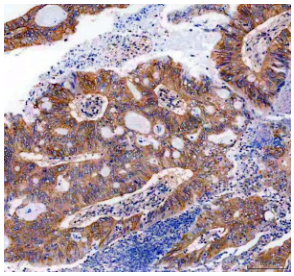
CD46 Antibody (R31975)

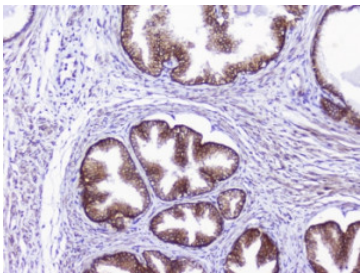
Catalog No.	Formulation	Size
R31975	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

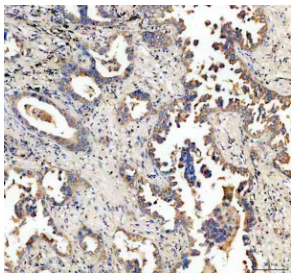
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P15529
Applications	Immunohistochemistry (FFPE): 2-5ug/ml Western blot: 0.5-1ug/ml Immunofluorescence (FFPE): 5ug/ml
Limitations	This CD46 antibody is available for research use only.



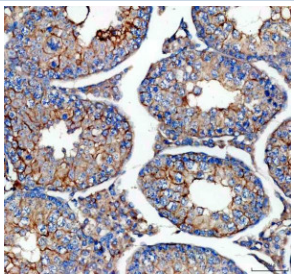
CD46 Antibody Human Colon Cancer IHC. Immunohistochemical staining of FFPE human colon cancer tissue demonstrates CD46 expression following heat-induced epitope retrieval in pH8 EDTA buffer. Strong brown DAB staining is observed predominantly along the cell membrane with accompanying cytoplasmic staining in malignant epithelial cells, consistent with the localization of membrane cofactor protein on the cell surface. Nuclei are counterstained blue with hematoxylin. This CD46 Antibody, also called Membrane Cofactor Protein Antibody, is suitable for studies of complement regulation, immune evasion, and colorectal cancer biology.



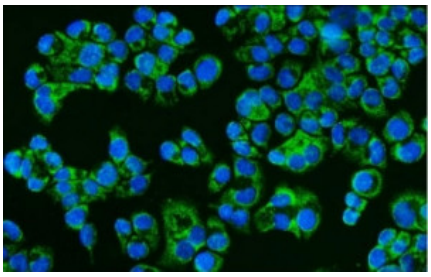
CD46 Antibody Human Prostate Cancer IHC. Immunohistochemical staining of FFPE human prostate cancer tissue demonstrates CD46 expression following heat-induced epitope retrieval in pH6 citrate buffer. Strong brown DAB staining is observed predominantly along the plasma membrane with accompanying cytoplasmic staining in malignant glandular epithelial cells, consistent with the localization of membrane cofactor protein as a complement regulatory cell surface glycoprotein. Nuclei are counterstained blue with hematoxylin. This CD46 Antibody, also called Membrane Cofactor Protein Antibody, is suitable for studies of complement regulation, tumor immune evasion, and prostate cancer biology.



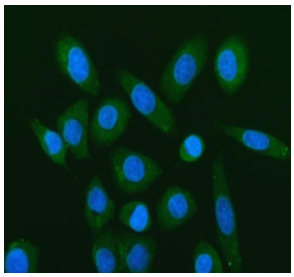
CD46 Antibody Human Lung Cancer IHC. Immunohistochemical staining of FFPE human lung cancer tissue demonstrates CD46 expression following heat-induced epitope retrieval in pH8 EDTA buffer. Brown DAB staining is observed predominantly along the plasma membrane with additional cytoplasmic labeling in malignant epithelial cells, consistent with the localization of membrane cofactor protein as a complement regulatory cell surface glycoprotein. Nuclei are counterstained blue with hematoxylin. This CD46 Antibody, also called Membrane Cofactor Protein Antibody, is suitable for studies of complement regulation, tumor immune evasion, and lung cancer biology.



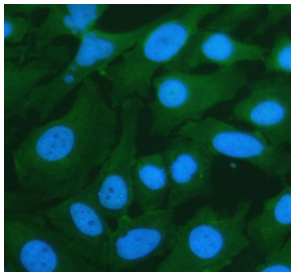
CD46 Antibody Mouse Testis IHC. Immunohistochemical staining of FFPE mouse testis tissue demonstrates CD46 expression following heat-induced epitope retrieval in pH8 EDTA buffer. Strong brown DAB staining is observed predominantly along the plasma membrane with additional cytoplasmic staining in seminiferous tubule cells, consistent with the localization of membrane cofactor protein on the cell surface. Nuclei are counterstained blue with hematoxylin. This CD46 Antibody, also called Membrane Cofactor Protein Antibody, is suitable for studies of complement regulation, reproductive biology, and cell surface glycoprotein expression.



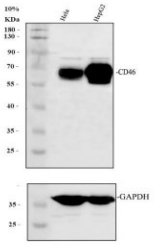
CD46 Antibody T-47D Cell IF. Immunofluorescent staining of FFPE human T-47D cells demonstrates CD46 expression following heat-induced epitope retrieval in pH6 citrate buffer. CD46 is visualized in green with DAPI nuclear counterstaining in blue. Fluorescence is observed predominantly along the plasma membrane with additional cytoplasmic staining, consistent with the localization of membrane cofactor protein as a complement regulatory cell surface glycoprotein. This CD46 Antibody, also called Membrane Cofactor Protein Antibody, is suitable for immunofluorescence studies of complement regulation, breast cancer biology, and cell surface protein expression.



