

## Product datasheet for MR205059

### Rad51 (NM\_011234) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Rad51 (NM_011234) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rad51
Synonyms:	AV304093; Rad51a; Reca
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR205059 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTATGCAAATGCAGCTTGAAGCAAGTGCAGATACTTCAGTGAAGAAGAAAGTTTTGGTCCACAGC  
CTATTTACAGGTTAGAGCAGTGTGGCATAAATGCCAATGATGTGAAGAAATTAGAAGAAGCCGTTACCA  
TACAGTGGAGGCTGTTGCTTATGCACCGAAGAAGGAACAATAAATATTAAGGGAATTAGTGAAGCCAAA  
GCTGACAAAATTCTGACTGAGGCAGCAAATTTGGTTCCAATGGGTTTACCACGGCAACTGAGTTTCACC  
AGCGCCGGTCAGAGATCATAAGATAACTACTGGCTCCAAGAGCTGGACAAGCTGCTTCAAGGTGGAAT  
TGAGACTGGATCTATCACAGAGATGTTTGGAGAATTCGAACTGGGAAGACACAGATCTGTACATAGTTG  
GCTGTTACATGCCAGCTCCCCATTGACCGTGGTGGAGGTGAAGGGAAGGCCATGTACATTGACACCGAGG  
GCACCTTTAGGCCGGAGCGGCTGCTAGCAGTAGCTGAGAGATACGGTCTCTCTGGCAGCGATGTCCTAGA  
TAATGTAGCATATGCGCGAGGGTTCAACACAGACCACCAGACCAGCTCCTTTACCAAGCGTCAGCCATG  
ATGGTAGAATCCAGGTATGCACTGCTTATTGTAGACAGTGTACTGCCCTTTACAGAACAGACTACTCAG  
GGCGGGGAGAGCTTTAGCCAGGCAAATGCATTTGGCCAGATTTCTGAGGATGCTGCTTCGACTTGCTGA  
TGAGTTTGGTGTGCGAGTGGTAATCACCAACCAGGTAGTAGCCCAAGTAGATGGAGCAGCCATGTTTCGT  
GCAGATCCCAAAAACCCATTGGAGGGAACATCATCGCTCATGCGTCAACCACCAGGCTGTACCTGAGAA  
AAGGAAGAGGGGAGACCAGAATCTGCAAAATCTATGACTCTCCCTGTCTTCTCTGAAGCTGAAGCTATGTT  
TGCCATTAATGCAGATGGAGTGGCGGATGCCAAAGAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



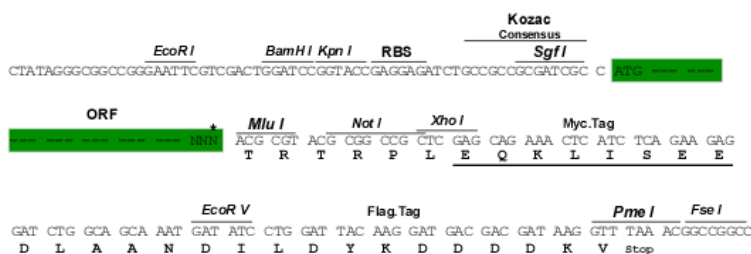
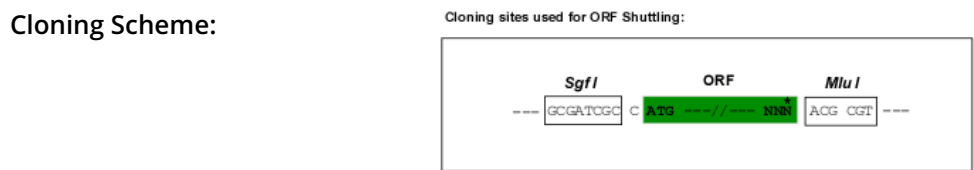
[View online »](#)

**Protein Sequence:** >MR205059 protein sequence  
Red=Cloning site Green=Tags(s)

MAMQMQL EASADTSVEEESFGPQPISRLEQCGINANDVKKLEEAGYHTVEAVAYAPKKELINIKGISEAK  
 ADKILTEAAKLVPMGFTTATEFHQRSEI IQITGSKELDKLLQGGIETGSITEMFGEFRTGKTQICHTL  
 AVTCQLPIDRGGGEGKAMYIDTEGTFRPERLLAVAERYGLSGSDVLDNVAYARGFNTHQTLQYQASAM  
 MVESRYALLIVDSATALYRTDYSGRGELSARQMHARFLRMLRLLADEFVAVVITNQVVAQVDGAAMFA  
 ADPKKPIGGNIIAHASTTRLYLKRGGETRICKIYDSPCLPEAEAMFAINADGVGDGAKD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_011234

**ORF Size:** 1020 bp

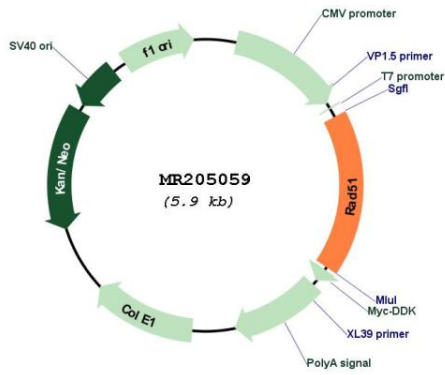
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_011234.5</a>
<b>RefSeq Size:</b>	2138 bp
<b>RefSeq ORF:</b>	1020 bp
<b>Locus ID:</b>	19361
<b>UniProt ID:</b>	<a href="#">Q08297</a>
<b>Cytogenetics:</b>	2 59.92 cM
<b>MW:</b>	37 kDa
<b>Gene Summary:</b>	Plays an important role in homologous strand exchange, a key step in DNA repair through homologous recombination (HR) (PubMed:15834424). Binds to single and double-stranded DNA and exhibits DNA-dependent ATPase activity. Catalyzes the recognition of homology and strand exchange between homologous DNA partners to form a joint molecule between a processed DNA break and the repair template. Binds to single-stranded DNA in an ATP-dependent manner to form nucleoprotein filaments which are essential for the homology search and strand exchange. Part of a PALB2-scaffolded HR complex containing BRCA2 and RAD51C and which is thought to play a role in DNA repair by HR. Plays a role in regulating mitochondrial DNA copy number under conditions of oxidative stress in the presence of RAD51C and XRCC3. Also involved in interstrand cross-link repair (By similarity). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR205059