# Human GITR/TNFRSF18 PE-conjugated Antibody

Monoclonal Mouse $IgG_1$ Clone # 110416

Catalog Number: FAB689P

100 TESTS, 25 TESTS

## DESCRIPTION

| | |
|---|---|
| **Species Reactivity** | Human |
| **Specificity** | Detects human GITR in direct ELISAs and Western blots. Does not cross-react with recombinant human (rh) 4−1BB, recombinant mouse (rm) 4−1BB, rhCD27, rmCD27, rhCD30, rmCD30, rhCD40, rmCD40, rhDR3, rhDR6, rhEDAR, rmEDAR, rhFas, rmFAS, rmGITR, rhHVEM, rhLymphotoxin Rβ, rmLymphotoxin Rβ, rhNGF R, rhOPG, rmOPG, rhRANK, rmRANK, rhTAJ, rhTNF RI, rmTNF RI, rhTNF RII, or rmTNF RII. |
| **Source** | Monoclonal Mouse $IgG_1$ Clone # 110416 |
| **Purification** | Protein A or G purified from hybridoma culture supernatant |
| **Immunogen** | Mouse myeloma cell line NS0-derived recombinant human GITR/TNFRSF18<br>Gln26-Glu161 (Thr43Ala)<br>Accession # Q9Y5U5 |
| **Conjugate** | Phycoerythrin<br>Excitation Wavelength: 488 nm<br>Emission Wavelength: 565-605 nm |
| **Formulation** | Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.<br><br>*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. |

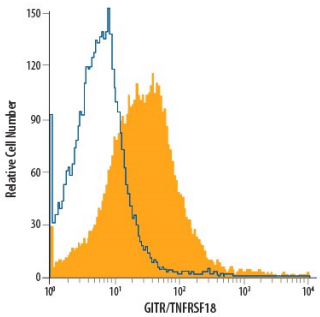
## APPLICATIONS

**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

**Flow Cytometry**




**Detection of GITR/TNFRSF18 in Human PBMCs by Flow Cytometry.** Human peripheral blood mononuclear cells (PBMCs) treated with 1 µg/mL PHA for 24 hours were stained with Mouse Anti-Human GITR/TNFRSF18 PE-conjugated Monoclonal Antibody (Catalog # FAB689P, filled histogram) or isotype control antibody (Catalog # IC002P, open histogram). View our protocol for Staining Membrane-associated Proteins.

## PREPARATION AND STORAGE

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| **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.**<br>● 12 months from date of receipt, 2 to 8 °C as supplied. |

## BACKGROUND

GITR (glucocorticoid-induced tumor necrosis factor receptor, also named AITR, activation-inducible TNF R family member), is a 228 amino acid (aa) type I transmembrane protein belonging to the TNF R family and has been designated TNFRSF18. The GITR cytoplasmic domain has striking homology with the cytoplasmic domain of 4-1BB and CD27. Human GITR shares 55% homology with murine GITR. GITR 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 stimulation or by treatment with anti-CD3 plus anti-CD28, or PMA plus ionomycin. Human GITR ligand was identified from human umbilical vein endothelial cells and is a 177 aa polypeptide belonging to the TNF superfamily (TNFSF18). Ligation of GITR can activate NF-κB through TRAF2, and protect T cells from TCR activation-induced cell death. It has been proposed that GITR ligand and GITR may modulate T lymphocyte functions.

**References:**


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2. Kwon, B. *et al.* (1999) J. Biol. Chem. **274**:6056.
3. Gurney, A.L. *et al.* (1999) Current Biology **9**:215.
4. Kwon, B. *et al.* (1999) Current Opinion in Immunology **11**:340.




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