

CERTIFICATE OF ANALYSIS

GPC-157 + TB-500 Blend · Batch OP-BT577R · August 2026

Product name	GPC-157 + TB-500 Blend	Presentation	Lyophilised powder
Batch number	OP-BT577R	Composition	GPC-157 + TB-500 (Tβ4)
Date of manufacture	August 2026	Total peptide	10 mg / vial (5 mg + 5 mg)
Test standard	In-house	Usage	Research use only
Storage	Powder: -20°C 3 years; 4°C 2 years; 15°C 3 months.	Storage	In solvent: -80°C 6 months; -20°C 1 month; 10°C 1 week

Component identity

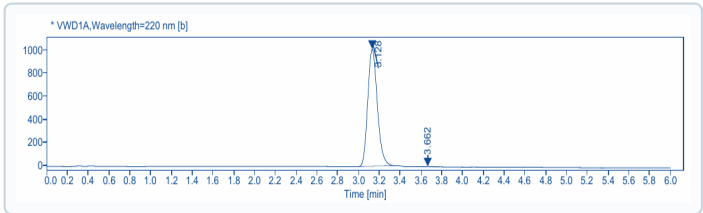
Component	GPC-157	TB-500 (Thymosin β4)
CAS number	137525-51-0	77591-33-4
PubChem CID	9941957	16132341
Molecular formula	C ₆₂ H ₉₈ N ₁₆ O ₂₂	C ₂₁₂ H ₃₅₀ N ₅₆ O ₇₈ S
Molecular weight	1419.56 g/mol (free base)	4963.44 g/mol
Observed ion (ESI-MS)	[M+2H] ²⁺ 710.3 · [M-H] ⁻ 1418.5	[M+8 → 4H] ^{8+...4+} 621 / 710 / 828 / 994 / 1242
Measured content	5.91 mg / vial	5.60 mg / vial
Sequence	GEPPPGKPADDAGLV	Ac - SDKPDMAEIEKFDKSKLKKTTETQKKNPLPSKETIEQEKQAGES

Analytical results

Test parameter	Method	Specification	Result	Status
Appearance	Visual	White to off-white powder	White powder	✓
Identification — GPC-157	ESI-MS	[M+2H] ²⁺ / [M-H] ⁻	Conforms	✓
Identification — TB-500	ESI-MS	[M+8 → 4H] charge envelope	Conforms	✓
Purity — combined	RP-HPLC (UV 220 nm)	≥ 99.0%	99.68%	✓
Largest single impurity	RP-HPLC (UV 220 nm)	Report	0.31%	✓
GPC-157 content	Assay	5 mg / vial (nominal)	5.91 mg / vial	info
TB-500 content	Assay	5 mg / vial (nominal)	5.60 mg / vial	info

HPLC chromatogram

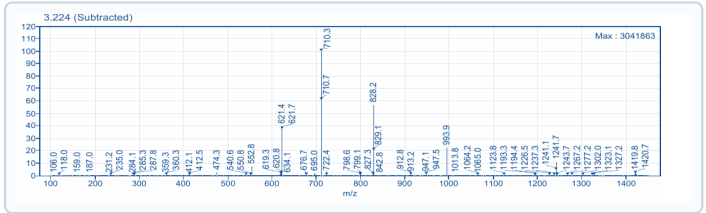
RP-HPLC UV 220 nm



Main peak RT 3.128 min · combined area 99.68% · total related 0.31%.

Mass spectrum

ESI-MS positive



TB-500 envelope 621/710/828/994/1242 · GPC-157 [M+2H]²⁺ 710.3.

✓ Combined purity 99.68% (≥ 99.0%); GPC-157 and TB-500 identities confirmed by ESI-MS — conforms.

Note. Under this method GPC-157 and TB-500 co-elute as a single main peak; the 99.68% is the combined main-peak purity, with each peptide confirmed individually by ESI-MS. Counter-ion, water content, residual solvents, bacterial endotoxins and bioburden were not included in this analysis and are not certified on this document.

Results relate only to the batch tested, by the stated methods at time of release, and are provided in good faith without warranty. This document has no legal certification validity and must not be used for regulatory submission or litigation. Storage figures are recommendations, not stability data. For research use only — not for human or veterinary use.

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COA-OP-BT577R Rev.3