

Product datasheet for **RG225964**

WEE2 (NM_001105558) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	WEE2 (NM_001105558) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	WEE2
Synonyms:	OOMD5; WEE1B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG225964 representing NM_001105558
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGATGACAAAGATATTGACAAAGAACTAAGGCAGAAATTAACCTTTCTATTGTGAGGAGACTGAGA
 TTGAAGGGCAGAAGAAAGTAGAAGAAAGCAGGGAGGCTTCGAGCCAAACCCAGAGAAGGGTGAAGTGCA
 GGATTCAGAGGCAAAGGGTACACCACCTTGGACTCCCCTTAGCAACGTGCATGAGCTCGACACATCTTCG
 GAAAAAGACAAAGAAAGTCCAGATCAGATTTTGGAGACTCCAGTGTACACCCTCTCAAATGTCCTGAGA
 CACCAGCCCAACCAGACAGCAGGAGCAAGCTGCTGCCAGTGACAGCCCTCTACTCCAAAAACCATGCT
 GAGCCGGTTGGTATTTCTCAACAGGGAAAGCTTCTCCAGAGGCCCTAAGCATTGGAAGCTCACACCT
 GCTCCCCTCAAGGATGAGATGACCTCATTGGCTCTGGTCAATATTAATCCCTTCACTCCAGAGTCTATA
 AAAAAATTATTTCTCAATCTGGTGGCAAGAGGAAAATAAGAGGAGATCTTGAGGAAGCTGGTCCAGAGGA
 AGCAAGGGAGGGCTGCCTGCCAAGAGATGTGTTTTACGAGAAACCAACATGGCTTCCCGCTATGAAAA
 GAATTCCTGGAGGTTGAAAAATTGGGGTTGGCGAATTTGGTACAGTCTACAAGTGCATTAAAGAGGCTGG
 ATGGATGTGTTTATGCAATAAAGCGCTCTATGAAAACCTTTACAGAATTATCAAATGAGAATTCGGCTTT
 GCATGAAGTTTATGCTCACGCAGTGTGGGCATCACCCCATGTGGTACGTTACTATTCCTCATGGGCA
 GAAGATGACCACATGATCATTGAGAATGAATACTGCAATGGTGGGAGTTTGAAGCTGCTATATCTGAAA
 ACATAAGTCTGGCAATCATTTTGAAGAGCCAAAACCTCAAGGACATCCTTCTACAGATTTCCCTGGCCT
 TAATTACATCCACAACCTAGCATGGTACACCTGGACATCAAACCTAGTAATATATTCATTTGTCACAAG
 ATGCAAAGTGAATCCTCTGGAGTCATAGAAGAAGTTGAAAATGAAGCTGATTGGTTTCTCTCTGCCAATG
 TGATGTATAAAAATTGGTACCTGGCCACGCAACATCAATAACAAACCCAAAGTGAAGAAGGAGATAG
 TCGCTTCTGGCTAATGAGATTTTGAAGAGGATTACCGGCACCTTCCCAAAGCAGACATATTTGCCTTG
 GGATTAACAATTGCAAGTGGCTGCAGGAGCAGAGTATTGCCACCAATGGTGTGCTGATGGACCATATCC
 GCAAGGGTAACTTTCCGGACGTTCTCAGGAGCTCTCAGAAAGCTTTTCCAGTCTGCTCAAGAACATGAT
 CCAACCTGATGCCGAACAGAGACCTTCTGCAGCAGCTCTGGCCAGAAATACAGTTCTCCGGCCTTCCCTG
 GGAAAAACAGAAGAGCTCCAACAGCAGCTGAATTTGAAAAAGTTCAAGACTGCCACACTGGAAGGGGAAC
 TGAGAGAAGCCCAGCAGGCCAGTACCCCAAGGATATACCCATCATGGTACACTGGGGTCTCTGGGAC
 CCACACAGGATCAAGAAGCACAAAACGCCTGGTGGGAGGAAAGAGTGAAGGTCTTCAAGCTTTACCTCA
 GGAGAGCGTGAGCCTCTGCAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG225964 representing NM_001105558
 Red=Cloning site Green=Tags(s)

MDDKDIDKELRQKLNFSYCEETEIEGQKKVEESREASSQTPEKGEVQDSEAKGTPPWTPLSNVHIELDTSS
 EKDKESPDQILRTPVSHPLKCPETPAQPDSPSKLLPSDSPSTPKTMLSRLVISPTGKLPKSRGPKHLKLT
 APLKDEMTSLALVNINPFTPEYKFLQSGGKRKIRGDLEEAGPEEGKGLPAKRCVLRNEMASRYEK
 EFLEVEKIGVGEFGTVYKCIKRLDGCVYAIKRSMTFTELSNENSALHEVYAHAVLGHHPHVRYSSWA
 EDDHMIIQNEYCNGSLQAASENTKSGNHFEPPKLDILLQISLGLNYIHNSSMVHLDIKPSNIFICHK
 MQSESSGVIEEVENEADWFLSANVYKIGDLGHATSINKPKVEEGDSRFLANEILQEDYRHLPKADIFAL
 GLTIAVAAGAESLPTNGAAWHHIRKGNFPDVPQELSEFSLLKNMIQPDAEQRPSAAALARNTVLRPSL
 GKTEELQQQLNLEKFKTATLERELREAQQAQSPQGYTHHGDTGVSHTGSRSTKRLVGGKSARSSSFTS
 GEREPLH

TRTRPLE - GFP Tag - V

Restriction Sites:

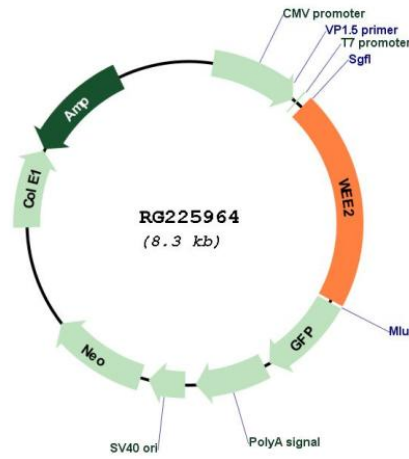
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



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:	<ol style="list-style-type: none"> 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 Size:	3061 bp
RefSeq ORF:	1704 bp
Locus ID:	494551
UniProt ID:	P0C1S8
Cytogenetics:	7q34
Protein Pathways:	Cell cycle
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]