

## Product datasheet for **MG209337**

### **Prc1 (NM\_145150) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Prc1 (NM_145150) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Prc1
Synonyms:	D7Ertd348e
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG209337 representing NM\_145150  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAGGAGAAGTGAAGTCTAGCAGATGAGTCTATCACATGCCTGCAGAAAGCTCTAACTCACCTCCGGG  
 AAATATGGGAACAAATTGGGATTCAGAGGAGCAGAGGCTACAAAGAACCGAGGTTGTAAAGAAGCATAT  
 AAAGGATCTTCTGGATAGAATGATTGCTGAAGAGGAGAGCCTGAGGAAAAGGCTGCTTAAAAAGCATATCC  
 ATCTGTGAGAAGGAGCTGAGTACCCTGTGCAGTGAAGTACAAGTGAAGCCATTTAGGAAGAAAAAGATA  
 CAACCATCTTGAACCTAGAAAAAGATCTGCGCACTCAAGTAGAATTGATGAGAAAACAGAAAAAGGAGAG  
 AAAGCAGGAATTGAAGCTACTTCAGGAACAGGAGCAAGAAGTCCGTGACATCCTCTGTATGCCGCCCTGT  
 GATGTGGACAGCACCTCTGTCCCACCTTAGAAGAGCTGAAGCTATTCGACAGCGTGTGGCAACGCTGA  
 GGGAGACAAAAGGAATCGAGGCGTGAAGAATTTGTCAACATTAAGAAACAAATCATATTGTGTATGGAAGA  
 ATTAGAACACTCTCCAGATACAAGCTTTGAAAGAGATGTGGTGTGTGAAGATGAAAGTGCTTTTTGTTTA  
 TCACTGGAGAACATTGCAACATTACAGAAGTTGCTGAAGCAGCTGGAAATGAAAAAATCACAAAATGAAG  
 CAGAATGTGAGGGGCTTCGCACTCAAATCCGAGAGCTCTGGGATAGGTTACAAATACCTGAAGAAGAGAG  
 AGAGCCTGTGGAGCAATTATGACTGGATCAAAAACAAAATCAGGAATGCGCTGAAATAGAAAGTGGAT  
 CGGTTAGAAGAACTGAAAATGCAAAACATAAAGCAAGTATTGAGAAAATCCGAGTGGAGCTGGCTCAGT  
 TCTGGGACCAGTGTATATAGCCAGGAACAGAGGCGAGCTTTTGCCCTTACTATTCTGAGGACTACAC  
 AGAAAACCTGCTCCATCTTCATGATGCCGAGATTGTACGGTTAAGAACTACTATGACGCTCACAAAGGAG  
 CTGTTCCAAGGCGTCCAGAAGTGGGAAGAGAGCTGGAAACTTTTCTAGAGTTTGAGAAAAAGCTCCAGAA  
 ATCCAGTCCGTTTACAAACCGAGGGGAAATCTTTTAAAAAGAAGAAAAGGAACGAGCAAGCTCCAGAA  
 AACACTCCCTAAGCTGGAAGAGGAGTTGAAAGCACGGATTGAACAGTGGGAACAGGAGCACTCAACAGCA  
 TTTGTGGTGAATGGGCAGAAATTCATGGAGTATGTTACAGAACAGTGGGAATTACATCGGCTGGAGAAAG  
 AGCGAGCCAAACAGGAGAGGCAACTGAAGAACAAGAAACAGACAGAGGCAGAGATGCTGTATGGCAGTAC  
 TCCCCGGACACCTAGCAAAAGACCAGGACAGACGCCCAAGAAAGTCTGGCAAAATGAACACTACCACCATG  
 TCTAGTGTACACCAACAGTAGCATTCCGGCTGTCTTTGGTGGATCAGTGTACCGGTACCTATGTCTC  
 GACTACCCCTTCTGGCAGCAAGTCAAGTGTCACTTCTCTGTGTCTGAAAGAAAACACCTCGAGCTGC  
 CCAGCTTAGGGCCAACAAGGAGAACTTGGACCTCAATGGCAGCATCTGAGCGGTGGGTACCTGGCTCG  
 ACGCCCTCCAGCACAACTGCAGCATTAAAGTCTGTTGCCAGCACCTATTCTGAGTTTTCGCGAGAACTTT  
 CAAAGGCTTCAGATCTGATGCTACGTCTCGAATCCTCAATTCAACCAACATCCAGTCC

**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA**

**Protein Sequence:**

>MG209337 representing NM\_145150  
 Red=Cloning site Green=Tags(s)

MRRSEVLADESITCLQKALHLREIWLIGIPEEQRLQRTEVVKKHIDLLDRMIAEEESLRERLLKSIS  
 ICQKELSTLCSELQVKPFQEEKDITLQLEKDLRTQVELMRKQKQKQELKLLQEQELRDILCMPPC  
 DVDSTSVPTLEELKLFQRVATLRETKESTRREFVNIKKQIILCMELEHSPDTSFERDVCESAFCL  
 SLENIATLQKLLQLEMKKSQNEAECEGLRTQIRELWDRLQIPEEEREPVEAIMTGSKTKIRNALKLEVD  
 RLEELKMQNIKQVIEKIRVELAQFWDQCFYSQEQRAFAPYYSEDYENLLHLHDAEIVRLRNYYDAHKE  
 LFQGVQKWEESWKLFLFERKASDPGRFTNRGGNLLKEEKERAKLQKTLPKLEELKARIEQWEQEHSTA  
 FVYNGQKFMHEYVTEQWELHRLEKERAKQERQLKNKKQTEAEMLYGSTPRTPSKRPGQTPKKSGKMNTTMM  
 SSATPNSSIRPVFGGSVYRSPMSRLPPSGSKSVVTSLSGKKTTPRAAQLRANKENLDLNGSILSGGYPGS  
 TPLQHNCISIKSVASTYSEFSRELSKASRSDATSRILNSTNIQS

**TRTRPLE - GFP Tag - V**

**Restriction Sites:**

SgfI-MluI



<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_145150.1</a> , <a href="#">NP_660132.1</a>
<b>RefSeq Size:</b>	2978 bp
<b>RefSeq ORF:</b>	1821 bp
<b>Locus ID:</b>	233406
<b>Cytogenetics:</b>	7 45.62 cM
<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]