

Certificate of Analysis

Date of Testing: 2022-08-04 20:26:31

Date of Next Testing: 2026-08-03 20:26:31

Product Name: **L-Serine**

CAS Number: 56-45-1

Specifications & Purity: 99%

Lot #: G2230163

SKU #: **S103483**

Analysis: **121487**

Storage Temperature: Desiccated

Parameter	Limit Values	Result
Carbon by Elemental Analysis	33.6-35 (%)	34.50 %
Nitrogen by Elemental Analysis	13-13.6 (%)	13.41 %
Purity(HPLC)	99-100 (%)	99.93400 %
Specific Rotation $[\alpha]_{20/D}(C=2, 5N HCl)$	12°-14°	13.50000 °
Appearance (S103483)	White to Off-White Powder	White to Off-White Powder
Infrared spectrum	Conforms to Structure	Conforms to Structure
Solubility in H ₂ O , Colorless and clear,50 mg/mL	pass	Pass

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

John Su
QA & QC Manager