

## Product datasheet for **RR210437**

### **Mus81 (NM\_001025645) Rat Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Mus81 (NM_001025645) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mus81
Synonyms:	MGC112911
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>RR210437 representing NM\_001025645  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGGAGCCGGTCCGCTTGGGCCGGAAGCGTCCGCTGCCTGTTGCCCAACCCGCTCTTCGTTTCGTT  
 GGCTAACCGAGTGGCGGACGAGGCAGCCAGCAGAGGGGCCACACGCGCTTTGTGTTTCAAAGGCACT  
 GCGCTCCCTCCAGCGGTACCCGCTACCATTCGCAACGGGAAAGAAGCCAAGATACTCCAGCACTTCGGA  
 GACAGGCTCTGTGCGATGCTGGACGAAAGGCTGAAGGAGCACCTAGCATCAGGCGGTGACCATGCCCCCA  
 GCTCACCATCTGGAAAGAAGAGAGCCAGCAAAGGGCCACCTGCCAGGTCCAGGGCTCTTCCATGCCAGT  
 TCCCACCCAGCCTCAAGCAGGAAGCACCAATGCTGGCTATTGGCCAGCTCAGAACTCAGGTGCTCGAGAG  
 ATCCTGCTGCAGCTCTACAGGGAGCACCTGAATTCTGATGGCCACAGCTTCTAACCAAAGAGGAGCTGC  
 TGCAGAAATGTGCCAGAAGACCCCGGGTAGTGCCTGAAAGTTCAAGACCCTGGCCTGCCCTCCGAGG  
 GCTCCTCCACAGGAACCTAGTCTCAGAACTCATCGGCCAGCCAGGTATGCACTGACACCAGAGGGCCTG  
 GAGCTGGCCAGAAAGCTGGCTGAGGCAGAAAGCCCTGAGCACTCTGAACACTGCCTTTTCAGCCAGAGGAGC  
 ATCATGAAGAGTACCAGTTCAGAAAGCCATCTTGTGAGAACCTGGCACTACTGAGGTGGGCGTCCAACA  
 GAGACCACTGGAGCTAAGGCCTAGCGAGTACAGAGTGTGTTGTGTGTGGACATTGGCGAAACCAGAGGG  
 GCAGGACACAGGCCAGAAATGCTCCGAGAGTTACAAAGACTGCGTGTGCCCATACAGTTCCGAAACTGC  
 ATGTTGGGGACTTTGTGTGGGTGGCACAGGAGACCAGGCCAGAGACCCAGAAAGACCTGGGGAGTTAGT  
 CCTGGACCACATTGTGGAACGCAAGCGGCTAGATGACCTGTGCAGCAGCATCATTGACGGCCGCTTTCGA  
 GAGCAGAAGTCCGCCTGAAGCGCTGTGGCCTGGGGCACCGGATATACTTGGTAGAGGAACATGGGTCGT  
 TCCAAAACCTTAGCCTTCTGAGAGTACATTGCTGCAGGCTGTCAAAACACCCAGGTCAATTGAGTTT  
 TTTTGTGAAGCGTACCATGGATATTAAGGAGTCAAGTGGCTACCTGGCGCTTTTGACAAAGGGCCTGGAA  
 AGACTGTACCAGGGCCACACCCTACACAGCCGCCCTTGGGGAACCCAGGGGATGCTGAATCAGAAGCAA  
 AGCCTTCCACAAACCCTCTCTGCTCACTCCTCACCTTCAGTGACTTCAATGCAGAAGCTGTCAAGAACA  
 GGCCAGTCTGTGCGAGAGGATTTGCCCGGCAGCTGATGCAGGTGCGTGGACTGAGTGGGGAGAAGGCA  
 GCAGCCCTGGTGGATCGATACAGCACCCCTGCCAGTCTCCTGGCTGCCTATGATGCCTGTGCCACCACCA  
 AGGAGCAGGAGATGCTGCTGAGCACCGTCAAGTGTGGGCGTCTGCAGAGAAATCTGGGACCTGCTCTGAG  
 CAGGACCTGTACCAGCTGATTGCAGCCACAGCCCTTTGACC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RR210437 representing NM\_001025645  
 Red=Cloning site Green=Tags(s)

MAEPVRLGRKRPLPVCNPLFVRWLTEWRDEAASRGRHTRFVFQKALRSLQRYPLPLRNGKEAKILQHFG  
 DRLCRMLDERLKEHLASGGDHAPSSPSGKKRASKGPPAQVQSSMPVPTQPQAGSTNAGYWPAQNSGARE  
 ILLQLYREHLNSDGHSLFKEELLQKCAQKTPRVVPESSRPWPALRGLLHRNLVLRTHRPARYALTPEGL  
 ELAQKLAEAEGSLNLTAFQPEEHHEESPVEAILSEPGTTEVGVQQRPLELRPSEYRVLLCVDIGETRG  
 AGHRPEMLRELQRLRVPHTVRKLVHGVDFVVAQETRPDRPERPGELVLDHIVERKRLDDLCSSIIDGRFR  
 EQKFRLLKRCGLGHRIYLVVEHGSVQNLSPPESTLLQAVTNTQVIDGFFVKRTMDIKESAGYLALLTKGLE  
 RLYQGHLLHSRPWGTGDAESEAKPSTNPLCSLLTFSDFNAAVKNKAQSVREVFARQLMQVRGLSGEKA  
 AALVDRYSTPASLLAAYDACATTKEQEMLLSTVKCGRLLQRLGPALSRTLYQLYCSHSPLT

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI



<b>ACCN:</b>	NM_001025645
<b>ORF Size:</b>	1653 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_001025645.1</a> , <a href="#">NP_001020816.1</a>
<b>RefSeq Size:</b>	1924 bp
<b>RefSeq ORF:</b>	1656 bp
<b>Locus ID:</b>	293678
<b>UniProt ID:</b>	<a href="#">Q4KM32</a>
<b>Cytogenetics:</b>	1q43
<b>MW:</b>	61.9 kDa
<b>Gene Summary:</b>	Interacts with EME1 and EME2 to form a DNA structure-specific endonuclease with substrate preference for branched DNA structures with a 5'-end at the branch nick. Typical substrates include 3'-flap structures, replication forks and nicked Holliday junctions. May be required in mitosis for the processing of stalled or collapsed replication forks (By similarity). [UniProtKB/Swiss-Prot Function]