

Certificate of analysis

Thymosin Alpha 1 Acetate

CAS No	62304-98-7	Code	BIOJTHA001
Lot No	2023030901	Manufacture Date	Mar.09, 2023
Retest Date	Mar.08, 2025	Quantity	4G

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[a] _D ²⁰	$-100.0^{\circ} \sim -110.0^{\circ} \text{ (c=5, 0.02mol/L Phosphate)}$	-103.5°	
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%	2.5%	
Acetic Acid (By HPLC)	≤5.0%	1.5%	
	Asp: 3.4~4.6	3.7	
	Glu: 5.4~6.6	6.1	
Amino acid profile	Ser: 2.4~3.6	3.3	
	Thr: 2.4~3.6	3.1	
	Ala: 2.7~3.3	3.1	
	Val: 2.4~3.6	3.3	
	Leu: 0.8~1.2	0.9	
	Ile: 0.8~1.2	1.1	
	Lys: 3.4~4.6	3.9	
Peptide Purity (By HPLC)	≥98.0%	99.1%	
Assay	95.0%~105.0%	99.4%	
Related Substance	Largest single impurity≤1.0%	0.2%	
(By HPLC)	Total impurities ≤2.0%	1.0%	
M:1:1-1	Aerobe≤1000 cfu/g	Complies	
Microbiology	Mould & Yeast≤100 cfu/g	Complies	
Molecular Weight		3108.28	
Conclusion	This product conforms to Ch.P standard		

*Storage: Store at 0~8°C, Protect from moisture and light.

