

Product datasheet for **RC217423**

PRC1 (NM_199414) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PRC1 (NM_199414) 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:

>RC217423 representing NM_199414
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGGAGAAGTGAAGTCTGGCGGAGGAGTCCATAGTATGTCTGCAGAAAGCCCTAAATCACCTTCGGG
 AAATATGGGAGCTAATTGGGATTCCAGAGGACCAGCGGTTACAAAGAAGTGAAGTGGTAAAGAAGCATAT
 CAAGGAACTCCTGGATATGATGATTGCTGAAGAGGAAAGCCTGAAGGAAAGACTCATCAAAAGCATATCC
 GTCTGTGCAGAAAGAGCTGAACACTCTGTGCAGCGAGTTACATGTTGAGCCATTTAGGAAGAAGGAGAGA
 CGACCATCTTGAACCTAGAAAAAGATTTGCGCACCCAAGTGAATTTGATGCGAAAACAGAAAAAGGAGAG
 AAAACAGGAACTGAAGCTACTTCAAGAGCAAGATCAAGAAGTGTGCGAAATTCCTTTGTATGCCCCACTAT
 GATATTGACAGTGCCTCAGTGCCAGCTTAGAAGAGCTGAACAGTTCAGGCAACATGTGACAACTTTGA
 GGGAAACAAAGGCTTCTAGGCGTGAGGAGTTTGCAGTATAAAGAGACAGATCATACTGTGTATGGAAGA
 ATTAGACCACACCCAGACACAAGCTTTGAAAGAGATGTGGTGTGTGAAGACGAAGATGCCTTTTGTGTTG
 TCTTTGGAGAATATTGCAACACTACAAAAGTTGCTACGGCAGCTGGAAATGCAGAAATCACAAAATGAAG
 CAGTGTGTGAGGGGCTGCGTACTCAAATCCGAGAGCTCTGGGACAGGTTGCAAAATACCTGAAGAAGAAAG
 AGAAGCTGTGGCCACCATTATGTCTGGGTCAAAGGCCAAGGTCGGAAAGCGCTGCAATTAGAAGTGGAT
 CGGTTGGAAGAACTGAAAATGCAAAACATGAAGAAAGTGAATGAGGCAATTCGAGTGGAGCTGGTTCAGT
 ACTGGGACCAGTGCTTTTATAGCCAGGAGCAGAGACAAGCTTTTGCCCTTTCTGTGCTGAGGACTACAC
 AGAAAGTCTGCTCCAGCTCCACGATGCTGAGATTGTGCGGTTAAAAACTACTATGAAGTTCACAAGGAA
 CTCTTTGAAGGTGTCCAGAAGTGGGAAGAAACCTGGAGGCTTTTCTTAGAGTTTGAGAGAAAAGCTTCAG
 ATCCAACTCGATTTACAAACCGAGGAGGAAATCTTCTAAAAGAAGAAAAACAACGAGCCAAGCTCCAGAA
 AATGCTGCCCAAGCTGGAAGAAGAGTTGAAGGCACGAATTGAATTTGTTGGGAACAGGAACATTCAAAGGCA
 TTTATGGTGAATGGGCAGAAATTCATGGAGTATGTGCGAGAACAATGGGAGATGCATCGATTGGAGAAAG
 AGAGAGCCAAGCAGGAAAGACAACCTGAAGAAACAAAAACAGACAGAGACAGAGATGCTGTATGGCAGCGC
 TCCTCGAACACCTAGCAAGCGGCGAGGACTGGCTCCCAATACACCGGGCAAAGCACGTAAGCTGAACACT
 ACCACCATGTCCAATGCTACGGCCAATAGTAGCATTTCGGCCTATCTTTGGAGGGACAGTCTACCCTCCC
 CCGTGTCTCGACTTCTCCTTCTGGCAGCAAGCCAGTCTGCTTCCACCTGTTAGGGAAGAAAACACC
 CCGTACTGGCAGGCATGGAGCCAACAAGGAGAACCTGGAGCTCAACGGCAGCATCTGAGTGCAGAACT
 TTCAAAGGCTTCAAATC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC217423 representing NM_199414
 Red=Cloning site Green=Tags(s)

MRRSEVLAEESIVCLQKALNHLREIWELIGIPEDQRLQRTEVVKKHIKELLDMMIAEEESLKERLIKISIS
 VCQKELNTLCSELHVEPFQEEGETTILQLEKDLRTQVELMRKQKQKQELKLLQEQQELCEILCMPHY
 DIDSASVPSLEELNQFRQHVTTLRETKASRREEFVSIKRQIILCMEELDHTPDTSFERDVCEDEDAFCL
 SLENIATLQKLLRQLEMQKSQNEAVCEGLRTQIRELWDRLQIPEEEREAVATIMSGSKAKVRKALQLEVD
 RLEELKMQNMKKVIEAIRVELVQYWDQCFYSQEQRAFAPFCAEDYTESLLQLHDAEIVRLKNYYEVHKE
 LFEGVQKWEETWRLFLEFERKASDPNRFNRRGGNLLKEEKQRAKQKMLPKLEELKARIELWEQEHKA
 FMVNGQKFMHEYVAEQWEMHRLEKERAKQERQLKNKKQTEMLYGSAPRTPSKRRGLAPNTPGKARKLNT
 TTMSNATANSSIRPIFGGTVYHSPVSRLLPPSGSKPVAASTCSGKKTPTRTGRHGANKENLELNGSILSART
 FKGFQI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8067_f03.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_199414

ORF Size: 1698 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_199414.1](#), [NP_955446.1](#)

RefSeq Size: 3011 bp

RefSeq ORF: 1700 bp

Locus ID: 9055

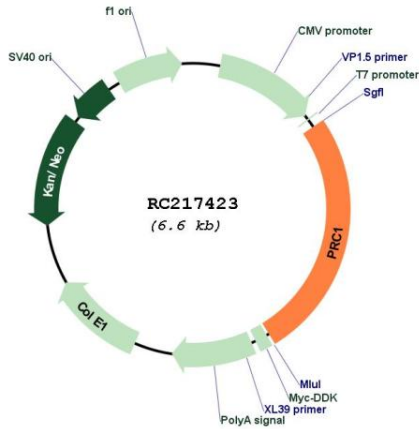
Cytogenetics: 15q26.1

MW: 66 kDa

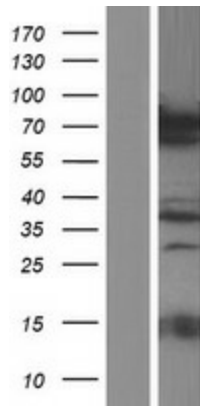
Gene Summary:

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 RC217423



Western blot validation of overexpression lysate (Cat# [LY404549]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217423 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).