Certificate of Analysis

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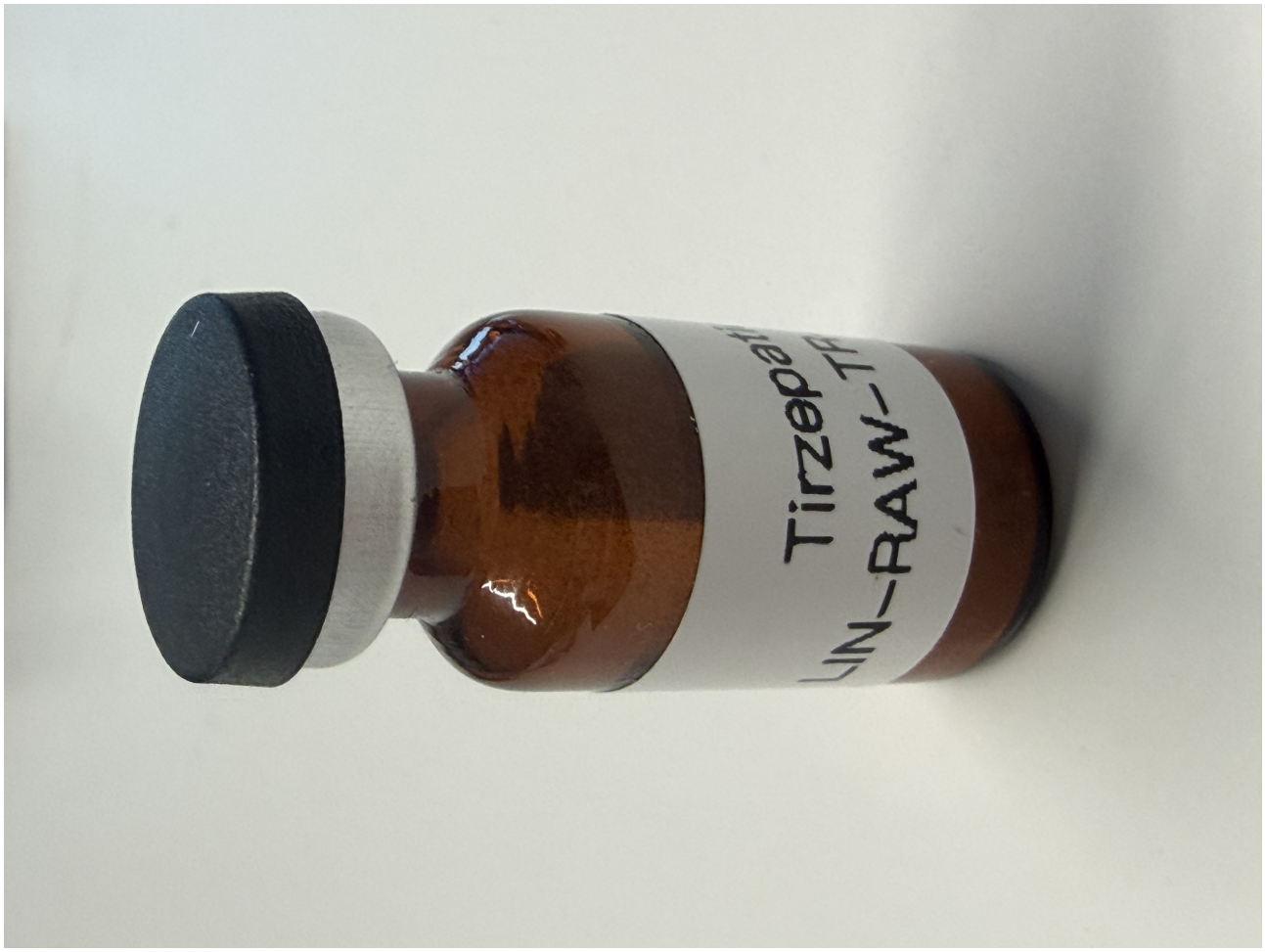
Verify Results Online

