

## Alanyl-glutamine Solution, 100× (200mM)

**Cat:** G0190

**Specification:** 100mL

**Storage:** Store at 2-8°C, avoid from light, and it is valid for 2 years.

### Introduction

L-Alanyl-L-glutamine, Ala-Glu, also known as alanyl glutamine or alanyl glutamine, is a high-grade cell culture supplement that can directly replace L-glutamine in cell culture media. L-Glutamine is an essential nutrient for cell culture, but it is unstable in solution and spontaneously degrades to produce ammonia and pyroglutamic acid, of which ammonia is harmful to cells; However, L-alanyl-L-glutamine is very stable in aqueous solution and does not spontaneously degrade. The mechanism of cell utilization is that during cell culture, the cells gradually release a peptidase into the culture medium, hydrolyzing L-alanyl-L-glutamyl into L-alanine and L-glutamine, which are then absorbed and utilized by the cells. The process of L-alanyl-L-glutamyl utilization by cells is similar to the fed-batch culture strategy, in which low levels of L-glutamine are continuously added to the culture medium, thereby improving the utilization of L-glutamine without generating excess ammonia, which is more conducive to cell growth. L-alanyl-L-glutamyl can replace equimolar L-glutamine, which is suitable for all cells with almost no adaptation required, and can extend the cultivation time of cells and reduce the number of passages, which saves time and costs. Compared to cells cultured in a medium supplemented with L-glutamine, the activity decreased more slowly. The reason for the slight extension of the lag phase is that the release of peptidases and the digestion of dipeptides require a certain amount of time.

The L-alanyl-L-glutamine solution produced by Soleil is 200mM in concentration. After sterilization by filtration, it can be directly used for cell culture and other purposes. The recommended working concentration is 1-4mM, and no further filtration or sterilization is required before use.

**Transportation conditions:** Room temperature

### Note:

1. This product is sterilized by 0.22μm filtration;
2. When using this product, attention should be paid to aseptic operation to avoid contamination;
3. This product is a 200mM concentrated solution, please dilute it as needed before use;
4. The release of peptidases and the digestion of dipeptides require a certain amount of time, so the lag phase of cells will be slightly extended, which will not cause poor cell growth. Please feel free to use it;
5. This product is only for scientific research or further research use, not for diagnosis and treatment.