

Certificate of Analysis

Date of Testing: 2025-01-22 11:29:12

Date of Next Testing: 2029-01-21 11:29:12

Product Name: **L-Phenylalanine**

CAS Number: 63-91-2

Specifications & Purity: Moligand™, Animal Free, USP, JP, Ph.Eur., for cell culture, ≥98.5%

Lot #: A2517451

SKU #: **P110425**

Version: **3**

Analysis #: **437957**

Storage Temperature: Protected from light, Desiccated

Parameter	Limit Values	Result
(As)Arsenic	0-2 (ppm)	0.00 ppm
PH test	5.4-6	5.90
Chloride	0-0.02 (%)	0.01 %
Heavy metal (as Pb)	0-10 (ppm)	2.00 ppm
Ignition Residue (as sulfate)	0-0.1 (%)	0.00 %
Iron(Fe)	0-10 (ppm)	0.00 ppm
Assay(Titration by HClO ₄)	98.5-101 (%)	99.40 %
Loss on drying	0-0.3 (%)	0.07 %
Bacterial endotoxins	0-1000 (EU/g)	127.00 EU/g
specific Rotation[α] ₂₀ /D(c=2 in H ₂ O EP)	-35--33.5 (°)	-33.50 °
Sulfate(SO ₄ ²⁻)	0-0.02 (%)	0.00 %
Ammonia (NH ₄)	0-0.02 (%)	0.02 %
Other amino acids	0-0.5 (%)	0.20 %
specific Rotation[α] ₂₅ /D(c=2 in H ₂ O USP)	-34.7--32.7 (°)	-32.70 °
Appearance (P110425)	White crystal powder	White crystal powder
Solubility in hot Water, almost transparency, Clear colorless	pass	Pass
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



ALADDIN SCIENTIFIC CORPORATION

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

John Su
QA & QC Manager