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LCK Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8484b

Specification

LCK Antibody - Product Information

Application	**IF, WB, IHC-P, FC,E**
Primary Accession	P06239
Reactivity	**Human**
Host	**Mouse**
Clonality	**monoclonal**
Isotype	**IgG1,k**
Calculated MW	**58001**

LCK Antibody - Additional Information

Gene ID 3932

Other Names
Tyrosine-protein kinase Lck, Leukocyte C-terminal Src kinase, LSK, Lymphocyte cell-specific protein-tyrosine kinase, Protein YT16, Proto-oncogene Lck, T cell-specific protein-tyrosine kinase, p56-LCK, LCK

Target/Specificity
This LCK antibody is generated from a mouse immunized with a recombinant protein.

Dilution
IF~~1:25
WB~~1:2000
IHC-P~~1:25
FC~~1:25

Format
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
LCK Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

LCK Antibody - Protein Information

Name LCK

Function Non-receptor tyrosine-protein kinase that plays an essential role in the selection and

maturation of developing T-cells in the thymus and in the function of mature T-cells. Plays a key role in T- cell antigen receptor (TCR)-linked signal transduction pathways. Constitutively associated with the cytoplasmic portions of the CD4 and CD8 surface receptors. Association of the TCR with a peptide antigen- bound MHC complex facilitates the interaction of CD4 and CD8 with MHC class II and class I molecules, respectively, thereby recruiting the associated LCK protein to the vicinity of the TCR/CD3 complex. LCK then phosphorylates tyrosine residues within the immunoreceptor tyrosine- based activation motifs (ITAM) of the cytoplasmic tails of the TCR- gamma chains and CD3 subunits, initiating the TCR/CD3 signaling pathway. Once stimulated, the TCR recruits the tyrosine kinase ZAP70, that becomes phosphorylated and activated by LCK. Following this, a large number of signaling molecules are recruited, ultimately leading to lymphokine production. LCK also contributes to signaling by other receptor molecules. Associates directly with the cytoplasmic tail of CD2, which leads to hyperphosphorylation and activation of LCK. Also plays a role in the IL2 receptor-linked signaling pathway that controls the T-cell proliferative response. Binding of IL2 to its receptor results in increased activity of LCK. Is expressed at all stages of thymocyte development and is required for the regulation of maturation events that are governed by both pre-TCR and mature alpha beta TCR. Phosphorylates other substrates including RUNX3, PTK2B/PYK2, the microtubule-associated protein MAPT, RHOH or TYROBP. Interacts with FYB2 (PubMed:27335501).

Cellular Location
Cell membrane; Lipid-anchor; Cytoplasmic side Cytoplasm, cytosol. Note=Present in lipid rafts in an inactive form.

Tissue Location
Expressed specifically in lymphoid cells.

LCK 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

LCK Antibody - Images

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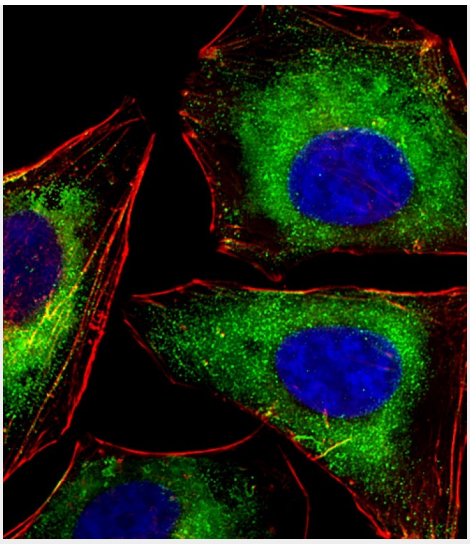
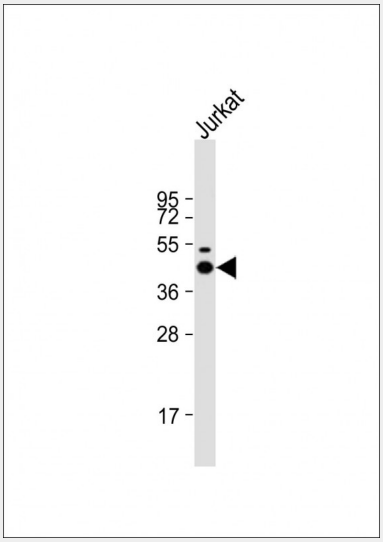


Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervical epithelial adenocarcinoma cell line) cells labeling LCK with AM8484b at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-mouse IgG (NA166821) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm staining on HeLa cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (PD18466410) at 1/100 dilution (red).The nuclear counter stain is DAPI (blue).



Anti-LCK Antibody at 1:2000 dilution + Jurkat whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 58 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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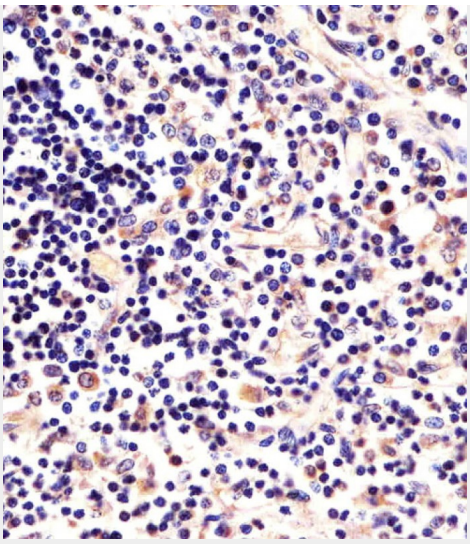
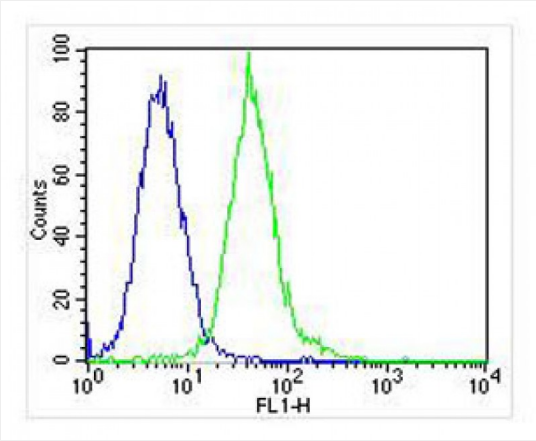


AM8484b staining LCK in human thymus sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



Overlay histogram showing Jurkat cells stained with AM8484b (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AM8484b, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Mouse IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(NA168821) at 1/400 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was mouse IgG (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

LCK Antibody - Background

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LCK Antibody - References

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