

Thymosin- β 4, human recombinant protein**T β -4, Hematopoietic system regulatory peptide, Seraspenide, TMSB4X, TB4X, TMSB4**
Catalog # PBV10846r**Specification**

Thymosin- β 4, human recombinant protein - Product infoPrimary Accession [P62328](#)
Calculated MW **5.2 kDa** KDa**Thymosin- β 4, human recombinant protein - Additional Info**

Gene ID	7114
Gene Symbol	TMSB4X
Other Names	
T β -4, Hematopoietic system regulatory peptide, Seraspenide, TMSB4X, TB4X, TMSB4	
Gene Source	Human
Source	E. Coli
Assay&Purity	SDS-PAGE; \geq95%
Assay2&Purity2	HPLC;
Recombinant	Yes
Sequence	RMSDKPDMAE IEKFDKSKLK KTETQEKNP PSKETIEQEK QAGES

Target/SpecificityThymosin- β 4**Application Notes**

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Format

Lyophilized powder

Storage

-20°C; Sterile filtered through a 0.2 micron filter. Lyophilized with no additives

Thymosin- β 4, human recombinant protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)

- [Flow Cytometry](#)
- [Cell Culture](#)

Thymosin- β 4, human recombinant protein - Images

Thymosin- β 4, human recombinant protein - Background

Thymosin- β 4 is a small, actin-sequestering protein belonging to the thymosin- β family that is found at high concentrations within the spleen, thymus, and peritoneal macrophages, where it is most notably responsible for the organization of cytoskeletal structure. In mammalian tissues, this protein acts as a modulator for the polymerization/depolymerization of actin through the formation of a 1:1 complex with the monomer G (globular)-actin, and inhibits actin's polymerization to form F (filamentous) actin, which together with other proteins binds microfilaments to construct the cytoskeleton. Commonly found at significant quantities within the brain, lungs, liver, kidneys, testes, and heart, Thymosin- β 4 has also been shown to be synthesized by cells unrelated to the reticulo-endothelial system, such as myoblasts and fibroblasts, and expressed at irregular levels by several hemopoietic cell lines, malignant lymphoid cells and myeloma cells. In addition to regulating actin polymerization, research has also found Thymosin- β 4 to stimulate the secretion of hypothalamic luteinizing hormone-releasing hormone and luteinizing hormone, inhibit the migration of peritoneal macrophages, induce phenotypic changes in T cell lines during early host defense mechanisms, and inhibit the progression of hematopoietic pluripotent stem cells into the s-phase. Recombinant Human Thymosin- β 4 is a 5.2 kDa glycoprotein containing 45 amino acid residues.

Thymosin- β 4, human recombinant protein - References

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