Nω-Propyl-L-arginine

Cat. No.: HY-102062

CAS No.: 137361-05-8

Molecular Formula: $C_9H_{20}N_4O_2$

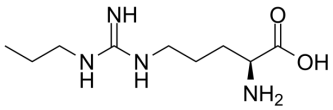
Molecular Weight: 216.28

Target: NO Synthase

Pathway: Immunology/Inflammation

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H_2O : ≥ 100 mg/mL (462.36 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.6236 mL	23.1182 mL	46.2364 mL
5 mM	0.9247 mL	4.6236 mL	9.2473 mL
10 mM	0.4624 mL	2.3118 mL	4.6236 mL

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

BIOLOGICAL ACTIVITY

Description

Nω-Propyl-L-arginine (N-omega-Propyl-L-arginine) is a potent, competitive, and highly selective inhibitor of neuronal nitric oxide synthase (nNOS), with a K_i of 57 nM. Nω-Propyl-L-arginine displays a 149-fold selectivity for nNOS over endothelial NOS (eNOS)[1][2].

In Vivo

Nω-Propyl-L-arginine (N-omega-Propyl-L-arginine) (20 mg/kg; i.p.) blocks both phencyclidine-induced disruption of prepulse inhibition and phencyclidine-induced stimulation of locomotor activity[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male NMRI mice (30-40 g) (phencyclidine-induced stimulation)[2]
Dosage:	20 mg/kg
Administration:	I.p.
Result:	Markedly reduced the phencyclidineinduced disruption of prepulse inhibition and

	significantly reduced the phencyclidine-induced stimulation of locomotor activity.

REFERENCES

[1]. Zhang HQ, et al. Potent and selective inhibition of neuronal nitric oxide synthase by N omega-propyl-L-arginine. J Med Chem. 1997 Nov 21;40(24):3869-70.

[2]. Klamer D, et al. The neuronal selective nitric oxide synthase inhibitor, Nomega-propyl-L-arginine, blocks the effects of phencyclidine on prepulse inhibition and locomotor activity in mice. Eur J Pharmacol. 2004 Oct 25;503(1-3):103-7.

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