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DATASHEET

N^ω-Propyl-L-arginine hydrochloride

Product overview

Name	N ^ω -Propyl-L-arginine hydrochloride
Cat No	HB0466
Alternative names	L-NPA
Biological action	Inhibitor
Purity	>98%
Description	Potent, selective nNOS inhibitor

Biological Data

Biological description	Potent and selective nNOS inhibitor ($K_i = 50$ nM). Highly selective for nNOS over eNOS and iNOS. Shows anti-convulsant actions and decreases blood pressure.
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Solubility & Handling

Storage instructions	room temperature (desiccate)
Solubility overview	Soluble in water (100mM) or DMSO (100nM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	N^{δ} -[Imino(propylamino)methyl]-L-ornithine hydrochloride
Molecular Weight	252.74
Chemical structure	The chemical structure shows a propyl group attached to the nitrogen atom of a guanidino group, which is further attached to the imino carbon of a methyl-ornithine side chain. The methyl-ornithine side chain consists of a methylene group attached to an ornithine residue, which has an amino group at position 2 and a carboxylic acid group at position 4.
Molecular Formula	$C_9H_{20}N_4O_2 \cdot HCl$
CAS Number	137361-05-8
PubChem identifier	447180
SMILES	<chem>N=C(NCCC[C@H](N)C(O)=O)NCCC.CI</chem>
InChiKey	AOMXURITGZJPKB-ZETCQYMHSA-N

References

Potent and selective inhibition of neuronal nitric oxide synthase by N omega-propyl-L-arginine.

Zhang HQ *et al* (1997) J Med Chem 40(24)

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The influence of nitric oxide synthase 1 on blood flow and interstitial nitric oxide in the kidney.

Kakoki M *et al* (2001) Am J Physiol Regul Integr Comp Physiol 281(1)

PubMedID

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N(w) -propyl-L-arginine (L-NPA) reduces status epilepticus and early epileptogenic events in a mouse model of epilepsy: behavioural, EEG and immunohistochemical analyses.

Beamer E *et al* (2012) Eur J Neurosci 36(9)

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The influence of nitric oxide synthase 1 on blood flow and interstitial nitric oxide in the kidney.

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PubMedID

[11404282](#)
