

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2024-06-17 10:06:34  
Date of Next Testing: 2028-06-16 10:06:34  
Product Name: **L(+)-Glutamic acid**  
CAS Number: 56-86-0  
Specifications & Purity:  $\geq 99\%$   
Lot #: F2405361  
SKU #: **G103978**  
Version: **0**  
Analysis #: **370063**

Parameter	Limit Values	Result
Loss on drying	0-0.5 (%)	0.00 %
Specific Rotation $[\alpha]_{20/D}(c=10 \text{ in } 2N \text{ HCl})$	30.5-32.5 ( $^{\circ}$ )	30.52 $^{\circ}$
As <sub>2</sub> O <sub>3</sub>	0-1 (ppm)	0.52 ppm
Iron(Fe)	0-30 (ppm)	0.00 ppm
Purity(as dry basis)	99-100 (%)	99.12 %
Sulfate(SO <sub>4</sub> <sup>2-</sup> )	0-300 (ppm)	0.00 ppm
Sulfate Ash	0-0.1 (%)	0.00 %
Ammonia (NH <sub>4</sub> )	0-200 (ppm)	200.00 ppm
Chloride (Cl <sup>-</sup> )	0-200 (ppm)	0.00 ppm
Heavy metal (as Pb)	0-10 (ppm)	0.40 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