

Ac-SDKP (Thymosin Beta-4 Fragment)

One-Page Clinical Summary • Wound Healing & Muscle Repair

Overview

Ac-SDKP is a naturally occurring peptide fragment of Thymosin Beta-4. Clinically valued for accelerating wound repair, improving microcirculation, reducing inflammation, and supporting muscle regeneration, Ac-SDKP is widely used in regenerative, sports, and aesthetic medicine.

Key Benefits

- Accelerates wound closure and tissue regeneration
- Enhances angiogenesis and nutrient delivery
- Reduces inflammation to improve healing outcomes
- Supports healthy collagen remodeling and reduces scarring
- Promotes muscle fiber repair and satellite cell activation

Mechanisms of Action

Angiogenesis: Stimulates microvascular formation for better tissue oxygenation.

Inflammation Control: Modulates cytokines to prevent delayed healing.

Fibrosis Reduction: Downregulates TGF- β to prevent excessive scar tissue.

Muscle Repair: Enhances progenitor cell activity and efficient muscle regeneration.

Clinical Applications

- Surgical and procedural recovery
- Muscle strains & microtears
- Tendon/ligament support
- Aesthetic healing (laser, microneedling, RF)
- Chronic or slow-healing wounds

Dosing

500 mcg orally once daily for 6–12 weeks (common clinical protocol).

Safety

Naturally occurring, well-tolerated, and non-toxic at physiologic and supplemental levels in research.

References

Cavasin MA (2004) • Pokharel Y (2002) • Wang M (2012) • Kim SH (2013) • Sosne G (2010)

Conclusion

Ac-SDKP is a clinically valuable regenerative peptide that supports rapid wound healing, minimizes fibrosis, and strengthens muscle recovery—making it ideal for anti-aging, sports medicine, and aesthetic practices.