

## Product datasheet for **RC225964**

### **WEE2 (NM\_001105558) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	WEE2 (NM_001105558) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	WEE2
Synonyms:	OOMD5; WEE1B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC225964 representing NM\_001105558  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGATGACAAAGATATTGACAAAGAACTAAGGCAGAAATTAACCTTTCTATTGTGAGGAGACTGAGA  
 TTGAAGGGCAGAAGAAAGTAGAAGAAAGCAGGGAGGCTTCGAGCCAAACCCAGAGAAGGGTGAAGTGCA  
 GGATTCAGAGGCAAAGGGTACACCACCTTGGACTCCCCTTAGCAACGTGCATGAGCTCGACACATCTTCG  
 GAAAAAGACAAAGAAAGTCCAGATCAGATTTTGGAGACTCCAGTGTACACCCTCTCAAATGTCCTGAGA  
 CACCAGCCCAACCAGACAGCAGGAGCAAGCTGTGCCAGTGACAGCCCTCTACTCCAAAACCATGCT  
 GAGCCGGTTGGTATTTCTCAACAGGGAAGCTTCCTCCAGAGGCCCTAAGCATTGAAGCTCACACCT  
 GCTCCCCTCAAGGATGAGATGACCTCATTGGCTCTGGTCAATATAATCCCTTCACTCCAGAGTCTATA  
 AAAAAATTATTTCTCAATCTGGTGGCAAGAGGAAAATAAGAGGAGATCTTGAGGAAGCTGGTCCAGAGGA  
 AGGCAAGGGAGGGCTGCCTGCCAAGAGATGTGTTTTACGAGAAACCAACATGGCTTCCCCTATGAAAA  
 GAATTCCTGGAGGTTGAAAAATTGGGGTTGGCGAATTTGGTACAGTCTACAAGTGCATTAAAGAGCTGG  
 ATGGATGTGTTTATGCAATAAAGCGCTCTATGAAAACCTTTACAGAATTATCAAATGAGAATTCGGCTTT  
 GCATGAAGTTTATGCTCACGCAGTGTGGGCATCACCCCATGTGGTACGTTACTATTCCTCATGGGCA  
 GAAGATGACCACATGATCATTGAGAATGAATACTGCAATGGTGGGAGTTTGAAGCTGCTATATCTGAAA  
 ACATAAGTCTGGCAATCATTTTGAAGAGCCAAAACCTCAAGGACATCCTTCTACAGATTTCCCTGGCCT  
 TAATTACATCCACAACCTAGCATGGTACACCTGGACATCAAACCTAGTAATATATTCATTTGTCACAAG  
 ATGCAAAGTGAATCCTCTGGAGTCATAGAAGAAGTTGAAAATGAAGCTGATTGGTTTCTCTCTGCCAATG  
 TGATGTATAAAAATTGGTACCTGGCCACGCAACATCAATAACAAACCCAAAGTGAAGAGGAGATAG  
 TCGCTTCTGGCTAATGAGATTTTGAAGAGGATTACCGCACCTTCCCAAAGCAGACATATTTGCCTTG  
 GGATTAACAATTGCAAGTGGCTGCAGGAGCAGAGTATTGCCACCAATGGTGTGCTGATGGACCATATCC  
 GCAAGGGTAACTTTCCGGACGTTCTCAGGAGCTCTCAGAAAGCTTTTCCAGTCTGCTCAAGAACATGAT  
 CCAACCTGATGCCGAACAGAGACCTTCTGCAGCAGCTCTGGCCAGAAATACAGTTCTCCGGCCTTCCCTG  
 GGAAAAACAGAAGAGCTCCAACAGCAGCTGAATTTGAAAAAGTTCAAGACTGCCACACTGGAAGGGGAAC  
 TGAGAGAAAGCCAGCAGGCCAGTCAACCCAGGGATATACCCATCATGGTACACTGGGGTCTCTGGGAC  
 CCACACAGGATCAAGAAGCACAAAACGCCTGGTGGGAGGAAAGAGTGAAGGTCTTCAAGCTTTACCTCA  
 GGAGAGCGTGAGCCTCTGCAT

