

Corning® glutagro™ Supplement Frequently Asked Questions



- 1. What is Corning® glutagro™ supplement and why is it better than L-glutamine?**

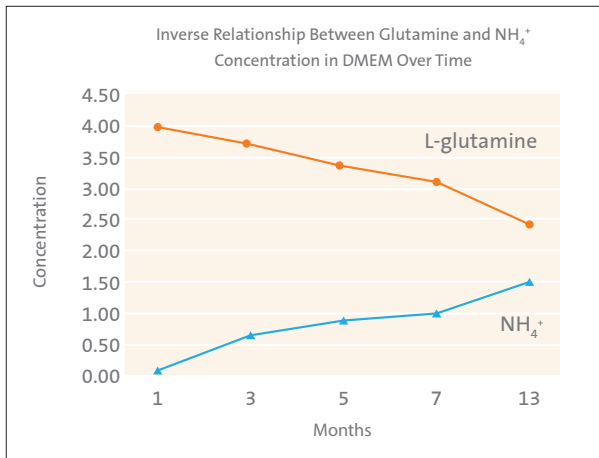
Corning glutagro supplement (Corning Cat. No. 25-015-CI) is composed of L-alanyl-L-glutamine, an alternative and more stable version of glutamine. Corning glutagro takes longer than L-glutamine to break down to ammonia, but it still provides the same support to cells in culture as L-glutamine.
- 2. Are there any disadvantages to using glutagro supplement in place of L-glutamine?**

Both the processing rate and the general suitability of glutagro supplement can vary by cell type. The initial processing rate of glutagro supplement depends on the ability of a given cell to import and process L-alanyl-L-glutamine to usable L-glutamine and the cell's ability to secrete the required protease. Moreover, cancerous cell lines may be exclusively reliant on L-glutamine over L-alanyl-L-glutamine in a phenomenon known as the Warburg effect, which has implications for the ability of glutagro supplement to perform as a supplement for these cells. Finally, the buildup of L-alanine resulting from the cleavage of L-alanyl-L-glutamine may negatively affect certain cell lines. A side-by-side comparison of L-glutamine supplemented media to media supplemented with Corning glutagro supplement is therefore recommended to observe any phenotypic differences. Overall, glutagro supplement is better than L-glutamine in contributing to media stability, cell viability, and cell yield.
- 3. What is the rate at which glutagro supplement is consumed by cells compared to L-glutamine?**

An initial lag in consumption is seen with glutagro supplement as opposed to L-glutamine. This is due to a peptidase-mediated conversion of the supplement to free L-alanine and L-glutamine, which is an additional step in processing this supplement. Once this conversion is complete, both glutagro supplement and L-glutamine are processed at equivalent rates.
- 4. How much longer does glutagro supplement last?**

Corning glutagro supplement has better stability because it is not subject to the same chemical degradation mechanisms as L-glutamine. glutagro supplement is expected to remain nearly 100% bioavailable until the classical media's expiration date.
- 5. How long does L-glutamine last in media before breaking down?**

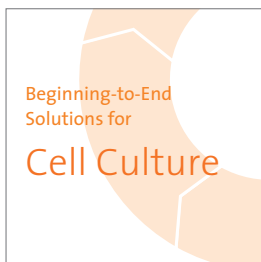
The half-life of L-glutamine varies by the physicochemical characteristics of the media itself. On average in classical formulations, the half-life of L-glutamine is 15 to 21 months. Data shows an inverse relationship between L-glutamine and ammonia levels in a standard DMEM formulation. This is also true for other media formulations such as RPMI 1640 (Corning Cat. No. 10-104-CV).



Ordering Information

VWR Cat. No.	Corning Cat. No.	Description	Size	Qty/Pk
11010-977	40-215-CV	Corning hybrigro SF™ with glutagro supplement	500 mL	1
45001-086	25-015-CI	Corning glutagro, liquid 200 mM solution (with 8.5 g/L NaCl)	100 mL	1
71002-872	10-101-CV	Dulbecco's Modification of Eagle's Medium, 1x with Corning glutagro supplement, 4.5 g/L glucose, sodium pyruvate and phenol red	500 mL	6
71002-874	10-102-CV	Dulbecco's Modification of Eagle's Medium, 1x with Corning glutagro supplement, 4.5 g/L glucose, and phenol red, without sodium pyruvate	500 mL	6
71002-876	10-103-CV	Dulbecco's Modification of Eagle's Medium/Ham's F-12 50/50 Mix with Corning glutagro supplement and phenol red	500 mL	6
71002-878	10-104-CV	RPMI 1640, 1x with Corning glutagro supplement and phenol red	500 mL	6

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It is this expertise, plus a 160-year legacy of Corning innovation and manufacturing excellence, that puts us in a unique position to be able to offer a beginning-to-end portfolio of high-quality, reliable life sciences consumables.

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