

SSA1 / Ro52 Antibody (C-Term)

Peptide-affinity purified goat antibody Catalog # AF2325a

#### Specification

### SSA1 / Ro52 Antibody (C-Term) - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Concentration Isotype Calculated MW WB <u>P19474</u> <u>NP\_003132.2</u>, <u>6737</u> Human Goat Polyclonal 0.5 mg/ml lgG 54170

### SSA1 / Ro52 Antibody (C-Term) - Additional Information

Gene ID 6737

**Other Names** 

E3 ubiquitin-protein ligase TRIM21, 6.3.2.-, 52 kDa Ro protein, 52 kDa ribonucleoprotein autoantigen Ro/SS-A, RING finger protein 81, Ro(SS-A), Sjoegren syndrome type A antigen, SS-A, Tripartite motif-containing protein 21, TRIM21, RNF81, RO52, SSA1

Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions** 

SSA1 / Ro52 Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

# SSA1 / Ro52 Antibody (C-Term) - Protein Information

Name TRIM21 (<u>HGNC:11312</u>)

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 ubiguitin-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 polyubiguitin-mediated degradation of IRF3 (PubMed:<a href="http://www.uniprot.org/citations/18641315" target=" blank">18641315</a>). Mediates the ubiguitin-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>). Regulates also autophagy through FIP200/RB1CC1 ubiguitination 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**

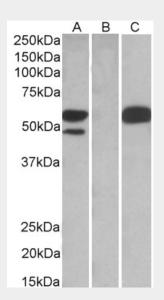
Isoform 1 and isoform 2 are expressed in fetal and adult heart and fetal lung

# SSA1 / Ro52 Antibody (C-Term) - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

# SSA1 / Ro52 Antibody (C-Term) - Images



HEK293 lysate (10ug protein in RIPA buffer) overexpressing Human TRIM21 with C-terminal MYC tag probed with AF2325a (1ug/ml) in Lane A and probed with anti-MYC Tag (1/1000) in lane C. Mock-transfected HEK293 probed with AF2325a (1mg/ml) in Lane B. Primary incubations were for 1 hour. Detected by chemiluminescence.

# SSA1 / Ro52 Antibody (C-Term) - References



52-kD SS-A/Ro: genomic structure and identification of an alternatively spliced transcript encoding a novel leucine zipper-minus autoantigen expressed in fetal and adult heart. Chan EK, Di Donato F, Hamel JC, Tseng CE, Buyon JP. J Exp Med. 1995 Oct 1;182(4):983-92. PMID: 7561701