

## Certificate of Analysis

Date of Testing: 2023-02-16 19:14:38  
 Date of Next Testing: 2027-02-15 19:14:38  
 Product Name: **L-Histidine monohydrate monohydrochloride**  
 CAS Number: 5934-29-2  
 Specifications & Purity: from non-animal source,EP,JP,USP ; for cell culture,98.5 to 101.0%  
 Lot #: B2310271  
 SKU #: **H106211**  
**Analysis: 023866**  
 Storage Temperature: Argon charged

Parameter	Limit Values	Result
Endonuclease Detection	0-0.1 (EU/g)	0.03 EU/g
Heavy metal (as Pb)	0-10 (ppm)	8.90 ppm
Ignition Residue (as sulfate)	0-0.1 (%)	0.05 %
Iron(Fe)	0-10 (ppm)	8.77 ppm
Sulfate(SO42-)	0-0.02 (%)	0.00 %
(As)Arsenic	0-1 (ppm)	0.54 ppm
Chloride	16.66-17.08 (%)	16.80 %
Ammonia (NH4)	0-0.02 (%)	0.01 %
Assay	98.5-101 (%)	99.60 %
Specific Rotation [α] <sub>20</sub> /D(c=5 in 5 M HCl)	9-10 (°)	9.20°
Appearance (H106211)	white crystalline powder	white crystalline powder
Cell Culture Test	pass	Pass
Infrared spectrum	Conforms to Structure	Conforms to Structure
Ninhydrin-positive substances (other amino acids)	Conforms	Conforms
Origin	non-animal source	non-animal source
Residual solvents	complies	complies



ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

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

John Su  
QA & QC Manager