Synaptica Analytics

Independent Laboratory Analysis Report

OFFICIAL ANALYTICAL DOCUMENT

REPORT ID
SYN-2026-005055

Analysis Report

Official laboratory analysis summary for the submitted sample and associated quality-control review.

SAMPLE	RECEIVED DATE	ANALYSIS DATE	REPORT GENERATED
Tirzepatide	Aug 03, 2026	Aug 11, 2026	Aug 12, 2026

STRENGTH	20mg	MANUFACTURER	PepticoreAminos
BATCH NUMBER	PC-TZ20-0831W	LAB CODE	983-1
CLIENT	www.pepticoreaminos.net		

SAMPLE INFORMATION

Tirzepatide

20MG

FORM	White lyophilized powder in a glass vial
SAMPLE SUBMISSION	Sample provided by customer
BATCH	PC-TZ20-0831W
CAP / CRIMP COLOR	White/blue
RECEIVED DATE	Aug 03, 2026



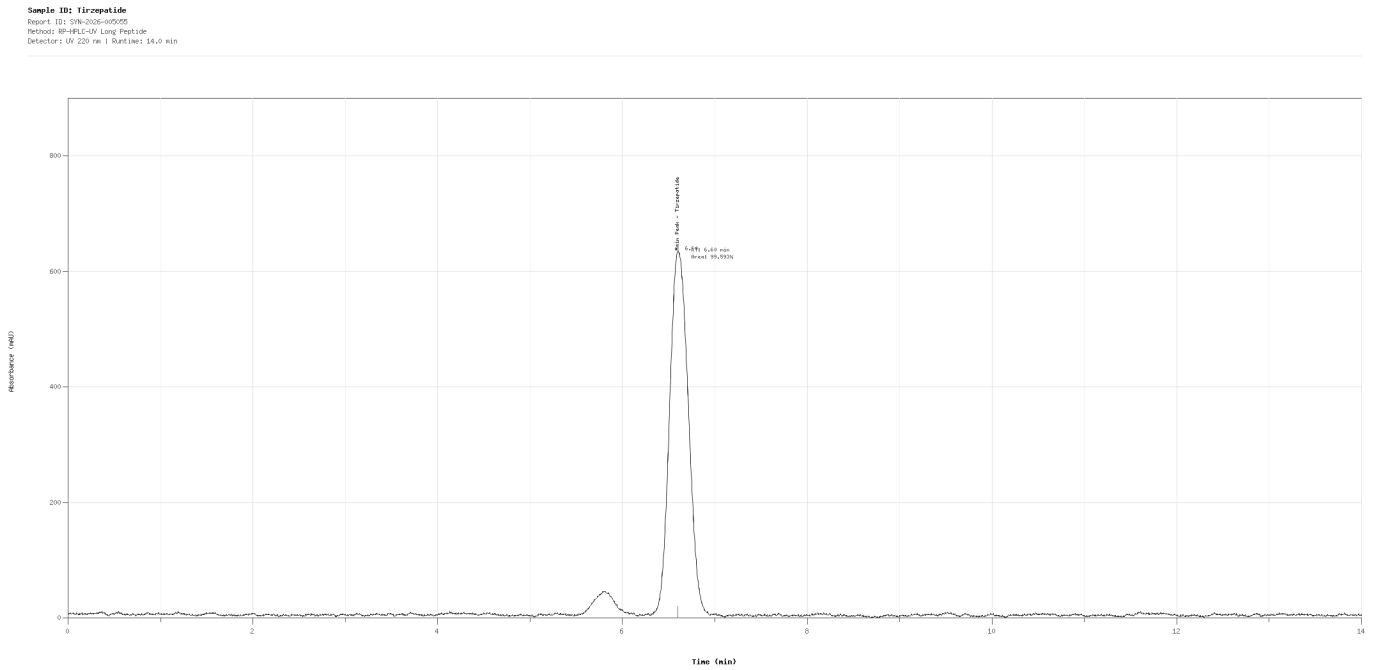
SAMPLE IMAGE

ANALYTICAL SUMMARY

IDENTITY	Tirzepatide
PURITY	99.593%
QUANTITY	20.33mg
BATCH	PC-TZ20-0831W
MANUFACTURER	PepticoreAminos

