

# TB- 500

Move Without Limits.

Recover Without Compromise.

FLEXIBILITY · REPAIR · INFLAMMATION · RECOVERY

TB-500 is a synthetic version of **Thymosin Beta-4** — a naturally occurring peptide found in virtually every human cell. Renowned for its unrivalled ability to heal soft tissue, restore flexibility, and reduce chronic inflammation, TB-500 works by binding to **actin**, one of the most fundamental proteins in the body, to trigger deep, systemic repair wherever it's needed most.



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AMINO ACIDS

Actin

BINDING TARGET

Systemic

BODY-WIDE ACTION

Natural

ENDOGENOUS PEPTIDE

# What Is TB-500?

Inside every cell, a master regulator of movement and repair

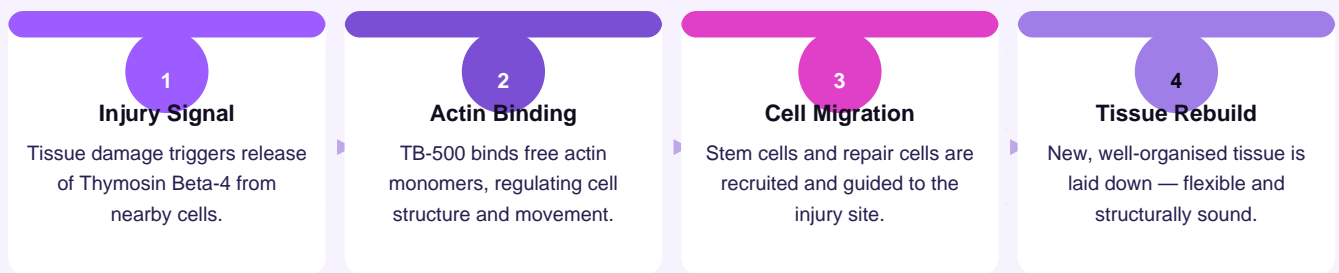
## Naturally Present in Every Cell You Have

Thymosin Beta-4 is one of the most abundant peptides in the human body — found in virtually every cell type, with particularly high concentrations in platelets and wound fluid. It plays an essential role in how the body organises its structural proteins, manages inflammation, and coordinates the repair process after injury. TB-500 is a synthetic analogue that mirrors this natural peptide, delivering its regenerative properties in a targeted, concentrated form.

## The Actin Connection — Why TB-500 Is Unique

TB-500's defining feature is its ability to bind to **actin** — the protein that forms the internal scaffolding of every cell and drives movement in muscle fibres. By regulating actin, TB-500 controls how cells migrate, proliferate, and reorganise at the site of an injury. This makes it exceptionally effective at rebuilding damaged tissue with the right structure, rather than simply filling wounds with scar tissue. The result is stronger, more functional healing — and dramatically improved flexibility and range of motion.

### The TB-500 Repair Pathway



#### ★ SYSTEMIC REACH — GOES WHERE IT'S NEEDED

Unlike many peptides that act locally, TB-500's low molecular weight and water-soluble structure allow it to travel systemically through the bloodstream, reaching damaged tissues anywhere in the body. A single administration can support healing in multiple sites simultaneously.

# The Benefits of TB-500

From tendons to the brain — a peptide that heals without boundaries

## 01 Soft Tissue Repair

TB-500 excels at healing the tissues that are hardest to recover from — tendons, ligaments, and fascia. It accelerates repair while reducing the formation of fibrous scar tissue, restoring genuine function and strength.

## 02 Enhanced Flexibility & Range of Motion

By remodelling how repaired tissue is structured at a cellular level, TB-500 restores and even improves flexibility after injury — helping athletes return to full movement, not just pain-free rest.

## 03 Reduced Chronic Inflammation

TB-500 powerfully downregulates the inflammatory signals that cause persistent, low-grade pain. It addresses root-cause inflammation rather than masking symptoms, enabling true resolution.

## 04 Muscle Repair & Endurance

In skeletal muscle, TB-500 speeds recovery from micro-tears and overuse injury, while supporting satellite cell activity for long-term muscle regeneration — helping you train harder and recover faster between sessions.

## 05 Heart & Vascular Healing

Thymosin Beta-4 is naturally elevated after cardiac injury. TB-500 promotes the repair of cardiac muscle and blood vessel walls, and research suggests it supports the regeneration of heart tissue after ischaemic events.

## 06 Skin, Hair & Wound Healing

TB-500 promotes angiogenesis and epithelial cell migration, accelerating wound closure and the healing of skin injuries. Studies also suggest it supports hair follicle activation and growth cycle regulation.

## 07 Neurological Repair

Emerging research shows TB-500 supports remyelination and nerve regeneration in the central nervous system — opening potential applications for recovery from traumatic brain injury and neurodegenerative conditions.

## 08 Complementary Synergy with BPC-157

TB-500 and BPC-157 are widely considered the most powerful peptide healing stack. Where BPC-157 excels at local, targeted repair, TB-500 adds systemic reach — together providing comprehensive whole-body recovery support.

From the tendons of elite athletes to the hearts of cardiac patients, TB-500 reaches where other peptides cannot. Its actin-binding mechanism, systemic mobility, and decades of research make it one of the most versatile and compelling repair peptides ever discovered.