

Certificate of Analysis

Nova Cell Peptides
Nova Cell Peptides
NCBL Sciences OÜ
Estonia
info@novacell-peptides.com

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



[Verify Results Online](#)

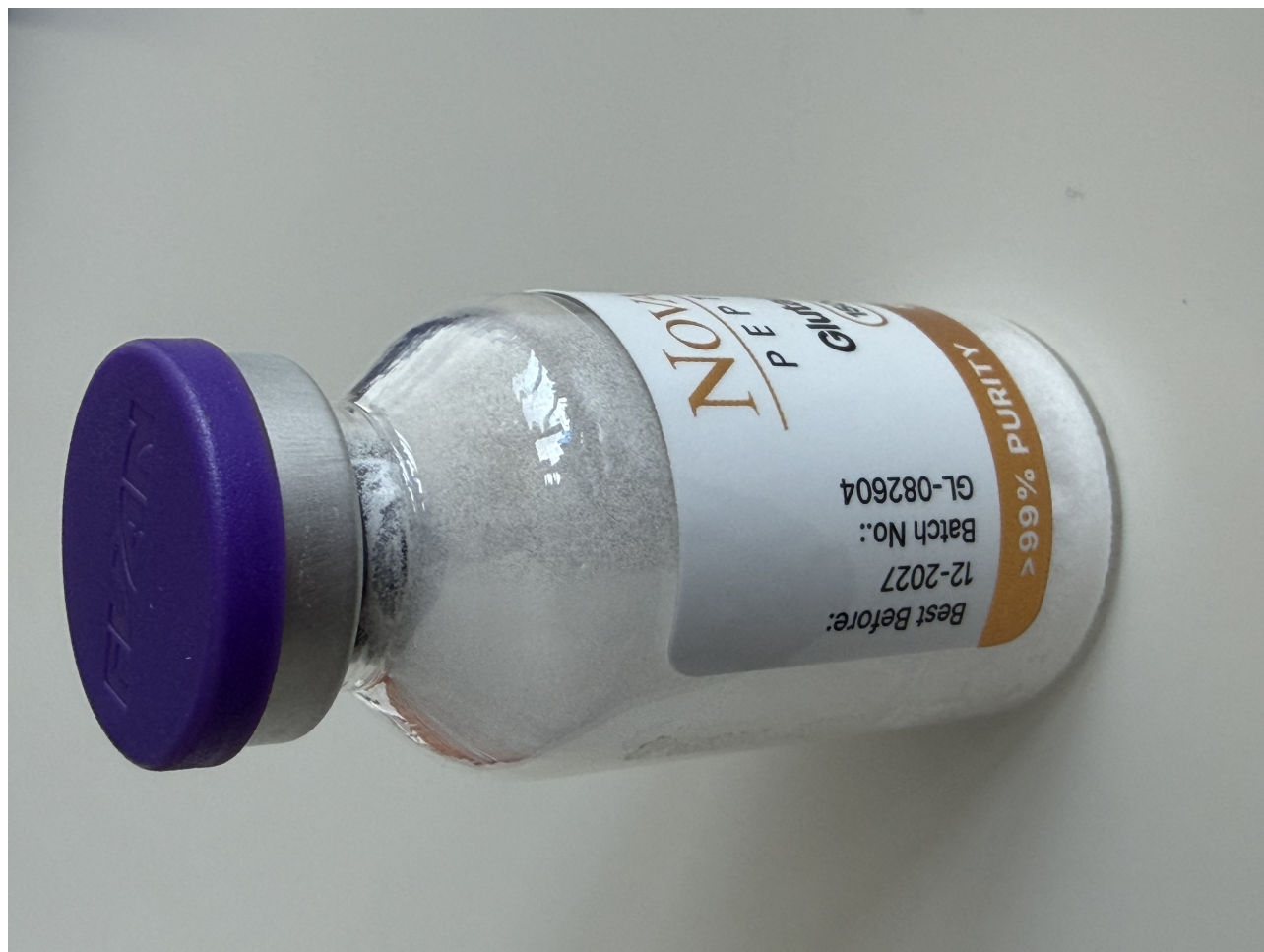
Sample Identification

Sample Name Glutathione 1500 mg
Batch Number GL-082604
Date Published 2026-09-09 14:41

