



TB-500

Thymosin Beta-4 · Tissue Repair & Recovery Peptide

OVERVIEW

TB-500 is a synthetic analogue of Thymosin Beta-4, a naturally occurring protein present in virtually all human cells. It plays a critical role in building new blood vessels, muscle tissue, and skin while regulating actin — essential to cell structure and movement. TB-500 is widely studied for its systemic healing properties and ability to significantly reduce chronic inflammation in musculoskeletal and connective tissue injuries.

SPECIFICATIONS

Size	10mg per vial
Reconstitution	Add 2ml BAC Water → 5,000mcg/ml
Route	Subcutaneous (SubQ) injection
Storage	Refrigerate 2–8°C; protect from light

CLINICAL APPLICATIONS

■ Muscle & connective tissue recovery	■ Tendon & ligament healing
■ Angiogenesis & neovascularization	■ Chronic joint inflammation reduction
■ Wound healing & scar reduction	■ Post-injury flexibility improvement

MECHANISM OF ACTION

TB-500 binds actin monomers via its LKKTET sequence, regulating cell motility, proliferation, and differentiation. It promotes endothelial cell migration and angiogenesis while suppressing IL-1 and TNF-alpha cytokines. Matrix metalloproteinases (MMPs) are upregulated to facilitate structural tissue remodeling and reduce fibrous scar formation throughout the body.

RECONSTITUTION & DOSING GUIDE · SubQ Injection · U-100 Insulin Syringe

2ml BAC Water + 10mg vial = 5,000mcg/ml · U-100 syringe: 10 units = 500mcg

PHASE	DOSE	SYRINGE UNITS (U-100)	FREQUENCY
Starting	2.5mg	50 units	Twice per week
Moderate	5mg	100 units	Twice per week
Loading Max	10mg	200 units	2x/week × 4–6 wks
Maintenance	2.5–5mg	50–100 units	Once per week