

## 12-4289: Phospho-c-Cbl (Tyr774) (Clone: R4C5) rabbit mAb

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	CblY774-R4C5
<b>Application :</b>	FACS,WB
<b>Reactivity :</b>	Human, Mouse
<b>Conjugate :</b>	Unconjugated
<b>Format :</b>	Purified
<b>Alternative Name :</b>	E3 ubiquitin-protein ligase CBL, Casitas B-lineage lymphoma proto-oncogene, Proto-oncogene c-Cbl, RING finger protein 55, RING-type E3 ubiquitin transferase, Signal transduction protein CBL, CBL2, RNF55
<b>Isotype :</b>	Rabbit IgG1k
<b>Immunogen Information :</b>	A synthetic phospho-peptide corresponding to residues surrounding Tyr774 of human phospho c-Cbl

### Description

The c-Cbl (Casitas B-lineage Lymphoma) proto-oncogene is a ubiquitously expressed cytoplasmic adaptor protein that contains multiple functional domains, including an amino-terminal tyrosine kinase-binding (TKB) domain, a RING finger motif, and a proline-rich region. The TKB recognizes phosphorylated tyrosines on activated receptor tyrosine kinases (RTKs) and on other nonreceptor tyrosine kinases, while 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 (1). The proline-rich region contains 14-3-3 protein-binding and SH3 domain-binding motifs. c-Cbl is phosphorylated at Y700, Y731, and Y774 by Syk and Src-family kinases after the stimulation of some integrins and a wide variety of receptors for immunoglobulins, antigens, hormones, growth factors, and cytokines. Phosphorylated Y774 interacts with the SH2 domain of Crk (1,2). The c-Cbl adapter protein is expressed in the cytoplasm in all tissues, with especially high levels of expression in hematopoietic cells (3,4). Through its many functional sites, c-Cbl plays key roles in the positive and negative regulation of vital cell functions, including T Cell Receptor-mediated cellular immune responses. In human cancer tissues, c-Cbl is frequently tyrosine-phosphorylated in a tumor-specific manner (5).

### Product Info

<b>Amount :</b>	20 $\mu$ l / 200 $\mu$ l
<b>Content :</b>	1X PBS, 0.02% NaN <sub>3</sub> , 50% Glycerol, 0.1% BSA
<b>Storage condition :</b>	Store at -20°C. Avoid repeated freeze and thaw cycles.

### Application Note

1  $\mu$ g/mL - 0.001  $\mu$ g/mL. It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional information.(0.5mg/ml, more than 200 western blots)

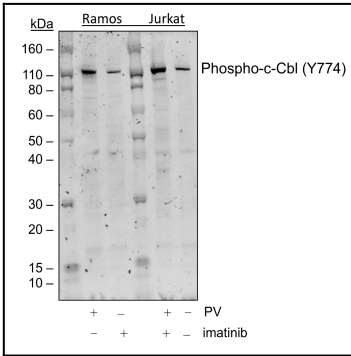


Fig-1: Western blot analysis of extracts from Ramos or Jurkat cells, imatinib or pervanadate treated using Phospho-c-Cbl (Tyr774) antibody c-CbIY774-R4C5 at 0.1 µg/mL.

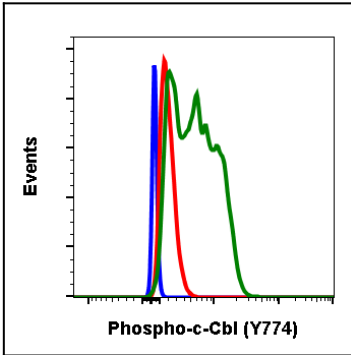


Fig 2 : Flow cytometric analysis of Daudi cells secondary antibody only negative control (blue) or untreated (red) or treated with IFNa + IL-4 + pervanadate (green) using Phospho-c-Cbl (Tyr774) antibody CbIY774-R4C5 at 0.01 µg/mL.

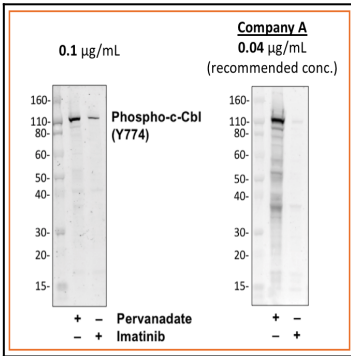


Fig-3: Western blot analysis of Jurkat cell extract treated with imatinib or with pervanadate using 0.1 µg/mL Phospho-c-Cbl (Tyr774) antibody CbIY774-R4C5 or Company A antibody at 0.04 µg/mL (manufacturer's recommended concentration) developed using the same exposure.