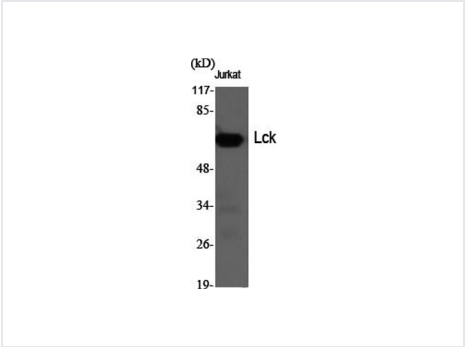
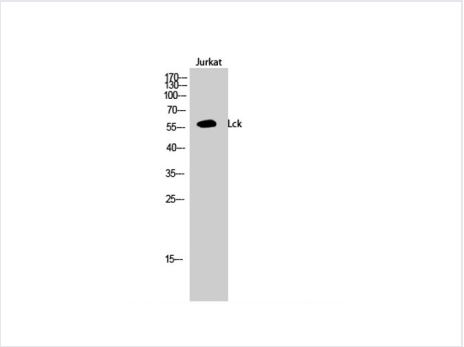
LCK Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Lck, Polyclonal Antibody
Full Product Name	Lck Polyclonal Antibody
Product Gene Name	anti-Lck antibody
Product Synonym Names	LCK; 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
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Purity/Purification	Antigen Affinity Purified
Concentration	1 mg/ml (lot specific)
Preparation and Storage	Store at -20 degree C. Avoid freeze / thaw cycles.
Molecular Weight	Calculated MW: 58 Observed MW: 58
OMIM	153390
Immunogen	Synthesized peptide derived from human Lck around the non-phosphorylation site of S540.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Santa Cruz Alternative	Potential replacement for Santa Cruz Biotechnology antibody catalog# sc-32014 / sc-13 / sc-28882
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-Lck antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-Lck antibody	WB: 1:500-1:2000, ELISA: 1:5000-1:20000
Related Product Information for anti-Lck antibody	MBS2539700 is an antibody targeting Lck. Also known as Lck Polyclonal Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.
Other Notes	Small volumes of anti-Lck antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-Lck antibody
Western Blot analysis of Jurkat cells with Lck Polyclonal Antibody.



Western Blot (WB) of anti-Lck antibody
Western Blot analysis of Jurkat cells with Lck Polyclonal Antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Lck. It may not necessarily be applicable to this product.

NCBI GI #	349702
NCBI GeneID	3932
NCBI Accession #	AAA59503.1
UniProt Secondary Accession #	P07100; Q12850; Q13152; Q5TDH8; Q5TDH9; Q7RTZ3; Q96DW4; Q9NYT8; D3DPP8
UniProt Related Accession #	P06239
NCBI Official Full Name	LCK, partial
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
UniProt Protein Name	Tyrosine-protein kinase Lck
UniProt Synonym Protein Names	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
Protein Family	Proto-oncogene tyrosine-protein kinase
UniProt Gene Name	LCK
UniProt Synonym Gene Names	LSK
UniProt Entry Name	LCK_HUMAN
NCBI Protein Information	tyrosine-protein kinase Lck
NCBI Summary for Lck	This gene is a member of the Src family of protein tyrosine kinases (PTKs). The encoded protein is a key signaling molecule in the selection and maturation of developing T-cells. It contains N-terminal sites for myristylation and palmitylation, a PTK domain, and SH2 and SH3 domains which are involved in mediating protein-protein interactions with phosphotyrosine-containing and proline-rich motifs, respectively. The protein localizes to the plasma membrane and pericentrosomal vesicles, and binds to cell surface receptors, including CD4 and CD8, and other signaling molecules. Multiple alternatively spliced variants, encoding the same protein, have been described. [provided by RefSeq, Jul 2008]

