

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-02-13 11:09:23  
Date of Next Testing: 2027-02-12 11:09:23  
Product Name: **L-Alanine ethyl ester hydrochloride**  
CAS Number: 1115-59-9  
Specifications & Purity: 98%  
Lot #: B2304083  
SKU #: **A109010**  
**Analysis: 168041**  
Storage Temperature: Argon charged

Parameter	Limit Values	Result
Purity(Titration by AgNO <sub>3</sub> )	97.5-102.5 (%)	102.50 %
Water by Karl Fischer	0-0.5 (%)	0.30 %
Specific Rotation [ $\alpha$ ] <sub>20</sub> /D(c=2.5 in H <sub>2</sub> O)	2-4 (°)	2.93°
Substances not precipitated by ammonia	0-1 (%)	0.36 %
Melting point	77-83 (°C)	81.51000 °C
Appearance (A109010)	white to off-white powder, crystals and/or chunks	white to off-white powder, crystals and/or chunks
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager