10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Phospho-C-Cbl-Y770 Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AE1007b

Specification

Phospho-C-Cbl-Y770 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	P22681
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Concentration	**1mg/ml**
Isotype	**Rabbit IgG**
Calculated MW	**99633**

Phospho-C-Cbl-Y770 Antibody - Additional Information

Gene ID 867

Other Names
E3 ubiquitin-protein ligase CBL, 632-, Casitas B-lineage lymphoma proto-oncogene, Proto-oncogene c-Cbl, RING finger protein 55, Signal transduction protein CBL, CBL, CBL2, RNF55

Target/Specificity
The antibody was affinity-purified from rabbit antiserum using epitope-specific phosphopeptide column, and the antibody against non-phosphopeptide was removed using non-phosphopeptide column corresponding to the phosphorylation site.

Dilution
WB~~1:500~1000
IHC~~1:50~1:100
IF~~1:100~200

Format
affinity Purified IgG, in PBS, 0.02% sodium azide and 50% glycerol.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Phospho-C-Cbl-Y770 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-C-Cbl-Y770 Antibody - Protein Information

Name CBL

Synonyms CBL2, RNF55

Function
Adapter protein that functions as a negative regulator of many signaling pathways that are triggered by activation of cell surface receptors. Acts as an E3 ubiquitin-protein ligase, which accepts ubiquitin from specific E2 ubiquitin-conjugating enzymes, and then transfers it to substrates promoting their degradation by the proteasome (PubMed:17094949). Ubiquitinates SPRY2 (PubMed:17094949, PubMed:17974561). Ubiquitinates EGFR (PubMed:17974561). Recognizes activated receptor tyrosine kinases, including KIT, FLT1, FGFR1, FGFR2, PDGFRA, PDGFRB, CSF1R, EPHA8 and KDR and terminates signaling. Recognizes membrane-bound HCK, SRC and other kinases of the SRC family and mediates their ubiquitination and degradation. Participates in signal transduction in hematopoietic cells. Plays an important role in the regulation of osteoblast differentiation and apoptosis. Essential for osteoclastic bone resorption. The 'Tyr-731' phosphorylated form induces the activation and recruitment of phosphatidylinositol 3-kinase to the cell membrane in a signaling pathway that is critical for osteoclast function. May be functionally coupled with the E2 ubiquitin- protein ligase UB2D3. In association with CBLB, required for proper feedback inhibition of ciliary platelet-derived growth factor receptor- alpha (PDGFRA) signaling pathway via ubiquitination and internalization of PDGFRA (By similarity).

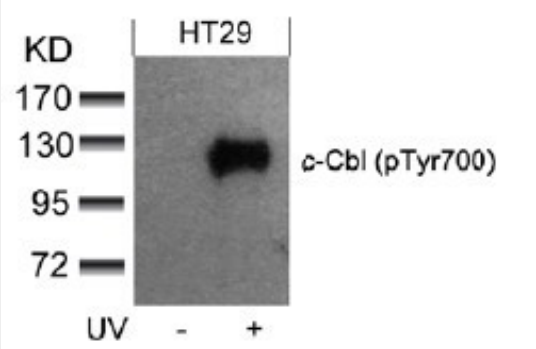
Cellular Location
Cytoplasm. Cell membrane. Cell projection, cilium. Golgi apparatus. Note=Colocalizes with FGFR2 in lipid rafts at the cell membrane

Phospho-C-Cbl-Y770 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

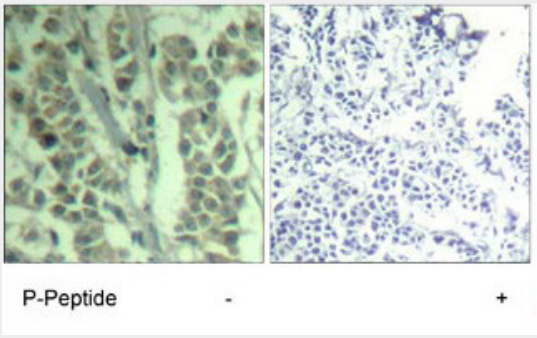
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Phospho-C-Cbl-Y770 Antibody - Images

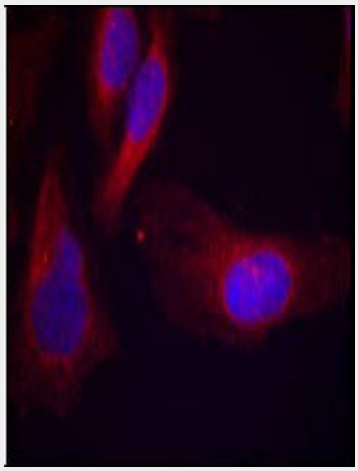


Western blot analysis of extracts from HT29 cells untreated or treated with UV using c-Cbl

(phospho-Tyr700) Antibody (Cat. #AE1007b).



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using Phospho-C-Cbl-Y770 Antibody (#AE1007b).



Immunofluorescence staining of methanol-fixed HeLa cells using Phospho-C-Cbl-Y770 Antibody (#AE1007b, Red).

Phospho-C-Cbl-Y770 Antibody - Background

The cbl oncogene was first identified as part of a transforming retrovirus which induces mouse pre-B and pro-B cell lymphomas. As an adaptor protein for receptor protein-tyrosine kinases, it positively regulates receptor protein-tyrosine kinase ubiquitination in a manner dependent upon its variant SH2 and RING finger domains. Ubiquitination of receptor protein-tyrosine kinases terminates signaling by marking active receptors for degradation.

Phospho-C-Cbl-Y770 Antibody - References

Germline CBL mutations cause developmental abnormalities and predispose to juvenile myelomonocytic leukemia. Niemeyer CM, et al. Nat Genet, 2010 Sep. PMID 20694012.
Combined mutations of ASXL1, CBL, FLT3, IDH1, IDH2, JAK2, KRAS, NPM1, NRAS, RUNX1, TET2 and WT1 genes in myelodysplastic syndromes and acute myeloid leukemias. Rocquain J, et al. BMC Cancer, 2010 Aug 2. PMID 20678218.
Heterozygous germline mutations in the CBL tumor-suppressor gene cause a Noonan syndrome-like phenotype. Martinelli S, et al. Am J Hum Genet, 2010 Aug 13. PMID 20619386.
Long-term survival after nonintensive chemotherapy in some juvenile myelomonocytic leukemia patients with CBL mutations, and the possible presence of healthy persons with the mutations. Matsuda K, et al. Blood, 2010 Jul 1. PMID 20595524.
c-Cbl facilitates endocytosis and lysosomal degradation of cystic fibrosis transmembrane conductance regulator in human airway epithelial cells. Ye S, et al. J Biol Chem, 2010 Aug 27. PMID 20525683.