

Recombinant Human Thymosin beta 4

#R00542

Size: 100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

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.

AA Sequence

SDKPDMAEIEKFDKSKLKKTTETQEKNPLPSKETIEQE
KQAGES

Reconstitution

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 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	Fx
Accession	P62328
GeneID	7114
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 4.9 kDa, a single non-glycosylated polypeptide chain containing 43 amino acids.
Purity	> 97 % by SDS-PAGE and HPLC analyses.
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 µg/ml.

Physical	Sterile Filtered White lyophilized
Appearance	(freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, pH 7.4.
Endotoxin	Less than 1 EU/µg of rHuTβ4 as determined by LAL method.