

Product datasheet for **AP09466PU-N**

LCK pTyr505 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	Western Blot: 1/500-1/1000. Incubate membrane with diluted antibody in 5% nonfat milk, 1xTBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide sequence around the phosphorylation site of Tyrosine 505 (G-Q- γ -Q-P) derived from Human LCK.
Specificity:	This antibody detects endogenous levels of Lck only when phosphorylated at Tyrosine 505.
Formulation:	PBS (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150 mM NaCl, 0.02% Sodium Azide and 50% Glycerol. State: Aff - Purified State: Liquid purified Ig fraction.
Concentration:	lot specific
Purification:	Immunoaffinity Chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site.
Conjugation:	Unconjugated
Storage:	Store the antibody (in aliquots) at -20°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: One year from despatch.
Gene Name:	LCK proto-oncogene, Src family tyrosine kinase
Database Link:	Entrez Gene 16818 Mouse Entrez Gene 3932 Human P06239



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Background:

Lck is a lymphoid specific cytosolic protein tyrosine kinase (PTK), which is essential for T cell development and function. It 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 tyrosine residues within the immunoreceptor tyrosine based activation motifs (ITAMs) in the cytoplasmic tails of the TCR chains and CD3 subunits. The phosphoITAMs serve as docking sites for Src homology domain 2 (SH2) containing molecules, predominantly ZAP 70 and Syk. Only then can ZAP 70 undergo tyrosine phosphorylation, become enzymatically active and further phosphorylate downstream effector molecules. In addition, Lck contributes to signaling by other receptor molecules. 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 TCR. Lck (p56lck), a member of the Src family of non-receptor tyrosine protein kinases, is expressed predominantly in T cells.

Synonyms:

p56-LCK, LSK

Note:

Molecular Weight: 56 kDa

Protein Families:

Druggable Genome, Protein Kinase, Stem cell - Pluripotency

Protein Pathways:

Natural killer cell mediated cytotoxicity, Primary immunodeficiency, T cell receptor signaling pathway

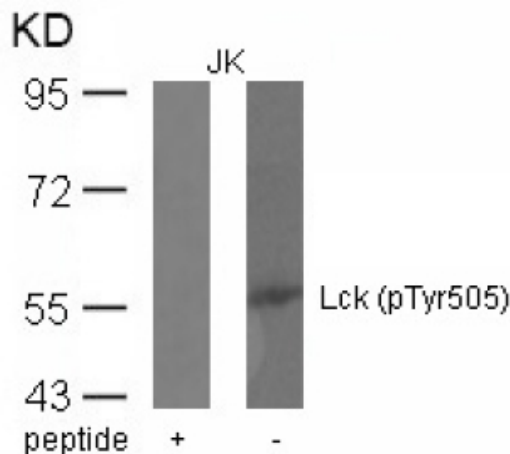
Product images:

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