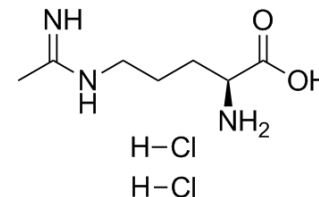


L-NIO dihydrochloride

Cat. No.:	HY-100986		
CAS No.:	159190-44-0		
Molecular Formula:	C ₇ H ₁₇ Cl ₂ N ₃ O ₂		
Molecular Weight:	246.13		
Target:	NO Synthase		
Pathway:	Immunology/Inflammation		
Storage:	Pure form	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : 50 mg/mL (203.14 mM; Need ultrasonic)
 DMSO : 33.33 mg/mL (135.42 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	4.0629 mL	20.3145 mL	40.6289 mL
	5 mM	0.8126 mL	4.0629 mL	8.1258 mL
	10 mM	0.4063 mL	2.0314 mL	4.0629 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: **10% DMSO >> 90% corn oil**
Solubility: ≥ 2.5 mg/mL (10.16 mM); Clear solution
- Add each solvent one by one: **10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline**
Solubility: ≥ 2.5 mg/mL (10.16 mM); Clear solution
- Add each solvent one by one: **10% DMSO >> 90% (20% SBE-β-CD in saline)**
Solubility: ≥ 2.5 mg/mL (10.16 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

L-NIO dihydrochloride is a potent, non-selective and NADPH-dependent **nitric oxide synthase (NOS)** inhibitor, with K_is of 1.7, 3.9, 3.9 μM for neuronal (nNOS), endothelial (eNOS), and inducible (iNOS), respectively^{[1][2]}. L-NIO dihydrochloride induces a consistent focal ischemic infarct in rats^[2].

IC₅₀ & Target

K_i: 1.7 μM (nNOS), 3.9 μM (eNOS), 3.9 μM (iNOS)^[1]

REFERENCES

- [1]. Babu BR, et al. N5-(1-Imino-3-butenyl)-L-ornithine. A neuronal isoform selective mechanism-based inactivator of nitric oxide synthase. *J Biol Chem.* 1998 Apr 10;273(15):8882-9.
- [2]. Van Slooten AR, et al. L-NIO as a novel mechanism for inducing focal cerebral ischemia in the adult rat brain. *J Neurosci Methods.* 2015 Apr 30;245:44-57.
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Caution: Product has not been fully validated for medical applications. For research use only.

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