CERTIFICATE OF ANALYSIS

LL-37 5MG · 2151.OPT.261109-R1-WL01

Scan to Verify COA Authenticity



SAMPLE INFORMATION

Sample Name: LL-37 5mg
Lot Number: LL375-WM2610-001
Manufactured By: Amino Labs
Intended Use: Research Use Only
Expiration Date: October 28, 2027
Report Date: November 16, 2026

Sample ID: 2151.OPT.261109
Client: 99 Purity Wholesale
Sample Matrix: Lyophilized Peptide
Manufactured Date: October 28, 2026
Received Date: November 11, 2026

IDENTITY	NET CONTENT	PURITY
LL-37	4.1 MG/VIAL	99.33%
LC-MS	HPLC	RP-HPLC

ENDOTOXIN	HEAVY METALS	RESIDUAL SOLVENTS
PASS	PASS	PASS
LAL	ICP-MS	GC-MS

RESULTS SUMMARY

TEST PANEL	METHOD	SPECIFICATION	RESULT	STATUS
Identity Verification	LC-MS	Confirmation	LL-37	TESTED
Net Content	HPLC	-	4.1 mg/vial	TESTED
Purity	RP-HPLC	≥ 95%	99.33%	TESTED
Endotoxin	LAL	≤ 0.05 EU/mg	Pass	PASS
Fentanyl	Immunoassay	<10 ng/mL	Not detected	PASS
Total Yeast & Mold	USP <61>/<62>	Within Limits	Pass	PASS
Residual Solvents	GC-MS	Within Limits	Pass	PASS
Heavy Metals	ICP-MS	Within Limits	Pass	PASS

QUALITY GUARANTEED

Analyst
Bryan Zahakaylo
Date: November 16, 2026

ND = Not Detected, NR = Not Reported, LOD = Limit of Detection, and LOQ = Limit of Quantitation. Results reported herein relate only to the specific sample tested. Optiq Health Labs, LLC makes no claims regarding the efficacy, safety, suitability, purity, sterility, or other risks associated with any detected or non-detected compounds, analytes, or reported values. This Certificate of Analysis shall not be reproduced except in full, without the written approval of Optiq Health Labs, LLC. This Certificate of Analysis is limited to the sample received and tested by the laboratory and does not represent or warrant the quality, composition, or characteristics of any other sample, lot, batch, product, or material. Any statements, representations, labeling, or claims regarding the intended use, application, or purpose of the tested material are solely those of the client and do not constitute, imply, or reflect any recommendation, endorsement, certification, or intended use determination by Optiq Health Labs, LLC.

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Residual Solvents

Instrument: **GC-MS** Analysis Date: **November 16, 2026** **PASS**

Analyte	LOD (µg/g)	LOQ (µg/g)	Action Limit (µg/g)	Result (µg/g)	Status
Propane	15.4688	46.875	5000	ND	PASS
Butane	15.4688	46.875	5000	ND	PASS
Methanol	15.4688	46.875	3000	ND	PASS
Ethylene Oxide	0.1547	0.4688	1	ND	PASS
Pentane	15.4688	46.875	5000	ND	PASS
Ethanol	15.4688	46.875	5000	ND	PASS
Ethyl Ether	15.4688	46.875	5000	ND	PASS
Acetone	15.4688	46.875	5000	ND	PASS
Isopropyl Alcohol	15.4688	46.875	5000	ND	PASS
Acetonitrile	15.4688	46.875	410	ND	PASS
Methylene Chloride	0.1547	0.4688	1	ND	PASS
n-Hexane	15.4688	46.875	290	ND	PASS
Ethyl Acetate	15.4688	46.875	5000	ND	PASS
Chloroform	0.1547	0.4688	1	ND	PASS
Benzene	0.1547	0.4688	1	ND	PASS
1,2-Dichloroethane	0.1547	0.4688	1	ND	PASS
Heptane	15.4688	46.875	5000	ND	PASS
Trichloroethylene	0.1547	0.4688	1	ND	PASS
Toluene	15.4688	46.875	890	ND	PASS
Total Xylenes	-	-	2170	ND	PASS
Total Xylenes (m, p)	23.2032	70.3125	-	ND	PASS
Total Xylenes (o)	23.2032	70.3125	-	ND	PASS

