Rabbit TMEM173/STING Polyclonal Antibody | anti-TMEM173 antibody

TMEM173/STING Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA322916	**Rabbit**	**Human, Mouse, Rat**	**Immunohistochemistry, Western Blot**

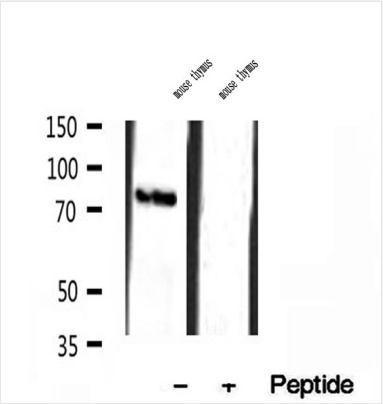
PRODUCT SYNONYMS

TMEM173/STING; Polyclonal Antibody; TMEM173/STING Antibody; endoplasmic reticulum IFN stimulator; Endoplasmic reticulum interferon stimulator; ERIS; FLJ38577; hMITA; hSTING; Mediator of IRF3 activation; MITA; Mitochondrial mediator of IRF3 activation; MPYS; N terminal methionine proline tyrosine serine plasma membrane tetraspanner; NET23; Stimulator of interferon genes; Stimulator of interferon genes protein; STING; TM173_HUMAN; Tmem173; Transmembrane protein 173; anti-TMEM173 antibody

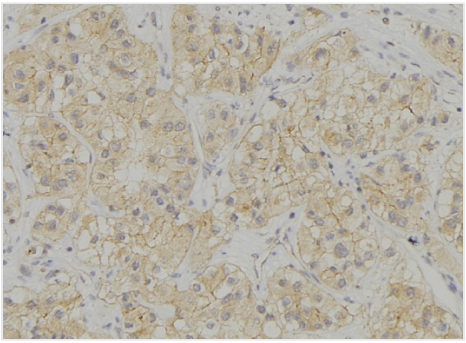
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	TMEM173/STING antibody detects endogenous levels of TMEM173/STING.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	379
Applicable Applications for anti-TMEM173 antibody	IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human TMEM173/STING.
Subcellular Location	Endoplasmic Reticulum Membrane. Mitochondrion Outer Membrane. Cell Membrane. Cytoplasm > Perinuclear Region. In response to double-stranded DNA stimulation, relocalizes to perinuclear region, where the kinase TBK1 is recruited.
Tissue Specificity	Ubiquitously expressed. Expressed in skin endothelial cells, alveolar type 2 pneumocytes, bronchial epithelium and alveolar macrophages.
Predicted Cross Reactivity	**Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken**
Similarity	Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (90%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

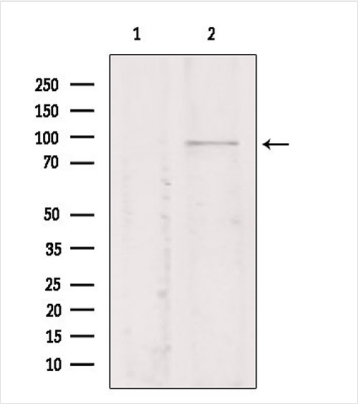
IMAGES



WB (Western Blot)
Western blot analysis of extracts of mouse thymus tissue, using TMEM173/STING antibody.



