Certificate of Analysis

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

TB-500 - 5mg

10X TESTED

PASS

Tested for: Value Amino
valueamino.com

COA #:	**COA-2026-4N9HBK**	Analysis Date:	**10/16/2026**
Lot Number:	**VA-TB50391**	Sample Matrix:	**Lyophilized**
Accession #:	**ACC-2026-22998**	Volume:	**3mL**
Labeled Content:	**5mg**	Date Received:	**10/13/2026**

Method: **Full QC Panel**

Scan to verify authenticity at ils-lab.com
Access Code: BF2E9WAE

Identity	Peptide Purity	
TB-500	**99.37%**	Fentanyl Free

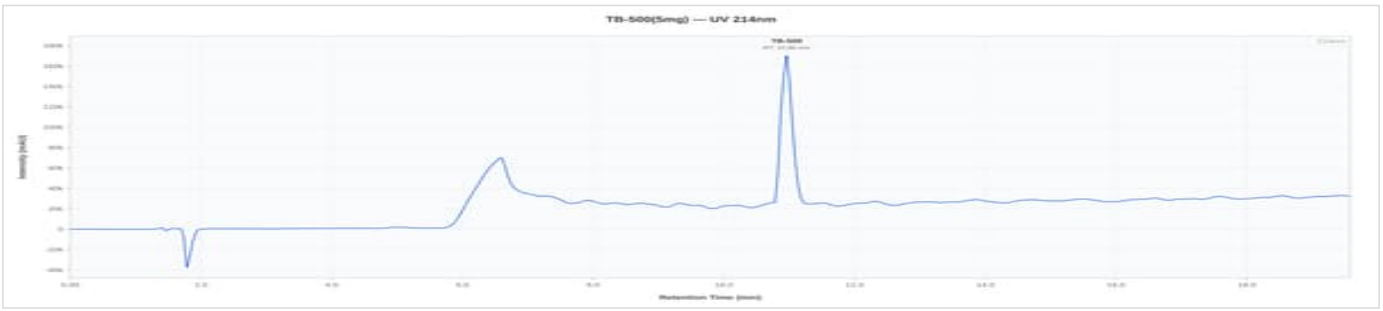


TB-500 5mg - VA-TB50391

Full QC Panel

Analyte	Specification	Result	Unit	Status
Peptide Purity (HPLC)	>= 95.0%	**99.37%**	%	**PASS**
Net Peptide Content	Report Only	**5.32**	mg	N/A
Identity (HPLC-RTM)	TB-500	**Confirmed**	-	**PASS**
Fentanyl Screen	Immunoassay, 50 ng/mL cutoff	**Not Detected**	-	**PASS**

HPLC Chromatogram



TB-500 5mg - VA-TB50391: UV Chromatogram

This certificate relates only to the sample(s) tested.

Additional Analyses

Analyte	Specification	Result	Unit	Status
Product pH Potentiometric pH (USP <791>)	Report Only	**7.29**		Report Only
Solubility Analysis Visual Solubility Assessment (USP general notices descriptive terms)	Report Only	**Soluble** Solvent: Nuclease-Free Water Concentration: 1.66 mg/mL		Report Only
Closure Integrity Vacuum Leak Test (USP <1207>)	No leakage observed	**Pass**		Report Only

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**
Lead (Pb)	NMT 1.0 ppm	*Not Detected*	**PASS**
Mercury (Hg)	NMT 1.5 ppm	*Not Detected*	**PASS**
Chromium (Cr)	NMT 10.0 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>)	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.

Notes & Methodology

1. Date Tested: 10/16/2026. Methods: Full QC Panel.
2. The sample was confirmed to be TB-500 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 chromogenic 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. Quality System: ILS Laboratories operates an ISO/IEC 17025 quality management system. Peptide testing is performed for Research Use Only.
7. This certificate reports analytical results for the sample(s) submitted to ILS Laboratories for testing. All sample identifications, product names, brand names, lot/batch numbers, and labeled content are provided by the submitting party and have not been independently verified. Results reflect only the analytical testing of the specific sample(s) provided and do not constitute an evaluation or endorsement of the manufacturer's processes, quality systems, or overall production. ILS Laboratories makes no representations regarding the intended use, safety, efficacy, regulatory status, or intellectual property ownership of any materials tested.

ILS LABS

Issued by ILS Laboratories
(619) 329-3999
ils-lab.com

Dr. Greg Kalyuzhny
Lab Director
10/16/2026

COA #: **COA-2026-4N9HBK**
Access Code: **BF2E9WAE**
Verify: portal.ils-lab.com/verify/oIPgUDrZ9_ahLsYL
Issued: 10/16/2026

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