SANTA CRUZ BIOTECHNOLOGY, INC.

Lck BP-1 (B-8): sc-28382

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 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., 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. 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., 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.
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.

SOURCE

Lck BP-1 (B-8) is a mouse monoclonal antibody raised against amino acids 352-486 of Lck BP-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Lck BP-1 (B-8) is available conjugated to agarose (sc-28382 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-28382 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-28382 PE), fluorescein (sc-28382 FITC), Alexa Fluor® 488 (sc-28382 AF488), Alexa Fluor® 546 (sc-28382 AF546), Alexa Fluor® 594 (sc-28382 AF594) or Alexa Fluor® 647 (sc-28382 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-28382 AF680) or Alexa Fluor® 790 (sc-28382 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Lck BP-1 (B-8) is recommended for detection of Lck BP-1 of human origin by Western Blotting (starting dilution 1:100, 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 shRNA Plasmid (h): sc-35800-SH and Lck BP-1 shRNA (h) Lentiviral Particles: sc-35800-V.

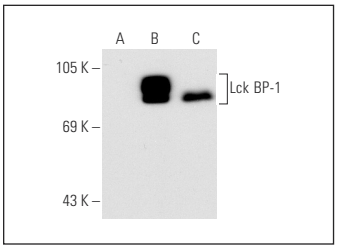
Molecular Weight of Lck BP-1: 85 kDa.

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

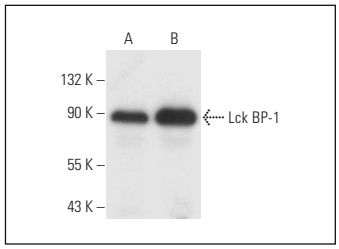
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Lck BP-1 (B-8): sc-28382. Western blot analysis of Lck BP-1 expression in non-transfected 293T: sc-117752 (**A**), human Lck BP-1 transfected 293T: sc-176713 (**B**) and Ramos (**C**) whole cell lysates.



Lck BP-1 (B-8): sc-28382. Western blot analysis of Lck BP-1 expression in CCRF-CEM (**A**) and HuT 78 (**B**) 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.

RESEARCH USE

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

PROTOCOLS

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