

35-1320: Polyclonal Antibody to Lck (phospho-Tyr505)

Clonality :	Polyclonal
Application :	WB
Reactivity :	Human
Gene :	LCK
Gene ID :	3932
Uniprot ID :	P06239
Format :	Purified
Alternative Name :	Lymphocyte cell-specific protein-tyrosine kinase, p56-LCK, LSK, T cell-specific protein-tyrosine kinase
Isotype :	Rabbit IgG
Immunogen Information :	Peptide sequence around phosphorylation site of tyrosine 505 (G-Q-Y(p)-Q-P) derived from Human Lck.

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. 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 a beta TCR. Heck E, et al. (2006) J Virol. Oct; 80(20): 9934-9942 Michie AM, et al. (2000) Mol Biol Cell. May; 11(5): 1585-1595

Product Info

Amount :	50 µl / 100 µl
Content :	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage condition :	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

Application Note

Predicted MW: 56kd, Western blotting: 1:500~1:1000

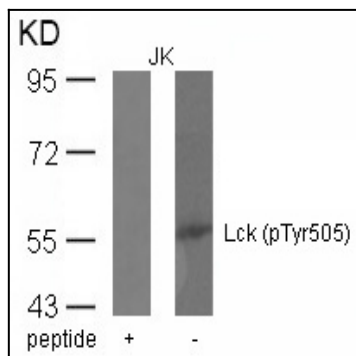


Figure 1: Western blot analysis of extracts from JK cells using Lck(phospho-Tyr505) Antibody 35-1320 and the same antibody preincubated with blocking peptide.

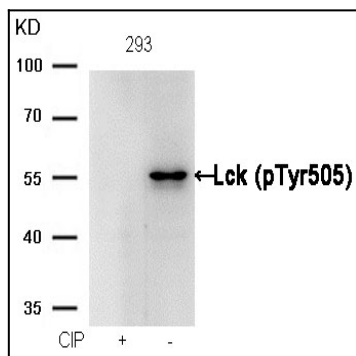


Figure 2: Western blot analysis of extracts from 293 cells, treated with calf intestinal phosphatase (CIP), using Lck (phospho-Tyr505) Antibody 35-1320 .