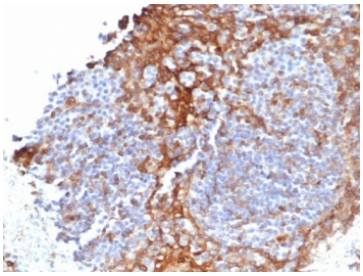
STING Antibody Clone STING1/7436 / Stimulator of interferon genes protein [clone STING1/7436] (V5073)

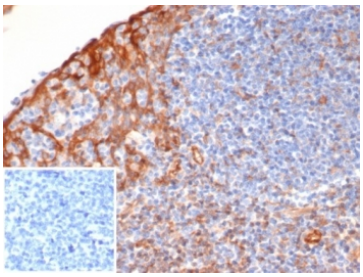
Catalog No.	Formulation	Size
V5073-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5073-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5073SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

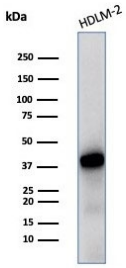
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	STING1/7436
Purity	Protein A/G affinity
UniProt	Q86WV6
Localization	Cytoplasm
Applications	Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This STING antibody is available for research use only.



STING Antibody Clone STING1/7436 immunohistochemistry analysis of human tissue. IHC staining of formalin-fixed, paraffin-embedded human tonsil using STING Antibody Clone STING1/7436 demonstrates HRP-DAB brown cytoplasmic staining in lymphoid immune cells within tonsillar tissue, consistent with expression of Stimulator of interferon genes protein / STING1 (TMEM173) in antigen-presenting immune cell populations. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min followed by cooling prior to antibody incubation.



IHC staining of FFPE human tonsil tissue with STING antibody (clone STING1/7436). Inset: PBS used in place of primary Ab (secondary Ab negative control). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



STING Antibody Clone STING1/7436 western blot analysis. Western blot analysis of human HDLM-2 cell lysate using STING Antibody Clone STING1/7436 detects a band at approximately 42 kDa, consistent with the predicted molecular weight of Stimulator of interferon genes protein / STING1 (TMEM173), an endoplasmic reticulum-associated adaptor involved in cGAS-STING cytosolic DNA sensing and interferon signaling.

Description

Stimulator of interferon genes protein (STING1), encoded by the TMEM173 gene, is an intracellular adaptor that plays a central role in the innate immune response to cytosolic DNA. STING1 is a multi-pass transmembrane protein primarily associated with the endoplasmic reticulum, where it acts as a signaling hub linking DNA detection to activation of interferon pathways. The STING Antibody Clone STING1/7436 recognizes STING1, a key mediator of the cGAS-STING pathway that initiates antiviral immune signaling when abnormal DNA is detected within the cytoplasm.

STING1 is widely known by several alternative names including MITA (Mediator of IRF3 activation), ERIS (endoplasmic reticulum interferon stimulator), and TMEM173. These alternate designations reflect the protein's role in bridging upstream DNA sensing events with downstream transcriptional responses. In the cGAS-STING signaling cascade, cyclic GMP-AMP synthase (cGAS) recognizes double-stranded DNA present in the cytosol and synthesizes the cyclic dinucleotide cGAMP. Binding of cGAMP to STING1 activates the protein and triggers its movement from the endoplasmic reticulum to perinuclear vesicular compartments where it engages the kinase TBK1. This interaction promotes phosphorylation of the transcription factor IRF3 and subsequent induction of interferon-stimulated genes that coordinate antiviral defense mechanisms.

STING signaling is broadly important in host defense against viral infection and intracellular bacterial pathogens. STING1 expression is observed in numerous immune and tissue cell types including macrophages, dendritic cells, epithelial cells, endothelial cells, and lymphoid cells. Through activation of interferon pathways, STING helps coordinate immune responses that limit pathogen replication and promote immune surveillance.

Beyond infectious disease, the cGAS-STING pathway has become an important focus of research in tumor immunology and inflammatory disorders. Dysregulated activation of STING signaling has been associated with interferon-driven autoinflammatory syndromes, while controlled stimulation of the pathway is being investigated as a strategy to enhance anti-tumor immune responses. Mouse monoclonal antibodies such as STING Antibody Clone STING1/7436 support investigation of STING1 expression and localization in studies of innate immune signaling, interferon biology, and immune regulation associated with DNA sensing pathways.

Application Notes

Optimal dilution of the STING Antibody Clone STING1/7436 should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 190-290) from the human protein was used as the

immunogen for the STING antibody.

Storage

Aliquot the STING antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

STING1 antibody, TMEM173 antibody, MITA antibody, ERIS antibody, Stimulator of interferon genes protein antibody