

## Product datasheet for **MG203788**

### Rad1 (NM\_011232) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Rad1 (NM\_011232) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Rad1  
**Synonyms:** mRAD1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG203788 representing NM\_011232  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCCTCTCTAACCAGTACAATGAAGAGGAGTACGAACAGTACTGCTTAGTGGCCAGCCTTGACAACG  
 TTAGGAATCTCTCCACTGTCTTGAAAGCCATTCATTTAGAGAACACGCCACGTGTTTTGCTACCAAAA  
 CGGAATCAAGGTTACAGTGGAGAATGCAAAGTGTGTGCAAGCAAATGCCTTTATTCAGGCTGACGTGTT  
 CAGGAATTTGTCATTAGGAAGAATCTGTTACTTTTCGAATTAACCTAACTATCCTTTAGACTGTTTAT  
 CTATTTTGGATCAAGTCTACACCAGGACTTTGACTGCGCTTCGGATGTGTTACCAAGTTATGGTCA  
 CCCACTGATGCTATTTCTAGAAGAAGGAGGAGTGGTACGGTCTGCAAAATTACCACTCAGGAGCCTGAG  
 GAGACTGGATTTTGTCTGAGCAGCAATGTTATGAATAAAATTATCCTGCAGTCAGAGGGCTCC  
 GGAAGCCTTTTCTGAGCTGGACATGACAGGTGATGTCCTACAGATCACTGTGTCTCCTGACAAGCCCTA  
 TTTAGGTTGCTACTTTTGGAAATGCAGGAACTCCCATCTTGACTATCCCAAAGATCCGACTTGGTG  
 GAAGCCTTTCACTGTGATAAGACCCAGGTCAACAGATACAAGCTGTCGCTACTGAAGCCCTTACAAAGG  
 CACTAGCTTTATCCTGTAAAGTGTCTATCCGGACAGATAACCGAGGCTTCCTCTCCCTACAGTACATGAT  
 TAGAAATGAAGATGGGCAGATATGTTTTGTGGAATATTACTGCTGCCCTGATGAAGAAGTTCTGAGTCT

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA



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Protein Sequence: >MG203788 representing NM\_011232  
 Red=Cloning site Green=Tags(s)

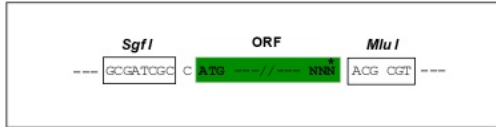
MPLL TQYNEEEYEQYCLVASLDNVRNLSTVLKAIHFREHATCFATKNGIKVTVENAKCVQANAFIQADV  
 QEFV IQEESVTFRINLTILLDCLSI FGSSPTPGTLTALRMCYQGYGHPLMLFEEGGVVTVC KITTQEP  
 ETLDFDFCSTNV MNKIILQSEGLREAFSELDMTGDV LQITVSPDKPYFRLSTFGNAGNSHLDY PKDSDLV  
 EAFHCDKTQV NRYKLSLLKPSTKALALSCKVSI RTDNRGFLSLQY M IRNEDGQICFVEYYCCPDEEVPES

TRTRPLE - GFP Tag - V

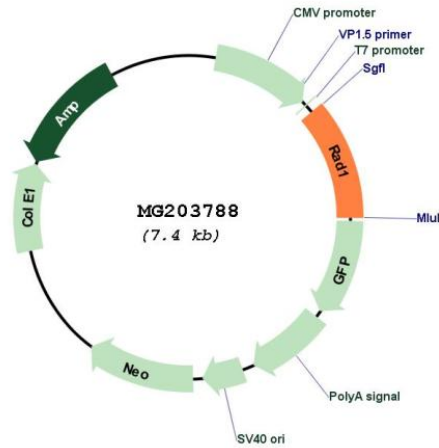
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_011232  
 ORF Size: 840 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>	<a href="#">NM_011232.2</a> , <a href="#">NP_035362.2</a>
<b>RefSeq Size:</b>	1500 bp
<b>RefSeq ORF:</b>	843 bp
<b>Locus ID:</b>	19355
<b>UniProt ID:</b>	<a href="#">Q9QWZ1</a>
<b>Cytogenetics:</b>	15 A1
<b>Gene Summary:</b>	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]