

## Human/Mouse/Rat Thymosin β10 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG Catalog Number: AF6429

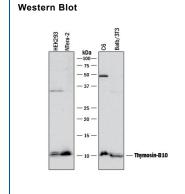
DESCRIPTION		
Species Reactivity	Human/Mouse/Rat	
Specificity	Detects human Thymosin β10 in direct ELISAs. Detects human, mouse, and rat Thymosin β10 in Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) Thymosin β4 and rhThymosin β16 is observed.	
Source	Polyclonal Sheep IgG	
Purification	Antigen Affinity-purified	
Immunogen	E. coli-derived recombinant human Thymosin β10 Ala2-Ser44 Accession # P63313	
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.	

APPLICATIONS				
Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.				
Recommended	Sample			
Concentration				

See Below

## DATA

Western Blot



Detection of Human, Mouse, and Rat Thymosin  $\beta 10$  by Western Blot. Western blot shows lysates of HEK293 human embryonic kidney cell line, NTera-2 human testicular embryonic carcinoma cell line, C6 rat glioma cell line, and Balb/3T3 mouse embryonic fibroblast cell line. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human/Mouse/Rat Thymosin β10 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6429) followed by HRPconjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Thymosin β10 at approximately 9 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

1 µg/mL

PREPARATION AND STORAGE		
Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.	
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C	
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.  6 months, -20 to -70 °C under sterile conditions after reconstitution.	

## BACKGROUND

Thymosin beta 10 (T $\beta$ 10) is a 6.5 kDa member of the  $\beta$ -thymosin family of molecules. Members of this family range from 41-44 amino acids (aa) in length, and possess an isoelectric point that lies between pH 5.0-7.0. Multiple cell types produce T $\beta$ 10, either constitutively, or after stimulation. They include monocytes/macrophages, endothelial cells, thyroid epithelium, spermatids, fetal cerebellar Purkinje cells plus renal tubule epithelium, and multiple tumor types. T $\beta$ 10 is principally an intracellular molecule. It forms a 1:1 complex with G-actin and blocks F-actin polymerization. This regulates the availability of actin monomers for filament formation and subsequent cell migration. It is also known to be noncanonically secreted, acting on endothelium and blocking angiogenesis. Mature human T $\beta$ 10 is 43 aa in length (aa 2-44) (SwissProt #:P63313). It contains an actin-binding site (aa 18-23), an N-terminal acetylated alanine, four acetylated lysines (#4; 15; 26; 39), and one phosphorylation site at Thr23. Mature T $\beta$ 10 is identical to mouse T $\beta$ 10 in aa sequence, and it shares 74% aa sequence identity with its human family member T $\beta$ 4.

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