

Batch Testing Report

Certificate of Analysis (COA)

Product Information

Product Name: Thymosin Alpha-1 10mg
Cas No: 62304-98-7
Molecular Weight: 3108.3 g/mol
Molecular Formula: C129H215N33O55
Manufacturing Date: 13/07/2026
Amino Acid Sequence:
Ac-SDAAVDTSSSEITTKDLKEKKEVEEAEN-OH (28 amino acids)

COA ID: CP-TA1-26-02
Batch No: P260713-LC724918
Catalogue No: 724918
Date Received: 22/07/2026
Date Analysed: 25/07/2026

Analytic Methods:

- ✓ High performance liquid chromatography (HPLC)
- ✓ Mass spectrometry (LC-MS)
- ✓ Endotoxin (LAL) and microbial (PCR)
- ✓ Elemental impurities (ICP-MS)

Key Analytic Results

Test Item	Specification	Result	Status
 Appearance	White powder	Conforms	✓ Pass
 Solubility	Soluble in water	Conforms	✓ Pass
 pH	-	-	-
 Purity (HPLC)	≥ 99.0%	99.20%	✓ Pass
 Peptide content	90–115% of label	10.18 mg (101.8%)	✓ Pass
 Water content	≤ 6.0%	3.84%	✓ Pass
 Sodium content	-	-	-
 Bacterial endotoxins	< 5 EU/mg	Conforms	✓ Pass
 Molecular weight (MS)	3108.3 Da	Confirmed (LC-MS)	✓ Pass

Storage Conditions

Store at -20°C ± 5°C in a cool, dry environment. Protect from light and moisture.

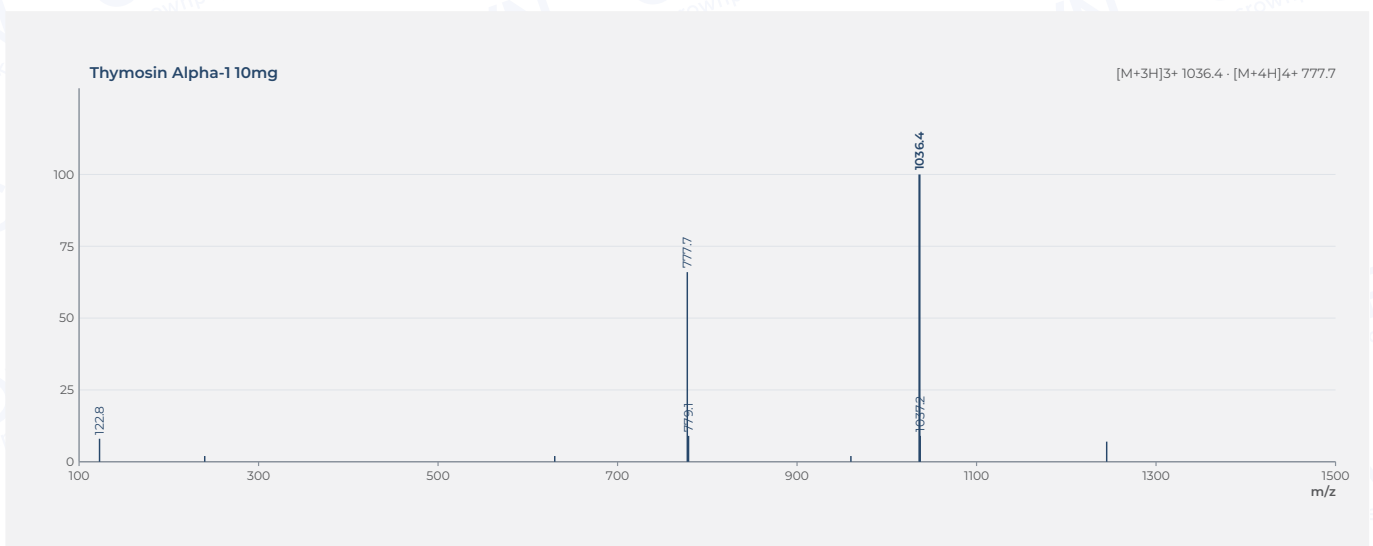
Disclaimer

This Certificate of Analysis represents the results of testing for the specific batch listed above. The information provided is accurate to the best of our knowledge at the time of analysis. Products are intended for research use only. It is the responsibility of the end user to determine suitability for their specific application.

