

Product datasheet for **RG203373**

MUS81 (NM_025128) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MUS81 (NM_025128) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MUS81
Synonyms:	SLX3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG203373 representing NM_025128
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGCCCGGTCCGCTGGGCCGGAAGCGCCCGCTGCCTGCCTGCCAACCCGCTCTTCGTTTCGCT
 GGCTGACCGAGTGGCGGACGAGGCGACCCGACGAGGCCACCGCAGCGCTTCGTATTTAGAAAGCGCT
 CGCTTCCCTCCGACGGTACCCACTGCCGCTGCGCAGCGGGAAGGAAGCTAAGATCTACAGCACTTCGGA
 GACGGGCTCTGCCGGATGCTGGACGAGCGGCTGCAGCGCACCGAACATCGGGCGGTGACCATGCCCCGG
 ACTCACCATCTGGAGAGAACAGTCCAGCCCCGAGGGCGACTTGCAGGAGTCCAGGACTCTTCCATGCC
 AGTTCCTGCCAGCCAAAGCGGGAGGCTCTGGCAGTACTGGCCAGCTCGGCACTCAGGAGCCCGAGTG
 ATACTGCTGGTGTCTACCGGGAGCACCTGAATCCTAATGGTACCACCTCTTAACCAAGGAGGAGCTGC
 TGCAGAGGTGTGCTCAGAAGTCCCCAGGGTAGCCCTGGGAGTCCCCACCCTGGCCAGCCCTCCGCTC
 CCTCCTTACAGGAACCTGGTCTCAGGACACACCAGCCAGCCAGTACTATTGACCCAGAGGGCCTG
 GAGCTGGCCAGAAAGTTGGCCGAGTCAAGAGCCCTGAGCTTGTGAATGTGGGCATCGGGCCCAAGGAGC
 CCCCTGGGGAGGAGACAGCAGTCCAGGAGCAGCTTACAGCAGAGCTTCCAGTGAAGCAGGGGTCCAGCA
 GCAGCCACTGGAGCTGAGGCCTGGAGAGTACAGGGTGTGTTGTGTGGACATTGGCGAGACCCGGGGG
 GGCGGGCACAGGCCGGAGCTGCTCCGAGAGCTACAGCGGCTGCACGTGACCCACACGGTGCAGCAAGTGC
 ACGTTGGAGATTTTGTGTGGTGGCTCAGGAGACCAATCCTAGAGACCCAGCAAAACCCTGGGGAGTTGGT
 ACTGGATCACATTGTGGAGCGAAGCGACTGGATGACCTTTCAGCAGCATCATCGACGGCCGCTCCGG
 GAGCAGAAGTCCGACTGAAGCGCTGTGGTCTGGAGCGCCGGGTATACCTGGTGAAGAGCATGGTCCG
 TCCACAACCTCAGCCTTCTGAGAGCACACTGCTCAGGCTGTACCAACACTCAGGTCAATGATGGCTT
 TTTTGTGAAGCGCACAGCAGACATTAAGGAGTACGCCCTACCTGGCCCTCTTGACTCGGGGCCTGCAG
 AGACTCTACCAGGCCACACCCTACGCAGCCGCCCTGGGGAACCCTGGGAACCCTGAATCAGGGGCCA
 TGACCTCTCCAAACCCTCTCTGCTCACTCTCACCTTCACTGACTTCAACGCAGGAGCCATCAAGAATAA
 GGCCAGTCGGTGCAGAAAGTGTTCGCCGGCAGCTGATGCAGGTGCGCGGAGTGAAGTGGGAGAAGGCA
 GCAGCCCTGGTGGATCGATACAGCACCCCTGCCAGCCTCTGGCCGCTATGATGCCTGTGCCACCCCA
 AGGAACAAGAGACTGCTGAGCACCATTAAGTGTGGCGTCTACAGAGGAATCTGGGGCCTGCTCTGAG
 CAGGACCTATCCAGCTCTACTGCAGTACGGCCCTTGACC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

