

RNF109/TRIM56 Rabbit pAb

Catalog # AP99078

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9BRZ2
Other Accession	Q9BRZ2
Host	Rabbit
Clonality	Polyclonal
Calculated MW	81488
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human RNF109/TRIM56
Epitope Specificity	651-755/755
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the TRIM/RBCC family. Contains 2 B box-type zinc fingers. Contains 1 RING-type zinc finger.
SUBUNIT	Interacts with TMEM173/STING (By similarity).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	E3 ubiquitin-protein ligase that mediates 'Lys-63'-linked polyubiquitination of TMEM173/STING, thereby playing a key role in innate immunity. TMEM173/STING 'Lys-63'-linked ubiquitination activates the production of type I interferon IFN-beta following detection of pathogen- and host-derived double-stranded DNA.

Additional Information

Gene ID	81844
Other Names	RNF109; TRI56_HUMAN; TRIM56; RING finger protein 109; Tripartite motif-containing protein 56; 2.3.2.27; tripartite motif containing 56; tripartite motif-containing 56
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	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

Name	TRIM56 {ECO:0000303 PubMed:21289118, ECO:0000312 HGNC:HGNC:19028}
-------------	---

Function	E3 ubiquitin-protein ligase that plays a key role in innate antiviral immunity by mediating ubiquitination of CGAS and STING1 (PubMed: 21289118 , PubMed: 29426904). In response to pathogen- and host- derived double-stranded DNA (dsDNA), targets STING1 to 'Lys-63'-linked ubiquitination, thereby promoting its homodimerization, a step required for the production of type I interferon IFN-beta (By similarity). Also mediate monoubiquitination of CGAS, thereby promoting CGAS oligomerization and subsequent activation (PubMed: 29426904). Promotes also TNFalpha-induced NF-kappa-B signaling by mediating 'Lys-63'-linked ubiquitination TAK1, leading to enhanced interaction between TAK1 and CHUK/IKKalpha (PubMed: 35952808). Independently of its E3 ubiquitin ligase activity, positive regulator of TLR3 signaling. Potentiates extracellular double stranded RNA (dsRNA)-induced expression of IFNB1 and interferon-stimulated genes ISG15, IFIT1/ISG56, CXCL10, OASL and CCL5/RANTES (PubMed: 22948160). Promotes establishment of an antiviral state by TLR3 ligand and TLR3-mediated chemokine induction following infection by hepatitis C virus (PubMed: 22948160). Acts as a restriction factor of Zika virus through direct interaction with the viral RNA via its C-terminal region (PubMed: 31251739).
Cellular Location	Cytoplasm.
Tissue Location	Widely expressed (at protein level).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.