

# Cbl-3 (N-19): sc-8371

## 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., Hartley, J.W., Klincken, S.P., Ruscetti, S.K. and Morse, H.C. 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., Kozak, C.A., Kingsley, D.M., Jenkins, N.A., Copeland, N.G., Langdon, W.Y. and Morse, H.C. 1989. Identification of two murine loci homologous to the v-Cbl oncogene. *J. Virol.* 63: 3678-3682.
- Langdon, W.Y., Hyland, C.D., Grumont, R.J. and Morse, H.C. III. 1989. The c-Cbl proto-oncogene is preferentially expressed in thymus and testis tissue and encodes a nuclear protein. *J. Virol.* 63: 5420-5424.

## CHROMOSOMAL LOCATION

Genetic locus: CBL2 (human) mapping to 19q13.2.

## SOURCE

Cbl-3 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Cbl-3 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.

Blocking peptide available for competition studies, sc-8371 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

Cbl-3 (N-19) is recommended for detection of Cbl-3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

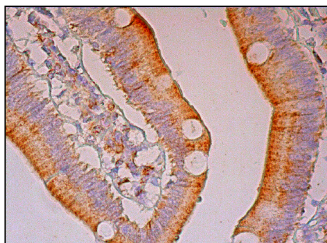
Suitable for use as control antibody for Cbl-3 siRNA (h): sc-40390, Cbl-3 shRNA Plasmid (h): sc-40390-SH and Cbl-3 shRNA (h) Lentiviral Particles: sc-40390-V.

Molecular Weight of Cbl-3: 52 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



Cbl-3 (N-19): sc-8371. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells.

## SELECT PRODUCT CITATIONS

- Schmidt, M.H., et al. 2003. Epidermal growth factor receptor signaling intensity determines intracellular protein interactions, ubiquitination, and internalization. *Proc. Natl. Acad. Sci. USA* 100: 6505-6510.
- Song, J., et al. 2004. The costimulation-regulated duration of PKB activation controls T cell longevity. *Nat. Immunol.* 5: 150-158.

## RESEARCH USE

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