

# Certificate of Analysis

## Compound Information

**Product Name:** Z-L-Pyroglutamic Acid  
**CAS No.:** 32159-21-0  
**Cat. No.:** G4048615  
**Molecular Formula:** C<sub>13</sub>H<sub>13</sub>NO<sub>5</sub>  
**Molecular Weight:** 263.25

## Batch Information

**Batch No.:** 8520162  
**Test Date:** 2023-05-16  
**Report Date:** 2023-05-17  
**Retest Date:** 2028-11-10  
**Storage:** -20°C  
**Origin:** China

## Test Item

Test	Specification	Result
Purity	98%+(LC-MS)	99.63%
NMR	Consistent with structure	Consistent with structure
Optical Rotation	?-34.0 to -37.0	-35.98

## Conclusion

The product has been tested and complies with the given specifications.

## Signature

Reviewed by :



Reviewed by:



Approved by:

