

Product datasheet for **RC227311**

RAD51D (NM_001142571) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: RAD51D (NM_001142571) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: RAD51D
Synonyms: BROVCA4; R51H3; RAD51L3; TRAD
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC227311 representing NM_001142571
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGGCGTGCTCAGGGTCGGACTGTGCCCTGGCCTTACCGAGGAGATGATCCAGCTTCTCAGGAGCCACA
 GGATCAAGACAGTGGTGGACCTGGTTTCTGCAGACCTGGAAGAGGTAGCTCAGAAATGTGGCTTGTCTTA
 CAAGACATGGAGGGCGCACTCAAGTGGAACTGGGAGGACTGCAGCTGCCTCAGGTCCCCGAGGGAGA
 TCGTGGAGTGGGGTCAGGAATGCTCTGAAGAAGGCAGGACTTGGGCATGGAGGAACAGATGGACTTTCGC
 TGAATGCTTTCGATGAACGAGGCACTGCGGTGAGCACTTACGTCTTGATAAACTGCTTGTGCTGGTCT
 CTATACTGGAGAAGTGAATTTGTAGGAGGCCAGGTAGCGGCAAACTCAGGTATGTCTGTATG
 GCAGAAATGTGGCCATGGCCTGCAGCAAACTGCTATATGTAGATTCCAATGGAGGGCTGACAGCTT
 CCCGCCTCCTCCAGCTGCTTCAGGCTAAAACCCAGGATGAGGAGGAACAGGCAGAAGCTCTCCGGAGGAT
 CCAGGTGGTGCATGCATTTGACATCTTCCAGATGCTGGATGTGCTGCAGGAGCTCCGAGGCACTGTGGCC
 CAGCAGGTGACTGGTCTTCCAGGAAGTGAAGGTGGTGGTGTGGACTCGGTACTGCGGTGGTTTCCC
 CACTTCTGGGAGGTCAGCAGAGGGAAGGCTTGGCCTTGATGATGCAGCTGGCCCGAGAGCTGAAGACCT
 GGCCCGGACCTTGGCATGGCAGTGGTGGTGACCAACCACATAACTCGAGACAGGGACAGCGGGAGGCTC
 AAACCTGCCCTCGGACGCTCCTGGAGCTTGTGCCAGCACTCGATTCTCTGGACACCACGAGGGAG
 CAGGAGCATCAGGCGCCGCGCATGGCGTGTCTGGCCAAATCTCCCGACAGCCAACAGGTTTCCAGGA
 GATGGTAGACATTGGGACCTGGGGACCTCAGAGCAGAGTGCCACATTACAGGGTATCAGACA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC227311 representing NM_001142571
Red=Cloning site Green=Tags(s)

MGVLRVGLCPGLTEEMIQLLRSHRIKTVVDLVSADLEEVAQKCGLSYKTWRAHSSGNLGGQLPQVPAGR
 SWSGVRNALKKAGLGHGGTDGLSLNAFDERGTAVSTSRLDKLLDAGLYTGEVTEIVGGPGSGKTQVCLCM
 AANVAHGLQQNVLYVDSNGGLTASRLQLLQAKTQDEEEQAEALRRIQVVHAFDIFQMLDVLQELRGTV
 QQVTGSSGTVKVVVVDVAVVSPLLGGQQREGLALMMQLARELKTARLDGMAVVVTNHI TRDRDSGRL
 KPALGRSWSFVPSTRILLDTIEGAGASGGRRMACLA KSSRQPTGFQEMVDIGTWGTSEQSATLQGDQT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8053_g12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001142571

ORF Size: 1044 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_001142571.2](#)

RefSeq ORF: 1047 bp

Locus ID: 5892

UniProt ID: [O75771](#)

Cytogenetics: 17q12

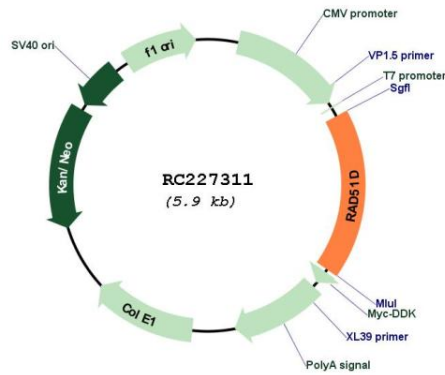
Protein Families: Druggable Genome

Protein Pathways: Homologous recombination

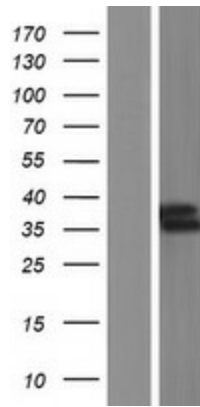
MW: 36.8 kDa

Gene Summary: The protein encoded by this gene is a member of the RAD51 protein family. RAD51 family members are highly similar to bacterial RecA and *Saccharomyces cerevisiae* Rad51, which are known to be involved in the homologous recombination and repair of DNA. This protein forms a complex with several other members of the RAD51 family, including RAD51L1, RAD51L2, and XRCC2. The protein complex formed with this protein has been shown to catalyze homologous pairing between single- and double-stranded DNA, and is thought to play a role in the early stage of recombinational repair of DNA. Alternative splicing results in multiple transcript variants. Read-through transcription also exists between this gene and the downstream ring finger and FYVE-like domain containing 1 (RFFL) gene. [provided by RefSeq, Jan 2011]

Product images:



Circular map for RC227311



Western blot validation of overexpression lysate (Cat# [LY428181]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227311 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).