

## Certificate of Analysis

Date of Testing: 2023-05-13 17:41:58  
Date of Next Testing: 2025-05-12 17:41:58  
Product Name: **D-Leucine tert-Butyl Ester Hydrochloride**  
CAS Number: 13081-32-8  
Specifications & Purity:  $\geq 98.0\%$   
Lot #: E23101048  
SKU #: **S138145**  
**Analysis: 169915**  
Storage Temperature: Argon charged

Parameter	Limit Values	Result
Purity(HPLC)	98-100 (%)	99.01700 %
Specific Rotation $[\alpha]_{20/D(c=2 \text{ in DMF})}$ -13--9 (°)		-10.52 °
Purity (Argentometric Titration)	97.5-102.5 (%)	102.38 %
Appearance (S138145)	White to Almost white powder to crystal	White to Almost white powder to crystal
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager