

## Stable Glutamin (200mM), L-Alanyl-L-Glutamine Solution | 831102

### Product Overview

Volume: 100 ml Storage:  $\leq -15^{\circ}\text{C}$  Sterility: Sterile-filtered

**Stable Glutamine Solution (L-Alanyl-L-Glutamine, 200 mM)** is a highly stable dipeptide form of L-glutamine designed as a direct replacement for conventional L-glutamine in cell culture media. L-glutamine is an essential amino acid and a major energy source for cultured cells, playing a critical role in cell growth, metabolism, and protein synthesis.

### Application and Benefits

In standard liquid media, L-glutamine degrades relatively quickly at  $37^{\circ}\text{C}$ , leading to the formation of toxic byproducts such as ammonium ions that can negatively affect cell viability and experimental outcomes. Stable glutamine overcomes this limitation by providing a non-degrading dipeptide form that remains intact in culture conditions.

Cells enzymatically cleave the dipeptide bond to release L-glutamine as needed, ensuring a continuous fresh supply while preventing the accumulation of harmful waste products. This makes the solution particularly advantageous for long-term cell cultures and high-density growth systems.

### Formulation and Usage

The L-Alanyl-L-Glutamine solution is prepared in cell culture-grade water at a concentration of 200 mM and is sterile-filtered for contamination-sensitive applications. It can be diluted directly into complete media according to experimental requirements. Store at  $\leq -15^{\circ}\text{C}$  and avoid repeated freeze-thaw cycles to maintain product stability.

*For research use only. Not for use in diagnostic or therapeutic procedures. Not for use in humans or animals.*