

## Product datasheet for **MR209747**

### **Plk3 (NM\_013807) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Plk3 (NM_013807) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Plk3
Synonyms:	Cn; Cnk; Fnk; PLK-3; PRK
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide  
Sequence:

>MR209747 representing NM\_013807  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGAGCCCGCCCGCGGTTCTTGTCTCCGCGCCCTTCCGCGCGCGGTGCCCGTCCGCGCCCGCC  
CCGGCCCGGGCCGCTGCCAATGCCTCCCGCGATCGGAACCTGAGGTGCTGGCCGGGCCACGGGCGCC  
GGATCCTCCTGGTCGCCTCATCACCGACCTCTCAGCGGCCGTACCTACCCAAGGGTCGCTTGTTGGC  
AAGGGGGCTTCGCACGCTGCTATGAAGCCACTGACACCGAGTCTGGTATAGCTACGCGGTCAAAGTCA  
TCCCACAGAGTCGCGTCGCCAAGCCGCATCAGCGCGAGAAGATCCTAAATGAGATAGAGTTGCACCGAGA  
CCTACAGCACCGCATATCGTTCGCTTTTCACATCATTTTCGAGGATGCTGACAACATATACATTTTCCTG  
GAGCTCTGTAGCCGAAAGTCCCTGGCCACATCTGGAAGGCCGACACACCCTGTTGGAACCAGAGGTTCC  
GCTACTACCTGCGCCAGATCCTTTCTGGCCTCAAGTACTTGACACAGAGGGGTATCTTACACAGAGATCT  
CAAGCTGGGAAATTTTTTCATCACGGATAACATGGAACGAAGGTGGGGATTTTGGGCTGCCAGCTCGA  
TTAGAGCCCCAGAGCAGAGGAAAAAGACCATCTGTGGCACTCCCAACTACGTGGCTCCAGAAGTGTCTGC  
TGAGACAGGGCCATGGCCCCGAGGCAGATGTGTGGTCGCTTGGTTGTGTATGTACACGCTCCTGTGTGG  
GAGCCCCCATTTGAGACTGCTGACCTGAAGGAGACATACCGCTGCATCAAGCAGGTTTATTACACGCTA  
CCTGCCAGCCTCTCCCTGCCTGCCCGCAGCTCCTGGCTGCCATCCTCCGAGCTTACCCAGAGACCGCC  
CTTCCATTGAACAGATTTTACGCCATGACTTCTTTACGAAGGGTACACCCCTGATCGGCTCCCGGTTCAG  
CAGCTGTGTGACAGTCCCAGATCTGACACCCCAACCCCTGCGAGGAGTCTGTTTGCCAAAGTTACCAAG  
AGCCTGTTTGGCAGGAAAAAGAACAAGAATAAGAACCATTCTGAGGACCAGGATAATGTCTCCTGCTTGG  
TGAGTGGCCTCATGCGCACATCCATCGGTCAATCCAGATGTCAGGCCGGAGGCTCCTGTAGTTTCAGGCCA  
GGCCCCCTGCCAGCTTGGTAGAGACAGCTGCCGAGGACAGCTCGCCCCGTGGGACACTGGCCAGCAGTGGA  
GATGGGTTTGAAGAAGGTTTACTGTGGCCACAGTGGTAGAGTCTGCCCTCTGTGCACTGAGAACTGTG  
TGGCCTTCATGCCCCAGCCGAACAGAACCAGCCCCGCTGGCACAGCCAGAGCCTCTGGTGTGGGTTCAG  
CAAGTGGGTTGACTACTCCAACAAGTTTGGCTTTGGCTATCAGCTGTCCAGCCGCGGTGTAGCCGTGCTC  
TTCAATGATGGCACACACATGGCCCTGTGAGCCAAATAGGAAGACGGTGCCTACAACCCACCAGCACGA  
AGCACTTCTCCTTCTCCATGGGTCTGTGCCCGAGCTCTGCAGCCTCAGCTGGGCATCCTGCGGTATTT  
TGCGTCTACATGGAACAGCACCTCATGAAGGGTGGAGATCTGCCAGTGTGGAAGAGGCGGAGGTGCCT  
GCCCCACCCTTGCTGCTGCAGTGGTCAAGACTGACCAGGCCCTCCTCATGCTGTTCAAGTATGGCACTG  
TCCAGGTGAACCTTCTACGGGGACCACACGAAGCTGATCCTCAGTGGCTGGGAGCCTCTCCTGTGACCTT  
CGTGGCCCGCAATCGCAGTGTCTTACTTACCTCGCTTCCCACCTCCGGCAGCTGGGCTGCTCCCCAGAC  
TTGCGGCAGCGACTGCGCTACGCTCTGCGCCTGCTCAGGGACCAAGCCCTGCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR209747 representing NM\_013807  
 Red=Cloning site Green=Tags(s)

