

Certificate of Analysis

Adria
Adria Science
Slovenia
info@adriascience.com
www.adriascience.com

Liquilabs s.r.o.
Inovační 122
252 41 Zlatníky-Hodkovice
Czechia
www.liquilabs.cz




[Verify Results Online](#)

Sample Identification

Sample Name TIR10 10 mg
Batch Number 2212212
Date Published 2026-06-22 12:41

Results for LYO-0278

Peptides	Result	Unit	Uncertainty	Acceptable Range
Tirzepatide Assay Peptide Screening 0.1% TFA	8.98	mg	[± 0.04]	
Tirzepatide Purity Peptide Screening 0.1% TFA	> 99.8	%		
Tirzepatide Identification by Spectrum (FTIR) Peptide Screening 0.1% TFA	997		[± 5]	
Tirzepatide Identification by RT Peptide Screening 0.1% TFA	0.999		[± 0.005]	
Microbiology	Result	Unit	Uncertainty	Acceptable Range
Bacterial Endotoxin Chromgenic USP<85>/ Eur. Ph. 2.6.14. Bacterial Endotoxin Chromgenic Test	< 0.001	EU/mg		0 - 0.5

	Method Specification	
Determination of identity, content and purity of Tirzepatide		
<i>Document number</i> TIRZ_006_2026	<i>Superseded document</i> -	<i>Number of pages</i> 3

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	0.05% TFA in Water (HPLC, Gradient Grade)
Eluent B	0.0425% TFA in Acetonitrile (HPLC, Gradient Grade)
Flow rate	0.9 mL/min
Program	Gradient elution
Injection volume	2 µL
Colum Temperature	55°C
Column	Waters XSelect CSH C18, 100x2.1mm 2.5µm
Detection wavelength	280nm

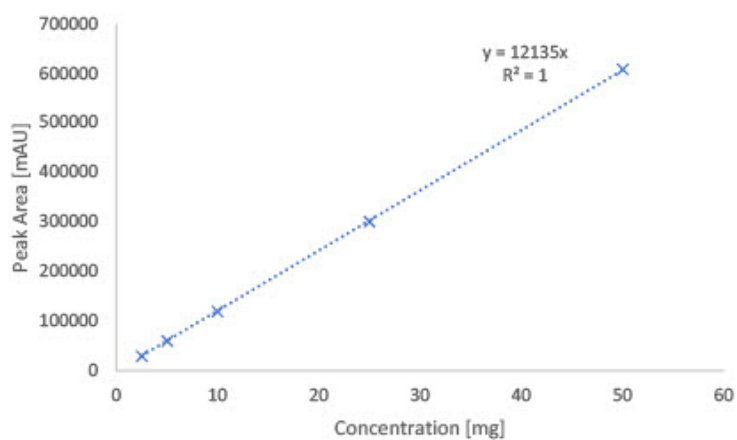
Gradient Program		
Time [min]	A [%]	B [%]
1.5	95	5
13	45	55
13.5	1	99
14.5	1	99
14.51	95	5
16	end	

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



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	0.05% TFA in Water (HPLC, Gradient Grade)
Eluent B	0.0425% TFA in Acetonitrile (HPLC, Gradient Grade)
Flow rate	0.9 mL/min
Program	Gradient elution
Injection volume	2 µL
Colum Temperature	55°C
Column	Waters XSelect CSH C18, 100x2.1mm 2.5µm
Detection wavelength	225nm

Gradient Program		
Time [min]	A [%]	B [%]
1.5	95	5
13	45	55
13.5	1	99
14.5	1	99
14.51	95	5
16	end	

