

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing:	2023-05-24 17:21:52
Date of Next Testing:	2027-05-23 17:21:52
Product Name:	<b>L-Tyrosine</b>
CAS Number:	60-18-4
Specifications & Purity:	from non-animal source,EP,JP,USP ; for cell culture,99.0 - 101.0 %
Lot #:	E2322156
SKU #	<b>T115962</b>
Version	<b>0</b>
<b>Analysis #:</b>	<b>220939</b>
Storage Temperature:	Protected from light

Parameter	Limit Values	Result
Ammonia (NH <sub>4</sub> )	0-0.02 (%)	0.00 %
Loss on drying	0-0.3 (%)	0.00 %
Chloride	0-0.04 (%)	0.00 %
Heavy metals	0-15 (ppm)	0.00 ppm
Ignition Residue	0-0.4 (%)	0.00 %
Sulfate(SO <sub>4</sub> <sup>2-</sup> )	0-0.04 (%)	0.01 %
Assay	99-100 (%)	99.90 %
Iron(Fe)	0-30 (ppm)	0.00 ppm
Specific Rotation [α] <sub>20</sub> /D(c=5 in 1 M HCl)	-12.1--11.3 (°)	-11.32 °
Appearance (T115962)	White to Off-White Powder or Solid or Chunks	White to Off-White Powder or Solid or Chunks
Cell Culture Test	pass	Pass
Origin	non-animal source	non-animal source
Solubility in 1 M HCl , Colorless to faint yellow, Clear , 25mg/ml	pass	Pass
Residual solvents	complies	complies
Identity by IR	Conforms to Structure	Conforms to Structure



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

John Su  
QA & QC Manager