

## Certificate of Analysis

Date of Testing: 2023-10-13 17:27:35

Date of Next Testing: 2027-10-12 17:27:35

Product Name: **L-Threonine**

CAS Number: 72-19-5

Specifications &amp; Purity: 99%

Lot #: J2311101

SKU #: **T108221****Analysis: 069303**

Storage Temperature: Desiccated

Parameter	Limit Values	Result
Ignition Residue	0-0.1 (%)	0.00 %
Purity(HPLC)	99-100 (%)	99.85900 %
Carbon by Elemental Analysis	39.6-41.1 (%)	40.20 %
Specific Rotation [ $\alpha$ ] <sub>20</sub> /D(c=6 in H <sub>2</sub> O)	-29--27.5 (°)	-28.46 °
Nitrogen by Elemental Analysis	11.5-13.1 (%)	12.45 %
Loss on drying	0-0.2 (%)	0.00 %
Appearance (T108221)	White to off-white powder, needles and/or Chunks	White to off-white powder, needles and/or Chunks
Infrared spectrum	Conforms to Structure	Conforms to Structure
Solubility,Colorless and clear(5% in H <sub>2</sub> O)	pass	Pass

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QA & QC Manager