

 CLEAN PEPTIDES

TB-500 Dosage Guide

Thymosin Beta-4 fragment — loading, maintenance and cycling protocols, reconstitution, stacking with BPC-157, and safety.

FOR RESEARCH PURPOSES ONLY — NOT FOR HUMAN USE.

Clean Peptides does not provide advice on dosages or usage. This document compiles product information from Clean Peptides together with independent educational material from PeptideWiki (peptidewiki.co), for research reference only. It is not medical advice and does not represent recommendations, endorsements, or instructions from Clean Peptides. Source: <https://peptidewiki.co/guides/dosage-guides/tb-500-dosage-guide>

What Is TB-500?

TB-500 is a synthetic peptide fragment of Thymosin Beta-4 (Tβ4), a naturally occurring 43-amino-acid protein found in nearly all cells. It corresponds to the actin-binding domain (amino acids 17–23) responsible for tissue repair and anti-inflammatory properties. By upregulating actin it promotes cell migration, angiogenesis and wound healing. Unlike locally-injected peptides, TB-500 is systemic — a single abdominal injection can support healing anywhere in the body.

Dosing is derived from published research and community protocols.

Key Characteristics

- **Thymosin Beta-4 fragment** — active region (aa 17–23) of the 43-aa Tβ4 protein.
- **Actin upregulation** — promotes cell migration, proliferation and differentiation.
- **Systemic distribution** — body-wide effect from a single injection site.
- **Anti-inflammatory** — downregulates pro-inflammatory cytokines.
- **Angiogenesis** — promotes new blood vessel formation.
- **Research peptide** — not FDA-approved; banned by WADA.

How Dosage Is Determined

Protocols derive from animal wound-healing studies, equine veterinary use and community experience. The two-phase loading/maintenance approach originates from veterinary applications. The community standard converged at 2–2.5 mg per injection. **Strength of evidence: moderate–low for human use.**

Standard Dosage Ranges

Loading Phase

Protocol	Dose/Injection	Frequency	Weekly Total	Duration
Conservative	2 mg	2x/week	4 mg	4–6 weeks
Standard	2.5 mg	2x/week	5 mg	4–6 weeks
Aggressive	2.5 mg	3x/week	7.5 mg	4 weeks

Maintenance Phase

Protocol	Dose/Injection	Frequency	Duration
Standard Maintenance	2 mg	1x/week	4–8 weeks
Low-Frequency Maintenance	2 mg	Every 2 weeks	4–8 weeks
Extended Maintenance	2.5 mg	1x/week	6–8 weeks

Weight-Based Reference

Body Weight	Loading	Maintenance
Under 68 kg	2 mg 2x/wk	2 mg 1x/wk
68–90 kg	2.5 mg 2x/wk	2 mg 1x/wk
Over 90 kg	2.5 mg 2x/wk	2.5 mg 1x/wk

Reconstitution & Dosing (with the supplied 3 ml)

Every Clean Peptides vial ships with **3 ml of bacteriostatic water** (0.9% benzyl alcohol). All figures below assume you reconstitute with the **full 3 ml**. On a standard U-100 insulin syringe, **100 units = 1 ml**.

Quick formula: concentration = vial strength ÷ 3 ml, and **units to draw = dose (mg) × 300 ÷ vial strength (mg)**.

How to reconstitute

1. **Wash your hands** and lay out the vial, the 3 ml bacteriostatic water, an insulin syringe and alcohol swabs on a clean surface.
2. **Flip off the caps** and swab both rubber stoppers with alcohol; let them air-dry 10–15 seconds.
3. **Draw the full 3 ml** of bacteriostatic water (in three 1 ml passes with an insulin syringe, or in one pass with a 3 ml syringe).
4. **Add the water slowly**, angling the needle so it runs down the inside glass wall — never squirt it directly onto the powder cake.
5. **Dissolve gently** — let the vial sit 1–2 minutes, then swirl or roll it between your palms until the solution is clear. Never shake.
6. **Label and refrigerate** at 2–8 °C. Resulting concentration: 5 mg → 1.67 mg/mL; 10 mg → 3.33 mg/mL.

Storage: unreconstituted powder refrigerated (2–8 °C); reconstituted solution refrigerated and used within 28–30 days; do not freeze; protect from light and heat.

Draw volumes with 3 ml — TB-500

Vial (Clean Peptides)	Concentration	2 mg	2.5 mg
5 mg	1.67 mg/mL	120 u*	150 u*
10 mg	3.33 mg/mL	60 u	75 u

* This volume exceeds the 100-unit (1 mL) capacity of a standard insulin syringe — split it into two injections, or draw it with a 3 mL syringe.

