



TB-500

About

TB-500 is a synthetic peptide modeled after Thymosin Beta-4, studied for its potential to support tissue repair, reduce inflammation, and improve mobility by promoting cell regeneration and new blood vessel formation.

*These products are for research use only and are not intended for human consumption, medical use, therapeutic use, or diagnostic purposes. They are not to be used in foods, drugs, cosmetics, dietary supplements, or any products intended for humans or animals. Peptides are not sterile, have not been tested for safety or efficacy in humans, and must not be injected, ingested, inhaled, applied to the skin, or administered in any form. No product sold is intended to treat, cure, mitigate, or prevent any disease.

What's Included

- Two vials, concentration: 10mg/4mL
- One vial lasts 2.5 weeks

Reconstitution kit

- (20) 29-30G subq needles
- (1) 5mL syringe
- (1) 25G needle with syringe
- (1) 10 mL bacteriostatic water

Clinical Research Potential Benefits:

- May help accelerate tissue repair
- May reduce inflammation
- May enhance flexibility and mobility
- May support angiogenesis (formation of new blood vessels)
- May aid healing of muscles, tendons, and ligaments

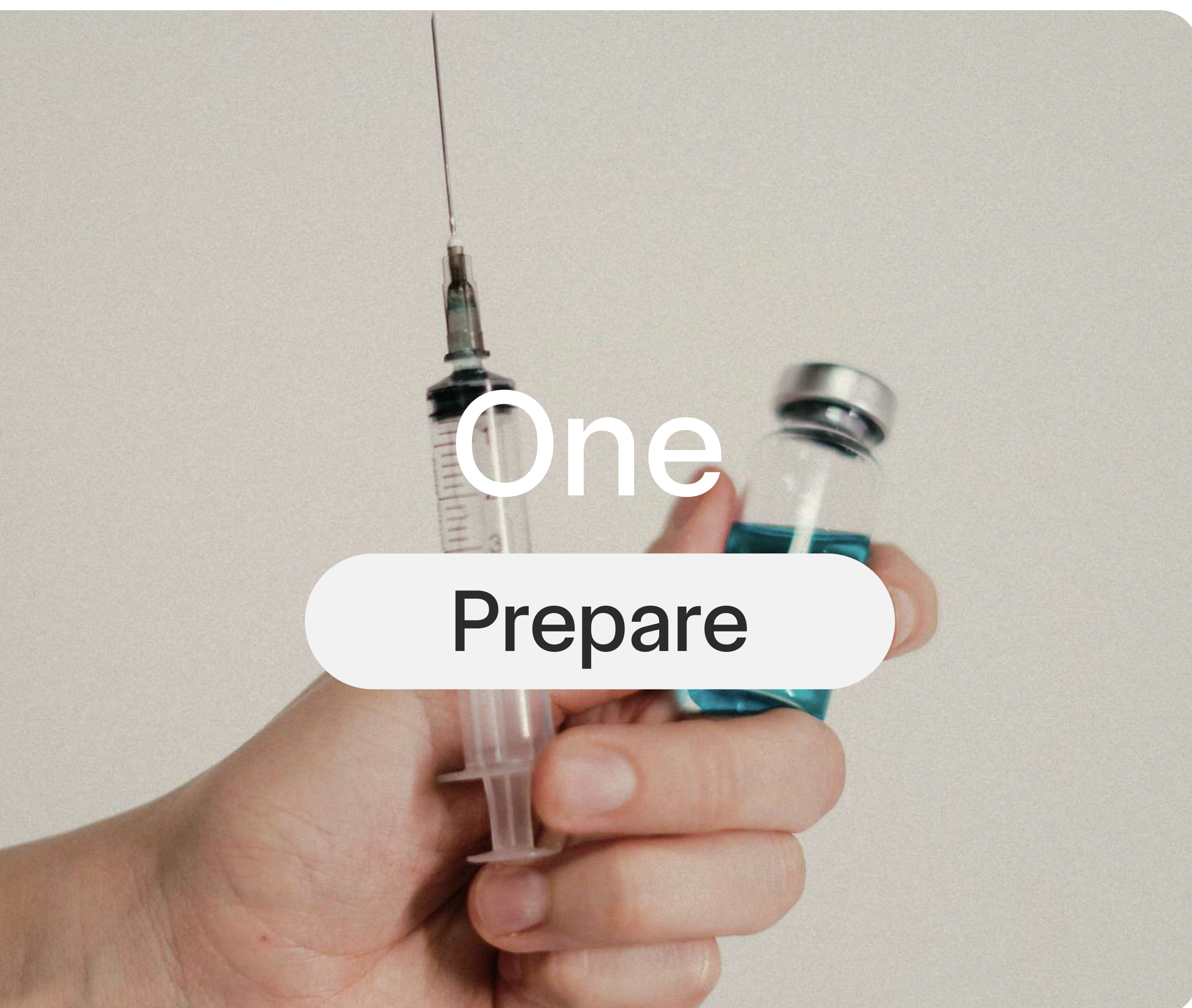
Reconstitution & Administration*

Clinical Research Suggested Use:

