

## Recombinant Human TMSB4X protein

Cat. No. TMSB4X-653H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human TMSB4X protein was expressed in Escherichia coli.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	43
<b>Description</b>	Thymosin Beta 4 is a naturally occurring peptide encoded by the TMSB4X gene located on Chr. X in humans. It is found in high concentrations in blood platelets, wound fluid and other tissues in the body. Tβ-4 is a major actin regulating peptide and the primary function is to stimulate the productions of T cells, which plays important part of the immune system. The thymosin beta-4 peptide, if used after a heart attack, might reactivate cardiac progenitor cells to repair damaged heart tissue.
<b>Form</b>	Lyophilized from a 0.2μm filtered concentrated solution in 20 mM PB, pH 7.4.
<b>Bio-activity</b>	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 μg/ml.
<b>Molecular Mass</b>	Approximately 4.9 kDa, a single non-glycosylated polypeptide chain containing 43 amino acids.
<b>AA Sequence</b>	SDKPDMAEIEKFDKSKLKKTTETQEKNPLPSKETIEQEKGAGES

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<b>Endotoxin</b>	Less than 1 EU/g of rHuTβ4 as determined by LAL method.
<b>Purity</b>	>97% by SDS-PAGE and HPLC analysis.
<b>Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
<b>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20 centigrade. Further dilutions should be made in appropriate buffered solutions.

## GENE INFORMATION

<b>Gene Name</b>	TMSB4X
<b>Official Symbol</b>	TMSB4X
<b>Synonyms</b>	TMSB4X; thymosin beta 4, X-linked; thymosin, beta 4, X chromosome , TMSB4; thymosin beta-4; TB4X; t beta-4; prothymosin beta-4; thymosin, beta 4, X chromosome; FX; PTMB4; TMSB4;
<b>Gene ID</b>	7114
<b>mRNA Refseq</b>	NM_021109
<b>Protein Refseq</b>	NP_066932

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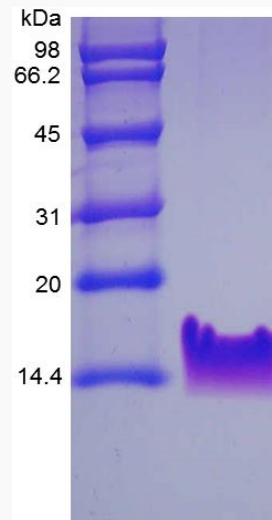
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SDS-PAGE of  
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