

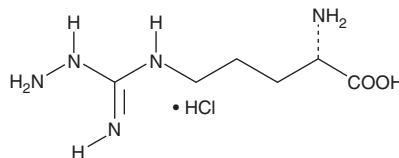
PRODUCT INFORMATION



N^G-amino-L-Arginine (hydrochloride)

Item No. 10554

CAS Registry No.: 1031799-40-2
Formal Name: N⁵-(hydrazinyliminomethyl)-L-ornithine, monohydrochloride
MF: C₆H₁₅N₅O₂ • HCl
FW: 225.7
Purity: ≥97%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

N^G-amino-L-Arginine (hydrochloride) is supplied as a crystalline solid. Aqueous solutions of N^G-amino-L-arginine (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of N^G-amino-L-arginine (hydrochloride) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

N^G-amino-L-Arginine inhibits nNOS, iNOS, and eNOS with K_i values of 0.3, 3, and 2.5 μM, respectively.^{1,2} Inhibition is mediated by covalent alteration of the heme prosthetic group leading to inactivation of the enzyme.¹⁻³ N^G-amino-L-Arginine can be used both in cell culture and *in vivo*.^{4,5}

References

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2. Vuletich, J.L., Lowe, E.R., Jianmongkol, S., *et al.* Alteration of the heme prosthetic group of neuronal nitric-oxide synthase during inactivation by N^G-amino-L-arginine *in vitro* and *in vivo*. *Mol. Pharmacol.* **61(6)**, 110-118 (2002).
3. Lee, A.J., Noon, K.R., Jianmongkol, S., *et al.* Metabolism of aminoguanidine, diaminoguanidine, and N^G-amino-L-arginine by neuronal NO-synthase and covalent alteration of the heme prosthetic group. *Chem. Res. Toxicol.* **18(12)**, 1927-1933 (2005).
4. Peng, H.-M., Morishima, Y., Clapp, K.M., *et al.* Dynamic cycling with Hsp90 stabilizes neuronal nitric oxide synthase through calmodulin-dependent inhibition of ubiquitination. *Biochemistry* **48**, 8483-8490 (2009).
5. Kellogg, D.L., Jr., Zhao, J.L., and Wu, Y. Endothelial nitric oxide synthase control mechanisms in the cutaneous vasculature of humans *in vivo*. *Am. J. Physiol. Heart Circ. Physiol.* **295**, H123-H129 (2008).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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