

DESCRIPTION

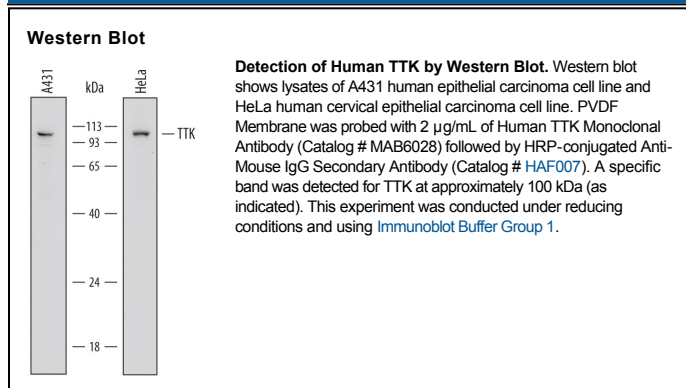
Species Reactivity	Human
Specificity	Detects human TTK in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human (rh) CaM Kinase II, rhCaM Kinase II α , rhCaM Kinase II β , rhCaM Kinase II δ , rhCaM Kinase II γ , rhCaM Kinase III, rhCaM Kinase IV, rhCaM Kinase K α , or rhCaM Kinase K β is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 689913
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human TTK Ser281-Leu481 Accession # P33981
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	2 μ g/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 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

TTK (Dual specificity Thr/Tyr kinase; also PYT and hMps1) is a 97-105 kDa member of the Ser/Thr protein kinase family of enzymes. It is expressed in testis and thymus, and participates in cell cycle regulation. In particular, it directs chromosome alignment, centrosome duplication, and spindle assembly checkpoint formation. Via phosphorylation, TTK is known to regulate p53, CDCA8 and TACC2. Human TTK is 857 amino acids (aa) in length. It contains one protein kinase domain (aa 525-791). Activation occurs following homodimerization and autophosphorylation on Thr675, Thr676 and Thr686. There are two potential splice variants. One shows an alternative start site at Met17, while another shows a deletion of Gln420. Over aa 281-481, human TTK shares 53% aa identity with mouse TTK.