

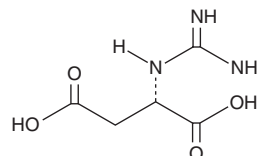
# PRODUCT INFORMATION



## N-Amidino-L-aspartic Acid

Item No. 34092

**CAS Registry No.:** 6133-30-8  
**Formal Name:** N-(aminoiminomethyl)-L-aspartic acid  
**Synonyms:** Guanidinosuccinic Acid, NSC 49078  
**MF:**  $C_5H_9N_3O_4$   
**FW:** 175.1  
**Purity:**  $\geq 95\%$   
**Supplied as:** A solid  
**Storage:**  $-20^\circ\text{C}$   
**Stability:**  $\geq 4$  years



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

### Laboratory Procedures

N-Amidino-L-aspartic acid is supplied as a solid. A stock solution may be made by dissolving the N-amidino-L-aspartic acid in the solvent of choice, which should be purged with an inert gas. N-Amidino-L-aspartic acid is soluble in the organic solvent DMSO at a concentration of approximately 1 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of N-amidino-L-aspartic acid can be prepared by directly dissolving the solid in aqueous buffers. The solubility of N-amidino-L-aspartic acid in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

N-Amidino-L-aspartic acid is a guanidino compound found in mammalian sera and the CNS.<sup>1</sup> It induces whole-cell currents in rat hippocampal slices, an effect that can be reversed by the NMDA receptor antagonists D-AP5 (D-amino-5-phosphonovalerate; Item No. 14539) and ketamine. Intrahippocampal administration of N-amidino-L-aspartic acid induces status epilepticus and neuronal cell death in rats.<sup>2</sup> Cerebrospinal fluid and serum levels of N-amidino-L-aspartic acid are increased in patients with renal failure.<sup>1,2</sup>

### References

1. D'Hooge, R., Raes, A., Lebrun, P., *et al.* N-methyl-D-aspartate receptor activation by guanidinosuccinate but not by methylguanidine: Behavioural and electrophysiological evidence. *Neuropharmacology* **35**(4), 433-440 (1996).
2. Pan, J.C., Pei, Y.Q., An, L., *et al.* Epileptiform activity and hippocampal damage produced by intrahippocampal injection of guanidinosuccinic acid in rat. *Neurosci. Lett.* **209**(2), 121-124 (1996).

#### 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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