Sample Identification

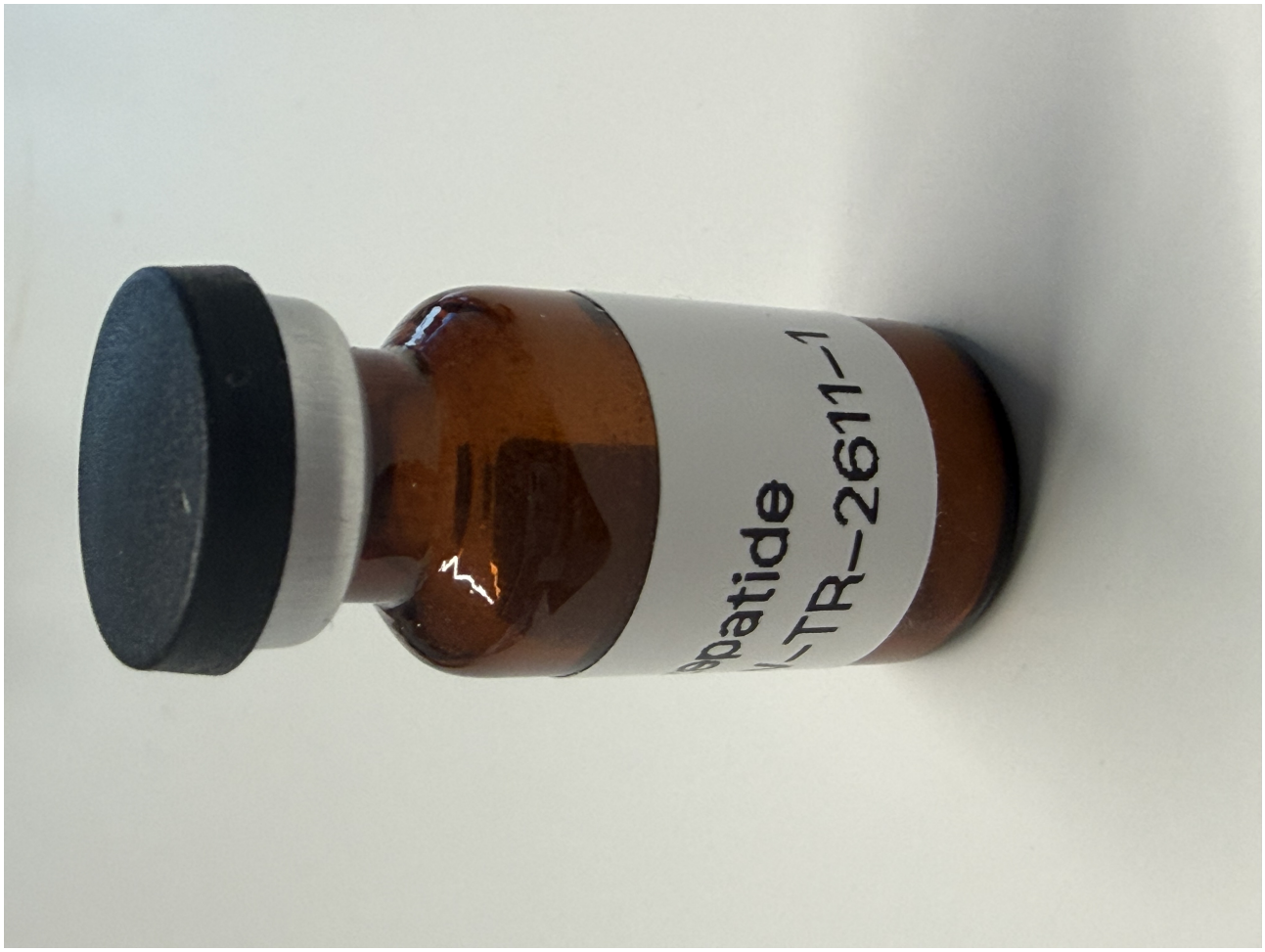
Sample Name	Tirzepatide
Batch Number	LIN-RAW-TR-2611-1
Date Published	2026-11-12 12:58

