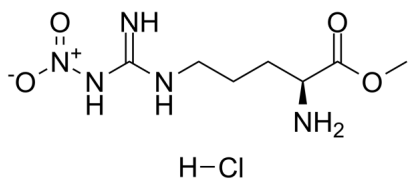


Certificate of Analysis

Catalog Number	BP22545
Product Name	L-NAME hydrochloride

Physical and Chemical Properties

CAS No.	51298-62-5
Chemical Formula	C ₇ H ₁₆ ClN ₅ O ₄
Molecular Weight	269.69
Solubility	DMSO: 100 mg/mL (370.80 mM, Need ultrasonic) H ₂ O: 100 mg/mL (370.80 mM, Need ultrasonic)
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	

Product Information

Description	L-NAME hydrochloride inhibits NOS with an IC ₅₀ of 70 μM. L-NAME is a precursor to NOS inhibitor L-NOARG which has an IC ₅₀ value of 1.4 μM.
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In vitro	L-arginine analogues are widely used inhibitors of nitric oxide synthase (NOS) activity, with Nw-nitro-L-arginine methyl ester (L-NAME) being at the head. Freshly dissolved L-NAME is a 50 fold less potent inhibitor of purified brain NOS (mean IC ₅₀ = 70 µM) than L-NOARG (IC ₅₀ = 1.4 µM), but the apparent inhibitory potency of L-NAME approached that of L-NOARG upon prolonged incubation at neutral or alkaline pH. HPLC analyses reveal that NOS inhibition by L-NAME closely correlated with hydrolysis of the drug to L-NOARG.
In vivo	L-NAME infusion significantly decreases NKT-leukocyte level, tumor-necrosis factor (TNF)-alpha production by T-splenocytes and macrophages, and IFNγ production by T-leukocytes, monocytes, and T-splenocytes, as well as increased interleukin-6 production by T-leukocytes and monocytes and nitrate/nitrite production by T-leukocytes. There is increasing evidence that nitric oxide may be involved in learning and memory. L-NAME produces a task-dependent impairment of fear extinction, and implies that nitric oxide signaling is involved in memory process of certain fear extinction tasks. Chronic L-NAME administration induces cardiac hypertrophy in rodent models. Six weeks L-NAME administration induces significant cardiac hypertrophy compared to control hearts.

Analytical Data

HPLC	Shows Min >99% purity
H-NMR	Consistent with structure
Stability and Solubility Advice	Information on product stability, especially in solution, has rarely been reported and in most cases we can only provide a general guideline. We recommend that once the stock solution has been prepared, it be stored in equal quantities in sealed vials and used within 1 month. Avoid repeated freezing and thawing cycles. Storage conditions for some special products should be referred to their storage details.

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