CRAFA
PEPTIDE & COMPOUND ANALYSIS

Independent Peptide & Research-Compound Testing
14 Mill Lane, Cambridge, United Kingdom

CERTIFICATE OF ANALYSIS

Certificate of Analysis (COA)

No. CRF-2026-2077
Issued: 2026-10-15

PRODUCT IDENTIFICATION

PRODUCT	TB-500 10 mg
SKU / INTERNAL CODE	CRF-2026-2077
PRESENTATION	Lyophilised powder, 10 mg vial
BATCH NUMBER	LOT-2610-2077
CLIENT	veltispeptides.mx
SAMPLE RECEIVED	2026-10-10
ANALYSIS DATE	2026-10-13
PRODUCTION DATE	2026-10-08
ISSUED	2026-10-15
EXPIRY / RETEST	2028-10-15

MOLECULAR FORMULA
C212H350N56O78S

MOLECULAR WEIGHT	CAS NUMBER
4964.4	77591-33-4

ANALYTICAL METHOD

PANEL
SILVER - HPLC-UV + LC-MS/MS + ICP-MS (Pb/As/Cd/Hg) + LAL endotoxin

METHOD
RP-HPLC-UV 214 nm · LC-MS/MS ESI Q-TOF · ICP-MS · LAL kinetic chromogenic (USP <85>)

INSTRUMENT
Thermo Q-Exactive · Agilent 7900 ICP-MS · Charles River Endosafe nexgen-PTS

Column: C4 2.1×100mm | Temperature: 60°C | Mobile phase: 0.1% TFA H2O / ACN | Flow: 0.3 mL/min | Retention time: 6.4 min

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1. PURITY & ASSAY - RP-HPLC-UV (214 nm)

Test	Specification	Result	Status
HPLC Purity	≥98.0%	99.5%	PASS
Quantity	95.0-105.0%	10.0 mg (100.0%)	PASS

2. LC-MS/MS STRUCTURAL CONFIRMATION

Test	Reported data	Status
Theoretical [M+H]+	4964.4 | Observed: 4964.6 | Δ +0.20 Da	PASS
Sequence Coverage (MS/MS)	≥95% | 98% (43 aa)	PASS
Key fragments	b12 1437.7 · b26 3081.5 · y20 2331.2 · y34 3919.0	PASS
Modifications	N-terminal acetyl (Ac-SDKPDMAEIEKFDKSKLKKTETQEKNPLPSKETIEQEKQAGES) confirmed (+42.01 Da on b1); no methionine sulfoxide above 0.5%	PASS

RESEARCH USE ONLY - NOT FOR HUMAN OR VETERINARY USE

3. HEAVY METALS - ICP-MS (USP <232>/<233>)

Test	Specification	Result	Status
Pb		<0.05 µg/g	PASS
As		<0.10 µg/g	PASS
Cd		<0.02 µg/g	PASS
Hg		<0.01 µg/g	PASS

4. ENDOTOXIN - LAL kinetic chromogenic (USP <85>)

Test	Reported data	Status
Result	<1.0 EU/mg limit | 0.24 EU/mg | PPC recovery 86%	PASS

FINAL BATCH RESULT

PASS - Conforms to specifications

ANALYST NOTES

Thymosin β4 active fragment (Tβ4 17-23 core region). Acetylation intact, no aggregation above 0.3%.

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