

Product datasheet for **RC201576**

RAD1 (NM_133377) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RAD1 (NM_133377) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RAD1
Synonyms:	cell cycle checkpoint protein Hrad1; checkpoint control protein HRAD1; DNA repair exonuclease REC1; exonuclease homolog RAD1; HRAD1; OTTHUMP00000115992; RAD1 homolog; RAD1 homolog (S. pombe); Rad1-like DNA damage checkpoint; REC1; REC1, HRAD1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201576 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGCCCTTCTGACCCAACAGATCCAAGACGAGGATGATCAGTACAGCCTTGTGGCCAGCCTTGACAACG
TTAGGAATCTCTCCACTATCTTGAAAGCTATTCATTTCCGAGAACATGCCACGTGTTTCGCAACTAAAA
TGGTATCAAAGTAACAGTGGAAAATGCAAAGTGTGTGCAAGCAAATGCTTTTATTCAGGCTGGAATATT
CAGGAGTTAAAGTTCAGGAAGAGTCTGTTACTTTTCGAATTAATTTAACTGTCCTTTAGACTGTTTAT
CTATTTTGGATCAAGTCTATGCCAGGGACTTAACTGCACTTCGAATGTGTACCAAGTTATGGTTA
CCCTTTGATGCTGTTCTGGAAGAAGGAGGAGTGGTGACAGTCTGCAAAATCAATACACAGGAACCTGAG
GAGACCCTGGACTTTGATTTCTGCAGCACCAATGTTATTAATAAAATTATTCTGCAGTCAGAGGGCTCC
GTGAAGCATTCTGAATTGGATATGACGAGTGAAGTCTACAAATTACCATGTCTCTGACAAGCCTTA
TTTCAGGTTATCTACTTTTGAAATGCAGGAAGTCCCACCTTGACTATCCCAAAGATTCTGATTTGATG
GAAGCATTTCATTGTAATCAGACCAAGTCAACAGATACAAGATTTCTTACTGAAACCCTTACAAGG
CATTAGTCCTATCTTGAAGTATCTATTCGGACAGATAACAGAGGCTTCCTTTCATTACAGTATATGAT
TAGAAATGAAGATGGACAAATATGTTTTGTGGAATATTACTGCTGCCCTGATGAAGAAGTTCCTGAATCT
GAGTCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC201576 protein sequence
Red=Cloning site Green=Tags(s)

MPLLTQQIQDEDDQYSLVASLDNVRNLSTILKAIHFREHATCFATKNGIKVTVENAKCVQANAFIQAGIF
 QEFKVVQEE SVTFRINLTVLLDCLSI FGSSPMPGTLTALRMCYQGYGYPLMLFLEEGGVTVCKINTQEPE
 ETLDLDFCSTNVINKIILQSEGLREAFSELDMTSEVLQITMSPDKPYFRLSTFGNAGSSHLDPKSDLM
 EAFHCNQTVNRYKISLLKPKSTKALVLSCKVSI RTDNRGFLSLQYMIRNEDGQICFVEYYCCPDEEVPE
 ES

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6014_c03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_133377

ORF Size: 846 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_133377.2](#), [NP_596868.1](#)

RefSeq Size: 4765 bp

RefSeq ORF: 848 bp

Locus ID: 5810

Cytogenetics: 5p13.2

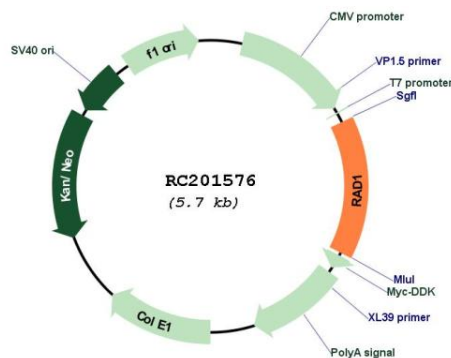
Domains: Rad1

Protein Families: Druggable Genome

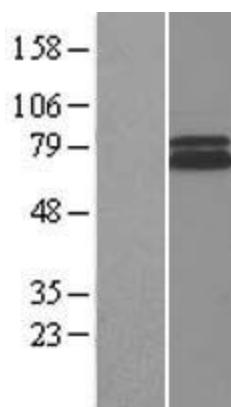
MW: 31.8 kDa

Gene Summary: This gene encodes a component of a heterotrimeric cell cycle checkpoint complex, known as the 9-1-1 complex, that is activated to stop cell cycle progression in response to DNA damage or incomplete DNA replication. The 9-1-1 complex is recruited by RAD17 to affected sites where it may attract specialized DNA polymerases and other DNA repair effectors. Alternatively spliced transcript variants of this gene have been described. [provided by RefSeq, Jan 2009]

Product images:



Circular map for RC201576



Western blot validation of overexpression lysate (Cat# [LY403338]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201576 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).