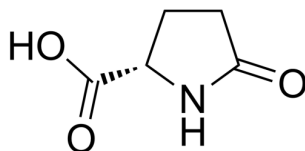


## Certificate of Analysis

### Compound Information

|                     |   |
|---------------------|---|
| Product Name:       | L-Pyroglutamic acid                           |
| Cat. No.:           | 1047693                                       |
| CAS No.:            | 98-79-3                                       |
| Molecular Formula:  | C <sub>5</sub> H <sub>7</sub> NO <sub>3</sub> |
| Molecular Weight:   | 129.11  |
| Chemical Structure: |   |



### Batch Information

|              |                     |
|--------------|---------------------|
| Batch No.:   | Lf1128185831        |
| Storage:     | Storage temp. 2-8°C |
| Test Date:   | 2022-11-28          |
| Retest Date: | 2025-11-27          |
| Origin:      | Shanghai, China     |

### QC Summary

|  |   |
|--|---|
| Appearance:                            | White to light yellow (Solid)   |
| <sup>1</sup> H NMR Spectrum:           | Consistent with structure   |
| Enantiomeric Excess:                   | 100%  |
| Purity (NMR):                          | ≥98.0%  |
| Water(KF):                             | 0.26%   |
| Residue on Ignition:                   | 0.16%   |
| OR[α](C=1.0 g/100ml H <sub>2</sub> O): | -11.9   |
| Conclusion:                            | The product has been tested and complies with the given specifications. |

Caution: Research use only and are not intended for human use.

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