

Product datasheet for **RC201141**

PRC1 (NM_003981) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PRC1 (NM_003981) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PRC1
Synonyms:	ASE1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC201141 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGGAGAAGTGAAGTCTGGCGGAGGAGTCCATAGTATGTCTGCAGAAAGCCCTAAATCACCTTCGGG
 AAATATGGGAGCTAATTGGGATTCCAGAGGACCAGCGGTTACAAAGAAGCTGAGGTGGTAAAGAAGCATAT
 CAAGGAACTCCTGGATATGATGATTGCTGAAGAGGAAAGCCTGAAGGAAAGACTCATCAAAAGCATATCC
 GTCTGTGCAGAAAGAGCTGAACACTCTGTGCAGCGAGTTACATGTTGAGCCATTTAGGAAGAAGGAGAGA
 CAACCATCTTGAACCTAGAAAAAGATTTGCGCACCCAAGTGAATTGATGCGAAAACAGAAAAAGGAGAG
 AAAACAGGAACTGAAGCTACTTCAAGAGCAAGATCAAGAAGTGTGCGAAATTCCTTGTATGCCCCACTAT
 GATATTGACAGTGCCTCAGTGCCAGCTTAGAAGAGCTGAACAGTTCAGGCAACATGTGACAACTTTGA
 GGGAAACAAAGGCTTCTAGGCGTGAGGAGTTTGCAGTATAAAGAGACAGATCATACTGTGTATGGAAGA
 ATTAGACCACACCCAGACACAAGCTTTGAAAGAGATGTGGTGTGTGAAGACGAAGATGCCTTTTGTGTTG
 TCTTTGGAGAATATTGCAACACTACAAAAGTTGCTACGGCAGCTGGAAATGCAGAAATCACAAAATGAAG
 CAGTGTGTGAGGGGCTGCGTACTCAAATCCGAGAGCTCTGGGACAGGTTGCAAAATACCTGAAGAAGAAAG
 AGAAGCTGTGGCCACCATTATGTCTGGGTCAAAGGCCAAGGTCGGAAAGCGCTGCAATTAGAAGTGGAT
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 ACTGGGACCAGTGCTTTTATAGCCAGGAGCAGAGACAAGCTTTTGCCCTTTCTGTGCTGAGGACTACAC
 AGAAAGTCTGCTCCAGCTCCACGATGCTGAGATTGTGCGGTTAAAAACTACTATGAAGTTCACAAGGAA
 CTCTTTGAAGGTGTCCAGAAGTGGGAAGAAACCTGGAGGCTTTTCTTAGAGTTTGAGAGAAAAGCTTCAG
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 ACCACCATGTCCAATGCTACGGCCAATAGTAGCATTGCGCCTATCTTTGGAGGGACAGTCTACCACTCCC
 CCGTGTCTCGACTTCTCCTTCTGGCAGCAAGCCAGTCTGCTTCCACCTGTTAGGGAAGAAAACACC
 CCGTACTGGCAGGCATGGAGCCAACAAGGAGAACCTGGAGCTCAACGGCAGCATCTGAGTGGTGGGTAC
 CCTGGCTCGGCCCCCTCCAGCGCAACTCAGCATTAAATCTGTTGCCAGCACCTATTCTGAGTTTGGCA
 AGGATCCGTCCCTCTCTGACAGTCCACTGTTGGGCTTACGCGAGAACTTCAAAGGCTTCAAATCTGA
 TGCTACTTCTGGAATCCTCAATCAACCAACATCCAGTCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
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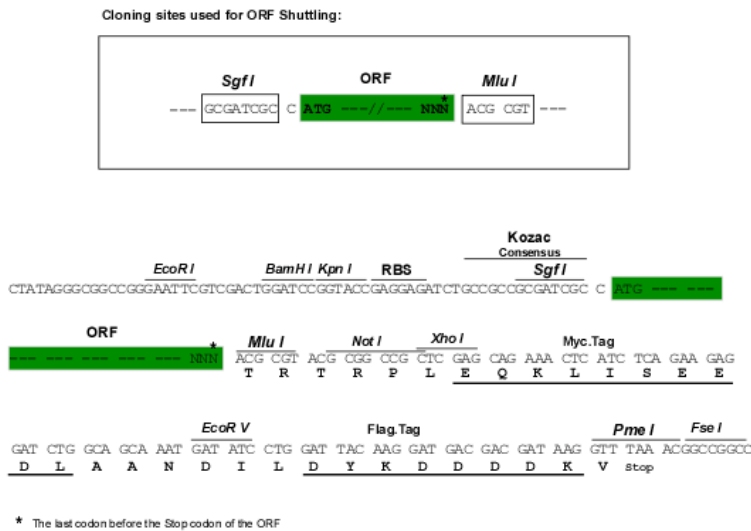
Protein Sequence:

