

AurumLabs

3rd Floor, 86-90 Paul Street, London, England, United Kingdom, EC2A 4NE

CERTIFICATE OF ANALYSIS

Product Name	Thymosin $\alpha 1$		
CAS NO.	62304-98-7	Batch No.	2025111501
Molecular Formula	C ₁₂₉ H ₂₁₅ N ₃₃ O ₅₅	Manufacturing Date	2025/11/15
Reference Standard	Reference Ch.P	Testing Date	2025/12/19
No.	Item	Specification	Test result
1	Appearance	White or off-white powder	Conform
2	Solubility	Dissolved in TFA, slightly dissolved in water, insoluble in acetonitrile and ether	Conform
3	Specific rotation $\{\alpha\}^{20}_D$	-100~-110.0°(c=5,0.02mol/L Phosphate)	-105.8°
4	Clarity&Colour of solution	The solution should be clear and colorless. If the turbidity is obvious, it shall not be thicker than the standard solution of turbidity NO.1.	Clear and colorless
5	Amino acid profile	Asp: 3.4~4.6	4.3
		Glu: 5.4~6.6	6.2
		Ser: 2.4~3.6	3.3
		Thr: 2.4~3.6	3.4
		Ala: 2.7~3.3	3.1
		Val: 2.4~3.6	3.3

		Leu: 0.8~1.2	1.1
		Ile: 0.8~1.2	1.0
		Lys: 3.4~4.6	4.3
6	Water Content (Karl Fischer)	$\leq 5.0\%$	4.15%
7	Acetic Acid	$\leq 5.0\%$	ND

8	Peptide Purity (By HPLC)	$\geq 98.0\%$	98.95%
9	Assay	95.0%~105.0%	94.50%
10	Related Substance (By HPLC)	Total Impurities($\leq 2.0\%$)	1.62%
		Largest Single Impurity($\leq 1.0\%$)	0.71%
11	Microbiology	Aerobe ≤ 1000 CFU/g	Conform

		Mould & Yeast ≤ 100 CFU/g	Conform
12	Condition of Storage	2~8°C	
Conclusion	The product conforms with Ch.P and qualified		