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Product datasheet for RC216025

RAD17 (NM_133339) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RAD17 (NM_133339) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RAD17
Synonyms:	CCYC; HRAD17; R24L; RAD17SP; RAD24
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC216025 representing NM_133339
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCAAAAACTTTTCTTAGACCAAAGGTATCTTCCACAAAGGTAACAGACTGGGTTGACCCATCATTTG
ATGATTTTCTAGAGTGTAGTGGCGTCTCTACTATTACTGCCACATCATTAGGTGTGAATAACTCAAGTCA
TAGAAGAAAAAATGGGCCTTCTACATTAGAAAGCAGCAGATTTCCAGCGAGAAAAAGAGGAAATCTATCT
TCCTTAGAACAGATTTATGGTTTAGAAAATTCAAAAGAATATCTGTCTGAAAATGAACCATGGGTGGATA
AATATAAACCAGAAACTCAGCATGAACTTGCTGTGCATAAAAAGAAAATTGAAGAAGTCGAAACCTGGTT
AAAAGCTCAAGTTTTAGAAAGGCAACCAAAACAGGGTGGATCTATTTTATTAATAACAGGTCCTCCTGGA
TGTGGAAAGACAACGACCTTAAAAATACTATCAAAGGAGCATGGTATTCAAGTACAAGAGTGGATTAATC
CAGTTTTACCAGACTTCCAAAAAGATGATTTCAAGGGGATGTTTAATACTGAATCAAGCTTCCATATGTT
TCCCTATCAGTCTCAGATAGCAGTTTTCAAAGAGTTTCTACTAAGAGCGACAAAGTATAACAAGTTACAA
ATGCTTGGAGATGATCTGAGAACTGATAAGAAGATAATTCTGGTTGAAGATTTACCTAACCAGTTTTATC
GGGATTCTCATACTTTACATGAAGTTCTAAGGAAGTATGTGAGGATTGGTCGATGTCCTCTTATATTTAT
AATCTCGGACAGTCTCAGTGGAGATAATAATCAAAGGTTATTGTTTCCCAAAGAAATTCAGGAAGAGTGT
TCTATCTCAAATATTAGTTTCAACCCTGTGGCACCAACAATTATGATGAAATTTCTTAATCGAATAGTGA
CTATAGAAGCTAACAAGAATGGAGGAAAAATTACTGTCCCTGACAAAACTTCTCTAGAGTTGCTCTGTCA
GGGATGTTCTGGTGATATCAGAAGTGCAATAAACAGCCTCCAGTTTTCTTCTTCAAAAGGAGAAAACAAC
TTACGGCCAAGGAAAAAAGGAATGTCTTTAAAATCAGATGCTGTGCTGTCAAAATCAAAACGAAGAAAAA
AACCTGATAGGGTTTTTGAAAATCAAGAGGTCCAAGCTATTGGTGGCAAAGATGTTTCTCTGTTTCTCTT
CAGAGCTTTGGGGAAAATTCTATATTGTAAAAGAGCATCTTTAACAGAATTAGACTCACCTCGGTTGCCC
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TGCCTGGAGACTTATTTAATTTATATCTTCACCAAAACTACATAGATTTCTTCATGGAAATTGATGATAT
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GCCAAGGAGGAGGATCAAGTTTTCGACCCTTGCACAAACCTCAGTGGTTTCTAATAAATAAAAAGTATCG
GGAAAATTGCCTGGCAGCAAAAGCACTTTTTCCTGACTTCTGCCTACCAGCTTTATGCCTCCAAACTCAG
CTATTGCCATACCTTGCTCTACTAACCATTCCAATGAGAAATCAAGCTCAGATTTCTTTTATCCAAGATA
TTGGAAGGCTCCCTCTGAAGCGACACTTTGGAAGATTGAAAATGGAAGCCCTGACTGACAGGGAACATGG
AATGATAGACCCTGACAGCGGAGATGAAGCCCAGCTTAATGGAGGACATTCTGCAGAGGAATCTCTGGGT
GAACCCACTCAAGCCACTGTGCCGGAAACCTGGTCTCTTCCTTTGAGTCAGAATAGTGCCAGTGAACTGC
CTGCTAGCCAGCCCCAGCCCTTTTCAGCCCAAGGAGACATGGAAGAAAACATAATAATAGAAGACTACGA
GAGTGATGGGACA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

