PeptideVerify™ | Certificate of Analysis

INDEPENDENT THIRD-PARTY PEPTIDE VERIFICATION

PREMIUM

Report PV-A047CC-QEYZ

CERTIFICATE ID	ISSUE DATE	BATCH/LOT	CUSTOMER
PV-A047CC-QEYZ	15/06/2026	961901	Alph4 Labs ltd
SAMPLE DESCRIPTION	**EXPECTED MW**	**ANALYSIS DATE**	**INSTRUMENT**
BPC-157 + TB-500	1419.5 Da	15/06/2026 12:59	LCMS Line 1

LAB OBSERVATIONS & VERIFICATION

MS / Identity: Different than expected

Lab Notes: Contains 2 compounds

VERIFICATION SUMMARY

Component Purity (HPLC)

Thymosin β4 (TB-500)	**99.65%**
BPC-157	**98.94%**

Ratio: Thymosin β4 (TB-500) 36.3% : BPC-157 63.7%

Blend · Per-component PPI

Mass Spectrometry

N/A

ANALYTICAL RESULTS

COMPONENT PURITY

Thymosin β4 (TB-500)	**99.65%**
BPC-157	**98.94%**

Per-component PPI · Ratio: Thymosin β4 (TB-500) 36.3% : BPC-157 63.7%

MAIN PEAK

#2 @ 7.755 min

TOTAL PEAKS

2

MS VERIFICATION

✓ Confirmed

DETECTION

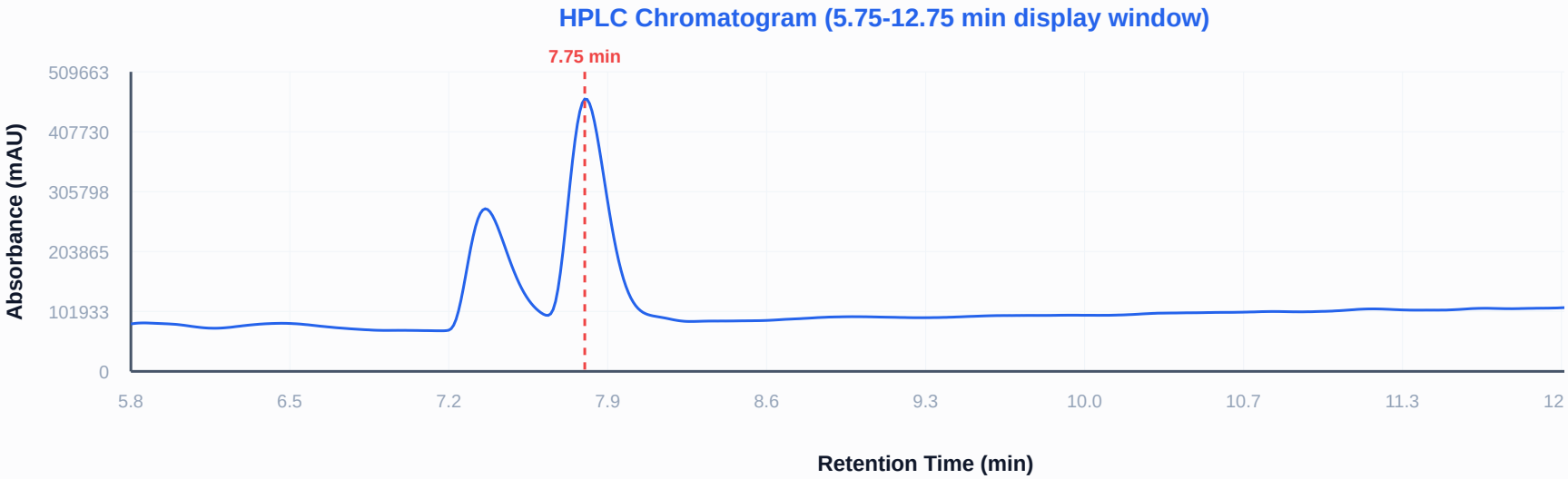
215 nm (±4)

BLEND COMPONENT ANALYSIS

Individual purity assessment for each peptide component in this blend.

