

## 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  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC226754 representing NM\_001289447  
**Red**=Cloning site **Blue**=ORF **Orange**=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGCTCTCTAACCAGTACAATGAAGAGGAGTACGAACAGTACTGCTTAGTGCCAGCCTTGACAACG  
TTAGGAATCTCTCCACTGTCTTGAAAGCCATTCATTTAGAGAACACGCCACGTGTTTTGCTACAAAAA  
CGGAATCAAGGTTACAGTGGAGAATGCAAAGTGTGTGCAAGCAAATGCCTTTATTCAGGCTGACGTGTT  
CAGGAATTTGTCAATCAGGAAGAATCTGTTACTTTTTCGAATTAACCTAACCTATCCTTTAGACTGTTTAT  
CTATTTTTGGATCAAGTCTACACCAGGGACTTTGACTGCGCTTCGGATGTGTTACCAAGTTATGGTCA  
CCCCTGATGCTATTTCTAGAAGAAGGAGGAGTGGTGACGGTCTGCAAAATACCCTCAGGAGCCTGAG  
GAGACTGGATTTTGTATTTCTGCAGCACAATGTTATGAATAAAATATCCTGCAGTCAGAGGGGCTCC  
GGGAAGCCTTTCTGAGCTGGACATGACAGGTGATGCTTACAGATCACTGTGCTCCTGACAAGCCCTA  
TTTCAGGTTGTCTACTTTTGAAATGCAGGAACTCCCATCTTGACTATCCCAAAGATCCGACTTGGTG  
GAAGCCTTTCAGTGTGATAAGACCCAGGTCAACAGATAACAAGCTGTCGCTACTGAAGCCCTTACAAGG  
CACTAGCTTTATCCTGTAAGTGTCTATCCGGACAGATAACCGAGGCTTCCTCTCCTTACAGTACATGAT  
TAGAAATGAAGATGGGCAGATATGTTTTGTGGAATATTACTGCTGCCCTGATGAAGAAGTTCCTGAGTCT  
TGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_001289447  
**Insert Size:** 843 bp



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<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_001289447.1</a></u> , <u><a href="#">NP_001276376.1</a></u>
<b>RefSeq Size:</b>	1308 bp
<b>RefSeq ORF:</b>	843 bp
<b>Locus ID:</b>	19355
<b>UniProt ID:</b>	<u><a href="#">Q9QWZ1</a></u>
<b>Cytogenetics:</b>	15 A1
<b>Gene Summary:</b>	<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'-&gt;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>