

C-CBL Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1600a

Specification

C-CBL Antibody - Product Information

Application	E, WB, IHC, IF, FC
Primary Accession	P22681
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	120kDa KDa

Description

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.

Immunogen

Purified recombinant fragment of human C-CBL expressed in E. Coli.

Formulation

Ascitic fluid containing 0.03% sodium azide.

C-CBL Antibody - Additional Information

Gene ID 867

Other Names

E3 ubiquitin-protein ligase CBL, 6.3.2.-, Casitas B-lineage lymphoma proto-oncogene, Proto-oncogene c-Cbl, RING finger protein 55, Signal transduction protein CBL, CBL, CBL2, RNF55

Dilution

E~~1/10000
WB~~1/500 - 1/2000
IHC~~1/200 - 1/1000
IF~~1/200 - 1/1000
FC~~1/200 - 1/400

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

C-CBL Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

C-CBL Antibody - Protein Information

Name CBL

Synonyms CBL2, RNF55

Function

E3 ubiquitin-protein ligase that acts as a negative regulator of many signaling pathways by mediating ubiquitination of cell surface receptors (PubMed:10514377, PubMed:11896602, PubMed:14661060, PubMed:14739300, PubMed:15190072, PubMed:17509076, PubMed:18374639, PubMed:19689429, PubMed:21596750, PubMed:28381567). Accepts ubiquitin from specific E2 ubiquitin-conjugating enzymes, and then transfers it to substrates promoting their degradation by the proteasome (PubMed:10514377, PubMed:14661060, PubMed:14739300, PubMed:17094949, PubMed:17509076, PubMed:17974561). Recognizes activated receptor tyrosine kinases, including KIT, FLT1, FGFR1, FGFR2, PDGFRA, PDGFRB, CSF1R, EPHA8 and KDR and mediates their ubiquitination to terminate signaling (PubMed:15190072, PubMed:18374639, PubMed:21596750). Recognizes membrane-bound HCK, SRC and other kinases of the SRC family and mediates their ubiquitination and degradation (PubMed:11896602). Ubiquitinates EGFR and SPRY2 (PubMed:17094949, PubMed:17974561). Ubiquitinates NECTIN1 following association between NECTIN1 and herpes simplex virus 1/HHV-1 envelope glycoprotein D, leading to NECTIN1 removal from cell surface (PubMed:28381567). Participates in signal transduction in hematopoietic cells. Plays an important role in the regulation of osteoblast differentiation and apoptosis (PubMed:15190072, PubMed:18374639). Essential for osteoclastic bone resorption (PubMed:14739300). 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 (PubMed:14739300). 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

C-CBL 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 Cytometry](#)
- [Cell Culture](#)

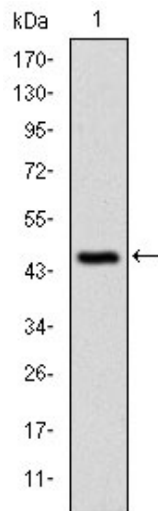
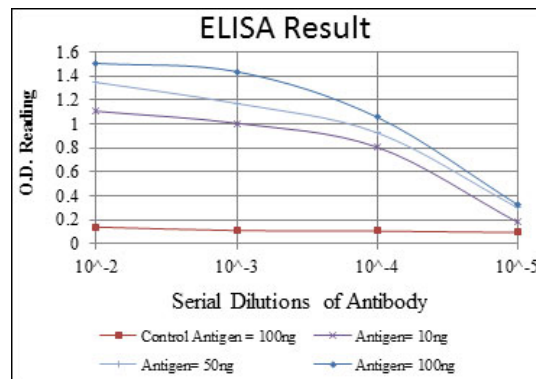


Figure 1: Western blot analysis using C-CBL mAb against human C-CBL (AA: 684-865) recombinant protein. (Expected MW is 44.9 kDa)

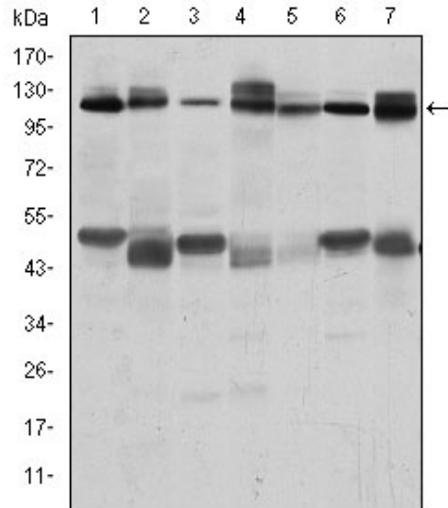


Figure 2: Western blot analysis using C-CBL mouse mAb against RAJI (1), RAW264.7 (2), K562 (3), SKBR-3 (4), 3T3-L1 (5), THP-1 (6) and PC-12 (7) cell lysate.