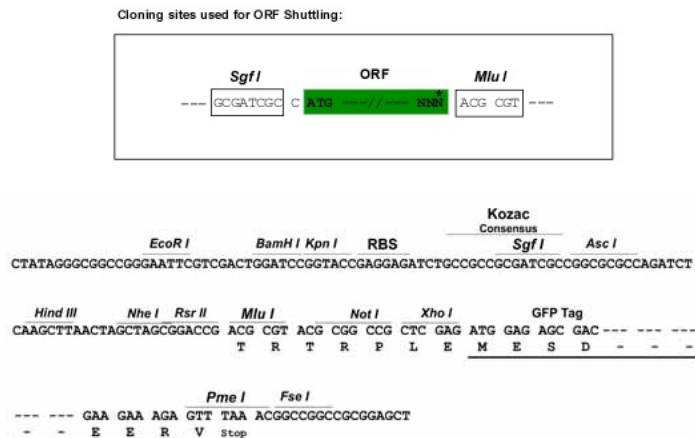
>RG203373 representing NM_025128
 Red=Cloning site Green=Tags(s)

MAAPVRLGRKRPLPACPNPLFVRWLTEWRDEATRSRHRTRFVFQKALRSLRRYPLPLRSGKEAKILQHFG
 DGLCRMLDERLQRHRTSGGDHAPDPSGENSPAPQGRLEAEVQDSSMPVPAQPKAGSGSYWPARGHSGARV
 ILLVLYREHLNPNNGHFLTKEELLQRCAQKSPRVAPGSAPPWPALRSLHRNLVLRTHQPARYSLTPEGL
 ELAQKLAESEGLSLLNVGIGPKEPPGEETAAPGAASAELASEAGVQQPLELRPGEYRVLLCVDIGETRG
 GGHRPELLRELQRLHVHTVVRKLVHVGDFVWVAQETNPRDPANPGELVLDHIVERKRLDDLCSIIIDGRFR
 EQKFRLLKRCGLERRVYLVEEHGSVHNLSPPESTLLQAVTNTQVIDGFFVKRTADIKESAAYLALLTRGLQ
 RLYQGHTLRSRPWGTGPNPESGAMTSPNPLCSLLTFDFNAGAIKKAQSVREVFARQLMQVRGVSGEKA
 AALVDRYSTPASLLAAYDACATPKQETLLSTIKCGRLLRNLGPALSRTLSQLYCSYGPLT

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_025128

ORF Size: 1653 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:

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_025128.3](#), [NP_079404.2](#)

RefSeq Size: 2343 bp

RefSeq ORF: 1656 bp

Locus ID: 80198

UniProt ID: [Q96NY9](#)

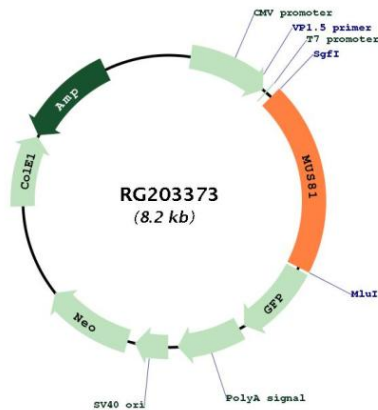
Cytogenetics: 11q13.1

Domains: ERCC4

Protein Pathways: Homologous recombination

Gene Summary: This gene encodes a structure-specific endonuclease which belongs to the XPF/MUS81 endonuclease family and plays a critical role in the resolution of recombination intermediates during DNA repair after inter-strand cross-links, replication fork collapse, and DNA double-strand breaks. The encoded protein associates with one of two closely related essential meiotic endonuclease proteins (EME1 or EME2) to form a complex that processes DNA secondary structures. It contains an N-terminal DEAH helicase domain, an excision repair cross complementation group 4 (ERCC4) endonuclease domain, and two tandem C-terminal helix-hairpin-helix domains. Mice with a homozygous knockout of the orthologous gene have significant meiotic defects including the failure to repair a subset of DNA double strand breaks. [provided by RefSeq, Jun 2017]

Product images:



Circular map for RG203373