Axiom ANALYTICS

CERTIFICATE OF ANALYSIS · 4X ESSENTIAL PANEL + 1 ADD-ON LAYER (L8)

Axiom Analytics Laboratories
2108 N St Ste N, Sacramento, CA 95816 US

AX-2026-2412-T6ES

GHK-Cu/KPV · Lot T-GHK-0100
Issued Oct 17, 2026 PT · v1
Verify: 6E35-8096-3629

SCAN TO VERIFY

PASS — ALL SPECIFICATIONS MET 5 of 5 layers complete

L1	L2	L3	L4	L8
Identity	Purity	Net Peptide Content	Sterility	Fentanyl Screen

Sample & Vial Validation



Vial A: as received & analyzed

MORE VIEWS OF VIAL A



Vial A · right

Brand	**Liberty Research Solutions**	Product	**GHK-Cu/KPV**
Lot / Batch	**T-GHK-0100**	Label Claim	**GHK-Cu 50 mg + KPV 10 mg**
Matrix	**lyophilized powder**	Sample Count	**1**
Cap Color	**Black**	Crimp Color	**Silver / Aluminum**
Contents Color	**White**	Seal Intact	**Yes**
Condition	**sealed, intact**	Received	**Sep 24, 2026 PT**
Sampling	**client submitted**		

Test Results

Test	Specification	Result	
Identity research screen	every declared component within ±1 Da of its own theoretical mass	2 of 2 components confirmed	PASS
Purity validated in house	each declared component at or above its own locked purity criterion	99.7%	PASS
Net Peptide Content research screen	each declared component within its own locked content criterion, at the declared ratio	62.43 mg	PASS
Sterility · Rapid PCR research screen	Rapid PCR screen	Target DNA not detected	PASS
Fentanyl Screen research screen	no fentanyl or analog at or above 1 ng/mg	none detected	PASS

Results relate only to the item or portion tested. Unless sampling was performed or witnessed by Axiom Analytics, the laboratory does not attest that the submitted sample represents the wider lot or batch. A PASS designation means only that the reported result met the specification shown. It does not establish safety, efficacy, regulatory approval, legality, or suitability for human or animal use.

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Layer Results

1 Identity

HILIC-ESI-MS intact GHK-Cu full-scan/isotope identity + LC-MS (ESI+) accurate mass

2 of 2 components confirmed
every declared component within ±1 Da of its own theoretical mass

PASS

Component	Its criterion	Observed	Status
GHK-Cu	402.92 Da · acceptance ±1 Da · average	403.012 Da	PASS Recorded component call: PASS Calculated comparison: within criterion Signed layer call: PASS
KPV	342.44 Da · acceptance ±1 Da · average	342.533 Da	PASS Recorded component call: PASS Calculated comparison: within criterion Signed layer call: PASS

Theoretical mass	**342.44 Da**	Acceptance	**within ±1 Da**
Vial A	**2 of 2 components confirmed**	GHK-Cu intact-complex determination	**Sample-level HILIC-ESI-MS; separate from the per-vial accurate-mass component screen**
Recorded matched-standard response	**402.11 m/z**	Qualified matched-standard criterion	**402.11 m/z ±1.00 Da (inclusive 401.11–403.11 m/z)**
Actual sample intact-complex response	**402.167 m/z**	Difference from qualified matched standard	**+0.057 Da**
Same-run matched-standard comparison	**confirmed**	Natural copper isotope envelope	**confirmed**

Component	Theoretical	Observed	Mass error	Identity
GHK-Cu	402.92 Da	403.012 Da	+0.092 Da (228.3 ppm)	CONFIRMED
KPV	342.44 Da	342.533 Da	+0.093 Da (271.6 ppm)	CONFIRMED

2 Purity

HILIC-CAD homogeneity (universal detection) + RP-HPLC 214 nm area% (USP <621>)

99.7%
each declared component at or above its own locked purity criterion

PASS

Component	Its criterion	Observed	Status
GHK-Cu	Expected Purity ≥ 99.25 area % · Acceptance NLT 99.25 area % · Units area % · Source Axiom Analytics SPEC-PURITY-001, Revision 1, effective 2026-08-31	99.63%	PASS Recorded component call: not recorded Calculated comparison: within criterion Signed layer call: PASS
KPV	Expected Purity ≥ 99.25 area % · Acceptance NLT 99.25 area % · Units area % · Source Axiom Analytics SPEC-PURITY-001, Revision 1, effective 2026-08-31	99.76%	PASS Recorded component call: not recorded Calculated comparison: within criterion Signed layer call: PASS

