

Product datasheet for **RG220222**

RAD17 (NM_133338) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RAD17 (NM_133338) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RAD17
Synonyms:	CCYC; HRAD17; R24L; RAD17SP; RAD24
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG220222 representing NM_133338
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAATCAGGTAACAGACTGGGTTGACCCATCATTGATGATTTTCTAGAGTGTAGTGGCGTCTCTACTA
 TTAAGTCCACATCATTAGGTGTGAATAACTCAAGTCATAGAAGAAAAATGGGCCTTCTACATTAGAAAAG
 CAGCAGATTTCCAGCGAGAAAAAGAGGAAATCTATCTTCTTAGAACAGATTTATGGTTTAGAAAATTCA
 AAAGAATATCTGTCTGAAAATGAACCATGGGTGGATAAATAAAACCAGAAACTCAGCATGAACTTGCTG
 TGCATAAAAAGAAAATTGAAGAAGTCGAAACCTGGTTAAAAGCTCAAGTTTTAGAAAAGGCAACCAAAAACA
 GGGTGGATCTATTTTATAAACAGGTCCTCTGGATGTGAAAAGACAACGACCTTAAAAATACTATCA
 AAGGAGCATGGTATTCAAGTACAAGAGTGGATTAATCCAGTTTTACCAGACTTCCAAAAAGATGATTTCA
 AGGGGATGTTTAACTGAATCAAGCTTCCATATGTTTCCCTATCAGTCTCAGATAGCAGTTTTCAAGA
 GTTTCTACTAAGAGCGACAAAAGTATAACAAGTTACAAATGCTTGGAGATGATCTGAGAAGTATAAGAAG
 ATAATTCTGGTTGAAGATTTACCTAACAGTTTTATCGGGATTCTCATACTTTACATGAAGTTCTAAGGA
 AGTATGTGAGGATTGGTCGATGTCCTTATATTTATAATCTCGGACAGTCTCAGTGGAGATAAATATCA
 AAGGTTATTGTTCCCAAAGAAATTCAGGAAGAGTGTCTATCTCAAATATTAGTTTCAACCCTGTGGCA
 CCAACAATTATGATGAAATTTCTTAATCGAATAGTGACTATAGAAGCTAACAAAGAAATGGAGGAAAAATTA
 CTGTCCCTGACAAAACCTCTCTAGAGTTGCTCTGTGAGGATGTTCTGGTGATATCAGAAGTGAATAAA
 CAGCCTCCAGTTTTCTTCTTCAAAGGAGAAAAACAACTACGGCCAAGGAAAAAGGAATGTCTTTAAAA
 TCAGATGCTGTGCTGTCAAATCAAACGAAGAAAAAACCTGATAGGGTTTTGAAAATCAAGAGGTCC
 AAGCTATTGGTGGCAAAGATGTTTCTCTGTTTCTTTCAGAGCTTTGGGAAAAATCTATATTGTAAAAG
 AGCATCTTTAACAGAATTAGACTCACCTCGGTTGCCCTCTCATTATCAGAATATGAACGGGATACATTA
 CTTGTTGAACCTGAGGAGGTAGTAGAAATGTCACACATGCCTGGAGACTTATTTAATTTATATCTTCACC
 AAAACTACATAGATTTCTTCATGGAAATGATGATATTGTGAGAGCCAGTGAATTTCTGAGTTTTGCAGA
 TATCCTCAGTGGTGACTGGAATACACGCTCTTACTCAGGGAATATAGCACATCTATAGCTACGAGAGGT
 GTGATGCATTCCAACAAAGCCCGAGGATATGCTCATTGCCAAGGAGGAGGATCAAGTTTTCGACCCTTGC
 ACAAACCTCAGTGGTTTCTAATAAATAAAAAGTATCGGGAAAATGCCTGGCAGCAAAAGCACTTTTTCC
 TGACTTCTGCCTACCAGCTTTATGCCTCAAACCTCAGCTATTGCCATACCTTGCTCTACTAACCATTTCA
 ATGAGAAATCAAGCTCAGATTTCTTTTATCCAAGATATTGGAAGGCTCCCTCTGAAGCGCACTTTGGAA
 GATTGAAAATGGAAGCCCTGACTGACAGGGAACATGGAATGATAGACCCTGACAGCGGAGATGAAGCCCA
 GCTTAATGGAGGACATTCTGCAGAGGAATCTCTGGGTGAACCCACTCAAGCCACTGTGCCGAAACCTGG
 TCTCTTCTTTGAGTCAGAATAGTGCCAGTGAAGTGCCTGCTAGCCAGCCCCAGCCCTTTTCAGCCCAAG
 GAGACATGGAAGAAAACATAATAATAGAAGACTACGAGAGTGTGGGACA

ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG220222 representing NM_133338
Red=Cloning site Green=Tags(s)

MNQVTDWVDPFDDFLECSGVSTITATSLGVNNSSHRRKNGPSTLESSRFPARKRGNLSSLEQIYGLENS
 KEYLSENEPPWVKYKPEAQHELAVHKKKIEEVETWLKAQVLERQPKQGGIILLITGPPGCGKTTTLKILS
 KEHGIQVQEWINPVLPDFQKDDFKGMFNTSSFFHMFYQSQIAVFKFLLRATKYNKLQMLGDDLRTDKK
 IILVEDLPNQFYRDSHTLHEVLRKYVVRIGRCLIFIIISDSLSGDNNQRLLFPKEIQEECSISNISFNPA
 PTIMMKFLNRIVTIEANKNGGKITVPDKTSLELLCQGCSDIRSAINSLQFSSSKGENNLRPRKKGMSLK
 SDAVLSKSKRRKKPDRVFENQEQAIIGKDVSLFLFRALGKILYCKRASLTELDSRPLPSHLYSEYERDTL
 LVEPEEVVEMSHMPGDLFNLYLHQNYIDFFMEIDDIVRASEFLSFADILSGDWNTRSLREYSTSIATRG
 VMHSNKARGYAHCQGGSSFRPLHKPQWFLINKKYRENCLAAKALFPDFCLPALCLQTQLLPYLLALLTIP
 MRNQAQISFIIQDIGRLPLKRHFGRLEKMEALTDREHGMIDPDSGDEAQLNGGHSAAEESLGEPTQATVPETW
 SLPLSQNSASELPASQPQPFSAQGDMEENIIIEDYESDGT

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_133338

ORF Size: 2010 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_133338.3](#)

RefSeq Size: 3076 bp

RefSeq ORF: 2013 bp

Locus ID: 5884

UniProt ID: [O75943](#)

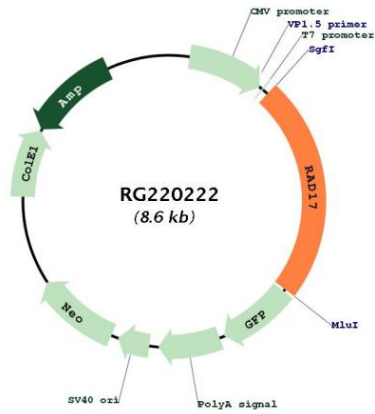
Cytogenetics: 5q13.2

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]

Product images:



Circular map for RG220222