

## Certificate of Analysis

Date of Testing: 2023-07-14 13:36:41  
 Date of Next Testing: 2027-07-13 13:36:41  
 Product Name: **L-Isoleucine**  
 CAS Number: 73-32-5  
 Specifications & Purity: from non-animal source,for cell culture,98.5-101.0%,EP,JP,USP  
 Lot #: J1908012  
 SKU #: **I115775**  
**Analysis:** **251745**  
 Storage Temperature: Desiccated

Parameter	Limit Values	Result
Heavy metals	0-10 (ppm)	3.25 ppm
Iron(Fe)	0-10 (ppm)	5.90 ppm
Purity(NonaqueousTitration)	98.5-101.5 (%)	100.02 %
Loss on drying	0-0.2 (%)	0.03 %
Chloride	0-0.02 (%)	0.01 %
Ignition Residue	0-0.1 (%)	0.03 %
Sulfate(SO42-)	0-0.02 (%)	0.00 %
Ammonia (NH4)	0-0.02 (%)	0.01 %
(As)Arsenic	0-1 (ppm)	0.61 ppm
Specific Rotation [α] <sub>20</sub> /D(c=4 in 6mol/L HCl)	38-43 (°)	39.74°
Appearance (I115775)	White Powder or Crystals	White Powder or Crystals
Cell Culture Test	pass	Pass
Infrared spectrum	Conforms to Structure	Conforms to Structure
Origin	non-animal source	non-animal source
Solubility in 1 M HCl , Colorless Clear 50 mg/ml	pass	Pass



ALADDIN SCIENTIFIC CORPORATION

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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