

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat ICAM-1/CD54 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant mouse (rm) DCC, recombinant human (rh) ICAM-1, rmiICAM-1, rmiICAM-2, rhICAM-3, rmiICAM-5, rmMAdCAM-1, rhCD31 or rmVCAM-1 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 141032
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant rat ICAM-1/CD54 Gln28-Thr493 (predicted) Accession # Q00238
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	Rat splenocytes

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

Intercellular Adhesion Molecule-1 (ICAM-1, CD54), binds the leukocyte integrins LFA-1 (αL/β2 or CD11a/CD18) and Mac-1 (αM/β2 or CD11b/CD18). ICAM-1 expression is weak on leukocytes, epithelial and resting endothelial cells, as well as some other cell types, but expression can be stimulated by IFN-γ, TNF-α, IL-1β, and LPS. Within the extracellular domain, rat ICAM-1 shares 53% and 78% amino acid sequence identity with human and mouse ICAM-1, respectively. Soluble ICAM-1 is found in a biologically active form in serum, probably as a result of proteolytic cleavage from the cell surface, and is elevated in patients with various inflammatory syndromes such as septic shock, leukocyte adhesion deficiency syndrome (LAD), cancer, and transplantation.

References:

1. Pigott, R. and C. Power (1993) in *The Adhesion Molecule Facts Book*, p. 74. Academic Press.
2. Siu, G. *et al.* (1989) *J. Immunol.* **143**:3813.
3. Ballantyne, C.M. *et al.* (1989) *Nuc. Acid. Res.* **17**:5853.

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