Human CD27/TNFRSF7 APC-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 57703

Catalog Number: FAB382A

100 TESTS

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD27 in direct ELISAs and Western blots. In direct ELISAs and Western blots, this antibody does not cross-react with recombinant human (rh) 4-1BB, rhBAFF R, recombinant mouse (rm) CD27, rhCD30, rhCD40, rhDR3, rhDR6, rhEDAR, rhFas, rhGITR, rhHVEM, rhLTRβ, rhNGF R, rhOPG, rmOX40, rhRANK, rhTAJ, or rhTNF RI.
Source	Monoclonal Mouse IgG_1 Clone # 57703
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant human CD27 Thr21-Ile192 Accession # P26842
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.

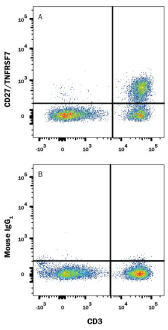
APPLICATIONS

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

Flow Cytometry



Detection of CD27/TNFRSF7 in Human PBMCs by Flow Cytometry. Human peripheral blood mononuclear cells (PBMCs) were stained with Mouse Anti-Human CD3ε PE-conjugated Monoclonal Antibody (Catalog # FAB100P) and either (A) Mouse Anti-Human CD27/TNFRSF7 APC-conjugated Monoclonal Antibody (Catalog # FAB382A) or (B) Mouse IgG_1 Allophycocyanin Isotype Control (Catalog # IC002A). 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

Human CD27 is a 50-55 kDa lymphocyte-specific member of the TNF receptor superfamily. CD27 is expressed on a subset of human thymocytes as well as NK cells, B cells, and $CD4^+$ and $CD8^+$ T cells. CD27 expression is up-regulated after TCR stimulation. Within the $CD4^+$ compartment, it is preferentially expressed on $CD45RA^+$ cells. In contrast, it is preferentially expressed on $CD45RO^+$ cells in the $CD8^+$ compartment. CD27 also appears to be a potential marker for memory B cells. It exists as both a disulfide-linked dimer on the cell surface and as a soluble 32 kDa protein found in serum. Human CD27 is a 260 amino acid (aa) protein with a 19 aa signal, a 173 aa extracellular domain, a 21 aa transmembrane domain, and a 48 aa cytoplasmic domain. The ligand for CD27 is CD70. CD70 is expressed on thymic stromal cells and multiple activated leukocytes including NK cells, $CD4^+$ and $CD8^+$ T cells, and γδ T cells. Additionally a subset of activated B cells express CD70. The CD27/CD70 interaction appears to be a weak costimulatory pathway involved in T cell and B cell immune response. CD27/CD70 interactions may be more involved in controlling the expansion phase of an immune response. This would be in contrast to B7/CD28 interactions, which are important for the activation phase of immune responses. Over aa 21-192, human and mouse CD27 share 60% aa sequence identity.