

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2023-10-09 15:57:31
 Date of Next Testing: 2025-10-08 15:57:31
 Product Name: **Ethyl N-(tert-Butoxycarbonyl)-L-pyroglutamate**
 CAS Number: 144978-12-1
 Specifications & Purity: $\geq 98\%$
 Lot #: A2207850
 SKU #: **E133013**
 Version: **0**
 Analysis #: **283042**
 Storage Temperature: Room temperature

Parameter	Limit Values	Result
Melting point	52-56 (°C)	54.30000 °C
Purity(HPLC)	98-100 (%)	98.10500 %
Specific Rotation $[\alpha]_{20/D(c=0.5 \text{ MeOH})}$	-46--42 (°)	-44.30000 °
Appearance (E133013)	White to Off-White to yellow Powder or Crystals	White to Off-White to Yellow Powder or Crystals
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager