

ANALYTICAL CERTIFICATE

Page 1/10

Sample name	SS-31
Batch No.	2024252
Sample No.	01
Sequence	DArg-Dmt-Lys-Phe-NH ₂
Manufacturing date	NA
Submitter of analytical request	UAB Nauja oda eshop, Lithuania

1. Peptide content by HPLC/CLND:

1.1 HPLC Instrument:

Pump: Agilent 1200 Series, Quat Pump G1311A
Sampler: Agilent 1260 Series, Hip ALS G1367E
Degasser: Agilent 1200 Series, Degasser G1379B
Detectors: Agilent 1200 Series, VWD G1314B
Nitrogen detector Antek 8060

1.2 HPLC conditions:

Eluents: A – MilliQ water
B – isopropanol
D – 1% TFA in MilliQ water
Flow rate: 1 mL/min
Gradient:

Time	A (%)	B (%)	D (%)
0	90	0	10
1	90	0	10
9	10	80	10
10	10	80	10
11	90	0	10
15	90	0	10

Column: ARION 5 μ C4-BIO 300 A, 4.6 x 100 mm
Serial No 221258

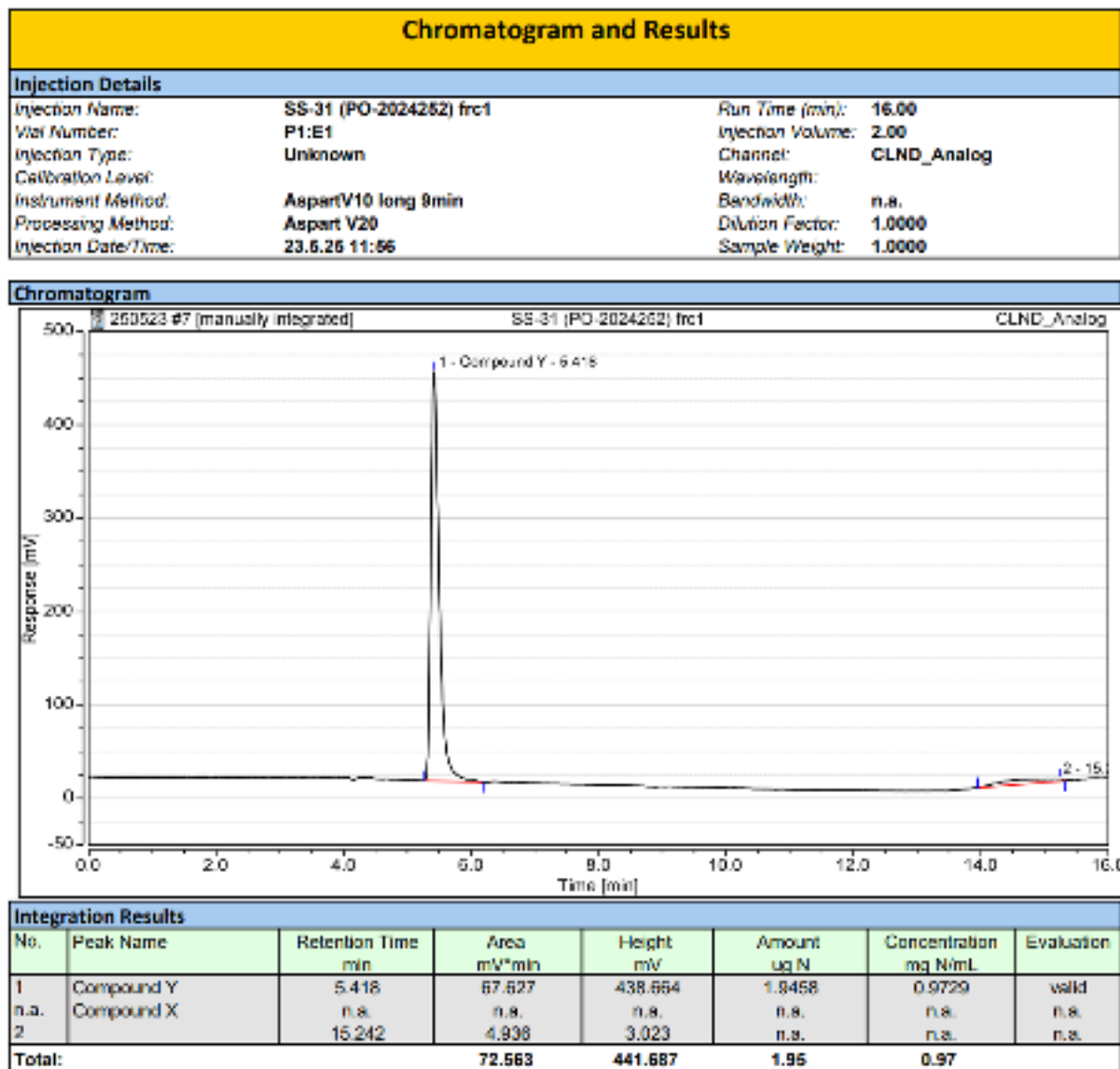
1.3 Sample preparation:

