

Certificate of Analysis

Date of Testing: 2022-06-11 13:11:40

Date of Next Testing: 2025-06-10 13:11:40

Product Name: **Boc-D-pyroglutamic acid methyl ester**

CAS Number: 128811-48-3

Specifications & Purity: 98%

Lot #: F2210180

SKU #: **R190465**

Analysis: **083396**

Storage Temperature: Room temperature

Parameter	Limit Values	Result
Specific Rotation $[\alpha]_{20/D}(c=1.039 \text{ in CHCL}_3)$	29.5-33.5 (°)	33.35 °
Purity(HPLC)	98-100 (%)	98.38400 %
Melting point	67-72 (°C)	70.33000 °C
Appearance (R190465)	White to Off-White to Faint Red Powder	White to Off-White to Faint Red Powder
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager