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CD54 / ICAM-1 Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone W-CAM-1; same as Wehi-CAM-1 or 1H4]
Catalog # AH11483

Product Information

Application	IHC, IF, FC
Primary Accession	P05362
Other Accession	3383, 643447
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2b, kappa
Clone Names	W-CAM-1; same as Wehi-CAM-1 or 1H4
Calculated MW	57825

Additional Information

Gene ID	3383
Other Names	Intercellular adhesion molecule 1, ICAM-1, Major group rhinovirus receptor, CD54, ICAM1
Application Note	IHC~~1:100~500 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

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).

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).

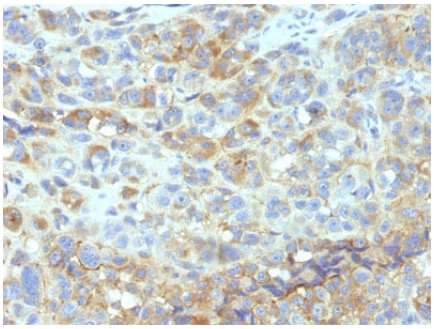
Background

Recognizes an 85-115kDa protein (variation with cell type), identified as intercellular adhesion molecule (ICAM-1) (Workshop IV). 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. W-CAM-1 MAb blocks aggregation of cell lines mediated by the ICAM-1 and blocks homotypic binding of purified populations of activated T- and B-lymphocytes and also aggregation of mixed T- and B-cell blasts. It inhibits T-cell adhesion to normal human endothelial cells. Activation induced by cell-cell contact (mixed lymphocyte reaction, T-cell mediated B-cell activation) is significantly inhibited. This MAb blocks elements of both effector arms of immune system (cytotoxic cell function and Ig production).

References

Boyd AW et. al. Blood, 1989, 73(7):1896-903. | Boyd AW et. al. Proceedings of the National Academy of Sciences, 1988, 85(9):3095 | Wawryk et al. J Clin Pathol 44, 497-501 (1991). | Fecondo et al., Proc. Nat. Acad. Sci. 88(7), 28792882, (1991)

Images



Formalin-fixed, paraffin-embedded human Melanoma stained with CD54 Monoclonal Antibody (W-CAM-1).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.