

# **TB-500**

#### What is TB-500?

TB-500 is a synthetic fragment of Thymosin Beta-4, a naturally occurring protein in the body involved in tissue repair, inflammation control, and cellular regeneration. The levels of Thymosin Beta-4 decline with age, making TB-500 a valuable addition to healing protocols, particularly in cases of injuries, chronic inflammation, or degenerative conditions.

TB-500 works by modulating inflammation, stimulating cell migration, promoting angiogenesis (new blood vessel formation), and enhancing collagen production.

### **Potential Benefits of TB-500**

## 1. Tissue Repair and Wound Healing

- Accelerates healing of injuries, including muscles, tendons, and ligaments.
- Enhances collagen production, promoting tissue remodeling and stronger scar tissue.
- Improves wound closure by stimulating epithelial tissue regeneration (skin and corneal tissue).
- Facilitates angiogenesis, ensuring oxygen and nutrient delivery to injury sites for faster recovery.

### 2. Reduces Inflammation

- Modulates the immune system by suppressing pro-inflammatory cytokines (like TNF-α and IL-6).
- Increases anti-inflammatory cytokines such as IL-10 to control inflammation without serious side effects.
- Beneficial for autoimmune conditions like rheumatoid arthritis, inflammatory bowel disease, and psoriasis.
- Limits inflammatory damage after heart attack, stroke, or musculoskeletal injury.

# 3. Muscle Repair and Regeneration

- Stimulates the activity of satellite cells, which promote muscle repair.
- Improves angiogenesis in muscle tissue, ensuring adequate blood flow and nutrient delivery.
- Enhances muscle strength, endurance, and recovery after injury.
- Particularly useful for tendon injuries, which are slow to heal due to poor blood supply.

### 4. Neuroprotection

- Reduces brain tissue damage and promotes recovery after stroke or traumatic brain injury (TBI).
- Enhances angiogenesis and neurogenesis in the brain, supporting long-term recovery.

- Reduces inflammation and promotes myelin repair in neurodegenerative conditions such as multiple sclerosis.
- Inhibits apoptosis (cell death), protecting neurons from further damage.

# 5. Cardiovascular and Eye Health

- Supports cardiac cell survival following heart attacks or ischemic conditions.
- Improves healing of corneal injuries by reducing scarring and inflammation.
- Enhances the effectiveness of antibiotics for eye infections and other bacterial conditions.

### **Potential Side Effects and Precautions**

- Minimal side effects reported with proper use.
- Combining with BPC-157 may enhance tissue healing and inflammation control.
- Monitor for allergic reactions or excessive swelling at the injection site.

# **Dosage Guidelines**

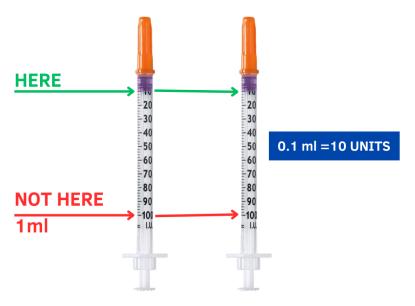
# **Initial Phase (Post-Op / Acute Injury)**

- 1 mg (10 units or 0.1 ml) injected subcutaneously (SQ) every morning for 20 days.
- Inject near the injury site, if possible, to optimize recovery.
- One vial lasts 10 days.

# **Maintenance Phase**

- 1 mg (10 units or 0.1 ml) subcutaneously (SQ) or intramuscularly (IM) 1-2 times per week.
- Continue until the injury is healed or as part of preventive therapy.
- One vial lasts 5-10 weeks.

For BPC-157/TB-500 Blend, see document titled "BPC-157 Patient Information"



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### Cost

TB-500 is currently only available as a research peptide. Please see document titled "Research Peptide Information" in the Education Folder under Records in the patient portal.

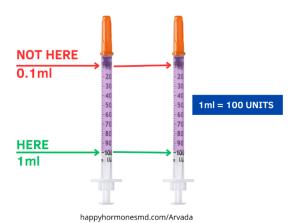
Injectable BPC-157 and TB-500 are currently only available as research peptides.

- TB-500 10mg Vial (10 mg/ml): \$158.50 (includes shipping and bacteriostatic water)
- TB-500/BPC-157 Blend 10 mg/10 mg Vial (10 mg/10 mg/ml): \$258.50 (includes shipping and bacteriostatic water)

### **Reconstitution Instructions**

- IMPORTANT: Do NOT throw away the vial of bacteriostatic water!!! It is a multiuse vial and can be used for your next order!
- Inject 1 ml of bacteriostatic water into the vial of powder (1 ml = 100 units).

# 1 ml - 100 units (Not 10 UNITS)



- See the **document** titled "Reconstituting Medications in Powder Form" in the Education Folder in the patient portal.
- See the following **Instructional videos** in the Education Folder in the patient portal:
  - "Reconstituting Powdered Medications"
  - "Injection Video Introduction"
  - "Injection Video Drawing Up the Medication"
  - "Injection Video Administering the Medication"

### **Storage and Stability**

- Vials are shipped as **lyophilized powder**, requiring no refrigeration during shipping.
- In Lyophilized Form:
  - Stable for up to 3 years in the freezer and 2 years in the refrigerator.
  - o Protect from light.
- Once Reconstituted:
  - Stable for 6 weeks.
  - Must be refrigerated and kept away from light.
  - o Avoid placing vials in the refrigerator door to prevent degradation from frequent temperature changes.

**Important Disclosures** 

- These statements have not been evaluated by the US Food and Drug Administration (FDA).
- Not intended to diagnose, treat, cure, or prevent any disease.
- Compounded drugs and peptides are not FDA-approved but are produced under strict quality control measures.

# **Quality Assurance**

- All peptides are subjected to third-party testing with publicly available Certificates of Analysis (COA).
- Testing includes:
  - o RP-HPLC (Reversed-Phase High-Performance Liquid Chromatography)
  - Mass Spectrometry (MS)
  - Sterility Testing
  - Additional tests meeting or exceeding U.S. Pharmacopeia (USP) and USP-National Formulary (NF) regulations.
- The manufacturer ensures quality, safety, and efficacy, complying with regulatory standards.