Phospho-c-Cbl (Tyr774) 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:** Phospho-c-Cbl (Tyr774) Antibody detects endogenous levels of c-Cbl only when phosphorylated at tyrosine 774. 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 Tyr774 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 Immunoprecipitation 1:50

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

**Recommended Antibody Dilutions:**
Western Blotting 1:1000
Immunoprecipitation 1:50
For application specific protocols please see the web page for this product at www.cellsignal.com.

**Background References:**

**Applications**

<table>
<thead>
<tr>
<th>Applications</th>
<th>Species Cross-Reactivity*</th>
<th>Molecular Wt.</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>W, IP Endogenous</td>
<td>H</td>
<td>120 kDa</td>
<td>Rabbit**</td>
</tr>
</tbody>
</table>

**Species Cross-Reactivity Key:**

- **H** — human
- **M** — mouse
- **R** — rat
- **Hm** — hamster
- **Mi** — mink
- **C** — chicken
- **Dm** — D. melanogaster
- **X** — Xenopus
- **Z** — zebrafish
- **B** — bovine

**Species Cross-Reactivity Key:**

- **Dg** — dog
- **Pg** — pig
- **Sc** — S. cerevisiae
- **Ce** — C. elegans
- **Hr** — horse
- **All** — all species expected

**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.