RP-HPLC-UV CHROMATOGRAM (220 NM)

Detection: UV 220 nm | Runtime: 14.0 min



METHOD

TIME	H2O + 0.1% TFA	ACN + 0.1% TFA
0min	90%	10%
2min	90%	10%
10min	8%	92%
12min	8%	92%
14min	8%	92%

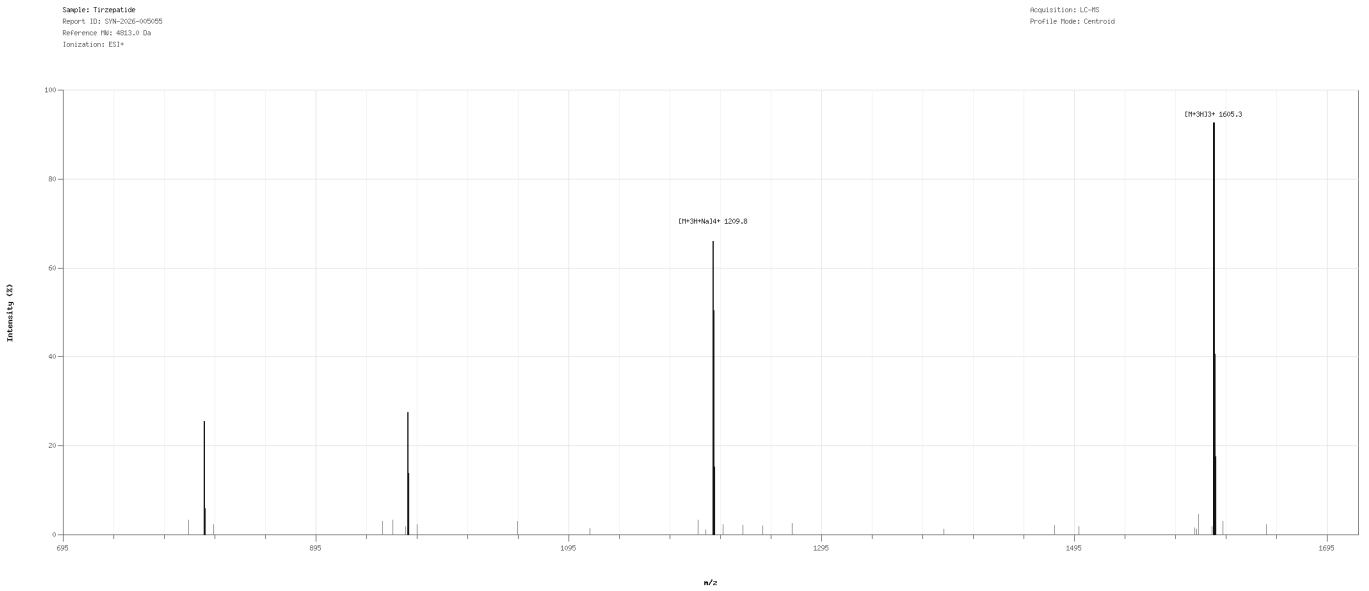
TECHNICAL NOTE

Analysis performed by RP-HPLC-UV at 220 nm using a gradient elution program. Total runtime: 14.0 minutes.

COMMENTS

The submitted sample meets the defined analytical specifications for identity, purity and impurity profile according to the applied RP-HPLC-UV method.

LC-MS MASS SPECTRUM



Charge-state distribution and isotope clustering are consistent with the expected analytical mass response.

ANALYSIS & METHODOLOGY

STANDARD PEPTIDE PURITY, MASS & ADDITIONAL TESTING

Analysis performed using RP-HPLC-UV under validated laboratory conditions. Peak profile, retention behavior and purity response were evaluated against internal reference standards.

