



Certificate of Analysis

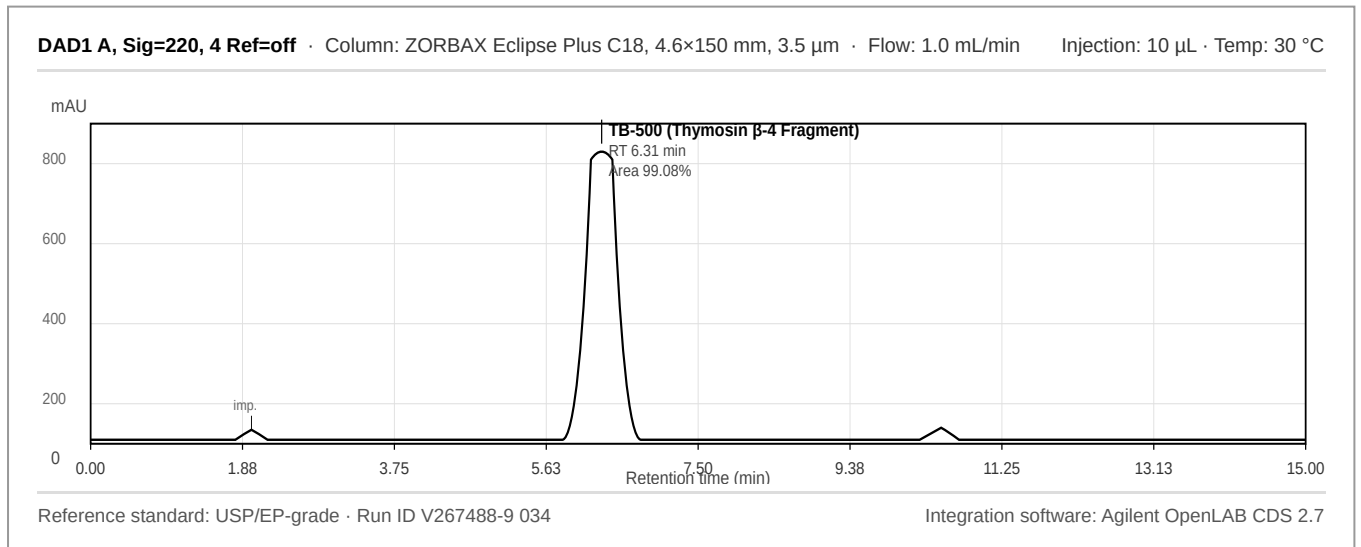
TB-500 (Thymosin β -4 Fragment) · 5 mg / vial · Lot **TBM101**

REPORT TO	IGF1 Shop · igf1shop.com	LABORATORY ID	V267488-9 034
COMPOUND	TB-500 (Thymosin β -4 Fragment)	LOT NUMBER	TBM101
CAS NUMBER	885340-08-9	MOLECULAR WEIGHT	4 963 Da
SAMPLE RECEIVED	2026-04-22	ANALYSIS CONDUCTED	2026-04-24
DATE RELEASED	2026-04-27	PHYSICAL APPEARANCE	Reconstituted clear liquid

1. IDENTITY & PURITY

SPECIFICATION	METHOD	RESULT	STATUS
Identity confirmation	RP-HPLC + ESI-MS comparison to reference	Conforms	PASS
Chromatographic purity	HPLC-UV/VIS, C18 RP, 220 nm	99.08% \pm 0.21%	PASS
Quantitative assay	HPLC-UV/VIS	5.160 mg (target 5 mg)	PASS
Mass confirmation (ESI-MS)	Electrospray ionization mass spectrometry	Within \pm 1 Da of theoretical	PASS

2. HPLC CHROMATOGRAM



3. MICROBIOLOGICAL & SAFETY ASSAYS

SPECIFICATION	METHOD	RESULT	STATUS
Bacterial endotoxins	LAL kinetic chromogenic	< 0.120 EU/mg	PASS
Sterility	USP <71> · BacT/ALERT	No growth detected	PASS
Water content	Karl Fischer titration	0.71%	PASS
Acetate content	Ion chromatography	2.56%	PASS

4. HEAVY METALS (ICP-MS)

ANALYTE	METHOD	LOQ (PPM)	RESULT (PPM)	STATUS
Arsenic (As)	ICP-MS	0.01	ND	PASS
Cadmium (Cd)	ICP-MS	0.01	ND	PASS
Lead (Pb)	ICP-MS	0.01	ND	PASS
Mercury (Hg)	ICP-MS	0.005	ND	PASS

ND: Non-Detect (below LOQ). LOQ: Limit of Quantification.

5. STORAGE & STABILITY

Recommended storage	+2 °C to +8 °C, protected from light
Stability under recommended conditions	24 months from release date
Retest date	2027-04-27
Container closure	10 mL clear borosilicate vial · butyl rubber stopper · aluminum flip-off seal

REPORT BY

Dustin Newman

Dustin Newman

Laboratory Director

Date: 2026-04-24

APPROVED & RELEASED BY

Tori Johnson

Tori Johnson

Operations Manager

Date: 2026-04-27



ISO/IEC 17025:2017 Accredited Testing Laboratory

Accredited by the American Association for Laboratory Accreditation (A2LA) for analytical chemistry, biopharmaceutical assays, and microbiological testing.

A2LA Cert. #6377.01.01

Scope: pharmaceutical & biological analysis
vanguardlaboratory.com

Reference: A2LA Certificate #6377.01.01. Sample received in good condition. Results apply only to the items tested. Vanguard Laboratory, LLC did not participate in sampling. The compound described is intended for laboratory research use only — not for human or animal consumption, drug, food, agricultural, or cosmetic application.

