

Lck BP-1 (H-135): sc-8328

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 domain 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 coimmunoprecipitate 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. Marth, J.D., Distech, 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.
4. 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.
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 pp56lck. *EMBO J.* 14: 3403-3414.

CHROMOSOMAL LOCATION

Genetic locus: HCLS1 (human) mapping to 3q13.33; Hcls1 (mouse) mapping to 16 B3.

SOURCE

Lck BP-1 (H-135) is a rabbit polyclonal antibody raised against amino acids 352-486 of Lck BP-1 of human origin.

RESEARCH USE

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

PRODUCT

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

APPLICATIONS

Lck BP-1 (H-135) is recommended for detection of Lck BP-1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Lck BP-1 siRNA (h): sc-35800, Lck BP-1 siRNA (m): sc-35801, Lck BP-1 shRNA Plasmid (h): sc-35800-SH, Lck BP-1 shRNA Plasmid (m): sc-35801-SH, Lck BP-1 shRNA (h) Lentiviral Particles: sc-35800-V and Lck BP-1 shRNA (m) Lentiviral Particles: sc-35801-V.

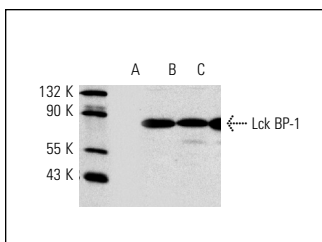
Molecular Weight of Lck BP-1: 85 kDa.

Positive Controls: Ramos cell lysate: sc-2216, Lck BP-1 (h): 293T Lysate: sc-176713 or CCRF-CEM cell lysate: sc-2225.

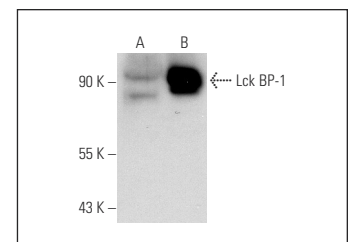
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Lck BP-1 (H-135): sc-8328. Western blot analysis of Lck BP-1 expression in Ramos (A), CCRF-CEM (B) and BJAB (C) whole cell lysates.



Lck BP-1 (H-135): sc-8328. Western blot analysis of Lck BP-1 expression in non-transfected: sc-117752 (A) and human Lck BP-1 transfected: sc-176713 (B) 293T 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.