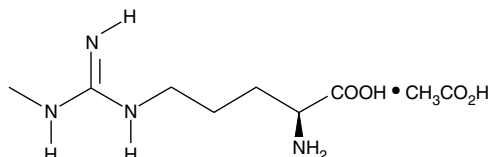
Product Information



L-NMMA (acetate)

Item No. 10005031

CAS Registry No.: 53308-83-1
Formal Name: N⁵-[imino(methylamino)methyl]-L-ornithine, monoacetate
Synonym: L-N^G-monomethyl Arginine acetate
MF: C₇H₁₆N₄O₂ • C₂H₄O₂
FW: 248.3
Purity: ≥99%
Stability: ≥1 year at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that L-NMMA (acetate) be stored as supplied at -20°C. It should be stable for at least one year.

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. L-NMMA (acetate) is soluble in organic solvents such as ethanol, and DMSO which should be purged with an inert gas. 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 compound 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.

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**, 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**, 235-241 (1994).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10005031

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

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