

## Product datasheet for **RC201700**

### **RAD18 (NM\_020165) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RAD18 (NM_020165) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RAD18
Synonyms:	RNF73
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC201700 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGACTCCCTGGCCGAGTCTCGGTGGCCTCCGGGCTGGCAGTCATGAAGACAATAGATGATTTGCTGC  
 GGTGTGGAATTTGCTTCGAGTATTTCAACATTGCAATGATAATACCTCAGTGTTACATAACTACTGCTC  
 TCTCTGTATAAGAAAATTTCTGCTCTATAAACTCAGTGTCCAACCTTGCTGTGTGACTGTACAGAGCCG  
 GATCTGAAAAATAACCGCATATTAGATGAACTGGTAAAAAGCTTGAATTTGCACGGAATCATCTGCTGC  
 AGTTTGTCTTAGAGTACCAGCCAAATCTCCTGCTTCTCCTCTTCAAAGAATCTTGCTGTCAAAGTATA  
 TACTCCTGTAGCCTCCAGACAGTCTTAAAGCAGGGGAGCAGGTTAATGGATAATTTCTTGATCAGAGAA  
 ATGAGTGGTTCTACATCAGAGTTGTTGATAAAAAGAAAATAAAGCAAATTCAGCCCTCAAAAAGAGGCGA  
 GCCCTGCTGCAAAGACCAAGAGACACGTTCTGTAGAAGAGATCGCTCCAGATCCCTCAGAGGCTAAGCG  
 TCCTGAGCCACCCTCGACATCCACTTTGAAACAAGTTACTAAAGTGGATTGCTCTGTTTGGGGGTTAAC  
 ATTCCAGAAAAGTACATTAATAAGCATTAGACAGCTGTTTATCACGCGAAGAGAAGAAGGAAAGCCTCA  
 GAAGTTCTGTTACAAAAGGAAGCCGCTGCCAAAACGTATATAATTTGCTCTCTGATCGTGATTTAAA  
 GAAAAAGCTAAAAGAGCATGGATTATCTATTCAAGGAAAATAACAACAGCTCATAAAAAGGCACCAAGAA  
 TTTGTACACATGTACAATGCCCAATGCGATGCTTTGCATCCTAAATCAGCTGCTGAAATAGTTCAAGAAA  
 TCGAAAATATAGAGAAGACTAGGATGCGTCTTGAAGCTAGTAACTCAATGAAAGTGAATGGTTTTTAC  
 AAAGGACCAACAGAAAAGGAAATAGATGAAATCCACAGTAAATATCGTAAAAACATAAGAGTGAATTT  
 CAGCTTCTGGTGGATCAGGCTAGAAAAGGATACAAGAAAATTGCTGGAATGTCACAAAAACAGTAACAA  
 TAACAAAAGAAGATGAATCTACAGAAAAGCTATCTTCTGTATGCATGGGACAGGAAGATAATATGACCTC  
 AGTAACAAACCCTTTTCTCAATCAAAGCTGGACTCCCCAGAGGAATTGGAACCTGACAGAGAAGAGGAT  
 TCTTCTAGCTGTATTGATATTCAAGAAGTCTTTCTTCATCAGAATCAGATTCATGCAATAGTTCAGTT  
 CAGACATCATAAGAGATCTTTTAGAAGAAGAGGAGCCTGGGAAGCATCACATAAAAACGATCTTCAAGA  
 CACAGAAAATAAGTCCAAGACAGAATCGCCGCACAAGAGCCGCTGAAAGTCTGAGATTGAACCAAGAAAC  
 AAGCGTAATAGGAAT

**ACGCGT**ACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC201700 protein sequence  
 Red=Cloning site Green=Tags(s)

MDSLAEsrwppGLAVMKTIDLLRCGICFEYFNIAIIPQCSHNYCSLCIRKFLSYKTCPTCCVTVTEP  
 DLKNNRILDELVKSLNFARNHLLQFALESPAKSPASSSSKNLAVKYVTPVASRQSLKQGSRLMDNFLIRE  
 MSGSTSELLIKENKSKFSPQKEASPAAKTKETRSVEEIA PDPSEAKRPEPPSTLTKQVTKVDCPVCVGN  
 IPESHINKHLDSCL SREEKESLRSSVHKRPLPKTVYNLLSDRDLKKKLKEHGLSIQGNKQQLIKRHQE  
 FVHMYNAQCDALHPKSAAEIVQEIENIEKTRMREASKL NESVMVFTKDQTEKEIDEIHSKYRKKHKSEF  
 QLLVDQARKGYKKIAGMSQKTVTITKEDESTKLSVCMGQEDNMTSVTNHFSQSKLDSPEELEDREED  
 SSSCIDIQEVLSSSESDSCNSSSDIIRDLLLLLEEEEAWEASHKNDLQDTEISPRQNRRTAAESAEIEPRN  
 KRNRN

