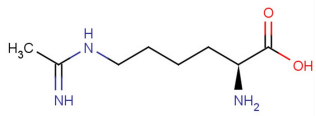
Data Sheet (Cat.No.T11805)

TargetMol
A DRUG SCREENING EXPERT

L-NIL

Chemical Properties



CAS No.:	53774-63-3
Formula:	C8H17N3O2
Molecular Weight:	187.24
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	L-NIL is a potent and selective inhibitor of inducible NO synthase with IC50s of 92 and 3.3 μM for rat brain constitutive NO synthase and mouse inducible NO synthase, respectively.
Targets(IC_{50})	mouse inducible NO synthase: 3.3 μM rat brain constitutive NO synthase: 92 μM
In vitro	The IC50 values for L-NIL with miNOS and rcNOS are 3.3 and 92 pM, respectively, indicating that L-NIL is 28-fold more selective for miNOS. In addition, L-NIL has approximately 6-fold greater potency for miNOS than either L-NMA or L-NNA.L-NIL produces a concentration-dependent inhibition of both the mouse inducible NOS (miNOS) and the rat brain constitutive NOS (rcNOS) and is considerably more potent for miNOS.
In vivo	L-NIL protects the integrity of the tarsal, talus and calcaneus bones as well as the soft tissue surrounding the joint, while adjuvant controls exhibit severe deterioration of these bones and dramatic soft tissue swelling. L-NIL limits progression of preexisting atherosclerosis in hypercholesterolemic rabbits. Increased intimal collagen accumulation may participate in iNOS-induced atherosclerosis progression.L-NIL may prove particularly useful in determining the role of nitric oxide production by inducible NOS in models of chronic inflammation (e.g., adjuvant arthritis). L-NIL suppresses the increase in plasma nitrite levels and joint inflammation associated with adjuvant-induced arthritis in a dose-dependent manner. L-NIL attenuates the inducible nitric oxide synthase immunoreactivity in adjuvant-treated rats.

Solubility Information

Solubility	DMSO: < 1 mg/mL (insoluble or slightly soluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.341 mL	26.704 mL	53.407 mL
5 mM	1.068 mL	5.341 mL	10.681 mL
10 mM	0.534 mL	2.67 mL	5.341 mL
50 mM	0.107 mL	0.534 mL	1.068 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Moore WM, et al. L-N6-(1-iminoethyl)lysine: a selective inhibitor of inducible nitric oxide synthase. J Med Chem. 1994 Nov 11;37(23):3886-8.

2. Connor JR, et al. Suppression of adjuvant-induced arthritis by selective inhibition of inducible nitric oxide synthase. Eur J Pharmacol. 1995 Jan 24;273(1-2):15-24.

3. Behr-Roussel D, et al. Effect of chronic treatment with the inducible nitric oxide synthase inhibitor N-iminoethyl-L-lysine or with L-arginine on progression of coronary and aortic atherosclerosis in hypercholesterolemic rabbits. Circulation. 2000 Aug 29;102(9):1033-8.

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