

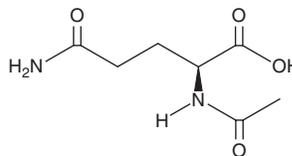
# PRODUCT INFORMATION



## N-acetyl-L-Glutamine

Item No. 35398

**CAS Registry No.:** 2490-97-3  
**Formal Name:** N<sup>2</sup>-acetyl-L-glutamine  
**Synonyms:** Aceglutamide, Acetylglutamine, N-acetyl Gln, NSC 186896  
**MF:** C<sub>7</sub>H<sub>12</sub>N<sub>2</sub>O<sub>4</sub>  
**FW:** 188.2  
**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

N-acetyl-L-Glutamine is supplied as a solid. Aqueous solutions of N-acetyl-L-glutamine can be prepared by directly dissolving the solid in aqueous buffers. The solubility of N-acetyl-L-glutamine in PBS (pH 7.2) is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

N-acetyl-L-Glutamine is an acetylated form of the conditionally essential amino acid L-glutamine (Item No. 23716). It decreases infarct volume and prevents neuronal apoptosis in the substantia nigra in a rat model of cerebral ischemia-reperfusion injury induced by middle cerebral artery occlusion (MCAO).<sup>1</sup> N-acetyl-L-Glutamine (8.28 g/animal per day) prevents decreases in body weight in protein-energy malnourished pigs.<sup>2</sup> Formulations containing N-acetyl-L-glutamine have been used as dietary supplements.

### References

1. Zhang, R., Yang, N., Ji, C., *et al.* Neuroprotective effects of Aceglutamide on motor function in a rat model of cerebral ischemia and reperfusion. *Restor. Neurol. Neurosci.* **33(5)**, 741-759 (2015).
2. López-Pedrosa, J.M., Manzano, M., Baxter, J.H., *et al.* N-acetyl-L-glutamine, a liquid-stable source of glutamine, partially prevents changes in body weight and on intestinal immunity induced by protein energy malnutrition in pigs. *Dig. Dis. Sci.* **52(3)**, 650-658 (2007).

**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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