

Lck BP-1 (N-18): sc-1537

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., 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 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-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-1537 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 (N-18) 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 (N-18) 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.

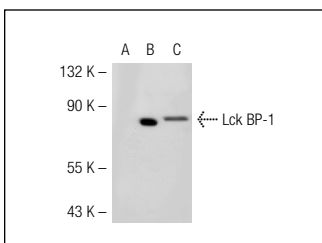
Molecular Weight of Lck BP-1: 85 kDa.

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

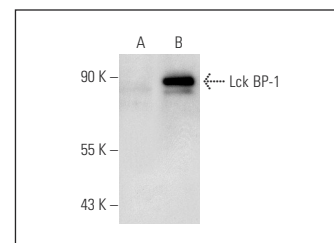
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Lck BP-1 (N-18): sc-1537. Western blot analysis of Lck BP-1 expression in non-transfected 293T: sc-117752 (A), human Lck BP-1 transfected 293T: sc-121316 (B) and Ramos (C) whole cell lysates.



Lck BP-1 (N-18): sc-1537. 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.

RESEARCH USE

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

PROTOCOLS

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