

CERTIFICATE OF ANALYSIS

COA #: **SD20260829_003_TZ20**

SAMPLE INFORMATION

Client	Zentra Brands Limited	Accession #	SD20260829_003
Compound	TRZ2	Date Received	08/28/2026
Molecular Formula	C225H348N48O68	Date Reported	09/01/2026
Appearance	White lyophilized powder	Labeled Quantity	20 mg
Sample Form	Lyophilized Vial	Lot / Batch #	ZC0043
Storage	Room Temp	CAS Number	2023788-19-2
Cap Color	Red		



All Chemical Analysis Performed by LC-MS/MS

ANALYTICAL RESULTS

Test / Analysis	Method	Specification	Result	Status
Identity (Mass Confirmation)	LC-MS/MS	Matches reference mass	Tirzepatide	Pass
Purity	LC-MS/MS	≥ 95.0%	99.807%	Pass
Net Peptide Content	LC-MS/MS	Report value	22.33mg	Pass
Observed Molecular Mass	LC-MS	Within ± 1.0 Da	1204.5	Pass
Theoretical Molecular Mass	Reference	—	4813.45	Pass
Related Substances / Impurities	LC-MS/MS	Report value	Not Detected	Pass
Residual Solvents	LC-MS/MS	Report value	Not Detected	Pass

John Humes, MS. **John Humes, MS.**
Analyzed by · Laboratory Analyst · 09/01/2026

Chetan Soni, PhD. **Chetan Soni, PhD.**
Approved by · Laboratory Director · 09/01/2026

