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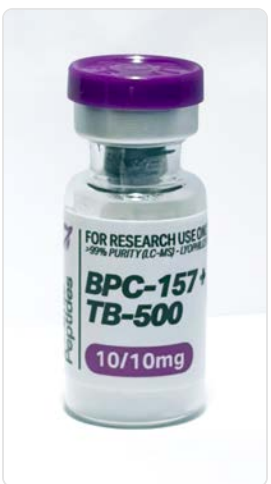
CERTIFICATE OF ANALYSIS

Purity, Identity & NPC

COA ID: KR78X4EE

PRODUCT NAME	CLIENT	LOT ID
BPC-157 / TB-500 Blend	Cosmic Peptides	26115
MOLECULAR FORMULA	**MOLECULAR WEIGHT**	**DISSOLUTION**
$C_{62}H_{98}N_{16}O_{22}$ / $C_{212}H_{350}N_{56}O_{78}S$	1419.54 / 4963.50 g/mol	100% Ultrapure H_2O

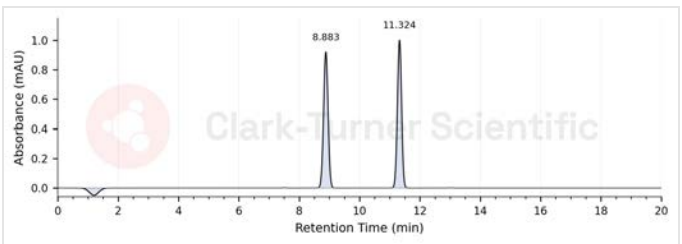
TEST RESULTS



03/04/2026 KR78X4EE

TEST	SPECIFICATION	RESULT	STATUS
Appearance	White to off-white powder	Lyophilized White Powder	✓ CONFORMS
Purity (HPLC)	≥ 98.0%	99.69%	✓ CONFORMS
NPC (BPC-157)	Report result	10.03 mg	✓ CONFORMS
NPC (TB-500)	Report result	10.24 mg	✓ CONFORMS
Identity (MS)	BPC-157 $[M+2H]^{2+}$ / TB-500 $[M+8H]^{8+}$	709.22 / 621.45 Da	✓ CONFORMS
Total Impurities	≤ 2.0%	0.31%	✓ CONFORMS

HPLC CHROMATOGRAM



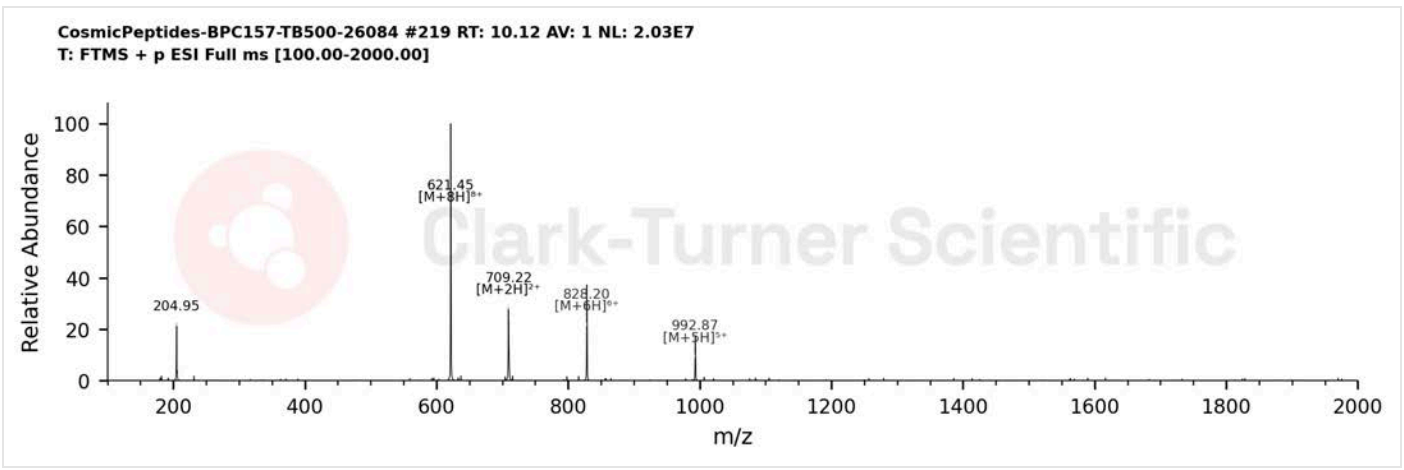
PEAK #	RT (MIN)	AREA %	IDENTITY
1	8.883	47.12	TB-500
2	11.324	52.57	BPC-157

