

## Product datasheet for **SC120501**

### **RAD17 (NM\_133338) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RAD17 (NM_133338) Human Untagged Clone
Tag:	Tag Free
Symbol:	RAD17
Synonyms:	CCYC; HRAD17; R24L; RAD17SP; RAD24
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_133338, the custom clone sequence may differ by one or more nucleotides

```
ATGAATCAGGTAACAGACTGGGTTGACCCATCATTGATGATTTCTAGAGTGTAGTGGCGTCTCTACTA
TTACTGCCACATCATTAGGTGTGAATAACTCAAGTCATAGAAGAAAAATGGGCCTTCTACATTAGAAAG
CAGCAGATTTCCAGCGAGAAAAAGAGGAAATCTATCTTCCTTAGAACAGATTTATGGTTTAGAAAAATTC
AAAGAATATCTGTCTGAAAATGAACCATGGGTGGATAAATAAAACCAGAACTCAGCATGAACTTGCTG
TGCATAAAAAGAAAATTGAAGAAGTCGAAACCTGGTTAAAAGCTCAAGTTTTAGAAAGGCAACCAAAACA
GGGTGGATCTATTTTATAATAACAGGTCCTCCTGGATGTGAAAAGACAACGACCTTAAAAATACTATCA
AAGGAGCATGGTATTCAAGTACAAGAGTGGATTAATCCAGTTTTACCAGACTTCCAAAAAGATGATTTCA
AGGGGATGTTTAACTGAATCAAGCTCCATATGTTCCCTATCAGTCTCAGATAGCAGTTTTCAAAGA
GTTTCTACTAAGAGCGACAAAGTATAACAAGTTACAAATGCTTGGAGATGATCTGAGAACTGATAAGAAG
ATAATTCTGGTTGAAGATTTACCTAACCAGTTTTATCGGGATTCTCATACTTTACATGAAGTTCTAAGGA
AGTATGTGAGGATTGGTCGATGCTCTTATATTTATAATCTCGGACAGTCTCAGTGGAGATAAATCA
AAGGTTATTGTTCCCAAAGAAATTCAGGAAGAGTGTCTATCTCAAATATTAGTTTCAACCCTGTGGCA
CCAACAATTATGATGAAATTTCTTAATCGAATAGTGACTATAGAAGCTAACAAAGAATGGAGGAAAAATTA
CTGTCCCTGACAAAACCTCTCTAGAGTTGCTCTGTGAGGGATGTTCTGGTGATATCAGAAGTGCAATAAA
CAGCCTCCAGTTTTCTTCTTCAAAGGAGAAAAACAACCTACGGCCAAGGAAAAAGGAATGTCTTTAAAA
TCAGATGCTGTGCTGTCAAAATCAAAACGAAGAAAAAACCTGATAGGGTTTTTGAAAATCAAGAGGTCC
AAGCTATTGGTGGCAAAGATGTTTCTCTGTTTCTTTCAGAGCTTTGGGGAAAATTTCTATATTGTAAGG
AGCATCTTTAACAGAATTAGACTCACCTCGGTTGCCCTCATTATCAGAATATGAACGGGATACATTA
CTTGTTGAACCTGAGGAGGTAGTAGAAATGTCACACATGCCTGGAGACTTATTTAATTTATATCTTACC
AAAACATACATAGATTTCTTCATGGAAATGATGATATTGTGAGAGCCAGTGAATTTCTGAGTTTTGCAGA
TATCCTCAGTGGTGACTGGAATACACGCTCTTACTCAGGGAATATAGCACATCTATAGCTACGAGAGGT
GTGATGCATTCCAACAAAGCCCGAGGATATGCTCATTGCCAAGGAGGAGGATCAAGTTTTCGACCCTTGC
ACAAACCTCAGTGGTTTCTAATAAATAAAAAGTATCGGGAAAATGCTTGGCAGCAAAAGCACTTTTTCC
TGACTTCTGCCTACCAGCTTTATGCCTCCAACTCAGCTATTGCCATACCTTGCTCTACTAACCATTCCA
ATGAGAAATCAAGCTCAGATTTCTTTTATCCAAGATATTGGAAGGCTCCCTCTGAAGCGACACTTTGGAA
GATTGAAAATGGAAGCCCTGACTGACAGGGAACATGGAATGATAGACCCTGACAGCGGAGATGAAGCCCA
GCTTAATGGAGGACATTCTGCAGAGGAATCTCTGGGTGAACCCACTCAAGCCACTGTGCCGAAACCTGG
TCTCTTCTTTGAGTCAGAATAGTGCCAGTGAACCTGCCTGCTAGCCAGCCCCAGCCCTTTTCAGCCCAAG
GAGACATGGAAGAAAACATAATAATAGAAGACTACGAGAGTGATGGGACATAG
```