The whole amount of SS-31 (50 mg) was dissolved in 10 mL of MilliQ water.
Injection: 2.0 μ L

ANALYTICAL CERTIFICATE

Page 2/10

1.4 Chromatograms and calibration curve:



ANALYTICAL CERTIFICATE

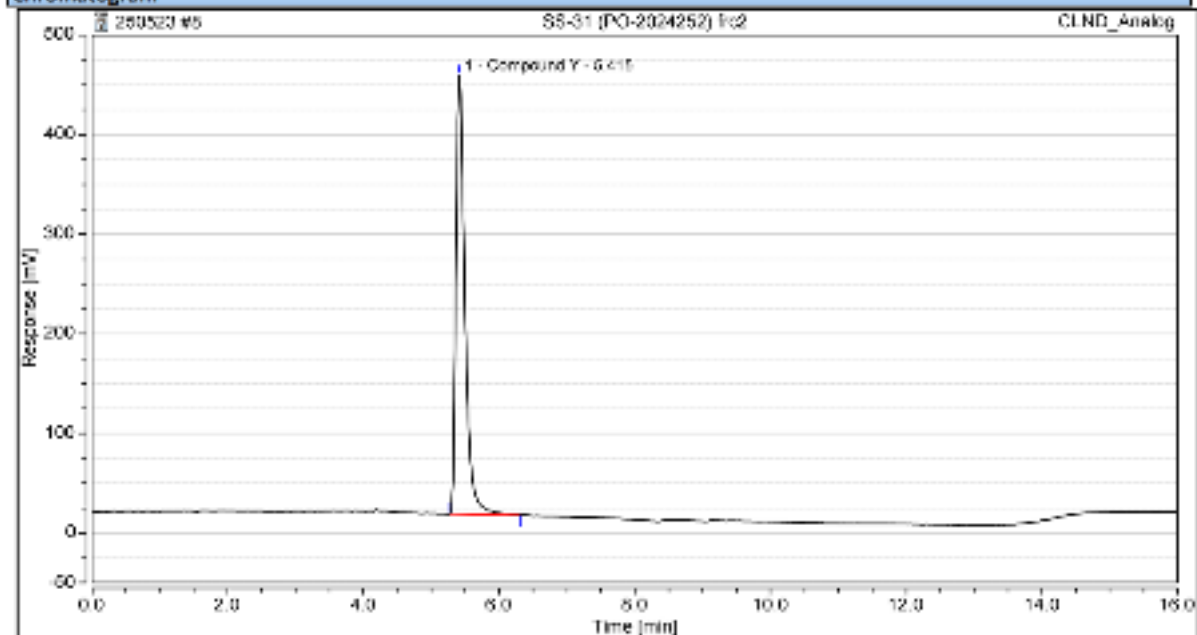
Page 3/10

Chromatogram and Results

Injection Details

Injection Name:	SS-31 (PO-2024252) frc2	Run Time (min):	16.00
Vial Number:	P1:E1	Injection Volume:	2.00
Injection Type:	Unknown	Channel:	CLND_Analog
Calibration Level:		Wavelength:	
Instrument Method:	AspartV10 long 9min	Bandwidth:	n.a.
Processing Method:	Aspart V20	Dilution Factor:	1.0000
Injection Date/Time:	23.5.25 12:13	Sample Weight:	1.0000

