



Certificate of Analysis

Thymosin β 4 Fragment (TB500) Acetate

Product Name : Thymosin β 4 Fragment (TB500) Acetate **Lot No.** : DL8282
Mfg. Date : Jun 14, 2024 **Exp. Date** : Jun 13, 2027
MF : $C_{40}H_{72}N_{10}O_{16}$ **MW** : 949.11
CAS No. : 885340-08-9 (Free Base) **Batch Qty** : 378 g
Sequence : Ac-Leu-Lys-Lys-Thr-Glu-Thr-Gln-OH • CH_3CO_2H

TESTS	SPECIFICATIONS		RESULTS
Appearance	White powder		-White powder
Solubility	Soluble in water		Complies
Mass (MS)	889.01 ± 1		889.88
Amino Acid Composition (AAA)	Leu	0.9 – 1.1	1.0
	Thr	1.4 – 2.2	2.0
	Lys	1.8 – 2.2	1.9
	Glu	1.8 – 2.2	2.1
Water (KF)	≤ 8.00%		4.90%
Residual Solvents (GC)	Formaldehyde	Negative	Negative
	Acetonitrile	≤ 410 ppm	< 410 ppm
	Dichloromethane	≤ 600 ppm	< 600 ppm
	N, N-Dimethylformamide	≤ 880 ppm	< 880 ppm
	Ethyl Ether	≤ 5000 ppm	Not Detected
	Pyridine	≤ 200 ppm	Not Detected
	Triisopropylsilane	≤ 1000 ppm	Not Detected
Acetate Content (HPLC)	≤ 15.0%		5.30%
Peptide Content (N%)	≥ 80.0%		92.0%
Peptide Purity (HPLC)	≥ 98.0%		99.3%
Related Substances (HPLC)	Total Impurities	≤ 2.00%	0.70%
	Largest Single Impurity	≤ 1.00%	0.30%
Bacterial Endotoxins (USP)	≤ 10 EU/mg		< 10 EU/mg
Microbial Tests (USP)	Total Aerobic Microbial Count	≤ 10 ² CFU/g	< 20 CFU/g
	Total Yeast and Mold Count	≤ 10 ² CFU/g	< 20 CFU/g
	E. coli	Absent	Absent
Assay (On Anhydrous and Acetic Acid Free Basis) (HPLC) (CP2020)	95.0 – 105.0%		102.5%
Conclusion: The product is a synthetic peptide and meets the In-House specifications. Long Term Storage: Store in a sealed container at 2°C - 8°C in the fridge or in the freezer. Distributed by Darmerica.			

Note: Analytical results transcribed from the original COA provided by Shaanxi MingDeRun PharmaTech Co., Ltd. (China); Lot No. TB193-20240614005.

Based on the review of above information, the lot stands released.

	Name	Title	Signature	Date
Prepared by	Kamlesh Mistry	Quality Manager		08/07/2024
Released by	Pietro Pazzetty	Quality Assistant		08/08/2024