

## Certificate of Analysis

Date of Testing: 2024-01-30 15:59:39  
 Date of Next Testing: 2027-01-29 15:59:39  
 Product Name: **L-Ornithine monohydrochloride**  
 CAS Number: 3184-13-2  
 Specifications & Purity: BioReagent Plus , ≥99%  
 Lot #: A2429184  
 SKU #: **L432617**  
**Analysis: 313250**

Parameter	Limit Values	Result
Purity(HPLC area)	99-100 (%)	99.36 %
Residue on Ignition	0-0.1 (%)	0.08993 %
Insoluble matter	0-0.1 (%)	0.00 %
Sulfate(SO42-)	0-0.05 (%)	0.00 %
Aluminum(Al)	0-0.0005 (%)	0.00 %
Phosphorus (P)	0-0.005 (%)	0.00 %
Lead(Pb)	0-0.001 (%)	0.00 %
Iron(Fe)	0-0.0005 (%)	0.00 %
Copper(Cu)	0-0.0005 (%)	0.00 %
Zinc(Zn)	0-0.0005 (%)	0.00 %
Calcium(Ca)	0-0.005 (%)	0.00 %
Magnesium(Mg)	0-0.0005 (%)	0.00 %
Sodium(Na)	0-0.005 (%)	0.00 %
Potassium(K)	0-0.005 (%)	0.00 %
Ammonia (NH4)	0-0.05 (%)	0.05 %
NMR Spectrum 1H	Conforms to structure	Conforms to Structure
LC-MS for identification	Conforms	Conforms
Appearance(L432617)	White Powder	White powder
Solubility (1 M in H2O at 20°C,Colorless to Very Faint Yellow Clear )	pass	Pass



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ALADDIN SCIENTIFIC CORPORATION

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

John Su  
QA & QC Manager