Results for LYO-0823

Peptides	Result	Unit	Uncertainty	Acceptable Range
Glutathione Assay Polar Compound Screening 10mM ammonium formate buffer	1492	mg	[± 7]	
Glutathione Purity Peptide Screening 0.1% TFA	99.5	%	[± 0.5]	
Glutathione Identification by Spectrum (FTIR) Peptide Screening 0.1% TFA	994		[± 5]	
Glutathione Identification by RT Peptide Screening 0.1% TFA	0.993		[± 0.005]	
Mass Spectrometry	Result	Unit	Uncertainty	Acceptable Range
Molecular Ion Mass Identification (MS Deconvolution) Mass Spectrometry Identity	307	Da	[± 1]	





	Method Specification	
Determination of identity, content and purity of Glutathione		
<i>Document number</i> GLUT_008_2026_P	<i>Superseded document</i> -	<i>Number of pages</i> 4

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	10 mM Ammonium Formate in ACN (HPLC, Gradient Grade)
Eluent B	10 mM Ammonium Formate in Water (HPLC, Gradient Grade)
Flow rate	0.6 mL/min
Program	Gradient elution
Injection volume	2 µL
Colum Temperature	40°C
Column	Merck SeQuant ZIC-HILIC 150x2.1mm 3.5µm
Detection wavelength	225nm

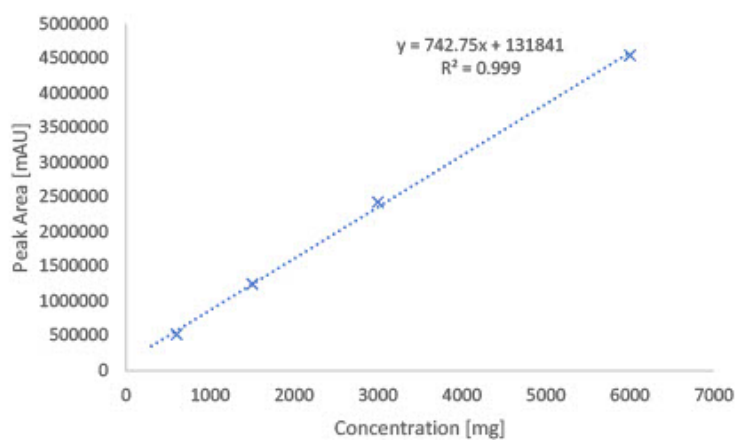
Gradient Program		
Time [min]	A [%]	B [%]
2	100	0
18	5	95
20	5	95
22	100	0
30	end	

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	4
Force through Zero	Disabled
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	10 mM Ammonium Formate in ACN (HPLC, Gradient Grade)
Eluent B	10 mM Ammonium Formate in Water (HPLC, Gradient Grade)
Flow rate	0.6 mL/min
Program	Gradient elution
Injection volume	2 µL
Colum Temperature	40°C
Column	Merck SeQuant ZIC-HILIC 150x2.1mm 3.5µm
Detection wavelength	225nm

Gradient Program		
Time [min]	A [%]	B [%]
2	100	0
18	5	95
20	5	95
22	100	0
30	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.

