

Cbl-b (h2): 293T Lysate: sc-159455

BACKGROUND

Cbl (also designated the c-Cbl proto-oncogene, E3 ubiquitin-protein ligase CBL, Casitas B-lineage lymphoma proto-oncogene and RING finger protein 55) has been identified as the cellular homolog of the v-Cbl oncogene isolated from an NFS/N mouse that developed a pre-B cell lymphoma following infection with the replication-competent Cas Br-M murine leukemic virus. c-Cbl is expressed at relatively high levels in a wide range of hematopoietic tumor cell lines as well as in normal tissues such as thymus and testis. The c-Cbl gene product has been identified as a cytoplasmic protein with apparent DNA binding and dimerization domains characteristic of transcription factors. A single c-Cbl locus termed CBL2 has been mapped to human chromosome 11q23. This region of chromosome 11 is involved in translocations and deletions in a broad range of leukemias; c-Cbl has been found to be translocated from chromosome 11 in leukemias with either t(4;11) or t(11;14) abnormalities. Two proteins related to c-Cbl have been identified as Cbl-b (RING finger protein 56) and Cbl-3 (RING finger protein 57). Cbl-b has a proline-rich domain, a nuclear localization signal, a C3HC4 zinc finger and a putative leucine zipper. Cbl-b is expressed in normal and malignant mammary epithelial cells, various normal tissues and hematopoietic tissue and cell lines. Data suggests that Cbl-b encodes a protein that can interact with signal transduction proteins to regulate their function or be regulated by them.

REFERENCES

- Langdon, W.Y., et al. 1989. v-Cbl, an oncogene from a dual-recombinant murine retrovirus that induces early B-lineage lymphomas. *Proc. Natl. Acad. Sci. USA* 86: 1168-1172.
- Regnier, D.C., et al. 1989. Identification of two murine loci homologous to the v-Cbl oncogene. *J. Virol.* 63: 3678-3682.
- Langdon, W.Y., et al. 1989. The c-Cbl proto-oncogene is preferentially expressed in thymus and testis tissue and encodes a nuclear protein. *J. Virol.* 63: 5420-5424.
- Blake, T.J., et al. 1991. The sequences of the human and mouse c-Cbl proto-oncogenes show v-Cbl was generated by a large truncation encompassing a proline-rich domain and a leucine zipper-like motif. *Oncogene* 6: 653-657.
- Keane, M.M., et al. 1995. Cloning and characterization of Cbl-b: a SH3 binding protein with homology to the c-Cbl proto-oncogene. *Oncogene* 10: 2367-2377.
- Hartley, D. and Corvera, S. 1996. Formation of c-Cbl.phosphatidylinositol 3-kinase complexes on lymphocyte membranes by a p56Lck-independent mechanism. *J. Biol. Chem.* 271: 21939-21943.

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.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: CBLB (human) mapping to 3q13.11.

PRODUCT

Cbl-b (h2): 293T Lysate represents a lysate of human Cbl-b transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Cbl-b (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Cbl-b antibodies. Recommended use: 10-20 µl per lane.

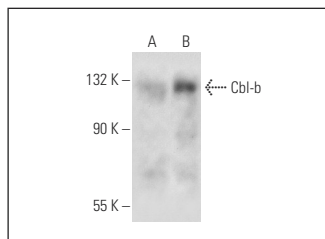
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Cbl-b (G-1): sc-8006 is recommended as a positive control antibody for Western Blot analysis of enhanced human Cbl-b expression in Cbl-b transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



Cbl-b (G-1): sc-8006. Western blot analysis of Cbl-b expression in non-transfected: sc-117752 (A) and human Cbl-b transfected: sc-159455 (B) 293T whole cell lysates.

RESEARCH USE

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