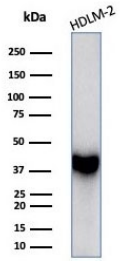
STING1 Antibody STING1/7435 / Transmembrane protein 173 [clone STING1/7435] (V5072)

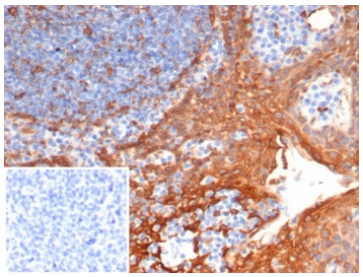
Catalog No.	Formulation	Size
V5072-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5072-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5072SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG, kappa
Clone Name	STING1/7435
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 STING1 antibody is available for research use only.



Western blot analysis of STING1 Antibody STING1/7435 in human HDLM-2 cells. Human HDLM-2 cell lysate was analyzed by western blot using a mouse monoclonal STING1 antibody (clone STING1/7435). A band is detected at approximately 40-45 kDa, consistent with the predicted molecular weight of Stimulator of interferon genes (STING1 / TMEM173), which is ~42 kDa. This signal corresponds to endogenous STING1 expression in HDLM-2 cells and aligns with the expected migration of the STING adaptor protein involved in cGAS-STING innate immune signaling.



IHC STING1 Antibody STING1/7435 in human tonsil. Immunohistochemistry analysis of STING1 Antibody Clone STING1/7435 in formalin-fixed paraffin-embedded human tonsil tissue. The mouse monoclonal antibody (clone STING1/7435) produces cytoplasmic HRP-DAB brown staining in tonsillar immune cells, consistent with the intracellular localization of Stimulator of interferon genes (STING1 / TMEM173) in innate immune signaling pathways. Lymphoid cells within the tonsillar tissue display positive staining, while the inset shows the PBS-only negative control lacking primary antibody, demonstrating absence of non-specific signal. Antigen retrieval was performed by boiling tissue sections in pH 9 Tris-EDTA buffer (10mM Tris, 1mM EDTA) for 20 minutes followed by cooling prior to antibody incubation.

Description

Stimulator of interferon genes (STING1) is a transmembrane adaptor protein encoded by the STING1 gene and localized primarily to the endoplasmic reticulum membrane where it plays a central role in innate immune signaling pathways. The STING1 Antibody STING1/7435 recognizes this key immune signaling mediator that is widely studied for its role in host defense mechanisms, antiviral immunity, and inflammatory signaling cascades. STING1 functions as an essential sensor adaptor within the cytosolic DNA detection pathway and is broadly expressed in immune cells including dendritic cells, macrophages, and monocytes, as well as in many epithelial and stromal cell types involved in immune surveillance.

STING1 antibody reagents are commonly used to study the biology of the stimulator of interferon genes protein, also referred to in the literature as MITA (Mediator of IRF3 activation), ERIS (Endoplasmic reticulum interferon stimulator), and TMEM173. Upon detection of cytosolic DNA, cyclic dinucleotides produced by cyclic GMP-AMP synthase (cGAS) bind to STING1 and trigger conformational changes that initiate downstream signaling cascades. Activated STING1 translocates from the endoplasmic reticulum to the Golgi apparatus and recruits TANK-binding kinase 1 (TBK1), leading to phosphorylation of interferon regulatory factor 3 (IRF3). This signaling cascade ultimately promotes transcription of type I interferons and other immune response genes that are essential for antiviral defense and immune regulation.

STING1 is considered a key component of the cGAS-STING signaling pathway, which is one of the primary mechanisms by which cells detect pathogenic DNA in the cytoplasm. Dysregulation of this pathway has been linked to autoimmune diseases, chronic inflammatory disorders, and tumor immune responses. Mutations in the STING1 gene are associated with autoinflammatory syndromes such as STING-associated vasculopathy with onset in infancy (SAVI), highlighting the protein's importance in maintaining balanced immune signaling. In addition to its immune signaling role, STING1 has also been implicated in cancer biology where activation of STING-mediated pathways can influence tumor immune surveillance and anti-tumor immunity.

Because of its central function in innate immune signaling, a STING1 antibody is widely used in studies investigating antiviral defense, DNA sensing pathways, inflammation, and immuno-oncology research. Detection of STING1 expression helps researchers evaluate activation of cytosolic DNA sensing pathways and downstream interferon signaling events. In cellular systems, STING1 localization can shift between the endoplasmic reticulum and perinuclear compartments during activation, reflecting its dynamic role in intracellular signaling complexes. As interest in innate immune activation and cancer immunotherapy continues to expand, STING1 remains an important molecular target for understanding immune signaling networks and therapeutic pathway modulation.

For a polyclonal antibody with broader validation across the cGAS-STING signaling pathway, see our STING1 Antibody / cGAS-STING Pathway Antibody page.

Application Notes

Optimal dilution of the STING1 Antibody STING1/7435 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 STING1 antibody.

Storage

Aliquot the STING1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

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

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