

## Product datasheet for **RR202092**

### Wee1 (NM\_001012742) Rat Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Wee1 (NM_001012742) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Wee1
Synonyms:	MGC105683
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide  
Sequence:

>RR202092 representing NM\_001012742  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

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ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RR202092 representing NM\_001012742  
 Red=Cloning site Green=Tags(s)

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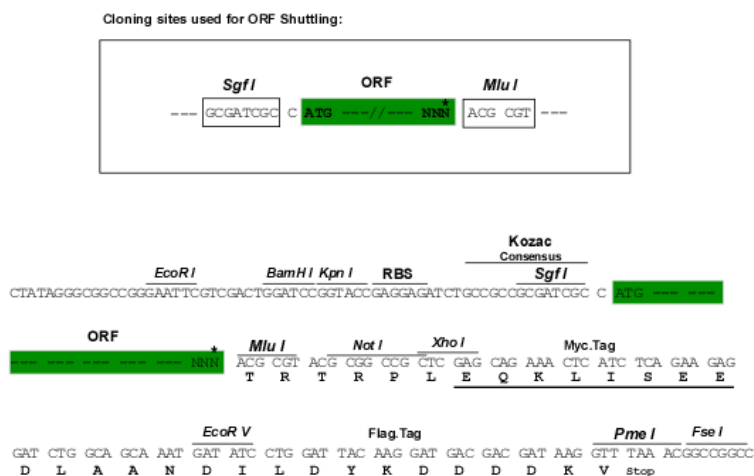
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```

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

**Restriction Sites:**

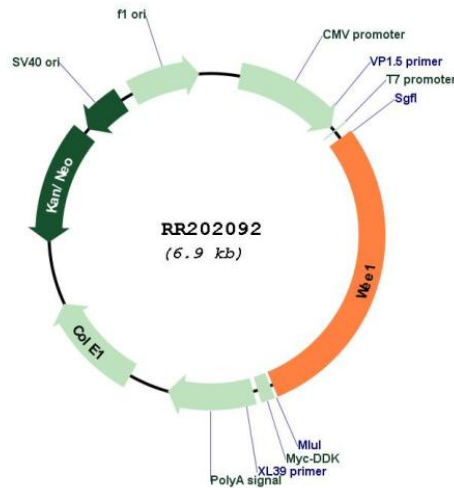
**SgfI-MluI**

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

## Plasmid Map:



ACCN: NM\_001012742

ORF Size: 1938 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 Size: 3305 bp

RefSeq ORF: 1941 bp

Locus ID: 308937

UniProt ID: [Q63802](#)

Cytogenetics: 1q33

MW: 71.5 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]