

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2023-08-10 15:12:13

Date of Next Testing: 2027-08-09 15:12:13

Product Name: **D-Pyroglutamic acid**

CAS Number: 4042-36-8

Specifications & Purity: $\geq 98\%$

Lot #: H23021020

SKU #: **P106190**

Version: **0**

Analysis #: **249182**

Storage Temperature: Room temperature

Parameter	Limit Values	Result
Purity(HPLC)	98-100 (%)	99.31400 %
Melting point	159-164 (°C)	161.69000 °C
Specific Rotation $[\alpha]_{20/D}(c=5 \text{ in H}_2\text{O})$	9.5-12.5 (°)	10.38200 °
Purity(Nonaqueous Titration)	97.5-102.5 (%)	98.69900 %
Appearance (P106190)	White Powder or Crystals	White Powder or Crystals
Infrared spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager