

Anti-TXK Antibody

Catalog # ABV11934

Specification

Anti-TXK Antibody - Product Information

Application IHC, WB Primary Accession P42681

Reactivity Human, Mouse, Rat

Host Rabbit Isotype Rabbit IgG Calculated MW 61258

Anti-TXK Antibody - Additional Information

Gene ID 7294

Positive Control WB: Jurkat, THP1, mouse spleen, rat spleen

lysate; IHC: human placenta tissue section

Application & Usage WB; 1:500 - 1:2000, IHC; 1:50 - 1:200

Other Names

PTK4; RLK; Tyrosine-protein kinase TXK; Protein-tyrosine kinase 4; Resting lymphocyte kinase

Target/Specificity

TXK

Antibody Form

Liquid

Appearance

Colorless liquid

Handling

The antibody solution should be gently mixed before use

Reconstitution & Storage

-20°C

Background Descriptions

Precautions

Anti-TXK Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-TXK Antibody - Protein Information

Name TXK

Synonyms PTK4, RLK



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 leads 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. Plays a role in the positive regulation of IFNG transcription in T- helper 1 cells as part of an IFNG promoter-binding complex with PARP1 and EEF1A1 (PubMed: 11859127, PubMed:17177976). Within the complex, phosphorylates both PARP1 and EEF1A1 (PubMed:17177976). 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 Location

Cytoplasm. Nucleus. Cell membrane; Peripheral membrane protein. Note=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

Tissue Location

Expressed in T-cells and some myeloid cell lines. Expressed in Th1/Th0 cells with IFN-gamma-producing potential

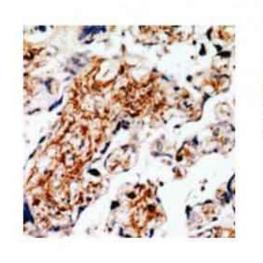
Anti-TXK Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

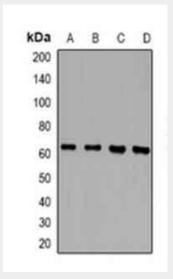
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cvtometv
- Cell Culture

Anti-TXK Antibody - Images





Immunohistochemical analysis of RLK staining in human placenta formalin fixed paraffin embedded tissue section.



WB analysis expression in Jurkat (A); THP1(B); mouse spleen (C);; mouse spleen (C); mouse spleen (C);