

NutriCulture L-Glutamine Solution (200 mM)

Troubleshooting Guide

100 mL

Cat No: LG100

Use this guide for common concentration and stability issues with NutriCulture L-Glutamine Solution (200 mM). The datasheet specifies -20°C storage, notes that L-glutamine degrades relatively rapidly in liquid media or liquid stock solutions with formation of ammonium ions, and recommends a final concentration of 2 mM in complete cell culture medium.

Before You Start - Quick Checks

1. Store the 200 mM stock at -20°C.
2. Use fresh L-glutamine in cell culture medium because it degrades in liquid media/stock solutions.
3. The recommended final concentration is 2 mM.
4. A 200 mM stock requires a 1:100 dilution to obtain 2 mM final concentration.
5. Avoid relying on old glutamine-containing liquid medium when troubleshooting cell performance.
6. Verify the composition of the base medium before additional supplementation.

Problem	Most likely cause	Recommended action
Final glutamine concentration is too high or too low	The 200 mM stock may have been diluted incorrectly.	Prepare a 2 mM final concentration. From a 200 mM stock, this corresponds to a 1:100 dilution.
Cell performance declines in older prepared medium	L-glutamine can degrade relatively rapidly in liquid media.	Prepare fresh glutamine-supplemented medium according to the datasheet recommendation rather than relying on aged liquid medium.
Cell damage is suspected after prolonged storage of glutamine-containing medium	Ammonium ions can form as toxic degradation products of L-glutamine in liquid media or stock solutions.	Use fresh L-glutamine supplementation and avoid extended reliance on degraded liquid preparations.
Stock storage history is uncertain	The 200 mM stock may not have been kept at the specified temperature.	Use product with documented -20°C storage.
Additional glutamine is added without checking the basal medium	The final concentration may exceed the intended 2 mM.	Check the basal-medium formulation and calculate the final total glutamine concentration before supplementation.
A culture protocol requires a different glutamine concentration	The datasheet recommendation is 2 mM final concentration, but it does not define cell-line-specific alternatives.	Use 2 mM when following this product datasheet; if a validated cell-specific protocol requires another concentration, document that separate protocol basis.
Liquid stock has been kept for an extended period after thawing	The datasheet notes that L-glutamine degrades relatively rapidly in liquid stock solutions.	Prefer fresh working preparations and -20°C storage of the stock rather than extended storage in liquid-use conditions.

Still having trouble? Verify -20°C stock storage and the 2 mM final concentration. Because L-glutamine degrades in liquid media/stock solutions and can generate ammonium ions, use fresh supplementation when troubleshooting declining cell performance.