Rat ICAM-1/CD54 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF583

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat ICAM-1/CD54 in direct ELISAs and Western blots. In direct ELISAs, approximately 40% cross-reactivity with recombinant mouse (rm) ICAM-1 and 5% cross-reactivity with recombinant human (rh) ICAM-1, rhICAM-3, and rmICAM-2 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant rat ICAM-1/CD54 Gln28-Thr493 Accession # Q00238
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
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.

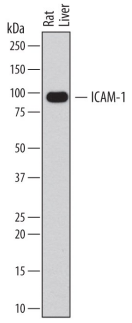
APPLICATIONS

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	0.2 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below
Adhesion Blockade	The adhesion of HSB2 human peripheral blood acute lymphoblastic leukemia cells (5 x 10^4 cells/well) to immobilized Recombinant Rat ICAM-1 Fc Chimera (Catalog # 583-IC, 12.5 µg/mL, 100 µL/well) was maximally inhibited (80-100%) by 25 µg/mL of the antibody.	

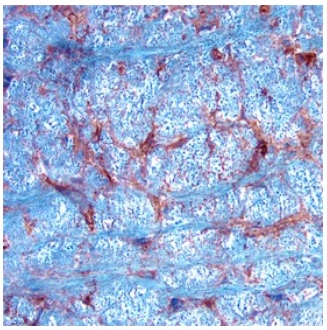
DATA

Western Blot



Detection of Rat ICAM-1/CD54 by Western Blot. Western blot shows lysates of rat liver tissue. PVDF membrane was probed with 0.2 µg/mL of Goat Anti-Rat ICAM-1/CD54 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF583) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). 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.

Immunohistochemistry



ICAM-1/CD54 in Rat Brain. ICAM-1/CD54 was detected in perfusion fixed frozen sections of rat brain using Goat Anti-Rat ICAM-1/CD54 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF583) at 5 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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 lipolysaccharide (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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