



Title:

Certificate of Analysis (CoA)

Date: 6/8/2026
Date Tested: 6/15/2026
Customer: Peptides Optimized LLC
Testing material: Thymosin Alpha-1
Lot Number: TA1441
BT Sample ID: 005000039454223
Labeled Peptide
Content/Potency: 10 mg
Storage: R.T.
Visual Description: Small clear vial: white sample, pink label, silver crimp, blue plastic cap.
Labeled as: Thymosin Alpha-1
Manufacturer: N/A
Testing Purpose: FTIR and HPLC analysis for the identification, purity, potency and composition of a peptide product. It does not provide information on particulate matter, microbial contamination or presence of endotoxins.



Test	Method	Specification	Result
General Appearance	USP <630>	white powder	white powder
Mass	USP <41>	As recorded	34.2 mg
FTIR Identification and Composition Analysis	USP <197A>	Sample spectrum should confirm the content of peptide via characteristic bands	FTIR sample spectrum confirms the presence of Thymosin Alpha-1 with addition of excipient(s)/fillers.
HPLC Purity of Peptide Assay	USP <621>	Specifications: $\geq 98\%$	99.8 %
HPLC Potency Assay	USP <621>	Specifications: 90 – 110% of 10 mg	10.7 mg (107 %)
Peptide-to-Excipients Ratio	USP <1151>	Recommended ratios of (1:2) to (1:10) for (peptide: excipients)	10.7:95.8 mg (1:8.9)

The results of the CoA relate only to the item(s) tested and applied to the sample as received.



COA #:
1556558

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Test	Method	Specification	Result
Bacterial Endotoxins Test	USP <85>	40 EU/vial reconstituted	PASS

The results of the CoA relate only to the item(s) tested and applied to the sample as received.

Bacterial Endotoxins Test Thymosin Alpha-1 Lot TA1441

Sample ID	Description	Volume (mL)	Endotoxin Limit (EU/vial)	Lysate Sensitivity (λ , EU/mL)	Result
TA1441	Thymosin Alpha-1	3	40 EU/vial	0.25	14.1 EU/vial

The sample passed a valid gel clot endotoxin test based on the type, mode of administration and dosage.