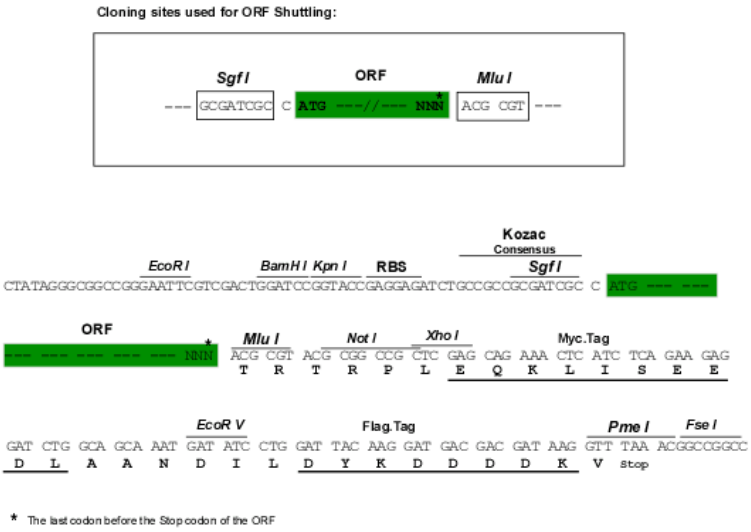
>RC216025 representing NM_133339
Red=Cloning site Green=Tags(s)

MSKTFLRPKVSSTKVTDWVDPSFDDFLECSGVSTITATSLGVNNSSHRRKNGPSTLESSRFPARKRGNLS
SLEQIYGLENSKEYLSENEPWVDKYKPETQHELAVHKKKIEEVETWLKAQVLERQPKQGGSILLITGPPG
CGKTTTLKILSKEHGIQVQEWINPVLPDFQKDDFKGMFNTESSFHMFPYQSQIAVFKEFLLRATKYNKLQ
MLGDDLRTDKKIILVEDLPNQFYRDSHTLHEVLRKYVRIGRCPLIFIISDSLSGDNNQRLLFPKEIQEEC
SISNISFNPVAPTIMMKFLNRIVTIEANKNGGKITVPDKTSLELLCQGCSGDIRSAINSLQFSSSKGENN
LRPRKKGMSLKSDAVLSKSKRRKKPDRVFENQEVQAIGGKDVSLFLFRALGKILYCKRASLTELDSPRLP
SHLSEYERDTLLVEPEEVVEMSHMPGDLFNLYLHQNYIDFFMEIDDIVRASEFLSFADILSGDWNTRSLL
REYSTSIATRGVMHSNKARGYAHCQGGGSSFRPLHKPQWFLINKKYRENCLAAKALFPDFCLPALCLQTQ
LLPYLALLTIPMRNQAQISFIQDIGRLPLKRHFGRLKMEALTDREHGMIDPDSGDEAQLNGGHSAEESLG
EPTQATVPETWSLPLSQNSASELPASQPQPFSAQGDMEENIIIEDYESDGT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_133339

ORF Size: 2043 bp

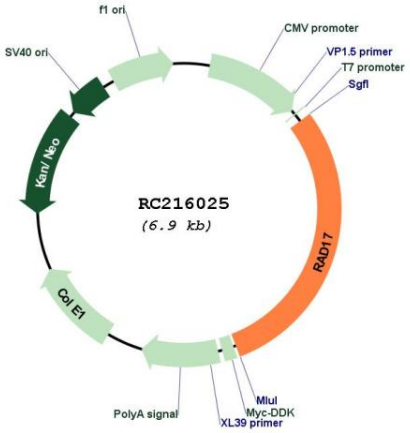
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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_133339.2
RefSeq Size:	2633 bp
RefSeq ORF:	2046 bp
Locus ID:	5884
UniProt ID:	O75943
Cytogenetics:	5q13.2
Domains:	Rad17
Protein Families:	Druggable Genome
MW:	76.9 kDa
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 RC216025