

Product datasheet for MC226754

Rad1 (NM_001289447) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Rad1 (NM_001289447) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Rad1
Synonyms:	mRAD1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC226754 representing NM_001289447 Red=Cloning site Blue=ORF Orange=Stop codon

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGCCTCTCTAACCCAGTACAATGAAGAGGAGTACGAACAGTACTGCTTAGTGGCCAGCCTTGACAACG
TTAGGAATCTCTCCACTGTCTTGAAAGCCATTCATTTAGAGAACACGCCACGTGTTTTGCTACCAAAAA
CGGAATCAAGGTTACAGTGGAGAATGCAAAGTGTGTGCAAGCAAATGCCTTTATTCAGGCTGACGTGTT
CAGGAATTTGTCATTAGGAAGAATCTGTTACTTTTCGAATTAACCTAACTATCCTTTTAGACTGTTTAT
CTATTTTGGATCAAGTCTACACCAGGACTTTGACTGCGCTTCGGATGTGTTACCAAGGTTATGGTCA
CCCACTGATGCTATTTCTAGAAGAAGGAGGAGTGGTGACGGTCTGCAAAATTACCACTCAGGAGCCTGAG
GAGACACTGGATTTTGATTTCTGCAGCACCAATGTTATGAATAAAATTATCCTGCAGTCAGAGGGGCTCC
GGGAAGCCTTTTCTGAGCTGGACATGACAGGTGATGTCTACAGATCACTGTGTCTCTGACAAGCCCTA
TTTCAGGTTGTCTACTTTTGAAATGCAGGAACTCCCATCTTGACTATCCCAAAGATTCGCACTTGGTG
GAAGCCTTTCACTGTGATAAGACCCAGGTCAACAGATACAAGCTGTGCTACTGAAGCCCTCTACAAAGG
CACTAGCTTTATCCTGTAAAGTGTCTATCCGGACAGATAACCGAGGCTTCCTCTCCTTACAGTACATGAT
TAGAAATGAAGATGGGCAGATATGTTTTGTGGAATATTACTGCTGCCCTGATGAAGAAGTTCCTGAGTCT
TGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	SgfI-MluI
ACCN:	NM_001289447
Insert Size:	843 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_001289447.1</u> , <u>NP_001276376.1</u>
RefSeq Size:	1308 bp
RefSeq ORF:	843 bp
Locus ID:	19355
UniProt ID:	<u>Q9QWZ1</u>
Cytogenetics:	15 A1
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (2) differs in the 5' UTR compared to variant 1. Variants 1 and 2 encode the same isoform (1). Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.</p>