

## Product datasheet for **MR209333**

### **Plk1 (NM\_011121) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Plk1 (NM_011121) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Plk1
Synonyms:	P; Plk; STPK; STPK13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR209333 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAATGCAGCGCCAAAGCTGGAAGCTGGCTCGAGCACCAGCCGACCTCGGAAAGGTGGGGTCCGG  
 GAGATGCAGTTCCCGGTGCCAGTGGCCGCCCGCTGGCGAAAGAAATTCGGAGGTCCTAGTGGACCC  
 ACGCAGCCGGCGCAGTATGTACGGGGCGCTTTCTGGGTAAAGGAGGCTTCGCCAAATGCTTCGAGATC  
 TCAGACGCAGACACAAAAGAGGTGTTTCGACGGCAAGATCGTGCCTAAGTCTTTGCTGCTCAAGCCCCACC  
 AGAAGGAGAAGATGTCTATGGAGATCTCAATTCACCGCAGCCTAGCACACCAACACGTCGTAGGCTTCCA  
 TGACTTTTTGAGGACAGCGACTTTGTATTTGTAGTTTTGGAGCTCTGTCGACGAGGTCCTCCTGGAG  
 CTGCACAAGAGGAGGAAGGCACTGACCGAGCCTGAGGCCCGCTACTACCTGCGACAGATAGTCTGGGCT  
 GCCAGTACCTGCACCGCAATCAGGTCATTACAGGGACCTCAAGCTGGGCAACCTCTTCTGAACGAGGA  
 TCTGGAGGTGAAAATAGGGGATTTGGCTTGGCAACAAAGTGAATATGAAGGGGAACGAAAGAAGACC  
 TTGTGTGGCACTCCTAACTACATAGCTCCTGAGGTGCTGAGCAAGAAGGGACACAGTTTTGAGGTGGATG  
 TGTGGTCCATTGGGTGCATCATGTATACCTTGCTAGTGGGCAAGCCTCCCTTTGAGACCTCGTGCCTAAA  
 AGAGACCTACCTCCGGATCAAGAAAAATGAATACAGTATCCCAAGCACATCAACCCAGTGGCCGCCTCC  
 CTCATCCAGAAGATGCTTCAGACAGACCCCACTGCCCGCCCAACATTACAGAGTTGCTCAATGACGAGT  
 TCTTCACTTCTGGCTACATCCCCGCCGTCTCCCTATTACCTGCCTCACCATCCCACCAAGGTTTTCAAT  
 CGCTCCCAGCAGCCTGGACCCAGCAGCAGGAAACCTCTCAAAGTCTCAATAAAGGTGTGGAGAACCCC  
 CTGCCTGACCGTCCCCGGGAGAAAGAGGAACCGGTGGTCCGGGAGACAAATGAGGCCATTGAGTGCCACC  
 TTAGTGACTTGCTACAGCAGCTGACCAAGTGTCAACGCCTCCAAGCCCTCGGAGCGCGGGTGGTGGCGCA  
 AGAGGAGCTGAGGATCCTGCCTGCATCCCATCTTCTGGGTGAGCAAGTGGGTGGACTATTCGGACAAG  
 TATGGCCTTGGGTATCAGCTGTGTGACAACAGTGTGGGGTGCTTTTTAATGACTCAACACGCCTGATTC  
 TCTACAATGACGGGGACAGCCTGCAGTACATAGAGCGTATGGCACGGAGTCTATCTCACTGTGAGCTC  
 CCATCCCAATTCCTTGTGAAGAAGTCACTCTCCTCAACTATTTCCGCAATTACATGAGTGAGCACCTG  
 CTGAAGGCAGGGGCAACATCACACCCCGGAAGGCGACGAGCTGGCCCGGCTGCCCTACCTACGAAAGT  
 GGTTCGACACGCAGCGCCATCATCTGCACCTCAGCAACGGCACCGTGCAGATTAACCTCTTCCAGGA  
 CCACACAAACTTATCCTGTGCCCTGATGGCAGCGGTGACCTACATCAACGAGAAGAGGGACTCCAA  
 ACGTACCGCCTGAGCCTCCTGGAGGAGTATGGCTGCTGCAAGGAGCTGGCCAGCCGCTCCGCTACGCC  
 GCACCATGGTAGACAAGCTGCTGAGCTCGCGCTCCGCCAGCAACCGCCTCAAGGCCTCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR209333 protein sequence  
 Red=Cloning site Green=Tags(s)

MNAAAKAGKLARAPADLGKGGVPGDAVPGAPVAAPLAKEIPEVLVDPSSRRQYVVRGRFLGKGGFAKCFEI  
 SDADTKEVFAGKIVPKSLLLKPHQKEKMSMEISIHRS LAHQHVGFHDFEFDSDFV FVLELCRRRSLLE  
 LHKRRKALTEPEARYYLRQIVLGCQYLHRNQVIHRDLKGNLFLNEDLEVKIGDFGLATKVEYEGERKKT  
 LCGTPNYIAPEVLSKKGHSFEVDVWSIGCIMYLLVGKPPFETSCLKETYLRRIKNEYSIPKHINPVAAS  
 LIQKMLQTDPTARPTIHELLNDEFFTSYI PARLPITCLTIPPRFSIAPSSLDPSSRKPLKVLNKGVENP  
 LPDRPREKEEPVVRETNEAIECHLSDLLQQLTSVNASKPSERGLVRQEEAEDPACIPIFWWSKWDYSDK  
 YGLGYQLCDNSVGLFNDSTRLLIYNDGSLQYIERDGTESYLVSSHPNSLMKKITLLNYFRNYMSEHL  
 LKAGANITPREGDELARLPYLRTWFRTRSAILHL SNGTVQINFFQDHTKLILCPLMAAVTYINEKRDFQ  
 TYRLLSLEEYGCCKELASRLRYARTMVDKLLSSRSASNRLKAS

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

**ACCN:** NM\_011121

**ORF Size:** 1812 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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).

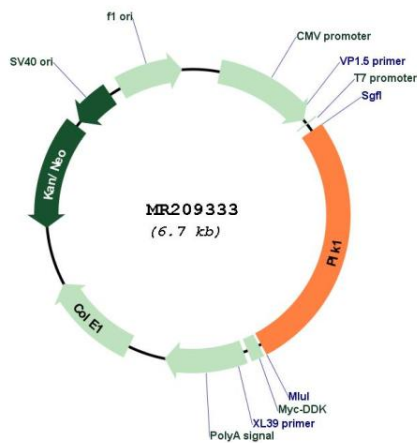
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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\\_011121.4](#)

RefSeq Size: 2203 bp  
 RefSeq ORF: 1812 bp  
 Locus ID: 18817  
 UniProt ID: [Q07832](#)  
 Cytogenetics: 7 65.52 cM  
 MW: 68.3 kDa

**Gene Summary:** The Ser/Thr protein kinase encoded by this gene belongs to the CDC5/Polo subfamily. It is highly expressed during mitosis and may play a role in DNA replication during S phase. This gene is expressed in all embryonic tissues, but restricted to thymus and ovaries in adult tissues. Homozygous knockout mice were embryonic lethal, suggesting that this gene is important for early embryonic development. This gene is thought to be a potential oncogene because it is overexpressed in a variety of tumors and tumor cell lines. Depletion of this protein in cancer cells has been shown to inhibit cell proliferation and suppress oncogenic transformation; hence, it is a target for cancer therapy. [provided by RefSeq, Sep 2015]

### Product images:



Circular map for MR209333