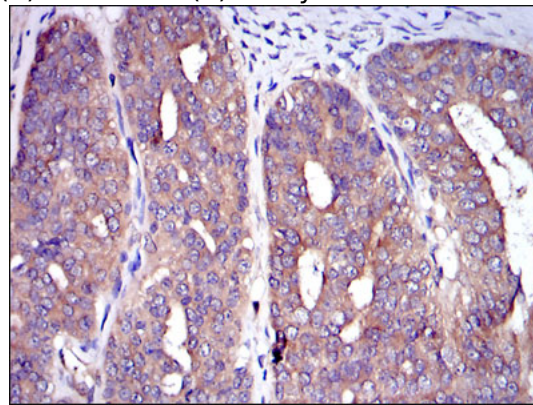


Figure 3: Immunohistochemical analysis of paraffin-embedded ovarian cancer tissues using C-CBL mouse mAb with DAB staining.

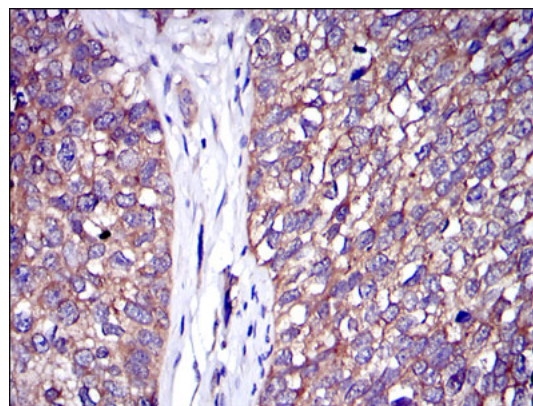


Figure 4: Immunohistochemical analysis of paraffin-embedded bladder cancer tissues using C-CBL mouse mAb with DAB staining.

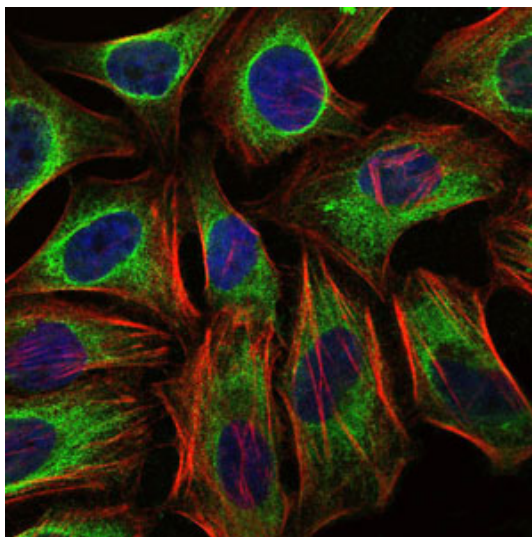


Figure 5: Immunofluorescence analysis of HeLa cells using C-CBL mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

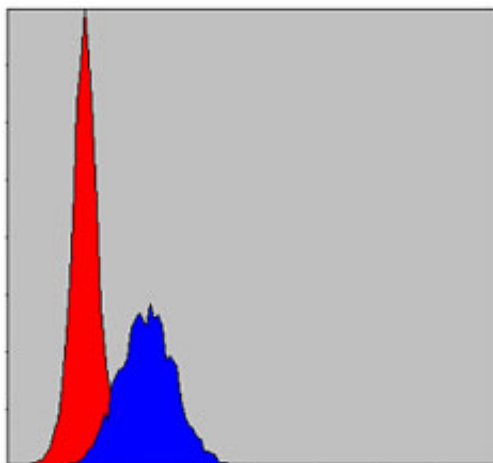


Figure 6: Flow cytometric analysis of MCF-7 cells using C-CBL mouse mAb (blue) and negative control (red).

C-CBL Antibody - References

1. Blood. 2009 Aug 27;114(9):1859-63. 2. Cell Res. 2009 Aug;19(8):950-61. 3. Nature. 2009 Aug 13;460(7257):904-8.