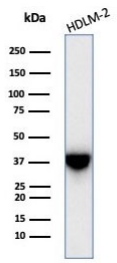
STING Antibody Clone STING1/7438 / MITA / ERIS / TMEM17 [clone STING1/7438] (V5098)

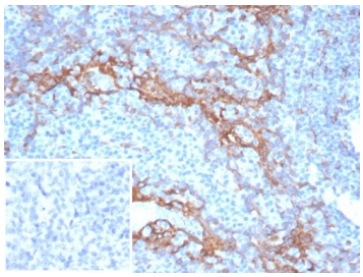
Catalog No.	Formulation	Size
V5098-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5098-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5098SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

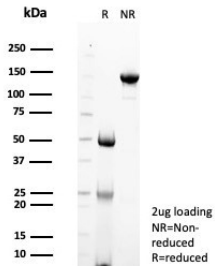
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	STING1/7438
Purity	Protein A/G affinity
UniProt	Q86WV6
Localization	Cytoplasm
Applications	Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This STING antibody is available for research use only.



STING Antibody Clone STING1/7438 western blot analysis. Western blot analysis of human HDLM-2 cell lysate using STING Antibody Clone STING1/7438 detects a band at approximately 42 kDa, consistent with the predicted molecular weight of Stimulator of interferon genes protein / STING1 (TMEM173), a cytosolic adaptor that mediates cGAS-STING innate immune signaling and interferon activation.



IHC staining of FFPE human tonsil tissue with STING antibody (clone STING1/7438). 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.



SDS-PAGE analysis of purified, BSA-free STING antibody STING1/7438 as confirmation of integrity and purity.

Description

Stimulator of interferon genes protein (STING1) is an intracellular adaptor protein encoded by the TMEM173 gene that functions as a central regulator of cytosolic DNA sensing and innate immune signaling. STING1 is primarily localized to the endoplasmic reticulum membrane and plays a pivotal role in linking detection of abnormal cytoplasmic DNA to downstream interferon responses. The STING Antibody Clone STING1/7438 recognizes STING1, a signaling protein that activates antiviral immune pathways following detection of foreign or mislocalized DNA within the cytosol.

STING1 is widely known by several alternative names including MITA (Mediator of IRF3 activation), ERIS (endoplasmic reticulum interferon stimulator), and TMEM173. These names reflect the protein's functional role as a signaling hub that connects DNA sensing to transcriptional activation of type I interferon genes. In the cGAS-STING pathway, cyclic GMP-AMP synthase (cGAS) detects cytosolic DNA and produces the cyclic dinucleotide cGAMP. Binding of cGAMP to STING1 induces conformational activation and promotes translocation of STING from the endoplasmic reticulum to Golgi-associated compartments where it recruits the kinase TBK1. This interaction leads to phosphorylation and activation of the transcription factor IRF3, ultimately stimulating expression of interferon-stimulated genes and inflammatory mediators.

STING signaling is essential for host defense against viral infection and intracellular bacteria. Expression of STING1 is observed in multiple immune and non-immune cell types including macrophages, dendritic cells, epithelial cells, endothelial cells, and lymphoid cells. Activation of the cGAS-STING pathway triggers antiviral responses and supports innate immune surveillance mechanisms that detect microbial pathogens and damaged cellular DNA.

Beyond infectious disease, STING signaling has emerged as an important pathway in cancer biology and inflammatory disorders. Aberrant activation of STING can contribute to interferon-driven autoinflammatory syndromes, while pharmacologic activation of the STING pathway is actively being explored as a strategy to enhance anti-tumor immunity. Antibodies such as STING Antibody Clone STING1/7438 provide useful tools for investigating STING expression and localization in studies of innate immune signaling, interferon responses, and DNA damage-associated immune activation pathways.

Application Notes

Optimal dilution of the STING Antibody Clone STING1/7438 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