

**DESCRIPTION**

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Lck in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant rat Lck is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>2A</sub> Clone # 693010
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Lck Met1-Val66 Accession # P06239
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

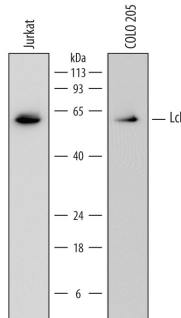
**APPLICATIONS**

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.2 µg/mL	See Below
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below
<b>Intracellular Staining by Flow Cytometry</b>	2.5 µg/10 <sup>6</sup> cells	See Below
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

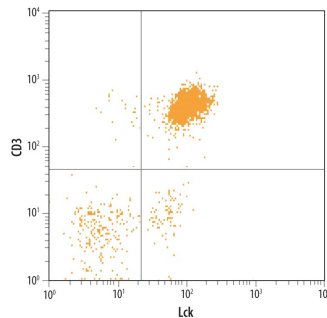
**DATA**

**Western Blot**



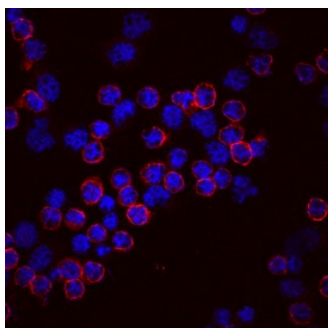
**Detection of Human Lck by Western Blot.** Western blot shows lysates of Jurkat human acute T cell leukemia cell line and COLO 205 human colorectal adenocarcinoma cell line. PVDF membrane was probed with 0.2 µg/mL of Mouse Anti-Human Lck Monoclonal Antibody (Catalog # MAB37041) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Lck at approximately 56 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Intracellular Staining by Flow Cytometry**



**Detection of Lck in Human Blood Lymphocytes by Flow Cytometry.** Human peripheral blood lymphocytes were stained with Mouse Anti-Human Lck Monoclonal Antibody (Catalog # MAB37041) followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B) and Mouse Anti-Human CD3ε APC-conjugated Monoclonal Antibody (Catalog # FAB100A). Quadrant markers were set based on control antibody staining (Catalog # MAB003).

**Immunocytochemistry**



**Lck in Human PBMCs.** Lck was detected in immersion fixed human peripheral blood mononuclear cells (PBMCs) using Mouse Anti-Human Lck Monoclonal Antibody (Catalog # MAB37041) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm and cell surfaces. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### BACKGROUND

Lck (p56lck) is a 56 kDa cytosolic phosphoprotein within the Src family of non-receptor tyrosine kinases. The 509 amino acid (aa) human Lck contains an SH3 domain (aa 61-121), an SH2 domain (aa 127-224) and a protein kinase domain (aa 251-259). Within aa 2-66, human Lck shares 89% aa sequence identity with mouse and rat Lck. A short (363 aa) isoform contains alternate sequence starting at aa 348, while a 539 aa isoform contains inserted sequence after aa 321. Lck interacts with T cell CD4 and CD8 molecules and plays a pivotal role in regulating T cell activation. It can be overexpressed in cancers and functions as an oncogene.