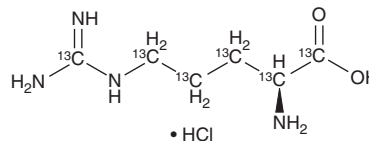


# PRODUCT INFORMATION



## L-Arginine-<sup>13</sup>C<sub>6</sub> (hydrochloride) Item No. 9004088

**CAS Registry No.:** 201740-91-2  
**Formal Name:** L-arginine-guanidino,1,2,3,4,5-<sup>13</sup>C<sub>6</sub> monohydrochloride  
**Synonym:** L-(+)-Arginine-<sup>13</sup>C<sub>6</sub>  
**MF:** [<sup>13</sup>C]<sub>6</sub>H<sub>14</sub>N<sub>4</sub>O<sub>2</sub> • HCl  
**FW:** 216.6  
**Purity:** ≥95%  
**Supplied as:** A 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-Arginine-<sup>13</sup>C<sub>6</sub> (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the L-arginine-<sup>13</sup>C<sub>6</sub> (hydrochloride) in water. We do not recommend storing the aqueous solution for more than one day.

### Description

L-Arginine-<sup>13</sup>C<sub>6</sub> is intended for use as an internal standard for the quantification of L-arginine (Item No. 23703) by GC- or LC-MS. L-Arginine is an amino acid and a precursor of nitric oxide (NO).<sup>1</sup> L-Arginine is a substrate for NO synthase that is oxidized to form NO and L-citrulline. It enhances NO release induced by bradykinin (Item No. 37408) or A23187 (Item No. 11016) in porcine aortic endothelial cells.<sup>2</sup> L-Arginine (30 and 300 mg/kg, i.v.) induces dilation of pial arterioles and increases cerebral blood flow in normotensive and spontaneously hypertensive rats.<sup>3</sup> It also reduces infarct size by 35 and 28% in normotensive and spontaneously hypertensive rats, respectively, following middle cerebral artery occlusion.

### References

1. Stuehr, D.J. Enzymes of the L-arginine to nitric oxide pathway. *J. Nutr.* **134(10 Suppl)**, 2748S-2751S (2004).
2. Palmer, R.M.J., Ashton, D.S., and Moncada, S. Vascular endothelial cells synthesize nitric oxide from L-arginine. *Nature* **333(6174)**, 664-666 (1988).
3. Morikawa, E., Moskowitz, M.A., Huang, Z., *et al.* L-arginine infusion promotes nitric oxide-dependent vasodilation, increases regional cerebral blood flow, and reduces infarction volume in the rat. *Stroke* **25(2)**, 429-435 (1994).

#### 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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