Certificate of Analysis

ILS Laboratories
8222 Vickers St, Suite 106, San Diego, CA 92111
(619) 329-3999 | ils-lab.com

Wolverine - 10mg

PASS

Tested for: Southern Aminos
31938 Temecula Pkwy, Suite A PMB #361 Temecula, CA 92592 | www.southernaminos.com

COA #:	**COA-2026-FKWJKC**	Method:	**Full QC Panel**
Lot Number:	**WV100526E**	Analysis Date:	**06/01/2026**
Accession #:	**ACC-2026-3326**	Appearance:	**Good**
Labeled Content:	**10mg**	Vial Size:	**3mL**
Sample Matrix:	**Lyophilized**	Date Received:	**05/27/2026**

Scan to verify authenticity at ils-lab.com
Access Code: 6ZS5GWEY

Identity	Peptide Purity	
Wolverine	**99.60%**	**Fentanyl Free**

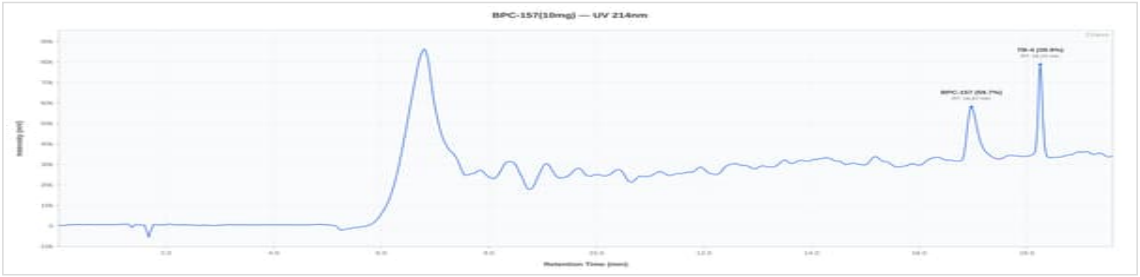


Wolverine 10mg - WV100526E

Blend Purity & Quant (HPLC)

Analyte	Specification	Result	Unit	Status
Peptide Purity (HPLC)	>= 95.0%	**99.60%**	%	**PASS**
Net Blend Peptide Content	Report Only	**10.5**	mg	N/A
-- BPC-157		*5.36*	*mg*	
-- TB-500		*5.14*	*mg*	
Identity (HPLC-RTM)	BPC-157 + TB-500	**Confirmed**	-	**PASS**
Fentanyl Screen	Immunoassay, 50 ng/mL cutoff	**Not Detected**	-	**PASS**

HPLC Chromatogram



Representative chromatogram, Conformity V3 (99.49% purity, closest to batch mean of 99.49%)

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Dr. Greg Kalyuzhny
Lab Director
6/1/2026

COA #: **COA-2026-FKWJKC**
Access Code: **6ZS5GWEY**
Verify: portal.ils-lab.com/verify/BQ8ks0P-b7OrZorx
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HPLC Conformity Testing Results (8 samples tested)

Sample	Purity	NPC	ID	Result
Dedicated V0	99.28%	10.28 mg	Confirmed	**PASS**
Conformity V1	99.60%	10.5 mg	Confirmed	**PASS**
Conformity V2	99.47%	10.66 mg	Confirmed	**PASS**
Conformity V3	99.49%	10.45 mg	Confirmed	**PASS**
Conformity V4	99.45%	10.63 mg	Confirmed	**PASS**
Conformity V5	99.51%	10.38 mg	Confirmed	**PASS**
Conformity V6	99.58%	10.46 mg	Confirmed	**PASS**
Conformity V7	99.52%	10.63 mg	Confirmed	**PASS**
Mean	**99.49%**	**10.50 mg**	—	—
Std Dev	**0.0919%**	**0.1256 mg**	—	—

Heavy Metals Analysis (ICP-MS)

Test	Specification	Result	Status
Arsenic (As)	NMT 1.5 ppm	*Not Detected*	**PASS**
Cadmium (Cd)	NMT 0.5 ppm	*Not Detected*	**PASS**
Chromium (Cr)	NMT 10 ppm	*Not Detected*	**PASS**
Mercury (Hg)	NMT 1.5 ppm	*Not Detected*	**PASS**
Lead (Pb)	NMT 1 ppm	*Not Detected*	**PASS**

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Accession #:	**ACC-2026-3326**	Appearance:	**Good**
Labeled Content:	**10mg**	Vial Size:	**3mL**
Sample Matrix:	**Lyophilized**	Date Received:	**05/27/2026**

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Access Code: 6ZS5GWEY

Sterility Testing (PCR)

Test	Specification	Result	Status
Sterility (PCR)	No Growth	**No Growth**	**PASS**

Endotoxin Testing (USP <85>)

Test	Specification	Result	Status
Endotoxin (USP <85>)	Report Result	**NMT 0.05 EU/mL**	**Reported**

About this result: Endotoxin is reported as a quantitative value. Acceptable limits vary by product type and matrix, so no universal pass/fail threshold applies to RUO products. This result is below commonly referenced endotoxin thresholds.

Certificate Change History — **ILS QA**

Revision 1 – reissued October 30, 2026
Certificate statement updated. Test results are unchanged. Supersedes the original issued 06/01/2026.

Notes & Methodology

1. Date Tested: 06/01/2026. Methods: Blend Purity & Quant (HPLC).
2. The sample was confirmed to be Wolverine by HPLC. Identification by chromatographic retention time comparison with a reference standard.
3. Elemental impurities analyzed by ICP-MS per USP <233> methodology. Acceptance criteria are internal laboratory quality screening limits for research-use materials and do not represent evaluation against any specific pharmacopeial monograph or product specification.
4. Endotoxin tested per USP <85> kinetic turbidimetric method. Acceptance criteria per client specification.
5. Peptide purity determined by RP-HPLC area normalization at 214 nm. Value represents the percentage of the target peptide relative to all peptide-related peaks. Non-peptide process-related impurities, if detected, are excluded from the calculation.
6. Per-component content calculated from total net peptide content using the manufacturer's stated formulation ratio (BPC-157, TB-500). All components confirmed present by HPLC identity testing, unless explicitly stated otherwise.
7. Chromatogram shown is representative: Conformity V3 (99.49% purity, closest to batch mean of 99.49%).

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