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Product datasheet for MR203142

Rad51l1 (BC058184) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rad51l1 (BC058184) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rad51l1
Synonyms:	R51H2, mREC2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>MR203142 representing BC058184 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGACTGAGATTACAGGTCCACCAGGTTGCGGAAAAACTCAGTTTTGCATAATGATGAGTGTCTTAGCTA CATTACCCACCAGCCTGGGAGGATTAGAAGGGGCTGTGGTCTACATCGACACAGAGTCTGCATTTACTGC TGAGAGACTGGTTGAGATTGCGGAATCTCGTTTTCCACAATATTTTAACACTGAGGAAAAATTGCTTCTG ACCAGCAGTAGAGTTCATCTTTGCCGAGAGCTCACCTGTGAGGGGCTTCTACAAAGGCTTGAGTCTTTGG AGGAAGAGATCATTTCGAAAGGAGTTAAGCTTGTGATTGTTGACTCCATTGCTTCTGTGGTCAGAAAGGA GTTTGACCCGAAGCTTCAAGGCAACATCAAAGAAAGGAACAAGTTCTTGGGCAAAGGAGCGTCCTTACTG AAGTACCTGGCAGGGGAGTTTTCAATCCCAGTTATCTTGACGAATCAAATTACGACCCATCTGAGTGGAG CCCTCCCTTCTCAAGCAGACCTGGTGTCTCCAGCTGATGATTTGTCCCTGTCTGAAGGCACTTCTGGATC CAGCTGTTTGGTAGCTGCACTAGGAAACACATGGGGTCACTGTGTGAACACCCGGCTGATTCTCCAGTAC CTTGATTCAGAGAGAAGGCAGATTCTCATTGCCAAGTCTCCTCTGGCTGCCTTCACCTCCTTTGTCTACA CCATCAAGGGGGAAGGCCTGGTTCTTCAAGGCCACGAAAGACCA ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

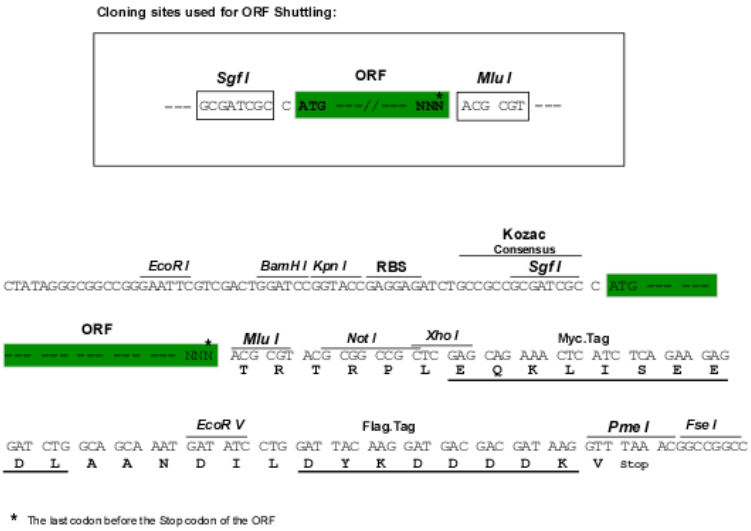
>MR203142 representing BC058184
Red=Cloning site Green=Tags(s)

MTEITGPPGCGKTQFCIMMSVLATLPTSLGGLEGAVVYIDTESAFTAERLVEIAESRFPQYFNTEEKLLL
TSSRVHLCRELTCEGLLQRLESLEEEIISKGVKLVIVDSIASVVRKEFDPKLQGNIKERNKFLGKGASLL
KYLAGEFSIPVILTNQITTHLSGALPSQADLVSPADDLSLSEGTSGSSCLVAALGNTWGHCVNTRLILQY
LDSERRQILIAKSPLAAFTSFVYTIKGEGLVLQGHERP

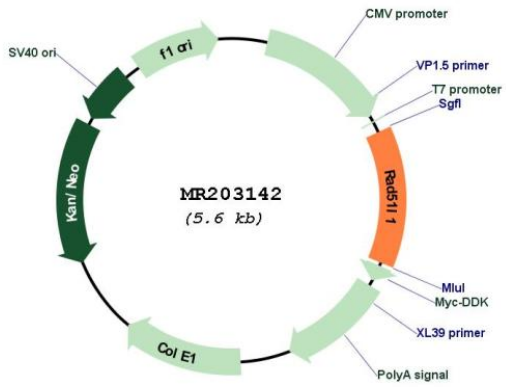
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: BC058184

ORF Size: 744 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:	BC058184.1
RefSeq Size:	1315 bp
RefSeq ORF:	746 bp
Locus ID:	19363
Cytogenetics:	12 C3
MW:	48.2 kDa
Gene Summary:	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]