

CERTIFICATE OF ANALYSIS

Third-party analytical testing · summary cover sheet

LL-37 (5mg)

AVL-LL5

AVATA LABS SKU	AVL-LL5
BATCH / LOT	LL375202026
DATE TESTED	2026-05-13
PURITY (HPLC-UV)	99.8%
PERFORMING LAB	Analytical Formulations, Inc.
SCOPE	Microbial · Heavy metals
ARTIFACT ID	coa_97c0f31fe33948d18cf9838053012fff

INDEPENDENTLY VERIFIABLE

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ORDERED BY



AVATA LABS

Avata Labs

PRODUCT

NAME **LL-37**
SKU **YPB.244**
CATEGORY **—**

SAMPLE

BATCH **LL375202026**
TESTED **2026-05-13**

DESCRIPTION

Vial with white powder — sealed with plastic security cap. Flag tag attached at neck with manufacturer / product SKU number, PO, and expiration.

PERFORMING LAB

Analytical Formulations, Inc.

8940 Fourwinds Drive STE 107, Windcrest, TX 78239

<https://analyticalformulations.com>

Lab-certified result data: 2026-06-02

Vial image
not provided

Submitted vial — YPB.244



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Purity Analytics LLC

ISSUED 2026-06-21 16:55:05 UTC
ISSUER Sectigo RSA Document Signing CA
ALGORITHM RSA-SHA512
FIELD PuritySignature
TYPE adbe.pkcs7.detached
CERT SERIAL 80EE9C34821454C706346FA64888B1B5
CERT SHA-256 E2467E56CFEE3DA8...AF9CBF0875552610
TIMESTAMP Sectigo RFC 3161 TSA

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ANALYTICAL RESULTS

COMPONENT	ANALYTE	SPECIFICATION	RESULT	P/F
LL-37	Qualitative ID	TS $\lambda_{\max}$ is a match compared to its characteristic reference standard	Matches	✓
	Percent Purity (Correlation Coefficient)	NLT 98% $r_{xy} = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum (x_i - \bar{x})^2} \cdot \sqrt{\sum (y_i - \bar{y})^2}}$	99.8 %	✓
LL-37	Quantitative Assay (Beer-Lambert)	NLT 95% label claim (mg/vial) $\% = \frac{A_{TS}}{A_{STD}} \times \frac{C_{STD}}{C_{TS}} \times 100$	5.79 mg	✓
	Heavy Metals (Total Quantity)	NMT 100ppb/vial (Pb, Cd, Hg, Ni, Fe, Co)	<50 ppb	✓
	TAMC (Total Aerobic Microbial Counts)	NMT 100 CFU @ 37°C/48h	0 CFU	✓
	TYMC (Total Yeast and Mold Counts)	NMT 10 CFU @ 30°C/48h	0 CFU	✓



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METHODS

- Qualitative ID - Lambda Max
- Percent Purity - Correlation Coefficient
- Quantitative Assay - Beer-Lambert
- Heavy Metals - Total Quantity
- TAMC (Total Aerobic Microbial Counts)
- TYMC (Total Yeast and Mold Counts)

Microbial specifications follow the Substances for Pharmaceutical Use compendium. UV-Vis measurements performed on a Jenway 6715 UV/Vis Spectrophotometer.



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PERFORMING LABORATORY & CERTIFICATION

PERFORMING LABORATORY

Analytical Formulations, Inc.

8940 Fourwinds Drive STE 107, Windcrest, TX 78239

<https://analyticalformulations.com>

A laboratory-authorized user certified on 2026-06-02 that the submitted result data and the Purity Analytics COA generated from that data accurately represent the laboratory's reported findings for the sample identified in this report.

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NOT FOR HUMAN OR VETERINARY CONSUMPTION. NOT FOR CLINICAL, DIAGNOSTIC, THERAPEUTIC, OR DRUG USE.

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DISCLAIMER & SCOPE OF TESTING

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Test results apply only to the specific sample identified by the SKU and Batch/Lot number on this report. The performing laboratory tested or reported the sample as received; chain of custody from the manufacturer, customer, distributor, or any upstream party to the laboratory is not certified by Purity Analytics LLC or the laboratory unless expressly stated in this report. Subsequent handling, storage, repackaging, reconstitution, relabeling, resale, distribution, or modification by any party may alter the attributes reported here.

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Pass/fail determinations reflect compliance with the acceptance criteria explicitly listed in this report and do not imply compliance with any criterion not listed. Each analytical method has inherent detection limits and measurement uncertainty; results are reported in accordance with the performing laboratory's validated standard operating procedures or the submitted laboratory data used to prepare this Purity Analytics COA.

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