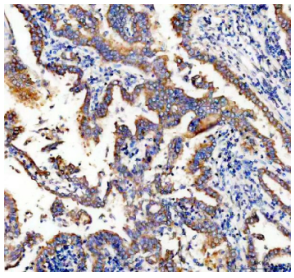
STING Antibody for FACS / STING Flow Cytometry Antibody (R32276)

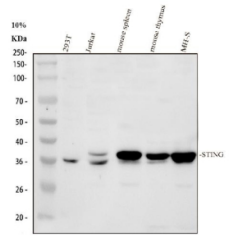
Catalog No.	Formulation	Size
R32276	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

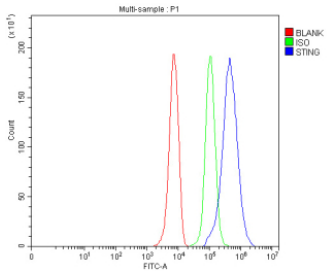
Availability	1-3 business days
Species Reactivity	Human, Mouse
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q86WV6
Localization	Cytoplasmic, cell membrane
Applications	Western Blot : 0.25-0.5ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This STING antibody is available for research use only.



IHC analysis of STING/TMEM173 Antibody. STING expression was examined in a paraffin-embedded section of human lung cancer tissue. Following heat-mediated antigen retrieval in EDTA buffer (pH 8.0), sections were blocked with goat serum and incubated with a rabbit anti-STING/TMEM173 antibody. Immunoreactivity was visualized using an HRP-based detection system with DAB chromogen. STING staining is observed predominantly in tumor epithelial cells with cytoplasmic and membranous localization patterns, while surrounding stromal areas show lower background signal.



Western blot analysis of STING/TMEM173 Antibody. Proteins were resolved by 10% SDS-PAGE and transferred to a nitrocellulose membrane prior to immunodetection. Lane 1: human 293T whole cell lysates; Lane 2: human Jurkat whole cell lysates; Lane 3: mouse spleen tissue lysates; Lane 4: mouse thymus tissue lysates; Lane 5: mouse MH-S whole cell lysates. A prominent band corresponding to TMEM173 was detected at approximately 35 kDa across multiple samples. Although the predicted molecular weight of STING is approximately 42 kDa based on amino acid sequence, STING is well documented to migrate at a lower apparent molecular weight on SDS-PAGE, likely due to its multi-pass transmembrane architecture, hydrophobic regions, and detergent-dependent electrophoretic behavior. Lower apparent migration and subtle band heterogeneity have been reported for STING in both human and mouse tissues, and the observed banding pattern is consistent with published studies of endogenous TMEM173 expression.



STING Antibody for FACS flow cytometry analysis of human cells. Flow cytometric analysis of fixed human HepG2 cells using STING Antibody for FACS at 1 ug per million cells demonstrates intracellular detection of Stimulator of interferon genes protein / STING1 (TMEM173). Cells were blocked with goat sera prior to antibody staining and analyzed following fluorescent secondary detection. The blue histogram represents STING antibody staining and shows a clear rightward fluorescence shift relative to the green isotype control, confirming specific detection of intracellular STING protein. The red histogram represents unstained cells and defines baseline autofluorescence levels in the HepG2 population.

Description

Stimulator of interferon genes protein (STING1), also known as TMEM173, is an intracellular adaptor protein that plays a central role in cytosolic DNA sensing and innate immune signaling. STING Antibody for FACS enables detection of STING1 expression in individual cells using flow cytometry, supporting quantitative analysis of innate immune signaling pathways within heterogeneous cell populations. Flow cytometry provides a powerful platform for analyzing protein expression at the single-cell level, allowing researchers to identify STING-positive cell populations and examine variation in signaling protein expression across immune cell subsets.

STING1 functions as a key mediator of the cyclic GMP-AMP synthase (cGAS)-STING signaling pathway. In this pathway, cGAS detects cytosolic DNA derived from viral infection, bacterial pathogens, or damaged host cells and produces the cyclic dinucleotide cGAMP. Binding of cGAMP activates STING, which then recruits downstream signaling molecules including TBK1 and IRF3 to initiate transcription of type I interferons and inflammatory cytokines. Because of its central role in innate immune activation, detection of STING1 expression is frequently used to investigate immune signaling responses and activation states in immune cell populations.

Flow cytometric detection of STING1 allows researchers to analyze intracellular expression patterns within immune cells such as macrophages, dendritic cells, monocytes, and lymphocytes. Cells can be fixed and permeabilized to permit antibody access to intracellular proteins, enabling measurement of STING1 levels within the cytoplasm where the protein normally resides. Quantitative fluorescence measurements obtained by flow cytometry allow comparison of STING1 expression across cell types or experimental conditions, providing insight into activation of innate immune pathways.

A rabbit polyclonal antibody recognizing STING1 supports flow cytometry studies examining innate immune signaling and immune cell phenotypes. Detection of STING-positive cells by flow cytometry enables researchers to evaluate immune pathway activation, characterize immune cell subsets, and investigate regulation of interferon-mediated responses in experimental systems.

Application Notes

Optimal dilution of the STING Antibody for FACS should be determined by the researcher.

Immunogen

Amino acids RLEQAKLFCRTLEDILADAPESQNNCRLIAYQE of human STING were used as the immunogen for the STING antibody.

Storage

After reconstitution, the STING 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 protein antibody, Transmembrane protein 173 antibody