DATASHEET
Version 20181206

Thymosin β 4, Human

Cat. No.: Z02908-25

Size: 25.0 ug

Synonyms: Tβ4 Human;

Description:

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.

Amino Acid Sequence:

00001 SDKPDMAEIE KFDKSKLKKT ETQEKNPLPS KETIEQEKQA
00041 GES

Source: *E. coli*

Species: Human

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.

Molecular Weight: Approximately 4.9 kDa, a single non-glycosylated polypeptide chain containing 43 amino acids.

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, pH 7.4.

Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

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.

Purity: > 97 % by SDS-PAGE and HPLC analyses.

Endotoxin Level: Less than 1 EU/µg of rHuTβ4 as determined by LAL method.

Storage: This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. Avoid repeated freeze/thaw cycles.

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