

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2022-10-14 15:52:33  
 Date of Next Testing: 2026-10-13 15:52:33  
 Product Name: **L-Alanine tert-Butyl Ester Hydrochloride**  
 CAS Number: 13404-22-3  
 Specifications & Purity:  $\geq 97\%$   
 Lot #: J2211629  
 SKU #: **A109203**  
 Version: **1**  
 Analysis #: **108804**  
 Storage Temperature: Store at 2-8°C, Argon charged

| Parameter                                                                         | Limit Values                                  | Result                                        |
|-----------------------------------------------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| Specific Rotation $[\alpha]_{20/D}(c=2 \text{ in EtOH})$                          | 1-3 ( $^{\circ}$ )                            | 1.34 $^{\circ}$                               |
| Purity(HPLC)                                                                      | 97-100 (%)                                    | 99.16900 %                                    |
| Purity (Argentmetric Titration)                                                   | 96.5-103.5 (%)                                | 101.16 %                                      |
| Appearance (A109203)                                                              | White to Off-White Solid, Powder, or Crystals | White to Off-White Solid, Powder, or Crystals |
| Proton NMR spectrum                                                               | Conforms to Structure                         | Conforms to Structure                         |
| Solubility in H <sub>2</sub> O , Colorless, Clear to Very Slightly Hazy, 50 mg/ml | pass                                          | Pass                                          |



John Su  
QA & QC Manager