UniProt Comments for Lck	Lck: a tyrosine kinase of the Src family that is crucial to antigen-receptor signaling in lymphocytes. plays an essential role for the selection and maturation of developing T-cell in the thymus and in mature T-cell function. Is constitutively associated with the cytoplasmic portions of the CD4 and CD8 surface receptors and plays a key role in T-cell antigen receptor(TCR)-linked signal transduction pathways. 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, and thereby recruits the associated LCK to the vicinity of the TCR/CD3 complex. LCK then phosphorylates tyrosines residues within the immunoreceptor tyrosines-based activation motifs (ITAMs) in the cytoplasmic tails of the TCRgamma chains and CD3 subunits, initiating the TCR/CD3 signaling pathway. In addition, contributes to signaling by other receptor molecules. Associates directly with the cytoplasmic tail of CD2, and upon engagement of the CD2 molecule, LCK undergoes hyperphosphorylation and activation. Also plays a role in the IL2 receptor-linked signaling pathway that controls 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. Binds to the cytoplasmic domain of cell surface receptors, such as CD2, CD4, CD5, CD8, CD44, CD45 and CD122. Also binds to effector molecules, such as PI4K, VAV1, RASA1, FYB and to other protein kinases including CDC2, RAF1, ZAP70 and SYK. Binds to phosphatidylinositol 3'-kinase (PI3K) from T-lymphocytes through its SH3 domain and to the tyrosine phosphorylated form of Sam68 through its SH2 domain. Binds to HIV-1 Nef through its SH3 domain. This interaction inhibits its tyrosine-kinase activity. Overexpression in mice leads to thymic tumors. Aberrant expression is seen in T cell leukemias and colon cancer. The leukemic translocation t(1;7)(p34;q34) has breakpoints at the T cell receptor gene and close to the Lck promoters, can cause increased Lck expression, and in one case, point mutations. A mutated Lck has also been seen in a cell line. One patient with aberrant Lck splicing suffered from SCID-like T cell deficiency. Inhibitor: BMS-279700. Three alternatively spliced isoforms of the human proteinhave been described. Protein type: EC 2.7.10.2; Oncoprotein; Protein kinase, TK; Protein kinase, tyrosine (non-receptor); Kinase, protein; TK group; Src family Chromosomal Location of Human Ortholog: 1p34.3 Cellular Component: cytosol; extrinsic to internal side of plasma membrane; immunological synapse; intercellular junction; lipid raft; pericentriolar material; plasma membrane Molecular Function: ATP binding; ATPase binding; CD4 receptor binding; CD8 receptor binding; glycoprotein binding; identical protein binding; non-membrane spanning protein tyrosine kinase activity; phosphoinositide 3-kinase binding; protein binding; protein C-terminus binding; protein kinase binding; protein phosphatase binding; protein serine/threonine phosphatase activity; protein-tyrosine kinase activity; SH2 domain binding Biological Process: B cell receptor signaling pathway; blood coagulation; caspase activation; cellular zinc ion homeostasis; epidermal growth factor receptor signaling pathway; fibroblast growth factor receptor signaling pathway; hemopoiesis; innate immune response; leukocyte migration; nerve growth factor receptor signaling pathway; phosphoinositide-mediated signaling; platelet activation; positive regulation of gamma-delta T cell differentiation; positive regulation of T cell activation; positive regulation of T cell receptor signaling pathway; positive regulation of tyrosine phosphorylation of Stat5 protein; protein amino acid dephosphorylation; protein amino acid phosphorylation; regulation of cell proliferation; regulation of defense response to virus by virus; regulation of lymphocyte activation; regulation of regulatory T cell differentiation; release of sequestered calcium ion into cytosol; response to drug; T cell costimulation; T cell differentiation; T cell receptor signaling pathway; transmembrane receptor protein tyrosine kinase signaling pathway; viral reproduction Disease: Immunodeficiency 22
Research Articles on Lck	**1.** These findings demonstrate highly dynamic Lck palmitoylation kinetics that are essential for signaling downstream of the Fas receptor.
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