

DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human STING/TMEM173 in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG _{2B} Clone # 723505
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human STING/TMEM173 Ala215-Ser379 Accession # Q86WV6
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	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 ⁶ 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 PE-conjugated Monoclonal Antibody (Catalog # IC7169P, filled histogram) or isotype control antibody (Catalog # IC0041P, 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 PE-conjugated Monoclonal Antibody (Catalog # IC7169P, filled histogram) or isotype control antibody (Catalog # IC0041P, 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 PE-conjugated Monoclonal Antibody (Catalog # IC7169P, filled histogram) or isotype control antibody (Catalog # IC0041P, 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	
Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

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.