

Lck (h4): 293 Lysate: sc-158678

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 1p35.1 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. Borge, 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-Mirnic, 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/>

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: LCK (human) mapping to 1p35.1.

PRODUCT

Lck (h4): 293 Lysate represents a lysate of human Lck transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

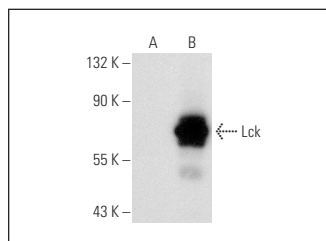
APPLICATIONS

Lck (h4): 293 Lysate is suitable as a Western Blotting positive control for human reactive Lck antibodies. Recommended use: 10-20 µl per lane.

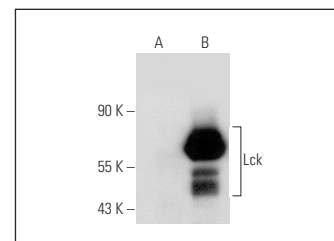
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

Lck (28): sc-135971 is recommended as a positive control antibody for Western Blot analysis of enhanced human Lck expression in Lck transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



Lck (28): sc-135971. Western blot analysis of Lck expression in non-transfected: sc-110760 (A) and human Lck transfected: sc-158678 (B) 293 whole cell lysates.



Lck (B-10): sc-166627. Western blot analysis of Lck expression in non-transfected: sc-110760 (A) and human Lck transfected: sc-158678 (B) 293 whole cell lysates.

RESEARCH USE

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