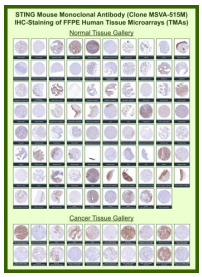
STING1 Antibody for IHC / STING1 Immunohistochemistry Antibody [clone MSVA-515M] (V6086)

Catalog No.	Formulation	Size
V6086-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6086-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2c, kappa
Clone Name	MSVA-515M
Purity	Protein A/G affinity
UniProt	Q86WV6
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1:100-1:200
Limitations	This STING1 Antibody for IHC / STING1 Immunohistochemistry Antibody is available for research use only.



STING1 Antibody for IHC. Immunohistochemistry analysis of human tissue microarrays. Immunohistochemistry analysis of multiple formalin-fixed, paraffin-embedded human normal and cancer tissues using STING1 Antibody for IHC clone MSVA-515M demonstrates HRP-DAB brown cytoplasmic staining in subsets of immune and epithelial cells consistent with expression of Stimulator of interferon genes protein / STING1 (TMEM173). Across the tissue microarray panel, staining highlights immune cell populations within lymphoid tissues and inflammatory microenvironments, while variable cytoplasmic signal is observed in certain epithelial compartments. The observed immunohistochemical staining pattern is consistent with known STING1 expression profiles reported in the Human Protein Atlas.

Description

Stimulator of interferon genes protein (STING1), encoded by the STING1 gene and also known as TMEM173, is an

endoplasmic reticulum-associated adaptor protein that functions as a central regulator of cytosolic DNA sensing and innate immune signaling. STING1 Antibody for IHC enables visualization of STING1 protein distribution within tissue sections by immunohistochemistry, supporting investigation of innate immune activation and inflammatory signaling within histologic specimens. STING1 operates as a key component of the cGAS-STING pathway, which detects cytosolic DNA originating from viral infection, bacterial pathogens, or damaged host cells. When cyclic GMP-AMP synthase (cGAS) recognizes cytoplasmic DNA, it generates the cyclic dinucleotide cGAMP, which binds to STING and induces conformational activation. Activated STING subsequently translocates from the endoplasmic reticulum to the Golgi apparatus, where it recruits signaling molecules such as TBK1 and IRF3 that drive transcription of type I interferons and other inflammatory mediators.

In immunohistochemistry studies, STING1 expression can be visualized in immune cells and stromal cell populations participating in innate immune responses. Macrophages, dendritic cells, and other immune cell types involved in pathogen recognition may demonstrate cytoplasmic staining patterns corresponding to STING signaling complexes within intracellular membrane compartments. Immunohistochemical analysis therefore provides valuable insight into the spatial distribution of STING1-expressing cells within tissues and allows evaluation of innate immune signaling activity within inflammatory environments and tumor microenvironments.

Beyond host defense against pathogens, STING signaling has been implicated in tumor immunity, autoinflammatory disorders, and responses to DNA damage. Activation of the STING pathway contributes to the production of interferons and inflammatory cytokines that influence immune surveillance and immune-mediated tumor responses. Consequently, antibodies targeting STING1 are widely used to investigate innate immune signaling pathways and immune cell activation within tissue samples.

An antibody such as clone MSVA-515M supports immunohistochemical detection of STING1 expression in formalin-fixed, paraffin-embedded tissues. Visualization of STING1-positive cells can help identify immune cell populations involved in innate immune signaling and supports research examining inflammatory responses, immune activation, and host defense mechanisms within tissue environments.

This antibody is also part of a broader collection of IHC antibodies validated by tissue microarray analysis, supporting consistent staining across normal and cancer tissues.

Application Notes

1. Optimal dilution of the STING1 Antibody for IHC / STING1 Immunohistochemistry Antibody should be determined by the researcher.

2. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to the manufacturer's directions.

Immunogen

A recombinant fragment (around amino acids 190-290) of human TMEM173 protein (exact sequence is proprietary) was used as the immunogen for the STING1 / Stimulator of interferon response cGAMP interactor 1 antibody.

Storage

STING1 / Stimulator of interferon response cGAMP interactor 1 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

STING antibody, TMEM173 antibody, Stimulator of interferon genes protein antibody, Transmembrane protein 173 antibody