Monoclonal Anti-human STING/TMEM173-Phycoerythrin

Catalog Number: FAB7169P
Lot Number: ACOC01
100 Tests

Reagents Provided

Phycoerythrin (PE)-conjugated mouse monoclonal anti-human STING/TMEM173: Supplied as 10 μg of antibody in 1 mL saline containing up to 0.5% BSA and 0.1% sodium azide.

Clone #: 723505

Isotype: mouse IgG_{2B}

Reagents Not Provided

- Flow Cytometry Staining Buffer (Catalog # FC001) or other BSA-supplemented saline buffer.

Storage

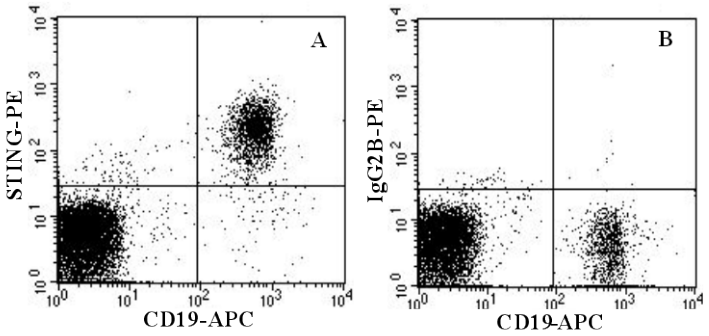
Reagents are stable for **twelve months** from the date of receipt when stored in the dark at 2-8 °C.

Intended Use

Designed to quantitatively determine the percentage of cells bearing STING/TMEM173 within a population and qualitatively determine the density of STING/TMEM173 on cell surfaces by flow cytometry.

Product Description

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified *E. coli*-derived recombinant human STING/TMEM173 (rhSTING/TMEM173; amino acids 215-379; Accession #Q86WV6) extracellular domain. The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography. The purified antibody was then conjugated to PE fluorochrome. Cell surface expression of STING/TMEM173 is determined by flow cytometry using 488 nm wavelength excitation and monitoring emitted fluorescence with a detector optimized to collect peak emissions at 565-605 nm.



Human whole blood lymphocytes were stained with APC-conjugated anti-human CD19 (Catalog # FAB4867A) and either A) PE-conjugated anti-human STING/TMEM173 (Catalog # FAB7169P) or B) isotype control (Catalog # IC0041P).

Background Information

STING (Stimulator of interferon genes; also known as ERIS, MPYS, MITA, and TMEM173) is a 4042 kDa four transmembrane protein that mediates both antiviral and MHC II antigen recognition responses. STING is found in the endoplasmic reticulum, mitochondrial outer membrane, and plasma membrane. It acts as an adaptor protein for intracellular viral detection molecules, participating in the induction of type I interferon. It also may play a role in the initiation of apoptosis following MHC II engagement. Cells known to express STING include B cells, dendritic cells, macrophages, and monocytes. Over amino acids (aa) 215-379, human STING shares 76% aa sequence identity with mouse STING.

Flow Cytometry Validation

This antibody has been tested for flow cytometry using human whole blood lymphocytes.

1. Cells may be Fc-blocked with 1 μg of human IgG/10^5 cells for 15 minutes at room temperature. Do not wash excess blocking IgG from this reaction.
2. After blocking, 10 μL of conjugated antibody was added to up to 1 x 10^6 cells and incubated for 30 minutes at room temperature.
3. Unbound antibody was removed by washing the cells twice in Flow Cytometry Staining Buffer (Catalog # FC001). Note that whole blood requires a RBC lysis step at this point using Flow Cytometry Human Lyse Buffer (Catalog # FC002).
4. The cells were resuspended in Flow Cytometry Staining Buffer for final flow cytometric analysis. As a control for this analysis, cells in a separate tube should be treated with PE-labeled mouse IgG_{2B} antibody. This procedure may need to be modified, depending upon the cell type and final utilization. Individual users may need to titrate to determine the optimal reagent amount for their specific use.

Warning: Contains sodium azide as a preservative - sodium azide may react with lead and copper plumbing to form explosive metal azides. Flush with large volumes of water during disposal.