

## Product datasheet for **RC400486**

### **CBL (NM\_005188) Human Mutant ORF Clone**

#### **Product data:**

Product Type:	Mutant ORF Clones
Product Name:	CBL (NM_005188) Human Mutant ORF Clone
Mutation Description:	C416Y
Affected Codon#:	416
Affected NT#:	c.1247
Nucleotide Mutation:	CBL Mutant (C416Y), Myc-DDK-tagged ORF clone of Homo sapiens Cas-Br-M (murine) ecotropic retroviral transforming sequence (CBL) as transfection-ready DNA
Effect:	Missense
Symbol:	CBL
Synonyms:	C-CBL; CBL2; FRA11B; NSLL; RNF55
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_005188
ORF Size:	2718 bp
Restriction Sites:	Sgfi-MluI



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**ORF Nucleotide  
Sequence:**

>RC400486 representing NM\_005188  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGCCGGCAACGTGAAGAAGAGCTCTGGGGCCGGGGCGGCAGCGGCTCCGGGGCTCGGGTTCGGGTG  
GCCTGATTGGGCTCATGAAGGACGCCTTCCAGCCGCACCACCACCACCACCACCCTCAGCCCCACCC  
GCCGGGACGGTGGACAAGAAGATGGTGGAGAAGTGTGGAAGCTCATGGACAAGGTGGTGCGGTTGTGT  
CAGAACCACAAAGCTGGCGCTAAAGAATAGCCACCTTATATCTTAGACCTGCTACCAGATACCTACCAGC  
ATCTCCGTAATCTTGTCAAGATATGAGGGGAAGATGGAGACACTTGGAGAAAATGAGTATTTAGGGT  
GTTTATGGAGAATTTGATGAAGAAAATAAGCAAACATAAGCCCTTCAAGGAGGAAAAAGAAAGTATG  
TATGAGGAGAATTCTCAGCCTAGGCGAAACCTAACCAAAGTGTCCCTCATCTTCAGCCACATGCTGGCAG  
AACTAAAAGGAATCTTCCAAGTGGACTCTTTCAGGGAGACACATTTCCGATTACTAAAGCAGATGCTGC  
GGAATTTTGGAGAAAAGCTTTTGGGGAAAAGACAATAGTCCCTTGAAGAGCTTTCGACAGGCTCTACAT  
GAAGTGCATCCCATCAGTCTGGGCTGGAGGCCATGGCTCTGAAATCCACTATTGATCTGACCTGCAATG  
ATTATATTTTCGGTTTTTGAATTTGACATCTTACCCGACTCTTTCAGCCCTGGTCTCTTTGCTCAGGAA  
TTGGAACAGCCTTGTGTAACCTCATCTGGCTACATGGCTTTTTTACGATGACGAAAGTAAAGCTCGG  
CTCCAGAAATTCATTCACAAACCTGGCAGTTATATCTTCCGGCTGAGCTGTACTCGTCTGGGTCAGTGGG  
CTATTGGGTATGTTACTGCTGATGGGAACATTCCTCAGACAATCCCTCACAATAAACCTCTTCCAAGC  
ACTGATTGATGGCTTCAGGGAAGGCTTCTATTTGTTTCTGATGGACGAAATCAGAATCCTGATCTGACT  
GGCTTATGTGAACCAACTCCCAAGACCATATCAAAGTGACCCAGGAACAATATGAATTAATACTGTGAGA  
TGGGCTCCACTTCCAACATGTAAAATATGTGCTGAAAATGATAAGGATGTAAGATTGAGCCCTGTGG  
ACACCTCATGTGCACATCCTGTCTTACATCCTGGCAGGAATCAGAAGGTCAGGGCTATCCTTTCTGCCGA  
TGTGAAATTAAGGTAAGTGAACCCATCCTGGTATAGATCCGTTTGTCTAGAGGGAGTGGCAGCCTGTTGA  
GGCAAGGAGCAGAGGGAGCTCCCTCCCAAAATTATGATGATGATGATGATGAAACGAGCTGATGACTCT  
CTTCATGATGAAGGAATTGGCTGGTGGCAAGGTGGAACGGCCGCTTCTCCATTCTCCATGGCCCCACAA  
GCTTCCCTTCCCGGTGCCACCAGACTTGACCTTCTGCCGACGAGTATGTGTTCCCTCAAGTGCTT  
CTGCTCTTGGAACTGCTTCAAGGCTGCTTCTGGCTCCCTTCATAAAGACAAACCATTGCCAGTACCTCC  
CACACTTCGAGATCTTCCACCACCACCGCTCCAGACCGCCATATTCTGTTGGAGCAGAATCCCGACT  
CAAAGACGCCCTTGCTTGTACACCAGGCGACTGTCCCTCCAGAGACAAACTGCCCCCTGTCCCTCTA  
GCCGCTTGGAGACTCATGGCTGCCCGGCCAATCCCAAAAGTACCAGTATCTGCCCAAGTTCCAGTGA  
TCCCTGGACAGGAAGAGAATTAACCAACCGGCACTCACTTCCATTTTCATTGCCCTCACAAATGGAGCCC  
AGACCAGATGTGCTTAGGCTCGGAAGCACGTTCACTGATGATGATGATGATGATGATGATGATGATGATGAT  
TAGTAGGTCCAGAGTGTGACCACCCCAAAATCAAACCTTCTCATCTGCCAATGCCATTTATTCTCTGGC  
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AGCAGATTGATAGCTGTACGTATGAAGCAATGTATAATATTAGTCCCAGGCGCCATCTATCACCAGAG  
CAGCACCTTTGGTGAAGGGAATTTGGCCGAGCCCATGCCAACACTGGTCCCAGGAGTCCAGAAAATGAG  
GATGATGGGTATGATGTCCCAAAGCCACCTGTGCCGGCCGTGCTGGCCCGCCGAACCTCTCAGATATCT  
CTAATGCCAGCTCCTCCTTTGGCTGGTGTCTCTGGATGGTATCCTACAACAAATGTCCTGAAGGTTCC  
CAAAGTCCCAGAGGCTCCAAAACCTTCCCGGAGAAATCAACTCTGAACGAAAAGCTGGCAGCTGT  
CAGCAAGGTAGTGGTCTGCCGCTCTGCTGCCACCGCTCACCTCAGCTCTCCAGTGGATCGAGAACC  
TCATGAGTCAGGGTACTCCTACCAGGACATCCAGAAAGCTTTGGTATTGCCAGAACAAACATCGAGAT  
GCCAAAACATCCTCCGGGAATTTGTTCCATTTCTTCTCCTGCCATGTAGCTACC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC400486 representing NM\_005188  
 Red=Cloning site Green=Tags(s)

