# Certificate of Analysis

Recombinant Human IL-21

| CATALOGUE NO. | LOT NO. | MANUFACTURE | RETEST |
|---|---|---|---|
| **GMP-TL509-0050** | **LA59C-631** | **2026-08-14** | **2028-08-13** |

## PRODUCT IDENTIFICATION

| | |
|---|---|
| **Product** | Recombinant Human IL-21 |
| **Family** | Recombinant Proteins |
| **Appearance** | White to off-white lyophilised powder |
| **Pack size** | 50 µg |
| **Storage** | ≤ -20 °C |
| **Shelf life** | 24 months |

## TEST RESULTS

| Test | Method | Specification | Result | Status |
|---|---|---|---|---|
| Identity | Peptide mapping / Western blot | Conforms | Conforms | Pass |
| Purity | SDS-PAGE, densitometry | >= 95.0 % | 97.4 % | Pass |
| Concentration | A280, extinction coefficient | As labelled | Conforms | Pass |
| Endotoxin | LAL, kinetic turbidimetric | ≤ 0.1 EU/µg | 0.06 EU/µg | Pass |
| Sterility | Membrane filtration, 14 days | No growth | No growth | Pass |
| pH | Potentiometric | 7.0 - 7.6 | 7.2 | Pass |
| Appearance | Visual, against reference | Conforms | Conforms | Pass |
| Batch record review | Documented release | Complete | Complete | Pass |

## RELEASE STATEMENT

This lot has been manufactured and tested in accordance with the registered specification and released by Quality Control. Retain samples are held for the shelf-life period plus twelve months. The product is intended for research use or further manufacturing; it is not intended for direct diagnostic use.

Released by - Quality Control

Authorised signatory - Quality Assurance

*Representative certificate. The lot-specific COA is issued with your shipment and carries the release signatures; values shown here illustrate the test panel and are not a release record for any specific lot.*