Lck BP-1 (m): 293T Lysate: sc-121316



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-loophelix 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

- 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.
- Marth, J.D., Peet, R., Krebs, E.G. and Perlmutter, R.M. 1985. A lymphocytespecific protein-tyrosine kinase gene is rearranged and overexpressed in the murine T cell lymphoma LSTRA. Cell 43: 393-404.
- 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.
- 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.
- 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 p56Lck. EMBO J. 14: 3403-3414.

CHROMOSOMAL LOCATION

Genetic locus: Hcls1 (mouse) mapping to 16 B3.

PRODUCT

Lck BP-1 (m): 293T Lysate represents a lysate of mouse Lck BP-1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

Lck BP-1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Lck BP-1 antibodies. Recommended use: 10-20 μ l per lane

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com