

Phospho-c-Cbl (Tyr731) Antibody

✓ 100 µl
(10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #867
Swiss-Prot Acc. #P22681

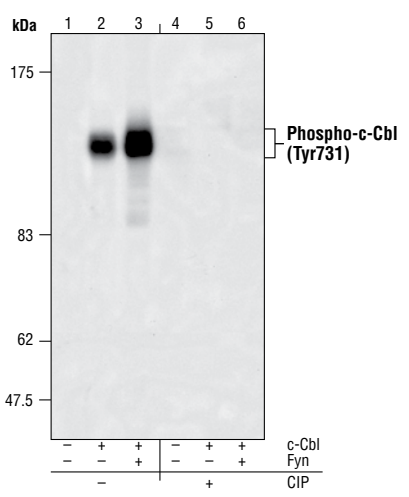
Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H	120 kDa	Rabbit**

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. Its RING finger domain recruits ubiquitin-conjugating enzymes. These two domains are primarily responsible for c-Cbl's ubiquitin ligase activity and downregulation of RTKs (3). 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: Phospho-c-Cbl (Tyr731) Antibody detects endogenous levels of c-Cbl only when phosphorylated at Tyr731. The antibody does not cross-react with related tyrosine-phosphorylated proteins.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr731 of human c-Cbl. Antibodies are purified by protein A and peptide affinity chromatography.

- 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 extracts from 293-T cells transfected with c-Cbl and Fyn (lanes 3 and 6) or without Fyn (lanes 2 and 5), untreated or calf intestinal phosphatase (CIP)-treated using Phospho-c-Cbl (Tyr731) Antibody. (Lysates provided by Dr. A.L. Reddi, laboratory of Dr. Hamid Band, Harvard University, Massachusetts)

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
Immunohistochemistry (Paraffin) 1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

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.