

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing:	2025-04-02 15:43:36
Date of Next Testing:	2028-04-01 15:43:36
Product Name:	<b>L-Glutamine</b>
CAS Number:	56-85-9
Specifications & Purity:	Moligand™, Animal Free, USP, for cell culture, ≥99%
Lot #:	D2501388
SKU #	<b>L432948</b>
Version	<b>2</b>
Analysis #:	<b>488251</b>

Parameter	Limit Values	Result
Chloride Content	0-0.02 (%)	0.00 %
Ammonium (NH <sub>4</sub> )	0-0.1 (%)	0.00200 %
Sulfate(SO <sub>4</sub> )	0-0.02 (%)	0.01200 %
Iron(Fe)	0-10 (ppm)	1.02 ppm
Arsenic(As)	0-1 (ppm)	0.23500 ppm
Residue on ignition(Ash)	0-0.1 (%)	0.03000 %
PH 2% Water	4.5-6.0	5.00
Purity(dry basis) (Titration)	99.0-101.0 (%)	99.40 %
loss on drying(105°C,3 h)	0-0.3 (%)	0.05 %
Endotoxin Level(30 mg/mL)	0-1 (EU/ml)	0.80000 EU/ml
Specific Rotation [α] <sub>20</sub> /D(c=4 in H <sub>2</sub> O)	6.3-7.3 (°)	6.70 °
Infrared spectrum	Conforms to structure	Conforms to Structure
NMR Spectrum 1H	Conforms to structure	Conforms to Structure
Ninhydrin-Positive Substances	Conforms	Conforms
Residual Solvents USP <467>	meets the requirements	meets the requirements



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A handwritten signature in black ink that reads "John Su".

John Su  
QA & QC Manager