IHC (Immunohiostchemistry)
AAA322916 at 1/100 staining Human breast cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of extracts from Mouse myeloma, using TMEM173/STING antibody. Lane 1 was treated with the blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-TMEM173 antibody	Function: Facilitator of innate immune signaling that acts as a sensor of cytosolic DNA from bacteria and viruses and promotes the production of type I interferon (IFN-alpha and IFN-beta). Innate immune response is triggered in response to non-CpG double-stranded DNA from viruses and bacteria delivered to the cytoplasm. Acts by recognizing and binding cyclic di-GMP (c-di-GMP), a second messenger produced by bacteria, and cyclic GMP-AMP (cGAMP), a messenger produced in response to DNA virus in the cytosol: upon binding of c-di-GMP or cGAMP, autoinhibition is alleviated and TMEM173/STING is able to activate both NF-kappa-B and IRF3 transcription pathways to induce expression of type I interferon and exert a potent anti-viral state. May be involved in translocon function, the translocon possibly being able to influence the induction of type I interferons. May be involved in transduction of apoptotic signals via its association with the major histocompatibility complex class II (MHC-II). Mediates death signaling via activation of the extracellular signal-regulated kinase (ERK) pathway. Essential for the induction of IFN-beta in response to human herpes simplex virus 1 (HHV-1) infection. Exhibits 2', 3' phosphodiester linkage-specific ligand recognition. Can bind both 2'-3' linked cGAMP and 3'-3' linked cGAMP but is preferentially activated by 2'-3' linked cGAMP (PubMed:26300263). Subunit Structure: Associates with the MHC-II complex (By similarity). Homodimer; 'Lys-63'-linked ubiquitination at Lys-150 is required for homodimerization. Interacts with DDX58/RIG-I, MAVS and SSR2. Interacts with RNF5 and TRIM56. Interacts with TBK1; when homodimer, leading to subsequent production of IFN-beta. Interacts with IFIT1 and IFIT2. Interacts with TRIM29; this interaction induces TMEM173/STING ubiquitination and subsequent degradation (PubMed:29038422). Post-translational Modifications: Phosphorylated on tyrosine residues upon MHC-II aggregation (By similarity). Phosphorylated on Ser-358 by TBK1, leading to activation and production of IFN-beta. Ubiquitinated (PubMed:19285439, PubMed:19433799, PubMed:21074459, PubMed:25254379). 'Lys-63'-linked ubiquitination mediated by TRIM56 at Lys-150 promotes homodimerization and recruitment of the antiviral kinase TBK1 and subsequent production of IFN-beta (PubMed:21074459). 'Lys-48'-linked polyubiquitination at Lys-150 occurring after viral infection is mediated by RNF5 and leads to proteasomal degradation (PubMed:19285439). 'Lys-11'-linked polyubiquitination at Lys-150 by RNF26 leads to stabilize TMEM173/STING: it protects TMEM173/STING from RNF5-mediated 'Lys-48'-linked polyubiquitination (PubMed:25254379). Similarity: The c-di-GMP-binding domain (CBD) forms a homodimer via hydrophobic interactions and binds both the cyclic diguanylate monophosphate (c-di-GMP) and the cyclic GMP-AMP (cGAMP) messengers. In absence of c-di-GMP or cGAMP, the protein is autoinhibited by an intramolecular interaction between the CBD and the C-terminal tail (CTT). Binding of c-di-GMP or cGAMP to the CBD releases the autoinhibition by displacing the CTT, leading to activate both NF-kappa-B and IRF3 transcription pathways to induce expression of type I interferon. The N-terminal part of the CBD region was initially though to contain a fifth transmembrane region (TM5) but is part of the folded, soluble CBD (PubMed:22579474, PubMed:22705373, PubMed:22728658, PubMed:22728660 and PubMed:22728659). Belongs to the TMEM173 family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	38093659
NCBI GeneID	340061
NCBI Accession #	NP_938023.1
NCBI GenBank Nucleotide #	NM_198282.3
UniProt Accession #	Q86WV6; A8K3P6; B6EB35; D6RBX0; D6RE01; D6RID9
Molecular Weight	Observed: 35-40 kDa; 80 kDa Predicted: 43 kDa
NCBI Official Full Name	stimulator of interferon genes protein isoform 1
NCBI Official Synonym Full Names	transmembrane protein 173
NCBI Official Symbol	TMEM173
NCBI Official Synonym Symbols	ERIS; MITA; MPYS; SAVI; NET23; STING; hMITA; hSTING; STING-beta
NCBI Protein Information	stimulator of interferon genes protein
UniProt Protein Name	Stimulator of interferon genes protein
UniProt Gene Name	**TMEM173**

UniProt Synonym Gene Names	ERIS; MITA2 PublicationsManual assertion based on opinion iniRef.1; hSTING2 PublicationsManual assertion based on opinion iniRef.5; ERIS; hMITA2 PublicationsManual assertion based on opinion iniRef.1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://www.aaabiotech.com/polyclonal/tmem173-sting-antibody-immunohistochemistry-western-blot-elisa/322916