

## **Anti-ITK Monoclonal Antibody**

Catalog # ABO14400

## **Specification**

# **Anti-ITK Monoclonal Antibody - Product Information**

Application
Primary Accession
Host
Isotype
Reactivity
Clonality
Format

WB, IHC, FC
008881
Rabbit
Rabbit
Rabbit
Rabbit
Human
Monoclonal
Liquid

**Description** 

Anti-ITK Monoclonal Antibody . Tested in WB, IHC, Flow Cytometry applications. This antibody reacts with Human.

## **Anti-ITK Monoclonal 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

## **Application Details**

WB 1:500-1:2000<br>IHC 1:50-1:200<br>FC 1:60

#### **Contents**

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

#### **Immunogen**

A synthesized peptide derived from human ITK.

#### **Purification**

Affinity-chromatography

Storage Store at -20°C for one year. For short term

storage and frequent use, store at 4°C for

up to one month. Avoid repeated

freeze-thaw cycles.

## **Anti-ITK Monoclonal 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 Monoclonal Antibody - Protocols**

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# **Anti-ITK Monoclonal Antibody - Images**



