

**Anti-Lck Picoband Antibody**  
Catalog # ABO12494**Specification****Anti-Lck Picoband Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P06239</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Tyrosine-protein kinase Lck(LCK) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-Lck Picoband Antibody - Additional Information**

**Gene ID** 3932

**Other Names**

Tyrosine-protein kinase Lck, 2.7.10.2, 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, LCK

**Calculated MW**

58001 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat  
Western blot, 0.1-0.5 µg/ml, Human

**Subcellular Localization**

Cytoplasm . Cell membrane ; Lipid-anchor ; Cytoplasmic side . Present in lipid rafts in an inactive form.

**Tissue Specificity**

Expressed specifically in lymphoid cells.

**Protein Name**

Tyrosine-protein kinase Lck

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human Lck (468-506aa)

ELYQLMRLCWKERPEDRPTFDYLRVLEDDFFATGEGQYQ), different from the related mouse and rat sequences by three amino acids.

#### **Purification**

Immunogen affinity purified.

#### **Cross Reactivity**

No cross reactivity with other proteins.

#### **Storage**

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

### **Anti-Lck Picoband Antibody - Protein Information**

#### **Name** LCK

#### **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. Interacts with FYB2 (PubMed:<a href="http://www.uniprot.org/citations/27335501" target="\_blank">27335501</a>).

#### **Cellular Location**

Cell membrane; Lipid-anchor; Cytoplasmic side Cytoplasm, cytosol. Note=Present in lipid rafts in an inactive form.

#### **Tissue Location**

Expressed specifically in lymphoid cells.

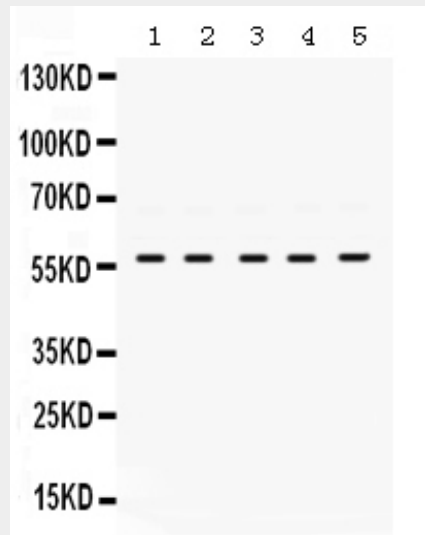
### **Anti-Lck Picoband Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

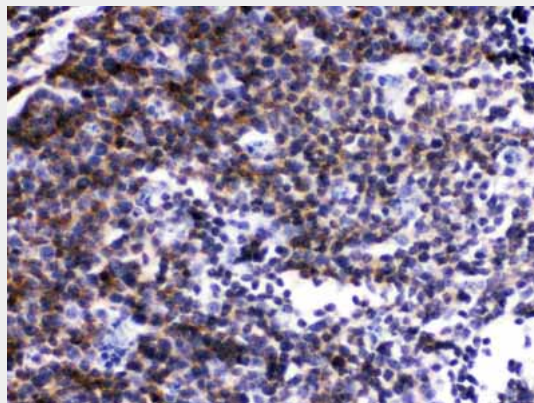
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)

- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

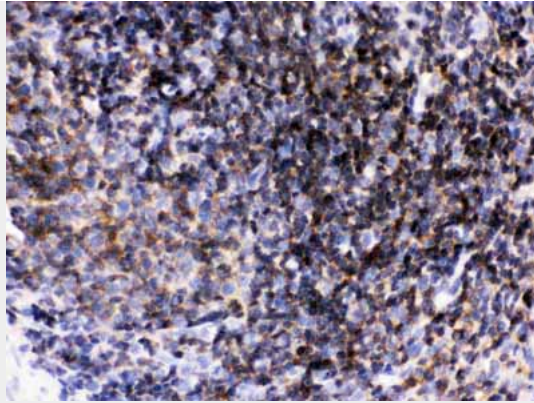
### Anti-Lck Picoband Antibody - Images



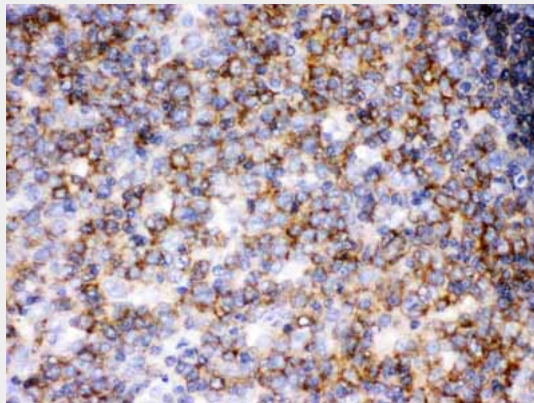
Anti- Lck Picoband antibody, ABO12494, Western blotting All lanes: Anti Lck (ABO12494) at 0.5ug/ml Lane 1: HUT Whole Cell Lysate at 40ug Lane 2: JURKAT Whole Cell Lysate at 40ug Lane 3: RAJI Whole Cell Lysate at 40ug Lane 4: CEM Whole Cell Lysate at 40ug Lane 5: K562 Whole Cell Lysate at 40ug Predicted bind size: 58KD Observed bind size: 58KD



Anti- Lck Picoband antibody, ABO12494, IHC(P) IHC(P): Mouse Lymphaden Tissue



Anti- Lck Picoband antibody, ABO12494, IHC(P)IHC(P): Rat Lymphaden Tissue



Anti- Lck Picoband antibody, ABO12494, IHC(P)IHC(P): Human Tonsil Tissue

#### **Anti-Lck Picoband Antibody - Background**

Lck (or lymphocyte-specific protein tyrosine kinase) is a 56 kDa protein that is found inside specialized cells of the immune system called lymphocytes. The human LCK gene is mapped to chromosome 1p35-p32. 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.