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# CD54 / ICAM-1 Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone F4-31C2 ]
Catalog # AH11485

## Product Information

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| **Application** | IF, FC |
| **Primary Accession** | P05362 |
| **Other Accession** | 3383, 643447 |
| **Reactivity** | Human |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Isotype** | Mouse / IgG1, kappa |
| **Clone Names** | F4-31C2 |
| **Calculated MW** | 57825 |

## Additional Information

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| **Gene ID** | 3383 |
| **Other Names** | Intercellular adhesion molecule 1, ICAM-1, Major group rhinovirus receptor, CD54, ICAM1 |
| **Application Note** | IF~~1:50~200 FC~~1:10~50 |
| **Storage** | Store at 2 to 8°C.Antibody is stable for 24 months. |
| **Precautions** | CD54 / ICAM-1 Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | ICAM1 ( HGNC:5344) |
| **Function** | Cell adhesion molecule that functions as a receptor ligand of the signaling receptor ITGAL:ITGB2/LFA-1 (lymphocyte-function associated (LFA) molecule 1) ensuring leukocyte cell-cell adhesion, by providing a calibrated system to namely adjust T-cell killing to the antigen stimulation strength (PubMed:3086451, PubMed:3340213, PubMed:38195629). Also functions as a ligand receptor of the signaling receptor ITGAM:ITGB2/MAC-1 ensuring adhesion between stimulated neutrophils and stimulated endothelial cells (PubMed:1980124). During leukocyte trans-endothelial migration, ICAM1 engagement promotes the assembly of endothelial apical cups through ARHGEF26/SGEF and RHOG activation (PubMed:17875742). Promotes cell aggregation in epithelial cells through interaction with MUC1 (PubMed:11173916). |

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| **Cellular Location** | Cell membrane; Single-pass type I membrane protein |
| **Tissue Location** | Expressed on non-hematopoietic cells such as vascular endothelial cells, thymic epithelial cells, certain other epithelial cells, and fibroblasts, and on hematopoietic cells such as tissue macrophages, mitogen-stimulated T lymphocyte blasts, and germinal center dendritic cells in tonsils, lymph nodes, and Peyer's patches (PubMed:3086451). Expressed in low amounts on peripheral blood leukocytes (PubMed:3086451). |

## Background

Recognizes an 85-115kDa protein (variation with cell type), identified as intercellular adhesion molecule (ICAM-1). It has 7 potential N-linked glycosylation sites. ICAM-1 is a single chain glycoprotein of Ig supergene family, present on unstimulated endothelial cells (EC) and on a variety of other cell types including activated fibroblasts, EC, macrophages, and lymphocytes. ICAM-1 mediates cell adhesion by binding to integrins CD11a/CD18 (leukocyte adhesion molecule, LFA-1) and to CD11b/CD18 (Mac-1). This interaction enhances antigen-specific T-cell activation. ICAM-1 also binds to CD43 and to Plasmodium falciparum infected RBCs. ICAM-1 may also be related to progression and metastasis of tumors.

## References

Johnson, J.P., et al., Cluster Report: CD54, in: Knapp, W., et al. (eds), Leucocyte Typing IV, Oxford Univ. Press, pp 681-683