

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2025-01-21 11:12:15

Date of Next Testing: 2029-01-20 11:12:15

Product Name: **L(+)-Glutamic acid**

CAS Number: 56-86-0

Specifications & Purity: $\geq 99\%$

Lot #: A2510317

SKU #: **G103978**

Version **0**

Analysis #: **462882**

Parameter	Limit Values	Result
Loss on drying	0-0.5 (%)	0.09 %
Specific Rotation $[\alpha]_{20/D}(c=10 \text{ in } 2N \text{ HCl})$	30.5-32.5 (°)	32.10°
As ₂ O ₃	0-1 (ppm)	0.03 ppm
Iron(Fe)	0-30 (ppm)	3.40 ppm
Sulfate(SO ₄ ²⁻)	0-300 (ppm)	100.10 ppm
Sulfate Ash	0-0.1 (%)	0.00 %
Ammonia (NH ₄)	0-200 (ppm)	200.00 ppm
Chloride (Cl ⁻)	0-200 (ppm)	100.00 ppm
Heavy metal (as Pb)	0-10 (ppm)	0.00 ppm
Purity(as dry basis)	99-100 (%)	99.30 %
Appearance (G103978)	white powder	White powder
Infrared spectrum	Conforms to Structure	Conforms to Structure
Other amino acids	Not detected	Not detected

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

John Su
QA & QC Manager