

## Product datasheet for **MC228328**

### **Prc1 (NM\_001285998) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Prc1 (NM_001285998) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Prc1
Synonyms:	D7Ertd348e
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >MC228328 representing NM\_001285998  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGGAGAAGTGAAGTCTAGCAGATGAGTCTATCACATGCCTGCAGAAAGCTCTAACTCACCTCCGGG  
 AAATATGGGAACATAATTGGGATTCCAGAGGAGCAGAGGCTACAAAGAACCAGGTTGTAAAGAAGCATAT  
 AAAGGATCTTCTGGATAGAATGATTGCTGAAGAGGAGAGCCTGAGGGAAAAGGCTGCTCAAAAAGCATATCC  
 ATCTGTGAGAAGGAGCTGAGTACCCTGTGCAGTGAAGTACAAGTGAAGCCATTTTCAGGAAGAAAAAGATA  
 CAACCATCTTGAACCTAGAAAAAGATTTGCGCACTCAAGTAGAATTGATGAGAAAACAGAAAAAGGAGAG  
 AAAGCAGGAACCTGAAGCTACTTCAGGAACAGGAGCAAGAAGTCCGTGACATCCTCTGTATGCCGCCCTGT  
 GATGTGGACAGCACCTCTGTCCCACCTTAGAAGAGCTGAAGCTATTCCGACAGCGTGTGGCAACGCTGA  
 GGGAGACAAAAGGAATCGAGGCGTGAAGAATTTGTCAACATTAAGAAACAAATCATATTGTGTATGGAAGA  
 ATTAGAACACTCTCCAGATACAAGCTTTGAAAGAGATGTGGTGTGTGAAGATGAAAGTGCTTTTTGTTTA  
 TCACTGGAGAACATTGCAACATTACAGAAGTTGCTGAAGCAGCTGAAAATGAAAAAATCACAAAATGAAG  
 CAGAATGTGAGGGGCTCCGCACTCAAATCCGAGAGCTCTGGGATAGGTTACAAATACCTGAAGAAGAGAG  
 AGAGCCTGTGGAGGCAATTATGACTGGATCAAAAACAAAATCAGGAATGCGCTGAAATAGAAAGTGGAT  
 CGGTTAGAAGAACTGAAAATGCAAAACATAAAGCAAGTATTGAGAAAATCCGAGTGGAGCTGGCTCAAT  
 TCTGGGACCAGTGTTTTTATAGCCAGGAACAGAGGCAGGCTTTTGCCCTTACTATTCTGAGGACTACAC  
 AGAAAACCTGCTCCATCTTCATGATGCCGAGATTGTACGGTTAAGAACTACTATGACGTTACAAAGGAG  
 CTGTTCCAAGGCGTCCAGAAGTGGGAAGAGAGCTGGAACCTTTTCTAGAGTTTGAGAGAAAAGCTTCAG  
 ATCCAGGTCGATTTACAAACCGAGGGGAAATCTTTTAAAAGAAGAAAAGGAACGAGCAAAAGCTCCAGAA  
 AACACTCCCTAAGCTGGAAGAGGAGTTGAAAGCACGGATTGAACAGTGGGAACAGGAGCACTCAACAGCA  
 TTTGTGGTGAATGGGCAGAAATTCATGGAGTATGTTACAGAACAGTGGGAATTACATCGGCTGGAGAAAG  
 AGCGAGCCAAACAGGAGAGGCAACTGAAGAACAAGAAACAGACAGAGGCAGAGATGCTGTATGGCAGTAC  
 TCCCCGGACACCTAGCAAAAGACCAGGACAGACGCCCAAGAAAGTCTGGCAAAGTACGCAAGATGAACACT  
 ACCACCATGTCTAGTGTACACCAACAGTAGCATTGCGCCTGTCTTTGGTGGATCAGTGTACCGGTAC  
 CTATGTCTCGACTACCCCTTCTGGCAGCAAGTCAAGTGTCACTTCTCTGTGTTCTGAAAGAAAACACC  
 TCGAGCTGCCAGCTTAGGGCCAACAAGGAGAAGTGGACCTCAATGGCAGCATCCTGAGCGCGAGAAGT  
 TTCAAAGGCTTCCAGATCTGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM\_001285998
- Insert Size:** 1701 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
- 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\\_001285998.1](#), [NP\\_001272927.1](#)

**RefSeq Size:** 2972 bp

**RefSeq ORF:** 1701 bp

**Locus ID:** 233406

**Cytogenetics:** 7 45.62 cM

**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]

Transcript Variant: This variant (3) uses an alternate splice junction at the 3' end of a coding exon compared to variant 1, that causes a frameshift. The resulting isoform (3) has a shorter and distinct C-terminus compared to isoform 1.