>RC201141 protein sequence
 Red=Cloning site Green=Tags(s)

MRRSEVLAEEESIVCLQKALNHLREIWELIGIPEDQRLQRTEVVKKHIKELLDMMIAEEESLKERLIKISIS
 VCQKELNLTCELHVEPFQEEGETTILQLEKDLRTQVELMRKQKQKQKQELKLLQEQQELCEILCMPHY
 DIDSASVPSLEELNQFRQHVTTLRETKASRREEFVSIKRQIILCMEELDHTPDTSFERDVCEDEDACFL
 SLENIATLQKLLRQLEMQKSQNEAVCEGLRTQIRELWDRLQIPEEEREAVATIMSGSKAKVRKALQLEVD
 RLEELKMQNMKKVIEAIRVELVQYWDQCFYSQEQRFAPFCAEDYTESELLQLHDAEIVRLKNYEVVHKE
 LFEGVQKWEETWRLFLEFERKASDPNRFNRRGNLLKEEKQRAKLQKMLPKLEELKARIELWEQEHSKA
 FMVNGQKFMHEYVAEQWEMHRLEKERAKQERQLKNKKQTEMLYGSAPRTPSKRRGLAPNTPGKARKLNT
 TTMSNATANSSIRPIFGGTVYHSPVSRLLPPSGSKPVAASTCSGKKTPTGRHGANKENLELNGSILSGGY
 PGSAPLQRNFSINSVASTYSEFAKDPSSLSDSSTVGLQRELKASKSDATSGILNSTNIQS

TRTRPLEQKLISEEDLAANDILDYKDDDDK**V**

Chromatograms: https://cdn.origene.com/chromatograms/mk6588_g03.zip
 Restriction Sites: SgfI-MluI
 Cloning Scheme:



ACCN: NM_003981
 ORF Size: 1860 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_003981.4](#)
 RefSeq Size: 3207 bp

RefSeq ORF: 1863 bp

Locus ID: 9055

UniProt ID: [O43663](#)

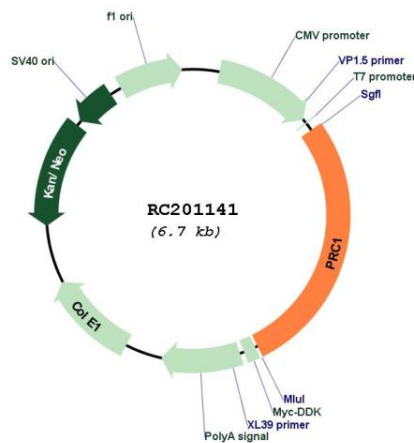
Cytogenetics: 15q26.1

Domains: MAP65_ASE1

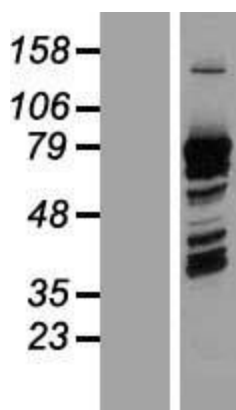
MW: 71.7 kDa

Gene Summary: This gene encodes a protein that is involved in cytokinesis. The protein is present at high levels during the S and G2/M phases of mitosis but its levels drop dramatically when the cell exits mitosis and enters the G1 phase. It is located in the nucleus during interphase, becomes associated with mitotic spindles in a highly dynamic manner during mitosis, and localizes to the cell mid-body during cytokinesis. This protein has been shown to be a substrate of several cyclin-dependent kinases (CDKs). It is necessary for polarizing parallel microtubules and concentrating the factors responsible for contractile ring assembly. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jun 2012]

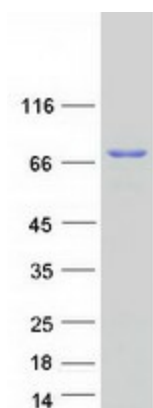
Product images:



Circular map for RC201141



Western blot validation of overexpression lysate (Cat# [LY418307]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201141 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PRC1 protein (Cat# [TP301141]). The protein was produced from HEK293T cells transfected with PRC1 cDNA clone (Cat# RC201141) using MegaTran 2.0 (Cat# [TT210002]).