

Product datasheet for **RG215873**

p107 (RBL1) (NM_002895) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	p107 (RBL1) (NM_002895) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	p107
Synonyms:	CP107; p107; PRB1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG215873 representing NM_002895 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTTTCGAGGACAAGCCCCACGCTGAGGGGGCGGCGGTGGTCGCGCAGCCGGGGAGGCGCTACAGGCC
TGTGCCAGGAGCTGAACCTGGACGAGGGGAGCGCGCCGAAGCCCTGGACGACTTTACTGCCATCCGAGG
CAACTACAGCCTAGAGGGAGAAGTTACACACTGGTTGGCATGTTTCATTATATGTTGCATGCCGAAAAGC
ATTATCCACGGTTGAAAAGGGTATCATGGAAGCAACTGTGTTTCACTTACCAGAATACTACGTTTCAG
CTAAATTAAGTTAATACAATTTTTAGTAAAATGAAGAAATGGATGGACATGTCAAATCTACCACAAGA
ATTTTCGTGAACGTATAGAAAGGCTAGAGAGAAATTTTGAGGTGTCTACTGTAATATTCAAAAATATGAG
CCAATTTTTTTAGATATATTTCAAATCCATATGAAGAACCACCAAAGTTACCACGAAGCCGGAAGCAGA
GGAGGATTCCTTGCAGTGTAAAGGATCTGTTAAATTTCTGTTGGACACTTTTGTATACTAAGGGTAA
TTTTCGGATGATTGGGGATGACTTAGTAACTCTATCATTACTTCTATGCTGCTTGGATCTGATTTTT
GCCAATGCGATTATGTGCCAAATAGACAAGACTTGCTAAATCCATCATTTAAAGGTTTACCATCTGATT
TTCATACTGCTGACTTTACGGCTTCTGAAGAGCCACCCGTCATCATTGCTGTACTGTGTAAGTGCATGA
TGGACTTCTCGTAGAAGCAAAAGGAATAAAGGAGCACTACTTTAAGCCATATATTTCAAACCTCTTTGAC
AGGAAGATATTAAGGAGAATGCCTCCTGGACCTTTCAAGTTTTACTGATAATAGCAAAGCAGTGAATA
AGGAGATGAAGAGTATGTTCTAACTGTTGGTGATTTTGATGAGAGGATCTTTTTGGGAGCAGACGCAGA
AGAGGAAATTGGAACACCTCGAAAGTTCCTCGTACACCCCATAGGGAAACTGACAGCACAGGCTAAT
GTGGAGTATAACCTTCAACAGCACTTTGAAAAAAAAGGTCATTTGCACCTTCTACCCCACTGACCGGAC
GGAGATATTTACGAGAAAAAGAAGCAGTCACTACTCCTGTTGCATCAGCCACCCAAAGTGTGAGCCGGTT
ACAGAGTATTGTGGCTGGTCTGAAAAATGCACCAAGTACCAACTATAAATATTTTTGAATCTTGTGTG
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AATCAACAGATGAACAGCCAGGATCTCACATAGACTTTGCTGTAACAGACTAAAGCTGGCAGAAATTTT
GTATTATAAAATACTAGAGACTGTAATGGTTCAGGAAACAGAACTTCATGGAATGGACATGTCAGTT



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CTTTTAGAGCAAGATATATTTTCATCGTTCCTTGATGGCTTGTGTTTGGAAATTGTGCTCTTGCCTATA
 GCTCACCTCGTACTTTTCCTTGGATTATTGAAGTTCTCAACTGCAACCATTTTACTTTTATAAGGTTAT
 TGAGGTGGTGTACCGCTCAGAAGAGGGGCTCTCAAGGGACATGGTGAAACACCTAAACAGCATTGAAGAA
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 GGAGTGCTAAGAGAAGACTCTTTGGAGAGGACCCCCAAAGGAAATGCTTATGGACAAGATCATAACAGA
 AGGAACAAAATTGAAAATCGCTCCTTCTCAAGCATTACTGCTGAAAATGTATCAATTTTACCTGGTCAA
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 CAAGAGTCTGTATCACTTACTGCTCATTCAATTAATTGGTGTCTTCCAAAACAGACCAATCTGACTAAA
 GCACAAGAGGTACATTCAACTGGAATAACAGGCCAAAGAGAAGTGGTCTTAGCACTATTTTACAGAA
 AGGTCTATCATTGGCAAGTGTACGCTTACGTGATCTATGTCTAAAAGTGGATGTTTCAAATGAGTTACG
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 TCCAAGAGAAGTTGTGGCATATAATAAAAATAAATGATGACTTTGAAATGATAGATTGTGACTTAGAA
 GATGCTACAAAAACCTGACTGTTCCAGTGGACCAGTGAAGAGGAAAGAGGTGATCTTATAAAATTTT
 ACAATACAATATATGTAGGAAGAGTGAAGTCAATTTGCACTGAAATACGACTTGGCGAATCAGGACCATAT
 GATGGATGCTCCACCCTCTCCTTTTCCACATTAACAACAGCCAGGCTCACCACGCCGATTTCC
 CAGCAGCACTCCATTTATATTTCCCGCACAAGAATGGGTGAGGCTTACACCAAGAAGCGCTCTGCTGT
 ACAAGTTCAATGGCAGCCCTTCTAAGAGTTTGAAGATATCAACAACATGATAAGGCAAGGTGAGCAGAG
 AACCAAGAAGCGAGTAATAGCCATCGATAGTGTGTCAGAAATCCCTGCCAAACCGCTCTGTCAAGAAAAT
 GATGACGTTTTACTGAAACGACTACAGGATGTTGTGTCAGTGAAGAGCAAATCAT

