

Product datasheet for **MR228926**

Rad1 (NM_001289448) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Rad1 (NM_001289448) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Rad1
Synonyms: mRAD1
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >MR228926 representing NM_001289448
Red=Cloning site **Blue**=ORF **Green**=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGCCTCTCTAACCAGTACAATGAAGAGGAGTACGAACAGTACTGCTTAGTGGCCAGCCTTGACAACG
TTAGGAATCTCTCCACTGTCTTGAAAGCCATTCATTTTCAGAGAACACGCCACGTGTTTTGCTACCAAAAA
CGGAATCAAGGTTACAGTGGAGAATGCAAAGTGTGTGCAAGCAAATGCCTTTATTCAGGCTGACGTGTT
CAGGAATTTGTCATTCAGGAAGAATCTGTTACTTTTCGAATTAACCTAATATCCTTTTAGACTGTTTAT
CTATTTTTGGATCAAGTCTACACCAGGGACTTTGACTGCGCTTCGGATGTGTTACCAAGTTATGGTCA
CCCCTGATGCTATTTCTAGAAGAAGGAGGAGTGGTGACGGTCTGCAAAATACCCTCAGGAGCCTGAG
GAGACTGGATTTTGAATTTCTGCAGCACCAATGTTATGAATAAAATATCCTGCAGTCAGAGGGGCTCC
GGGAAGCCTTTCTGAGCTGGACATGACAGGTGATGCTTACAGATCACTGTGCTCCTGACAAGCCCTA
TTTCAGGTTGTCTACTTTTGAAATGCAGGAACTCCCATCTTGACTATCCCAAAGATCCGACTTGGTG
GAAGCCTTTCAGTGTGATAAGACCCAGGTCAACAGAATTCGGATGTAAGTATTCCTGTAAAACATGGT
TGCAGCTACCTGAAGGGTAGGCTATGATCCTCTCAGCGGTTTGGAGTGGACTCTTTCAGAACCGGATGG
AGAGCAGGAGGTGGCTCAGTGGTAAACGTGGTCCCTGTGCAAGCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR228926 representing NM_001289448
Red=Cloning site Green=Tags(s)

MPLLTQYNEEEEYEQYCLVASLDNVRNLSTVLKAIHFREHATCFATKNGIKVTVENAKCVQANAFIQADV
 QEFVIQEEESVTFRINLTILLDCLSI FGSSPTPGTLTALRCYQGYGHPLMLFLEEGVVTVCKITTQEPE
 ETLDDFDFCSTNVMNKII LQSEGLREAFSELDMTGDV LQITVSPDKPYFRLSTFGNAGNSHLDYPKDSDLV
 EAFHCDKTQVNRISDVKY SCKTWLQLPEGVGYDPLSGLEWTL SERDGEQEVAQWVNVVPVQA

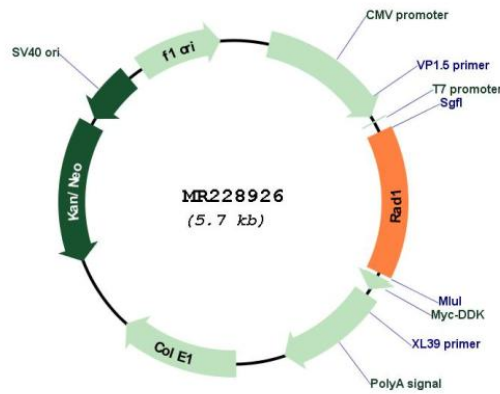
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001289448
ORF Size: 816 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:	<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:	NM_001289448.1 , NP_001276377.1
RefSeq Size:	4136 bp
RefSeq ORF:	819 bp
Locus ID:	19355
UniProt ID:	Q9QWZ1
Cytogenetics:	15 A1
MW:	31 kDa
Gene Summary:	Component of the 9-1-1 cell-cycle checkpoint response complex that plays a major role in DNA repair. The 9-1-1 complex is recruited to DNA lesion upon damage by the RAD17-replication factor C (RFC) clamp loader complex. Acts then as a sliding clamp platform on DNA for several proteins involved in long-patch base excision repair (LP-BER). The 9-1-1 complex stimulates DNA polymerase beta (POLB) activity by increasing its affinity for the 3'-OH end of the primer-template and stabilizes POLB to those sites where LP-BER proceeds; endonuclease FEN1 cleavage activity on substrates with double, nick, or gap flaps of distinct sequences and lengths; and DNA ligase I (LIG1) on long-patch base excision repair substrates. The 9-1-1 complex is necessary for the recruitment of RHNO1 to sites of double-stranded breaks (DSB) occurring during the S phase. Isoform 1 possesses 3'->5' double stranded DNA exonuclease activity (By similarity).[UniProtKB/Swiss-Prot Function]