Human CD27/TNFRSF7
Alexa Fluor® 594-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 57703

Catalog Number: FAB382T

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD27 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity 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 is observed.
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	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2 mg/mL 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	0.25-1 µg/10^6 cells	Human whole blood lymphocytes

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 lymphocyte-specific member of the TNF receptor superfamily. CD27 is expressed on a subset of human thymocytes and on the majority of mature 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 protein found in serum. Human CD27 is a 260 amino acid (aa) protein with a 20 aa signal, a 173 aa extracellular domain, a 20 aa transmembrane domain, and a 47 aa cytoplasmic domain. The ligand for CD27 is CD70. CD70 is expressed on thymic stromal cells and a small subset of activated 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.

References:

1. Camerini, D. *et al.* (1991) J. Immunol. **147**:3165.
2. Loenen, W.A. *et al.* (1992) J. Immunol. **149**:3937.
3. Lens, S.M.A. *et al.* (1998) Sem. Immunol. **10**:491.

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