

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

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**TXK Antibody (C-Term) - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P42681</a>
Other Accession	<a href="#">NP_003319.2</a> , <a href="#">7294</a>
Reactivity	Human
Predicted	Mouse, Pig, Dog, Cow
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:<a href="http://www.uniprot.org/citations/11859127" target="\_blank">11859127</a>, PubMed:<a href="http://www.uniprot.org/citations/17177976" target="\_blank">17177976</a>). Within the complex, phosphorylates both PARP1 and EEF1A1 (PubMed:<a href="http://www.uniprot.org/citations/17177976" target="\_blank">17177976</a>). 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**

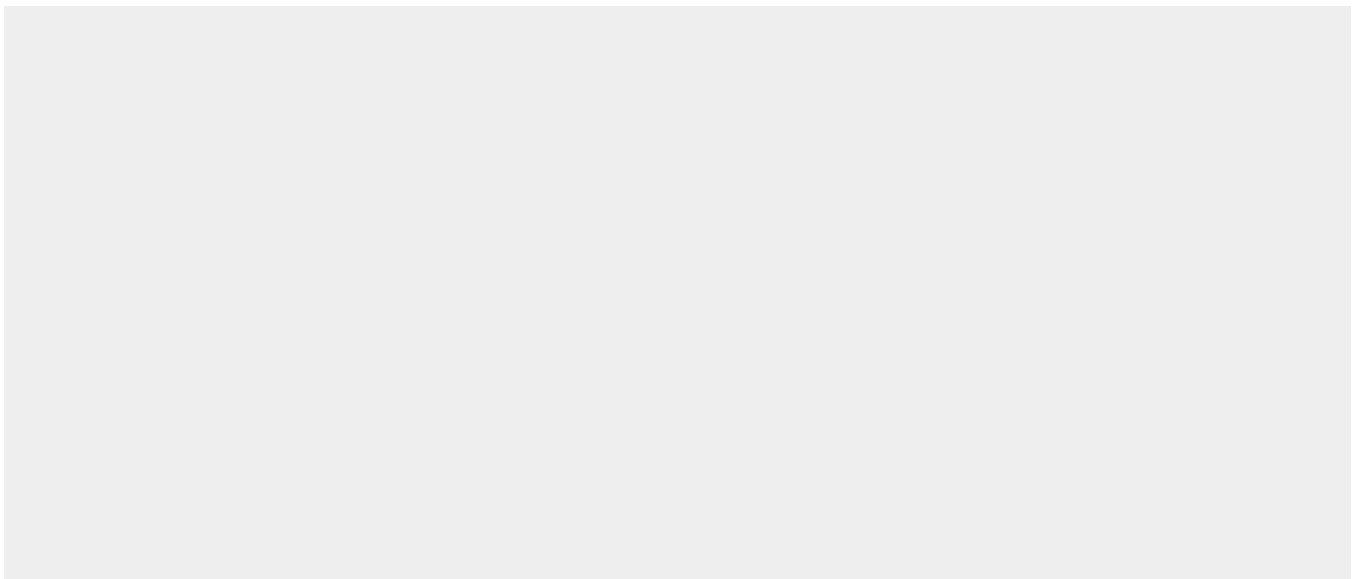
Expressed in T-cells and some myeloid cell lines. Expressed in Th1/Th0 cells with IFN-gamma-producing potential

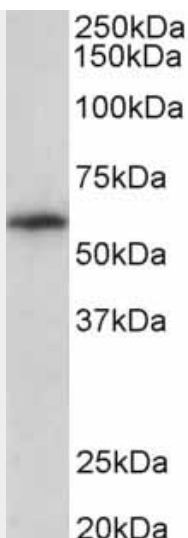
#### **TXK Antibody (C-Term) - Protocols**

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

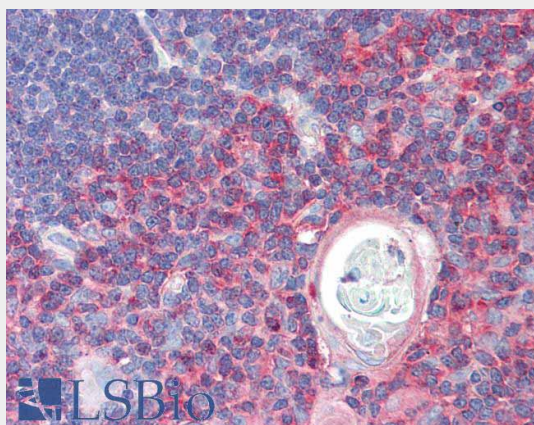
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **TXK Antibody (C-Term) - Images**

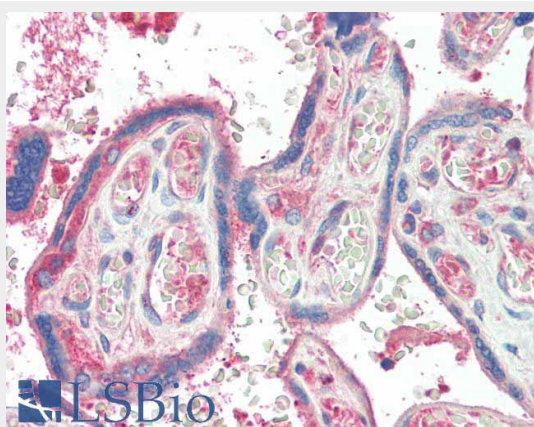




AF2248a (0.3  $\mu\text{g/ml}$ ) staining of Human Tonsil lysate (35  $\mu\text{g}$  protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



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