

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2023-04-25 16:03:13

Date of Next Testing: 2027-04-24 16:03:13

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

CAS Number: 56-86-0

Specifications & Purity: 99%

Lot #: D23191231

SKU #: **G103978****Analysis: 215900**

Parameter	Limit Values	Result
Loss on drying	0-0.5 (%)	0.05 %
Specific Rotation [α] _D ²⁰ /D(c=10 in 2N HCl)	30.5-32.5 (°)	32.00°
As ₂ O ₃	0-1 (ppm)	0.85 ppm
Iron(Fe)	0-30 (ppm)	0.00 ppm
Purity(as dry basis)	99-100 (%)	99.90 %
Sulfate(SO ₄ ²⁻)	0-300 (ppm)	2.08 ppm
Sulfate Ash	0-0.1 (%)	0.00 %
Ammonia (NH ₄)	0-200 (ppm)	120.00 ppm
Chloride (Cl ⁻)	0-200 (ppm)	120.00 ppm
Heavy metal (as Pb)	0-10 (ppm)	5.80 ppm
Appearance (G103978)	white powder	White powder
Infrared spectrum	Conforms to Structure	Conforms to Structure
Other amino acids	Not detected	Not detected

John Su
QA & QC Manager