Acceptance	**Each component NLT 99.25 area %**	Vial A	**99.7% · PASS**

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3 Net Peptide Content

Quantitative HPLC vs reference std

62.43 mg
each declared component within its own locked content criterion, at the declared ratio

PASS

Component	Its criterion	Observed	Status
GHK-Cu	45–55 mg · Declared label claim on this accession: "GHK-Cu 50 mg + KPV 10 mg" (GHK-Cu 50 mg); acceptance ±10% of the declared component amount per Axiom SPEC-CONTENT-001	51.82 mg	PASS Recorded component call: not recorded Calculated comparison: within criterion Signed layer call: PASS
KPV	9–11 mg · Declared label claim on this accession: "GHK-Cu 50 mg + KPV 10 mg" (KPV 10 mg); acceptance ±10% of the declared component amount per Axiom SPEC-CONTENT-001	10.61 mg	PASS Recorded component call: not recorded Calculated comparison: within criterion Signed layer call: PASS

Target	**60 mg (±10%)**	Vial A	**62.43 mg · PASS**
Confirmed container volume	**Unknown**	Content concentration	**Unknown**



4 Sterility · Rapid PCR

Rapid Microbial DNA Screen (qPCR target panel)

Target DNA not detected
Rapid PCR screen

PASS

Result	**Target DNA not detected**	Acceptance	**Rapid PCR screen**

8 Fentanyl Screen

LC-MS/MS targeted adulterant screen

none detected
no fentanyl or analog at or above 1 ng/mg

PASS

Result	**Not detected**	Detection limit	**1 ng/mg**
Analytes screened	**Fentanyl, Acetylfentanyl, Acrylfentanyl, Butyrylfentanyl, Carfentanil, Cyclopropylfentanyl, Furanylfentanyl, Methoxyacetylfentanyl, ortho-Fluorofentanyl, Valerylfentanyl, 4-ANPP (despropionyl fentanyl)**	Source container	**A**

Reporting Scope & Limitations

`[Sterility · Rapid PCR]` DNA-target research screen only. It detects microbial DNA from viable and non-viable organisms alike, and is neither viable-CFU enumeration under USP <61> nor a batch sterility determination under USP <71>.

`[Fentanyl Screen]` Targeted LC-MS/MS adulterant screen, reported as detected or not detected against its stated detection limit. A harm-reduction research screen, not an exhaustive adulterant panel.

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Digital Signatures

Analyst	**Alana Reeves**	Analyst Signature	**ed25519:66bc44ff8bc3b90a7f2a5d1a...**
Technical Reviewer	**Michael Niles**	Reviewer Signature	**ed25519:77fbc958ba2eebffffc24bc4...**
Laboratory Director	**Daniel Brennan**	Director Signature	**ed25519:3a973163015493d7d66f9a50...**

Where physical instrument analysis is performed, it takes place within Axiom Analytics' laboratory network, allocated at Axiom's discretion based on method, capacity, and order volume. Axiom Analytics performs sample accession, chain of custody, analytical oversight, and data review, and issues and is responsible for this certificate. Where analysis is subcontracted, the method is performed within the partner laboratory's published ISO/IEC 17025 scope of accreditation for that method, not merely at a laboratory holding ISO/IEC 17025 accreditation. Axiom Analytics does not itself currently hold ISO/IEC 17025 accreditation. The method-validation status of each reported result is identified beside that result. Partner laboratory identities are not disclosed: where samples are analyzed under double-blind conditions, they are identified only by an internal lot ID.

Each signature is an ed25519 signature over the SHA-384 hash of this report. Scan the QR on the letterhead or verify independently at https://axiomanalyticslab.com/verify/AX-2026-2412-T6ES.

Presentation corrected 2026-10-18; results and signatures unchanged.

✓ CRYPTOGRAPHICALLY SEALED (ed25519 + SHA-384)

SHA-384: a82a74eb051af0a6e1cf0a2e8d0dde95383a2d8dd7258d670ca9853cc6d76b6e...

Seal: ed25519:bfb07ce46300b9da4306777a8ad45ce9a4b8fc47...

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