Chromatogram

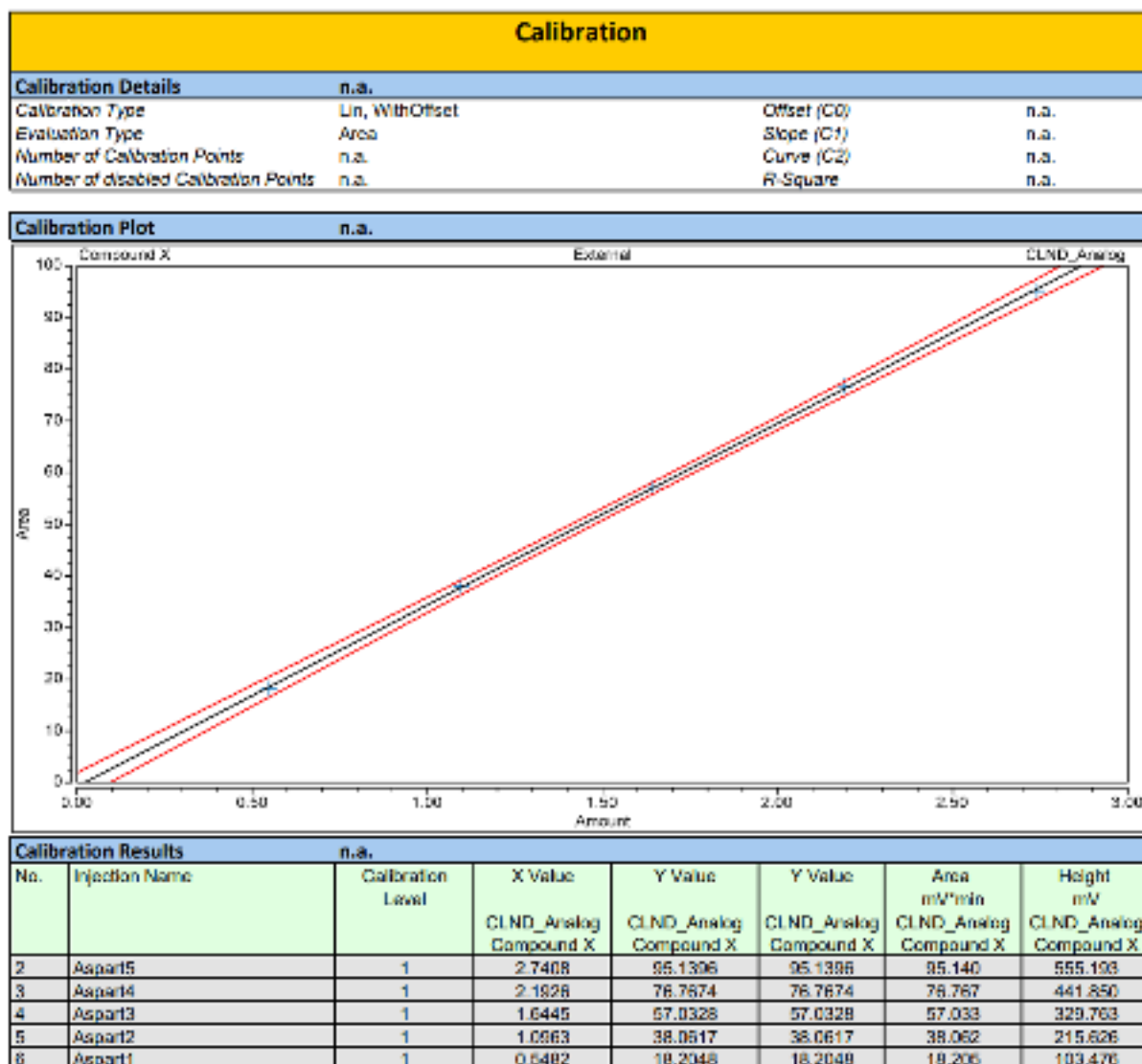


Integration Results

No.	Peak Name	Retention Time min	Area mV*min	Height mV	Amount µg N	Concentration mg N/mL	Evaluation
1	Compound Y	5.415	88.040	439.948	1.9575	0.9788	valid
n.a.	Compound X	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total:			88.040	439.948	1.96	0.98	

ANALYTICAL CERTIFICATE

Page 4/10



ANALYTICAL CERTIFICATE

Page 5/10

1.4 Results:

NNC: SS-31 (PO-2024252)		Salt:	0
MW <i>(calculated)</i> g/mol	N content <i>(calculated)</i> %	N conc. <i>(measured)</i> mg × N/ml	
639,8	19,7	0,9759	
Theoretical Volume ml		Lyophilizate amount mg	
10,00		50,00	
Peptide concentration mg/ml nmol/ml		Quantified amount mg nmol	
4,95 7742		49,5 77 423	
Peptide content assay %			
99,1			

