

## **Product datasheet for RC204439**

## Rad9 (RAD9A) (NM\_004584) Human Tagged ORF Clone

## **Product data:**

**Product Type:** Expression Plasmids

Product Name: Rad9 (RAD9A) (NM\_004584) Human Tagged ORF Clone

Tag: Myc-DDK

Symbol: Rad9

Synonyms: RAD9

Mammalian Cell Neomycin

Selection:

**Vector:** pCMV6-Entry (PS100001)

E. coli Selection: Kanamycin (25 ug/mL)

ORF Nucleotide >RC204439 representing NM\_004584.
Sequence: Blue=ORF Red=Cloning site Green=Tag(s)

GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGAAGTGCCTGGTCACGGGCGGCAACGTGAAGGTGCTCGGCAAGGCCGTCCACTCCCTGTCCCGCATC GCCTATGCCTGCTTTCTCTTTGCCCCGCTCTTCTTCCAGCAATACCAGGCAGCCACCCCTGGTCAGGAC ACGGTGGAAAAATGCTGCATCTCCCTGAATGGCCGGAGCAGCCGCCTGGTGGTCCAGCTGCATTGCAAG TTCGGGGTGCGGAAGACTCACAACCTGTCCTTCCAGGACTGTGAGTCCCTGCAGGCCGTCTTCGACCCA GCCTCGTGCCCCCACATGCTCCGCGCCCCAGCACGGGTTCTGGGGGAGGCTGTTCTGCCCTTCTCCT GCACTGGCTGAAGTGACGCTGGGCATTGGCCGTGGCCGCAGGGTCATCCTGCGCAGCTACCACGAGGAG GAGGCAGACAGCACTGCCAAAGCCATGGTGACTGAGATGTGCCTTGGAGAGGAGGATTTCCAGCAGCTG CAGGCCCAGGAAGGGGTGGCCATCACTTTCTGCCTCAAGGAATTCCGGGGGCTCCTGAGCTTTGCAGAG TCTTTGCTGGACGGCCACTTTGTCTTGGCCACACTCTCAGACACCGACTCGCACTCCCAGGACCTGGGC TCCCCAGAGCGTCACCAGCCAGTGCCTCAGCTCCAGGCTCACAGCACACCCCACCCGGACGACTTTGCC AATGACGACATTGACTCTTACATGATCGCCATGGAAACCACTATAGGCAATGAGGGCTCGCGGGTGCTG CCCTCCATTTCCCTTTCACCTGGCCCCCAGCCCCCCAAGAGCCCCGGTCCCCACTCCGAGGAGGAAGAT ATCCTGGCCCCTGTACGCTCCCCCCAGGGCCCCAGCCCTGTGCTGGCGGAAGACAGTGAGGGTGAAGGC **ACGCGTACGCGCCCCTC**GAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT

TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC



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Protein Sequence: >Peptide sequence encoded by RC204439

Blue=ORF Red=Cloning site Green=Tag(s)

MKCLVTGGNVKVLGKAVHSLSRIGDELYLEPLEDGLSLRTVNSSRSAYACFLFAPLFFQQYQAATPGQD LLRCKILMKSFLSVFRSLAMLEKTVEKCCISLNGRSSRLVVQLHCKFGVRKTHNLSFQDCESLQAVFDP ASCPHMLRAPARVLGEAVLPFSPALAEVTLGIGRGRRVILRSYHEEEADSTAKAMVTEMCLGEEDFQQL QAQEGVAITFCLKEFRGLLSFAESANLNLSIHFDAPGRPAIFTIKDSLLDGHFVLATLSDTDSHSQDLG SPERHQPVPQLQAHSTPHPDDFANDDIDSYMIAMETTIGNEGSRVLPSISLSPGPQPPKSPGPHSEEED

EAEPSTVPGTPPPKKFRSLFFGSILAPVRSPQGPSPVLAEDSEGEG
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

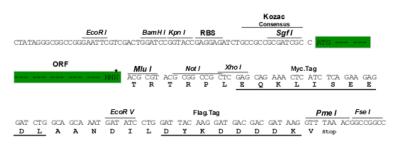
Recombinant protein using RC204439 also available, TP304439

**Chromatograms:** <a href="https://cdn.origene.com/chromatograms/mk6013">https://cdn.origene.com/chromatograms/mk6013</a> c05.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_004584

ORF Size: 1173 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with

0.22um filter is required.

**RefSeq:** <u>NM 004584.3</u>

 RefSeq Size:
 2128 bp

 RefSeq ORF:
 1176 bp

 Locus ID:
 5883

 UniProt ID:
 Q99638

 Cytogenetics:
 11q13.2

 Domains:
 Rad9

**Protein Families:** Druggable Genome, Stem cell - Pluripotency

**MW:** 42.5 kDa

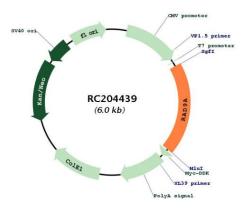
**Gene Summary:** This gene product is highly similar to Schizosaccharomyces pombe rad9, a cell cycle

checkpoint protein required for cell cycle arrest and DNA damage repair. This protein possesses 3' to 5' exonuclease activity, which may contribute to its role in sensing and repairing DNA damage. It forms a checkpoint protein complex with RAD1 and HUS1. This complex is recruited by checkpoint protein RAD17 to the sites of DNA damage, which is thought to be important for triggering the checkpoint-signaling cascade. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by

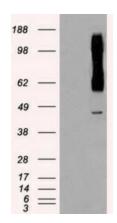
RefSeq, Aug 2011]



## **Product images:**

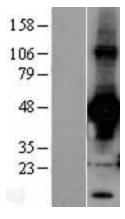


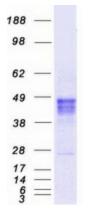
Circular map for RC204439



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY RAD9A (Cat# RC204439, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-RAD9A(Cat# [TA500434]). Positive lysates [LY401451] (100ug) and [LC401451] (20ug) can be purchased separately from OriGene.







Western blot validation of overexpression lysate (Cat# [LY401451]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204439 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

Coomassie blue staining of purified RAD9A protein (Cat# [TP304439]). The protein was produced from HEK293T cells transfected with RAD9A cDNA clone (Cat# RC204439) using MegaTran 2.0 (Cat# [TT210002]).