

## DESCRIPTION

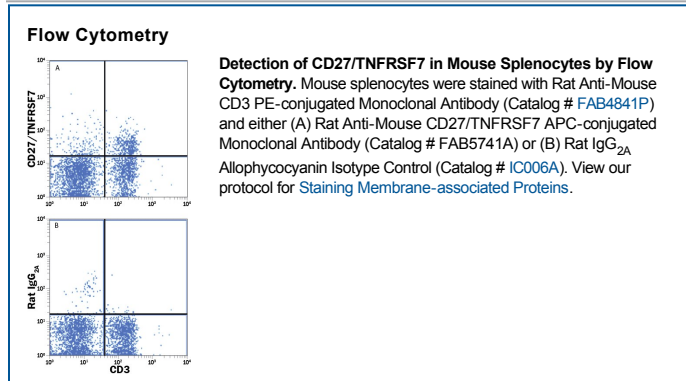
<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse CD27 in direct ELISAs and Western blots. In Western blots; does not cross-react with recombinant human (rh) CD27, recombinant mouse (rm) CD40, rmGITR, rhDR6, rhTRAIL R4, rmHVEM, rmCD30, rmRANK, rmFas, rmTRAIL R2, rhTRADD, rm4-1BB, rmLTβ R, rmOPG, rmNGFR, rmDR3, rmBAFF R, rhTRAIL R3, rmTAJ, rmEDAR, rmOX-40, rmTWEAK R, rmTNF R1, rhREL T, or rmTRAILR1.
<b>Source</b>	Monoclonal Rat IgG <sub>2A</sub> Clone # 137915
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse CD27/TNFRSF7 Thr21-Arg182 Accession # P41272
<b>Conjugate</b>	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm
<b>Formulation</b>	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
<b>Flow Cytometry</b>	10 μL/10 <sup>6</sup> cells	See Below

## DATA



## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

## BACKGROUND

CD27 is a 50-55 kDa lymphocyte-specific member of the Tumor Necrosis Factor Receptor Superfamily (TNFRSF) and is also known as TNFRSF7. Mouse CD27 cDNA encodes a 250 amino acid (aa) residue type I transmembrane protein with a 20 aa putative signal peptide, a 162 aa extracellular region containing three TNFR cysteine-rich repeats, a 21 aa transmembrane domain and a 47 aa cytoplasmic region. Over aa 21-182, mouse CD27 shares approximately 84% and 60% amino acid sequence identity with rat and human CD27, respectively. CD27 exists as a homodimer on the cell surface due to an extracellular disulfide bond in the membrane-proximal region. A soluble 32 kDa form of CD27 is also produced during the immune response and is found in various body fluids. CD27 is expressed on subsets of NK, T and B cells. This includes δ $\zeta$  T cells, CD25<sup>+</sup> T regs, immature CD11b<sup>lo</sup> NK cells, and resting plus effector CD8<sup>+</sup> T cells. The expression of CD27 is upregulated upon T cell activation. Although CD27 appears to be a marker for human memory B cells, it is only expressed in a small population of mouse B cells in germinal centers and at sites of B cell stimulation, suggesting that mouse CD27 may be a marker for activated B cells. CD27 interacts with CD27 ligand (also named CD70 and TNFSF7), which is a member of the TNF ligand superfamily. Ligation of CD27 on T cells provides costimulatory signals that are required for T cell proliferation, clonal expansion and the promotion of effector T cell formation. Ligation of CD27 on B cells has been shown to both inhibit the terminal differentiation of activated mouse B cells into plasma cells.