

Product datasheet for **RC214069**

CBL (NM_005188) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CBL (NM_005188) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CBL
Synonyms:	C-CBL; CBL2; FRA11B; NSLL; RNF55
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC214069 representing NM_005188
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCCGGCAACGTGAAGAAGAGCTCTGGGGCCGGGGCGGCAGCGGCTCCGGGGGCTCGGGTTCGGGTG
 GCCTGATTGGGCTCATGAAGGACGCCTCCAGCCGCACACCACCACCACCACCACCCTCAGCCCCACCC
 GCCGGGGACGGTGGACAAGAAGATGGTGGAGAAGTGTGGAAGCTCATGGACAAGGTGGTGCGGTTGTG
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 GTTTATGGAGAATTTGATGAAGAAAAGCAAAACCATAAGCCTCTTCAAGGAGGGAAAAGAAAGATG
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 GGATTTTGGAGAAAAGCTTTTGGGGAAAAGACAATAGTCCCTTGAAGAGCTTTTCGACAGGCTCTACAT
 GAAGTGCATCCCATCAGTTCTGGGCTGGAGGCCATGGCTCTGAAATCCACTATTGATCTGACCTGCAATG
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 CAGCACCTTTGGTGAAGGAATTTGGCCGACGCCATGCCAACACTGGTCCCAGGAGTCCAGAAAATGAG
 GATGATGGGTATGATGTCCCAAAGCCACTGTGCCGGCCGTGCTGGCCCGCCGAATCTCTCAGATATCT
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 TCATGAGTCAGGGTACTCCTACCAGGACATCCAGAAAGCTTTGGTCATTGCCAGAACACATCGAGAT
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC214069 representing NM_005188
 Red=Cloning site Green=Tags(s)

MAGNVKKSSGAGGGSGGGSGGGIIGLMKDAFQPHHHHHHLSHPHPPGTVDKMKMVEKCKWLMKVVRLC
 QNPKLALKNSPPYILDLLPDTYQHLRTILSRYEGKMETLGENEYFRVFMENLMKKTKQTIISLFKEGKERM
 YEENSQPRRNLTKLSLIFSHMLAELKGIFFPSGLFQGDTRITKADAAEFWRKAFGEKTIWPKSFRQALH
 EVHPISSGLEAMALKSTIDLTCNDYISVFEDIFTRLFQPWSSLLRNWNSLAVTHPGYMAFLTYDEVKAR
 LQKFIHKPGSYIFRLSCTRLGQWAIQYVTADGNILQTI PHNKPLFQALIDGFREGFYLPDGRNQNPDLT
 GLCEPTQDHIKVTQEYELYCEMGSTFQCKICAENDKDVKIEPCGHLMCTSCLTSWQESEGGQPCFCR
 CEIKGTEPIVVDPFDPGSGSLLRQGAEGASPNYDDDDDERADDTL FMMKELAGAKVERPPSPFSMAPQ
 ASLPPVPRLLDLLPQRVCVPSSASALGTASKAASGLHKDKPLVPPTLRDLPPPPPPDRPYSVGAESRP
 QRRPLPCTPGDCPSRDKLPPVPSRLGDSWLPRPIPKVPVSAPSSSDPWTGREL TNRHSLPFLPSQMEP
 RPDVPRLGSTFSLDTSMSMNSSPLVGPECDHPKIKPSSSANAIYSLAARPLVPKLPPEQCEGEEDTEY
 MTPSSRPLRPLDTSQSSRACDCQIDISCTYEAMYNIQSQAPSITESSTFGEGNLAHAHANTGPEESENE
 DDGYDVPKPPVAVLARRTLSDISNASSFGWLSLDGDP TTNVTEGSQVPERPPKPFRRINSERKAGSC
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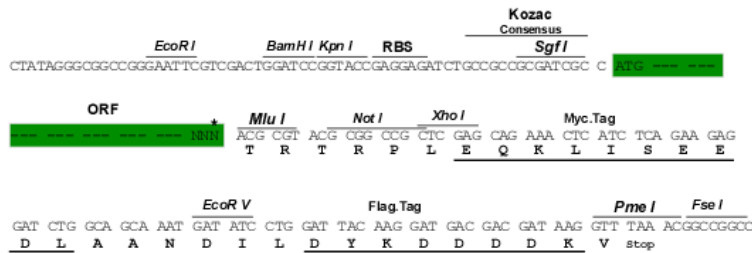
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6170_g04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



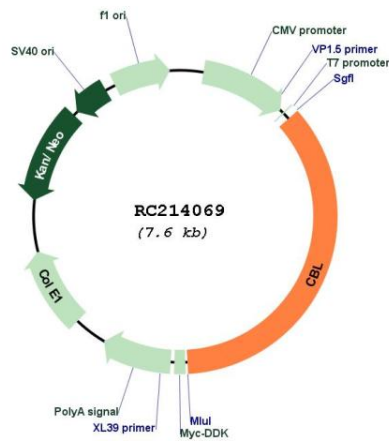
* The last codon before the Stop codon of the ORF

ACCN: NM_005188

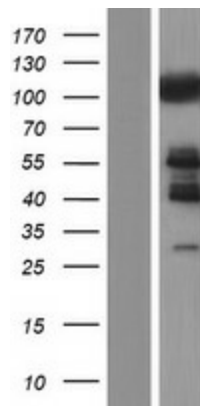
ORF Size:	2718 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info</p>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_005188.4
RefSeq Size:	11242 bp
RefSeq ORF:	2721 bp
Locus ID:	867
UniProt ID:	P22681
Cytogenetics:	11q23.3
Domains:	UBA, RING, Cbl_N
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	Chronic myeloid leukemia, Endocytosis, ErbB signaling pathway, Insulin signaling pathway, Jak-STAT signaling pathway, Pathways in cancer, T cell receptor signaling pathway, Ubiquitin mediated proteolysis
MW:	99.5 kDa

Gene Summary:

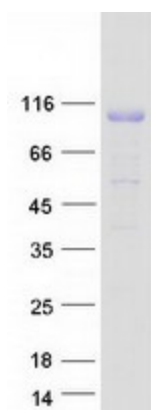
This gene is a proto-oncogene that encodes a RING finger E3 ubiquitin ligase. The encoded protein is one of the enzymes required for targeting substrates for degradation by the proteasome. This protein mediates the transfer of ubiquitin from ubiquitin conjugating enzymes (E2) to specific substrates. 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, and expansion of CGG repeats in the 5' UTR has been associated with Jacobsen syndrome. Mutations in this gene are also the cause of Noonan syndrome-like disorder. [provided by RefSeq, Jul 2016]

Product images:


Circular map for RC214069



Western blot validation of overexpression lysate (Cat# [LY401588]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214069 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CBL protein (Cat# [TP314069]). The protein was produced from HEK293T cells transfected with CBL cDNA clone (Cat# RC214069) using MegaTran 2.0 (Cat# [TT210002]).