

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2026-08-13 17:09:50

Date of Next Testing: 2029-08-12 17:09:50

Product Name: **L-Leucine**

CAS Number: 61-90-5

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

Lot #: GMH2604126

SKU #: **L774643**

Version: **1**

Analysis #: **756579**

Storage Temperature: Protected from light, Room temperature, Desiccated

Parameter	Limit Values	Result
Assay(Perchloric acid titration, calc. on anhydrous substance)	98.5-101 (%)	100.27000 %
Transmittance of solution(10g/l,water)	≥98 (%)	99.72750 %
Specific Rotation [α] ₂₀ /D(C=4 in hydrochloric acid R1,dried substance)	14.5-16.5 (°)	16.40000 °
Specific Rotation [α] ₂₅ /D(C=4 in 6 N HCl,dried substance)	14.9-17.3 (°)	15.80000 °
PH(10g/l,CO ₂ -free water)	5.5-6.5	6.22650
Chloride(Cl)	0-200 (ppm)	56.79076 ppm
Sulfate(SO ₄)	0-280 (ppm)	25.20779 ppm
Heavy metals	0-20 (ppm)	0.00750 ppm
Fe(iron)	0-10 (ppm)	0.00000 ppm
Sulfated ash(600 °C)	0-0.1 (%)	0.02000 %
loss on drying(105°C,3 h)	0-0.2 (%)	0.11000 %
Arsenic(As)	0-2 (ppm)	0.00750 ppm
Related compounds(HPLC)(Individual impurities)	0-0.5 (%)	0.00000 %
Related compounds(HPLC)(Total impurities)	0-2 (%)	0.00000 %
Ninhydrin-positive substances(LC)(isoleucine (570 nm))	0-0.8 (%)	0.00000 %
Ninhydrin-positive substances (LC)(any ninhydrin-positive impurity)	0-0.2 (%)	0.00000 %
Ninhydrin-positive substances (LC)(ammonium (570 nm))	0-0.02 (%)	0.02000 %
Ninhydrin-positive substances (LC)(total impurities)	0-1 (%)	1.00000 %
Other amino acids (TLC)	0-0.5 (%)	0.00000 %
Bacterial endotoxins	0-3 (IU/g OR u/g)	0.00000 IU/g OR u/g
Colony count (aerobic bacteria (TAMC))	0-100 (CFU/g)	0.00000 cfu/g
Colony count (Yeasts and moulds (TYMC))	0-10 (cfu/g)	0.00000 cfu/g

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Parameter	Limit Values	Result
Appearance(L774643)	White or almost white, crystalline powder or shiny flakes	White or almost white, crystalline powder or shiny flakes
Solubility:sparingly soluble in water, practically insoluble in ethanol (96 per cent). It dissolves in dilute mineral acids and in dilute solutions of alkali hydroxides.	Pass	Pass
Identity (IR-spectrum)	conforms	Conforms
Identity(specific rotation)	Pass	Pass
Identity(TLC)	Passes test	Passes test
Appearance of solution,clear and not more intense in color than reference solution BY6	Pass	Pass
Residual solvents (ICH Q3C)(excluded by production process)	Pass	Pass



John Su
QA & QC Manager