

Certificate of Analysis

Date of Testing: 2022-05-06 14:57:07
 Date of Next Testing: 2026-05-05 14:57:07
 Product Name: **L-Arginine hydrochloride**
 CAS Number: 1119-34-2
 Specifications & Purity: EP,JP,USP grade, ≥98.5%, for cell culture
 Lot #: G1429035
 SKU #: **A103485**
Analysis: **088835**
 Storage Temperature: Desiccated

| Parameter | Limit Values | Result |
|--|--------------------------|--------------------------|
| Loss on drying | 0-0.2 (%) | 0.14 % |
| Ammonia (NH ₄) | 0-0.02 (%) | 0.01 % |
| Heavy metal (as Pb) | 0-10 (ppm) | 6.00 ppm |
| Iron(Fe) | 0-10 (ppm) | 7.10 ppm |
| Ignition Residue (as sulfate) | 0-0.1 (%) | 0.05 % |
| Endotoxin Assay | 0-1 (EU/mg) | 0.73 EU/mg |
| Purity(titration with AgNO ₃)(dry basis) | 98.5-100 (%) | 98.54 % |
| Sulfate(SO ₄ ²⁻) | 0-0.02 (%) | 0.01 % |
| PH test(1.0g in 10ml water) | 4.7-6.2 | 5.50 |
| Chloride (Cl ⁻) | 16.58-17 (%) | 16.62 % |
| (As)Arsenic | 0-1 (ppm) | 0.63 ppm |
| Specific Rotation [α] _D ²⁰ (c=8 in 6M HCl) | 22.1-22.9 (°) | 22.20° |
| Appearance (A103485) | white crystalline powder | white crystalline powder |
| Cell Culture Test | pass | Pass |
| Infrared spectrum | Conforms to Structure | Conforms to Structure |
| Ninhydrin-positive substances (other amino acids) | Conforms | Conforms |
| Origin | non-animal source | non-animal source |
| Residual solvents | complies | complies |
| Solubility in H ₂ O , Colorless , Clear , 100 mg in 1 mL H ₂ O | pass | Pass |



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

John Su
QA & QC Manager