

Rabbit LCK Polyclonal Antibody | anti-LCK antibody

LCK Antibody

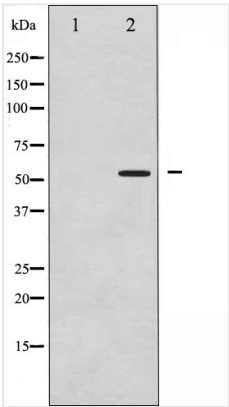
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA322184	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

LCK; Polyclonal Antibody; LCK Antibody; IMD22; Lck p56; LCK proto-oncogene; Src family tyrosine kinase; LCK_HUMAN; Leukocyte C-terminal Src kinase; LSK; Lymphocyte cell specific protein tyrosine kinase; Lymphocyte cell-specific protein-tyrosine kinase; Lymphocyte specific protein tyrosine kinase; Membrane associated protein tyrosine kinase; Oncogene lck; P56 LCK; p56(LSTRA) protein tyrosine kinase; p56-LCK; p56lck; pp58 lck; pp58lck; Protein YT16; Proto oncogene tyrosine protein kinase LCK; Proto-oncogene Lck; Protooncogene tyrosine protein kinase LCK; T cell specific protein tyrosine kinase; T cell-specific protein-tyrosine kinase; T lymphocyte specific protein tyrosine kinase p56lck; Tyrosine-protein kinase Lck; YT 16; YT16; anti-LCK antibody

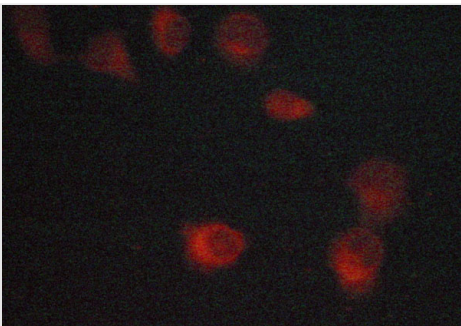
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Lck antibody detects endogenous levels of total Lck
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	509
Applicable Applications for anti-LCK antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human Lck
Subcellular Location	Cytoplasm. Cell Membrane. Present in lipid rafts in an inactive form.
Tissue Specificity	Expressed specifically in lymphoid cells.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



WB (Western Blot)

Western blot analysis of Lck expression in Jurkat whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



IF (Immunofluorescence)

AAA322184 staining MCF-7 cells by ICC/IF. Cells were fixed with PFA and permeabilized in 0.1% saponin prior to blocking in 10% serum for 45 minutes at 37 degree C. The primary antibody was diluted 1/400 and incubated with the sample for 1 hour at 37 degree C. A Alexa Fluor 594 conjugated goat polyclonal to rabbit IgG (H+L), diluted 1/600 was used as secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-LCK antibody

Description: Tyrosine kinase that plays an essential role for the selection and maturation of developing t-cell in the thymus and in mature t-cell function.

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).

Subunit Structure: Binds to the cytoplasmic domain of cell surface receptors, such as AXL, CD2, CD4, CD5, CD8, CD44, CD45 and CD122. Also binds to effector molecules, such as PI4K, VAV1, RASA1, FYB1 and to other protein kinases including CDK1, RAF1, ZAP70 and SYK. Binds to phosphatidylinositol 3'-kinase (PI3K) from T-lymphocytes through its SH3 domain and to the tyrosine phosphorylated form of KHDRBS1/p70 through its SH2 domain. Binds to HIV-1 Nef through its SH3 domain. This interaction inhibits its tyrosine-kinase activity. Interacts with herpes simplex virus 1 UL46; this interaction activates LCK. Interacts with SQSTM1. Interacts with phosphorylated LIME1. Interacts with CBLB and PTPRH. Interacts with RUNX3. Forms a signaling complex with EPHA1, PTK2B AND PI3-KINASE; upon activation by EFNA1 which may regulate T-lymphocyte migration. Associates with ZAP70 and RHOH; these interactions allow LCK-mediated RHOH and CD3 subunit phosphorylation in the presence of functional ZAP70. Interacts with UNC119; this interaction plays a crucial role in activation of LCK. Interacts with CEACAM1 (via cytoplasmic domain); mediates CEACAM1 phosphorylation resulting in PTPN6 recruitment that dephosphorylates TCR stimulation-induced CD247 and ZAP70 (PubMed:18424730).

Post-translational Modifications: Autophosphorylated on Tyr-394, increasing enzymatic activity, this site is dephosphorylated by PTN22. Phosphorylated on Tyr-505 by CSK, decreasing activity. Dephosphorylated by PTPRC/CD45. Dephosphorylation at Tyr-394 by PTPN2 negatively regulates T-cell receptor signaling. Myristoylation is required prior to palmitoylation. Palmitoylation regulates subcellular location.

Similarity: The SH2 domain mediates interaction with SQSTM1. Interaction is regulated by Ser-59 phosphorylation. Belongs to the protein kinase superfamily. Tyr protein kinase family. SRC subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	112789548
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NCBI GeneID	3932
NCBI Accession #	NP_001036236.1
NCBI GenBank Nucleotide #	NM_001042771.2
UniProt Accession #	P06239 ; P07100 ; Q12850 ; Q13152 ; Q5TDH8 ; Q5TDH9 ; Q7RTZ3 ; Q96DW4 ; Q9NYT8 ; D3DPP8
Molecular Weight	Observed: 56 kDa Predicted: 59 kDa
NCBI Official Full Name	tyrosine-protein kinase Lck isoform a
NCBI Official Synonym Full Names	LCK proto-oncogene, Src family tyrosine kinase
NCBI Official Symbol	LCK
NCBI Official Synonym Symbols	LSK; YT16; IMD22; p56lck; pp58lck
NCBI Protein Information	tyrosine-protein kinase Lck
UniProt Protein Name	Tyrosine-protein kinase Lck
UniProt Gene Name	LCK
UniProt Synonym Gene Names	LSK

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://www.aaabiotech.com/polyclonal/lck-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/322184>