Rat ICAM-1/CD54 Antibody

Monoclonal Mouse IgG_{2A} Clone # 141011

Catalog Number: MAB583

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat ICAM-1/CD54 in direct ELISAs and Western blots. Does not cross-react with recombinant mouse (rm) ICAM-1, rmICAM-2, recombinant human (rh) ICAM-2, rhICAM-3, rmVCAM-1, or rhPCAM-1.
Source	Monoclonal Mouse IgG_{2A} Clone # 141011
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant rat ICAM-1/CD54 Met1-Thr493 Accession # Q00238
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

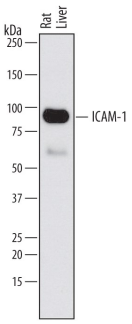
APPLICATIONS

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
Western Blot	1 µg/mL	See Below

DATA

Western Blot



Detection of Rat ICAM-1/CD54 by Western Blot. Western blot shows lysates of rat liver tissue. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Rat ICAM-1/CD54 Monoclonal Antibody (Catalog # MAB583) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for ICAM-1/CD54 at approximately 90 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Intercellular Adhesion Molecule-1 (ICAM-1, CD54), binds the leukocyte integrins LFA-1 and Mac-1. 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. Rat and human ICAM-1 share approximately 52% amino acid identity. Rat and mouse ICAM-1 share approximately 52% amino acid identity.

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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