- Draw 80 units (2mg) into the syringe
- 2x per week on non-consecutive days
- Duration: 3 months
- Cycle one month on, one week off, repeat for 2 months
- Reconstitute: add 4mL bacteriostatic water to the to the lyophilized powder vial
- Injection type: subcutaneous injection

*Instructions start on page 2

TB-500 Reconstitution



STEP 1: Remove plastic covers, clean vial and bacteriostatic water top with alcohol pad for 15 seconds

STEP 2: Using the large syringe from your administration kit, pull out 4mL of Bacteriostatic water

- It may take a few repetitions to load your syringe with the 4mL with no air pockets

STEP 3: Once you've loaded your syringe, slowly inject the 4mL of Bacteriostatic water into your TB-500 vial:

- On its side to not damage the bonds of the product.
- Do not shake, gently swirl if needed.
- Allow the solution to sit for at least 5 minutes

***Supplies:** 5mL syringe (large), 25G needle, Bacteriostatic water, TB-500 vial, Alcohol pad



STEP 1: With the smaller needle draw up 80 units of the TB-500 into the small syringe from your kit

***Supplies:** 29G-30G subcutaneous syringe with needle (small), Alcohol pad



STEP 1: Clean the injection area with an alcohol pad

STEP 2: Inject subcutaneously (see pg 3)

- Repeat 2x per week on non-consecutive days
- Duration: 3 months
- One vial will last 2.5 weeks

Injection Steps

Subcutaneous Injection steps:

1 Choose & Clean the Injection Site

- Use the abdomen (3 inches from the belly button), thigh, or upper arm. Rotate sites to prevent irritation. Clean the area with an alcohol swab and let it dry.

2 Inject

- Pinch 1 to 2 inches of skin, insert the needle at a 90° angle, and slowly push the plunger down.

3 Remove the Needle & Dispose

- Pull the needle out at the same angle, apply light pressure with gauze (don't rub), and dispose of the syringe in a sharps container.

4 Monitor for Reactions

- Mild redness or soreness is normal. Seek medical help if you experience severe pain, swelling, or an allergic reaction.

Intramuscular Injection steps:

1 Choose & Clean the Injection Site

- Use the thigh (vastus lateralis), upper arm (deltoid), or glute (ventrogluteal or dorsogluteal muscle).
 - Rotate sites to prevent soreness. Clean the area with an alcohol swab and let it dry.

2 Inject

- Stretch the skin taut, hold the syringe like a dart at a 90° angle, and insert the needle quickly and smoothly. Slowly push the plunger down to inject.

3 Remove the Needle & Dispose

- Pull the needle straight out, apply light pressure with gauze (don't rub), and dispose of the syringe in a sharps container.

4 Monitor for Reactions

- Mild soreness or redness is normal. Seek medical help if you experience severe pain, swelling, or an allergic reaction.

TB-500 Mechanism of Action

- **Cellular Migration and Tissue Repair:**
 - TB-500 accelerates tissue regeneration by promoting cell migration to areas of injury. It activates components of the extracellular matrix (ECM), enhancing cell adhesion and motility essential for wound healing and structural repair.
- **Collagen Synthesis:**
 - TB-500 supports the synthesis of collagen, a key structural protein critical for the repair of skin, muscle, tendon, and joint tissue. Increased collagen production strengthens connective tissue integrity and accelerates recovery.
- **Angiogenesis:**
 - Through stimulation of new blood vessel formation, TB-500 improves local oxygen and nutrient delivery to damaged tissues. This angiogenic activity enhances cellular regeneration and recovery following injury or surgery.
- **Anti-Inflammatory Action:**
 - TB-500 exerts potent anti-inflammatory effects by downregulating pro-inflammatory cytokines and modulating the inflammatory response. This reduces tissue swelling, pain, and oxidative stress, promoting faster healing.
- **Tissue Regeneration and Muscle Repair:**
 - TB-500 enhances muscle cell proliferation and differentiation via upregulation of key growth factors, including vascular endothelial growth factor (VEGF) and fibroblast growth factor (FGF). These actions drive muscle regeneration and support recovery from strain or trauma.
- **Neuroprotective Effects:**
 - TB-500 demonstrates neuroprotective benefits through its ability to promote neuronal repair and support myelin sheath formation. This contributes to improved nerve function and resilience following injury.
- **Immune Modulation:**
 - TB-500 modulates immune function by influencing thymic activity and T-cell response. Enhanced immune regulation supports tissue recovery while helping the body resist infection and chronic inflammation.