Summary table:

Peptide	Aliquoting (mg)	Total weight of sample (mg)	Content of the peptide by CLND (mg)	Content of the peptide in the sample (%)	Content of the peptide against the amount on label.
SS-31	50	--	49,54	--	99,1 %

ANALYTICAL CERTIFICATE

Page 6/10

2. Purity assessment by UPLC:

2.1 HPLC Instrument:

LC-System Waters Acquity UPLC
Detectors: UV or DAD at 214 nm

2.2 HPLC conditions:

Eluents: A – MilliQ water + 0.05% TFA
 B – acetonitrile + 0.05% TFA
Flow rate: 0.40 mL/min
Gradient: from 5% B to 60% B in 16 min, according to chromatogram results
Column: Waters Acquity BEH, C-18, 1.7µm, 2.1mm x 150mm

2.3 Sample preparation:

An aliquote of SS-31 (1 mg) was dissolved in 1 mL of water.
Injection: 1.0 µL

ANALYTICAL CERTIFICATE

Page 7/10

2.4 Chromatogram of SS-31 (PO-2024252)

Sample information

UPLC5

Channel Description PDA Ch1 214nm@4.8nm

Vial : 1:A_3 Vol. : 1.00 ul

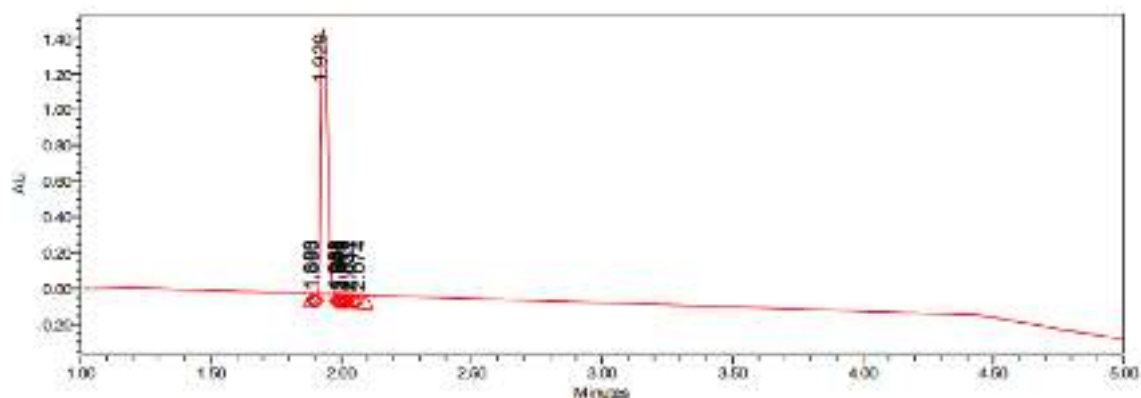
Sample: **SS-31 (PO-2024252)**

Date Acquired 5/26/2025 1:04:03 PM CEST

Date Processed 5/26/2025 2:53:36 PM CEST

Acq Method Set :

Gr5_60_4mi_40C_0_45ml_K2_met_s



	RT	Area	Height (µV)	% Area
1	1.809	2099351	1477.04	99.51

A: 0.05% TFA in water

B: 0.05% TFA in acetonitrile

Gradient :

0.0 - 0.5min 5 - 5 % B

0.5 - 4 min 5 - 60 % B

4.0 - 4.5 min 60 - 100 % B

4.5 - 5.0min 100 % B

5.0 - 5.5min 100 - 5 % B

6min 5 % B

0.45ml/min

Acquity UPLC BEH C18, 1.7µm, 2.1 x 50 mm column
column oven temp. = 40 °C

2.5 Result of purity assessment

The overall purity is 99.51 % at 214 nm.

