

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](http://www.uniprot.org/citations/11859127) target="_blank">11859127, PubMed: [17177976](http://www.uniprot.org/citations/17177976) target="_blank">17177976). Within the complex, phosphorylates both PARP1 and EEF1A1 (PubMed: [17177976](http://www.uniprot.org/citations/17177976) target="_blank">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

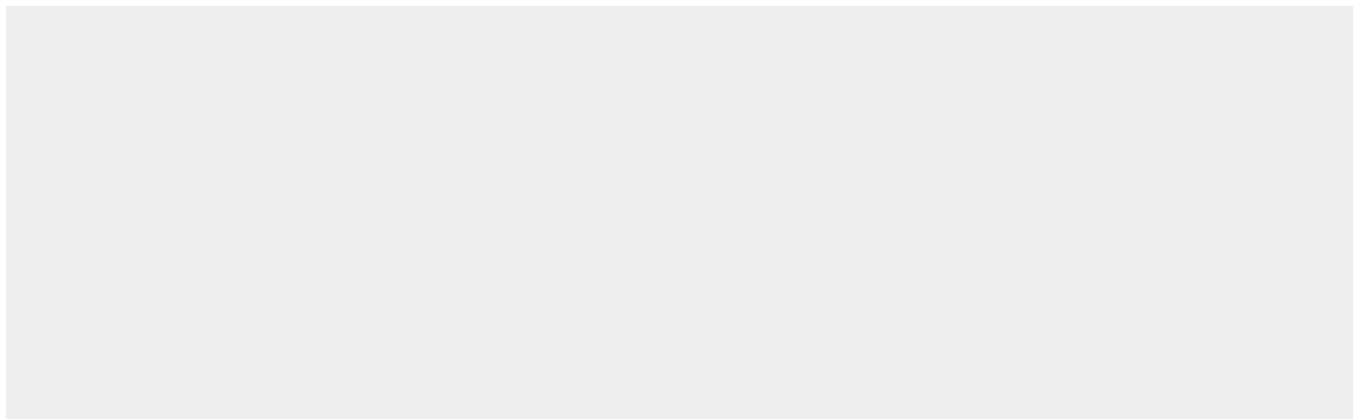
Tissue Location

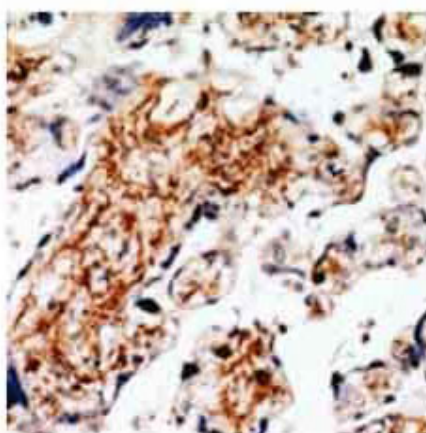
Expressed in T-cells and some myeloid cell lines. Expressed in Th1/Th0 cells with IFN-gamma-producing potential

Anti-TXK Antibody - Protocols

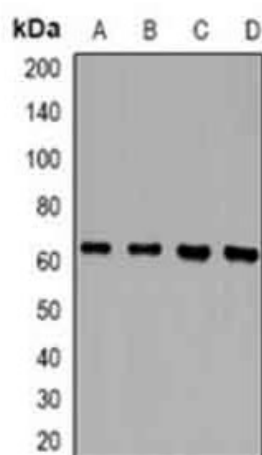
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [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©;rat spleen(D) whole cell lysates