

Lck (2102): sc-13

BACKGROUND

Src is the human homolog of the v-Src gene of the Rous sarcoma virus, also called 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.

CHROMOSOMAL LOCATION

Genetic locus: LCK (human) mapping to 1p35.1; Lck (mouse) mapping to 4 D2.2.

SOURCE

Lck (2102) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of Lck of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-13 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Lck (2102) is recommended for detection of Lck p56 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Lck (2102) is also recommended for detection of Lck p56 in additional species, including equine, canine, bovine and porcine.

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.

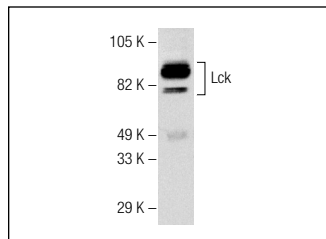
RESEARCH USE

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

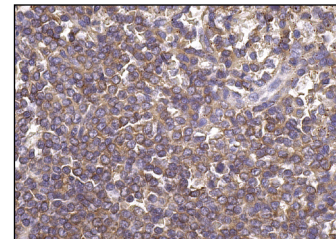
STORAGE

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

DATA



Lck (2102): sc-13. Western blot analysis of Lck expression in CCRF-HSB-2 whole cell lysate.



Lck (2102): sc-13. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing cytoplasmic staining of cells in white pulp.

SELECT PRODUCT CITATIONS

- Laham, L.E., et al. 2000. The activation loop in Lck regulates oncogenic potential by inhibiting basal kinase activity and restricting substrate specificity. *Oncogene* 19: 3961-3970.
- Saint-Ruf, C., et al. 2000. Different initiation of pre-TCR and $\gamma\delta$ TCR signalling. *Nature* 406: 524-527.
- Jury, E.C. and Isenberg, D.A. 2006. Atorvastatin restores Lck expression and lipid raft-associated signaling in T cells from patients with systemic lupus erythematosus. *J. Immunol.* 177: 7416-7422.
- Larbi, A., et al. 2006. Differential role of lipid rafts in the functions of CD4⁺ and CD8⁺ human T lymphocytes with aging. *Cell. Signal.* 18: 1017-1030.
- Trible, R.P. and Emert-Sediak, L. 2006. HIV-1 Nef selectively activates Src family kinases Hck, Lyn, and c-Src through direct SH3 domain interaction. *J. Biol. Chem.* 281: 27029-27038.
- Xu, T., et al. 2008. Critical role of Lck in L-selectin signaling induced by sulfatides engagement. *J. Leukoc. Biol.* 84: 1192-1201.
- Laguette, N., et al. 2009. Nef-induced CD4 endocytosis in human immunodeficiency virus type 1 host cells: role of p56lck kinase. *J. Virol.* 83: 7117-7128.
- Robles-Valero, J., et al. 2010. Integrin and CD3/TCR activation are regulated by the scaffold protein AKAP450. *Blood* 115: 4174-4184.
- Grasis, J.A., et al. 2010. In vivo significance of ITK-SLP-76 interaction in cytokine production. *Mol. Cell. Biol.* 30: 3596-3609.

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