c-Cbl Antibody

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

Background: 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. 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 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: This antibody detects endogenous levels of total c-CBL protein. The antibody may also cross-react with CBL-B protein.

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

Background References:

Recommended Antibody Dilutions:
- Western blotting 1:1000
- Immunoprecipitation 1:50
- Immunofluorescence (IF-IC) 1:50

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

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

Applications Species Cross-Reactivity Molecular Wt. Source
W, IP, IF-IC H, M, R, Mk, (B) 120 kDa Rabbit**

Western blot analysis of lysates from MCF-7, Raji, THP-1, RAW, COS and H-4-II-E cells, using c-CBL antibody.

Immunofluorescent staining of paraformaldehyde-fixed RAW cells, using c-CBL antibody.

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