Heavy Metals

Instrument: **ICP-MS** Analysis Date: **November 16, 2026** **PASS**

Analyte	LOD (µg/g)	LOQ (µg/g)	Action Limit (µg/g)	Result (µg/g)	Status
Arsenic	0.015	0.05	0.2	**0**	PASS
Cadmium	0.0113	0.05	0.2	**0**	PASS
Lead	0.00615	0.05	0.5	**0**	PASS
Mercury	0.00126	0.005	0.1	**0**	PASS

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Mass Spectrum

Instrument: **LC-MS** Analysis Date: **November 14, 2026** **TESTED**

Analyte:
LL-37

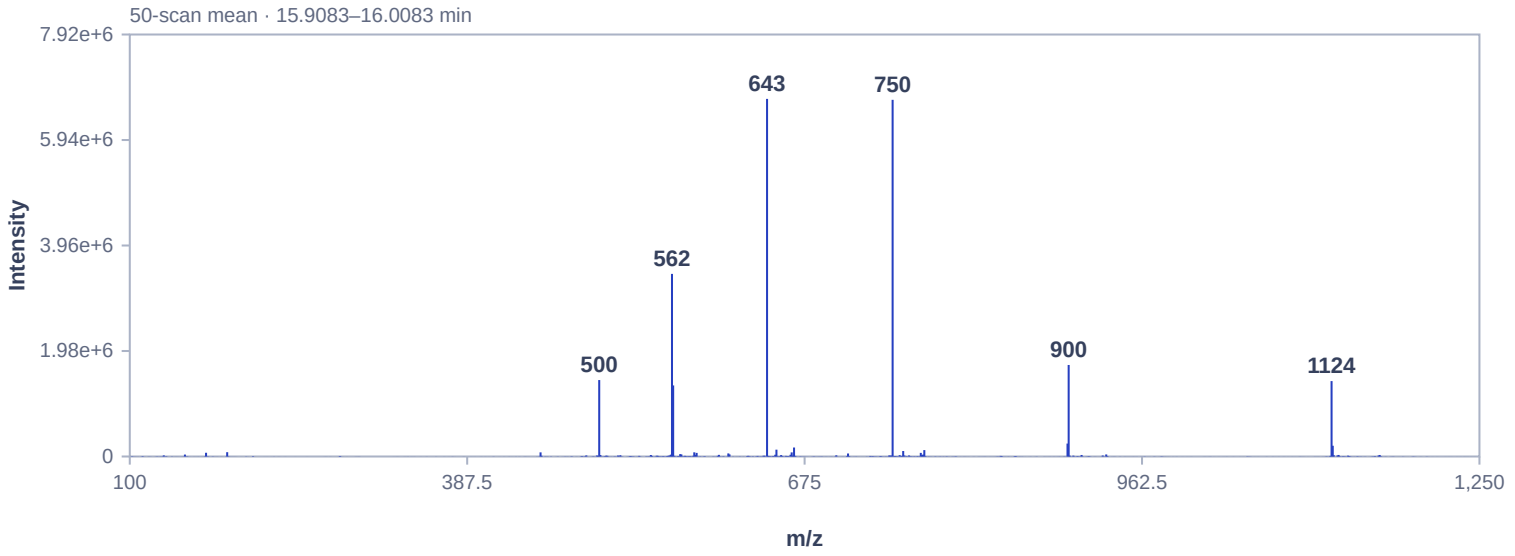
Molecular Mass:
4490.58 Da Identity Confirmed

Observed ions:
643 m/z $[M+7H]^{7+}$ · 750 m/z $[M+6H]^{6+}$ · 562 m/z $[M+8H]^{8+}$ · 900 m/z $[M+5H]^{5+}$ · 500 m/z $[M+9H]^{9+}$ · 1124 m/z $[M+4H]^{4+}$

Spectrum shown below in m/z; molecular mass reported above in Da.

Lab interpretation · Observed ion assignments · Mass basis: Monoisotopic

Acquisition 1520 · Channel 7475 · RT 15.96 min · 50-scan mean



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