CRAFA
PEPTIDE & COMPOUND ANALYSIS

Independent Peptide & Research-Compound Testing
14 Mill Lane, Cambridge, United Kingdom

# CERTIFICATE OF ANALYSIS

Certificate of Analysis (COA)

No. CRF-2026-0204
Issued: 2026-09-10

## PRODUCT IDENTIFICATION

| | | |
|---|---|---|
| PRODUCT<br>Tirzepatide | SKU / INTERNAL CODE<br>CRF-2026-0204 | PRESENTATION<br>Lyophilised powder, 5 mg vial |
| BATCH NUMBER<br>CRF-2026-0204 | SAMPLE RECEIVED<br>2026-09-04 | PRODUCTION DATE<br>2026-08-29 |
| ANALYSIS DATE<br>2026-09-08 | EXPIRY / RETEST DATE<br>2028-09-08 | MOLECULAR FORMULA (REFERENCE)<br>C225H348N48O68 |
| MOLECULAR WEIGHT (G/MOL; REFERENCE)<br>4813.53 | CAS (REFERENCE)<br>2023788-19-2 | |

*Research Use Only (RUO). Not for human or veterinary use, consumption, or clinical diagnosis.*

## ANALYTICAL METHOD — HPLC

| | | |
|---|---|---|
| INSTRUMENT<br>Waters Xevo G3 | COLUMN<br>C4 2.1×100mm | COLUMN TEMPERATURE<br>60°C |
| MOBILE PHASE A<br>0.1% TFA H2O | MOBILE PHASE B<br>ACN | FLOW RATE<br>0.3 mL/min |
| DETECTION WAVELENGTH<br>214 nm | INJECTION VOLUME<br>5 µL | SAMPLE CONCENTRATION<br>0.5 mg/mL |
| DILUENT<br>— | RETENTION TIME (MAIN PEAK)<br>13.6 min | |

Recorded methods: HPLC-UV (214 nm) · LC-MS/MS · LAL · ICP-MS

## RESULTS

| Test | Acceptance Criteria | Result | Verdict |
|---|---|---|---|
| HPLC Purity (% area) | ≥98.0% | 99.3% | PASS |
| Identity (Method not recorded) | 4813.5 ±2% | Obs: 4814.5 [M+H]+ | PASS |
| Quantity found | 95.0–105.0% | 4.96 mg (99.2%) | PASS |
| Endotoxin | <1.0 EU/mg | <0.5 EU/mg | PASS |
| Heavy metals | <10 ppm | All <LOQ | PASS |

Detected Impurities

No impurity data recorded.

FINAL BATCH RESULT

PASS — Conforms to specifications

No chromatogram data recorded.

Analyst notes: Dual agonist structure confirmed, C20 fatty acid acylation intact.

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