2.3 Purity assesment

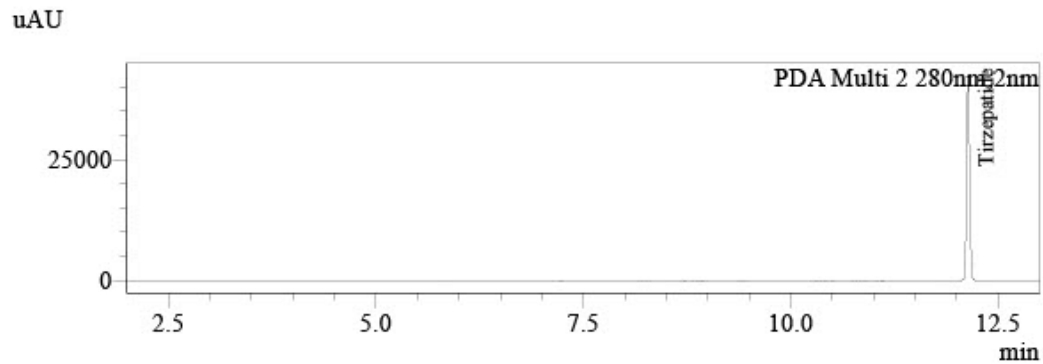
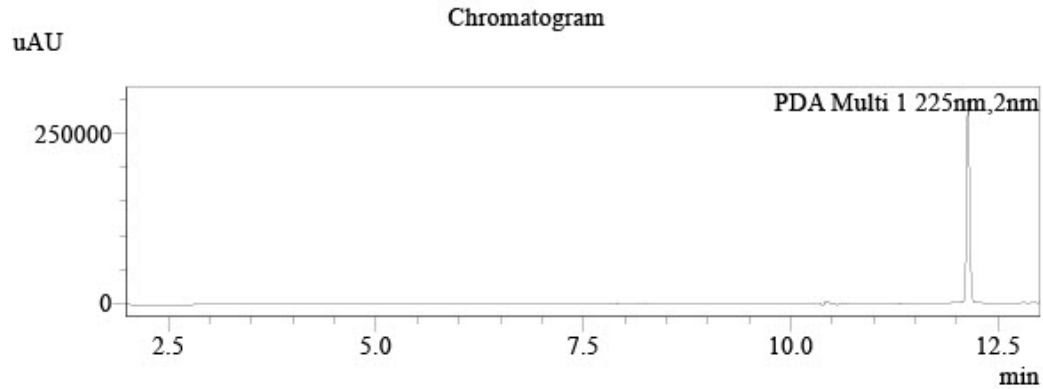
Purity of compound assesed by area normalization method, comparing area of each peak to sum of area of all peaks detected at wavelenght of 214 nm.

Analysis Report



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

Sample Information
Injection Volume : 2
Data File : LYO-0278__038.lcd
Method File : Peptide screening_V7_Group A.lcm
Date Acquired : 6/19/2026 11:17:31 AM



Peak Table

PDA Ch1 225nm					
Name	Ret. Time	Area	Conc.	Unit	Area%
	12.137	768386	0.000		100.000
		768386			100.000

Peak Table

PDA Ch2 280nm					
Name	Ret. Time	Area	Conc.	Unit	
Tirzepatide	12.137	108295	8.985	mg	
		108295			

Endotoxin Determination Report

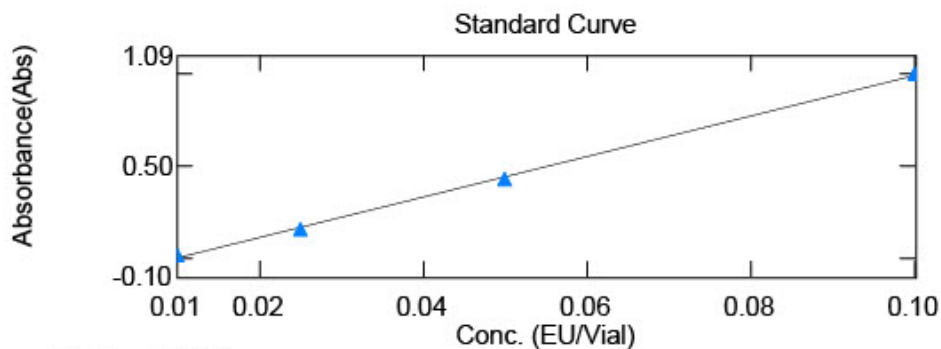


File Information

Filename: C:\UVVis-Data\Data\File_260618.vqud
Date/Time: 06/18/2026 08:15:51 PM

Instrument Information

Instrument Type: UV-1900 Series
Model (S/N): UV-1900i (A12536253123)



	Sample Name	Conc	Raw_WL545.0	Result
1	LYO-0244	0.044	0.1330	0.133
2	LYO-0247	0.011	-0.0463	-0.046
3	LYO-0248	0.010	-0.0523	-0.052
4	LYO-0249	0.010	-0.0502	-0.050
5	LYO-0250	0.014	-0.0268	-0.027
6	LYO-0251	0.025	0.0285	0.029
7	LYO-0252	0.023	0.0182	0.018
8	LYO-0253	0.011	-0.0475	-0.047
9	LYO-0259	0.013	-0.0331	-0.033
10	LYO-0260	0.012	-0.0379	-0.038
11	LYO-0261	0.012	-0.0423	-0.042
12	LYO-0262	0.415	2.1602	2.160
13	LYO-0272	0.023	0.0190	0.019
14	LYO-0278	0.018	-0.0050	-0.005
15	LYO-0279	0.018	-0.0065	-0.007

Responsibles



Mr. Ján Galbavý
CEO

Analysis results relate only to the samples tested.

This document shall not be reproduced except in full, without the written approval of Liquilabs s.r.o.