**ACGCGT**ACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC225964 representing NM\_001105558  
 Red=Cloning site Green=Tags(s)

MDDKDIDKELRQKLNFSYCEETEIEGQKKVEESREASSQTPEKGEVQDSEAKGTPPWTPLSNVHELDTSS  
 EKDKESPDQILRTPVSHPLKCPETPAQPDSRSKLLPSDSPSTPKTMLSRLVISPTGKLP SRGPKHLKLT  
 APLKDEMTSLALVNINPFTPEYKFLQSGGKRKIRGDLEEAGPEEGKGLPAKRCVLRNEMASRYEK  
 EFLEVEKIGVGEFGTVYKCIKRLDGCVYAIKRSMKTFTELSNENSALHEVYAHAVLGHHPHVRYSSWA  
 EDDHMIIQNEYCNGSLQAAISENFKSGNHFEFPKLDILLQISLGLNYIHNSSMVHLDIKPSNIFICHK  
 MQSESSGVIEEVENEADWFLSANVYKIGDLGHATSINKPKVEEGDSRFLANEILQEDYRHLPKADIFAL  
 GLTIAVAAGAESLPTNGAAWHHIRKGNFPDVPQELSEFSLLKNMIQPDAEQRPSAAALARNVLRPSL  
 GKTEELQQQLNLEKFKATLERELREAQQAQSPQGYTHHGDTGVSHTGSRSTKRLVGGKSARSSSFTS  
 GEREPLH

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8034\\_c07.zip](https://cdn.origene.com/chromatograms/mk8034_c07.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001105558

**ORF Size:** 1701 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\\_001105558.1](#), [NP\\_001099028.1](#)

**RefSeq ORF:** 1704 bp

**Locus ID:** 494551

**UniProt ID:** [P0C1S8](#)

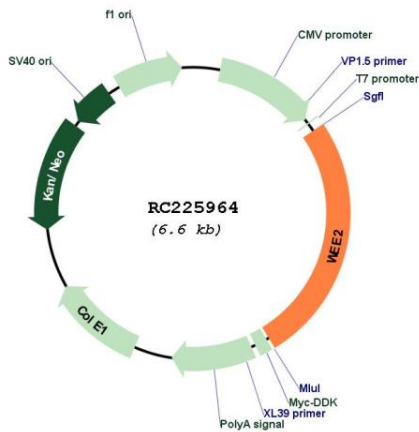
**Cytogenetics:** 7q34

**Protein Pathways:** Cell cycle

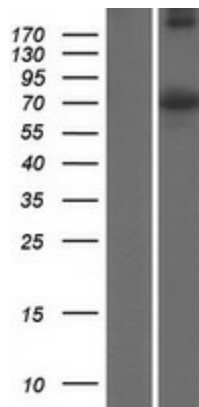
**MW:** 62.7 kDa

**Gene Summary:** Oocyte-specific protein tyrosine kinase that phosphorylates and inhibits CDK1/CDC2 and acts as a key regulator of meiosis during both prophase I and metaphase II (PubMed:29606300). Required to maintain meiotic arrest in oocytes during the germinal vesicle (GV) stage, a long period of quiescence at dictyate prophase I, by phosphorylating CDK1 at 'Tyr-15', leading to inhibit CDK1 activity and prevent meiotic reentry. Also required for metaphase II exit during egg activation by phosphorylating CDK1 at 'Tyr-15', to ensure exit from meiosis in oocytes and promote pronuclear formation (By similarity).[UniProtKB/Swiss-Prot Function]

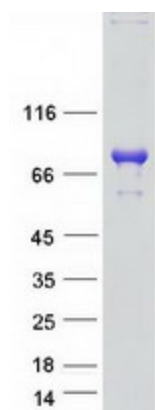
**Product images:**



Circular map for RC225964



Western blot validation of overexpression lysate (Cat# [LY426271]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC225964 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified WEE2 protein (Cat# [TP325964]). The protein was produced from HEK293T cells transfected with WEE2 cDNA clone (Cat# RC225964) using MegaTran 2.0 (Cat# [TT210002]).