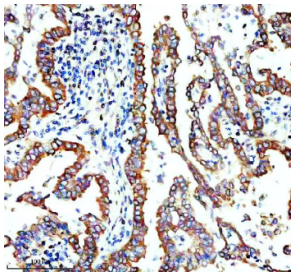
STING1 Antibody / cGAS-STING Pathway Antibody (FY13022)

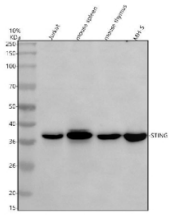
Catalog No.	Formulation	Size
FY13022	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

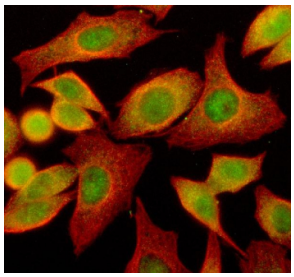
Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q86WV6
Localization	Cytoplasm, Nucleus
Applications	Western Blot: 0.25-0.5ug/ml Immunohistochemistry: 2-5ug/ml Immunocytochemistry/Immunofluorescence: 5ug/ml Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5ug/ml
Limitations	This STING1 Antibody / cGAS-STING Pathway Antibody is available for research use only.



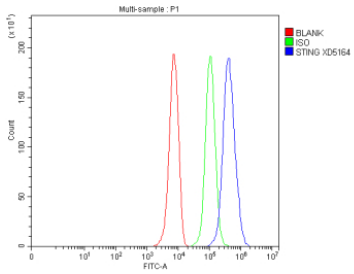
STING1 Antibody in Human Lung Cancer IHC. Immunohistochemistry staining of FFPE human lung cancer tissue with STING1 Antibody at 2 ug/ml. HIER was performed using EDTA buffer, pH 8.0, followed by blocking with 10% goat serum and overnight primary antibody incubation at 4oC. Detection used an HRP-conjugated secondary antibody with DAB substrate. Strong brown immunoreactivity is visible predominantly within the cytoplasm of malignant epithelial cells, while stromal and inflammatory regions show comparatively limited staining. The result demonstrates detection of STING1/TMEM173, a central component of the cGAS-STING pathway, in human lung cancer tissue.



STING1 Antibody Detects STING in Human and Mouse Samples WB. Western blot analysis using STING1 Antibody at 0.5 ug/ml. Lane 1: human Jurkat whole cell lysate; lane 2: mouse spleen tissue lysate; lane 3: mouse thymus tissue lysate; lane 4: mouse MH-S cell lysate. A prominent band is detected at approximately 37 kDa across all four samples, slightly below the predicted molecular weight of approximately 42 kDa. This migration behavior has been reported for the multipass transmembrane STING1 protein and is consistent across the human and mouse samples shown, supporting detection of the cGAS-STING pathway component STING1/TMEM173.



STING1 Antibody in SiHa Cervical Cancer Cells IF. Immunofluorescence staining of human SiHa cervical cancer cells with STING1 Antibody at 5 ug/ml (green) and a Beta Tubulin antibody (red). Cells were blocked with 10% goat serum and incubated with both primary antibodies overnight at 4oC, followed by fluorescent secondary antibody detection. STING1 displays prominent intracellular green fluorescence with a broadly cytoplasmic distribution, while Beta Tubulin highlights the cytoskeletal network in red. The merged image demonstrates detection and intracellular localization of STING1/TMEM173, an essential signaling protein of the cGAS-STING pathway.



STING1 Antibody in HepG2 Liver Cancer Cells FACS. Flow cytometry analysis of PFA-fixed human HepG2 liver cancer cells using STING1 Antibody at 1 ug/million cells. Cells were blocked with 10% normal goat serum and incubated with primary antibody for 30 min at 20oC, followed by DyLight 488-conjugated secondary antibody. STING1-stained cells (blue) show a strong rightward fluorescence shift relative to the isotype control (green) and blank control (red), with clear separation among the populations. The result demonstrates detection of intracellular STING1/TMEM173 in HepG2 cells.

Description

STING1 Antibody / cGAS-STING Pathway Antibody recognizes STING1, a transmembrane signaling protein encoded by the TMEM173 gene. Also widely known as STING, the protein functions as a central adaptor in cytosolic DNA sensing and innate immune defense. STING1 links detection of aberrant intracellular DNA to the production of type I interferons and other inflammatory mediators, allowing cells to respond to microbial infection, cellular damage, and other sources of cytosolic DNA.

The cGAS-STING pathway begins when cyclic GMP-AMP synthase (cGAS) recognizes double-stranded DNA in the cytosol. Activated cGAS generates the second messenger cyclic GMP-AMP (cGAMP), which binds STING1 and promotes conformational changes in the protein. STING subsequently traffics from the endoplasmic reticulum toward the Golgi apparatus, where signaling complexes form that recruit TANK-binding kinase 1 (TBK1). TBK1-mediated phosphorylation of interferon regulatory factor 3 (IRF3) promotes IRF3 activation and transcription of type I interferons and interferon-stimulated genes.

Through this signaling cascade, STING1 contributes to antiviral and antibacterial defense as well as immune responses to damaged or malignant cells. The pathway can detect self-DNA that enters the cytosol following genomic instability, mitochondrial damage, or other forms of cellular stress. Consequently, STING signaling is studied not only in host defense but also in inflammation, autoimmunity, cellular stress responses, and tumor immunology. Persistent or dysregulated pathway activation can contribute to inflammatory disease, while insufficient signaling may compromise effective immune surveillance.

STING1 has also become an important target in cancer immunology because activation of the cGAS-STING pathway can promote type I interferon production and enhance antitumor immune responses. Conversely, tumors may alter components of this pathway as part of mechanisms affecting immune recognition. Genetic changes in TMEM173 further demonstrate the importance of tightly regulated STING signaling, with activating variants associated with severe

autoinflammatory phenotypes.

NSJ Bioreagents offers this cGAS-STING Pathway Antibody for research into STING1 biology and cytosolic DNA sensing. A STING1 Antibody can support investigation of innate immune signaling, interferon regulation, host-pathogen interactions, inflammatory mechanisms, and STING-associated tumor immunity.

Explore our Innate Immunity Antibodies page for additional reagents targeting proteins involved in pathogen sensing, interferon signaling, inflammatory responses, and innate immune defense.

Application Notes

Optimal dilution of the STING1 Antibody / cGAS-STING Pathway Antibody should be determined by the researcher.

Immunogen

E.coli-derived human TMEM173/STING recombinant protein (Position: L66-K347) was used as the immunogen for the STING1 antibody.

Storage

After reconstitution, the STING1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

STING1 antibody, TMEM173 antibody, Stimulator of interferon genes antibody, STING antibody, ERIS antibody, MITA antibody, MPYS antibody

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