

## Product datasheet for **MR230539**

### **Prc1 (NM\_001285998) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Prc1 (NM_001285998) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Prc1
Synonyms:	D7Erttd348e
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>MR230539 representing NM\_001285998  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAGGAGAAGTGAAGTGTAGCAGATGAGTCTATCACATGCCTGCAGAAAGCTCTAACTCACCTCCGGG  
 AAATATGGGAACATAATTGGGATTCCAGAGGAGCAGAGGCTACAAAGAACCGAGGTTGTAAAGAAGCATAT  
 AAAGGATCTTCTGGATAGAATGATTGCTGAAGAGGAGAGCCTGAGGGAAAAGGCTGCTCAAAAAGCATATCC  
 ATCTGTGAGAAGGAGCTGAGTACCCTGTGCAGTGAAGTACAAGTGAAGCCATTTAGGAAGAAAAAGATA  
 CAACCATCTTGAACCTAGAAAAAGATTTGCGCACTCAAGTAGAATTGATGAGAAAACAGAAAAAGGAGAG  
 AAAGCAGGAACCTGAAGCTACTTCAGGAACAGGAGCAAGAAGTCCGTGACATCCTCTGTATGCCGCCCTGT  
 GATGTGGACAGCACCTCTGTCCCACCTTAGAAGAGCTGAAGCTATTCCGACAGCGTGTGGCAACGCTGA  
 GGGAGACAAAAGGAATCGAGGCGTGAAGAATTTGTCAACATTAAGAAACAAATCATATTGTGTATGGAAGA  
 ATTAGAACACTCTCCAGATACAAGCTTTGAAAGAGATGTGGTGTGTGAAGATGAAAGTGCTTTTTGTTTA  
 TCACTGGAGAACATTGCAACATTACAGAAGTTGCTGAAGCAGCTGAAATGAAAAATCACAAAATGAAG  
 CAGAATGTGAGGGGCTCCGCACTCAAATCCGAGAGCTCTGGGATAGGTTACAAATACCTGAAGAAGAGAG  
 AGAGCCTGTGGAGGCAATTATGACTGGATCAAAAACAAAATCAGGAATGCGCTGAAATAGAAAGTGGAT  
 CGGTTAGAAGAACTGAAAATGCAAAACATAAAGCAAGTATTGAGAAAATCCGAGTGGAGCTGGCTCAAT  
 TCTGGGACCAGTGTTTTTATAGCCAGGAACAGAGGCGAGCTTTTGCCCTTACTATTCTGAGGACTACAC  
 AGAAAACCTGCTCCATCTTCATGATGCCGAGATTGTACGGTTAAGAACTACTATGACGTTACAAAGGAG  
 CTGTTCCAAGGCGTCCAGAAGTGGGAAGAGAGCTGGAAACTTTTCTAGAGTTTGGAGAAAAGCTCCAGAA  
 ATCCAGTTCGATTTACAAACCGAGGGGAAATCTTTTAAAAGAAGAAAAGGAACGAGCAAAAGCTCCAGAA  
 AACACTCCCTAAGCTGGAAGAGGAGTTGAAAGCACGGATTGAACAGTGGGAACAGGAGCACTCAACAGCA  
 TTTGTGGTGAATGGGCAGAAATTCATGGAGTATGTTACAGAACAGTGGGAATTACATCGGCTGGAGAAAG  
 AGCGAGCCAAACAGGAGAGGCAACTGAAGAAACAAGAAACAGACAGAGGCAGAGATGCTGTATGGCAGTAC  
 TCCCCGGACACCTAGCAAAAGACCAGGACAGACGCCCAAGAAAGTCTGGCAAAGTACGCAAGATGAACACT  
 ACCACCATGTCTAGTGTACACCAACAGTAGCATTGCGCCTGTCTTTGGTGGATCAGTGTACCGGTAC  
 CTATGTCTCGACTACCCCTTCTGGCAGCAAGTCAAGTGTCACTTCTCTGTGTTCTGAAAGAAAACACC  
 TCGAGCTGCCAGCTTAGGGCCAACAAGGAGAAGTGGACCTCAATGGCAGCATCTGAGCGCGAGAAGT  
 TTCAAAGGCTTCCAGATC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR230539 representing NM\_001285998  
 Red=Cloning site Green=Tags(s)

MRRSEVLADESITCLQKALTHLREIWELIGIPEEQRLQRTEVVKKHIKDLLDRMIAEEESLRERLLKSI  
 ICQKELSTLCSELQVKPFQEEKDTTILQLEKDLRTQVELMRKQKKERKQELKLLQEQQELRDILCMPPC  
 DVDSTSVPTLEELKLFQRVATLRETKESTRREEFVNIKKQIILCMELEHSPDTSFERDVVCEDESACL  
 SLENIATLQKLLKQLEMKKSQNEAECEGLRTQIRELWDRLQIPEEEREPVEAIMTGSKTKIRNALKLEVD  
 RLEELKMQNIKQVIEKIRVELAQFWDQCFYSQEQRAFAPYSEDYTENLLHLHDAEIVRLRNYVDVHKE  
 LFQGVQKWEESWKLFLFERKASDPGRFTNRGGNLLKEEKERAKLQKTLPKLEELKARIEQWEQEHSTA  
 FVVGQKFMYYVTEQWELHRLEKERAKQERQLKNKKQTEAEMLYGSTPRTPSKRPGQTPKSGKVRKMNT  
 TTMSSATPNSSIRPVFVGGSVYRSPMSRLPPSGSKSVVTSLSGSKKTPRAAQLRANKENLDLNGSILSART  
 FKGFQI

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

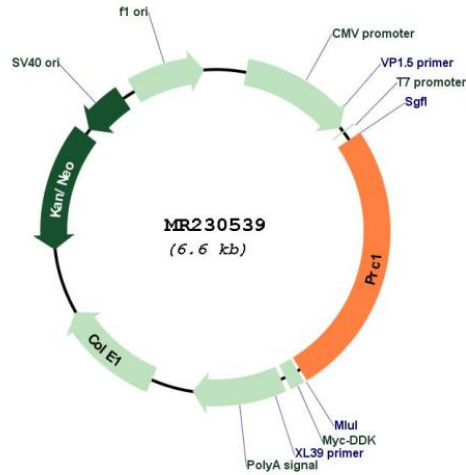
**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001285998  
 ORF Size: 1698 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001285998.1</a> , <a href="#">NP_001272927.1</a>
<b>RefSeq Size:</b>	2972 bp
<b>RefSeq ORF:</b>	1701 bp
<b>Locus ID:</b>	233406
<b>Cytogenetics:</b>	7 45.62 cM
<b>MW:</b>	67 kDa
<b>Gene Summary:</b>	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]