

# Cbl-b (H-121): sc-1704

## 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

Cbl-b (H-121) is a rabbit polyclonal antibody raised against amino acids 600-721 of Cbl-b 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.

## APPLICATIONS

Cbl-b (H-121) 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 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).

Cbl-b (H-121) is also recommended for detection of Cbl-b in additional species, including equine, canine, bovine and porcine.

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.

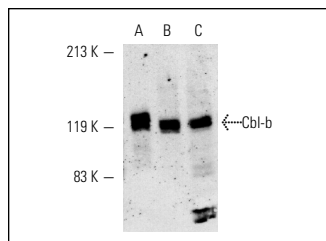
Molecular Weight of Cbl-b: 115-120 kDa.

Positive Controls: CTLL-2 cell lysate: sc-2242, SK-BR-3 cell lysate: sc-2218 or 3611-RF whole cell lysate: sc-2215.

## 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 (H-121): sc-1704. Western blot analysis of Cbl-b expression in SK-BR-3 (A), 3611-RF (B) and CTLL-2 (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

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- Tsyba, L., et al. 2008. Alternative splicing affecting the SH3A domain controls the binding properties of intersectin 1 in neurons. *Biochem. Biophys. Res. Commun.* 372: 929-934.
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- Han, C., et al. 2010. Integrin CD11b negatively regulates TLR-triggered inflammatory responses by activating Syk and promoting degradation of MyD88 and TRIF via Cbl-b. *Nat. Immunol.* 11: 734-742.
- Daniel, J.L., et al. 2010. Cbl-b is a novel physiologic regulator of glycoprotein VI-dependent platelet activation. *J. Biol. Chem.* 285: 17282-17291.

## RESEARCH USE

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