

Catalog Number: 10346-MM01-F

General Information	
Immunogen:	Recombinant Human ICAM-1 protein (Catalog#10346-H08H)
Reagents:	FITC-conjugated mouse monoclonal antibody
Specificity:	Human ICAM-1 / CD54
Clone ID:	8B9H12
Ig Type:	Mouse IgG1
Applications:	Flow Cytometry, ELISA
Concentration:	5 µl/Test, 0.2 mg/ml
Formulation:	Aqueous solution containing 0.5% BSA and 0.1% sodium azide
Storage:	2 °C - 8 °C in the dark

Preparation

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Human ICAM-1 / CD54 (rh ICAM-1 / CD54; Catalog#10346-H08H; NP_000192.2; Met 1-Glu 480) and conjugated with FITC under optimum conditions, the unreacted FITC was removed.

Storage

This antibody is stable for 12 months from date of receipt when stored at 2°C - 8°C. Protected from prolonged exposure to light. **Do not freeze !**

Sodium azide is toxic to cells and should be disposed of properly. Flush with large volumes of water during disposal

Applications

Flow Cytometry –

1. Profile of anti-ICAM1(CD54) reactivity on Daudi cells analyzed by flow cytometry.

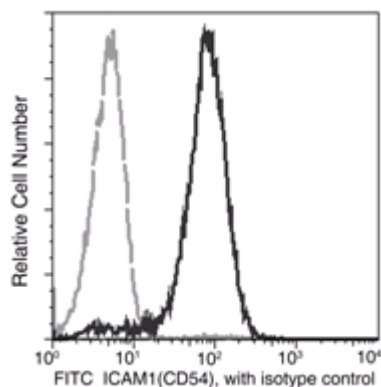


Fig 1, Flow cytometric analysis of anti-ICAM1(CD54) reactivity on Daudi cells

2. HUVEC cells (Human umbilical vein endothelial cells) were treated with TNF- α (50 ng/ml, 18 hours). The cells were harvested and stained with FITC Mouse anti-Human ICAM1 (10346-MM01).

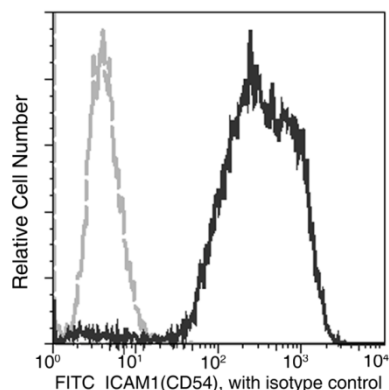


Fig 2, Flow cytometric analysis of Human ICAM1 (CD54) in HUVEC cells

Flow cytometry was performed on a BD FACSCalibur flow cytometry system. Please refer to www.sinobiological.com/Flow-Cytometry-FACS-Protocols-a-750.html for technical protocols.

Direct ELISA – This antibody can be used at 0.5-1 µg/mL with the appropriate secondary reagents to detect Human ICAM1.



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Specificity

Human ICAM-1 / CD54

No cross-reactivity in ELISA with

Human ICAM2

Human ICAM3

Human VCAM1

Human CD62E

Human CEACAM1

Human cell lysate (293 cell line)

Background

ICAM1 (Inter-Cellular Adhesion Molecule 1), also known as CD54, is a type of intercellular adhesion molecule constitutively present in low concentrations in the membranes of leukocytes and endothelial cells. As an endothelial and leukocyte-associated transmembrane protein, ICAM1 is well known for its importance in stabilizing cell-cell interactions and facilitating leukocyte endothelial transmigration. ICAM1 is a ligand for LFA-1 (integrin). When activated, leukocytes bind to endothelial cells via ICAM-1/LFA-1 interaction and then transmigrate into tissues. Presence with heavy glycosylation and other structural characteristics, ICAM1 possesses binding sites for a number of immune-associated ligands and serves as the binding site for entry of the major group of human Rhinovirus (HRV) into various cell types. ICAM1 also becomes known for its affinity for Plasmodium falciparum-infected erythrocytes (PFIE), providing more of a role in infectious disease.

Reference

1. Rothlein, R. et al., 1986, Journal of Immunology. 137 (4): 1270-1274.
2. Yang, L. et al., 2005, Blood. 106 (2): 584-592.
3. Frijns, C.J. et al., 2002, Stroke. 33 (8): 2115-2122.
4. Bella, J. et al., 1998, Proc. Natl. Acad. Sci. U.S.A. 95 (8): 4140-4145.