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# Thymosin β4

Catalog # PVGS1159

## Product Information

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| **Primary Accession** | P62328 |
| **Species** | Human |
| **Sequence** | Ser2-Ser44 |
| **Purity** | > 97% as analyzed by SDS-PAGE<br>> 97% as analyzed by HPLC |
| **Endotoxin Level** | |
| **Biological Activity** | Fully biologically active when compared to standard. The biological activity determined by its ability to produce a protective effect against hydrogen peroxide in primary lung fibroblasts is in a concentration range of 0.5-10.0 g/ml. |
| **Expression System** | E. coli |
| **Theoretical Molecular Weight** | 4.9 kDa |
| **Formulation** | Lyophilized from a 0.2 m filtered solution in 20 mM PB, pH 7.4. |
| **Reconstitution** | It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml. |
| **Storage & Stability** | Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles. |

## Additional Information

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| **Gene ID** | 7114 |
| **Other Names** | Thymosin beta-4, T beta-4, Fx, Hemoregulatory peptide AcSDKP, Ac-Ser-Asp-Lys-Pro, N-acetyl-SDKP, AcSDKP, Seraspenide, TMSB4X, TB4X, THYB4, TMSB4 |
| **Target Background** | Thymosin Beta 4 is a naturally occurring peptide. It is found in high concentrations in blood platelets, wound fluid and other tissues in the body. Tβ4 is not a growth factor; rather, it is a major actin regulating peptide. The thymosin beta-4 peptide, if used after a heart attack, might reactivate cardiac progenitor cells to repair damaged heart tissue. |

## Protein Information

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| **Name** | TMSB4X |
| **Synonyms** | TB4X, THYB4, TMSB4 |
| **Function** | Plays an important role in the organization of the cytoskeleton (PubMed:10848969, PubMed:1999398). Binds to and sequesters actin monomers (G actin) and therefore inhibits actin polymerization (PubMed:10848969, PubMed:1999398). |
| **Cellular Location** | Cytoplasm, cytoskeleton |
| **Tissue Location** | Expressed in several hemopoietic cell lines and lymphoid malignant cells. Decreased levels in myeloma cells |

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.