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG215873 representing NM_002895

Red=Cloning site Green=Tags(s)

MFEDKPHAEGAAVVAAAGEALQALCQELNLDEGSAAEALDDFTAIRGNYSLEGEVTHWLACSLYVACRKS
 IIPTVVGKIMEGNCVSLTRILRSAKLSLIQFFSKMKKWMDSNLPQEFRERIERLERNFEVSTVIFKKYE
 PIFLDIFQNPYEEPPKLRSRKQRRIPCSVKDLFNFCWTLFVYTKGNFRMIGDDL VNSYHLLCCLDLIF
 ANAIMCPNRQDLLNPSFKGLPSDFHTADFTASEEPPCIIAVLCELHDGLLVEAKGIKEHYFKPYISKLFD
 RKILKGECLLDLSSFTDNSKAVNKEYEYVLTGDFDERIFLGADAEIEIGTPRFTRDTPLGKLT AQAN
 VEYNLQQHFEEKRSFAPSTPLTGRRYLREKEAVITPVASATQSVSRQLSIVAGLKNAPSDQLINIFESCV
 RNPVENIMKILKIGETFQHYTQSTDEQPGSHIDFAVNRLKLAELIYYKILETMVMQETRRRLHGMDMSV
 LLEQDIFHRSLMACCLEIVLFAYSSPRTFPWIIIEVLNLQPFYFYKVIEWVIRSEEGLSRDMVKHLNSIEE
 QILESLSAWSHDSALWEALQVSANKVPTCEEVIFPNNFETGNGGNVQGHLLPMPMSPLMHPRVKEVRTDSG
 SLRRDMQPLSPIVHERYSSPTAGSAKRRLFGEDPPKEMLMDKIITEGTLKIAPSSSITAENVSI L PGQ
 TLLTMAPVTGTTGHKVTIPLHG VANDAGEITL I PL SMNTNQESKVKSPVSLTAHSLIGASPKQNTLTK
 AQEVHSTGINRPKRTGSLALFYRKVYHLASVRLRDLCLKLDVSNELRRKIWTCEFTLVHCPDLMKDRHL
 DQLLLCAFYIMAKVTKEERTFQEIMKSYRNQPQANSHVYRSVLLKSI PREVVAYNKINDDFEMIDCDLE
 DATKTPDCSSGPKVEERGDLIKFYNTIYVGRVKSFKALKYDLANQDHMMDAPPLSPFPHIKQQPGSPRRIS
 QQHSIYISPHKNGSGLTPRSALLYKFNGSPSKSLKDINNMIRQGEQRTKRVIAIDSDAESPAKRVCQEN
 DDVLLKRLQDVVSERANH

SGPTRRRLE - GFP Tag - V

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM_002895

ORF Size: 3204 bp

OTI Disclaimer: 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.

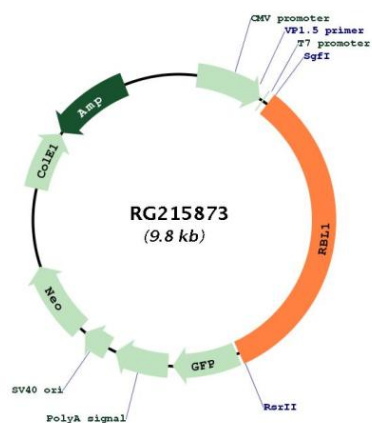
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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:	<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.
RefSeq:	NM_002895.5
RefSeq Size:	4270 bp
RefSeq ORF:	3207 bp
Locus ID:	5933
UniProt ID:	P28749
Cytogenetics:	20q11.23
Domains:	RB_B, RB_A
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	Cell cycle, TGF-beta signaling pathway
Gene Summary:	<p>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]</p>

Product images:



Circular map for RG215873