ANALYTICAL CERTIFICATE

Page 8/10

3. Peptide identity by UPLC/MS:

3.1 HPLC Instrument:

LC-System Waters Acquity UPLC
Detectors: UV or DAD at 214 nm

3.2 HPLC conditions:

Eluents: A – MilliQ water + 0.05% TFA
 B – acetonitrile + 0.05% TFA
Flow rate: 0.40 mL/min
Gradient: from 5% B to 60% B in 4 min, according to chromatogram results
Column: Waters Acquity BEH, C-18, 1.7µm, 2.1mm x 50mm
 Part No 186002353

3.3 MS Detector:

Detector Waters (Micromass) ZQ 2000
Ionisation method: ES+
Scanning range: 200 – 2000 amu
Capillary voltage: 3.0 kV
Cone Voltage: 20 V
Scantime: 0.9 s
Interscan delay: 0.1 s
Detection method: quadrupole

3.4 Sample preparation:

An aliquote of SS-31 (1 mg) was dissolved in 1 mL of water.
Injection: 0.8 µL

ANALYTICAL CERTIFICATE

Page 9/10

3.5 Mass Spectra of SS-31 (PO-2024252)

Sample Information

UPLC1 ZQ

Sample: SS-31 (PO-2024252)

Channel Description ACQUITY TUV ChA 214nm

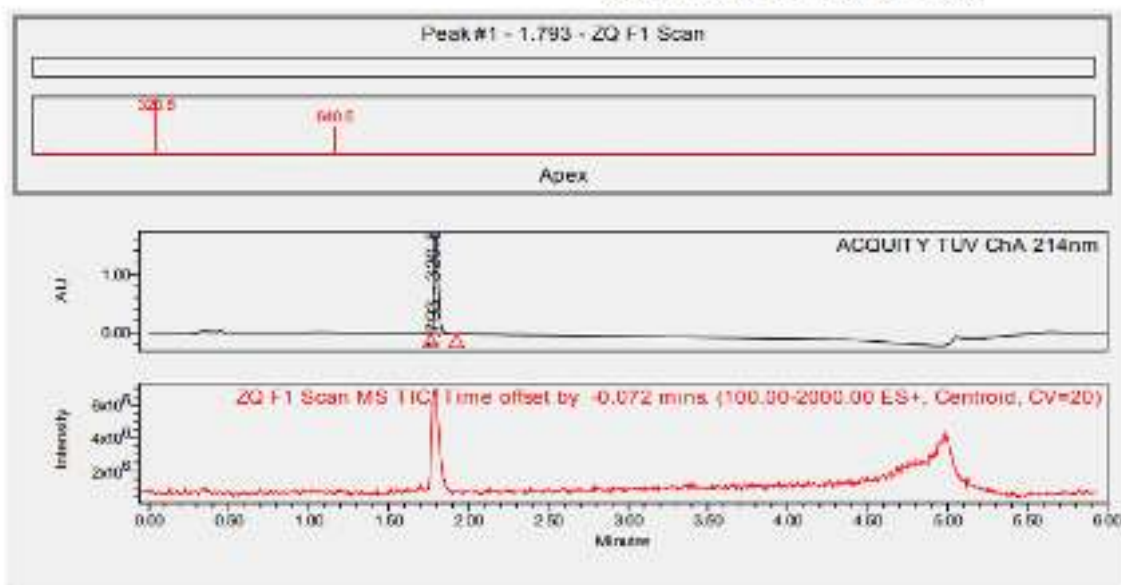
Date Acquired 5/26/2025 1:10:13 PM CEST

Vial : 1:A_2 Vol. : 0.80 ul

Date Processed 5/26/2025 2:55:10 PM CEST

Acq Method Set :

Gr5_60_MS_4min_0_45ml_K2_ms_s



MS Result Table

Name	RT	Base Peak (m/z)
1	1.793	320.82

UPLC conditions:

A: 0.05% TFA in water

B: 0.05% TFA in acetonitrile

Gradient :

0.0 - 0.5min 5 - 5 % B

0.5 - 4 min 5 - 60 % B

0.45ml/min

Acquity UPLC BEH C18, 1.7µm, 2.1 x 50 mm column

column temp. = 40 °C

Theoretical values of m/z:

Peptide MW	[M+1H] ²⁺	[M+2H] ³⁺	[M+3H] ⁴⁺	[M+4H] ⁵⁺	[M+5H] ⁶⁺	[M+6H] ⁷⁺
639,8	640,8	320,9				
Found	640,5	320,8				

ANALYTICAL CERTIFICATE

Page 10/10

4. Endotoxin test:

4.1 Description:

Test tubes: Gel Clot Lyophilized Amebocyte Lysate Single Test in Vial
Manufacturer: Xiamen Bioendo Technology Co., Ltd.
Lot: 24061152
Content: 0.2 ml endotoxin-specific Amebocyte Lysate which includes beta-glucan inhibitor in the formulation
Sensitivity of test: 0.5 EU/mL
Sample sensitivity level: 5 EU/mg

4.2 Sample preparation and test:

A sample peptide is dissolved in endotoxin-free water to form a concentration of 0.5 mg/mL. 200 µL of this solution is then transferred to the Amebocyte Lysate Single Test tube and incubated at 37 °C for 60 min. Immediately after incubation the test tube is slowly turned upside down.

