SANTA CRUZ BIOTECHNOLOGY, INC.

Lck BP-1 (9): sc-135972

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The Power to Question

BACKGROUND

A total of eight membrane-associated tyrosine protein kinases have been identified within the Src gene family. These include c-Src, c-Yes, Fyn, Lck, Hck, Lyn, Blk and c-Fgr. The major translational product of the human Lck gene is a lymphocyte-specific tyrosine kinase designated pp56Lck. This is a membrane-associated molecule, most likely via covalently associated myristate at the amino terminus. The Lck gene has been shown to undergo rearrangement and overexpression in some murine lymphomas. In human studies, it has been demonstrated that the Lck gene is localized to a site in the genome which undergoes frequent chromosomal abnormalities in lymphomas and neuroblastomas. A novel Lck signaling intermediate, designated Lck BP-1, associates directly with the Lck SH3 domian via two proline-rich regions. Lck BP-1 also contains four tandem 37 amino acid repeats that form a putative helix-loop-helix DNA binding motif. Immunoprecipitation studies have shown that Lck BP-1 will co-immunoprecipitate with Lck from T cell lysates. Lck BP-1 is tyrosine phosphorylated in T cells subsequent to TCR activation.

REFERENCES

1. Marchildon, G.A., Casnellie, J.E., Walsh, K.A. and Krebs, E.G. 1984. Covalently bound myristate in a lymphoma tyrosine protein kinase. Proc. Natl. Acad. Sci. USA 81: 7679-7682.
2. Marth, J.D., Peet, R., Krebs, E.G. and Perlmutter, R.M. 1985. A lymphocyte-specific protein-tyrosine kinase gene is rearranged and overexpressed in the murine T cell lymphoma LSTRA. Cell 43: 393-404.
3. Voronova, A.F. and Sefton, B.M. 1986. Expression of a new tyrosine protein kinase is stimulated by retrovirus promoter insertion. Nature 319: 682-685.
4. Marth, J.D., Disteche, C., Pravcheva, D., Ruddle, F., Krebs, E.G. and Perlmutter, R.M. 1986. Localization of a lymphocyte-specific protein tyrosine kinase gene (Lck) at a site of frequent chromosomal abnormalities in human lymphomas. Proc. Natl. Acad. Sci. USA 83: 7400-7404.
5. Bolen, J.B., Thompson, P.A., Eiseman, E. and Horak, I.D. 1991. Expression and interactions of the Src family of tyrosine protein kinases in T lymphocytes. Adv. Cancer Res. 57: 103-149.
6. Takemoto, Y., Furuta, M., Li, X.K., Strong-Sparks, W.J. and Hashimoto, Y. 1995. Lck BP-1, a proline-rich protein expressed in haematopoietic lineage cells, directly associates with the SH3 domain of protein tyrosine kinase $p56^{lck}$. EMBO J. 14: 3403-3414.

CHROMOSOMAL LOCATION

Genetic locus: HCLS1 (human) mapping to 3q13.33.

SOURCE

Lck BP-1 (9) is a mouse monoclonal antibody raised against amino acids 17-190 of Lck BP-1 of human origin.

PRODUCT

Each vial contains 50 µg IgG_1 in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

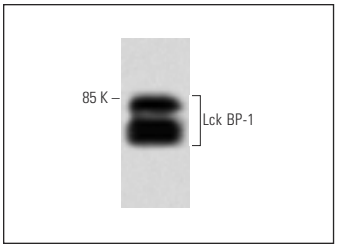
Lck BP-1 (9) is recommended for detection of Lck BP-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); not recommended for immunoprecipitation.

Suitable for use as control antibody for Lck BP-1 siRNA (h): sc-35800, Lck BP-1 shRNA Plasmid (h): sc-35800-SH and Lck BP-1 shRNA (h) Lentiviral Particles: sc-35800-V.

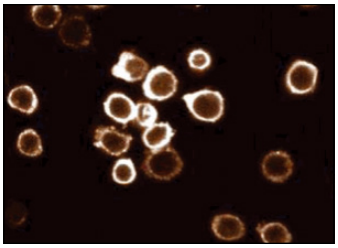
Molecular Weight of Lck BP-1: 85 kDa.

Positive Controls: Ramos cell lysate: sc-2216, Jurkat whole cell lysate: sc-2204 or MOLT-4 cell lysate: sc-2233.

DATA



Lck BP-1 (9): sc-135972. Western blot analysis of Lck BP-1 expression in human endothelial whole cell lysate.



Lck BP-1 (9): sc-135972. Immunofluorescence staining of HL-60 cells showing membrane staining.

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. Not for resale.

PROTOCOLS

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