BIOBURDEN

TEST	RESULT	UNIT	REPORTING LIMIT
Total Aerobic Microbial Count USP <61>/Eur. Ph. 2.6.12. Plate Count Method	**Not detected**	**CFU/g**	**>= 1000**
Total Yeast and Mold Count USP <61>/Eur. Ph. 2.6.12. Plate Count Method	**Not detected**	**CFU/g**	**>= 100**

ENDOTOXIN ANALYSIS

TEST	RESULT	UNIT	REPORTING LIMIT
Bacterial Endotoxin USP<85>/ Eur. Ph. 2.6.14. Bacterial Endotoxin Chromogenic Test	**< 0.001**	**EU/mg**	**NMT 0.5**

HEAVY METALS

TEST	RESULT	UNIT	REPORTING LIMIT
Arsenic Elemental Impurities Screening	**Not detected**	**ppm**	**>= 1.5**
Cadmium Elemental Impurities Screening	**Not detected**	**ppm**	**>= 0.5**
Cobalt Elemental Impurities Screening	**Not detected**	**ppm**	**>= 25**
Lead Elemental Impurities Screening	**Not detected**	**ppm**	**>= 1.5**

TEST	RESULT	UNIT	REPORTING LIMIT
Nickel Elemental Impurities Screening	**Not detected**	**ppm**	**>= 25**
Quicksilver Elemental Impurities Screening	**Not detected**	**ppm**	**>= 1.5**
Vanadium Elemental Impurities Screening	**Not detected**	**ppm**	**>= 25**

TECHNICAL APPENDIX

This appendix documents the analytical methodology, instrumentation and acceptance criteria applied for the evaluation of the sample.

COMPOUND REFERENCE

PARAMETER	TIRZEPATIDE
PUBCHEM CID	166567236
CAS	2023788-19-2
MOLECULAR FORMULA	C225H348N48O68
MOLECULAR WEIGHT	4813.0 g/mol

METHOD SPECIFICATION

PARAMETER	LONG PEPTIDE EXTENDED RP-HPLC-UV METHOD
ANALYTICAL MODE	Extended gradient RP-HPLC-UV peptide purity screen
COLUMN	C18 peptide column, extended-gradient configuration
MOBILE PHASE A	Water + 0.1% TFA
MOBILE PHASE B	Acetonitrile + 0.1% TFA
FLOW RATE	0.7 mL/min
DETECTION	UV 220 nm
INJECTION VOLUME	10 uL
RUNTIME	14.0 min
SAMPLE DILUENT	Water/acetonitrile compatible diluent
SAMPLE PREPARATION	Diluted to method range and clarified before injection

INSTRUMENT PLATFORM

PARAMETER	HIGH-RESOLUTION UPLC/HPLC-UV PLATFORM
SYSTEM TYPE	High-resolution LC platform
DETECTOR	UV/VIS detector
ACQUISITION	Chromatographic acquisition and integration software
REVIEW MODE	Retention-time, UV response and mass-spectrum review

PARAMETER	HIGH-RESOLUTION UPLC/HPLC-UV PLATFORM
WORKFLOW NOTE	Used for long peptide analytical profile review
MS DETECTOR	Mass spectrometer, ESI+ acquisition
MS ACQUISITION	LC-MS spectral acquisition and processing

ANALYTICAL CRITERIA

PARAMETER	ACCEPTANCE FRAMEWORK	BASIS
IDENTITY	Retention-time and profile agreement with reference expectations	Chromatographic identity review
PURITY	NLT 98.0% unless a stricter report-specific specification is declared	Integrated RP-HPLC-UV purity profile
QUANTITY	Measured content reviewed against the declared sample strength	Report-level analytical summary
BIOBURDEN	Not detected or within stated reporting limits	Microbial screening table
ENDOTOXIN	Below stated reporting limit / internal screening threshold	Endotoxin analysis table
HEAVY METALS	Below individual reporting limits where screened	Elemental impurities screening table

This appendix documents the analytical methodology, instrumentation and acceptance criteria applied for the evaluation of the sample.

VERIFICATION

Verify this report through the official Synaptica Analytics verification page using the details below.
Verification URL synaptica-labs.com/verify-report
Report ID SYN-2026-005055
Verification Key VK-6TQY-BDU9

SCAN TO VERIFY

DIGITAL SIGNATURE



DIGITALLY SIGNED BY:
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Director