

# Certificate of Analysis

## Thymosin alpha-1 10mg

Thymalfasin

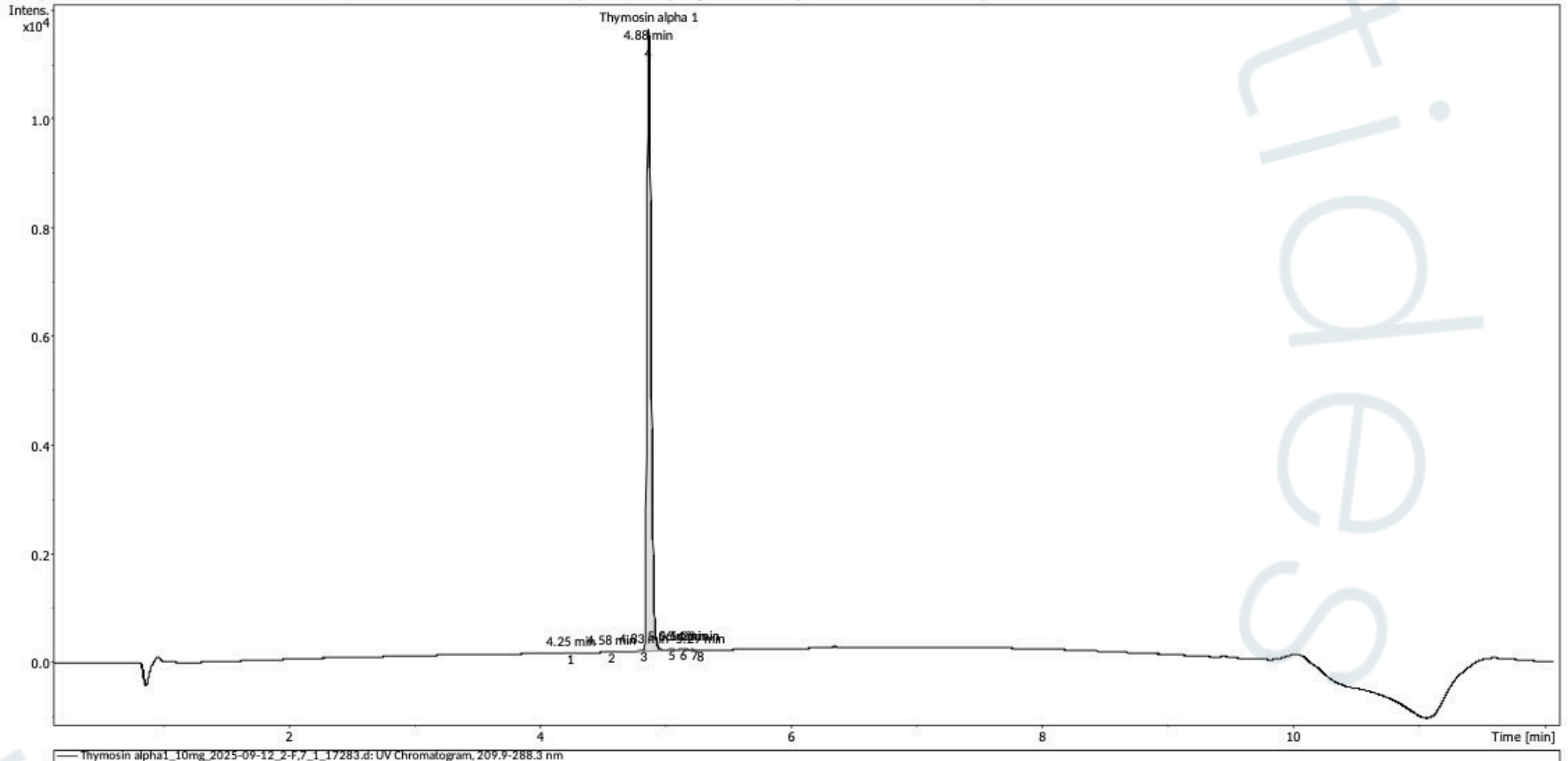
**Compound** : Thymosin alpha 1  
**Lot number** : 2025-09-12  
**Analysis date** : 2025-09-22  
**Purity %** : 99.40%  
**Method** : HPLC-UV-MS

**Client** : Tides Peptides  
[www.tidespeptides.com](http://www.tidespeptides.com)

PubChem CID: 16130571

<https://pubchem.ncbi.nlm.nih.gov/compound/16130571>

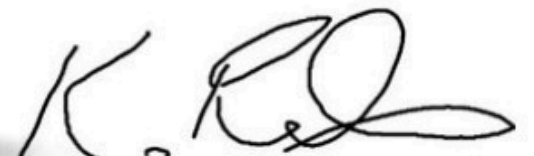
### High Performance Liquid Chromatography (HPLC) UV – Purity Test



PEAK LIST		Number of detected peaks: 8	
Time (min)	Area	%Area	
1	4.25	1.50E+01	0.06
2	4.58	1.22E+01	0.05
3	4.83	8.19E+00	0.03
4	<b>4.88</b>	<b>2.69E+04</b>	<b>99.40</b> Thymosin alpha 1
5	5.06	8.11E+01	0.30
6	5.14	3.08E+01	0.11
7	5.23	4.84E+00	0.02
8	5.29	9.35E+00	0.03



Analysis Performed by  
 Ken Pendarvis, ChE  
 Analytical Chemist  
 MZ Biolabs  
[contact@mzbiolabs.com](mailto:contact@mzbiolabs.com)



2025-09-29

Note: Injectable peptides may contain salts and sugars to aid in solubility and act as pH buffers. These are not normally detected using UV and are not considered impurities.

