

TXK Antibody (C-Term)
Peptide-affinity purified goat antibody
Catalog # AF2248a

Specification

TXK Antibody (C-Term) - Product Information

Application	WB, IHC
Primary Accession	P42681
Other Accession	NP_003319.2 , 7294
Reactivity	Human
Predicted	Mouse, Pig, Dog
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	61258

TXK Antibody (C-Term) - Additional Information

Gene ID 7294

Other Names

Tyrosine-protein kinase TXK, 2.7.10.2, Protein-tyrosine kinase 4, Resting lymphocyte kinase, TXK, PTK4, RLK

Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

TXK Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

TXK Antibody (C-Term) - 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), PubMed: [17177976](http://www.uniprot.org/citations/17177976)). Within the complex, phosphorylates both PARP1 and EEF1A1 (PubMed: [17177976](http://www.uniprot.org/citations/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

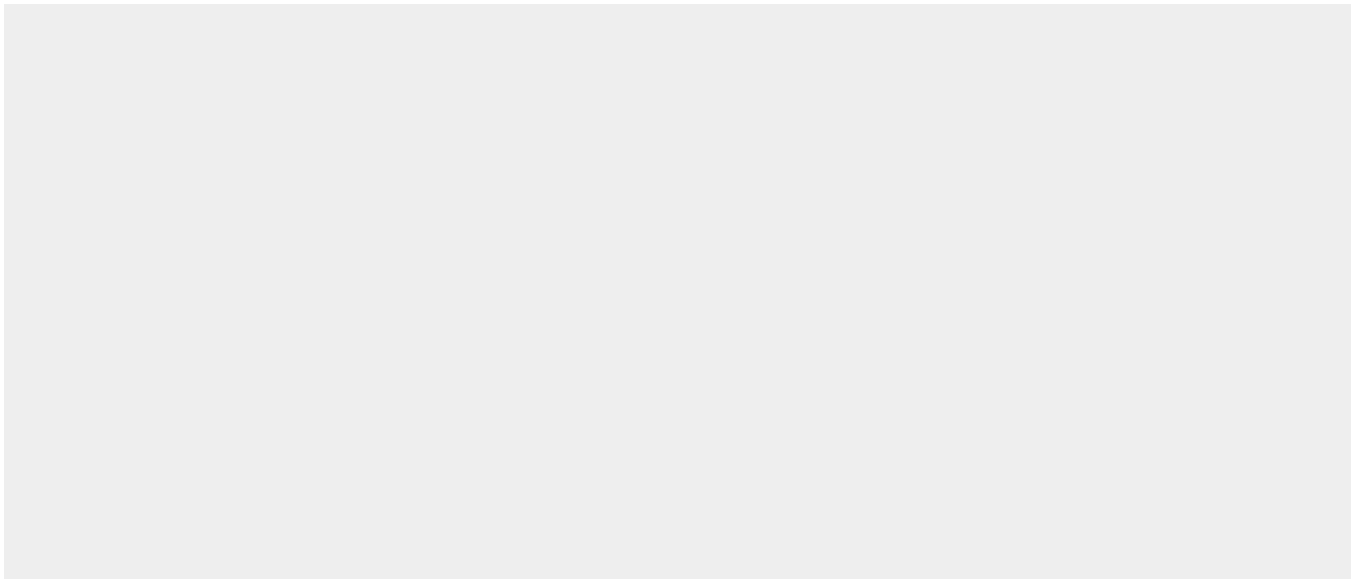
Expressed in T-cells and some myeloid cell lines. Expressed in Th1/Th0 cells with IFN-gamma-producing potential

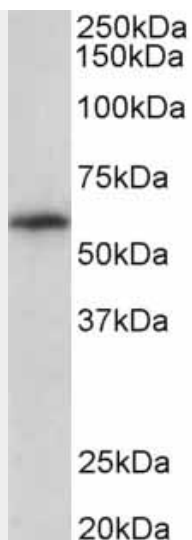
TXK Antibody (C-Term) - Protocols

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

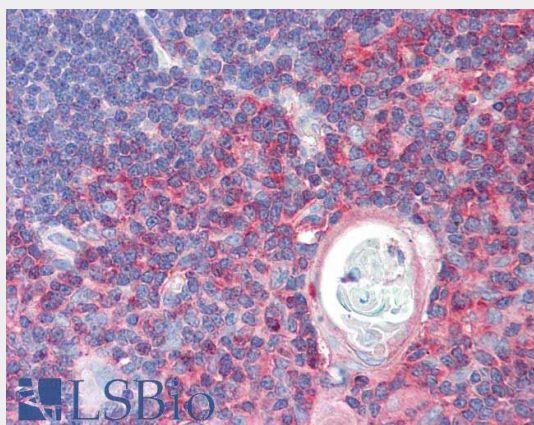
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TXK Antibody (C-Term) - Images

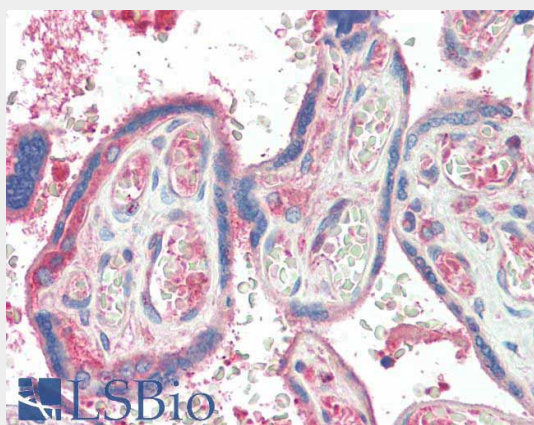




AF2248a (0.3 $\mu\text{g/ml}$) staining of Human Tonsil lysate (35 μg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



AF2248a (5 $\mu\text{g/ml}$) staining of paraffin embedded Human Thymus. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



AF2248a (5 $\mu\text{g/ml}$) staining of paraffin embedded Human Placenta. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

TXK Antibody (C-Term) - References

Skewed Th1 responses caused by excessive expression of Txk, a member of the Tec family of tyrosine kinases, in patients

with Behcet's disease. Suzuki N, Nara K, Suzuki T. Clin Med Res. 2006 Jun;4(2):147-51. Review.
PMID:16809408