

L-NIO dihydrochloride

Chemical Properties

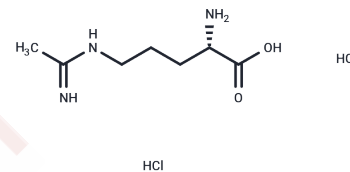
CAS No. : 159190-44-0

Formula: C7H17Cl2N3O2

Molecular Weight: 246.14

Storage: Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	L-NIO dihydrochloride is a potent and selective nNOS inhibitor. It reduces NO production in the CNS to protect against oxidative damage, used for neuroinflammation and pain research.
Targets(IC50)	NOS
In vitro	L-NIO dihydrochloride exhibits NADPH-dependent NOS inhibition and causes irreversible inactivation as a mechanism-based suicide substrate [1].
In vivo	Striatal injection of L-NIO dihydrochloride (2.0 umol) induces focal cerebral ischemia in rats, serving as a standard agent for stroke models [2].

Solubility Information

Solubility	DMSO: 33.33 mg/mL (135.41 mM),Sonication is recommended. H2O: 100.00 mg/mL (406.27 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 2.00 mg/mL (8.13 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.0627 mL	20.3136 mL	40.6273 mL
5 mM	0.8125 mL	4.0627 mL	8.1255 mL
10 mM	0.4063 mL	2.0314 mL	4.0627 mL
50 mM	0.0813 mL	0.4063 mL	0.8125 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Carpéné C, et al. Inhibition of amine oxidase activity by derivatives that recognize imidazoline I2 sites. *J Pharmacol Exp Ther.* 1995 Feb;272(2):681-8.

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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481