

Product datasheet for **RG204038**

E3 ubiquitin protein ligase MUL1 (MUL1) (NM_024544) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	E3 ubiquitin protein ligase MUL1 (MUL1) (NM_024544) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	E3 ubiquitin protein ligase MUL1
Synonyms:	C1orf166; GIDE; MAPL; MULAN; RNF218
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG204038 representing NM_024544 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGAGCGGAGGGCGGCCCTCGCTGTGCCAGTTCATCCTCCTGGGCACCACCTCTGTGGTCACCGCCG
CCCTGTACTCCGTGTACCGGCAGAAGGCCCGGGTCTCCAAGAGCTCAAGGGAGCTAAAAAGTTTCATTT
GGGTGAAGATTTAAAGAGTATTCTTTCAGAAGCTCCAGGAAAATGCGTGCCTTATGCTGTTATAGAAGGA
GCTGTGCGGTCTGTTAAAGAAACGCTTAACAGCCAGTTTGTGAAAACGCAAGGGGTAATTACAGCGC
TGACACTTCAGGAGCACAAAGATGGTGTGGAATCGAACCACCCACCTTTGGAATGATTGCTCAAAGATCAT
TCATCAGAGGACCAACACAGTGCCCTTTGACCTGGTGCCACGAGGATGGCGTGGATGTGGCTGTGCGA
GTGCTGAAGCCCTGGACTCAGTGGATCTGGGTCTAGAGACTGTGTATGAGAAGTTCCACCCCTCGATTC
AGTCCTTCACCGATGTCACTCGGCCACTACATCAGCGGTGAGCGGCCAAAGGCATCCAAGAGACCGAGGA
GATGCTGAAGGTGGGGCCACCCTCACAGGGTTGGCAACTGGTCTGGACAACAACCTGTCCGCTG
CAGCCGCCAAACAAGGCATGCAGTACTATCTAAGCAGCCAGGACTTCGACAGCTGCTGCAGAGGCAGG
AGTCGAGCGTCAGGCTCTGGAAGGTGCTGGCGTGGTTTTTGGCTTTGCCACATGTGCCACCCTCTTCTT
CATTCTCCGGAAGCAGTATCTGCAGCGGCAGGAGCGCTGCGCCTCAAGCAGATGCAGGAGGAGTCCAG
GAGCATGAGGCCAGCTGCTGAGCCGAGCCAAGCCTGAGGACAGGAGAGTCTGAAGAGCGCCTGTGTAG
TGTGTGAGCAGCTCAAGTCTGCGTCTTTCTGGAGTGTGGCACGTTTGTTCCTGCACCGAGTGCTA
CCGCGCCTTGCCAGAGCCCAAGAAGTGCCCTATCTGCAGACAGGCGATCACCCGGTGATACCCCTGTAC
AACAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG204038 representing NM_024544
 Red=Cloning site Green=Tags(s)

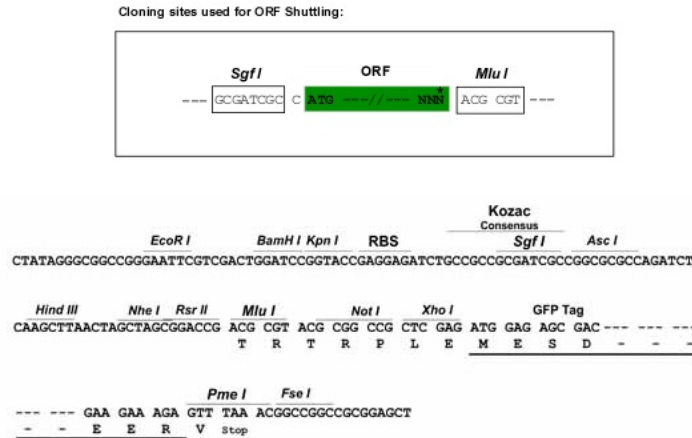
MESGGRPSLCQFILLGTTSVVTAAALYSVYRQKARVSQELKGAKKVHLGEDLKSILSEAPGKCVPYAVIEG
 AVRSVKETLNSQFVENCKGVIQRLTLQEHKMVWNRRTTHLWNDCSKI IHQRTNTVPFDLVPHEGDVDAVR
 VLKPLDSVDLGLLETVYEK FHP SIQSFTDVI GHY I SGERPKGIQE TEEM LKVGATL TG V GELVLDNNSVRL
 QPPKQGMQYYLSSQDFD SLL QRQE SSVRLWKVLALVFGFATCATLFFILRKQYLQRQERLRLKQMQE EFQ
 EHEAQLLSRAKPEDRESLKSACVVCLSSFKSCVFLECGHVCSCTECYRALPEPKKCPICRQAITRVIPLY
 NS

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_024544

ORF Size: 1056 bp

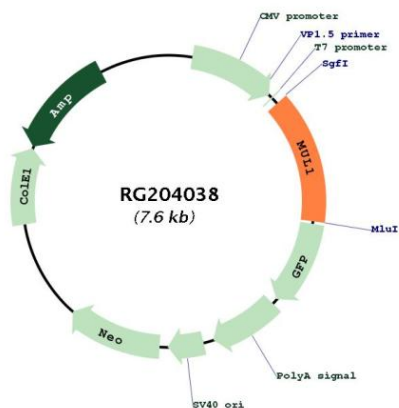
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	NM_024544.3
RefSeq Size:	2442 bp
RefSeq ORF:	1059 bp
Locus ID:	79594
UniProt ID:	Q969V5
Cytogenetics:	1p36.12
Protein Families:	Druggable Genome, Transmembrane
Gene Summary:	<p>Exhibits weak E3 ubiquitin-protein ligase activity (PubMed:18591963, PubMed:19407830, PubMed:22410793). E3 ubiquitin ligases accept ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfer the ubiquitin to targeted substrates (PubMed:18591963, PubMed:19407830, PubMed:22410793). Can ubiquitinate AKT1 preferentially at 'Lys-284' involving 'Lys-48'-linked polyubiquitination and seems to be involved in regulation of Akt signaling by targeting phosphorylated Akt to proteosomal degradation (PubMed:22410793). Proposed to preferentially act as a SUMO E3 ligase at physiological concentrations (PubMed:19407830). Plays a role in the control of mitochondrial morphology by promoting mitochondrial fragmentation, and influences mitochondrial localization (PubMed:19407830, PubMed:18207745, PubMed:18213395). Likely to promote mitochondrial fission through negatively regulating the mitochondrial fusion proteins MFN1 and MFN2, acting in a pathway that is parallel to the PRKN/PINK1 regulatory pathway (PubMed:24898855). May also be involved in the sumoylation of the membrane fission protein DNM1L (PubMed:18207745, PubMed:19407830). Inhibits cell growth (PubMed:18591963, PubMed:22410793). When overexpressed, activates JNK through MAP3K7/TAK1 and induces caspase-dependent apoptosis (PubMed:23399697). Involved in the modulation of innate immune defense against viruses by inhibiting DDX58-dependent antiviral response (PubMed:23399697). Can mediate DDX58 sumoylation and disrupt its polyubiquitination (PubMed:23399697).[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for RG204038