

## Anti-Hu CD54 Purified ICAM1 Monoclonal Antibody

Catalog Number: M00171-2

### About ICAM1

CD54 (ICAM-1) is a 90 kD member of the C2 subset of immunoglobulin superfamily. It is a transmembrane molecule with 7 potential N-glycosylated sites, expressed on resting monocytes and endothelial cells and can be upregulated on many other cells, e.g. with lymphokines, on B- and T-lymphocytes, thymocytes, dendritic cells and also on keratinocytes, chondrocytes, as well as epithelial cells. CD54 mediates cell adhesion by binding to integrins CD11a/CD18 (LFA-1) and to CD11b/CD18 (Mac-1). The interaction of CD54 with LFA-1 enhances antigen-specific T-cell activation.

### Overview

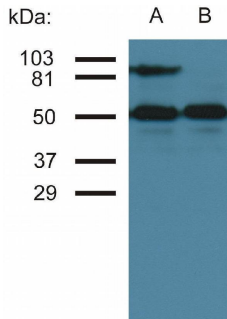
Product Name	Anti-Hu CD54 Purified ICAM1 Monoclonal Antibody
Reactive Species	Cow, Human, Rat
Description	Boster Bio Anti-Hu CD54 Purified ICAM1 Monoclonal Antibody (Catalog# M00171-2). Tested in WB, IHC-P, ELISA, Flow Cytometry, ICC application(s). This antibody reacts with Human, Cow, Rat.
Application	ELISA, Flow Cytometry, IHC-P, ICC, WB
Clonality	Monoclonal MEM-111
Formulation	Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Storage Instructions	Store at 2-8°C. Do not freeze.
Host	Mouse
Uniprot ID	P05362

### Technical Details

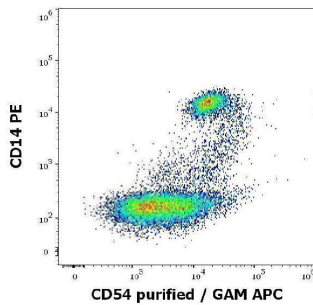
Immunogen	Raji human Burkitt's lymphoma cell line. The antibody MEM-111 reacts with an extracellular epitope of CD54 (ICAM-1), a 85-110 kDa type I transmembrane glycoprotein (receptor for rhinovirus). The expression of CD54 is upregulated by activation; it is expressed on activated endothelial cells, T lymphocytes, B lymphocytes, monocytes, macrophages, granulocytes and dendritic cells.
Predicted Reactive Species	Primate
Isotype	Mouse IgG2a
Form	Liquid
Concentration	1 mg/ml
Purification	Purified by protein-A affinity chromatography.
Suggested Dilutions	Flow cytometry: 0.5-4 ug/ml. Immunohistochemistry (paraffin sections): 10 ug/ml; positive tissue: thymus, RE cells.

Western blotting: Positive control: RAJI cell line K562 leukemia cell line, JY cell line, aa ctivated T-lymphocytes, non-reducing conditions.

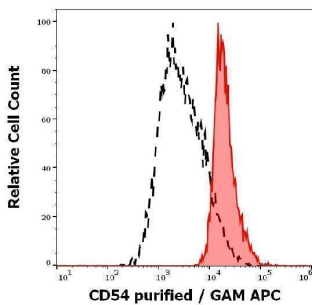
## Anti-Hu CD54 Purified ICAM1 Monoclonal Antibody (M00171-2) Images



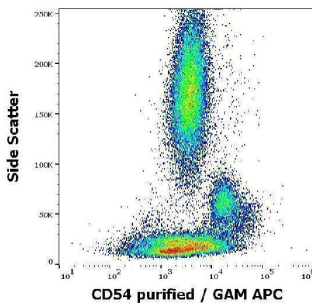
Western blotting analysis of CD54 expression in TNF-alpha activated (A) and nonactivated (B) HUVEC cells by antibody MEM-111. Lower bands represent tubulin as a loading control.



Flow cytometry multicolor surface staining pattern of human peripheral blood mononuclear cells using anti-human CD14 (MEM-15) PE antibody (20  $\mu$ l reagent / 100  $\mu$ l of peripheral whole blood) and anti-human CD54 (MEM-111) purified antibody (concentration in sample 0.6  $\mu$ g/ml, GAM APC).

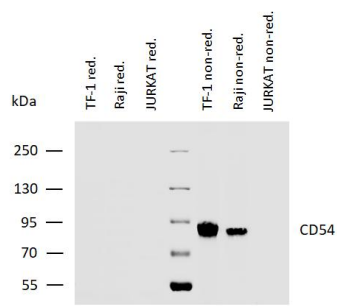


Separation of human monocytes (red-filled) from human lymphocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral blood stained using anti-human CD54 (MEM-111) purified antibody (concentration in sample 0.6  $\mu$ g/ml, GAM APC).



Flow cytometry surface staining pattern of human peripheral blood stained using anti-human CD54 (MEM-111) purified antibody (concentration in sample 0.6  $\mu$ g/ml, GAM APC).

Western blotting analysis of human CD54 using mouse monoclonal antibody MEM-111 on lysates of TF-1 and Raji cells, as well as of JURKAT cells (negative control) under reducing and non-reducing conditions. Nitrocellulose membrane was probed with 2  $\mu$ g/ml of mouse anti-CD54 monoclonal antibody followed by IRDye800-conjugated anti-mouse secondary antibody. A specific band was detected for



CD54 at approximately 88 kDa.

## 2 Publications Citing This Product

1. PubMed ID: 10.1016/j.jep.2006.01.022, Crocetin inhibits leukocyte adherence to vascular endothelial cells induced by AGEs
2. PubMed ID: -, Shuyuan Guo, Yusen Zhang, Yanmin Zhang, Fanhua Meng, Minghua Li, Zhendong Yu, Yun Chen, Guanghui Cui, "Multiple Intravenous Injections of Valproic Acid-Induced Mesenchymal Stem Cell from Human-Induced Pluripotent Stem Cells Improved Cardiac Function in an Acute

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