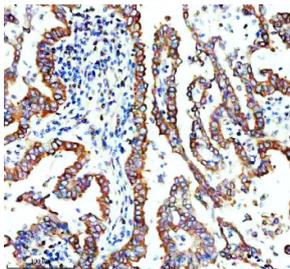


STING1 Antibody Rabbit Polyclonal for IF / STING1 Immunofluorescence Antibody (FY13022)

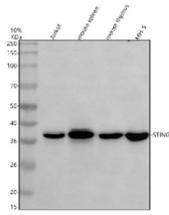
Catalog No.	Formulation	Size
FY13022	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

[Bulk quote request](#)

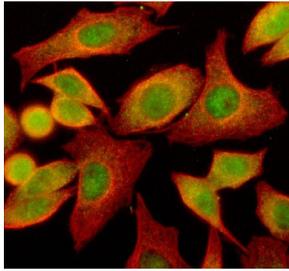
Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
UniProt	Q86WV6
Localization	Cytoplasm, Nucleus
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 is available for research use only.



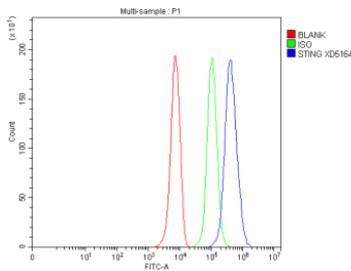
Immunohistochemical staining of TMEM173/STING using anti-STING1 antibody. TMEM173/STING was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-STING1 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



Western blot analysis of TMEM173/STING using anti-STING1 antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human Jurkat whole cell lysates, Lane 2: mouse spleen tissue lysates, Lane 3: mouse thymus tissue lysates, Lane 4: mouse MH-S whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-STING1 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using an ECL Plus Western Blotting Substrate. A prominent band is detected at approximately 37 kDa, slightly below the predicted molecular weight of 42 kDa. This migration pattern is consistent with published reports showing that the transmembrane nature of STING1 leads to faster electrophoretic mobility on SDS-PAGE.



STING1 Antibody Rabbit Polyclonal for IF immunofluorescence analysis of human cells. Immunofluorescent staining of human SiHa cells using STING1 Antibody Rabbit Polyclonal for IF demonstrates cytoplasmic fluorescence consistent with intracellular localization of Stimulator of interferon genes protein / STING1 (TMEM173). STING1 signal is visualized in green using DyLight 488-conjugated secondary antibody, while Beta Tubulin staining appears red following detection with Cy3-conjugated secondary antibody, highlighting the cytoskeletal network. Cells were blocked with 10% goat serum and incubated with rabbit anti-STING1 antibody (5 ug/ml) together with mouse anti-Beta Tubulin antibody overnight at 4oC. Following secondary antibody incubation, fluorescence signals were visualized by microscopy using filter sets appropriate for the fluorescent labels.



Flow Cytometry analysis of HepG2 cells using anti-STING1 antibody. Overlay histogram showing HepG2 cells stained with (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-STING1 antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

Description

Stimulator of interferon genes protein (STING1), encoded by the STING1 gene and also known as TMEM173, is an intracellular adaptor protein that plays a central role in cytosolic DNA sensing and innate immune signaling. STING1 Antibody Rabbit Polyclonal for IF enables visualization of STING1 protein distribution in cells using immunofluorescence microscopy, allowing researchers to examine the subcellular localization and spatial organization of this key innate immune signaling molecule. STING1 is primarily localized to the endoplasmic reticulum membrane under resting conditions, where it functions as an adaptor linking cytosolic DNA detection to downstream interferon signaling pathways.

Upon activation of the cyclic GMP-AMP synthase (cGAS)-STING pathway, STING1 undergoes conformational changes and traffics from the endoplasmic reticulum to the Golgi apparatus and associated vesicular compartments. During this process, STING1 forms signaling complexes that recruit kinases such as TBK1 and transcription factors including IRF3, leading to induction of type I interferon responses and inflammatory cytokine production. Immunofluorescence imaging is widely used to study this dynamic intracellular trafficking process, as STING1 redistribution from diffuse endoplasmic reticulum localization to discrete cytoplasmic puncta represents a hallmark of pathway activation.

Immunofluorescence analysis also enables visualization of STING1 distribution across different cell types involved in innate immune responses. Macrophages, dendritic cells, epithelial cells, and other immune-responsive cell populations may exhibit cytoplasmic STING1 staining patterns corresponding to intracellular membrane compartments associated

with innate immune signaling. Fluorescent antibody labeling allows researchers to investigate the spatial relationship between STING1 and other signaling proteins or organelles, supporting co-localization studies that examine activation of the cGAS-STING pathway.

Because STING signaling is involved in antiviral defense, inflammatory responses, and tumor immunity, antibodies detecting STING1 are widely used in cell biology and immunology research. A rabbit polyclonal antibody recognizing STING1 enables visualization of intracellular STING signaling complexes and supports fluorescence microscopy studies examining innate immune activation, intracellular trafficking of signaling proteins, and regulation of interferon-mediated immune pathways.

Application Notes

Optimal dilution of the STING1 Antibody Rabbit Polyclonal for IF 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

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