

Product datasheet for **MR209337**

Prc1 (NM_145150) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Prc1 (NM_145150) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Prc1
Synonyms:	D7Ertd348e
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR209337 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGGAGAAGTGAAGTCTAGCAGATGAGTCTATCACATGCCTGCAGAAAGCTCTAACTCACCTCCGGG
 AAATATGGGAACAAATTGGGATTCCAGAGGAGCAGAGGCTACAAAGAACCGAGGTTGTAAAGAAGCATAT
 AAAGGATCTTCTGGATAGAATGATTGCTGAAGAGGAGAGCCTGAGGAAAAGGCTGCTTAAAAAGCATATCC
 ATCTGTGAGAAGGAGCTGAGTACCCTGTGCAGTGAAGTACAAGTGAAGCCATTTAGGAAGAAAAAGATA
 CAACCATCTTGAACCTAGAAAAAGATCTGCGCACTCAAGTAGAATTGATGAGAAAACAGAAAAAGGAGAG
 AAAGCAGGAATTGAAGCTACTTCAGGAACAGGAGCAAGAAGTCCGTGACATCCTCTGTATGCCGCCCTGT
 GATGTGGACAGCACCTCTGTCCCACCTTAGAAGAGCTGAAGCTATTCCGACAGCGTGTGGCAACGCTGA
 GGGAGACAAAAGGAATCGAGGCGTGAAGAATTTGTCAACATTAAGAAACAAATCATATTGTGTATGGAAGA
 ATTAGAACACTCTCCAGATACAAGCTTTGAAAGAGATGTGGTGTGTGAAGATGAAAGTGCTTTTTGTTTA
 TCACTGGAGAACATTGCAACATTACAGAAGTTGCTGAAGCAGCTGGAAATGAAAAATCACAAAATGAAG
 CAGAATGTGAGGGGCTTCGCACTCAAATCCGAGAGCTCTGGGATAGGTTACAAATACCTGAAGAAGAGAG
 AGAGCCTGTGGAGCAATTATGACTGGATCAAAAACAAAATCAGGAATGCGCTGAAATTAGAAGTGGAT
 CGGTTAGAAGAACTGAAAATGCAAAACATAAAGCAAGTATTGAGAAAATCCGAGTGGAGCTGGCTCAGT
 TCTGGGACCAGTGTTTTTATAGCCAGGAACAGAGGCAGGCTTTTGCCCTTACTATTCTGAGGACTACAC
 AGAAAACCTGCTCCATCTTCATGATGCCGAGATTGTACGGTTAAGAACTACTATGACGCTCACAAAGGAG
 CTGTTCCAAGGCGTCCAGAAGTGGGAAGAGAGCTGGAAACTTTTCTAGAGTTTGAGAAAAGCTTCAG
 ATCCAGTCCGTTTACAAACCGAGGGGAAATCTTTTAAAAGAAGAAAAGGAACGAGCAAAAGCTCCAGAA
 AACACTCCCTAAGCTGGAAGAGGAGTTGAAAGCACGGATTGAACAGTGGGAACAGGAGCACTCAACAGCA
 TTTGTGGTGAATGGGCAGAAATTCATGGAGTATGTTACAGAACAGTGGGAATTACATCGGCTGGAGAAAG
 AGCGAGCCAAACAGGAGAGGCAACTGAAGAACAAGAAACAGACAGAGGCAGAGATGCTGTATGGCAGTAC
 TCCCCGGACACCTAGCAAAAGACCAGGACAGACGCCCAAGAACTGCGCAAAATGAACACTACCACCATG
 TCTAGTGTACACCCAACAGTAGCATTCCGGCTGTCTTTGGTGGATCAGTGTACCGGTACCTATGTCTC
 GACTACCCCTTCTGGCAGCAAGTCAGTTGTCACTTCTCTGTGTCTGGAAGAAAACACCTCGAGCTGC
 CCAGCTTAGGGCCAACAAGGAGAACTTGGACCTCAATGGCAGCATCCTGAGCGGTGGGTACCTGGCTCG
 ACGCCCTCCAGCACAACTGCAGCATTAAAGTCTGTTGCCAGCACCTATTCTGAGTTTTCGCGAGAAGCTTT
 CAAAGGCTTCAGATCTGATGCTACGTCTCGAATCCTCAATTCAACCAACATCCAGTCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR209337 protein sequence
 Red=Cloning site Green=Tags(s)

MRRSEVLADESITCLQKALTHLREIWELIGIPEEQRLQRTEVVKKHDKDLLDRMIAEEESLRERLLKSIS
 ICQKELSTLCSELQVQPFQEEKDTHLQLEKDLRTQVELMRKQKQKQELKLLQEQELRDILCMPPC
 DVDSTSVPTLEELKLFQRVATLRETKESRREEFVNIKKQIILCMEELEHSPDTSFERDVCEDSAFCL
 SLENIATLQKLLQLEMKKSQNEACEGLRQIRELWDRLQIPEEEREPVEAIMTGSKTKIRNALKLEVD
 RLEELKMQNIKQVIEKIRVELAQFWDQCFYSQEQRAFAPYYSEDYENLLHLHDAEIVRLRNYYDAHKE
 LFQGVQKWEESWKLFLFERKASDPGRFTNRGGNLLKEEKERAKLQKTLPKLEELKARIEQWEQEHSTA
 FVYNGQKFMHEYVTEQWELHRLEKERAKQERQLKNKKQTEAEMLYGSTPRTPSKRPGQTPKSGKMNTTMM
 SSATPNSSIRPVFGGSVYRSPMSRLPPSGSKSVVTSLSGSKTPRAAQLRANKENLDLNGSILSGGYPGS
 TPLQHNCISIKSVASTYSEFSRELSKASRSDATSRILNSTNIQS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_145150

ORF Size: 1812 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_145150.1](#), [NP_660132.1](#)

RefSeq Size: 3049 bp

RefSeq ORF: 1821 bp

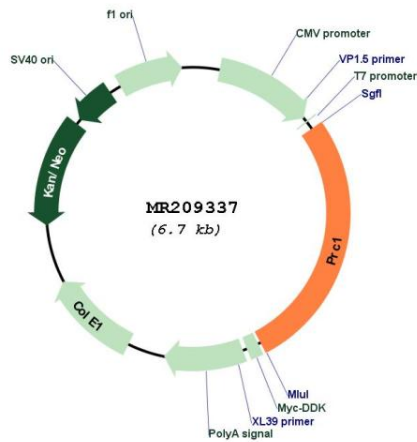
Locus ID: 233406

Cytogenetics: 7 45.62 cM

MW: 70.3 kDa

Gene Summary: Key regulator of cytokinesis that cross-links antiparrallel microtubules at an average distance of 35 nM. Essential for controlling the spatiotemporal formation of the midzone and successful cytokinesis. Required for KIF14 localization to the central spindle and midbody. Required to recruit PLK1 to the spindle. Stimulates PLK1 phosphorylation of RACGAP1 to allow recruitment of ECT2 to the central spindle. Acts as an oncogene for promoting bladder cancer cells proliferation, apoptosis inhibition and carcinogenic progression. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR209337