Dosage by Goal

- **Tendon & ligament injuries:** load 2.5 mg 2x/wk × 6 wk; maintain 2 mg 1x/wk × 6–8 wk. Often stacked with BPC-157.
- **Muscle strains & tears:** load 2–2.5 mg 2x/wk × 4 wk; maintain 2 mg 1x/wk × 4 wk.
- **Joint pain & inflammation:** load 2 mg 2x/wk × 4–6 wk; maintain 2 mg 1x/wk or every 2 wk × 6–8 wk.
- **Post-surgical recovery:** load 2.5 mg 2x/wk × 4–6 wk (start 2–4 wk post-op); maintain 2 mg 1x/wk × 6–8 wk. Discuss timing with your surgeon.
- **Hair growth:** load 2 mg 2x/wk × 4 wk; maintain 2 mg 1x/wk × 3–6 months.

Injection Guide

1. Wash hands thoroughly.
2. Swab the stopper; draw dose into a 1 mL insulin syringe; remove air bubbles.
3. Select & clean the site — abdomen (2 in from navel), outer thigh, or back of upper arm.
4. Inject SubQ into a pinched fold at 45°.
5. Dispose in a sharps container.

TB-500 (MW ~4,963 Da) distributes systemically — no need to inject near the injury. Rotate between 3–4 sites. Space loading injections 3–4 days apart.

Cycle Duration & Timing

Protocol	Loading	Maintenance	Total	Off Period
Short (acute injury)	4 wk, 2x/wk	4 wk, 1x/wk	8 weeks	4–6 wk off
Standard	4–6 wk, 2x/wk	6–8 wk, 1x/wk	10–14 weeks	4–8 wk off
Extended (chronic injury)	6 wk, 2x/wk	8 wk, 1x/wk	14 weeks	6–8 wk off

Avoid continuous use beyond 14–16 weeks without a break; take at least 4 weeks off between cycles.

Stacking Protocols

TB-500 + BPC-157 (“Wolverine Stack”):

Compound	Loading	Maintenance	Purpose
TB-500	2.5 mg 2x/wk (4–6 wk)	2 mg 1x/wk (4–8 wk)	Systemic repair, anti-inflammatory
BPC-157	250–500 mcg 2x/day (4–6 wk)	250 mcg 1x/day (4–8 wk)	Localized healing, angiogenesis

TB-500 + GH secretagogues (CJC-1295/Ipamorelin): adds GH-mediated recovery and collagen turnover.

Safety, Side Effects & Contraindications

Generally well-tolerated; Tβ4 is a naturally occurring protein. Human trials are limited.

Common (mild, transient): temporary lethargy/fatigue (first 1–2 weeks), mild headache, injection-site reactions. **Uncommon:** head rush, nausea, flu-like symptoms.

Contraindications: active cancer (promotes proliferation/angiogenesis); pregnancy and breastfeeding; children/adolescents; active injection-site infection; caution in immunocompromised individuals.

Not FDA-approved; source quality matters (require third-party COA); WADA-banned.

Common Mistakes

- Skipping the loading phase (tissue saturation is required).
- Confusing mg with mcg (a standard dose is 2–2.5 **mg**).
- Injecting locally instead of systemically.
- Running loading too long (>6 weeks).
- Reconstitution math errors.
- Expecting overnight results (improvement at 2–3 weeks).
- Not cycling off after extended use.
- Improper storage after reconstitution.

Key Takeaways

- Synthetic fragment of Thymosin Beta-4; promotes tissue repair via actin upregulation.
- Standard loading 2–2.5 mg 2x/week × 4–6 weeks, then 2 mg 1x/week maintenance.
- Systemic — inject anywhere SubQ.
- Best for soft-tissue injuries; top stack TB-500 + BPC-157.
- Reconstitute with bacteriostatic water; use within 3–4 weeks; contraindicated in active cancer.

References

1. Goldstein AL, et al. "Thymosin β 4: a multi-functional regenerative peptide." *Expert Opin Biol Ther*. 2012;12(1):37-51.
2. Malinda KM, et al. "Thymosin β 4 accelerates wound healing." *J Invest Dermatol*. 1999;113(3):364-368.
3. Bock-Marquette I, et al. "Thymosin β 4 activates ILK and promotes cardiac repair." *Nature*. 2004;432(7016):466-472.
4. Philp D, et al. "Thymosin β 4 promotes angiogenesis, wound healing, and hair follicle development." *Ann N Y Acad Sci*. 2007;1112:95-103.
5. Smart N, et al. "Thymosin β 4 and angiogenesis." *Angiogenesis*. 2007;10(4):229-241.