Species Reactivity: Human
Specificity: Detects human GITR Ligand/TNFSF18.
Source: Monoclonal Mouse IgG, Clone # 109101
Purification: Protein A or G purified from ascites
Immunogen: S. frugiperda insect ovarian cell line Sf 21-derived recombinant human GITR Ligand/TNFSF18
Glu52-Ser177
Accession # Q9UNG2
Conjugate: Allophycocyanin
Excitation Wavelength: 620-650 nm
Emission Wavelength: 660-670 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
Flow Cytometry
10 µL/10^6 cells
See Below

DATA
Detection of GITR Ligand/TNFSF18 in HUVEC Human Cells by Flow Cytometry.
HUVEC human umbilical vein endothelial cells were stained with Mouse Anti-Human GITR Ligand/TNFSF18 APC-conjugated Monoclonal Antibody (Catalog # FAB6941A, filled histogram) or isotype control antibody (Catalog # IC002A, open histogram). View our protocol for Staining Membrane-associated Proteins.

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.
● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND
GITR (glucocorticoid-induced TNF receptor superfamily-related protein, also named AITR, activation-inducible TNF receptor superfamily-related protein) and GITR ligand (GITL) are novel members of the TNF receptor (TNFR) and TNF superfamily (SF) that have been designated TNFRSF18 and TNFSF18, respectively. Human GITL cDNA encodes a 177 amino acid residues type II membrane protein. The carboxy-terminal extracellular domain shows sequence identity to TNF/TNFSF2 (21%), Fas ligand/TNFSF6 (21%), TRAIL/TNFSF10 (18%), and lymphotoxin α/TNFSF1 (18%). GITRL is constitutively expressed in human umbilical vein endothelial cells but is not expressed in resting or stimulated T cell lines, B cell lines or peripheral blood mononuclear cells. GITR, the receptor for GITRL, is expressed at low levels in peripheral blood T cells, bone marrow, thymus, spleen and lymph nodes. In contrast to mouse GITR, expression of human GITR is not induced by treatment with dexamethasone, but is up-regulated by antigen-receptor stimulation or by treatment with soluble anti-CD3 plus anti-CD28 or PMA plus ionomycin. Ligation of GITR has been found to induce nuclear factor (NF)-κB activation via TNF receptor-associated factor 2 and protect cells from TCR activation-induced cell death. It has been proposed that GITRL and GITR may modulate T lymphocyte functions in peripheral tissues.

References: