

Certificate of Analysis

Date of Testing: 2023-04-03 15:05:39
Date of Next Testing: 2027-04-02 15:05:39
Product Name: **L-Valine**
CAS Number: 72-18-4
Specifications & Purity: from non-animal source, meets EP, JP, USP testing specifications, suitable for cell culture, 98.5-101.0%
Lot #: C2323747
SKU #: **V139523**
Analysis: **164916**

Parameter	Limit Values	Result
Sulfate(SO ₄ ²⁻)	0-0.02 (%)	0.01 %
PH(5% in Water)(USP)	5.5-7	6.30
Endotoxin Assay	0-1 (EU/mg)	0.89 EU/mg
Iron(Fe)	0-10 (ppm)	5.00 ppm
Specific Rotation $[\alpha]_{25/D}(c=8 \text{ in } 6\text{M HCL/USP})$	26.6-28.8 (°)	27.63°
Specific Rotation $[\alpha]_{20/D}(c=8 \text{ in } 6 \text{ M HCl / EP in JP})$	27.6-28.7 (°)	27.90°
Ammonia (NH ₄)	0-0.02 (%)	0.01 %
Appearance (V139523)	White powder	White powder
Cell Culture Test	pass	Pass
Origin	non-animal source	non-animal source
Solubility in H ₂ O , Colorless Clear , 25mg/ml, H ₂ O	pass	Pass
Identity by IR	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager