

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2022-12-09 19:15:43
 Date of Next Testing: 2026-12-08 19:15:43
 Product Name: **Z-L-glutamic acid alpha-tert-butyl ester**
 CAS Number: 5891-45-2
 Specifications & Purity: $\geq 98.5\%$
 Lot #: L22071040
 SKU #: **Z116873**
 Version: **0**
 Analysis #: **145946**
 Storage Temperature: Store at 2-8°C, Argon charged

Parameter	Limit Values	Result
Specific Rotation $[\alpha]_{20/D}(c=1 \text{ in MeOH})$	-28--24 (°)	-26.00500 °
Melting point	81-85 (°C)	84.95000 °C
Purity(HPLC)	98.5-100 (%)	99.81900 %
Appearance (Z116873)	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



John Su
QA & QC Manager