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Rabbit Anti-CBL2 antibody

SL2757R

Product Name:	CBL2
Chinese Name:	原癌蛋白CBL2抗体
Alias:	C CBL; Cas-Br-M (murine) ecotropic retroviral transforming sequence; Casitas B lineage lymphoma proto oncogene; CBL 2;E3 ubiquitin protein ligase CBL; Oncogene CBL2; Proto oncogene c CBL; RGD1561386; RING finger protein 55; RNF55v Signal transduction protein CBL; 4732447J05Rik; CBL_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	100kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human CBL2:351-450/906
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	This gene is a proto-oncogene that encodes a RING finger E3 ubiquitin ligase. The encoded protein is one of the enzymes required for targeting substrates for degradation by the proteasome. This protein mediates the transfer of ubiquitin from ubiquitin conjugating enzymes (E2) to specific substrates. This protein also contains an N-

terminal phosphotyrosine binding domain that allows it to interact with numerous tyrosine-phosphorylated substrates and target them for proteasome degradation. As such it functions as a negative regulator of many signal transduction pathways. This gene has been found to be mutated or translocated in many cancers including acute myeloid leukaemia. Mutations in this gene are also the cause of Noonan syndrome-like disorder. [provided by RefSeq, Mar 2012]

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. Recognizes activated receptor tyrosine kinases, including KIT, FLT1, FGFR1, FGFR2, PDGFRA, PDGFRB, EGFR, CSF1R, EPHA8 and KDR and terminates signaling. Recognizes membrane-bound HCK 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.

Subunit:
Interacts (phosphorylated at Tyr-731) with PIK3R1. Associates with NCK via its SH3 domain. The phosphorylated C-terminus interacts with CD2AP via its second SH3 domain. Binds to UBE2L3. Interacts with adapters SLA, SLA2 and with the phosphorylated C-terminus of SH2B2. Interacts with EGFR, SYK and ZAP70 via the highly conserved Cbl-N region. Also interacts with SORBS1 and INPPL1/SHIP2. Interacts with phosphorylated LAT2. May interact with CBLB (By similarity). Interacts with ALK, AXL, BLK, FGR and FGFR2. Interacts with CSF1R, EPHB1, FLT1, KDR, PDGFRA and PDGFRB; regulates receptor degradation through ubiquitination. Interacts with HCK and LYN. Interacts with TEK/TIE2 (tyrosine phosphorylated).

Subcellular Location:
Cytoplasm. Cell membrane. Note=Colocalizes with FGFR2 in lipid rafts at the cell membrane.

Post-translational modifications:
Phosphorylated on tyrosine residues by ALK, EGFR, SYK, FYN and ZAP70 (By similarity). Phosphorylated on tyrosine residues in response to FLT1 and KIT signaling. Phosphorylated on tyrosine residues by INSR and FGR. Phosphorylated on several tyrosine residues by constitutively activated FGFR3. Not phosphorylated at Tyr-731 by FGFR3. Phosphorylated on tyrosine residues by activated CSF1R, PDGFRA and PDGFRB. Phosphorylated on tyrosine residues by HCK.
Ubiquitinated, leading to its degradation via the proteasome.

DISEASE:

Noonan syndrome-like disorder with or without juvenile myelomonocytic leukemia (NSLL) [MIM:613563]: A syndrome characterized by a phenotype reminiscent of Noonan syndrome. Clinical features are highly variable, including facial dysmorphism, short neck, developmental delay, hyperextensible joints and thorax abnormalities with widely spaced nipples. The facial features consist of triangular face with hypertelorism, large low-set ears, ptosis, and flat nasal bridge. Some patients manifest cardiac defects. Some have an increased risk for certain malignancies, particularly juvenile myelomonocytic leukemia. Note=The disease is caused by mutations affecting the gene represented in this entry.

Similarity:
Contains 1 Cbl-PTB (Cbl-type phosphotyrosine-binding) domain.
Contains 1 RING-type zinc finger.
Contains 1 UBA domain.

SWISS:
P22681

Gene ID:
867

Database links:

Entrez Gene: 867 Human

Entrez Gene: 12402 Mouse

Entrez Gene: 500985 Rat

Omim: 165360 Human

SwissProt: P22681 Human

SwissProt: P22682 Mouse

Unigene: 504096 Human

Unigene: 266871 Mouse

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

????CBL2(Casitas B-lineage
lymphoma)是一类广泛分布的细胞内蛋白,属于Ubiquitin连接酶E3,

	Cbl参与细胞内Signal transduction的负向调控,这对于维持细胞的内稳态具有重要作用。Cbl突变后可成为癌蛋白;许多Tumour细胞则表现为与增殖有关的分子(如受体型蛋白酪氨酸激酶,RTK)因发生突变或其它遗传学改变不受Cbl负调控。加强或重建Cbl的负调控作用,或许能够从受体活化的上游信号开始抑制Tumour细胞增殖。为利用Cbl的Ubiquitin连接酶活性,并使其能够特异性地降解某些Signal transduction分子,从而对一些与Tumour生长有关的细胞增殖进行负向调节.