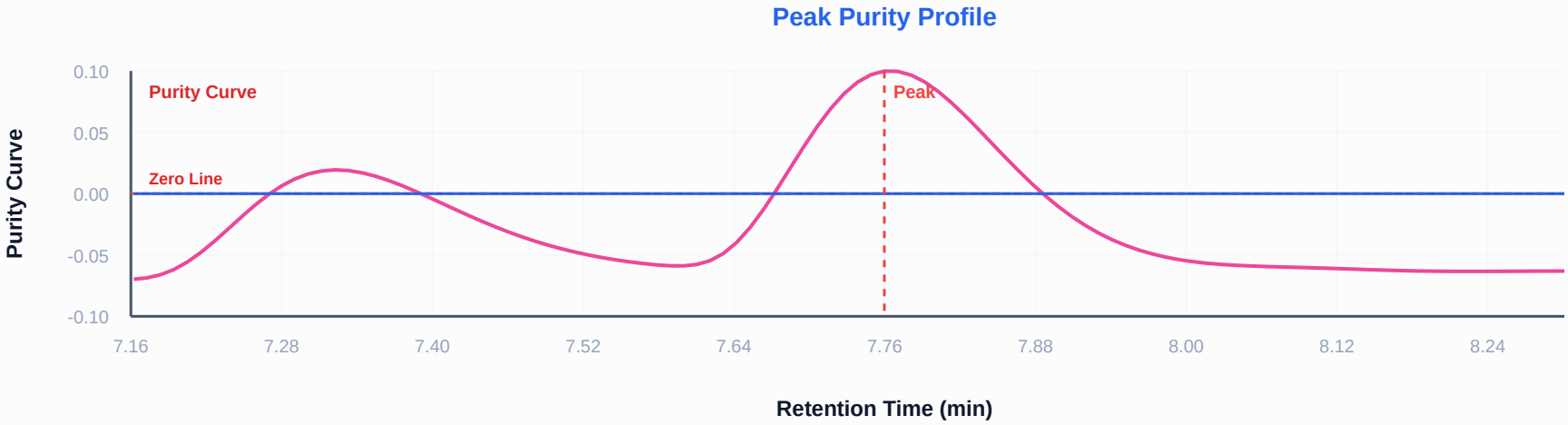
COMPONENT	PURITY (PPI)	COMPOSITION (UV)	RT (MIN)	TAILING	PLATES (N)
Thymosin β4 (TB-500)	**99.65%**	36.29%	7.317	—	6993
BPC-157	**98.94%**	63.71%	7.755	1.29	9197

HPLC CHROMATOGRAM



Detection: 215 nm (±4 nm)

PEAK PURITY PROFILE



PEAK INTEGRATION DATA

PEAK #	NAME	RETENTION (MIN)	AREA	HEIGHT	AREA %	WIDTH (MIN)	RESOLUTION (RS)	TAILING	PLATES (N)
1	Thymosin β4 (TB-500)	7.317	2,609,646	N/A	**36.29%**	—	—	—	6,993
2	**BPC-157**	**7.755**	**4,582,103**	**N/A**	**63.71%**	**—**	**1.30**	**1.29**	**9,197**

Resolution color-coded: Green (Rs≥2.0 or N/A for single peak), Yellow (Rs≥1.0), Red (Rs<1.0). Values calculated from instrument data or derived from peak widths (USP <621>).

