10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Mouse Lck Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21611c

Product Information

Application	WB, E
Primary Accession	P06240
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB50269
Calculated MW	57943

Additional Information

Gene ID	16818
Other Names	Proto-oncogene tyrosine-protein kinase LCK, Leukocyte C-terminal Src kinase, LSK, Lymphocyte cell-specific protein-tyrosine kinase, p56-LCK, Lck, Lsk-t
Target/Specificity	This Mouse Lck antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 224-257 amino acids from the Central region of Mouse Lck.
Dilution	WB~~1:2000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	Mouse Lck Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Lck
Synonyms	Lsk-t
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 (By similarity). Interacts with UNC119; this interaction plays a crucial role in activation of LCK (By similarity).
Cellular Location	Cell membrane; Lipid-anchor; Cytoplasmic side. Cytoplasm, cytosol. Note=Present in lipid rafts in an inactive form. {ECO:0000250|UniProtKB:P06239}
Tissue Location	Present at a low level in most T-cells, and at an elevated level in LSTRA and Thy19 (T-cell lymphoma) cells

Background

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 (By similarity). Interacts with UNC119; this interaction plays a crucial role in activation of LCK (By similarity).

References

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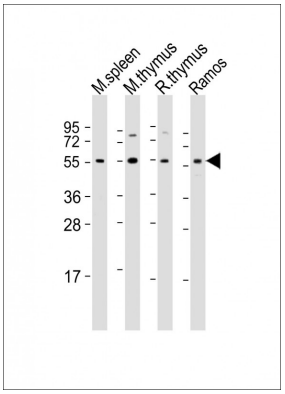
Images



All lanes : Anti-Lck Antibody (Center) at 1:2000 dilution Lane 1: mouse spleen lysate Lane 2: mouse thymus lysate Lane 3: rat thymus lysate Lane 4: Ramos whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 58 kDa Blocking/Dilution buffer: 5% NFDM/TBST.