MAGNVKKSSGAGGSGSGSGSGLIQLMKDAFQPHHHHHHLSHPHPPGTVDKMKVEKCKWLMKDVVRLC  
 QNPKLALKNSPPYILDLLPDTYQHLRTILSRYEGKMETLGENEYFRVFMENLMKKTQTISLFKEGKERM  
 YEENSQPRRNLTKLSLIFSHMLAELKGIFFSGLFQGDTRITKADAAEFWRKAFGEKTI VPKSFRQALH  
 EVHPISSGLEAMALKSTIDLTCNDYISVFEDIFTRLFQPWSSLLRNWNSLAVTHPGYMAFLTYDEVKAR  
 LQKFIHKPGSYIFRLSCTRLGQWAIGYVTADGNILQTI PHNKPLFQALIDGFREGFYLPDGRNQNPDLT  
 GLCEPTQDHIVTQEYELYCEMGSTFQLCKICAENDKVKIEPCGHLMCTSLTTSWQESEGGYPFRCR  
 CEIKGTEPIVVDPDFPRGSGSLLRQGAEGAPSPNYDDDDDERADDTLFMMKELAGAKVERPPSPFSMAPQ  
 ASLPPVPPRLDLLPQRVCVPSSASALGTASKAASGSLHKDKPLVPPTLRDLPPPPPPDRPYSVGAESRP  
 QRRPLCTPGDCPSRDKLPPVPSRLGDSWLRPPIPKVPVSAPSSDPWTGREL TNRHSLPFLPSQMEP  
 RPDVPRLGSTFSLDTSMSMNSSPLVGPECDHPKIKPSSSANAIYSLAARPLVPKLPPEQCEGEEDTEY  
 MTPSSRPLRPLDTSQSSRACDCQQIDSCTYEAMYNISQSQAPSITESSTFGEGNLAHAHANTGPEESENE  
 DDGYDVPKPPVAVLARRTLSDISNASSFGWLSLDGDPPTTNVTEGSQVPERPPKPPRRINSERKAGSC  
 QQGSGPAASAATASPQLSSEIENLMSQYSYQDIQKALVIAQNNIEMAKNILREFVSISSPAHVAT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



<b>OTI Disclaimer:</b>	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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.
	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>RefSeq:</b>	<a href="#">NP_005179</a>
<b>RefSeq Size:</b>	11241 bp
<b>RefSeq ORF:</b>	2721 bp
<b>Locus ID:</b>	867
<b>Cytogenetics:</b>	11q23.3
<b>Domains:</b>	UBA, RING, Cbl_N
<b>Protein Families:</b>	Druggable Genome, Transcription Factors
<b>Protein Pathways:</b>	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
<b>MW:</b>	99 kDa
<b>Gene Summary:</b>	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]