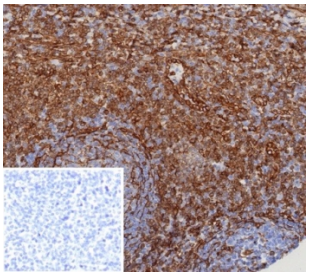
MITA Antibody STING1/8129R / Mediator of IRF3 activation Antibody [clone STING1/8129R] (V5100)

Catalog No.	Formulation	Size
V5100-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5100-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5100SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

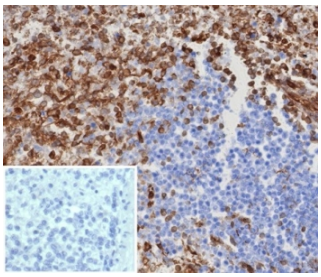
Recombinant RABBIT MONOCLONAL

Bulk quote request

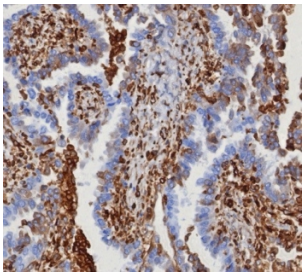
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	STING1/8129R
Purity	Protein A/G affinity
UniProt	Q86WV6
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This MITA antibody is available for research use only.



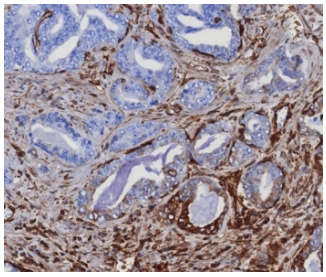
MITA Antibody STING1/8129R immunohistochemistry analysis of human tissue. IHC staining of formalin-fixed, paraffin-embedded human tonsil using MITA Antibody STING1/8129R demonstrates HRP-DAB brown cytoplasmic staining in numerous immune cells consistent with expression of Mediator of IRF3 activation / STING1 (TMEM173) in antigen-presenting immune cell populations within lymphoid tissue. 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. The inset shows PBS used in place of primary antibody as a negative control.



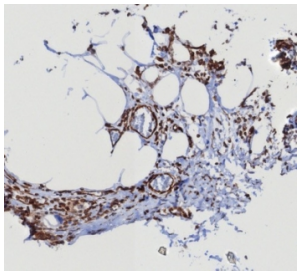
IHC staining of FFPE human spleen tissue with MITA antibody (clone STING1/8129R). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



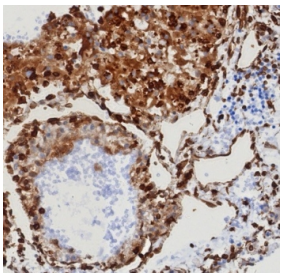
IHC staining of FFPE human serous ovarian carcinoma with MITA antibody (clone STING1/8129R). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human prostate carcinoma tissue with MITA antibody STING1/8129R. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human mammary cancer with MITA antibody (clone STING1/8129R). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human renal cell carcinoma with MITA antibody STING1/8129R. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

Description

Stimulator of interferon genes protein (STING1), also known as MITA (Mediator of IRF3 activation), ERIS (endoplasmic reticulum interferon stimulator), or TMEM173, is an intracellular adaptor protein that functions as a central regulator of cytosolic DNA sensing and innate immune signaling. MITA Antibody STING1/8129R recognizes STING1, a signaling protein localized primarily to the endoplasmic reticulum where it participates in activation of antiviral interferon responses. STING1 is a critical component of the cyclic GMP-AMP synthase (cGAS)-STING pathway, which detects abnormal cytoplasmic DNA originating from viral infection, intracellular bacteria, mitochondrial damage, or genomic instability.

When cytosolic DNA is detected, cGAS catalyzes formation of the cyclic dinucleotide cGAMP, which binds directly to

STING1 and triggers conformational activation of the protein. Activated STING translocates from the endoplasmic reticulum to Golgi-associated vesicles where it recruits signaling molecules including TBK1 and the transcription factor IRF3. This interaction leads to phosphorylation and activation of IRF3, resulting in transcription of type I interferons and inflammatory cytokines. Because of this function, STING1 is frequently referred to as Mediator of IRF3 activation, reflecting its essential role in linking DNA sensing to interferon production.

STING1 is broadly expressed across immune and non-immune cell types including macrophages, dendritic cells, epithelial cells, and endothelial cells. Activation of the cGAS-STING pathway is a key component of host defense against viral infection and intracellular pathogens. In addition to antimicrobial immunity, STING signaling has been implicated in cancer immunology, autoinflammatory disorders, and responses to DNA damage. Dysregulation of STING activity can contribute to excessive inflammatory responses or immune-mediated disease.

A recombinant rabbit monoclonal antibody such as clone STING1/8129R supports detection of STING1 protein in research applications examining innate immune signaling pathways. Antibodies targeting MITA/STING1 are widely used to study interferon pathway activation, cytosolic DNA sensing, and the regulation of innate immune responses involved in host defense and inflammatory disease mechanisms.

Application Notes

Optimal dilution of the MITA Antibody STING1/8129R 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 MITA antibody.

Storage

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

Alternate Names

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