

Product datasheet for **MC226626**

Rad51b (NM_001252562) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Rad51b (NM_001252562) Mouse Untagged Clone
Tag: Tag Free
Symbol: Rad51b
Synonyms: AI553500; mREC2; R51H2; Rad5111
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC226626 representing NM_001252562
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGAGCAGCAAGAACTAAGACGAGTGGGTTTATCTCCAGAGCTGTGTGACCGTTAAGCAGATACCAGA
TTGTTAACTGTCAGCACTTTTTAAGTCTCTCCCACTAGAAGTTATGAAAGTGACTGGCCTGAGTTACAG
AGGTGTCCACGAGCTTCTCATAACAGTAAGCAAGGCTGTGCCCGCAGATGCAAACGGCTTATGAGTTA
AAGACACGAAGGTCTGCACATCTCTACCAGGCTTCTGTCTACTACCCTGTGCGCCTTGGATGAAGCAT
TGCACGGTGGTGTGCCTTGTGGATCTCTCACAGAGATTACAGGTCCACCAGGTTGCGGAAAACTCAGTT
TTGCATAATGATGAGTGTCTTAGCTACATTACCTACCAGCCTGGGAGGATTAGAAGGGGCTGTGGTCTAC
ATCGACACAGAGTCTGCATTTACTGCTGAGAGACTGGTTGAGATTGCGGAATCTCGTTTTCCACAATATT
TTAACTGAGGAAAAATTGCTTCTGACCAGCAGTAGAGTTTCTTTGCCGAGAGCTCACCTGTGAGGG
GCTTCTACAAAGGCTTGGTCTTGGAGGAAGAGATCATTTGAAAGGAGTTAAGCTTGTGATTGTTGAC
TCCATTGCTTCTGTGGTCAGAAAGGAGTTTGACCCGAAGCTTCAAGGCAACATCAAAGAAAGGAACAAGT
TCTTGGCAAAGGAGCGTCTTACTGAAGTACCTGGCAGGGGAGTTTTCAATCCCAGTTACATTTCAACC
GATCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001252562
Insert Size: 777 bp



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OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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>NM_001252562.1, NP_001239491.1</u>
RefSeq Size:	1757 bp
RefSeq ORF:	777 bp
Locus ID:	19363
UniProt ID:	<u>Q35719</u>
Cytogenetics:	12 C3
Gene Summary:	<p>Involved in the homologous recombination repair (HRR) pathway of double-stranded DNA breaks arising during DNA replication or induced by DNA-damaging agents. May promote the assembly of presynaptic RAD51 nucleoprotein filaments. Binds single-stranded DNA and double-stranded DNA and has DNA-dependent ATPase activity. Part of the RAD21 paralog protein complex BCDX2 which acts in the BRCA1-BRCA2-dependent HR pathway. Upon DNA damage, BCDX2 acts downstream of BRCA2 recruitment and upstream of RAD51 recruitment. BCDX2 binds predominantly to the intersection of the four duplex arms of the Holliday junction and to junction of replication forks. The BCDX2 complex was originally reported to bind single-stranded DNA, single-stranded gaps in duplex DNA and specifically to nicks in duplex DNA. The BCDX2 subcomplex RAD51B:RAD51C exhibits single-stranded DNA-dependent ATPase activity suggesting an involvement in early stages of the HR pathway (By similarity).[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (2) differs in the 5' UTR and lacks several exons but includes an alternate 3_ terminal exon, compared to variant 1. The resulting isoform (2) is shorter and has a distinct C-terminus, compared to isoform 1.</p>