

Certificate of Analysis Report

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Certificate Registration No.: MS10090877Y/GP/1
ISO 17025:2017 13485:2016



Final Report

Nexus Bio Life

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Laboratory Director: Richard Gomez, M.D.
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Product Information

Name: TB-500
Quantity: 10mg
Molecular Weight: 4963 g/mol
Formula: $C_{212}H_{350}N_{56}O_{78}S$
CAS: 77591-33-4

Sample Information

COA No: CA2025082203997
Date Received: 8/22/2025 7:23 AM
Result Date: 8/24/2025 4:05 PM
Appearance: White Crystallized Powder
Lot Number: 147
Sample Type: Vial

Tested Product Results

TB-500 (Thymosin Beta-4) 10mg

Panel Chemical Analysis

Analysis	Method	Specification	Result	Qualitative Result
Identity	HPLC-UV/VIS	Thymosin Beta-4	Thymosin Beta-4	Conforms
Chromatographic Purity	HPLC-UV/VIS	>98%	99.63%±0.18%	Conforms
Quantity	HPLC-UV/VIS	10mg	10.17 mg	Conforms
pH Value	HPLC-UV/VIS	6.0 - 8.0	6.5	Conforms

Panel Heavy Metals

Analysis	Standard	Qualitative Result
Antimony	<0.5 ug/g	Non-Detect
Cadmium	<0.5 ug/g	Non-Detect
Arsenic	<1.5 ug/g	Non-Detect
Lead	<0.5 ug/g	Non-Detect

Panel Microbial Summary Analysis

Organism	Standard	Results	Qualitative
E. coli	USP RS	Not Detected	Negative
Salmonella enterica	USP RS	Not Detected	Negative
Staphylococcus aureus	USP RS	Not Detected	Negative
Yeast and Mold	USP RS	Not Detected	Negative
Enterobacter	USP RS	Not Detected	Negative

Certified By:

A handwritten signature in black ink, appearing to read "Melissa Restivo".

Melissa Restivo
Analytical Chemist
08/24/2025

Panel Full Microbial Analysis

Organism	Results	Qualitative
Acinetobacter baumannii	Not Detected	Negative
Anaerococcus vaginalis	Not Detected	Negative
Bacteroides fragilis (Enterotoxigenic ETBF)	Not Detected	Negative
Campylobacter jejuni, coli	Not Detected	Negative
Citrobacter freundii	Not Detected	Negative
Clostridium botulinum	Not Detected	Negative
Clostridium difficile (toxins A, B genes)	Not Detected	Negative
Clostridium perfringens, novyi, septicum	Not Detected	Negative
Corynebacterium jeikeium, striatum, tuberculostrictum	Not Detected	Negative
E. coli (DAEC) Diffusely adherent + E. coli (EAEC) Enteroaggregative	Not Detected	Negative
E. coli (EHEC) O157 Enterohemorrhagic + E. coli enteropathogenic	Not Detected	Negative
E. coli (EIEC) Enteroinvasive/Shigella spp	Not Detected	Negative
E. coli (ETEC) Enterotoxigenic	Not Detected	Negative
Fingoldia magna	Not Detected	Negative
Helicobacter pylori	Not Detected	Negative
Klebsiella spp.	Not Detected	Negative
Klebsiella pneumoniae, oxytoca	Not Detected	Negative
Listeria monocytogenes	Not Detected	Negative
Proteus mirabilis, vulgaris	Not Detected	Negative
Pseudomonas aeruginosa	Not Detected	Negative
Salmonella enterica	Not Detected	Negative
Serratia marcescens	Not Detected	Negative
Staphylococcal enterotoxins A, B	Not Detected	Negative
Vibrio cholerae, parahaemolyticus, vulnificus	Not Detected	Negative
Enterobacter aerogenes, cloacae	Not Detected	Negative
Enterococcus faecalis, faecium	Not Detected	Negative
Mycoplasma genitalium, hominis	Not Detected	Negative
Prevotella bivia, loescheii	Not Detected	Negative
Staphylococcus (coagulase negative: epidermidis, haemolyticus, lugdunensis, saprophyticus)	Not Detected	Negative
Staphylococcus aureus	Not Detected	Negative
Streptococcus agalactiae (Group B strep)	Not Detected	Negative
Candida albicans, glabrata, parapsilosis, tropicalis	Not Detected	Negative
Aspergillus flavus, fumigatus, niger, terreus	Not Detected	Negative
Blastomyces dermatitidis	Not Detected	Negative
Cladosporium herbarum	Not Detected	Negative
Curvularia lunata	Not Detected	Negative
Fusarium oxysporum, solani	Not Detected	Negative
Fusobacterium nucleatum, necrophorum	Not Detected	Negative
Haemophilus influenzae	Not Detected	Negative
Malassezia furfur, restricta, sympodialis, globosa	Not Detected	Negative

Peptoniphilus harej, ivorii	Not Detected	Negative
Peptostreptococcus anaerobius, asaccharolyticus, magnus, prevotii	Not Detected	Negative
Stenotrophomonas maltophilia	Not Detected	Negative
Streptococcus pneumoniae	Not Detected	Negative
Streptococcus pyogenes (Group A strep)	Not Detected	Negative
Epidermophyton floccosum	Not Detected	Negative
Microsporium audouinii, canis, gypseum	Not Detected	Negative

Panel Controls

Control	Results
Dnase Free Water (Negative Control)	PASS
RNase P Genes (Human DNA Control)	PASS
Pump A	0.1% Trifluoroacetic Acid (v/v), Optima™ LC/MS Grade in 100% water
Pump B	0.1% Trifluoroacetic Acid (v/v), Optima™ LC/MS Grade in 100% acetonitrile
Total Flow	1.0mL/min
Analytical Column Type	Agilent ZORBAX StableBond 5uM C18 (4.6*250mm*5uM)
Dissolution Method	100% H2O

Certified By:



Melissa Restivo
Analytical Chemist
08/24/2025

Legal Notices and Disclaimer:

This test was developed, and its performance characteristics determined by DNA Healthcare Solutions. It has not been cleared or approved by the US Food and Drug Administration. FDA does not require this test to go through premarket FDA review. This test is used for clinical purposes. It should not be regarded as investigational or for research. This laboratory is certified under the Clinical Laboratory Improvement Amendments (CLIA) as qualified to perform high complexity clinical laboratory testing.

The ISO certifications are associated with PetVet Dx Laboratory Services, 1441 Canal Street, New Orleans, LA, which is performing the tests for DNA Healthcare Solutions.

Samples were received in acceptable condition. The result(s) in this report relate only to the portion of the sample(s) tested. All analyses were performed consistent with the Laboratory Quality Management System. The Laboratory and its staff did not observe or participate in the sample selection process, and cannot confirm the authenticity of the sample or its representativeness of the associated lot/batch.

The peptide purity analysis reported here was conducted using LCMS/MS under standard laboratory conditions. This analysis is intended for informational purposes only and is specific to the sample(s) provided. The peptides tested are intended for research use only and are not approved for human or veterinary use, diagnostic, therapeutic, or clinical applications. Results should be interpreted by qualified professionals within the scope of the intended research. The accuracy and reliability of the test may be influenced by sample integrity, handling, and other experimental variables.

A positive detection indicates the presence of the target microorganism(s). A negative detection does not imply the absence of microorganisms other than those listed or does not exclude the possibility that the target sequence is present below the limit of detection. The presence of mutations within the primer regions may lower the test sensitivity. It is recommended that the test results be interpreted in conjunction with all other medical information relevant to the patient's clinical condition in accordance with appropriate patient management procedures.