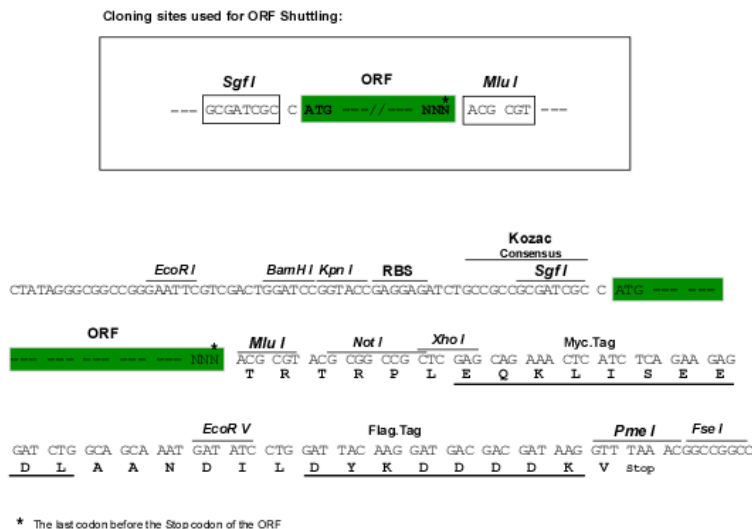
**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6138\\_e03.zip](https://cdn.origene.com/chromatograms/mk6138_e03.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_020165

**ORF Size:** 1485 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\\_020165.2](#), [NP\\_064550.2](#)

**RefSeq Size:** 5739 bp

**RefSeq ORF:** 1488 bp

**Locus ID:** 56852

**UniProt ID:** [Q9NS91](#)

**Cytogenetics:** 3p25.3

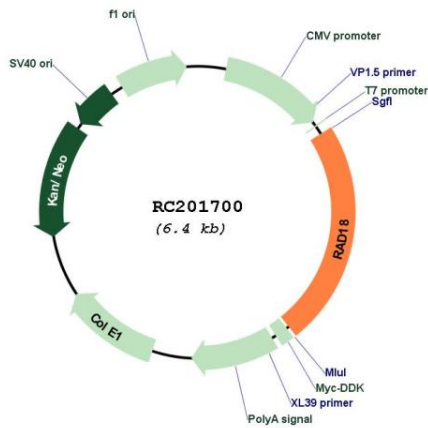
**Domains:** RING, SAP, ZnF\_Rad18

**Protein Families:** Druggable Genome

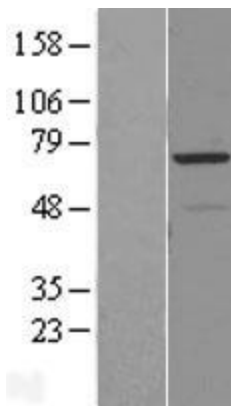
**MW:** 56.2 kDa

**Gene Summary:** The protein encoded by this gene is highly similar to *S. cerevisiae* DNA damage repair protein Rad18. Yeast Rad18 functions through its interaction with Rad6, which is an ubiquitin-conjugating enzyme required for post-replication repair of damaged DNA. Similar to its yeast counterpart, this protein is able to interact with the human homolog of yeast Rad6 protein through a conserved ring-finger motif. Mutation of this motif results in defective replication of UV-damaged DNA and hypersensitivity to multiple mutagens. [provided by RefSeq, Jul 2008]

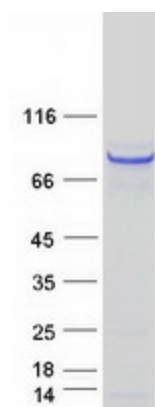
**Product images:**



Circular map for RC201700



Western blot validation of overexpression lysate (Cat# [LY402768]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201700 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RAD18 protein (Cat# [TP301700]). The protein was produced from HEK293T cells transfected with RAD18 cDNA clone (Cat# RC201700) using MegaTran 2.0 (Cat# [TT210002]).