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RNF109/TRIM56 Rabbit pAb

Catalog # AP99078

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9BRZ2
Other Accession	Q9BRZ2
Reactivity	Rat
Predicted	Human, Mouse, Rabbit, Dog, Horse, Sheep
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'.