

## Certificate of Analysis

Date of Testing: 2023-04-27 17:53:25  
 Date of Next Testing: 2027-04-26 17:53:25  
 Product Name: **L-Tyrosine**  
 CAS Number: 60-18-4  
 Specifications & Purity: from non-animal source,EP,JP,USP ; for cell culture,99.0 - 101.0 %  
 Lot #: D23241212  
 SKU #: **T115962**  
**Analysis:** **207840**  
 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 (%)	0.18 %
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	99-101 (%)	99.80 %
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 (°)	-11.31 °
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
Residual solvents	complies	complies
Solubility in 1 M HCl , Colorless to faint yellow,Clear , 25mg/ml	pass	Pass
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