Anti-Txk antibody

Description	Rabbit polyclonal to Txk.

Model	STJ96155
Host	Rabbit
Reactivity	Human
Applications	ELISA, IHC
Immunogen	Synthesized peptide derived from human Txk.
Immunogen Region	Internal
Gene ID	7294
Gene Symbol	TXK
Dilution range	IHC 1:100-1:300ELISA 1:40000
Specificity	Txk Polyclonal Antibody detects endogenous levels of Txk protein.
Tissue Specificity	Expressed in T-cells and some myeloid cell lines. Expressed in Th1/Th0 cells with IFN-gamma-producing potential.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Tyrosine-protein kinase TXK Protein-tyrosine kinase 4 Resting lymphocyte kinase
Molecular Weight	61.258 kDa
Clonality	Polyclonal

Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:12434OMIM:600058
Alternative Names	Tyrosine-protein kinase TXK Protein-tyrosine kinase 4 Resting lymphocyte kinase
Function	Non-receptor tyrosine kinase that plays a redundant role with ITK 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 TXK to the cell membrane, where it is phosphorylated at Tyr-420. Phosphorylation leads to TXK full activation. Contributes also to signaling from many receptors and participates in multiple downstream pathways, including regulation of the actin cytoskeleton. Like ITK, can phosphorylate PLCG1, leading to its localization in lipid rafts and activation, followed by 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. With PARP1 and EEF1A1, TXK forms a complex that acts as a T-helper 1 (Th1) cell-specific transcription factor and binds the promoter of IFNG to directly regulate its transcription, and is thus involved importantly in Th1 cytokine production. Phosphorylates both PARP1 and EEF1A1. Phosphorylates also key sites in LCP2 leading to the up-regulation of Th1 preferred cytokine IL-2. Phosphorylates 'Tyr-201' of CTLA4 which leads to the association of PI-3 kinase with the CTLA4 receptor.
Cellular Localization	Cytoplasm Nucleus Cell membrane. Localizes in the vicinity of cell surface receptors in the plasma membrane after receptor stimulation. Translocates into the nucleus and enhances IFN-gamma gene transcription in T-cells.
Post-translational Modifications	Phosphorylated at Tyr-420 by FYN. Autophosphorylation at Tyr-91 is critical for the activation of TXK, leading to the up-regulation of IFN-gamma gene transcription. The cysteine string at the N-terminus is palmitoylated and required for the proper subcellular location.