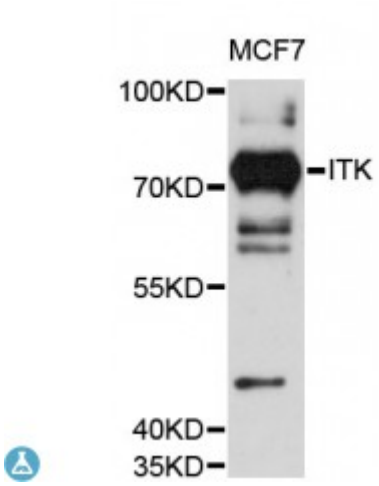
Anti-ITK Antibody



Description	This gene encodes an intracellular tyrosine kinase expressed in T-cells. The protein contains both SH2 and SH3 domains which are often found in intracellular kinases. It is thought to play a role in T-cell proliferation and differentiation.

Model	STJ114555
Host	Rabbit
Reactivity	Human
Applications	WB
Immunogen	Recombinant fusion protein containing a sequence corresponding to amino acids 450-620 of human ITK (NP_005537.3).
Gene ID	3702
Gene Symbol	ITK
Dilution range	WB 1:1000 - 1:3000
Tissue Specificity	T-cell lines and natural killer cell lines
Purification	Affinity purification
Note	For Research Use Only (RUO).
Protein Name	Tyrosine-protein kinase ITK/TSK
Molecular Weight	71.831 kDa
Clonality	Polyclonal
Conjugation	Unconjugated

Isotype	IgG
Formulation	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage Instruction	Store at -20C. Avoid freeze / thaw cycles.
Database Links	HGNC:6171OMIM:186973Reactome:R-HSA-202433
Alternative Names	Tyrosine-protein kinase ITK/TSK
Function	Tyrosine kinase that plays an essential role in regulation of the adaptive immune response, Regulates the development, function and differentiation of conventional T-cells and nonconventional NKT-cells, When antigen presenting cells (APC) activate T-cell receptor (TCR), a series of phosphorylation lead to the recruitment of ITK to the cell membrane, in the vicinity of the stimulated TCR receptor, where it is phosphorylated by LCK, Phosphorylation leads to ITK autophosphorylation and full activation, Once activated, phosphorylates PLCG1, leading to the activation of this lipase and subsequent cleavage of its substrates, In turn, the endoplasmic reticulum releases calcium in the cytoplasm and the nuclear activator of activated T-cells (NFAT) translocates into the nucleus to perform its transcriptional duty, Phosphorylates 2 essential adapter proteins: the linker for activation of T-cells/LAT protein and LCP2, Then, a large number of signaling molecules such as VAV1 are recruited and ultimately lead to lymphokine production, T-cell proliferation and differentiation ,
Cellular Localization	Cytoplasm,
Post-translational Modifications	Phosphorylated at Tyr-512 in the activation loop of the kinase domain by LCK, Subsequent autophosphorylation at Tyr-180 leads to the kinase activation, The autophosphorylated Tyr-180 lies within the substrate binding sequence of the SH3 domain,