

DESCRIPTION	
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human STING/TMEM173 in direct ELISAs and Western blots.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 723505
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human STING/TMEM173 Ala215-Ser379 Accession # Q86WV6
<b>Conjugate</b>	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm
<b>Formulation</b>	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	10 µL/10 <sup>6</sup> cells	See Below

## DATA

**Intracellular Staining by Flow Cytometry**

**Detection of STING/TMEM173 in Human PBMC Monocytes by Flow Cytometry.** Human peripheral blood mononuclear cells (PBMC) monocytes were stained with Mouse Anti-Human STING/TMEM173 APC-conjugated Monoclonal Antibody (Catalog # IC7169A, filled histogram) or isotype control antibody (Catalog # IC0041A, open histogram). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for [Staining Intracellular Molecules](#).

**Intracellular Staining by Flow Cytometry**

**Detection of STING/TMEM173 in THP-1 Human Cell Line by Flow Cytometry.** THP-1 human acute monocytic leukemia cell line was stained with Mouse Anti-Human STING/TMEM173 APC-conjugated Monoclonal Antibody (Catalog # IC7169A, filled histogram) or isotype control antibody (Catalog # IC0041A, open histogram). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for [Staining Intracellular Molecules](#).

**Intracellular Staining by Flow Cytometry**

**Detection of STING/TMEM173 in U937 Human Cell Line by Flow Cytometry.** U937 human histiocytic lymphoma cell line was stained with Mouse Anti-Human STING/TMEM173 APC-conjugated Monoclonal Antibody (Catalog # IC7169A, filled histogram) or isotype control antibody (Catalog # IC0041A, open histogram). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for [Staining Intracellular Molecules](#).

PREPARATION AND STORAGE	
<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

## BACKGROUND

STING (Stimulator of Interferon Genes), also called ERIS, MPYS, or MITA and designated TMEM173, is a 40-42 kDa 4-transmembrane protein that mediates both antiviral and MHC-II antigen recognition responses. STING is found predominantly in the endoplasmic reticulum. 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. Human STING is 379 amino acids (aa) in length. It contains an N-terminal cytoplasmic region (aa 1-20), four transmembrane segments (aa 21-173), and a C-terminal cytoplasmic domain (aa 174-379). Ubiquitination occurs at Lys150, and phosphorylation occurs at Ser358. STING forms 80 kDa homodimers. There are two potential splice forms, one that shows a 25 aa substitution for aa 1-173, and another that possesses an alternative start site at Met215, coupled to a premature truncation following Arg334. Over aa 215-379, human and mouse STING share 76% aa sequence identity.