MASS SPECTROMETRY ANALYSIS — BLEND COMPONENTS (ESI+)

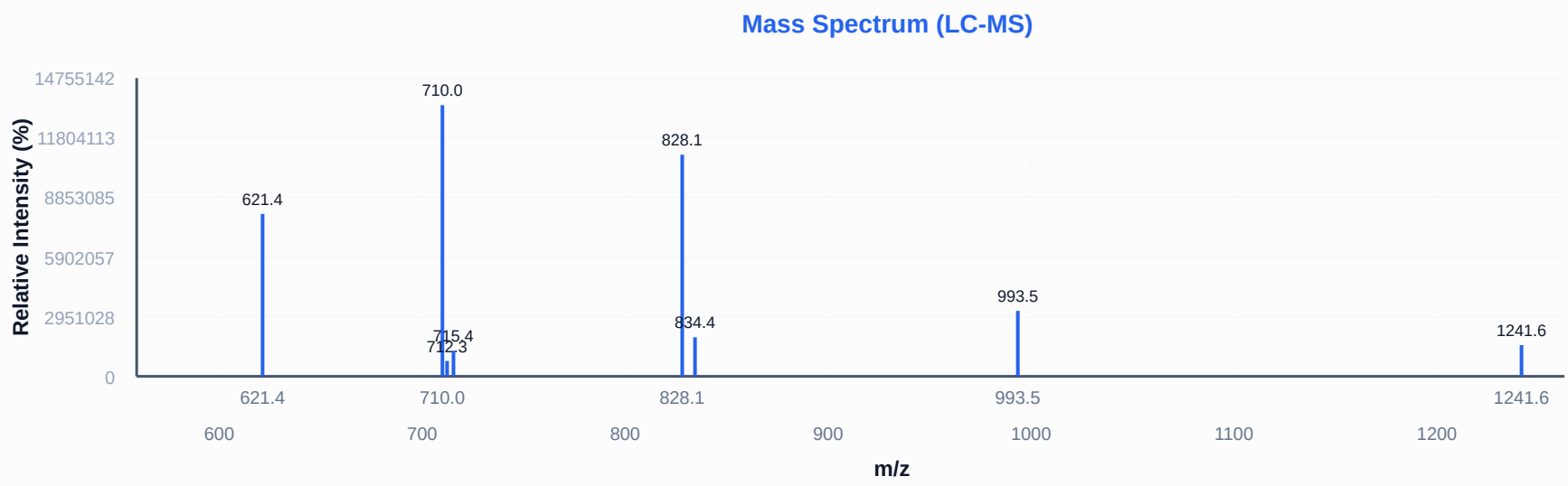
Individual LC-MS identity confirmation for each peptide component in this blend.

Thymosin β4 (TB-500) ✓ Confirmed

EXPECTED MW	BASE PEAK
4963.0 Da	m/z 709.95

Predicted charge states:

