

**Anti-RLK Antibody**  
**Rabbit polyclonal antibody to RLK**  
**Catalog # AP60828****Specification**

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**Anti-RLK Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P42681</a>
Other Accession	<a href="#">P42682</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	61258

**Anti-RLK Antibody - Additional Information****Gene ID** 7294**Other Names**

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

**Target/Specificity**

Recognizes endogenous levels of RLK protein.

**Dilution**

WB~~WB (1/500 - 1/2000), IH (1/50 - 1/200)

IHC~~1:100~500

**Format**

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**Anti-RLK 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. Also contributes 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>). Also phosphorylates 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

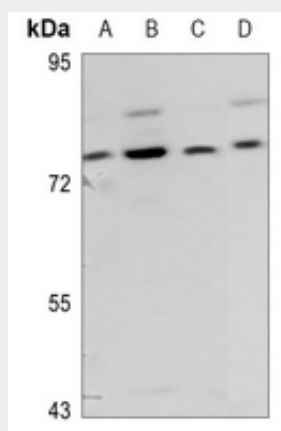
Expressed in T-cells and some myeloid cell lines. Expressed in Th1/Th0 cells with IFN-gamma-producing potential

#### Anti-RLK Antibody - Protocols

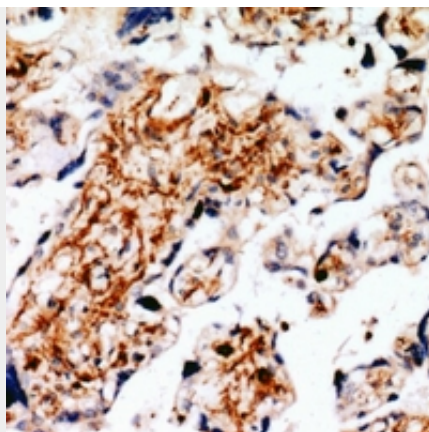
Provided below are standard protocols that you may find useful for product applications.

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

#### Anti-RLK Antibody - Images



Western blot analysis of RLK expression in HEK293T (A), A549 (B), mouse kidney (C), rat muscle (D) whole cell lysates.



Immunohistochemical analysis of RLK staining in human placenta formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

#### **Anti-RLK Antibody - Background**

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human RLK. The exact sequence is proprietary.