SANTA CRUZ BIOTECHNOLOGY, INC.

Lck BP-1 (C-17): sc-1536

SANTA CRUZ BIOTECHNOLOGY

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 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., et al. 1984. Covalently bound myristate in a lymphoma tyrosine protein kinase. Proc. Natl. Acad. Sci. USA 81: 7679-7682.
2. Marth, J.D., et al. 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., et al. 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., et al. 1986. Expression of a new tyrosine protein kinase is stimulated by retrovirus promoter insertion. Nature 319: 682-685.
5. Bolen, J.B., et al. 1991. Expression and interactions of the Src family of tyrosine protein kinases in T lymphocytes. Adv. Cancer Res. 57: 103-149.

CHROMOSOMAL LOCATION

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

SOURCE

Lck BP-1 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Lck BP-1 of human 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-1536 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Lck BP-1 (C-17) 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).

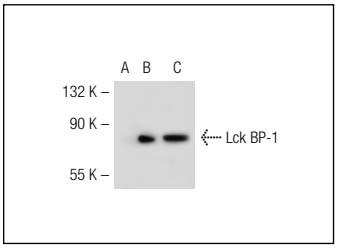
Lck BP-1 (C-17) is also recommended for detection of Lck BP-1 in additional species, including equine, canine, bovine and porcine.

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.

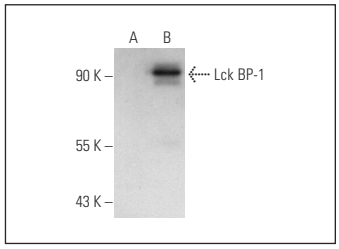
Molecular Weight of Lck BP-1: 85 kDa.

Positive Controls: Ramos cell lysate: sc-2216, Lck BP-1 (m): 293T Lysate: sc-121316 or Lck BP-1 (h): 293T Lysate: sc-176713.

DATA



Lck BP-1 (C-17): sc-1536. Western blot analysis of Lck BP-1 expression in non-transfected 293T: sc-117752 (**A**), mouse Lck BP-1 transfected 293T: sc-121316 (**B**) and Ramos (**C**) whole cell lysates.



Lck BP-1 (C-17): sc-1536. 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.

SELECT PRODUCT CITATIONS

1. Whisler, R.L., et al. 1998. Phosphorylation and coupling of ζ-chains to activated T-cell receptor (TCR)/CD3 complexes from peripheral blood T-cells of elderly humans. Mech. Ageing Dev. 105: 115-135.
2. Kennedy, A.D., et al. 2004. Rituximab infusion promotes rapid complement depletion and acute CD20 loss in chronic lymphocytic leukemia. J. Immunol. 172: 3280-3288.

RESEARCH USE

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