

Certificate of Analysis

Date of Testing: 2023-06-14 13:39:28

Date of Next Testing: 2027-06-13 13:39:28

Product Name: **L-Serine**

CAS Number: 56-45-1

Specifications & Purity: 99%

Lot #: F23131268

SKU #: **S103483**

Analysis: **241109**

Storage Temperature: Desiccated

Parameter	Limit Values	Result
Carbon by Elemental Analysis	33.6-35 (%)	34.50 %
Nitrogen by Elemental Analysis	13-13.6 (%)	13.20 %
Purity(HPLC)	99-100 (%)	99.64000 %
Specific rotation(20°C, C = 10 in 2 M HCl, EP)	14.4-15.5 (°)	15.25000 °
Appearance (S103483)	White to Off-White Powder	White to Off-White Powder
Infrared spectrum	Conforms to Structure	Conforms to Structure
Solubility in H2O , Colorless and clear,50 mg/mL	pass	Pass

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

John Su
QA & QC Manager