

• CERTIFICATE OF ANALYSIS

Independent Third-Party Verification

This Certificate of Analysis reports the results of independent quality control testing performed by Janoshik Analytical. Tests cover identity, purity, and trace impurity profile by reverse-phase HPLC and high-resolution mass spectrometry.

• SAMPLE IDENTIFICATION

Product	Tirzepatide (TIRZE)
Lot Number	NZM-W-0021
Sample Code	JA-S-26-04081
Form	Lyophilized powder
Net Content	10 mg / vial
Manufacturer	Synthesized in EU-certified contract facility
Date Received	2026-04-08
Date of Report	2026-04-12

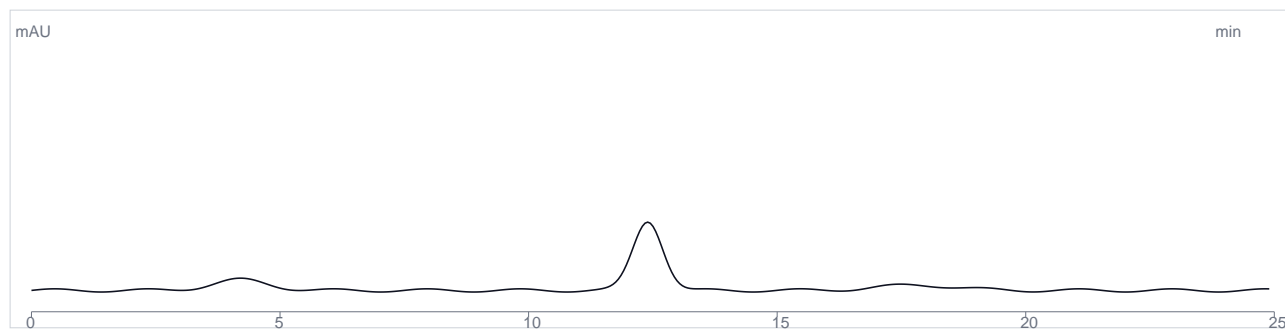
• TEST METHODS

Method	Description	Standard
RP-HPLC	Reverse-phase high-performance liquid chromatography	USP <621>
LC-MS	Liquid chromatography – high-resolution mass spectrometry	USP <736>
KF Titr.	Karl-Fischer titration for residual moisture	USP <921>
LAL	Limulus amoebocyte lysate endotoxin assay	USP <85>

• RESULTS

Test	Method	Specification	Result	Status
Identity	LC-MS	Match theoretical mass	4813.45 Da (matches)	PASS
Purity (peptide)	RP-HPLC	≥ 99.0%	99.4%	PASS
Acetate counter-ion	RP-HPLC	≤ 12.0%	8.7%	PASS
TFA residue	RP-HPLC	≤ 1.0%	< 0.1%	PASS
Water content	KF Titr.	≤ 8.0%	4.2%	PASS
Endotoxin	LAL	≤ 5 EU/mg	< 0.5 EU/mg	PASS
Appearance	Visual	White lyophilizate	White lyophilizate	PASS

• CHROMATOGRAM TRACE (RP-HPLC)



Single major peak at retention time 12.40 min · area-% 99.4 · column: ACE C18 4.6×150 mm · A: 0.1% TFA water / B: 0.1% TFA acetonitrile · gradient 5–60% B over 25 min · 1.0 mL/min · 220 nm

• CONCLUSION

The submitted sample **conforms** to the specifications declared by the manufacturer. Identity is confirmed by mass spectrometry. Purity by RP-HPLC exceeds the 99.0% acceptance threshold. Counter-ion content, residual moisture, and endotoxin levels are within USP limits. The material is suitable for in vitro and animal-model research use only.

ANALYZED BY

Dr. M. Janoš

Senior Analytical Chemist

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2026-04-12

Digitally signed · Verified by NZM Lab

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