



## LCK Antibody

E2200677

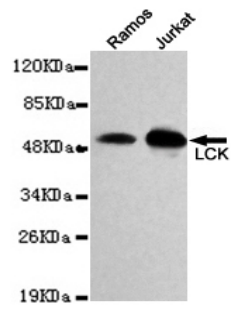
**For Research Use Only**

**Catalog Number:** E2200677  
**Size:** 100ug  
**Host:** Mouse  
**Formulation:** Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.2% sodium azide, 50% glycerol  
**Sensitivity:** This antibody detects endogenous levels of LCK and does not cross-react with related proteins.

**Entrez summary:** 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 palmitoylation, 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.

**UniPort summary**  
**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 tyrosines 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.

**Immunogen:** Purified recombinant human LCK protein fragments expressed in E.coli.  
**Antibody Type:** Monoclonal antibody  
**Isotype:** IgG1  
**Purified method:** Affinity purified  
**Subcellular location:** Mitochondrion matrix.  
**Reactivity:** H  
**Applications:** WB  
**Molecular Weight:** 58kDa  
**UniProt number:** P06239  
**GeneBank ID:** NM\_001042771.1  
**Gene symbol:** LSK; YT16; p56lck; pp58lck  
**Alternate names:** Leukocyte tyrosine kinase; Lymphocyte cell-specific protein-tyrosine kinase; Protein YT16; Proto-oncogene Lck; T cell-specific protein-tyrosine kinase; p56-LCK Short name=LSK Lymphocyte cell-specific protein-tyrosine kinase Protein YT16 Proto-oncogene Lck T cell-specific protein-tyrosine kinase p56-LCK



Western blot detection of LCK in Jurkat&Ramos cell lysates and using LCK antibody (1:1000 diluted).  
Predicted band size: 58KDa Observed band size: 58KDa.