

Product datasheet for **SC109697**

RAD17 (NM_133340) Human Untagged Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | RAD17 (NM_133340) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | RAD17 |
| Synonyms: | CCYC; HRAD17; R24L; RAD17SP; RAD24 |
| Mammalian Cell Selection: | None |
| Vector: | <u>pCMV6-XL4</u> |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| Fully Sequenced ORF: | >NCBI ORF sequence for NM_133340, the custom clone sequence may differ by one or more nucleotides |

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ATGTTTAATACTGAATCAAGCTTCCATATGTTTCCCTATCAGTCTCAGATAGCAGTTTTCAAGAGTTTC
TACTAAGAGCGACAAAGTATAACAAGTTACAAATGCTTGGAGATGATCTGAGAACTGATAAGAAGATAAT
TCTGGTTGAAGATTTACCTAACCAGTTTTATCGGGATTCTCATACTTTACATGAAGTTCTAAGGAAGTAT
GTGAGGATTGGTCGATGCCTCTTATATTTATAATCTCGGACAGTCTCAGTGGAGATAATAATCAAAGGT
TATTGTTTCCCAAAGAAATTCAGGAAGAGTGTCTATCTCAAATATTAGTTTCAACCCTGTGGCACCAC
AATTATGATGAAATTTCTTAATCGAATAGTGACTATAGAAGCTAACAAGAATGGAGGAAAAATTACTGTC
CCTGACAAAACCTCTCTAGAGTTGCTCTGTGAGGGATGTTCTGGTGATATCAGAAGTGAATAAACAGCC
TCCAGTTTTCTTCTTCAAAGGAGAAAAACAACCTACGGCCAAGGAAAAAGGAATGTCTTAAAAATCAGA
TGCTGTGCTGTCAAAATCAAACGAAGAAAAAACCTGATAGGGTTTTTGAAAAATCAAGAGGTCCAAGCT
ATTGGTGGCAAAGATGTTTCTCTGTTTCTCTTCAGAGCTTTGGGGAAAAATTTATATTGTAAGAGCAT
CTTTAACAGAATTAGACTCACCTCGGTTGCCCTCTCATTATCAGAATATGAACGGGATACATTACTTGT
TGAACCTGAGGAGGTAGTAGAAATGTCACACATGCCTGGAGACTATTTAATTTATATCTTCACCAAAAC
TACATAGATTTCTTCATGGAAATGATGATATTGTGAGAGCCAGTGAATTTCTGAGTTTTGCAGATATCC
TCAGTGGTGACTGGAATACACGCTCTTTACTCAGGGAATATAGCACATCTATAGCTACGAGAGGTGTGAT
GCATTCACAAACAAAGCCCGAGGATATGCTCATTGCCAAGGAGGAGGATCAAGTTTTTCGACCCTTGACAAA
CCTCAGTGGTTTTCTAATAAATAAAAAGTATCGGGAAAAATGCTGCGCAGCAAAGCACTTTTTCTGACT
TCTGCCTACCAGCTTTATGCCTCAAACCTCAGCTATTGCCATACCTTGCTCTACTAACCATTCCAATGAG
AAATCAAGCTCAGATTTCTTTTATCCAAGATATTGGAAGGCTCCCTCTGAAGCGACACTTTGGAAGATTG
AAAATGGAAGCCCTGACTGACAGGGAACATGGAATGATAGACCCTGACAGCGGAGATGAAGCCAGCTTA
ATGGAGGACATTCTGCAGAGGAATCTCTGGGTGAACCCACTCAAGCCACTGTGCCGAAACCTGGTCTCT
TCCTTTGAGTCAGAATAGTGCCAGTGAAGTGCCTGCTAGCCAGCCCGAGCCCTTTTCAGCCCAAGGAGAC
ATGGAAGAAAACATAATAATAGAAGACTACGAGAGTGATGGGACATAG
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| 5' Read Nucleotide Sequence: | >OriGene 5' read for NM_133340 unedited GGGGTCAAAAATTGTATACGACTCATATAGGCGGCCGCGNAATTCGCACGAGGNAAAAA GGAAATCTATCTTCTTAGAACAGATTTATGGTTAGAAAATTCAAAAGATATCTGTCTG AAAATGAACCATGGGTGGATAAATAAACCAGAACTCAGCATGAACCTGCTGTGCATA AAAAGAAAATTGAAGAAGTCGAAACCTGGTTAAAAGCTCAAGTTTGTAGAAAGGCAACCA AACAGGGTGGATCTATTTTATTAATAACAGGTCCTCCTGGATGTGAAAGACAACGACCT TAAAAATACTATCAAAGGAGCATGGTATTCAAGTACAAGAGTGGATTAATCCAGTTTTAC CAGACTTCCAAAAGATGATTTCAAGGGATGTTTAACTGAATCAAGCTTCCATATGT TTCCTATCAGTCTCAGATAGCAGTTTTTCAAAGAGTTTCTACTAAGAGCGACAAAGTATA ACAAGTTACAAATGCTTGGAGATGATCTGAGAAGTATAAGAAGATAATTCTGGTTGAAG ATTTACCTAACAGTTTTATCGGGATTCTCATACTTTACATGAAGTTCTAAGGAAGTATG TGAGGATTGGTCGATGCCTCTTATATTATAATCTCGGACAGTCTCAGTGGAGATAATA ATCAAAGTTATTGTTTCCCAAAGAAATTCAGGAAGAGTGTCTATCTCAAATATTAGTT TCAACCCTGTGGACCAACAATTATGATGAAATTTCTTAATCGAATAGTACTATAGAAG CTAACAAGAAATGGANGAAAAATTACTGTCCCTGACAACTTCTCTAAGTTGCTCTGTCAG GGATGTTCTGGGTGATATCAGAGTGCAATAACAGCCTNCAGTTNTCTTCTCAAAGAGA NNAACACTACNGNCANGNAAAAAGGNATGTCTTAA |
| Restriction Sites: | ECoRI-NOT |
| ACCN: | NM_133340 |
| Insert Size: | 2700 bp |
| OTI Disclaimer: | Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP). |
| 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_133340.1 , NP_579918.1 |
| RefSeq Size: | 2666 bp |
| RefSeq ORF: | 1518 bp |
| Locus ID: | 5884 |
| UniProt ID: | O75943 |
| Cytogenetics: | 5q13.2 |
| Domains: | Rad17 |
| Protein Families: | Druggable Genome |

Gene Summary:

The protein encoded by this gene is highly similar to the gene product of *Schizosaccharomyces pombe rad17*, a cell cycle checkpoint gene required for cell cycle arrest and DNA damage repair in response to DNA damage. This protein shares strong similarity with DNA replication factor C (RFC), and can form a complex with RFCs. This protein binds to chromatin prior to DNA damage and is phosphorylated by the checkpoint kinase ATR following damage. This protein recruits the RAD1-RAD9-HUS1 checkpoint protein complex onto chromatin after DNA damage, which may be required for its phosphorylation. The phosphorylation of this protein is required for the DNA-damage-induced cell cycle G2 arrest, and is thought to be a critical early event during checkpoint signaling in DNA-damaged cells. Multiple alternatively spliced transcript variants of this gene, which encode four distinct protein isoforms, have been reported. Two pseudogenes, located on chromosomes 7 and 13, have been identified. [provided by RefSeq, Jul 2013]

Transcript Variant: This variant (3) lacks two consecutive exons in the 5' region, and initiates translation at a downstream start codon, compared to variant 1. The resulting isoform (3) is shorter at the N-terminus, compared to isoform 1.