

CERTIFICATE OF ANALYSIS

Third-party analytical testing · summary cover sheet

B12 (10ml)

AVL-B1210

AVATA LABS SKU	AVL-B1210
BATCH / LOT	20251225L06B12S10
DATE TESTED	2026-02-27
PURITY (HPLC-UV)	99.0%
PERFORMING LAB	Analytical Formulations, Inc.
SCOPE	Identity · Microbial · Heavy metals
ARTIFACT ID	coa_8ebb31fc74fe23ebbf93faf331db908a

INDEPENDENTLY VERIFIABLE

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ORDERED BY



AVATA LABS

Avata Labs

PRODUCT

NAME Vitamin B-12 10ml
(1mg/10ml)
SKU YPB.251
CATEGORY Identity + Purity +
Assay + Heavy Metals +
Microbial

SAMPLE

BATCH 20251225L06B12S10
TESTED 2026-02-27

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



Submitted vial — YPB.251



DIGITALLY SIGNED BY
Purity Analytics LLC

ISSUED 2026-06-21 16:55:10 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
Cyanocobalamin	Qualitative ID (Lambda Max)	TS λ_{max} is a match compared to its characteristic reference standard.	Matches	✓
	Percent Purity	NLT 98% $r_{xy} = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum (x_i - \bar{x})^2} \cdot \sqrt{\sum (y_i - \bar{y})^2}}$	99.0 %	✓
Cyanocobalamin	Quantitative Assay	NLT 95% label claim $\% = \frac{A_{TS}}{A_{STD}} \times \frac{C_{STD}}{C_{TS}} \times 100$	10.15 mg	✓
	Heavy Metals (Total Quantity)	NMT 150 ppb/vial (including Pb, Cd, Hg, Ni, Fe & Co)	<150 ppb	✓
	TAMC (Aerobic/Coliform)	NMT 1,000 CFU · Incubated 48 hrs @ 37°C	0 CFU	✓
	TYMC (Yeast & Molds)	NMT 100 CFU · Incubated 48 hrs @ 30°C	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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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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