ASCENDTIALS LLC

Research compounds · Quality Control Department

CERTIFICATE OF ANALYSIS

Document COA-TB4-2609A

Thymosin Beta-4 (Full Length)

CAS NUMBER
77591-33-4

MOLECULAR FORMULA
C212H350N56O78S

MOLECULAR WEIGHT
4963 g/mol

SALT FORM
Acetate

LOT NUMBER
TB4-2609A

DATE OF ANALYSIS
September 22, 2026

RETEST DATE
September 21, 2028

ANALYTICAL LABORATORY
Third-party HPLC/MS

SEQUENCE
`Ac-SDKPDMAEIEKFDKSKLKKTETQEKNPLPSKETIEQEKQAGES (43 aa)`

ANALYTICAL RESULTS

TEST	METHOD	SPECIFICATION	RESULT
Appearance	Visual	White to off-white lyophilized powder	**Conforms**
Identity (molecular mass)	ESI-MS	4963 g/mol +/- 1.0 Da	**4962.9 Da**
Purity	RP-HPLC, UV 214 nm	NLT 98.0%	**98.70%**
Single largest impurity	RP-HPLC, UV 214 nm	NMT 1.0%	**0.42%**
Water content	Karl Fischer titration	NMT 8.0%	**3.8%**
Acetate content	Ion chromatography	NMT 15.0%	**6.9%**
Peptide content	Nitrogen determination	NLT 80.0%	**91.5%**
Residual solvents	GC headspace, ICH Q3C	Meets ICH limits	**Conforms**
Bacterial endotoxins	LAL, USP <85>	< 1.0 EU/mg	**Conforms**

CONFORMS — lot TB4-2609A meets all specifications listed above.

CHROMATOGRAPHIC CONDITIONS

Column: C18 reversed phase, 4.6 × 250 mm, 5 µm, 100 Å
Mobile phase A: 0.1% TFA in water · B: 0.1% TFA in acetonitrile
Gradient: 5-65% B over 30 min · Flow: 1.0 mL/min · 25 °C
Detection: UV 214 nm · Injection volume: 20 µL
Mass spectrometry: ESI, positive ion mode

STORAGE & HANDLING

Lyophilized: -20°C, protected from light and moisture. 2-8°C acceptable short term. Equilibrate to room temperature before opening.

RELEASED BY
Quality Control, Ascendtials LLC

DATE OF ISSUE
September 22, 2026

FOR LABORATORY RESEARCH USE ONLY — NOT FOR HUMAN OR VETERINARY USE.
This certificate applies only to the lot identified above. Not for use in food, drugs, medical devices, or cosmetics.