# Mouse ICAM-1/CD54 APC-conjugated Antibody

Monoclonal Rat $IgG_{2B}$ Clone # 166623

Catalog Number: FAB796A
100 Tests

## DESCRIPTION

| | |
|---|---|
| **Species Reactivity** | Mouse |
| **Specificity** | Detects mouse ICAM-1 in ELISAs and Western blots. In Western blots, this antibody shows weak cross-reactivity with recombinant human (rh) ICAM-1 and recombinant mouse (rm) ICAM-2 and no cross-reactivity with rhCD31, rmDCC, rhICAM-2, rhICAM-3, recombinant rat (rr) ICAM-1, rmMAdCAM-1, or rmVCAM-1. |
| **Source** | Monoclonal Rat $IgG_{2B}$ Clone # 166623 |
| **Purification** | Protein A or G purified from hybridoma culture supernatant |
| **Immunogen** | Mouse myeloma cell line NS0-derived recombinant mouse ICAM-1<br>Gln28-Asn485<br>Accession # P13597 |
| **Conjugate** | Allophycocyanin<br>Excitation Wavelength: 620-650 nm<br>Emission Wavelength: 660-670 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. |

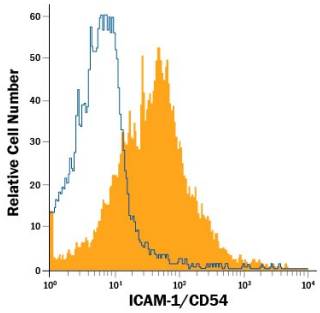
## APPLICATIONS

**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 ICAM-1/CD54 in Mouse Splenocytes by Flow Cytometry.** Mouse splenocytes were stained with Rat Anti-Mouse ICAM-1/CD54 APC-conjugated Monoclonal Antibody (Catalog # FAB796A, filled histogram) or isotype control antibody (Catalog # IC013A, 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

ICAM-1 (InterCellular Adhesion Molecule-1), also known as CD54, is an 85-93 kDa member of the Immunoglobulin supergene family of molecules. Mouse ICAM-1 is a 510 amino acid (aa) type I transmembrane glycoprotein that contains five C2-type Ig-like domains in a 458 aa extracellular domain (ECD) (aa 28-485). It is expressed constitutively by, or inducibly on, a very wide variety of cells, including neurons, dendritic cells, fibroblasts, skeletal muscle myocytes, keratinocytes, eosinophils, neutrophils, hepatocytes, monocytes and vascular endothelial cells. On the cell surface, it exists primarily as an "intermediate" between a homodimeric and monomeric state. The homodimeric pairing does not seem to offer a distinct advantage with respect to ligand binding. On the other hand, the degree of glycosylation has a marked impact on ICAM-1 ligand binding, with under-glycosylation associated with low affinity ligand binding. Ligands for ICAM-1 include LFA-1 (αLβ2), Mac-1 (αMβ2), CD11c/CD18, fibrinogen, hyaluronan and select rhinoviruses. Notably, ICAM-1 is recognized to be a potential coreceptor for HGF, acting in concert with c-Met during ligand binding. ICAM-1 is best known for its role in white cell trafficking (leukocyte binding to endothelium), and is also reported to play a key role in the establishment of $CD8^+$ T cell memory, serving as a link between mature dendritic cells and naïve $CD8^+$ T cells. Over its ECD, mouse ICAM-1 shares 78% and 54% aa sequence identity with rat and human ICAM-1 ECD, respectively. There is one isoform variant for mouse ICAM-1 listed in SwissProt that shows a 28 aa substitution for aa 1-34.



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