A solid gel clot which doesn't come down immediately indicates **positive** result (meaning that endotoxins are above the current sensitivity level).

An absence of solid gel clot so the solution freely flows down from the bottom of test tube indicates **negative** result (meaning that endotoxin are below the current sensitivity level).

4.3 Result:

NEGATIVE (-)

CONCLUSION:

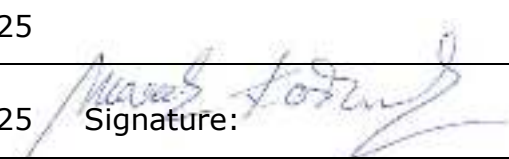
The sample SS-31 (Batch No. 2024252) was analyzed for peptide content, acetic acid content, UV purity, identity by MS and endotoxins.

Peptide content is 99.08 % (49.54 mg in 50 mg)

Purity is 99.51 % (UPLC at 214 nm).

MS identity complies with theoretical calculation of m/z values.

Endotoxin test (sensitivity level 5 EU/mg) - NEGATIVE.

ANALYSIS COMPLETED:	Date: 26.05.2025
Issued by QC:	Date: 27.05.2025  Signature:

Certificate Of Analysis



Client:**SwissPeps**

Viktor Mužila

A. Goštauto g. 8-215

LT-01108 Vilnius

Lithuania

info.swisspeps@protonmail.com**Laboratory:****Liquilabs s.r.o.**

Ohradní 24B

14000 Michle

Czechia

www.liquilabs.cz

Sample Identification

Sample Name	SS-31 50 mg	Batch Number	2025252	Date Published	2025-07-29 12:36
--------------------	-------------	---------------------	---------	-----------------------	------------------

Results for Lyo-0065

Bioburden	Result	Unit	Uncertainty	Reporting Limit	
Total Aerobic Microbial Count USP <61> Plate Count Method	Not detected	CFU/g		>= 1000	△
Total Yeast and Mold Count USP <61> Plate Count Method	Not detected	CFU/g		>= 100	△

Attachments for Lyo-0065

 LIQUILABS laboratory services	Method Specification		
Determination of bioburden of lyophilized samples			
Method number LYO_065_2022	Applicable documents -	Number of pages 2	

1. Instrumentation and chemicals

1.1. Instruments used

- Sterile Syringe 2ml. Luer
- Sterile needles
- Ready-made PCA Plate ROTI Aquares
- Ready-made Seb Plate ROTI Aquares

1.2. Chemicals

Sterile physiological solution (0.9% NaCl)

2. Sample preparation and inoculation

2.1. Sample preparation

1. Pre-sterilized needle and syringe was used for measuring exactly 2 ml of sterile physiological solution.
2. Needle was changed and by new sterile rubber tip of peptid. container was removed and 2 ml of sterile physiological solution was dispensed.
3. Content of container was completely dissolved and left for 5 minutes to settle potentially created flocs.
4. This procedure is repeated for two vials.

2.2. Total Aerobic microbial count inoculation and cultivation

1. By-sterile method 1 ml of solution was filled into the sterile syringe.
2. Needle was placed above the flame for few seconds to sterilize.
3. Consequently 1 mL of solution was poured into the ready to use sterile petri dish filled with PCA agar and petri dish was closed.
4. Process was repeated for two petri dishes.
5. With sterile needles, 1 ml of sterile physiological solution was filled into the sterile needle and was inoculated into another sterile petri dish filled with PCA agar (negative control sample).
6. Samples and negative control sample were placed in incubator at temperature 22°C for 24h.

1

Attachment for Lyo-0065
 Filename: Bioburden-images-0.jpg

2.3 Total Yeast and Mold count: inoculation and cultivation

1. By sterile needle 1 ml of solution was filled into the sterile syringe.
2. Needle was placed about 1 cm from the flame for 10 seconds in sterilize.
3. Consequently 1 ml of solution was poured into the ready to use sterile petri dish filled with Sabi agar and petri dish was closed.
4. This was repeated for two petri dishes.
5. By sterile needle 1 ml of sterile physiological saline was filled into the sterile needle and was inoculated onto one sterile petri dish filled with Sabi agar as negative control sample.
6. Samples and negative control sample were placed in incubator at temperature 25°C, for 72h.

