

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2026-02-25 14:44:40  
 Date of Next Testing: 2028-02-25 14:44:40  
 Product Name: **N-(tert-Butoxycarbonyl)-L-pyroglutamic Acid**  
 CAS Number: 53100-44-0  
 Specifications & Purity:  $\geq 98\%$ (HPLC)(T)  
 Lot #: H2204164  
 SKU #: **S138951**  
 Version: **0**  
 Analysis #: **656567**  
 Storage Temperature: Store at -20°C, Argon charged

| Parameter                                                  | Limit Values                    | Result                          |
|------------------------------------------------------------|---------------------------------|---------------------------------|
| Specific Rotation $[\alpha]_{20/D}(c=1 \text{ in CHCL}_3)$ | -36--33 (°)                     | -33.69400 °                     |
| Melting point                                              | 117-129 (°C)                    | 128.71800 °C                    |
| Purity(HPLC)                                               | 98-100 (%)                      | 98.88500 %                      |
| Appearance (S138951)                                       | White to Tan Powder or Crystals | White to Tan Powder or Crystals |
| Proton NMR spectrum                                        | Conforms to Structure           | Conforms to Structure           |



John Su  
QA & QC Manager