

Product datasheet for **MC205834**

Rad51 (NM_011234) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rad51 (NM_011234) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Rad51
Synonyms:	AV304093; Rad51a; Reca
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC027384
 CGCAGATCCGCGCTGGGCAAAGCCGAGGCGCTCCCACAGGTGTGGCCAGGAAGACTGAAATTTTTTCGTA
 GAAAACCTGACAGAGGAGCAGCGAAGCGGTTTCGAGCCGGGTGAAGTGGGGGAGTGTGGTGTGTCAGA
 GCCGGCTGCCCGGAGGAGCGAGCGGCCCGTGGCCGCGGACAGTCATGGCTATGCAAATGCAGCTTGAAG
 CAAGTGCAGATACTTCAGTGAAGAAGAAAGTTTTGGTCCACAGCCTATTTACGGTTAGAGCAGTGTGG
 CATAAATGCCAATGATGTGAAGAAATTAGAAGAAGCCGGTTACCATACAGTGGAGGCTGTGCTTATGCA
 CCGAAGAAGGAACTAATAAATATTAAGGGAATTAGTGAAGCCAAAGCTGACAAAATTTGACTGAGGCAG
 CAAAATGGTTCCAATGGTTTTACCACGGCAACTGAGTTTTACCAGCGCCGGTCAGAGATCATACAGAT
 AACTACTGGCTCCAAAGAGCTGGACAAGCTGCTTCAAGGTGGAATTGAGACTGGATCTATCACAGAGATG
 TTTGGAGAATTCGAACTGGGAAGACACAGATCTGTCATACGTTGGCTGTACATGCCAGCTCCCCATTG
 ACCGTGGTGGAGGTGAAGGGAAGGCCATGTACATTGACACCGAGGGCACCTTTAGCCGGAGCGGCTGCT
 AGCAGTAGCTGAGAGATACGGTCTCTCTGGCAGCGATGTCCTAGATAATGTAGCATATGCGCGAGGGTTC
 AACACAGACCACCAGACCAGCTCCTTTACCAAGCGTCAGCCATGATGGTAGAATCCAGGTATGCACTGC
 TTATTGTAGACAGTGTACTGCCCTTTACAGAACAGACTACTCAGGGCGGGGAGAGCTTTACGCCAGGCA
 AATGCATTTGGCCAGATTTCTGAGGATGCTGCTTCGACTTGTGATGAGTTTGGTGTGCGAGTGGTAATC
 ACCAACCCAGGTAGTAGCCCAAGTAGATGGAGCAGCCATGTTTCGCTGCAGATCCCAAAAAACCCATTGGAG
 GGAACATCATCGCTCATGCGTCAACCACCAGGCTGTACCTGAGAAAAGGAAGAGGGGAGACCAGAATCTG
 CAAAATCTATGACTCTCCCTGTCTTCTGAAGCTGAAGCTATGTTTGCCATTAATGCAGATGGAGTGGGC
 GATGCCAAAGACTGACTCCTTAGGCTTTCTTCTGTGATGCTATACGGCTTTTCTAAATGCTCTACAGC
 TAATGGAGAGGACTGTGTACTGGGCTTCTTACAGGCTCATGTTGTGACTGCCCCGCATGGCTTCCGGGA
 AAACAATATTGTATCAGCTCTCTGGTAGCAGAAACACATCTGATCTGAAAGGTTTCTGTGGAGTCTAT
 TAATAACTGATTTCTTTGGTGTTAGAGGAGAAGTATGAAATAGCAGGTGTGGGGCAGTCTTTTGTCTTC
 AGGAGAAGTAAACTGAAAGATCCGAGTACTCTCACTTCTCAAGGATGGTAAACTAAATGCCTGAGGATC
 TGTAAGTGGGAATGGGTGGTTTACACATTTCTTTCTGTGAAGACAGATGCAAACTTAGTTATATGCCTG
 AACTGTACATCATTTTTAAAATTTATTTTTGATTAAGGAGTCTTACATGCAGCATGCTAGACTACGATCC
 CTGCATGCTTGTCTCTAAATTAAGACTTCACTTAAGGAAATTTGTTCTGCTGCTAATAAAGTAGTT
 GTGTGCGAGTGGATGTGTTATTTGCTGGAGATATTCTAGTGCAAACTGAATATTGCAAAACAGGGTTTCTA
 TAACAGCTTTCCGGTACTGTGTCGTTTCGTTATGGTCAGTGCAGTTGTAAGTGTGAACCTGAAAGAAAGC
 CCAGCATTAGGTTACTGCATTGTAGCCTTTGGCCGAAGAATAAGAACCCAGGCTGGTTTACTGTGTCT
 TTCTGTGGTCTTTGTTTTTATTGTATTAGTTTTGTGTTGCAGAGGTCTGACATTACTCAAATAACTCTG
 CATCAGGAGTATTTCAAAAATATAGTCTTTTGGAGTATTGAGTCTATTATTAAGAATTTCAA
 AACAGAAAAAAAAAAAAAAAAA

Restriction Sites: RsrII-NotI

ACCN: NM_011234

Insert 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 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](#)

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:	<ol style="list-style-type: none">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:	<u>BC027384</u> , <u>AAH27384</u>
RefSeq Size:	2121 bp
RefSeq ORF:	1020 bp
Locus ID:	19361
UniProt ID:	<u>Q08297</u>
Cytogenetics:	2 59.92 cM
Gene Summary:	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]