

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing:	2022-06-20 10:54:20
Date of Next Testing:	2026-06-19 10:54:20
Product Name:	<b>L-Arginine</b>
CAS Number:	74-79-3
Specifications & Purity:	from non-animal source, meets EP, USP specifications, suitable for cell culture, 98.5-101.0%
Lot #:	F2210112
SKU #	<b>A118651</b>
Analysis:	<b>075617</b>
Storage Temperature:	Argon charged

Parameter	Limit Values	Result
Chloride (Cl-)	0-0.02 (%)	0.02 %
Iron(Fe)	0-10 (ppm)	5.00 ppm
Heavy metals	0-10 (ppm)	5.00 ppm
Sulfate(SO42-)	0-0.02 (%)	0.02 %
Nitrogen by Elemental Analysis	31.5-32.5 (%)	31.57 %
Loss on drying	0-0.5 (%)	0.25 %
Ignition Residue	0-0.1 (%)	0.10 %
Endotoxin Assay	0-1 (EU/mg)	0.50 EU/mg
PH	10.5-12	10.89
Purity(as dry basis)	98.5-101 (%)	99.30 %
Carbon by Elemental Analysis	40.5-41.5 (%)	41.25 %
Ammonia (NH4)	0-0.02 (%)	0.02 %
specific Rotation[a]20/D(c=8 in 6M HCL)/EP	26.9-27.9 (°)	27.06°
Specific Rotation[a]25/D(c=8 in 6M HCL/USP)	26.3-27.7 (°)	27.48°
Appearance (A118651)	white crystalline powder	white crystalline powder
Cell Culture Test	pass	Pass
Identity by IR	Conforms to Structure	Conforms to Structure
Ninhydrin-positive substances (other amino acids)	Conforms	Conforms
Origin	non-animal source	non-animal source
Proton NMR spectrum	Conforms to Structure	Conforms to Structure
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".

John Su  
QA & QC Manager