

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2026-01-12 11:14:53  
Date of Next Testing: 2030-01-11 11:14:53  
Product Name: **L-Cystine**  
CAS Number: 56-89-3  
Specifications & Purity: Animal Free, Moligand™, Ph.Eur., for cell culture  
Lot #: L2530130  
SKU #: **C118619**  
Version: **0**  
Analysis #: **616734**

Parameter	Limit Values	Result
Chloride	0-0.02 (%)	0.00 %
Iron(Fe)	0-10 (ppm)	5.20 ppm
Heavy metal (as Pb)	0-10 (ppm)	3.60 ppm
Sulfate Ash	0-0.1 (%)	0.06 %
Purity(HPLC)	98.5-100 (%)	100.00000 %
Ammonia (NH <sub>4</sub> )	0-200 (ppm)	10.52 ppm
Loss on drying	0-0.5 (%)	0.20 %
Endotoxin Assay	0-50 (EU/g)	23.23 EU/g
Specific Rotation [α] <sub>20</sub> /D(c=2 in 1N HCl in dried basis)	-224--218 (°)	-219.63 °
Sulfate(SO <sub>4</sub> <sup>2-</sup> )	0-0.03 (%)	0.00 %
Appearance (C118619)	White Powder or Crystals	White Powder or Crystals
Cytotoxicity	Pass	Pass
Ninhydrin-Positive Substances	Conforms	Conforms
Residual solvents	complies	complies
Infrared spectrum	Conforms to Structure	Conforms to Structure
Origin	non-animal source	non-animal source



ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

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

John Su  
QA & QC Manager