

A6-269-C100

Monoclonal Antibody to Lck Alexa Fluor® 647 conjugated (0.1 mg)

Clone:	LCK-01
lsotype:	Mouse IgG1
Specificity:	The antibody LCK-01 recognizes defined epitope (aa 22-36) of Lck, a 56 kDa Src-family protein tyrosine kinase.
Regulatory Status:	RUO
Immunogen:	Peptide corresponding to amino acids 22-36 in the sequence of human Lck.
Species Reactivity:	Human
Negative Species:	Mouse
Preparation:	The purified antibody is conjugated with Alexa Fluor® 647 under optimum conditions. The conjugate is purified by size-exclusion chromatography.
Concentration:	1 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
Usage:	The reagent is designed for Flow Cytometry analysis. Suggested working dilution is 5 $\mu\text{g/ml}.$
Expiration:	See vial label
Lot Number:	See vial label
Background:	Lck is a Src-family tyrosine kinase, which is essential for signaling through the T-cell receptor (TCR) complex. Upon TCR triggering, Lck phosphorylates the ITAM motives in its zeta subunits, establishing binding sites for the SH2 domains of the tyrosine kinase ZAP70, which is also phosphorylated by Lck and thereby activated to generate subsequent signaling platforms by phosphorylation of adaptor LAT. Whereas the majority of Lck is localized to the plasma membrane, there is also a significant fraction associated with the Golgi apparatus, which may contribute to Raf activation under conditions of weak stimulation through the TCR. Lck is also involved in the regulation of apoptosis induced by various stimuli, but not by the death receptors.

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Antibodies References:

*Denny MF, Kaufman HC, Chan AC, Straus DB: The lck SH3 domain is required for activation of the mitogen-activated protein kinase pathway but not the initiation of T-cell antigen receptor signaling. J Biol Chem. 1999 Feb 19;274(8):5146-52.

*Gruber C, Henkel M, Budach W, Belka C, Jendrossek V: Involvement of tyrosine kinase p56/Lck in apoptosis induction by anticancer drugs. Biochem Pharmacol. 2004 May 15;67(10):1859-72.

*Hur YG, Yun Y, Won J: Rosmarinic acid induces p56lck-dependent apoptosis in Jurkat and peripheral T cells via mitochondrial pathway independent from Fas/Fas ligand interaction. J Immunol. 2004 Jan 1;172(1):79-87.

*Lovatt M, Filby A, Parravicini V, Werlen G, Palmer E, Zamoyska R: Lck regulates the threshold of activation in primary T cells, while both Lck and Fyn contribute to the magnitude of the extracellular signal-related kinase response. Mol Cell Biol. 2006 Nov;26(22):8655-65.

*Kim MJ, Park MT, Yoon CH, Byun JY, Lee SJ: Activation of Lck is critically required for sphingosine-induced conformational activation of Bak and mitochondrial cell death. Biochem Biophys Res Commun. 2008 May 30;370(2):353-8.

*Li M, Ong SS, Rajwa B, Thieu VT, Geahlen RL, Harrison ML: The SH3 domain of Lck modulates T-cell receptor-dependent activation of extracellular signal-regulated kinase through activation of Raf-1. Mol Cell Biol. 2008 Jan;28(2):630-41.

*Cebecauer M, Cerny J, Horejsi V.: Incorporation of leucocyte GPI-anchored proteins and protein tyrosine kinases into lipid-rich membrane domains of COS-7 cells. Biochem Biophys Res Commun. 1998 Feb 24;243(3):706-10.

*Romagnoli P, Strahan D, Pelosi M, Cantagrel A, van Meerwijk JP.: A potential role for protein tyrosine kinase p56(lck) in rheumatoid arthritis synovial fluid T lymphocyte hyporesponsiveness. Int Immunol. 2001 Mar;13(3):305-12.

*Meraner P, Horejsí V, Wolpl A, Fischer GF, Stingl G, Maurer D: Dendritic cells sensitize TCRs through self-MHC-mediated Src family kinase activation. J Immunol. 2007 Feb 15;178(4):2262-71.

*Brdicková N, Brdicka T, Ángelisová P, Horváth O, Spicka J, Hilgert I, Paces J, Simeoni L, Kliche S, Merten C, Schraven B, Horejsí V: LIME: a new membrane Raft-associated adaptor protein involved in CD4 and CD8 coreceptor signaling. J Exp Med. 2003 Nov 17;198(10):1453-62.

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EXBIO Praha | Nad Safinou II 341 | 252 50 Vestec u Prahy | Czech Republic Tel: +420 261 090 666 | Fax: +420 261 090 660 | orders@exbio.cz | www.exbio.cz