SANTA CRUZ BIOTECHNOLOGY, INC.

Cbl-b (C-20): sc-1435



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 11g23. 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.

CHROMOSOMAL LOCATION

Genetic locus: CBLB (human) mapping to 3q13.11; Cblb (mouse) mapping to 16 B5.

SOURCE

Cbl-b (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Cbl-b of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1435 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Cbl-b (C-20) is recommended for detection of Cbl-b of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

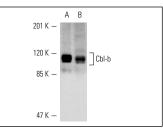
Cbl-b (C-20) is also recommended for detection of Cbl-b in additional species, including equine, canine, bovine, porcine and avian.

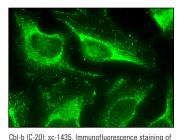
Suitable for use as control antibody for Cbl-b siRNA (h): sc-29950, Cbl-b siRNA (m): sc-29951, Cbl-b shRNA Plasmid (h): sc-29950-SH, Cbl-b shRNA Plasmid (m): sc-29951-SH, Cbl-b shRNA (h) Lentiviral Particles: sc-29950-V and Cbl-b shRNA (m) Lentiviral Particles: sc-29951-V.

STORAGE

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

DATA





Cbl-b (C-20): sc-1435. Western blot analysis of Cbl-b expression in CTLL-2 (A) and WEHI-231 (B) whole cell lysates.

methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

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- El Chami, N., et al. 2005. Androgen-dependent apoptosis in male germ cells is regulated through the proto-oncoprotein Cbl. J. Cell Biol. 171: 651-661.
- 3. Zeng, S., et al. 2005. Regulation of stem cell factor receptor signaling by Cbl family proteins (Cbl-b/c-Cbl). Blood 105: 226-232.
- Pierchala, B.A., et al. 2006. Glial cell line-derived neurotrophic factor-dependent recruitment of Ret into lipid rafts enhances signaling by partitioning Ret from proteasome-dependent degradation. J. Neurosci. 26: 2777-2787.
- Shamim, M., et al. 2007. Cbl-b regulates antigen-induced TCR down-regulation and IFN-γ production by effector CD8 T cells without affecting functional avidity. J. Immunol. 179: 7233-7243.
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- Singhirunnusorn, P., et al. 2007. Transient suppression of ligand-mediated activation of epidermal growth factor receptor by tumor necrosis factor-α through the TAK1-p38 signaling pathway. J. Biol. Chem. 282: 12698-12706.
- 8. Li, D.H., et al. 2008. Modulation of peripheral B cell tolerance by CD72 in a murine model. Arthritis Rheum. 58: 3192-3204.
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- 10. Dale, B.M., et al. 2009. Phagocytosis in macrophages lacking Cbl reveals an unsuspected role for Fc γ receptor signaling and actin assembly in target binding. J. Immunol. 182: 5654-5662.

RESEARCH USE

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

Molecular Weight of Cbl-b: 115-120 kDa.