Results for RAW-0021

Peptides	Result	Unit	Uncertainty	Acceptable Range
Tirzepatide Assay Peptide Screening 0.1% TFA	28.9	*mg*	[± 0.1]	
Tirzepatide Purity Peptide Screening 0.1% TFA	99.6	*%*	[± 0.5]	
Tirzepatide Identification by Spectrum (FTIR) Peptide Screening 0.1% TFA	985		[± 5]	
Tirzepatide Identification by RT Peptide Screening 0.1% TFA	0.995		[± 0.005]	
Percentual content	88.70	*% (m/m)*	[± 1.77]	



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1. Content Assesment

1.1. Instrumentation

Module	Name	Serial Number
System Controller	Shimadzu CBM-40 Lite	L221226351398
Degassing Unit	Shimadzu DGU-403	NA
Pump	Shimadzu LC-40B XR	L22146350580
Autosampler	Shimadzu SIL-40C XR	L22216351622
Colum Thermostat	Shimadzu CTO-40S	L22236351602
PDA Detector	Shimadzu SPD-M40	L22276352808
SQ MS Detector	Shimadzu LCMS-2050	O12476200760

1.2. Chromatographic conditions

Chromatographic conditions	
Eluent A	0.1% DFA in Water (HPLC, Gradient Grade)
Eluent B	0.1% DFA in Acetonitrile (HPLC, Gradient Grade)
Flow rate	0.4 mL/min
Program	Gradient elution
Injection volume	1 µL
Colum Temperature	60°C
Column	Waters ACQUITY CSH C18, 100x2.1mm 1.7µm
Detection wavelength	280nm

Gradient Program		
Time [min]	A [%]	B [%]
2	98	2
10	35	65
10.01	5	95
11	5	95
11.01	98	2
15	end	

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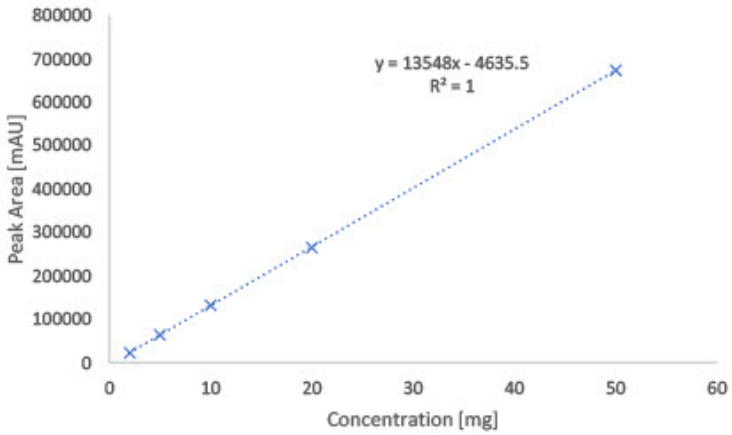
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1.3. Sample preparation

Whole amount of container was dissolved in 2mL of water (LCMS Grade). 100 µL of sample was transferred to HPLC vial and diluted by 900 µL water (LCMS Grade) and submitted for analysis.

1.4. Calibration curve

Calibration curve detail	
Quantitative method	External Standard
Calibration Type	Linear
Number of calibration points	5
Force through Zero	Enabled
Weighting Method	None



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2. Purity assessment

2.1 Instrumentation

Module	Name	Serial Number
System Controller	Shimadzu CBM-40 Lite	L221226351398
Degassing Unit	Shimadzu DGU-403	NA
Pump	Shimadzu LC-40B XR	L22146350580
Autosampler	Shimadzu SIL-40C XR	L22216351622
Colum Thermostat	Shimadzu CTO-40S	L22236351602
PDA Detector	Shimadzu SPD-M40	L22276352808
SQ MS Detector	Shimadzu LCMS-2050	O12476200760

2.2 Chromatographic conditions

Chromatographic conditions	
Eluent A	0.1% DFA in Water (HPLC, Gradient Grade)
Eluent B	0.1% DFAin Acetonitrile (HPLC, Gradient Grade)
Flow rate	0.4 mL/min
Program	Gradient elution
Injection volume	1 µL
Colum Temperature	60°C
Column	Waters ACQUITY CSH C18, 100x2.1mm 1.7µm
Detection wavelength	225nm

Gradient Program		
Time [min]	A [%]	B [%]
2	98	2
10	35	65
10.01	5	95
11	5	95
11.01	98	2
15	end	

2.3 Purity assesment

Purity of compound assesed by area normalization method, comparing area of each peak to sum of area of all peaks detected at wavelenght of 225 nm.

