PurePoint ANALYTICAL

Certificate of Analysis

Code **PP-DDTURT**
Issued **Nov 3, 2026, 5:39 PM**

Scan to verify

Verified by PurePoint · Passed all tests | **7 POINT TESTED**

✓ High Purity ✓ Identity Confirmed ✓ Net Content Verified ✓ Sterile · No Growth ✓ Fentanyl Free ✓ Endotoxin Within Limits ✓ Heavy Metals Within Limits

CLIENT
Stronghold Labs

Sample Information

COMPOUND
KPV

MARKETING NAME
KPV

LABELED SIZE
10 mg

LOT / BATCH
KPV 10mg

CAS NUMBER
67727-97-3

SAMPLE RECEIVED
Oct 28, 2026, 1:17 PM

TESTING PERFORMED
Oct 29, 2026, 9:18 AM

MOL. FORMULA
$C_{16}H_{30}N_4O_4$

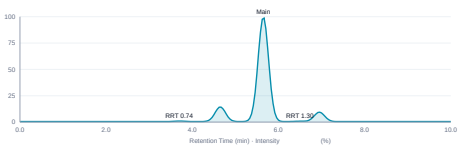
MOLECULAR WEIGHT
342.44 Da

Verified Certificate
Publicly verifiable — scan the QR code above, or look up PP-DDTURT at purepointanalytical.com/coa

Results

TEST	REFERENCE STANDARD	RESULT	STATUS
Identity Confirmation (LC-MS)	Confirmed match to labeled compound	Confirmed	PASS
Heavy Metal Analysis	Within USP <232>/<233> limits	PASS	PASS
Purity Analysis (HPLC/UV)	>98.0%	99.17%	PASS
Endotoxin Analysis	Not detected above 5 EU/mL (USP <85>)	PASS	PASS
Fentanyl Presence Analysis	Not detected	PASS	PASS
Net Content / Quantity Check	10mg ± 10%	10.34 mg	PASS
Rapid Sterility Screen	No microbial growth observed	PASS	PASS

Chromatogram





Notes & Methodology

Results are for research use only and are not for human consumption, clinical, diagnostic, or therapeutic use. Verify this certificate at purepointanalytical.com/coa/PP-DDTURT

Identity Confirmation (LC-MS) (LC-MS (ESI+))
The sample was confirmed to be KPV by LC-MS (ESI+). Identification by comparison of observed mass against the expected molecular weight.

Heavy Metal Analysis (ICP-OES, USP <232>/<233>)
Elemental impurities quantified by ICP-OES per general principles of USP <232>/<233>. Screened elements include lead, mercury, arsenic, and cadmium. Per-element results: Arsenic (As) Not Detected, Cadmium (Cd) Not Detected, Lead (Pb) Not Detected, Mercury (Hg) Not Detected (all within acceptance limits). "Not Detected" means below the limit of quantitation.

Purity Analysis (HPLC/UV) (HPLC with UV-Vis Detection)
Peptide purity determined by reversed-phase HPLC with UV detection at 214 nm. Value represents the percentage of the target compound relative to all detected compound-related peaks.

Endotoxin Analysis (Kinetic Chromogenic LAL, USP <85>)
Bacterial endotoxin quantified by kinetic chromogenic LAL per general principles of USP <85>. Result reported in EU/mL against the defined acceptance limit for the sample type.

Fentanyl Presence Analysis (Targeted LC-MS/MS Screening)
Targeted screening for fentanyl and common fentanyl analogs performed by LC-MS/MS. Result reported as detected or not detected against an established cutoff threshold.

Net Content / Quantity Check (Gravimetric + HPLC Quantitation)
Net content determined gravimetrically and cross-referenced against HPLC peak area quantitation relative to a characterized reference standard.

Rapid Sterility Screen (Membrane Filtration + Chromogenic Detection)
Preliminary microbial contamination screening performed by membrane filtration with chromogenic detection; results are read after 24 to 48 hours of incubation. This screen is a fast preliminary indicator and is not a substitute for full compendial sterility testing.

AUTHORIZED BY



Micah Lunsford
Senior Analytical Chemist · Signed Nov 3, 2026, 12:06 PM

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