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Thymosin beta 4

Thymosin β4
HRM0111

Product Overview

Name	Thymosin beta 4
Description	
Thymosin β4	
Accession (Primary)	P62328
Synonyms	
Thymosin beta-4. TB500, TB-500	
Introduction	
Thymosin is a hormone secreted from the thymus. Its primary function is to stimulate the production of T cells, which are an important part of the immune system. Thymosin also assists in the development of B cells to plasma cells to produce antibodies. The predominant form of thymosin, thymosin b4, is a member of a highly conserved family of actin monomer-sequestering proteins. b-thymosins are the primary regulators of unpolymerized actin, and are essential for maintaining the small cytoplasmic pool of free G-actin monomers required for rapid filament elongation and allowing for the flux of monomers between the thymosin-bound pool and F-actin.	
Physical Appearance	
Sterile Filtered White lyophilized (freeze-dried) powder.	
Formulation	
The protein (1mg/ml) was lyophilized with no additives.	
Stability	
Lyophilized Thymosin b4 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution T beta 4 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.	
Purity	
Greater than 98.0% as determined by RP-HPLC.	
Amino acid sequence	
Thymosin b4 has an a.a. sequence of Ac-Ser-Asp-Lys-Pro-Asp-Met-Ala-Glu-Ile-Glu-Lys-Phe-Asp-Lys-Ser-Lys-Leu-Lys-Lys-Thr-Glu-Thr-Gln-Glu-Lys-Asn-Pro-Leu-Pro-Ser-Lys-Glu-Thr-Ile-Glu-Gln-Glu-Lys-Gln-Ala-Gly-Glu-Ser-OH.	
Solubility	
It is recommended to reconstitute the lyophilized Thymosin beta-4 in sterile 18MΩ-cm H2O not less than 100 µg/ml,	

which can then be further diluted to other aqueous solutions.

References

Title: Regenerative protein thymosin b -4 is a novel regulator of purinergic signaling. Publication: Published online before printNovember 24, 2010, doi: 10.1096/fj.10-169417 March 2011 The FASEB Journal vol. 25no . 3907-915. Link: Thymosin beta 4 prospec publication

Precautions

Thymosin beta 4 is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P62328)