ARG40190
anti-TMEM173 / STING antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes TMEM173 / STING
Tested Reactivity	Hu
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	TMEM173 / STING
Species	Human
Immunogen	Synthetic peptide corresponding to aa. 284-316 of Human TMEM173 / STING. (RLEQAKLFCRTLEDILADAPESQNNCRLIAYQE)
Conjugation	Un-conjugated
Alternate Names	MPYS; hSTING; hMITA; Transmembrane protein 173; ERIS; STING; Stimulator of interferon genes protein; Mediator of IRF3 activation; SAVI; Endoplasmic reticulum interferon stimulator; NET23; MITA

Application Instructions

Application table

Application	Dilution
IHC-P	0.5 - 1 µg/ml
WB	0.1 - 0.5 µg/ml

Application Note: IHC-P: Antigen Retrieval: By heat mediation.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Observed Size: ~ 42 kDa

Properties

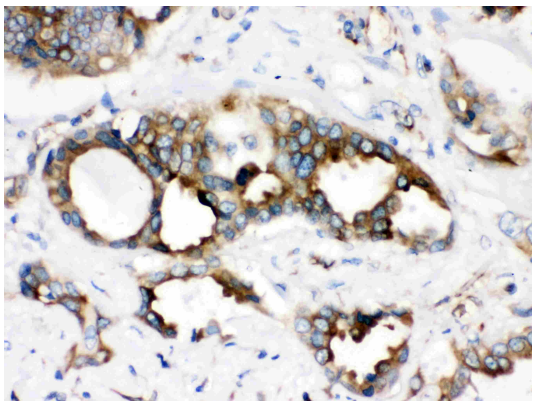
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.9% NaCl, 0.2% Na2HPO4, 0.05% Sodium azide and 5% BSA.
Preservative	0.05% Sodium azide
Stabilizer	5% BSA
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed

	before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

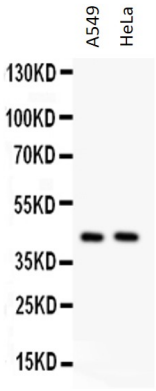
Gene Symbol	TMEM173
Gene Full Name	transmembrane protein 173
Background	This gene encodes a five transmembrane protein that functions as a major regulator of the innate immune response to viral and bacterial infections. The encoded protein is a pattern recognition receptor that detects cytosolic nucleic acids and transmits signals that activate type I interferon responses. The encoded protein has also been shown to play a role in apoptotic signaling by associating with type II major histocompatibility complex. Mutations in this gene are the cause of infantile-onset STING-associated vasculopathy. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Sep 2014]
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. [UniProt]
Highlight	Related products: TMEM173 antibodies; Anti-Rabbit IgG secondary antibodies; Related news: Exploring Antiviral Immune Response
Calculated Mw	42 kDa
PTM	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). [UniProt]
Cellular Localization	Endoplasmic reticulum membrane; Multi-pass membrane protein. Mitochondrion outer membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Cytoplasm, perinuclear region. Cytoplasm. In response to double-stranded DNA stimulation, relocalizes to perinuclear region, where the kinase TBK1 is recruited. [UniProt]

Images



ARG40190 anti-TMEM173 / STING antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human lung cancer tissue stained with ARG40190 anti-TMEM173 / STING antibody.



ARG40190 anti-TMEM173 / STING antibody WB image

Western blot: 40 µg of A549 and HeLa whole cell lysates stained with ARG40190 anti-TMEM173 / STING antibody at 0.5 µg/ml dilution.