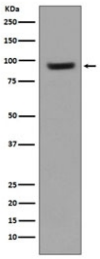
CD54 Antibody DOD-9 / Major Rhinovirus Receptor Antibody [clone DOD-9] (RQ5121)

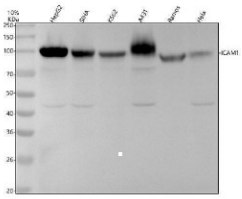
Catalog No.	Formulation	Size
RQ5121	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Bulk quote request

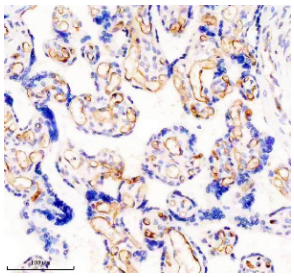
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	DOD-9
Purity	Affinity purified
UniProt	P05362
Applications	Western blot: 1:500 Immunohistochemistry (FFPE): 1:50
Limitations	This CD54 Antibody DOD-9 / Major Rhinovirus Receptor Antibody is available for research use only.



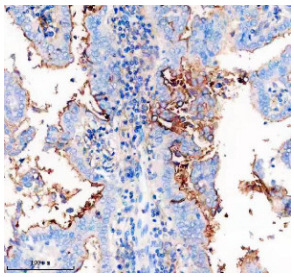
CD54 Antibody DOD-9 in Raji B Lymphoma Cells WB. Western blot testing of human Raji B lymphocyte lymphoma cell lysate with CD54 Antibody clone DOD-9 shows a strong predominant band at approximately 90 kDa. Although unmodified ICAM1/CD54 has a predicted molecular weight of approximately 58 kDa, extensive N-linked glycosylation produces mature forms that commonly migrate at approximately 75-115 kDa. The observed ~90 kDa band is therefore consistent with glycosylated ICAM1, the cell-surface protein recognized by this Major Rhinovirus Receptor Antibody.



CD54 Antibody DOD-9 in Human Cancer Cell Lines WB. Western blot testing of human HepG2, SiHa, K562, A431, Ramos, and HeLa cell lysates with CD54 Antibody clone DOD-9 shows predominant bands at approximately 90-110 kDa, with variable intensity among samples. Lanes 1-6: HepG2, SiHa, K562, A431, Ramos, and HeLa, respectively. Although unmodified ICAM1/CD54 has a predicted molecular weight of approximately 58 kDa, extensive N-linked glycosylation accounts for the higher apparent molecular weight. This Major Rhinovirus Receptor Antibody detects bands within the expected range for mature glycosylated ICAM1.



CD54 Antibody DOD-9 in Human Placenta IHC. Immunohistochemistry staining of FFPE human placenta tissue with CD54 Antibody clone DOD-9 shows prominent membranous staining of trophoblast cells lining the chorionic villi, with weaker cytoplasmic staining also visible. This Major Rhinovirus Receptor Antibody was applied at 1:50 overnight at 4oC following heat-induced epitope retrieval in EDTA buffer, pH 8.0, and blocking with 10% goat serum. HRP-based detection was performed using DAB chromogen.



CD54 Antibody DOD-9 in Human Lung Cancer IHC. Immunohistochemistry staining of FFPE human lung cancer tissue with CD54 Antibody clone DOD-9 shows heterogeneous staining, with strong predominantly membranous immunoreactivity in localized tumor regions and weaker staining across much of the surrounding tissue. This Major Rhinovirus Receptor Antibody was applied at 1:50 overnight at 4oC following heat-induced epitope retrieval in EDTA buffer, pH 8.0, and blocking with 10% goat serum. HRP-based detection was performed using DAB chromogen.

Description

CD54 Antibody DOD-9 / Major Rhinovirus Receptor Antibody recognizes intercellular adhesion molecule 1 (ICAM1), a cell-surface glycoprotein also designated CD54. ICAM1 belongs to the immunoglobulin superfamily and contains five extracellular immunoglobulin-like domains, a single transmembrane region, and a short cytoplasmic domain. The protein mediates adhesive interactions between leukocytes and other cell types and has important functions in immune surveillance, inflammation, and cellular communication.

CD54 is a major ligand for LFA-1, an integrin composed of CD11a and CD18 that is expressed on leukocytes. ICAM1-LFA-1 binding promotes firm cell-cell adhesion and contributes to leukocyte migration across vascular endothelium into tissues. ICAM1 can also interact with Mac-1, composed of CD11b and CD18. These interactions connect CD54 with immune cell trafficking and the formation of stable contacts between lymphocytes and antigen-presenting cells.

ICAM1 expression is strongly regulated by inflammatory stimuli. Cytokines can increase surface expression on endothelial, epithelial, and immune cells, facilitating recruitment and retention of leukocytes at sites of inflammation. Changes in CD54 expression have consequently been investigated in inflammatory disease, vascular biology, immune activation, tissue injury, and cancer. Soluble ICAM1 can also be released from the cell surface and has been studied as an indicator of inflammatory and vascular processes.

ICAM1 additionally functions as the major cellular receptor for many human rhinovirus serotypes. Viral capsid proteins interact with the extracellular region of ICAM1 during attachment, linking CD54 biology with studies of rhinovirus infection and host-pathogen interactions. The protein is extensively N-glycosylated, contributing to an apparent molecular weight substantially greater than the calculated mass of its unmodified polypeptide. Clone DOD-9 is a rabbit monoclonal antibody generated using a synthetic peptide specific to human ICAM1/CD54.

NSJ Bioreagents offers this Major Rhinovirus Receptor Antibody for research into CD54 expression and ICAM1 biology. A CD54 Antibody can support investigation of immune cell adhesion, leukocyte trafficking, inflammation, vascular biology, and ICAM1-mediated host-pathogen interactions.

For an alternative monoclonal targeting ICAM1/CD54, see our ICAM1 Antibody ICAM1/6319 / Cell Adhesion Molecule Antibody page.

Application Notes

Optimal dilution of the CD54 Antibody DOD-9 / Major Rhinovirus Receptor Antibody should be determined by the researcher.

Immunogen

A synthetic peptide specific to human ICAM1 / CD54 was used as the immunogen for the CD54 Antibody DOD-9.

Storage

Store the CD54 Antibody DOD-9 at -20oC.

Alternate Names

CD54 antibody, ICAM1 antibody, ICAM-1 antibody, Intercellular adhesion molecule 1 antibody, Major rhinovirus receptor antibody, LFA-1 ligand antibody

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