3. Identity Assessment

3.1 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
Column Thermostat	Shimadzu CTO-40S	L22236351602
PDA Detector	Shimadzu SPD-M40	L22276352808
SQ MS Detector	Shimadzu LCMS-2050	O12476200760

3.2 Chromatographic conditions

Chromatographic conditions	
Eluent A	10 mM Ammonium Formate in ACN (HPLC, Gradient Grade)
Eluent B	10 mM Ammonium Formate in Water (HPLC, Gradient Grade)
Flow rate	0.6 mL/min
Program	Gradient elution
Injection volume	2 µL
Column Temperature	40°C
Column	Merck SeQuant ZIC-HILIC 150x2.1mm 3.5µm
Detection w	MS 155-2000 Da

Gradient Program		
Time [min]	A [%]	B [%]
2	100	0
18	5	95
20	5	95
22	100	0
30	end	

3.3 Molecular Ion Mass evaluation

Molecular ion mass was determined by deconvolution of multiply charged ESI-MS spectra to calculate the average neutral (zero-charge) molecular mass by equation:

$$M(\text{neutral}) = (z_i((mz_i) - H)) - ME$$

Where:

mz_i - Measured mass of charged particle

z_i - charge

H - proton mass (1.0076 Da)

ME – mass error

Analysis Report

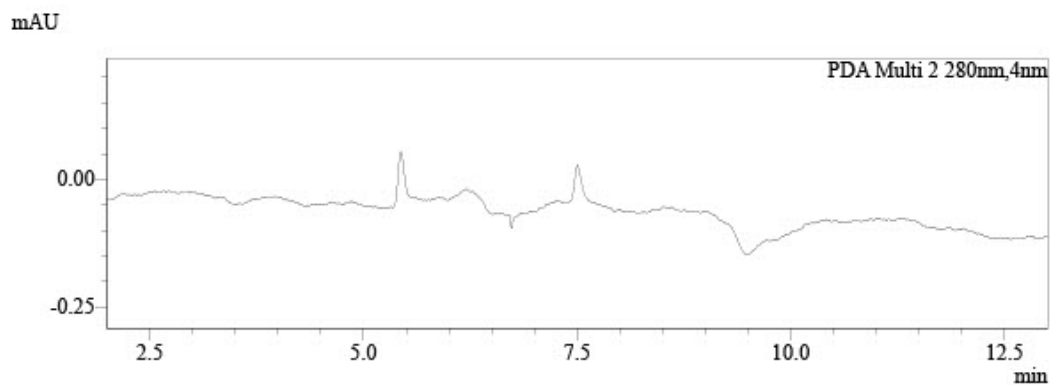
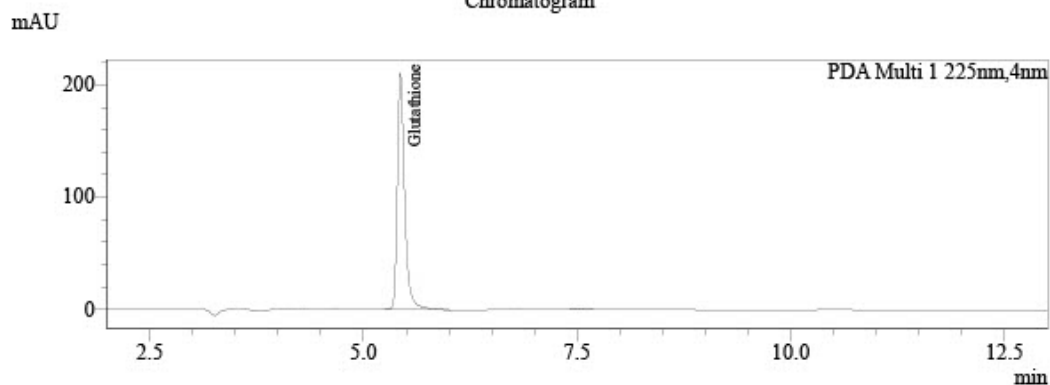


Analysis of quantity of active ingredient by UHPLC with MS detection

Sample Information

Injection Volume : 0.5
Data File : LYO-0823_004.lcd
Method File : Peptides HILIC B.lcm
Date Acquired : 9/8/2026 1:37:43 PM

Chromatogram



Peak Table

PDA Ch1 225nm						
Peak#	Name	Ret. Time	Area	Area%	Conc.	Unit
1	Glutathione	5.431	1243535	99.518	1491.584	mg/L
2		7.501	6021	0.482	0.000	
Total			1249556	100.000		

