

# MUL1 Rabbit pAb

Catalog # AP97958

## Product Information

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| <b>Application</b>             | WB, IHC-P, IHC-F, IF                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Primary Accession</b>       | <a href="#">Q969V5</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Other Accession</b>         | <a href="#">Q969V5</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Host</b>                    | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Clonality</b>               | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Calculated MW</b>           | 39800                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Physical State</b>          | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>               | KLH conjugated synthetic peptide derived from human MUL1/RNF218                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Epitope Specificity</b>     | 1-100/352                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Isotype</b>                 | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Purity</b>                  | affinity purified by Protein A                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Buffer</b>                  | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>SIMILARITY</b>              | Contains 1 RING-type zinc finger.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>SUBUNIT</b>                 | Homooligomer. Interacts with MAP3K7/TAK1. Interacts with UBC9. Interacts with and sumoylates DNM1L.                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Important Note</b>          | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.                                                                                                                                                                                                                                                                                                                                                |
| <b>Background Descriptions</b> | E3 ubiquitin-protein ligase that plays a role in the control of mitochondrial morphology. Promotes mitochondrial fragmentation and influences mitochondrial localization. Inhibits cell growth. When overexpressed, activates JNK through MAP3K7/TAK1 and induces caspase-dependent apoptosis. 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. |

## Additional Information

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| <b>Gene ID</b>     | 79594                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Other Names</b> | C1orf166; GIDE; MAPL; MULAN; RNF218; 0610009K11Rik; RGD1309944; MUL1_HUMAN; MUL1; E3 SUMO-protein ligase MUL1; E3 ubiquitin-protein ligase MUL1; Growth inhibition and death E3 ligase; Mitochondrial-anchored protein ligase; Protein Hades; Putative NF-kappa-B-activating protein 266; RING finger protein 218; RING-type E3 ubiquitin transferase NFKB 1; 2.3.2.27; MUL1_MOUSE; mitochondrial E3 ubiquitin protein ligase 1; chromosome 1 open reading frame 166; mitochondria-anchored protein ligase; mitochondrial ubiquitin ligase activator of NFKB 1 |
| <b>Dilution</b>    | WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1ug/test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Storage</b>     | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody                                                                                                                                                                                                                                                                                                                                                                                                            |

is stable for at least two weeks at 2-4 °C.

## Protein Information

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| <b>Name</b>              | MUL1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Synonyms</b>          | C1orf166, GIDE, MAPL, MULAN, RNF218                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Function</b>          | <p>E3 ubiquitin-protein ligase activity, which accepts ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfer the ubiquitin to targeted substrates (PubMed:<a href="#">18591963</a>, PubMed:<a href="#">19407830</a>, PubMed:<a href="#">22410793</a>). 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 proteasomal degradation (PubMed:<a href="#">22410793</a>). Mediates polyubiquitination of cytoplasmic p53/TP53 at 'Lys-24' which targets TP53 for proteasomal degradation, thus reducing TP53 levels in the cytoplasm and mitochondrion (PubMed:<a href="#">21597459</a>). Also involved in antiviral immunity by mediating 'Lys-63'-linked ubiquitination of STING1, promoting production of type I interferon (IFN-alpha and IFN-beta), without activating STING1- dependent NF-kappa-B signaling (PubMed:<a href="#">28763789</a>). Proposed to preferentially act as a SUMO E3 ligase at physiological concentrations (PubMed:<a href="#">19407830</a>). Involved in the modulation of innate immune defense against viruses by inhibiting RIGI-dependent antiviral response (PubMed:<a href="#">23399697</a>). Can mediate RIGI sumoylation and disrupt its polyubiquitination (PubMed:<a href="#">23399697</a>). Plays a role in the control of mitochondrial morphology by promoting mitochondrial fragmentation, and influences mitochondrial localization (PubMed:<a href="#">18207745</a>, PubMed:<a href="#">18213395</a>, PubMed:<a href="#">19407830</a>). 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:<a href="#">24898855</a>). May also be involved in the sumoylation of the membrane fission protein DNM1L (PubMed:<a href="#">18207745</a>, PubMed:<a href="#">19407830</a>). Inhibits cell growth (PubMed:<a href="#">18591963</a>, PubMed:<a href="#">22410793</a>). When overexpressed, activates JNK through MAP3K7/TAK1 and induces caspase-dependent apoptosis (PubMed:<a href="#">23399697</a>).</p> |
| <b>Cellular Location</b> | Mitochondrion outer membrane; Multi-pass membrane protein. Peroxisome. Note=Transported in mitochondrion- derived vesicles from the mitochondrion to the peroxisome                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Tissue Location</b>   | Widely expressed with highest levels in the heart, skeletal muscle, placenta, kidney and liver. Barely detectable in colon and thymus.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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