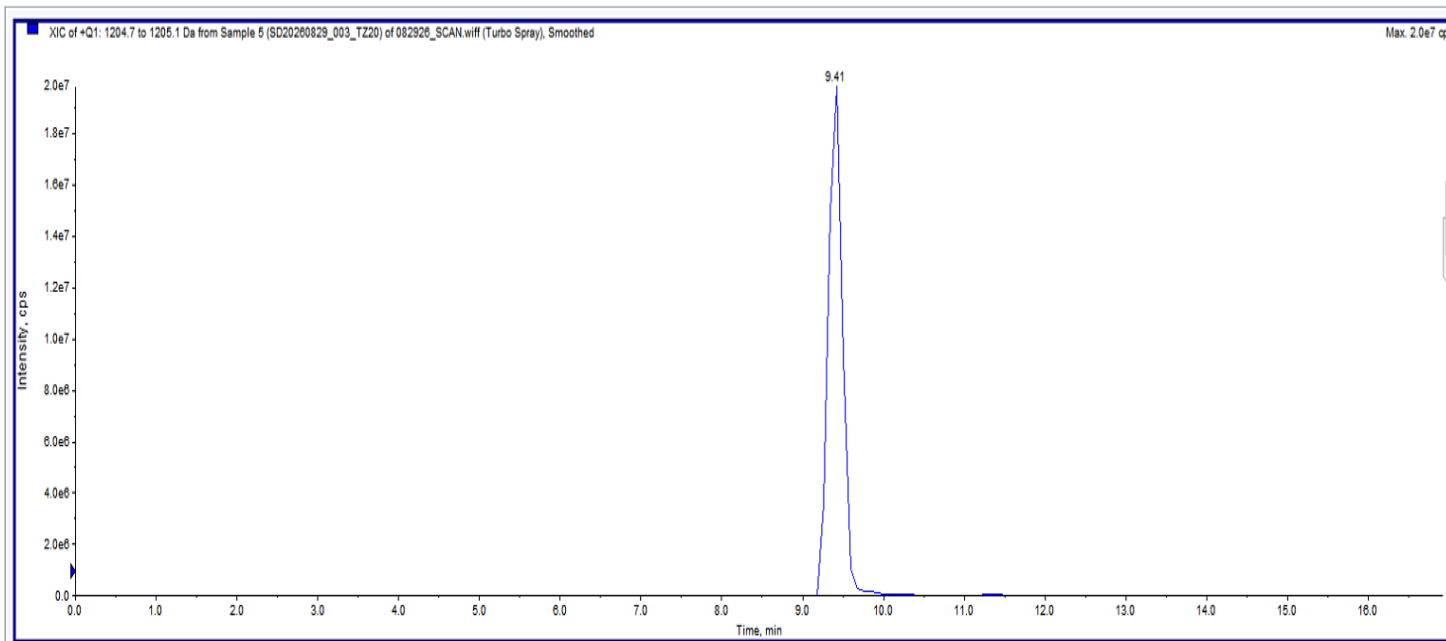
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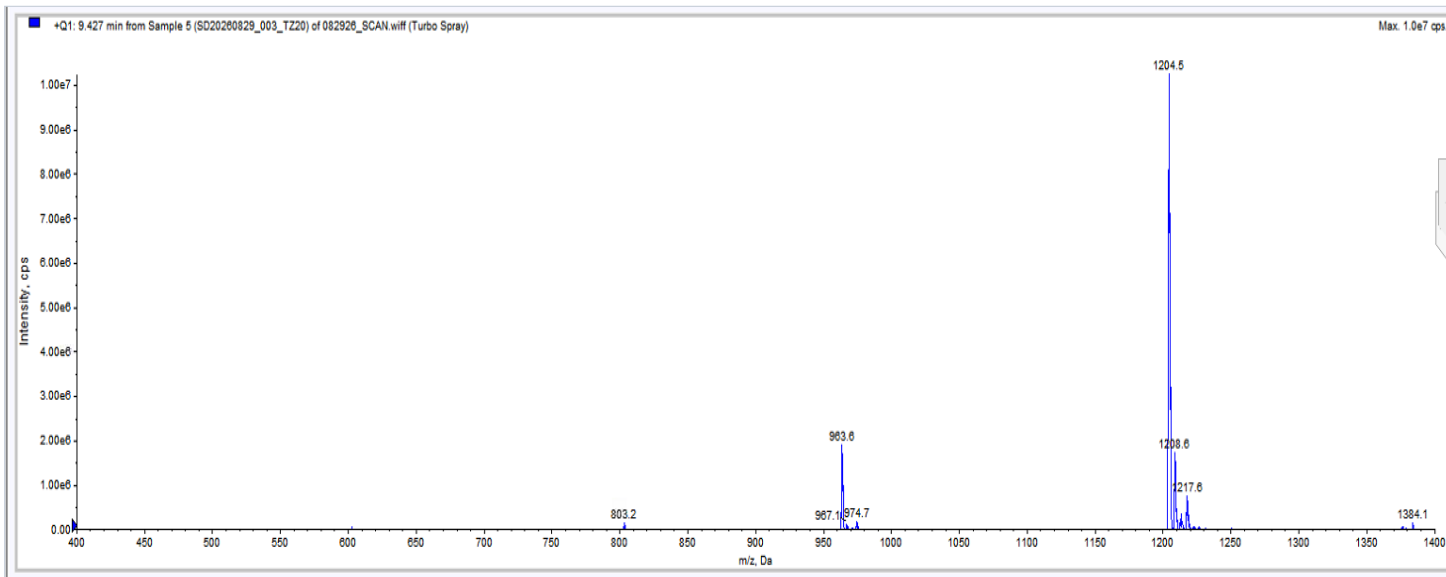
ANALYTICAL DATA

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CHROMATOGRAM



MASS SPECTRUM (LC-MS)



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ANALYTICAL INTERPRETATION

Chromatogram

Retention Time Match

Mass Spectrum (LC-MS)

Analyte: Tirzepatide

Sample ID: SD20260829_003_TZ20

Method (Identity): LC-MS, positive-mode Q1 full scan, TurboSpray ionization

Retention time: 9.427min

The Q1 full-scan spectrum at 9.427min shows a dominant ion at $m/z \approx 1204.5$, consistent with the $[M+4H]^4$ ion of Tirzepatide (MW ≈ 4.8 kDa). Additional peaks at $m/z \approx 963.6$, 967.1, and 974.7 correspond to higher charge states ($[M+5H]$ / $[M+6H]$) and adduct variants, while closely spaced peaks at $m/z \approx 1208.6$ and 1217.6 represent isotopic and adduct forms of the 4+ ion. The observed charge-state distribution and retention time are consistent with the expected LC-MS profile for Tirzepatide.

Interpretation: Identity by LC-MS Q1 full scan — Confirmed (Tirzepatide detected; Q1 profile consistent with reference standard).

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