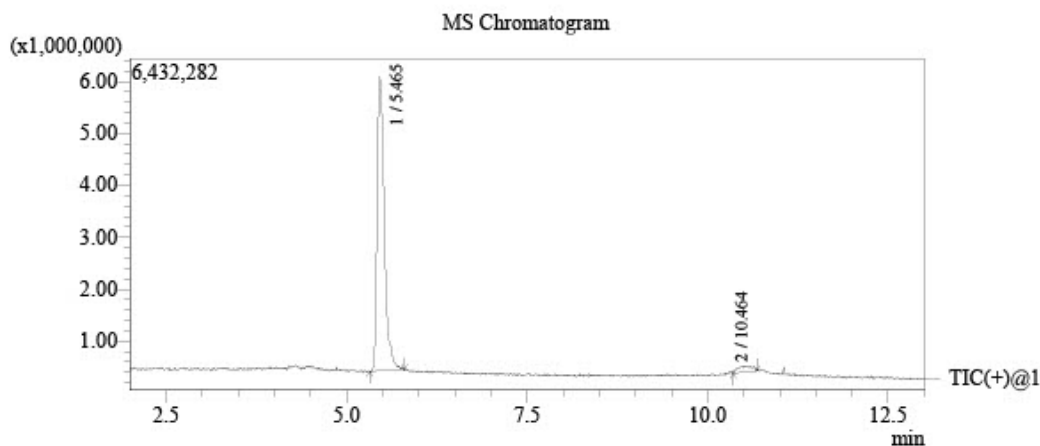
Peak Table

PDA Ch2 280nm						
Peak#	Name	Ret. Time	Area	Area%	Conc.	Unit
Total						

Analysis Report



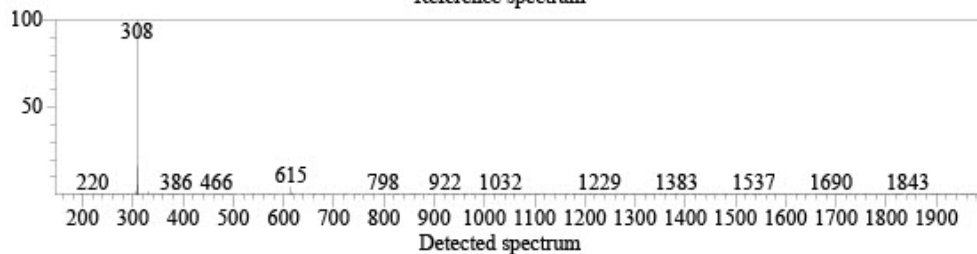
Identification of active ingredient by UHPLC Mass Spectrometry



Library Search

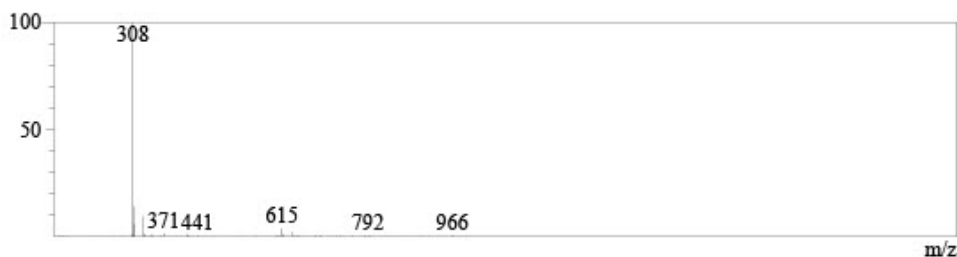
Base Peak: 308(990735)
Scan Range: 155.00 - 2000.00 Polarity: Positive

Reference spectrum



Detected spectrum

Library: Peptide HILIC.lib
Formula: $C_{10}H_{17}N_3O_6S$ CAS: 70-18-8 Mol.Weight: 307(0!=)
Compound Name: Glutathione



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.