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Phospho-CBL (Y774) Antibody

Rabbit mAb
Catalog # AP92833

Product Information

Application	WB, IHC, FC
Primary Accession	P22681
Reactivity	Human
Clonality	Monoclonal
Other Names	Casitas B lineage lymphoma proto oncogene; CBL2; E3 ubiquitin protein ligase CBL; Oncogene CBL2; Proto oncogene c CBL; RING finger protein 55; RNF55; Signal transduction protein CBL;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	99633

Additional Information

Dilution	WB 1:500~1:2000 IHC 1:50~1:200 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Phospho-CBL (Y774)
Description	Participates in signal transduction in hematopoietic cells. Adapter protein that functions as a negative regulator of many signaling pathways that start from receptors at the cell surface. 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. Recognizes activated receptor tyrosine kinases, including PDGFA, EGF and CSF1, and terminates signaling.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

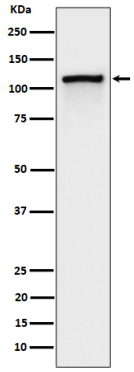
Name	CBL
Synonyms	CBL2, RNF55
Function	E3 ubiquitin-protein ligase that acts as a negative regulator of many signaling pathways by mediating ubiquitination of cell surface receptors (PubMed:10514377, PubMed:11896602, PubMed:14661060, PubMed:14739300, PubMed:15190072, PubMed:17509076, PubMed:18374639, 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

Images



Western blot analysis of Phospho-CBL (Y774) expression in Jurkat cell treated with Pervanadate lysate.