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ITK Antibody (internal, near C-Term)

Peptide-affinity purified goat antibody
Catalog # AF2812a

Specification

ITK Antibody (internal, near C-Term) - Product Information

Application	**WB, IHC, FC, Pep-ELISA**
Primary Accession	Q08881
Other Accession	NP_005537.3, 3702
Reactivity	**Human**
Predicted	**Mouse**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**71831**

ITK Antibody (internal, near C-Term) - 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

Dilution
WB~~1:1000
IHC~~1:100~500
FC~~1:10~50
Pep-ELISA~~N/A

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
ITK Antibody (internal, near C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

ITK Antibody (internal, near C-Term) - 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:12186560, PubMed:12682224, PubMed:21725281). 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.

ITK Antibody (internal, near 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 Cytomety
- Cell Culture

ITK Antibody (internal, near C-Term) - Images

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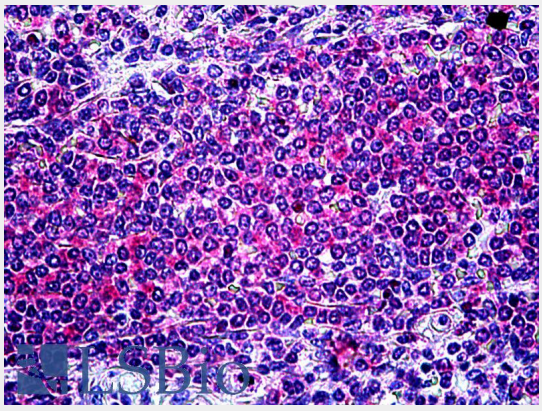
AF1575a staining (2 µg/ml) of Jurkat lysate (RIPA buffer, 1.4E+05 cells per lane). Primary incubated for 12 hour. Detected by western blot using chemiluminescence.

EB08802 (0.1µg/ml) staining of Rat Thymus lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.



EB08802 (3.75µg/ml) staining of paraffin embedded Human Spleen. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

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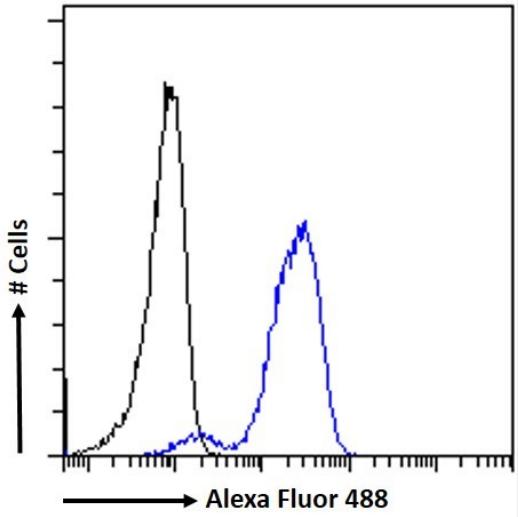

EB08802 Flow cytometric analysis of paraformaldehyde fixed Jurkat cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (1ug/ml). IgG control: Unimmunized goat IgG (black line)

ITK Antibody (internal, near C-Term) - References

Memory phenotype CD8+ T cells with innate function selectively develop in the absence of active Itk Hu J, Sahu N, Walsh E, August A Eur J Immunol. 2007 Oct;37(10):2892-9 PMID: 17724684