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Goat Anti-ITK Antibody

Peptide-affinity purified goat antibody
Catalog # AF1575a

Specification

Goat Anti-ITK Antibody - Product Information

Application	**WB, E**
Primary Accession	Q08881
Other Accession	NP_005537, 3702, 16428 (mouse)
Reactivity	**Human**
Predicted	**Mouse**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**71831**

Goat Anti-ITK 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

Dilution
WB~~1:1000
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, 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
Goat Anti-ITK Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-ITK 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: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.

Goat Anti-ITK 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 Cytomety
- Cell Culture

Goat Anti-ITK Antibody - Images

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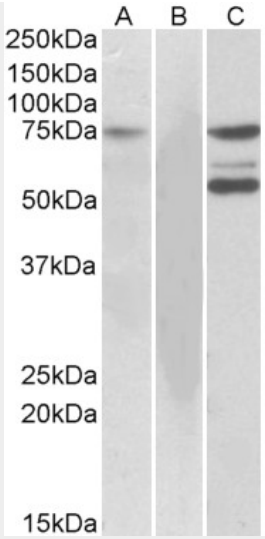

HEK293 lysate (10ug protein in RIPA buffer) overexpressing Human (ITK) with DYKDDDDK tag probed with AF1575a (1ug/ml) in Lane A and probed with anti-DYKDDDDK Tag (1/10000) in lane C. Mock-transfected HEK293 probed with EB10338 (1mg/ml) in Lane B. Primary

Goat Anti-ITK Antibody - Background

This gene encodes an intracellular tyrosine kinase expressed in T-cells. The protein contains both SH2 and SH3 domains which are often found in intracellular kinases. It is thought to play a role in T-cell proliferation and differentiation.

Goat Anti-ITK Antibody - References

In vivo significance of ITK-SLP-76 interaction in cytokine production. Grasis JA, et al. Mol Cell Biol, 2010 Jul. PMID 20457812.
The fusion kinase ITK-SYK mimics a T cell receptor signal and drives oncogenesis in conditional mouse models of peripheral T cell lymphoma. Pechloff K, et al. J Exp Med, 2010 May 10. PMID 20439541.
Identification of SH3 domain interaction partners of human FasL (CD178) by phage display screening. Voss M, et al. BMC Immunol, 2009 Oct 6. PMID 19807924.
The Tec family kinase Itk exists as a folded monomer in vivo. Qi Q, et al. J Biol Chem, 2009 Oct 23. PMID 19717557.
Tacrolimus differentially regulates the proliferation of conventional and regulatory CD4(+) T cells. Kogina K, et al. Mol Cells, 2009 Aug 31. PMID 19714314.

Goat Anti-ITK Antibody - Citations

- Cannabinoid Receptors Are Overexpressed in CLL but of Limited Potential for Therapeutic Exploitation.