

Mouse Lck Antibody (Center)

Catalog_no: AB3407

Reactivity: H, M, Rat

Category: 抗原抗体

Size: $100\mu L/50\mu L$

Immunogen: HUMAN

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;

Other_name: Proto-oncogene tyrosine-protein kinase LCK, Leukocyte C-terminal Src kinase, LSK,

Lymphocyte cell-specific protein-tyrosine kinase, p56-LCK, Lck, Lsk-t

Isotype: Rabbit Ig

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).

reference: Marth J.D., et al. Cell 43:393-404(1985). Voronova A.F., et al. Nature 319:682-685(1986).

Carninci P., et al. Science 309:1559-1563(2005). Garvin A.M., et al. Mol. Cell. Biol.

8:3058-3064(1988). Voronova A.F., et al. Mol. Cell. Biol. 7:4407-4413(1987).