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Datasheet for ABIN967742
anti-LCK antibody (AA 1-191)

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Overview

Quantity:	50 µg
Target:	LCK
Binding Specificity:	AA 1-191
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This LCK antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP)

Product Details

Immunogen:	Human Lck aa. 1-191
Clone:	28-Lck
Isotype:	IgG1
Cross-Reactivity:	Mouse (Murine), Rat (Rattus)
Characteristics:	<ol style="list-style-type: none">1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.2. Please refer to us for technical protocols.3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

Product Details

Purification: The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target: LCK

Alternative Name: Lck ([LCK Products](#))

Background: The p56[lck] protein kinase is a member of the src family of cytoplasmic protein-tyrosine kinases (PTKs). Members of this family have several common features: 1) unique N-terminal domains, 2) attachment to cellular membranes through a myristylated N-terminus, and 3) homologous SH2, SH3, and catalytic domains. Within the src family of PTKs, lck, fyn, and Yes are expressed in T cells. The unique N-terminal domain of p56[lck] interacts with the cytoplasmic tails of the CD4 and CD8 cell surface glycoproteins. CD4 and CD8 bind to surface major histocompatibility complex (MHC) class II and class I molecules, respectively. These complexes interact with the T cell antigen receptor (TCR) in the early stages of T cell activation. In addition, an activated lck kinase increases responsiveness of some T cell hybridomas to antigen. The phosphorylation status and, therefore, the activity of p56[lck] kinase is regulated by the CD45 tyrosine protein phosphatase. Several studies suggest that lck has many functions critical to T cell development and activation. Mice lacking a functional lck gene are drastically impaired in the production of T lymphocytes. Variants of the human Jurkat T cell line that do not express p56[lck] exhibit a diminished response to stimulation of the T cell receptor. Evidence suggests that lck is directly upstream from PI3-kinase in the signal transduction cascade in T cell activation.

Molecular Weight: 56 kDa

Pathways: [TCR Signaling](#), [Fc-epsilon Receptor Signaling Pathway](#), [EGFR Signaling Pathway](#), [Neurotrophin Signaling Pathway](#), [Transition Metal Ion Homeostasis](#), [Positive Regulation of Endopeptidase Activity](#), [CXCR4-mediated Signaling Events](#), [Thromboxane A2 Receptor Signaling](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Liquid

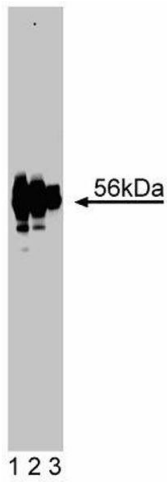
Concentration: 250 µg/mL

Handling

Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

- Product cited in:
- Zeyda, Staffler, Horejsi, Waldhausl, Stulnig: "LAT displacement from lipid rafts as a molecular mechanism for the inhibition of T cell signaling by polyunsaturated fatty acids." in: **The Journal of biological chemistry**, Vol. 277, Issue 32, pp. 28418-23, (2002) ([PubMed](#)).
- Maccalli, Pisarra, Vegetti, Sensi, Parmiani, Anichini: "Differential loss of T cell signaling molecules in metastatic melanoma patients' T lymphocyte subsets expressing distinct TCR variable regions." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 163, Issue 12, pp. 6912-23, (2000) ([PubMed](#)).
- Zhou, Magnuson, Cheng, Gadina, Frucht, Galon, Candotti, Geahlen, Changelian, OShea: "Hierarchy of protein tyrosine kinases in interleukin-2 (IL-2) signaling: activation of syk depends on Jak3; however, neither Syk nor Lck is required for IL-2-mediated STAT activation." in: **Molecular and cellular biology**, Vol. 20, Issue 12, pp. 4371-80, (2000) ([PubMed](#)).
- Xu, Littman: "A kinase-independent function of Lck in potentiating antigen-specific T cell activation." in: **Cell**, Vol. 74, Issue 4, pp. 633-43, (1993) ([PubMed](#)).
- Horak, Gress, Lucas, Horak, Waldmann, Bolen: "T-lymphocyte interleukin 2-dependent tyrosine protein kinase signal transduction involves the activation of p56lck." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 88, Issue 5, pp. 1996-2000, (1991) ([PubMed](#)).



Western Blotting

Image 1. Western blot analysis of Lck on jurkat lysate. Lane 1: 1:5000, lane 2: 1:10000, lane 3: 1:20000 dilution of Lck.

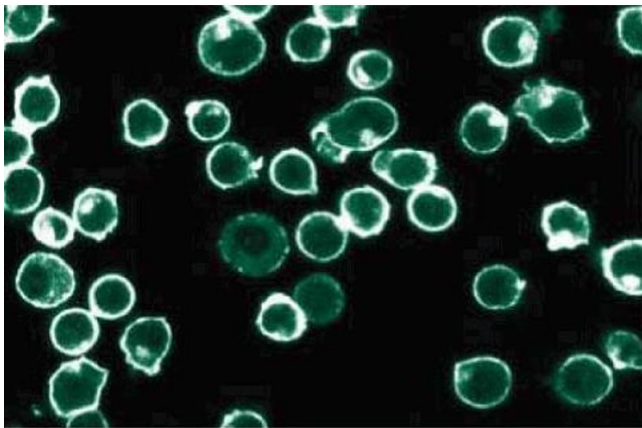
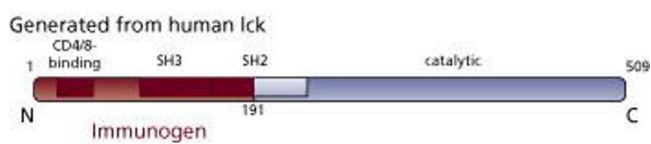


Image 2. Jurkat

Image 3.



Please check the [product details page](#) for more images. Overall 4 images are available for ABIN967742.