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-2026-2253-MSAV

Glutathione · Lot T-GLU-0049
Issued Oct 1, 2026 · v1
Verify: 23E2-F537-FF7C

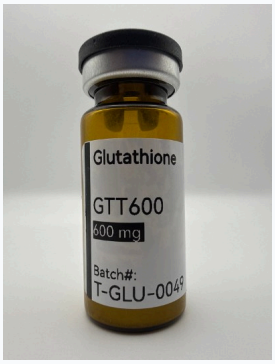
SCAN TO VERIFY

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	**Research Vault Group**	Product	**Glutathione**
Lot / Batch	**T-GLU-0049**	Label Claim	**600 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**
Sampling	**client submitted**		

Test Results

Test	Specification	Result	
Identity research screen	every vial within ±1 Da of 307.321 Da	`307.341 Da`	PASS
Purity research screen	≥ 99.25 area %	`99.58%`	PASS
Net Peptide Content research screen	every vial within ±10% of 600 mg	`Vial A: 635.21 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

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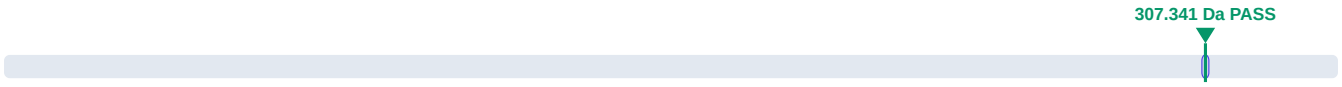
SCAN TO VERIFY

Layer Results

1 Identity
LC-MS (ESI+)

307.341 Da
every vial within ±1 Da of 307.321 Da
PASS

Theoretical mass	**307.321 Da**	Acceptance	**within ±1 Da**
Vial A	**307.341 Da · PASS**		



2 Purity
RP-HPLC 214nm (USP 621)

99.58%
≥ 99.25 area %
PASS

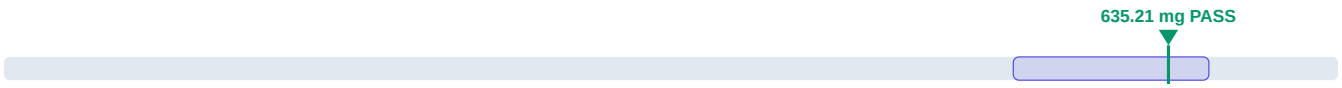
Acceptance	**≥ 99.25%**	Vial A	**99.58% · PASS**
Criterion source	**Axiom Analytics SPEC-PURITY-001, Revision 1, effective 2026-08-31**		



3 Net Peptide Content
Quantitative HPLC vs reference std

Vial A: 635.21 mg
every vial within ±10% of 600 mg
PASS

Target	**600 mg (±10%)**	Vial A	**635.21 mg · PASS**



4 Sterility · Rapid PCR
Rapid Microbial DNA Screen (qPCR target panel)

Target DNA not detected
Rapid PCR screen
PASS

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**

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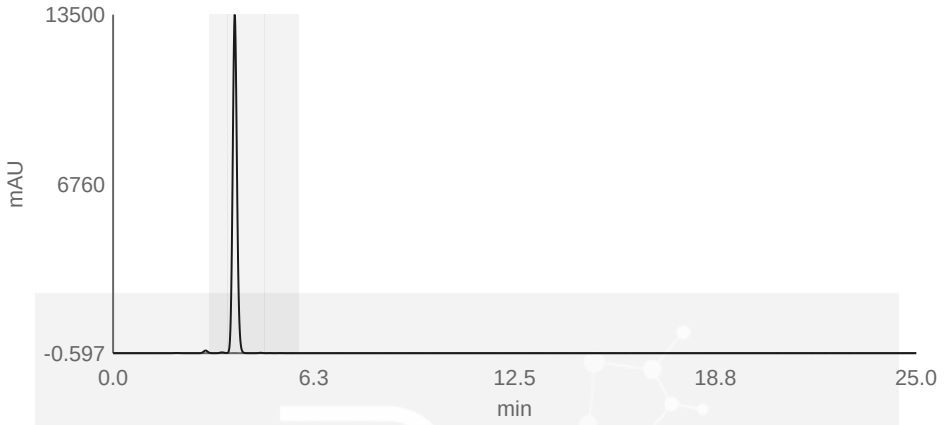
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HPLC Trace · Vial A · RP-HPLC 214 nm (7501 points)



Peak	Retention time (min)	Area %
1	3.000	0.023
2	3.387	0.248
3	3.787	99.580
4	4.587	0.098
5	4.878	0.025
6	5.195	0.026

Reporting Scope & Limitations

[Sterility · Rapid PCR] Rapid PCR screen for microbial DNA. It detects DNA from live and dead organisms and is not a USP <71> sterility test or a USP <61> count. Full USP <71> sterility testing is available as an add-on.

[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:ad366fa23cab5b6b9e787d62...**
Technical Reviewer	**Michael Niles**	Reviewer Signature	**ed25519:bb4f74fffa6c12c5747008d4...**
Laboratory Director	**Daniel Brennan**	Director Signature	**ed25519:dab754a1cbed4467cfa03e42...**

Testing is performed within Axiom's laboratory network under Axiom's methods. Every result is reviewed and released by Axiom, which issues and is responsible for this certificate. Axiom Analytics does not hold ISO/IEC 17025 accreditation. Samples are identified to the testing laboratory by an internal lot ID only. The method status of each result is shown beside it.

Each signature is an Ed25519 signature over the SHA-384 hash of this report. Scan the QR code or verify it yourself at https://axiomanalyticslab.com/verify/AX-2026-2253-MSAV.

Presentation corrected 2026-10-03; results and signatures unchanged.

✓ **CRYPTOGRAPHICALLY SEALED (ed25519 + SHA-384)**

SHA-384: 3bf2297ceacd7252f6d2c344411082df900e0d28936a3c113ac69c618e395d91...

Seal: ed25519:2dcb255a10df9fde52de5e31ff6791cc2c528139...

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RESEARCH VAULT