

## Certificate of Analysis

Date of Testing: 2022-12-17 10:51:23

Date of Next Testing: 2026-12-16 10:51:23

Product Name: **D-Norvaline**

CAS Number: 2013-12-9

Specifications & Purity: 99%

Lot #: L2209822

SKU #: **N106191**

**Analysis: 129457**

Parameter	Limit Values	Result
Specific Rotation [ $\alpha$ ] <sub>20</sub> /D(c=10 in 5M HCL)	-26--20 (°)	-21.97°
Purity(Nonaqueous Titration)	98.5-101.5 (%)	99.55 %
Enantiometric Excess	98-100 (%)	98.50 %
Appearance (N106191)	White Powder, Crystals, Granules and/or Lumps	White Powder, Crystals, Granules and/or Lumps
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager