

## Certificate of Analysis

Date of Testing: 2022-02-12 14:12:52  
 Date of Next Testing: 2026-02-11 14:12:52  
 Product Name: **L-(+)-Lysine Monohydrochloride**  
 CAS Number: 657-27-2  
 Specifications & Purity: from non-animal source,EP,JP,USP ; for cell culture,98.5 to 101.0%  
 Lot #: B2207441  
 SKU #: **L113006**  
**Analysis:** **063551**  
 Storage Temperature: Room temperature

Parameter	Limit Values	Result
Sulfate(SO42-)	0-0.02 (%)	0.01 %
Heavy metal (as Pb)	0-10 (ppm)	3.26 ppm
Ammonia (NH4)	0-0.02 (%)	0.01 %
Loss on drying	0-0.4(%)	0.23 %
Ignition Residue (as sulfate)	0-0.1 (%)	0.04 %
Iron(Fe)	0-10 (ppm)	6.32 ppm
Endonuclease Detection	0-1(EU/g)	0.06 EU/g
(As)Arsenic	0-1 (ppm)	0.88 ppm
PH test	5-6	5.56
Specific Rotation [α] <sub>25</sub> /D(c=8 in 6M HCL)	20.4-21.4 (°)	20.41°
Purity	98.5-100.5 (%)	100.39 %
Chloride (Cl-)	19.12-19.51(%)	19.48 %
Appearance (L113006)	White to Off White Powder or Crystals	White to Off White Powder or Crystals
Cell Culture Test	pass	Pass
Infrared spectrum	Conforms to Structure	Conforms to Structure
Ninhydrin-positive substances (other amino acids)	Conforms	Conforms
Residual solvents	complies	complies
Solubility,1g/5ml water	Clear colorless	Clear Colorless



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A handwritten signature in black ink that reads "John Su". The signature is written in a cursive, flowing style.

John Su  
QA & QC Manager