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_133338 unedited  
 GTAGTATATAGGTAATACGACTTACTATAGGGCGGCCGGAATTCGGCACGAGGGACGAA  
 ATGAATCAGGTAACAGACTGGGTGACCCATCATTGATGATTTTCTAGAGTGTAGTGGC  
 GTCTCTACTATTACTGCCACATCATTAGGTGTGAATAACTCAAGTCATAGAAGAAAAAT  
 GGGCCTTCTACATTAGAAAGCAGCAGATTTCCAGCGTAGAAAAAGAGGAAATCTATCTTC  
 CTTAGAACAGATTTATGGTTTAGAAAAATCAAAAAGAATATCTGTCTGAAAAAGAACCATG  
 GGTGGATAAATATAAACCCAGAACTCAGCATGAACTTGCTGTGCATAAAAAAGAAAAATGA  
 AGAAGTCGAAACCTGGTTAAAAGCTCAAGTTTTAGAAAAGCAACCAAAACAGGGTGGATC  
 TATTTTATTAATAACAGGTCCTCCTGGATGTGGAAGACAACGACCTTAAAAACTATC  
 AAAGGAGCATGGTATTCAAGTACAAGAGTGGATTAATCCAGTTTTACCAGACTTCCAAAA  
 AGATGATTTCAAGGGATGTTTAATACTGAATCAAGCTCCATATGTTTCCCTATCAGTC  
 TCAGATAGCAGTTTTCAAAGAGTTTCTACTAAGAGCGACAAAGTATAACAAGTTACAAAT  
 GCTTGGAGATGATCTGAGAACTGATAAGAAAGATATTCTGGTTGAAGATTACCTAACCG  
 TTNTATCGGGATTCTCATACTTTACATGAAGTTCTAAGGAAGTATGTGNAGATTGGTCGA  
 TGTCCTCTTATATTATAATCTCCGACAGTCTCAGTGGAGATATAATCAAAGGTATTGTT  
 TCCAAAGAAAAATCAGAAGATGTCTATCTCAAATATAGTTTCACCCCTGTGCACCNACATAT  
 GATGAAATNNCTATCGATATGACTATGAGCTACAGATGGAGAAAAATCTGTCTGCAAAAC  
 T

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_133338 unedited  
 NGTATTCTATGNACCGCGCCGCTTTTNNANGANCGNATTTTTTTTTTTTTTTTTTTTTTTT  
 TTTTTTTTTTTTTTAAATTCACATTTTAAATTGGGATATAACTTATGTAATACTTTCCA  
 AAAATATCTAAAAATATCCACTGTACAACACATCAAACTTTTTGAAAAGCGGGAGACAA  
 TAAAGTGTAATAAGGCACACAGTTTACTCTTAATTGCATCCTAAACTGTTGAATAGT  
 TGATATTTACAACCCCCCAATAACGTTTTTGCATCCTGAATTAATCCTTCACATCTTGAT  
 ATTTGGCATAATGTTCAAACACACTTTATACACCTGACCGCTCCTAAACCACTCACAG  
 ATTTAATAAAATCCCGAAAAAATTAATAAATTTGAAGGCTTGATCTTCTATTTACTTCAA  
 ATGACAAAAAAGTAGGTTTCTTGATGAAATACTCCAGAATGAAGAATTAACAAACTG  
 TTGTGAATTCATCAAAAAAGCATATTAAGTCTGCTGAAGTACCCTGAATGAAACAAAA  
 ATGAAGCTGTGAAGTACCAATCTGATTAGCAGGCTGGCTTCTATGTCCCATCACTCTCGA  
 AGCCTTCTATTATTATGTTTTCTTCCATGTCTCCTTGGGCTGAAAAGGGCTGGGGCTGGC  
 TAGCAGGCAGTTCACTGGCACTATTCTGACTCAAAGGAAGAGACCAGTTTTCCGGCACAG  
 TGGCTTGAGTGGGTTACCCAGAGATTCCTCTGCAGAATGTCCTCCATTAAGCTGGGCTT  
 CATCTCCGCTGTGAGGTCTATCATTCCATGTTCCCTGTGAGTCAAGGCTTCCATTTTCA  
 ATCTTCAAAGTGTGCTTCAGAGGAGGCTTCCAATATCTTGATAAAAGAAATCTGACC  
 TTGAATTCTCATTGGAATGG

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_133338

**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:**

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\\_133338.1](#), [NP\\_579916.1](#)

**RefSeq Size:** 3076 bp

**RefSeq ORF:** 2013 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 (1) encodes the predominant isoform (1). Variants 1, 5, 6, 7, 8 and 9 encode the same isoform.