Phospho-c-Cbl (Tyr731) Antibody

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.

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.

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.

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