

## Product datasheet for **RC204038L3V**

### **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. <a href="#">More info</a>
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:	<a href="#">NM_024544.1</a>
RefSeq Size:	2474 bp
RefSeq ORF:	1059 bp
Locus ID:	79594
UniProt ID:	<a href="#">Q969V5</a>
Cytogenetics:	1p36.12
Protein Families:	Druggable Genome, Transmembrane



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**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]