

**Anti-ITK Picoband Antibody**  
**Catalog # ABO10179****Specification**

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**Anti-ITK Picoband Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q08881</a>
Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Tyrosine-protein kinase ITK/TSK(ITK) detection. Tested with WB in Human;Mouse.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-ITK Picoband Antibody - Additional Information**

**Gene ID** 3702

**Other Names**

Tyrosine-protein kinase ITK/TSK, 2.7.10.2, Interleukin-2-inducible T-cell kinase, IL-2-inducible T-cell kinase, Kinase EMT, T-cell-specific kinase, Tyrosine-protein kinase Lyk, ITK, EMT, LYK

**Calculated MW**

71831 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human, Mouse<br>

**Subcellular Localization**

Cytoplasm . Localizes in the vicinity of cell surface receptors in the plasma membrane after receptor stimulation.

**Tissue Specificity**

T-cell lines and natural killer cell lines.

**Protein Name**

Tyrosine-protein kinase ITK/TSK

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human ITK (575-617aa FRLYKPRLASTHVYQIMNHCWKERPEDRPAFSRLLRQLAEIAE), different from the related mouse sequence by five amino acids.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins.

**Storage**

**At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.**

**Anti-ITK Picoband Antibody - Protein Information****Name** ITK**Synonyms** EMT, LYK**Function**

Tyrosine kinase that plays an essential role 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 lead to the recruitment of ITK to the cell membrane, in the vicinity of the stimulated TCR receptor, where it is phosphorylated by LCK. Phosphorylation leads to ITK autophosphorylation and full activation. Once activated, phosphorylates PLCG1, leading to the activation of this lipase and 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. Phosphorylates 2 essential adapter proteins: the linker for activation of T-cells/LAT protein and LCP2. Then, a large number of signaling molecules such as VAV1 are recruited and ultimately lead to lymphokine production, T-cell proliferation and differentiation (PubMed:<a href="http://www.uniprot.org/citations/12186560" target="\_blank">12186560</a>, PubMed:<a href="http://www.uniprot.org/citations/12682224" target="\_blank">12682224</a>, PubMed:<a href="http://www.uniprot.org/citations/21725281" target="\_blank">21725281</a>). Required for TCR-mediated calcium response in gamma-delta T-cells, may also be involved in the modulation of the transcriptomic signature in the Vgamma2-positive subset of immature gamma-delta T-cells (By similarity). Phosphorylates TBX21 at 'Tyr-530' and mediates its interaction with GATA3 (By similarity).

**Cellular Location**

Cytoplasm. Nucleus {ECO:0000250|UniProtKB:Q03526}. Note=Localizes in the vicinity of cell surface receptors in the plasma membrane after receptor stimulation

**Tissue Location**

T-cell lines and natural killer cell lines.

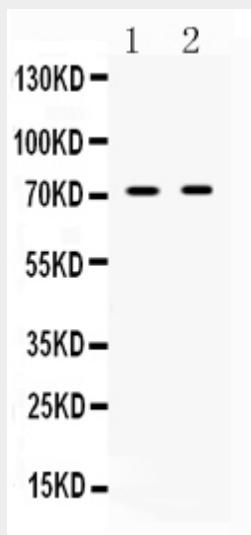
**Anti-ITK Picoband Antibody - Protocols**

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-ITK Picoband Antibody - Images



Western blot analysis of ITK expression in HELA whole cell lysates (lane 1) and NIH3T3 whole cell lysates (lane 2). ITK at 72KD was detected using rabbit anti- ITK Antigen Affinity purified polyclonal antibody (Catalog # ABO10179) at 0.5  $\mu$ g/mL. The blot was developed using chemiluminescence (ECL) method .

#### Anti-ITK Picoband Antibody - Background

Tyrosine-protein kinase ITK/TSK, also known as interleukin-2-inducible T-cell kinase or simply ITK, is a protein that in humans is encoded by the ITK gene. It is a member of the TEC family of kinases. This gene is mapped to 5q33.3. This gene encodes an intracellular tyrosine kinase expressed in T-cells. The protein is thought to play a role in T-cell proliferation and differentiation. Furthermore, ITK is functionally important for the development and effector function of Th2 and Th17 cells.