

**TRIM21 Rabbit mAb**  
**Catalog # AP76201****Specification**

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**TRIM21 Rabbit mAb - Product Information**

Application	WB
Primary Accession	<a href="#">P19474</a>
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	54170

**TRIM21 Rabbit mAb - Additional Information****Gene ID** 6737**Other Names**  
TRIM21**Dilution**  
WB~~1/500-1/1000**Format**  
50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.**Storage**  
Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.**TRIM21 Rabbit mAb - Protein Information****Name** TRIM21 ([HGNC:11312](#))**Synonyms** RNF81, RO52, SSA1**Function**

E3 ubiquitin-protein ligase whose activity is dependent on E2 enzymes, UBE2D1, UBE2D2, UBE2E1 and UBE2E2 (PubMed:<a href="http://www.uniprot.org/citations/16297862" target="\_blank">16297862</a>, PubMed:<a href="http://www.uniprot.org/citations/16316627" target="\_blank">16316627</a>, PubMed:<a href="http://www.uniprot.org/citations/16472766" target="\_blank">16472766</a>, PubMed:<a href="http://www.uniprot.org/citations/16880511" target="\_blank">16880511</a>, PubMed:<a href="http://www.uniprot.org/citations/18022694" target="\_blank">18022694</a>, PubMed:<a href="http://www.uniprot.org/citations/18361920" target="\_blank">18361920</a>, PubMed:<a href="http://www.uniprot.org/citations/18641315" target="\_blank">18641315</a>, PubMed:<a href="http://www.uniprot.org/citations/18845142" target="\_blank">18845142</a>, PubMed:<a href="http://www.uniprot.org/citations/19675099" target="\_blank">19675099</a>, PubMed:<a href="http://www.uniprot.org/citations/26347139" target="\_blank">26347139</a>). Forms a ubiquitin ligase complex in cooperation with the E2 UBE2D2 that is used not only for the ubiquitination of USP4 and IKBKB but also for its

self-ubiquitination (PubMed:<a href="http://www.uniprot.org/citations/16880511" target="\_blank">16880511</a>, PubMed:<a href="http://www.uniprot.org/citations/19675099" target="\_blank">19675099</a>). Component of cullin-RING-based SCF (SKP1-CUL1-F-box protein) E3 ubiquitin-protein ligase complexes such as SCF(SKP2)-like complexes (PubMed:<a href="http://www.uniprot.org/citations/16880511" target="\_blank">16880511</a>). A TRIM21-containing SCF(SKP2)-like complex is shown to mediate ubiquitination of CDKN1B ('Thr-187' phosphorylated- form), thereby promoting its degradation by the proteasome (PubMed:<a href="http://www.uniprot.org/citations/16880511" target="\_blank">16880511</a>). Monoubiquitinates IKBKB that will negatively regulates Tax-induced NF-kappa-B signaling (PubMed:<a href="http://www.uniprot.org/citations/19675099" target="\_blank">19675099</a>). Negatively regulates IFN-beta production post-pathogen recognition by catalyzing polyubiquitin-mediated degradation of IRF3 (PubMed:<a href="http://www.uniprot.org/citations/18641315" target="\_blank">18641315</a>). Mediates the ubiquitin-mediated proteasomal degradation of IgG1 heavy chain, which is linked to the VCP-mediated ER-associated degradation (ERAD) pathway (PubMed:<a href="http://www.uniprot.org/citations/18022694" target="\_blank">18022694</a>). Promotes IRF8 ubiquitination, which enhanced the ability of IRF8 to stimulate cytokine genes transcription in macrophages (By similarity). Plays a role in the regulation of the cell cycle progression (PubMed:<a href="http://www.uniprot.org/citations/16880511" target="\_blank">16880511</a>). Enhances the decapping activity of DCP2 (PubMed:<a href="http://www.uniprot.org/citations/18361920" target="\_blank">18361920</a>). Exists as a ribonucleoprotein particle present in all mammalian cells studied and composed of a single polypeptide and one of four small RNA molecules (PubMed:<a href="http://www.uniprot.org/citations/1985094" target="\_blank">1985094</a>, PubMed:<a href="http://www.uniprot.org/citations/8666824" target="\_blank">8666824</a>). At least two isoforms are present in nucleated and red blood cells, and tissue specific differences in RO/SSA proteins have been identified (PubMed:<a href="http://www.uniprot.org/citations/8666824" target="\_blank">8666824</a>). The common feature of these proteins is their ability to bind HY RNAs.2 (PubMed:<a href="http://www.uniprot.org/citations/8666824" target="\_blank">8666824</a>). Involved in the regulation of innate immunity and the inflammatory response in response to IFNG/IFN-gamma (PubMed:<a href="http://www.uniprot.org/citations/26347139" target="\_blank">26347139</a>). Organizes autophagic machinery by serving as a platform for the assembly of ULK1, Beclin 1/BECN1 and ATG8 family members and recognizes specific autophagy targets, thus coordinating target recognition with assembly of the autophagic apparatus and initiation of autophagy (PubMed:<a href="http://www.uniprot.org/citations/26347139" target="\_blank">26347139</a>). Also regulates autophagy through FIP200/RB1CC1 ubiquitination and subsequent decreased protein stability (PubMed:<a href="http://www.uniprot.org/citations/36359729" target="\_blank">36359729</a>). Represses the innate antiviral response by facilitating the formation of the NMI-IFI35 complex through 'Lys-63'- linked ubiquitination of NMI (PubMed:<a href="http://www.uniprot.org/citations/26342464" target="\_blank">26342464</a>). During viral infection, promotes cell pyroptosis by mediating 'Lys-6'-linked ubiquitination of ISG12a/IFI27, facilitating its translocation into the mitochondria and subsequent CASP3 activation (PubMed:<a href="http://www.uniprot.org/citations/36426955" target="\_blank">36426955</a>). When up-regulated through the IFN/JAK/STAT signaling pathway, promotes 'Lys-27'-linked ubiquitination of MAVS, leading to the recruitment of TBK1 and up- regulation of innate immunity (PubMed:<a href="http://www.uniprot.org/citations/29743353" target="\_blank">29743353</a>). Mediates 'Lys-63'- linked polyubiquitination of G3BP1 in response to heat shock, leading to stress granule disassembly (PubMed:<a href="http://www.uniprot.org/citations/36692217" target="\_blank">36692217</a>).

### Cellular Location

Cytoplasm. Cytoplasmic vesicle, autophagosome. Nucleus. Cytoplasm, P-body. Cytoplasm, Stress granule. Note=Enters the nucleus upon exposure to nitric oxide (PubMed:18361920). Localizes to small dot- or rod-like structures in the cytoplasm, called processing bodies (P-bodies) that are located underneath the plasma membrane and also diffusely in the cytoplasm (PubMed:18361920). They are located along the microtubules and are highly motile in cells

(PubMed:18361920). Colocalizes with DCP2 in P-bodies (PubMed:18361920). Localizes to stress granules in response to oxidative stress (PubMed:36692217).

#### Tissue Location

Isoform 1 and isoform 2 are expressed in fetal and adult heart and fetal lung

#### TRIM21 Rabbit mAb - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### TRIM21 Rabbit mAb - Images