TEST PARAMETERS

Pump A	0.1% TFA in 100% water
Pump B	0.1% TFA in 100% acetonitrile
Total Flow	1.0 mL/min
Wavelength	220 nm
Analytical Column	Agilent ZORBAX StableBond 5µm C18 (4.6 × 250 mm)
Dissolution Method	100% H_2O
Injection Volume	20 µL
Analysis Date	March 4, 2026

Reversed-phase HPLC analysis of the BPC-157/TB-500 blend was performed using a C18 stationary phase with a TFA-modified water/acetonitrile gradient and detection at 220 nm. Two well-resolved peaks were observed, consistent with the expected two-component formulation. The first-eluting peak at 8.883 minutes (47.12% area) corresponds to TB-500 (Thymosin Beta-4), whose 43-residue sequence contains numerous charged residues (Asp, Glu, Lys) that reduce hydrophobic retention on the C18 phase. The second peak at 11.324 minutes (52.57% area) corresponds to BPC-157, whose proline-rich sequence and C-terminal Leu-Val dipeptide provide greater hydrophobic interaction. The combined purity of both target peptides is 99.69%, with minor impurities totaling 0.31% detected at trace levels, consistent with sub-percent deletion sequences. The chromatographic profile demonstrates excellent resolution between the two components with no evidence of degradation or aggregation.

MASS SPECTROMETRY (ESI-MS)



BPC-157 $[M+2H]^{2+}$: 709.22 Da TB-500 $[M+8H]^{8+}$: 621.45 Da

Dissolution Method	3% HAc + 25% ACN + 72% H_2O
Injection Volume	1 µL
Interface	ESI
Nebulizing Gas Flow	1.50 L/min
CDL Temp	250°C

CDL Volt	0 V
Block Temp	200°C
Prerod Bias	+4.5 kV
Detector	-0.2 kV
B.conc	30% H_2O / 70% MeOH

Electrospray ionization mass spectrometry of the BPC-157/TB-500 blend in positive-ion mode confirmed the presence of both target peptides. TB-500 (Thymosin Beta-4, $C_{212}H_{350}N_{56}O_{78}S$, MW 4963.50 Da) produced a multiply-charged ion envelope with the dominant $[M+8H]^{8+}$ at m/z 621.45 (99%), accompanied by $[M+6H]^{6+}$ at m/z 828.20 (43%) and $[M+5H]^{5+}$ at m/z 992.87 (22%). The charge state distribution centered around the octaply charged species is consistent with the extended, highly charged nature of this 43-residue peptide under acidic ESI conditions. BPC-157 ($C_{62}H_{98}N_{16}O_{22}$, MW 1419.54 Da) was identified by its $[M+2H]^{2+}$ ion at m/z 709.22 (57%), the expected dominant charge state for a 15-residue peptide of this mass. A fragment ion at m/z 204.95 (50%) is attributable to proline-related immonium ions from the BPC-157 Pro-rich sequence. No significant impurity ions or unexpected adducts were detected, confirming the identity and integrity of both blend components.

This Certificate of Analysis certifies that the above-referenced sample was tested according to Clark-Turner Scientific standard operating procedures. All results reported herein are accurate and complete to the best of our knowledge. This document is intended solely for the use of the addressee and may contain confidential information.

Michael Weber 03/04/2026

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