Contaminant Analysis

Contaminant	Specification	Result
Acetonitrile	≤ 410 ppm	✓ Not Detected
Methanol	≤ 3000 ppm	✓ Not Detected
Piperidine	≤ 5000 ppm	✓ Not Detected
DMF	≤ 880 ppm	✓ Not Detected
Triethylamine	≤ 320 ppm	✓ Not Detected
Dichloromethane (DCM)	≤ 600 ppm	✓ Not Detected
Lead (Pb)	≤ 0.1 ppm	✓ Not Detected
Cadmium (Cd)	≤ 0.05 ppm	✓ Not Detected
Mercury (Hg)	≤ 0.05 ppm	✓ Not Detected
Arsenic (As)	≤ 0.1 ppm	✓ Not Detected

Mass Spectrometry Report

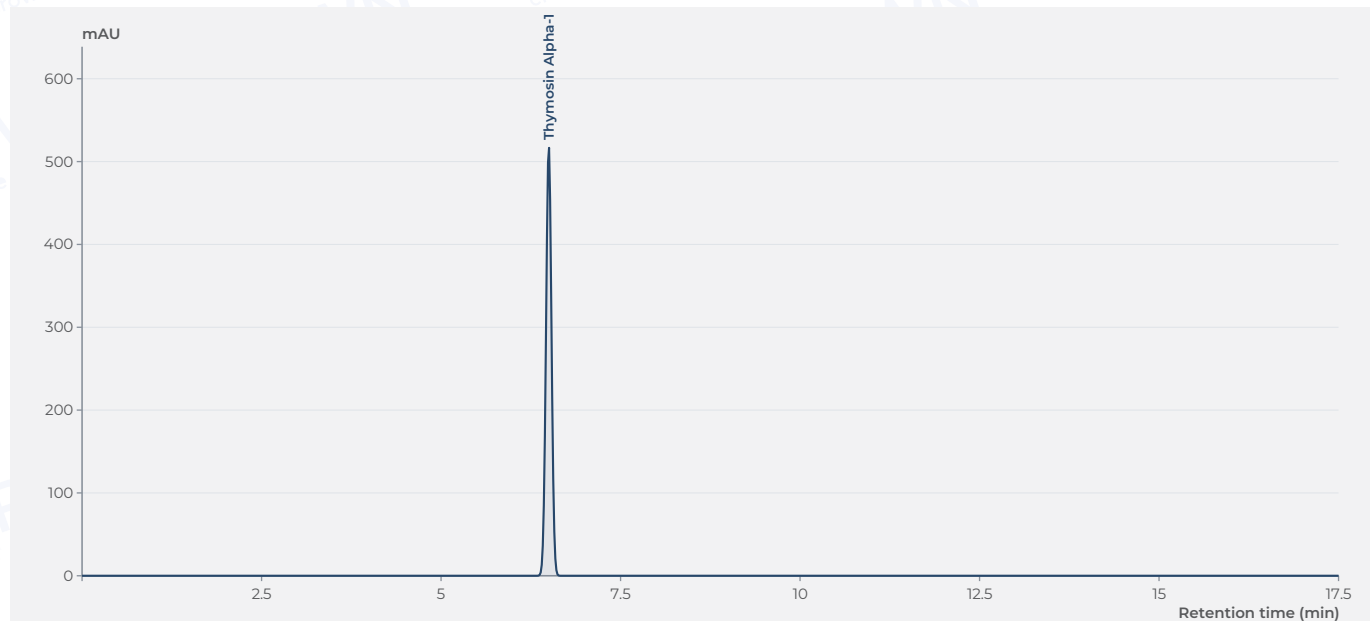


Observed molecular ions [M+3H]³⁺ and [M+4H]⁴⁺ consistent with theoretical molecular weight (LC-MS).

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HPLC Chromatogram



Peak	Retention Time (min)	Identification
Peak 1	≈ 6.5	Thymosin Alpha-1 (principal peak)

HPLC purity: 99.20% (two vials tested: 99.18% and 99.21%). Detection method: UV (PDA).
Net content: 10.18 mg (two vials tested: 10.01 mg and 10.35 mg).

Laboratory statement

All analyses for this batch were conducted by an independent third-party analytical laboratory, using validated methods and calibrated instrumentation. Techniques include High-Performance Liquid Chromatography (HPLC) for purity assessment and Liquid Chromatography–Mass Spectrometry (LC-MS) for molecular identity confirmation. Bacterial endotoxins (LAL, USP <85>), microbial contamination (PCR) and elemental impurities (ICP-MS) were also tested.

This document is a simplified, customer-facing version of the full technical Certificate of Analysis, which is retained on file and available on request.

Reviewed and approved by: Adrian Cole

Crown Peptides UK Ltd (QC Manager)

Date: 21/10/2026

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