

Product Name: L-NMMA acetate

Catalog No.: 0771

Batch No.: 12

CAS Number: 53308-83-1

IUPAC Name: NG-Monomethyl-L-arginine acetate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₇H₁₆N₄O₂.CH₃CO₂H

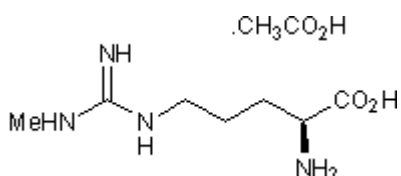
Batch Molecular Weight: 248.28

Physical Appearance: White solid

Solubility: water to 50 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: [α]_D = +11.2 (Concentration = 4.37, Solvent = Water)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	43.54	8.12	22.57
Found	43.45	8.26	22.64

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

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Description:

Competitive, irreversible inhibitor of all three NOS isoforms.

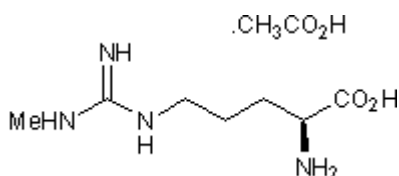
Physical and Chemical Properties:

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Storage: Desiccate at RT

Solubility & Usage Info:

water to 50 mM

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. Our standard recommendations are:

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:

Reif and McCreedy *et al* (1995) *N*-nitro-L-arginine and *N*-monomethyl-L-arginine exhibit a differential pattern of inactivation toward the three nitric oxide synthases. *Arch.Biochem.Biophys.* **320** 170. PMID: 7540822.

Olken *et al* (1991) Inactivation of macrophage nitric oxide synthase activity by N(G)-methyl-L-arginine. *Biochem.Biophys.Res.Comm.* **177** 828. PMID: 2049105.

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

Saksuma *et al* (1988) Identification of arginine as a precursor of endothelium-derived relaxing factor. *Proc.Natl.Acad.Sci.U.S.A.* **85** 8664. PMID: 3263652.

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