

Product datasheet for **RR210119**

Mad2l2 (NM_001012106) Rat Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Mad2l2 (NM_001012106) Rat Tagged ORF Clone
Tag: Myc-DDK
Symbol: Mad2l2
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RR210119 representing NM_001012106
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACCACCTCACGCGCCAAGACCTCACTTCGGCCAAGTGGTGGCCGACGTGCTCTCCGAGTTCCTGG
AGGTGGCCGTGCACCTTGATCCTCTATGTGCGCGAGGTCTACCCGGTGGGCATCTTTCAGAAGCGCAAGAA
GTACAACGTGCCGGTTCAGATGTCTGCCACCCAGAGCTGAACCCAGTACATCCAGGACACACTTCACTGC
GTCAAACCACTCCTGGAGAAGAACGATGTGGAGAAGGTGGTGGTGGTATTTGGATAAGGAACACCGCC
CAGTGGAGAAGTTTGTCTTTGAGATCACTCAGCCACCCTTGTGTCCATCAAGCTAGGTGGCCTCAAACA
GACCGTTTCTCTAACTGTCTTGGGGTCTGGAGGTATGCAGACTTGAGCGGTACCCTGGGTGCTCTCTCG
ACAGCTGAATATTTGAGTGACCTAAAGGGACCTTTGTACCCTACCTCTATTTCAGTCAGTTCAGACTCCCT
CCTGTCTCATGTGGAGCAGCTGCTTCGAGCCTTATTCTTAAGATTAGTGTGTGACGCTGTCTCTCGAC
CATAATCTCCAGGCTGCAGTTTACAGTTCTCGTGCACACAAGAGAAGCTGCCACTCGGAACATGGAGA
AGATACAGGTCATCAAGGACTTCCCTGGATCCTGGCAGATGAGCAAGATGTCCACATGCATGATCCCCG
GT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR210119 representing NM_001012106
Red=Cloning site Green=Tags(s)

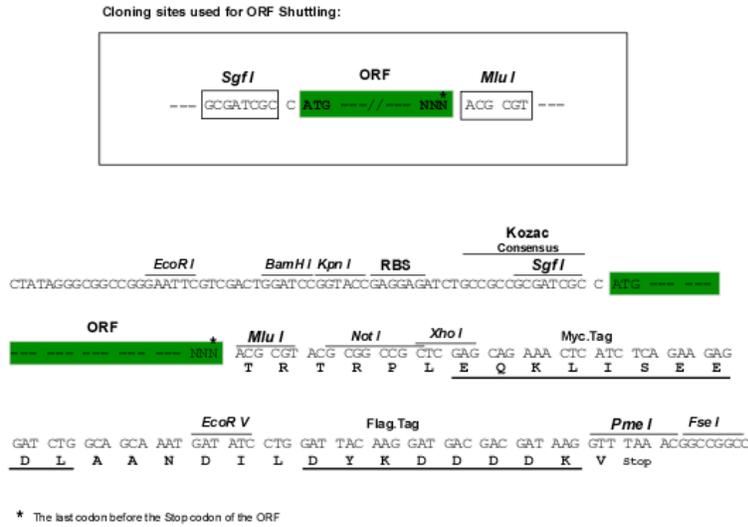
MTTLTRQDLNFGQVVADVLSEFLEVAVHLILYVREYVPVGFQKRKKYNVPVQMSCHPELNQYIQDTLHC
VKPLLEKNDVEKVVVVILDKEHRPVEKFVFEITQPPLLSTKLGGLKQTVSLTVLGSWRYADLSGTLGVLS
TAEYLSDLKGPLYPTSIQSVQTPSCLMWSSCFEPSFLRLVCVTLSSIIILQAARLQFSCTQEKLPLGTWR
RYRSSRTPSGSWQMSKMSTCMIPG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

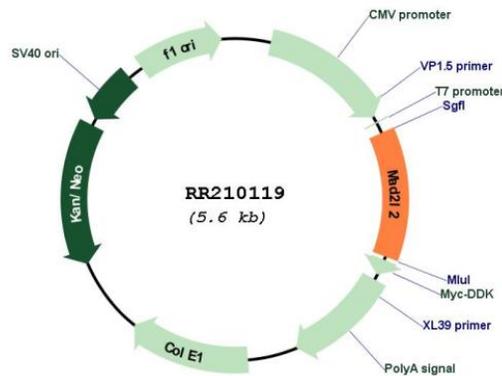


Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001012106

ORF Size: 702 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:	<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.
RefSeq:	<u>NM_001012106.1, NP_001012106.1</u>
RefSeq Size:	1188 bp
RefSeq ORF:	705 bp
Locus ID:	313702
UniProt ID:	<u>D3Z8D9</u>
Cytogenetics:	5q36
MW:	26.4 kDa
Gene Summary:	Adapter protein able to interact with different proteins and involved in different biological processes. Mediates the interaction between the error-prone DNA polymerase zeta catalytic subunit REV3L and the inserter polymerase REV1, thereby mediating the second polymerase switching in translesion DNA synthesis. Translesion DNA synthesis releases the replication blockade of replicative polymerases, stalled in presence of DNA lesions. Component of the shieldin complex, which plays an important role in repair of DNA double-stranded breaks (DSBs). During G1 and S phase of the cell cycle, the complex functions downstream of TP53BP1 to promote non-homologous end joining (NHEJ) and suppress DNA end resection. Mediates various NHEJ-dependent processes including immunoglobulin class-switch recombination, and fusion of unprotected telomeres. May also regulate another aspect of cellular response to DNA damage through regulation of the JNK-mediated phosphorylation and activation of the transcriptional activator ELK1. Inhibits the FZR1- and probably CDC20-mediated activation of the anaphase promoting complex APC thereby regulating progression through the cell cycle. Regulates TCF7L2-mediated gene transcription and may play a role in epithelial-mesenchymal transdifferentiation.[UniProtKB/Swiss-Prot Function]