

# Certificate of Analysis

## Thymosin Alpha 1 Acetate

CAS No	62304-98-7	Code	BIOJTHA001
Lot No	2026022601	Manufacture Date	Mar.16, 2026
Retest Date	Mar.15, 2028	Quantity	5G

Testing Items	Specifications	Results
Appearance	White or almost white powder or loose mass	White powder
Solubility	Dissolved in TFA, slightly dissolved in water, insoluble in acetonitrile and ether	Complies
Specific rotation $[\alpha]_D^{20}$	-100.0° ~ -110.0° (c=5, 0.02mol/L Phosphate)	-109.4°
Clarity & color 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
Water content (Karl Fischer)	≤5.0%	3.5%
Acetic Acid (By HPLC)	≤5.0%	1.3%
Trifluoroacetic acid (By HPLC)	≤0.5%	Not detected
Amino acid profile	Asp: 3.4~4.6	3.8
	Glu: 5.4~6.6	6.0
	Ser: 2.4~3.6	2.5
	Thr: 2.4~3.6	3.2
	Ala: 2.7~3.3	2.8
	Val: 2.4~3.6	2.6
	Leu: 0.8~1.2	1.0
	Ile: 0.8~1.2	1.1
Lys: 3.4~4.6	4.3	
Peptide Purity (By HPLC)	≥98.0%	99.3%
Assay	95.0%~105.0%	99.2%
Related Substance (By HPLC)	Largest single impurity ≤1.0% Total impurities ≤2.0%	0.2% 0.7%
Microbiology	Aerobe ≤1000 cfu/g Mould & Yeast ≤100 cfu/g	Complies Complies
Bacterial endotoxin	≤10EU/mg	<10EU/mg
Molecular Weight	-----	3108.28
Conclusion	This product conforms to Ch.P standard	

**\*Storage conditions:**

Stability studies demonstrate the material remains stable at 25 °C; ambient shipment permitted.

Long-term storage recommended at -20 °C