

## Product datasheet for RC204038L3V

## OriGene Technologies, Inc.

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## E3 ubiquitin protein ligase MUL1 (MUL1) (NM\_024544) Human Tagged ORF Clone Lentiviral Particle

## **Product data:**

**Product Type:** Lentiviral Particles

**Product Name:** E3 ubiquitin protein ligase MUL1 (MUL1) (NM\_024544) Human Tagged ORF Clone Lentiviral

Particle

Symbol: E3 ubiquitin protein ligase MUL1

Synonyms: C1orf166; GIDE; MAPL; MULAN; RNF218

Mammalian Cell

Selection:

Puromycin

**Vector:** pLenti-C-Myc-DDK-P2A-Puro (PS100092)

 Tag:
 Myc-DDK

 ACCN:
 NM\_024544

ORF Size: 1056 bp

**ORF Nucleotide** 

Sequence:

The ORF insert of this clone is exactly the same as(RC204038).

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.

**RefSeq:** <u>NM 024544.1</u>

 RefSeq Size:
 2474 bp

 RefSeq ORF:
 1059 bp

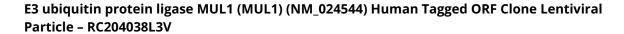
 Locus ID:
 79594

 UniProt ID:
 Q969V5

 Cytogenetics:
 1p36.12

**Protein Families:** Druggable Genome, Transmembrane







MW:

39.8 kDa

**Gene Summary:** 

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]