

Recombinant Mouse RO52 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51666

Size: 10ug, 100ug

Protein Name: E3 ubiquitin-protein ligase TRIM21 (EC 2.3.2.27) (52 kDa Ro protein) (52 kDa ribonucleoprotein autoantigen Ro/SS-A) (Ro(SS-A)) (Sjogren syndrome type A antigen) (SS-A) (Tripartite motif-containing protein 21)

Synonym: Trim21, Ro52, Ssa1

UniProt ID: Q62191

UniProt Link: www.uniprot.org/uniprotkb/Q62191/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 470 AA

Molecular Weight: 54 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MSPSTTSKMSLEKMWEEVTCSICLDPMVEPMSIECGHCFCKECEFVVGKNGGSSCPECRQQFLLRN
LRPNRHIANMVENLKQIAQNTKKSTQETHCMKHGEKLHLFCEEDGQALCWVCAQSGKHRDHTRVPI
EEAAKVYQEKIHVVLEKLKRGKELAEKMEMDLTMQRTDWKRNIDTQKSRIHAEFALQNSLLAQEEQR
QLQRLEKDQREYLRLLGKKEAELAEKNQALQELISELERRIRGSELELLQEVRIILERSGSWNLDTLDI
DAPDLTSTCPVPGRKKMLRTCWVHITLDRNTANSWLIISKDRRQVRMGDTHQNVSDNKERFSNYPM
VLGAQRFSSGKMYWEVDVTQKEAWDLGVCRDSVQRKGQFSLSPENGFWTIWLWQDSYEAGTSP
QTTLHIQVPPCQIGIFVDYEAGVVSFYNITDHGSLIYTFSECVFAGPLRPFFNVGFNYSGGNAAPLKLC
PLKM

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.



4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant E3 ubiquitin-protein ligase TRIM21 (EC 2.3.2.27) (52 kDa Ro protein) (52 kDa ribonucleoprotein autoantigen Ro/SS-A) (Ro(SS-A)) (Sjogren syndrome type A antigen) (SS-A) (Tripartite motif-containing protein 21) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: E3 ubiquitin-protein ligase whose activity is dependent on E2 enzymes, UBE2D1, UBE2D2, UBE2E1 and UBE2E2 (By similarity). 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 (By similarity). Component of cullin-RING-based SCF (SKP1-CUL1-F-box protein) E3 ubiquitin-protein ligase complexes such as SCF(SKP2)-like complexes (By similarity). 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 (By similarity). Monoubiquitinates IKBKB that will negatively regulates Tax-induced NF-kappa-B signaling (By similarity). Negatively regulates IFN-beta production post-pathogen recognition by catalyzing polyubiquitin-mediated degradation of IRF3 (By similarity). Mediates the ubiquitin-mediated proteasomal degradation of IgG1 heavy chain, which is linked to the VCP-mediated ER-associated degradation (ERAD) pathway (By similarity). Promotes IRF8 ubiquitination, which enhanced the ability of IRF8 to stimulate cytokine genes transcription in macrophages (PubMed:17579016). Plays a role in the regulation of the cell cycle progression (By similarity). Enhances the decapping activity of DCP2 (By similarity). Exists as a ribonucleoprotein particle present in all mammalian cells studied and composed of a single polypeptide and one of four small RNA molecules (By similarity). At least two isoforms are present in nucleated and red blood cells, and tissue specific differences in RO/SSA proteins have been identified (By similarity). The common feature of these proteins is their ability to bind HY RNAs.2 (By similarity). Involved in the regulation of innate immunity and the inflammatory response in response to IFNG/IFN-gamma (By similarity). 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 (By similarity). Also regulates autophagy through FIP200/RB1CC1 ubiquitination and subsequent decreased protein stability (By similarity). Represses the innate antiviral response by facilitating the formation of the NMI-IFI35 complex through 'Lys-63'-linked ubiquitination of NMI (By similarity). 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 (By similarity). 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 (By similarity). Mediates 'Lys-63'-linked polyubiquitination of G3BP1 in response to heat shock, leading to stress granule disassembly (By similarity).

Subcellular Localization: Cytoplasm . Cytoplasmic vesicle, autophagosome . Nucleus . Cytoplasm, P-body . Cytoplasm, Stress granule . Note=Enters the nucleus upon exposure to nitric oxide. 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. They are located along the microtubules and are highly motile in cells. Colocalizes with DCP2 in P-bodies. Localizes to stress granules in response to oxidative stress.

6. Notes



- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.