`z=1+ → m/z 4964.00` `z=2+ → m/z 2482.50`



DETECTED M/Z	ASSIGNMENT	INTENSITY	RELATIVE %
709.95	—	13,413,765	100.0%
828.10	—	10,964,225	81.7%

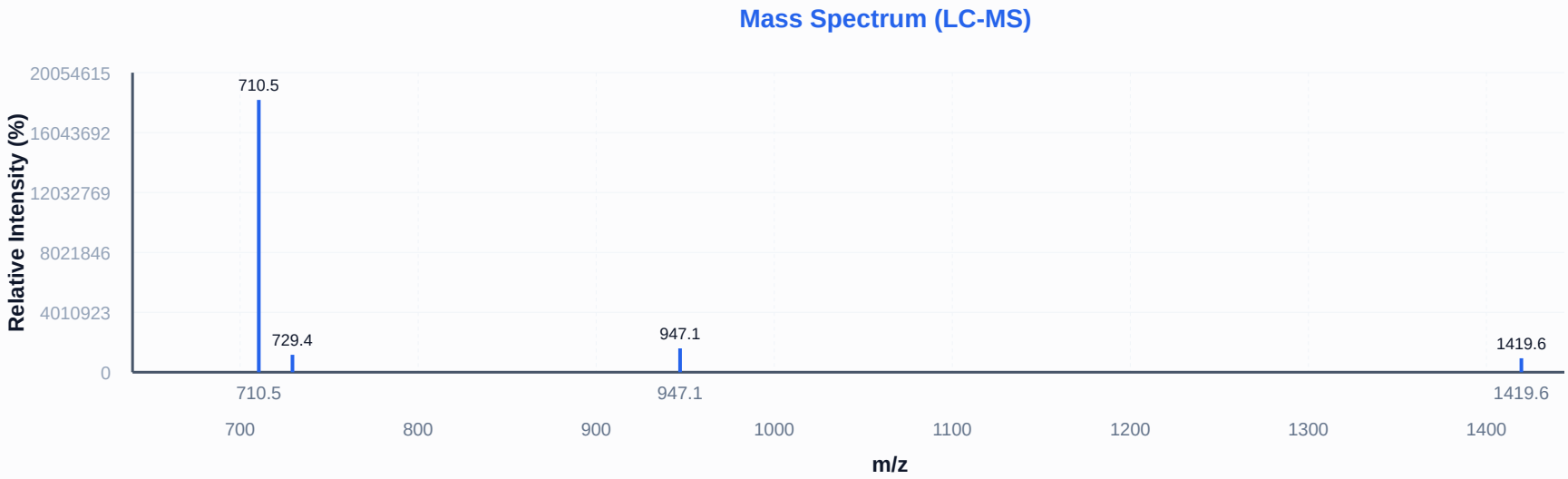
DETECTED M/Z	ASSIGNMENT	INTENSITY	RELATIVE %
621.35	—	8,033,501	59.9%
993.45	—	3,238,091	24.1%
834.40	—	1,929,473	14.4%
1241.60	$[M+4H]^{4+}$	1,544,501	11.5%
715.40	—	1,268,047	9.5%
712.25	—	762,598	5.7%

BPC-157 ✓ Confirmed

EXPECTED MW	BASE PEAK
1419.6 Da	**m/z 710.50**

Predicted charge states:

`z=1+ → m/z 1420.56` `z=2+ → m/z 710.78`



DETECTED M/Z	ASSIGNMENT	INTENSITY	RELATIVE %
710.50	$[M+2H]^{2+}$	18,231,468	100.0%
947.10	—	1,595,721	8.8%
729.40	—	1,167,313	6.4%
1419.60	—	934,184	5.1%

METHOD INFORMATION

Instrument	LCMS Line 1
Verification	PeptideVerify Independent Verification
Method	HPLC-MS
Detection	215 nm (±4 nm)
MS Ionization	Electrospray (ESI+)

ANALYST NOTES

Lab Observations: Form: Lyophilized powder Color: White Condition: As expected - no issues

Purity Calculation Method: Purity is reported according to our validated laboratory method. For **single-peak samples**, purity equals the Peak Purity Index × 100 — a spectral-homogeneity measure that detects co-eluting species hidden beneath the main peak. For **multi-peak samples**, purity equals the chromatographic main-peak %purity (Area% of the total integrated UV signal) multiplied by the main peak's Peak Purity Index, giving an overall purity that accounts for both extraneous peaks and any spectral heterogeneity within the main peak. For **blends**, each component's purity is reported individually as its Peak Purity Index × 100, with the ratio between components determined by their relative chromatographic area (Area%). This follows the Bio-Analysis Centre's validated method for multi-component samples.

CERTIFICATE VERIFICATION

INDEPENDENTLY VERIFIED

peptideverify.co.uk/verify/PV-A047CC-QEYZ

Scan QR code or visit the URL above to verify this certificate's authenticity and view detailed analysis data.

IMPORTANT NOTE

Sample Composition reflects UV-detectable compounds only. Non-UV excipients (mannitol, sugars, salts) are not measured by this method.

PeptideVerify — Independent Third-Party Peptide Verification

Analysis performed under controlled laboratory conditions using validated analytical methods.

This certificate relates solely to the sample as received and tested. Issued for research and informational purposes only — not an endorsement for human or veterinary use.

Certificate ID: PV-A047CC-QEYZ | Batch/Lot: 961901 | Customer: Alph4 Labs ltd | Generated: 15 Jun 2026, 21:29