Certificate of Analysis

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

Wolverine - 20mg

PASS

Tested for: Crush Research
https://www.crushresearch.shop/

COA #:	**COA-2026-Y6EVEO**	Method:	**Full QC Panel**
Lot Number:	**CR-BPTB20-2605-1**	Analysis Date:	**06/01/2026**
Accession #:	**ACC-2026-3296**	Appearance:	**Good**
Labeled Content:	**20mg**	Vial Size:	**3mL**
Sample Matrix:	**Lyophilized**	Date Received:	**05/27/2026**

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

Identity	Peptide Purity	
Wolverine	**99.90%**	**Fentanyl Free**

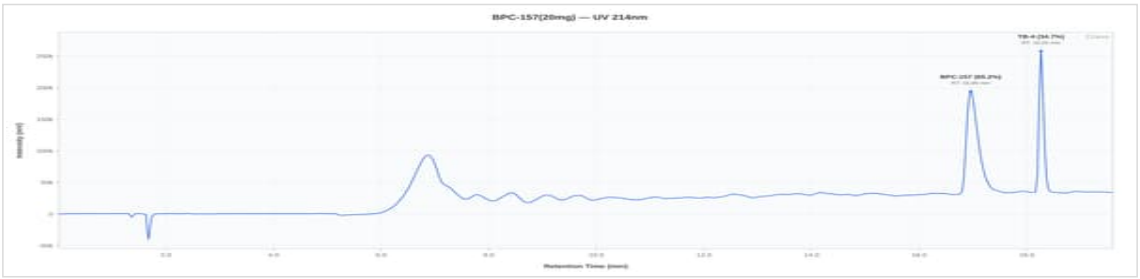


Wolverine 20mg - CR-BPTB20-2605-1

Blend Purity & Quant (HPLC)

Analyte	Specification	Result	Unit	Status
Peptide Purity (HPLC)	>= 95.0%	**99.90%**	%	**PASS**
Net Blend Peptide Content	Report Only	**21.14**	mg	N/A
-- BPC-157		*10.78*	*mg*	
-- TB-500		*10.36*	*mg*	
Identity (HPLC-RTM)	BPC-157 + TB-500	**Confirmed**	-	**PASS**
Fentanyl Screen	Immunoassay, 50 ng/mL cutoff	**Not Detected**	-	**PASS**

HPLC Chromatogram



Representative chromatogram, Dedicated V0 (99.85% purity, closest to batch mean of 99.88%)

Dr. Greg Kalyuzhny
Lab Director
6/1/2026

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HPLC Conformity Testing Results (2 samples tested)

Sample	Purity	NPC	ID	Result
Dedicated V0	99.85%	21.19 mg	Confirmed	**PASS**
Conformity V1	99.90%	21.14 mg	Confirmed	**PASS**
Mean	**99.88%**	**21.16 mg**	—	—
Std Dev	**0.0250%**	**0.0250 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**

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>)	NMT 5 EU/mL	**NMT 0.05 EU/mL**	**PASS**
Acceptance criteria: NMT 5 EU/mL per client specification.			

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: Dedicated V0 (99.85% purity, closest to batch mean of 99.88%).

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