

## Product datasheet for **MR209724**

### Wee1 (NM\_009516) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Wee1 (NM_009516) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Wee1
Synonyms:	Wee1A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>MR209724 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGAGTTCCTGAGCCGACAGCAGCCGCCACCCCGCGCTAGGAGCCGCTTACAGTCTGCGGCAGA  
AGCTCATCTTCTCGCCGGCAGCGACTGTGAGGAAGAGGAGGAGGAGGAGGAAGGCAGCGGCCACAG  
TACGGGGGAGGACTCGGCCTTCCAGGAACCGGATTCGCCCTGCCTTCTGCACGCAGCCCTGCCAGGCC  
GAGGCCGAGCGCCGCTCGCTCGCCCGCGCGGAGCCAGCAGCCGGGAGAGCTGGAGGACGACTTGC  
TGCTGCAGGGCGCGCGGAGGCGCAAGCGCGGGTGGAGGCGCCGAGGGCGACTCTTGGGAGGAGGA  
GGGTTTCGGCTCCTCGTCGCCCTCAAATCACCTTCGACCGCCTACTTTCTGAGCAGCCGTTCTCGCCA  
GTGCGCTGCGCGGCCAGGGGATGCCTCCCCGAGGGTTCGCGGAGCCATGGACGACCCCT  
GCTCGCCGAGCCGACTACCCGAGCACCCTCCGCACAAGACCTTCGCAAGCTGCGCCTGTTGACAC  
GCCGCACACTCCAAGAGTTTGCTTTCAAAGCGCGAGTTATTGATTCCGGCTCTGTTAACTCCGGGGT  
AGTTCTCTATTGACACAGAAAAGTCAAGAAAAGAGAATTCGATACACGGCAAACCTCCCAAGTGA  
ATATTAACCCCTTACTCCGGATCCTGTACTGCTCCATTCCTCAGGACGGTGTGCTGGGAGAAAAGAGAGC  
GTATTTAATGATTCTCTGAAGACATGGAAGCCAGTGATTATGAGTTTGAAGATGAAACAAGACCTGCC  
AAAAGAATTACAATTACTGAAAGCAACATGAAGTACGGTATACAACCTGAATTTTCATGAGCTGGAGAAA  
TTGGTTCTGGAGAATTTGGTTCTGTGTTAAATGTGTGAAGAGGTTAGATGGATGCATTTATGCCATTAA  
ACGATCAAAAAACCATTGGCTGGCTCTGTTGATGAGCAGAATGCTTTGAGAGAAGTGTATGCTCACGCT  
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AGAACGAATACTGTAATGGTGGGAGTTAGCTGATGCTATAAGTGAGAACTACAGAGTCATGAGTACTT  
GACTGAAGTAGAGCTGAAGGATCTCCTTTTGAAGTTGGCCGGGCTTGAGATACATACATTCAATGTCT  
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AGGAAGGAGATGAAGATGACTGGATATCCAATAAAGTTATGTTTAAAATAGGTGATCTTGGGCATGTAAC  
AAGAATCTCTAGTCTCAAGTTGAAGAAGGTGATAGTCGTTTTCTAGCAAATGAAGTTTACAAGAGAAC  
TATAGCCATCTACCGAAAGCAGATATTTTGTCTTGTCTCACAGTCGATGTGCTGCTGGTGTGAAC  
CCCTTCCAGAAATGGAGAGCAGTGGCACGAGATCCGGCAGGGTCGTTACCTCGGATCCCAAGTGTCT  
TTCCCAGGAGGTGACAGAGTTGCTGAGAGTCATGATTTCCTGACCCAGAGAGAAGGCCTTCAGCAATG  
GAGCTGGTGAAGCATTGAGTGTGTTGCTGCATCTAGAAAGAGCGCAGAGCAGTTACGAATAGAATTGA  
ATGCTGAAAAATTCAAAAATTCTTTTTGCAGAAAGAAGTCAAGAAAGCCCAAATGGCAGCCAAAGTTGC  
AGCTGAGGAACGGGCACTCTTACAGATCGGATGGCCACTAGATCCACCACCCAGAGTAATAGAACTTCT  
CGACTTATTGAAAGAAAATGAACCGCTCTGTCAGCCTTACTATATAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR209724 protein sequence  
Red=Cloning site Green=Tags(s)

```
MSFLSRQQPPPTRRVGAAYSLRQKLIFSPGSDCEEEEEEEEGSGHSTGEDSAFQEPDSPLPSARSPAEA
EAERRRRSPGAEPSSPGELEDDLLLQGGGGGAQAAGGGAEGDSWEEEGFGSSSPVKSPSTAYFLSSPFS
VRCGGPGDASPQCGGAPRAMDDPCSPQPDYPSTPPHKTRKRLRFDTPHTPKSLLSKARVIDSGSVKLRG
SSLFMDTEKSGKREFDTRQTPQVNINPFTDPVLLHSSGRRCRGRKRAYFNDSSSEDMEASDYEFEDTRPA
KRITITESNMKSRYTTEFHELEKIGSGEFGSVFKCVKRLDGCYIYAIKRSKPLAGSVDEQNALREVYAHA
VLGQHPHVYRYFSAWAEDDHMLIQNEYCNGGSLADAI SENYRVM SYL TEVELKDLLLQVGRGLRYIHSMS
LVHMDIKPSNIFISRTSIPNAVSEEGDEDDWISNKVMFKIGDLGHVTRISSPQVEEGDSRFLANEVLQEN
YSHLPKADIFALALTVVCAAGAEPLPRNGEQWHEIRQGRLPRIPQVLSQEVTELLRVMIHDPERRPSAM
ELVKHSVLLSASRKSAEQLRIELNAEKFNLSLLQKELKKAQMAAKVAAEERALFTDRMATRSTTQSNRST
RLIGKMMNRSVSLTIY
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_009516

**ORF Size:** 1941 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\\_009516.3](#), [NP\\_033542.2](#)

**RefSeq Size:** 3419 bp

**RefSeq ORF:** 1941 bp

**Locus ID:** 22390

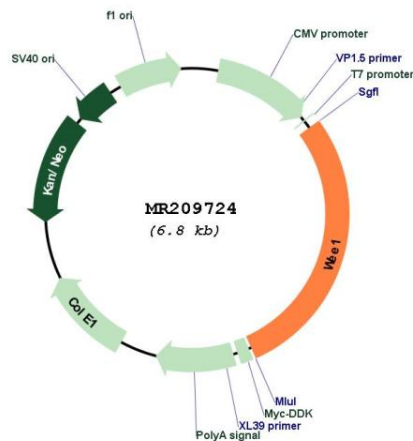
**UniProt ID:** [P47810](#)

**Cytogenetics:** 7 E3

**MW:** 71.6 kDa

**Gene Summary:** Acts as a negative regulator of entry into mitosis (G2 to M transition) by protecting the nucleus from cytoplasmically activated cyclin B1-complexed CDK1 before the onset of mitosis by mediating phosphorylation of CDK1 on 'Tyr-15'. Specifically phosphorylates and inactivates cyclin B1-complexed CDK1 reaching a maximum during G2 phase and a minimum as cells enter M phase. Phosphorylation of cyclin B1-CDK1 occurs exclusively on 'Tyr-15' and phosphorylation of monomeric CDK1 does not occur. Its activity increases during S and G2 phases and decreases at M phase when it is hyperphosphorylated. A correlated decrease in protein level occurs at M/G1 phase, probably due to its degradation (By similarity). [UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR209724