

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2022-06-07 11:44:20
 Date of Next Testing: 2026-06-06 11:44:20
 Product Name: **L-Glutamic acid hydrochloride**
 CAS Number: 138-15-8
 Specifications & Purity: $\geq 98\%$
 Lot #: F2202215
 SKU #: **G113196**
 Version: **0**
 Analysis #: **083895**
 Storage Temperature: Store at 2-8°C, Argon charged

Parameter	Limit Values	Result
Purity(HPLC)	98-100 (%)	99.96900 %
Purity(Neutralization titration)	97.5-102.5 (%)	98.15000 %
Carbon by Elemental Analysis	31.9-33 (%)	32.08000 %
Specific Rotation $[\alpha]_{20/D(c=6 \text{ in H}_2\text{O})}$	22-25 (°)	22.93000 °
Nitrogen by Elemental Analysis	7.3-7.9 (%)	7.35000 %
Appearance (G113196)	White powder	White powder
Infrared spectrum	Conforms to Structure	Conforms to Structure
Solubility in H ₂ O , Colorless ,Clear ,50 mg/mL in H ₂ O	pass	Pass



John Su
QA & QC Manager