

TB-500 5mg (TB4 Acetate) Technical Data Sheet

OPTIMAL BIO LABS — TECHNICAL DATA SPECIFICATION SHEET

DOCUMENT STATUS:

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CORE TECHNICAL DATA MATRIX

Product Nomenclature	Thymosin beta-4 (TB-500; TB4 Acetate on product label)
Molecular Classification	43-residue thymosin beta-4 amino acid sequence reference
Molecular Formula	C212H350N56O78S
Molar Mass	4963.4 g/mol

MATERIAL PARAMETERS & SPECIFICATIONS

Form	Lyophilized powder, as listed for this product
Baseline Quality Standard	Specification requirement: Target threshold set at ≥98.0% chemical purity.
Lot Verification	Manufacturing standard: Bound to structural profile identity validation protocols.
Storage Environment	Maintain sealed containment at -20°C, fully insulated from ambient moisture and light. Follow lot-specific instructions when supplied.
Target Application	Intended solely for parallel laboratory research mapping multi-variable hormone axis models.

Target application: For in-vitro laboratory research only. Not for human or veterinary use.

Chemical reference: PubChem compound record. Product specification: Optimal Bio Labs product listing.

Quality Assurance Protocol & Sourcing Transparency

1. Specification Baseline & Quality Threshold

Optimal Bio Labs operates under a standardized Quality Assurance Program. Every synthesized lot is managed against a 99%+ batch target, with a strict baseline purity threshold set at 98.0%. For product variations where a pre-linked independent analysis is unavailable, our internal quality validation framework remains fully active to ensure structural and analytical compliance before inventory release.

2. Sourcing Transparency & Verification Channels

We maintain direct, long-term relationships with a highly selective network of primary synthesis manufacturers. To protect proprietary trade channels and supply logistics, we do not utilize third-party brokers or downstream distributors.

Analytical data and reference documentation are compiled using multi-layered validation sources, which may include direct facility mapping, industry-standard third-party auditing via Fennrick, or independent validation by domestic testing laboratories. Where external reports are generated, they are often routed through the primary source (c/o Optimal Bio Labs) to ensure unaltered documentation for that specific batch variation. Qualifying independent records can be cross-referenced directly through the testing facility's verification systems.

3. Specification Discrepancy & Account Adjustments

We stand behind our strict quality baseline. In the event that a sealed, unopened reference unit from a qualifying lot is submitted to Fennrick for independent verification and returns an objective analytical purity reading below our 98.0% baseline threshold, the following standardized adjustment protocols apply:

- **Material Valuation Credit:** A balance reallocation will be applied to the account covering the baseline cost of the verified lot variation.
- **Logistical Cost Offset:** Account adjustments include credit allocations for standard logistics costs associated with the independent verification process and sample delivery, subject to our published terms and conditions.

Authenticity Through Verifiable Analysis.