

PRODUCT INFORMATION



L-hydroxy Arginine (acetate)

Item No. 80300

CAS Registry No.: 53598-01-9

Formal Name: N⁵-[(hydroxyamino)iminomethyl]-L-ornithine, acetate

Synonyms: L-N^G-Hydroxy arginine, N⁵-hydroxy L-Arginine, N^ω-hydroxy-L-Arginine

MF: C₆H₁₄N₄O₃ • XC₂H₄O₂

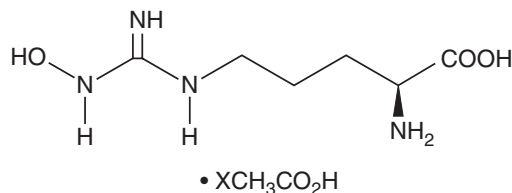
FW: 250.3

Purity: ≥95%

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

L-hydroxy Arginine (acetate) is supplied as a crystalline solid. A stock solution may be made by dissolving the L-hydroxy arginine (acetate) in the solvent of choice. L-hydroxy Arginine (acetate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of L-hydroxy arginine (acetate) in these solvents is at least 100 µg/ml.

L-hydroxy Arginine (acetate) is supplied as the acetate to facilitate its uptake in aqueous solutions. Prior to performing biological experiments, the L-hydroxy arginine (acetate) can be added as the crystalline solid to the buffer of choice. L-hydroxy arginine (acetate) is soluble in PBS (pH 7.2) at a concentration of at least 24 mg/ml. If experiments involve synthesizing nitric oxide from L-hydroxy arginine, NADPH must be added to the buffer.¹⁻³ Further, tetrahydro biopterin enhances the initial rate of nitric oxide formation from L-hydroxy arginine.¹ Although aqueous solutions of L-hydroxy arginine (acetate) may be stable for more than 24 hours, we recommend making a fresh preparation everyday.

Description

L-hydroxy Arginine is a substrate for nitric oxide synthase in the catabolism of L-arginine (Item No. 23703) to form nitric oxide.¹ It has been used as a biomarker for reduced nitric oxide formation in patients with cardiovascular disease and metabolic syndrome.²

References

1. Knowles, R.G. and Moncada, S. Nitric oxide synthases in mammals. *Biochem J.* **298 (Pt. 2)**, 249-258 (1994).
2. Garlachs, C.D., Beyer, J., Zhang, H., *et al.* Decreased plasma concentrations of L-hydroxy-arginine as a marker of reduced NO formation in patients with combined cardiovascular risk factors. *J. Lab. Clin. Med.* **135(5)**, 419-425 (2000).

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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