

DESCRIPTION

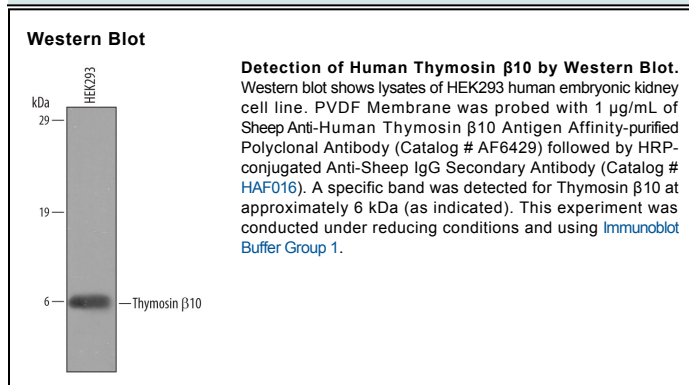
Species Reactivity	Human
Specificity	Detects human Thymosin β 10 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) Thymosin β 4 and rhThymosin β 16 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Thymosin β 10 Ala2-Ser44 Accession # P63313
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μ m 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 Concentration	Sample
Western Blot	1 μ g/mL	See Below

DATA



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. <ul style="list-style-type: none"> ● 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 β 10) is a 6.5 kDa member of the β -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 β 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 β 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 β 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 β 10 is identical to mouse T β 10 in aa sequence, and it shares 74% aa sequence identity with its human family member T β 4.