3. Evaluation of results

After incubation time colonies are counted as cfu. Colonies forming units and result per 1g of sample is determined as:

$$CFU_{avg} = \frac{\sum CFU_k}{n}$$

CFU_{avg} = average CFU counted from n inoculations

CFU_k = CFU counted per inoculation

n = number of inoculations

$$CFU \text{ per gram} = \frac{CFU_{avg}}{m_s} \cdot DF$$

CFU_{avg} = Average CFU counted from n inoculations

m_s = mass of sample (mg)

DF = Dilution factor

*Negative control sample is evaluated as positive, process have to be repeated due to possible contamination in the process of inoculation or cultivation.



Mr. Ján Galbavý
Founder/Manager

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.

Analytical report AR-25-KT-018095-02



Testing laboratory:

Eurofins Environment Testing Slovakia s.r.o.
Robotnícka 820/36, 039 01 Turčianske Teplice
IČO: 53 248 376
Place of work:
Accredited testing laboratory Turčianske Teplice
Robotnícka 820/36, 039 01 Turčianske Teplice
tel: 043/490 1562
RegistrationEnviroSK@etcee.eurofins.com, www.eurofins.sk

Customer:

UAB Nauja oda eshop
A. Goštauto g. 8-215
LT-01108 Vilnius
LITHUANIA

Date of Sample Receipt: 20.05.2025 Date of Testing: 20.05.2025 - 22.05.2025

Issue date: 22.05.2025

Information about Sampling:

Sampler: customer
Sample information: 104-2025-00019379
Sample description: SS-31 (PO-2024252)
Material: Peptidy

Physical and chemical tests

Parameter	Unit	Allowed Value	Measured Value	Uncertainty of Method measurement*	Method	Testing method	E	SL	TT
Arsenic (As)	mg/kg	max, 1,5	0,039	25%	ICP-MS	LS-PP-CH-85	S	TR	A
Cadmium (Cd)	mg/kg	max, 0,2	<0,10	-	ICP-MS	LS-PP-CH-85	S	TR	A
Lead (Pb)	mg/kg	max, 0,5	<0,30	-	ICP-MS	LS-PP-CH-85	S	TR	A
Mercury (Hg)	mg/kg	max, 0,3	0,018	25%	ICP-MS	LS-PP-CH-85	S	TR	A

Notes:

E - evaluation
S - satisfied
NS - not satisfied
(A) - accredited sampling
(SA) - accredited sampling executed under the subcontract
ŠPP - Standard operation procedure
ND - not detected by given method
LOQ, LQ – limit of quantification
CFU - Colony forming unit
NM - necessary quantity
m - the highest allowed value at the case of one sample
M, c - "M" highest allowed value for the number "c" at the case of 5 sample`s evaluation
* - measurement uncertainty – sampling and analysis – determined by extension coefficient k=2 (with probability of 95%). If sample is taken by the customer uncertainty of sampling is not available.
- uncertainty given in % reflects the uncertainty from the result of measurement.
** - Acceptable to consumers and no abnormal change
SL - analysis laboratory: NZ-Nové Zámky, TR-Turčianske Teplice, RK-Ružomberok, TV-Trebišov

TT - type of test

A - accredited test executed at the own test laboratory
N - non accredited test executed at the own test laboratory
SA - accredited test executed under the subcontract
SN - unaccredited test executed under the subcontract
(TM) - testing outside the laboratory at the customer

Disclaimer:

Laboratory is a disclaimer when the information is supplied by the customer (#) and can affect the validity of results. If the sample has been provided by the customer, the results refer to the sample as it was received. Gauges and measuring equipment used for testing were calibrated or attested in accordance with the valid metrological instructions. The above mentioned test results refer to the tested sample only! The result given in this Analytical report and marked as non accredited test shall not be a subject of accreditation. The result given in this Analytical report and marked as sub- delivery is the result of a Subcontractors gauging made under the terms and conditions of a contract concluded with him. This Analytical report shall not be reproduced except in full colour version, without written approval of the laboratory. SNAS is a Signatory to the Multilateral Agreement MRA ILAC.

Responsible for correctness:

Michaela Ruttkayová
Specialist worker

Worked out by: Zuzana Kubisová

Validity check of document



Test Certificate approved by

Michaela Ruttkayová
Specialist worker

