# Lck (h3): 293T Lysate: sc-170739



The Power to Question

#### **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**

- Sakaguchi, A.Y. 1983. Genetic organization of human proto-oncogenes. Prog. Clin. Biol. Res. 119: 93-103.
- 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.
- 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.
- 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 (h3): 293T Lysate represents a lysate of human Lck transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

# **APPLICATIONS**

Lck (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive Lck antibodies. Recommended use:  $10-20 \mu l$  per lane.

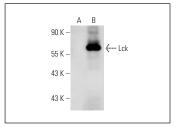
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Lck (B-10): sc-166627 is recommended as a positive control antibody for Western Blot analysis of enhanced human Lck expression in Lck transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

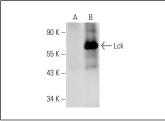
#### **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG $\kappa$  BP-HRP: sc-516102 or m-lgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>TM</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

#### **DATA**







Lck (D-8): sc-166628. Western blot analysis of Lck expression in non-transfected: sc-117752 (**A**) and human Lck transfected: sc-170739 (**B**) 293T whole cell lysates.

#### **RESEARCH USE**

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

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