Store at -20°C

c-Cbl (C49H8) Rabbit mAb

#2179

www.cellsignal.com

Support: 877-678-TECH (8324)
info@cellsignal.com

Orders: 877-616-CELL (2355)
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Entrez-Gene ID #867
UniProt ID #P22681

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP Endogenous	H, Mk	120 kDa	Rabbit IgG**

Background: The c-Cbl proto-oncogene is a ubiquitously expressed cytoplasmic adaptor protein that is especially predominant in hematopoietic cells (1,2). c-Cbl is rapidly tyrosine-phosphorylated in response to stimulation of a variety of cell-surface receptors and becomes associated with a number of intracellular signaling molecules such as protein tyrosine kinases, phosphatidylinositol-3 kinase, Crk, and 14-3-3 proteins (3,4). c-Cbl possesses a highly conserved amino-terminal phosphotyrosine binding domain (TKB) and a C3HC4 RING finger motif. The TKB recognizes phosphorylated tyrosines on activated receptor tyrosine kinases (RTKs) as well as other nonreceptor tyrosine kinases. The RING finger motif recruits ubiquitin-conjugating enzymes. These two domains are primarily responsible for the ubiquitin ligase activity of c-Cbl and downregulation of RTKs (3). Research studies have indicated that in human cancer tissues, c-Cbl is frequently tyrosine-phosphorylated in a tumor-specific manner (5). Phosphorylation of Tyr731 of c-Cbl provides a docking site for downstream signaling components such as p85 and Fyn (6).

Specificity/Sensitivity: c-Cbl (C49H8) Rabbit mAb detects endogenous levels of total c-Cbl protein. The antibody does not cross-react with Cbl-b or Cbl-c proteins.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to the sequence of human c-Cbl.

Background References:

(1) Blake, T.J. et al. (1991) *Oncogene* 6, 653-657.

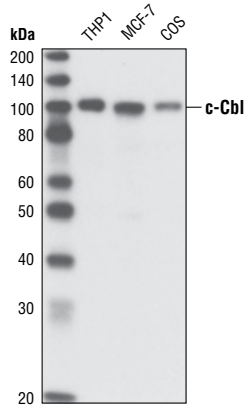
(2) Thien, C.B. and Langdon, W.Y. (1998) *Immunol. Cell Biol.* 76, 473-482.

(3) Christine, B.F. et al. (2001) *Nat. Rev. Mol. Cell Biol.* 2, 294-307.

(4) Feshchenko, E.A. et al. (1998) *J. Biol. Chem.* 273, 8323-8331.

(5) Kamei, T. et al. (2000) *Int. J. Oncol.* 17, 335-339.

(6) Hunter, C. et al. (1999) *J. Biol. Chem.* 274, 2097-2106.



Western blot analysis of cell extracts from various cell types using c-Cbl (C49H8) Rabbit mAb.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:50

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

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Cell Signaling TECHNOLOGY®

Applications: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide **Species Cross-Reactivity:** **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—Horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.