SANTA CRUZ BIOTECHNOLOGY, INC.

Lck (4H195): sc-71496

BACKGROUND

Src is the human homolog of the v-Src gene of the Rous sarcoma virus, also known as avian sarcoma virus, or ASV. Src was the first proto-oncogenic, non-receptor tyrosine kinase characterized in human. By virtue of common structural motifs, the Src family is composed of nine members in vertebrates, including Src, Yes, Fgr, Frk, Fyn, Lyn, Hck, Lck and Blk. Src family kinases transduce signals that are involved in the control of a variety of cellular processes, including proliferation, differentiation, motility and adhesion. Src family kinases contain an amino terminal cell membrane anchor, followed by an SH3 domain and an SH2 domain that are involved in modular association and activation, respectively. Src family kinases are normally maintained in an inactive state and can be activated transiently during cellular events such as mitosis. Different subcellular localizations of Src family kinases may be important for the regulation of specific cellular processes, such as mitogenesis, cytoskeletal organization and membrane trafficking. The Fyn and Lck Src family tyrosine kinases play a key role in T cell antigen receptor (TCR) signaling. The human Lck gene maps to chromosome 1p34.3 and encodes a 509 amino acid protein.

REFERENCES

1. Sakaguchi, A.Y. 1983. Genetic organization of human proto-oncogenes. Prog. Clin. Biol. Res. 119: 93-103.
2. Williams, J.C., Wierenga, R.K. and Saraste, M. 1998. Insights into Src kinase functions: structural comparisons. Trends Biochem. Sci. 23: 179-184.
3. Tatosyan, A.G. and Mizenina, O.A. 2000. Kinases of the Src family: structure and functions. Biochemistry 65: 49-58.
4. Bjorge, J.D., Jakymiw, A. and Fujita, D.J. 2000. Selected glimpses into the activation and function of Src kinase. Oncogene 19: 5620-5635.
5. Korade-Mirnics, Z. and Corey, S.J. 2000. Src kinase-mediated signaling in leukocytes. J. Leukoc. Biol. 68: 603-613.
6. Denny, M.F., Patai, B. and Straus, D.B. 2000. Differential T cell antigen receptor signaling mediated by the Src family kinases Lck and Fyn. Mol. Cell. Biol. 20: 1426-1435.
7. Gilmore, E.S., Stutts, M.J. and Milgram, S.L. 2001. Src family kinases mediate epithelial Na^+ channel inhibition by endothelin. J. Biol. Chem. 276: 42610-42617.
8. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 137025. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
9. LocusLink Report (LocusID: 3932). http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: LCK (human) mapping to 1p34.3; Lck (mouse) mapping to 4 D2.2.

SOURCE

Lck (4H195) is a mouse monoclonal antibody raised against synthetic peptide of Lck of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

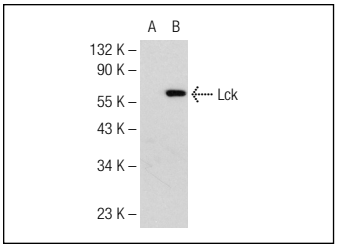
Lck (4H195) is recommended for detection of Lck of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Lck siRNA (h): sc-29392, Lck siRNA (m): sc-35799, Lck shRNA Plasmid (h): sc-29392-SH, Lck shRNA Plasmid (m): sc-35799-SH, Lck shRNA (h) Lentiviral Particles: sc-29392-V and Lck shRNA (m) Lentiviral Particles: sc-35799-V.

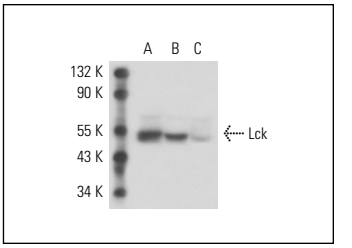
Molecular Weight of Lck: 56 kDa.

Positive Controls: CCRF-HSB-2 cell lysate: sc-2265, Jurkat whole cell lysate: sc-2204 or Lck (h4): 293 Lysate: sc-158678.

DATA



Lck (4H195): sc-71496. Western blot analysis of Lck expression in non-transfected: sc-110760 (**A**) and human Lck transfected: sc-158678 (**B**) 293 whole cell lysates.



Lck (4H195): sc-71496. Western blot analysis of Lck expression in CCRF-HSB-2 (**A**), Jurkat (**B**) and CCRF-CEM (**C**) whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.