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Analysis Report

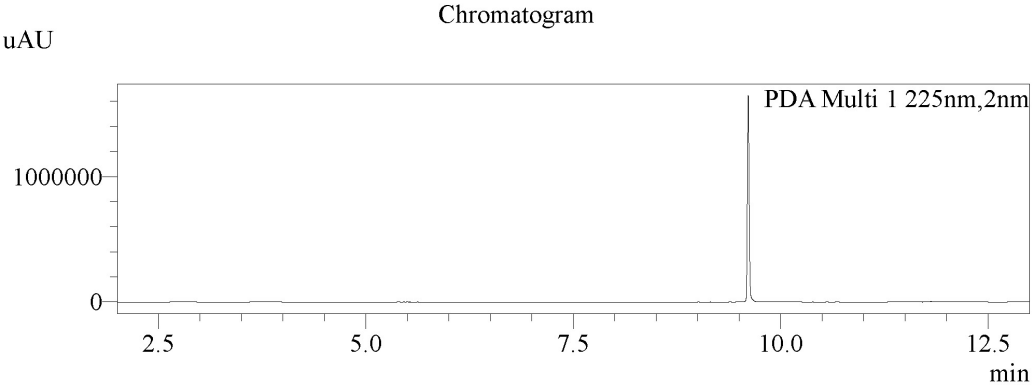
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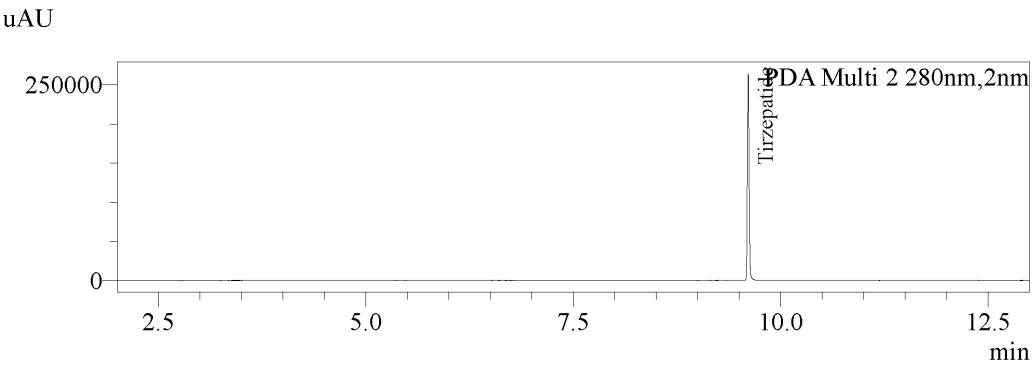
Analysis of quantity and purity of active ingredient by UHPLC with UV detection

Sample Information

Injection Volume	: 1
Data File	: RAW-0021__001.lcd
Method File	: Peptide Screening_DFA_V2_A.lcm
Date Acquired	: 11/9/2026 11:21:33 AM

Chromatogram





Peak Table

PDA Ch1 225nm

Name	Ret. Time	Area	Conc.	Unit	Area%
	6.766	422	0.000		0.017
	7.056	271	0.000		0.011
	7.832	240	0.000		0.009
	8.029	406	0.000		0.016
	9.007	883	0.000		0.035
	9.150	241	0.000		0.010
	9.386	1979	0.000		0.078
	9.495	3067	0.000		0.121
	9.539	1233	0.000		0.049
	9.607	2527330	0.000		99.596
	9.772	489	0.000		0.019
	10.173	1014	0.000		0.040
		2537575			100.000

Peak Table

PDA Ch2 280nm

Name	Ret. Time	Area	Conc.	Unit
Tirzepatide	9.607	386504	28.870	mg

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Name	Ret. Time	Area	Conc.	Unit
		386504		

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Responsibles



Mr. Ján Galbavý
CEO

Analysis results relate only to the samples tested.
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