

Product datasheet for RC207017

p107 (RBL1) (NM_183404) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	p107 (RBL1) (NM_183404) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	p107
Synonyms:	CP107; p107; PRB1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC207017 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTTTCGAGGACAAGCCCCACGCTGAGGGGGCGGCGTGGTCGCCGACGCCGGGAGGCGCTACAGGCC
TGTGCCAGGAGCTGAACCTGGACGAGGGGAGCGCGCCGAAGCCCTGGACGACTTTACTGCCATCCGAGG
CAACTACAGCCTAGAGGGAGAAGTTACACACTGGTTGGCATGTTTCATTATATGTTGCATGCCGAAAAGC
ATTATCCACGGTTGAAAGGGTATCATGGAAGCAACTGTGTTTCACTTACCAGAATACTACGTTTCAG
CTAAATTAAGTTAATACAATTTTTAGTAAAAATGAAGAAATGGATGGACATGTCAAATCTACCACAAGA
ATTCGTAACGTATAGAAAGGCTAGAGAGAAATTTGAGGTGTCTACTGTAATATTCAAAAATATGAG
CCAATTTTTTAGATATATTTCAAATCCATATGAAGAACCACCAAAGTTACCACGAAGCCGGAAGCAGA
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TTTTCGGATGATTGGGGATGACTTAGTAACTCTTATCATTACTTCTATGCTGCTTGGATCTGATTTTT
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GTGGAGTATAACCTTCAACAGCACTTTGAAAAAAAAGGTCATTTGCACCTTCTACCCCACTGACCGGAC
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GTATTATAAAATACTAGAGACTGTAATGGTTCAGGAAACAGAACTTCATGGAATGGACATGTCAGTT



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CTTTTAGAGCAAGATATATTTTCATCGTTCTTGATGGCTTGTGTTTGGAAATTGTGCTCTTGCCTATA
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC207017 protein sequence
 Red=Cloning site Green=Tags(s)

MFEDKPHAEAAVVAAGEALQALCQELNLDEGSAAEALDDFTAIRGNYSLEGEVTHWLACSLYVACRKS
 IPTVGKGIIMEGNCVSLTRILRSAKLSLIQFFSKMKKWMDSNLPQEFRERIERLERNFEVSTVIFKKEY
 PIFLDIFQNPYEEPPKLPRSRKQRRIPCSVKDLFNFCWTLFVYTKGNFRMIGDDL VNSYHLLLCLDLIF
 ANAIMCPNRQDLLNPSFKGLPSDFHTADFTASEEPPCIIAVLCELHDGLLVEAKGIKEHYFKPYISKLFD
 RKILKGECLLDLSSFTDNSKAVNKEYEYVYLVGDFDERIFLGADAEIEIGTPRFTRDTPGLKTAQAN
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 RNPVENIMKILKIGETFCQHYTQSTDEQPGSHIDFAVNRLKLAELIYKILETVMVQETRRRLHGMDSV
 LLEQDIFHRSLMACCLEIVLFAYSSPRTFPWIIIEVLNLQPFYFYKVEVIRSEEGLSRDMVKHLNSIEE
 QILESLAWSHDSALWEALQVSANKVPTCEEVIFPNNFETGNGGNVQGHLPMPMSPLMHPRVKEVRTDSG
 SLRRDMQPLSPI SVHERYSSPTAGSAKRRLFGEDPPKEMLMDKIITEGTLKLIAPSSSITAENVSI LPGA
 TLLTMATAPVTGTTGHKVTIPLHG VANDAGEITL IPLSMNTNQESKVKSPVSLTAHSLIGASPKQTNLTK
 AQEVHSTGINRPKRTGSLALFYRKVYHLASVRLRDLCLKLDVSNELRRKIWTCFEFTLVHCPDLMKDRHL
 DQLLLCAFYIMAKVTKEERTFQEIMKSYRNQPQANSHVYRSVLLKSI PREVVAYNKNINDDFEMIDCDLE
 DATKTPDCSSGPVKEERGDLIKFYNTIYVGRVKS FALKYDLANQDHMMDAPPLSPFPHIKQQPGSPRRIS
 QQHSIYISPHKNGSGLTPRSALLYKFNNGSPSKVR

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6204_c05.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_183404

ORF Size: 3042 bp

OTI Disclaimer: 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](#)

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:

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.

RefSeq: [NM_183404.4](#)

RefSeq Size: 3305 bp

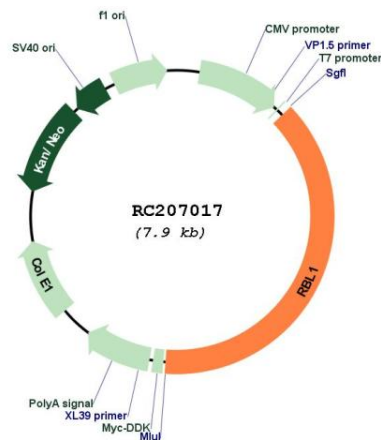
RefSeq ORF: 3045 bp

Locus ID: 5933

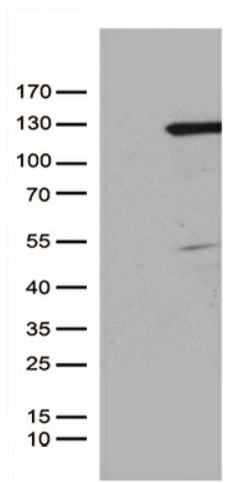
UniProt ID: [P28749](#)
 Cytogenetics: 20q11.23
 Protein Families: Druggable Genome, Transcription Factors
 Protein Pathways: Cell cycle, TGF-beta signaling pathway
 MW: 114.7 kDa

Gene Summary: The protein encoded by this gene is similar in sequence and possibly function to the product of the retinoblastoma 1 (RB1) gene. The RB1 gene product is a tumor suppressor protein that appears to be involved in cell cycle regulation, as it is phosphorylated in the S to M phase transition and is dephosphorylated in the G1 phase of the cell cycle. Both the RB1 protein and the product of this gene can form a complex with adenovirus E1A protein and SV40 large T-antigen, with the SV40 large T-antigen binding only to the unphosphorylated form of each protein. In addition, both proteins can inhibit the transcription of cell cycle genes containing E2F binding sites in their promoters. Due to the sequence and biochemical similarities with the RB1 protein, it is thought that the protein encoded by this gene may also be a tumor suppressor. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

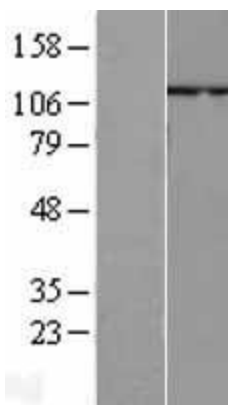
Product images:



Circular map for RC207017



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY RBL1 (Cat# RC207017, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-RBL1 (Cat# [TA811337])(1:500). Positive lysates [LY403655] (100ug) and [LC403655] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY403655]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207017 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).