Nω-Propyl-L-arginine hydrochloride

Cat. No.: HY-102062A

CAS No.: 2321366-46-3

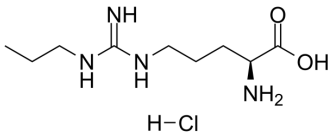
Molecular Formula: $C_9H_{21}ClN_4O_2$

Molecular Weight: 252.74

Target: NO Synthase

Pathway: Immunology/Inflammation

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (98.92 mM; Need ultrasonic and warming)
H_2O : 25 mg/mL (98.92 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.9566 mL	19.7832 mL	39.5664 mL
	5 mM	0.7913 mL	3.9566 mL	7.9133 mL
	10 mM	0.3957 mL	1.9783 mL	3.9566 mL

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

BIOLOGICAL ACTIVITY

Description

Nω-Propyl-L-arginine (N-omega-Propyl-L-arginine) hydrochloride 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 hydrochloride displays a 149-fold selectivity for nNOS over endothelial NOS (eNOS)[1][2].

In Vivo

Nω-Propyl-L-arginine (N-omega-Propyl-L-arginine) hydrochloride (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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