MEPAAGFLSPRPFPRAAAPSAPPAGPGPPANASPRSEPEVLAPRAPDPPGRLITDPLSGRTYTKGRLLG  
 KGGFARCYEATDTESGIAYAVKVIPQSRVAKPHQREKILNEIELHRDLQHRHIVRFSHHFEDADNIYIFL  
 ELCSRKSLAHIWKARHTLLEPEVRYLRQILSGLKYLHQRGILHRDLKLGNFITDNMELKVGDFGLAAR  
 LEPPEQRKKTICGTPNYVAPEVLLRQGHGPEADVWSLGCVMYTLGSGPPFETADLKETYRCIKQVHYTL  
 PASLSLPARQLLAAILRASPRDRPSIEQILRHDFFTKGYTPDRLPVSSCVTPDLTPPNPARSLFAKVTK  
 SLFGRKKKNKNHSEDQDNVSLVSGLMRTSIGHPDVRPEAPVVSQAPASLVETAEDSSPRGTASSG  
 DGFEGLTVATVVESALCALRNCVAFMPPAEQNPAPLAQPEPLVWVSKWVDYSNKFGEYQLSSRRVAVL  
 FNDGTHMALSANRKTVHYNPTSTKHFSSMGSVPRALQPQLGILRYFASYMEQHLMKGGDLPVVEAEVP  
 APPLLLQWVKTDQALLMLFSDGTVQVNFYGDHTKILSGWEPLLVTFFVARNRSACTYLASHLRQLGCSPD  
 LRQRLRYALRLLRDQSPA

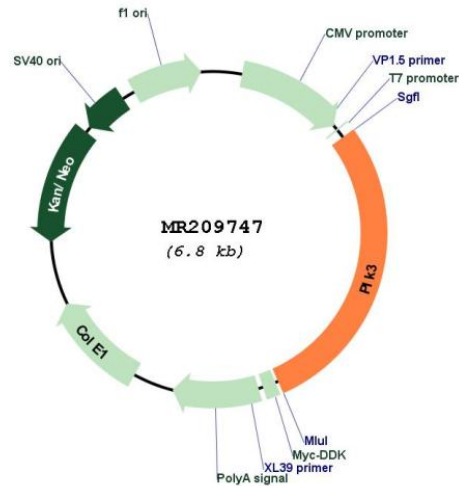
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**


**ACCN:** NM\_013807

**ORF Size:** 1944 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\\_013807.3](#)

RefSeq Size: 2474 bp

RefSeq ORF: 1947 bp

Locus ID: 12795

Cytogenetics: 4 D1

MW: 72.3 kDa

**Gene Summary:** This gene encodes a member of the highly conserved polo-like kinase family of serine/threonine kinases. Members of this family are characterized by an amino-terminal catalytic domain and a carboxy-terminal bipartite polo box domain that functions as a substrate-binding motif and a cellular localization signal. Polo-like kinases have primarily been implicated in cell cycle regulation. In mouse, this protein that has been reported to localize to the nucleolus during interphase but is undetectable during mitosis, following nucleolus dissociation during prophase. The protein relocalizes to the nucleolus just prior to cytokinesis and peak levels are detected during G1 of interphase. This gene has been implicated in regulation of entry into S phase, with RNAi-induced depletion resulting in failure to re-enter the cell cycle. Mice deficient for this gene exhibit increased weight and tumor development at advanced age. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2015]