

## Certificate of Analysis

Date of Testing: 2024-03-21 15:45:27  
Date of Next Testing: 2028-03-20 15:45:27  
Product Name: **L-Glutamine**  
CAS Number: 56-85-9  
Specifications & Purity: 99%  
Lot #: C2412253  
SKU #: **G105425**  
**Analysis:** **325312**  
Storage Temperature: Protected from light, Room temperature

Parameter	Limit Values	Result
Purity(HPLC)	99-100 (%)	99.12000 %
Nitrogen by Elemental Analysis	18.8-19.6 (%)	19.11 %
Carbon by Elemental Analysis	40.3-41.9 (%)	41.09 %
Ammonia (NH <sub>3</sub> )	0-0.2 (%)	0.10 %
Specific Rotation [α] <sub>20</sub> /D(c=4 in H <sub>2</sub> O)	6.3-7.3 (°)	7.11 °
Infrared spectrum	Conforms to Structure	Conforms to Structure
Appearance (G105425)	White to Off-White Powder	White to Off-White Powder
Solubility in 1 M HCl , Colorless, Clear to Slightly Hazy, 50 mg/ml	pass	Pass



John Su  
QA & QC Manager