

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing:	2023-06-01 14:39:10
Date of Next Testing:	2026-05-31 14:39:10
Product Name:	<b>L-Leucine</b>
CAS Number:	61-90-5
Specifications & Purity:	from non-animal source, meets EP, JP, USP testing specifications, suitable for cell culture, 98.5-101.0%
Lot #:	E2326855
SKU #	<b>L433130</b>
Analysis:	<b>222587</b>
Storage Temperature:	Protected from light

Parameter	Limit Values	Result
Endotoxin Assay	0-1 (EU/mg)	0.40 EU/mg
specific rotation [ $\alpha$ ] <sub>20</sub> /D(C= 4 in 6M HCL)	14.9-16 (°)	15.28700°
Chloride (Cl-)	0-0.02 (%)	0.01 %
Ammonium (NH <sub>4</sub> )	0-0.02 (%)	0.00000 %
Iron(Fe)	0-10 (ppm)	0.00 ppm
Sulfate(SO <sub>4</sub> <sup>2-</sup> )	0-0.03 (%)	0.01 %
Heavy metals	0-10 (ppm)	0.89 ppm
Arsenic(As)	0-1 (ppm)	0.84000 ppm
Loss on drying	0-0.2 (%)	0.09 %
Residue on ignition(Ash)	0-0.1 (%)	0.00000 %
Assay(Nonaqueous Titration anhydrous)	98.5-101 (%)	100.98000 %
Appearance(L433130)	White Crystalline Powder	white crystalline powder
Solubility(0.5 g to 10 mL, 1 M HCl)Colorless Clear	pass	Pass
Cell Culture Test	pass	Pass
Origin( Non-Animal Source)	Biochemical Test-N/A	Pass
Infrared spectrum	Conforms to Structure	Conforms to Structure



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

John Su  
QA & QC Manager