CRAFA
PEPTIDE & COMPOUND ANALYSIS

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

CERTIFICATE OF ANALYSIS

Certificate of Analysis (COA)

No. CRF-2026-2048
Issued: 2026-10-12

PRODUCT IDENTIFICATION

PRODUCT	Tirzepatide 5 mg
SKU / INTERNAL CODE	CRF-2026-2048
PRESENTATION	Lyophilised powder, 5 mg vial
BATCH NUMBER	LOT-2610-2048

CLIENT	SAMPLE RECEIVED	ANALYSIS DATE
veltispeptides.mx	2026-10-07	2026-10-10

PRODUCTION DATE	ISSUED	EXPIRY / RETEST
2026-10-05	2026-10-12	2028-10-12

MOLECULAR FORMULA
C225H348N48O68

MOLECULAR WEIGHT	CAS NUMBER
4813.53	2023788-19-2

ANALYTICAL METHOD

PANEL
SILVER - HPLC-UV + LC-MS/MS + ICP-MS (Pb/As/Cd/Hg) + LAL endotoxin

METHOD
RP-HPLC-UV 214 nm · LC-MS/MS ESI Q-TOF · ICP-MS · LAL kinetic chromogenic (USP <85>)

INSTRUMENT
Waters Xevo G3 · Agilent 7900 ICP-MS · Charles River Endosafe nexgen-PTS

Column: C4 2.1×100mm | Temperature: 60°C | Mobile phase: 0.1% TFA H2O / ACN | Flow: 0.3 mL/min | Retention time: 13.6 min

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1. PURITY & ASSAY - RP-HPLC-UV (214 nm)

Test	Specification	Result	Status
HPLC Purity	≥98.0%	99.6%	PASS
Quantity	95.0-105.0%	5.01 mg (100.2%)	PASS

2. LC-MS/MS STRUCTURAL CONFIRMATION

Test	Reported data	Status
Theoretical [M+H]+	4814.5 | Observed: 4814.7 | Δ +0.20 Da	PASS
Sequence Coverage (MS/MS)	≥95% | 98% (39 aa)	PASS
Key fragments	b13 1491.8 · b22 2504.3 · y15 1672.9 · y28 3201.7	PASS
Modifications	C20 fatty diacid acylation on Lys20 confirmed; Aib8 and Aib13 substitutions confirmed	PASS

RESEARCH USE ONLY - NOT FOR HUMAN OR VETERINARY USE

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3. HEAVY METALS - ICP-MS (USP <232>/<233>)

Test	Specification	Result	Status
Pb		<0.05 µg/g	PASS
As		<0.10 µg/g	PASS
Cd		<0.02 µg/g	PASS
Hg		<0.01 µg/g	PASS

4. ENDOTOXIN - LAL kinetic chromogenic (USP <85>)

Test	Reported data	Status
Result	<1.0 EU/mg limit | 0.21 EU/mg | PPC recovery 90%	PASS

FINAL BATCH RESULT

PASS - Conforms to specifications

ANALYST NOTES

Dual GIP/GLP-1 agonist. Acylation and N-terminus intact.

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Batch LOT-2610-2048 | Certificate CRF-2026-2048
Verify: VEL-8d2f6b4c0e7a5d3b · crafalab.com/verify