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## Mass Spectrometry (MS) – Identity Test

### Identity confirmed using HPLC-MS

Molecular weight calculated using monoisotopic m/z values from mass spectrum

Expected monoisotopic mass : 3106.50 Da

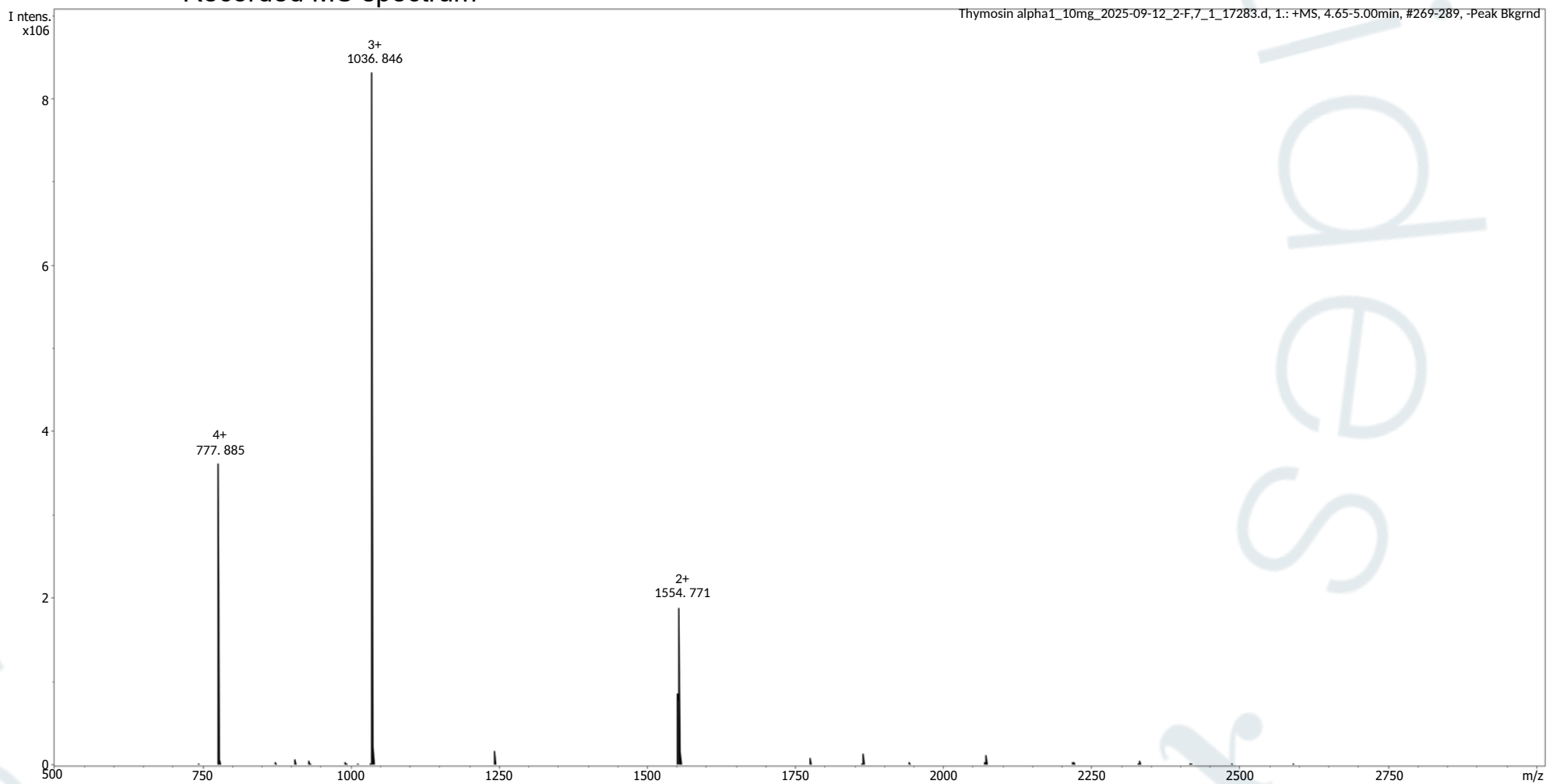
Measured monoisotopic mass : 3106.54 Da

### Molecular weight confirmed

Note : Monoisotopic m/z values are not easily seen in full spectrum view for larger molecules and peptides.

The dominant isotopic peak (base peak) shown in the spectrum below can be used to approximate the average molecular weight frequently reported by vendors and databases as a secondary means of confirmation.

### Recorded MS spectrum



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## CERTIFICATE OF ANALYSIS

Product Name	Thymosin alpha-1	CAS NO.	62304-98-7
Batch NO.	NCTA250620	Molecular formula	C129H215N33O55
Manufacture Date	June 20, 2025	Quantity	200g
Sequence	Ac-Ser-Asp-Ala-Ala-Val-Asp-Thr-Ser-Ser-Glu-Ile-Thr-Thr-Lys-Asp-Leu-Lys-Glu-Lys-Lys-Glu-Val-Val-Glu-Glu-Ala-Glu-Asn-OH		

TEST	SPECIFICATION	RESULTS
Appearance	White or off-white powder	Off-white powder
Purity(HPLC)	≥ 95%	99.1%
MW by MS	3108.3±1.0	3107.8
Assay	80.0%~120%	Conforms
TFA content	≤ 0.5%	3.0
Acetic acid content	≤ 10.0%	0.04%
Water	≤ 7.0%	5.2%
Soluble	Soluble in water	Clearly soluble
Conclusion	This product conforms to the Enterprise Standard.	

**Note: this product is intended for research use only**

**Important: Stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated.**