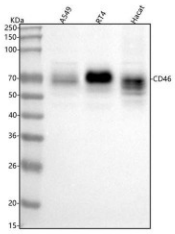
CD46 Antibody SiHa Cell IF. Immunofluorescent staining of SiHa cells demonstrates CD46 expression after enzyme-mediated antigen retrieval and labeling with a Fluoro488-conjugated secondary antibody (green), while nuclei are counterstained with DAPI (blue). Fluorescence is distributed predominantly along the plasma membrane with diffuse cytoplasmic staining, consistent with the localization of membrane cofactor protein as a complement regulatory cell surface glycoprotein. This CD46 Antibody, also called Membrane Cofactor Protein Antibody, is suitable for immunofluorescence studies of complement regulation, epithelial cell biology, and host-pathogen interactions.



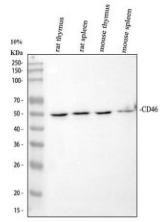
CD46 Antibody HeLa Cell IF. Immunofluorescent staining of HeLa cells demonstrates CD46 expression after enzyme-mediated antigen retrieval and labeling with a Fluoro488-conjugated secondary antibody (green), while nuclei are counterstained with DAPI (blue). Fluorescence is observed predominantly along the plasma membrane with additional cytoplasmic staining, consistent with the localization of membrane cofactor protein as a cell surface complement regulatory glycoprotein. This CD46 Antibody, also called Membrane Cofactor Protein Antibody, is suitable for immunofluorescence studies of complement regulation, immune cell biology, and host-pathogen interactions.



CD46 Antibody Human Cancer Cell WB. Western blot demonstrates detection of CD46 in human HeLa and HepG2 cell lysates. A broad immunoreactive band is observed between approximately 50-70 kDa, higher than the predicted molecular weight of 44 kDa due to extensive glycosylation of membrane cofactor protein. The strong signal in both cancer cell lines is consistent with the widespread expression of CD46 on human nucleated cells and its role as a complement regulatory glycoprotein. GAPDH serves as the loading control. This CD46 Antibody, also called Membrane Cofactor Protein Antibody, is suitable for studies of complement regulation, immune cell biology, and host-pathogen interactions.



CD46 Antibody Human Cancer and Keratinocyte WB. Western blot demonstrates detection of CD46 in human A549 lung carcinoma, RT4 bladder carcinoma, and HaCaT keratinocyte cell lysates. A broad immunoreactive band is observed between approximately 50-70 kDa, higher than the predicted molecular weight of 44 kDa due to extensive N-linked and O-linked glycosylation of membrane cofactor protein. Variable electrophoretic mobility among the cell lines is consistent with differences in CD46 glycosylation and isoform expression. This CD46 Antibody, also called Membrane Cofactor Protein Antibody, is suitable for studies of complement regulation, immune responses, and cell surface glycoprotein expression.



CD46 Antibody Rat and Mouse Immune Tissue WB. Western blot demonstrates detection of CD46 in rat thymus, rat spleen, mouse thymus, and mouse spleen tissue lysates. A distinct immunoreactive band is observed at approximately 50 kDa in all samples, consistent with the glycosylated forms of membrane cofactor protein, which commonly migrate above the predicted molecular weights of 33-44 kDa. The consistent detection across lymphoid tissues from both species reflects the broad expression of CD46 in immune-associated organs. This CD46 Antibody, also called Membrane Cofactor Protein Antibody, is suitable for studies of complement regulation, immune cell biology, and host defense mechanisms across rodent tissues.

Description

CD46 Antibody recognizes CD46, also known as membrane cofactor protein (MCP), a ubiquitously expressed transmembrane glycoprotein that protects host cells from complement-mediated injury. CD46 serves as a cofactor for complement factor I, promoting the proteolytic inactivation of the complement components C3b and C4b deposited on the cell surface. By limiting complement activation, CD46 prevents inappropriate damage to healthy tissues while preserving the ability of the innate immune system to eliminate pathogens. Multiple alternatively spliced isoforms differ primarily in their cytoplasmic tails, allowing CD46 to participate in diverse signaling pathways in addition to complement regulation.

CD46 is expressed on nearly all nucleated human cells, with particularly important functions in epithelial cells, endothelial cells, leukocytes, and reproductive tissues. Beyond its role in complement control, CD46 participates in adaptive immune responses by influencing T cell activation, differentiation, cytokine production, and the induction of regulatory T cells. The protein also contributes to maintenance of epithelial integrity, modulation of inflammatory responses, and cellular homeostasis. Because CD46 integrates innate and adaptive immune functions, it has become an important molecule for investigating immune regulation and inflammatory disease.

CD46 has received considerable attention because it functions as a cellular receptor for several human pathogens, including measles virus, human herpesvirus 6, adenoviruses, and certain bacterial species. Altered CD46 expression or function has been associated with atypical hemolytic uremic syndrome, systemic autoimmune disorders, transplant rejection, infectious diseases, and numerous cancers. In oncology, CD46 is frequently overexpressed by malignant cells, making it an attractive target for antibody-based therapeutics, oncolytic viruses, and antibody-drug conjugates. These diverse biological roles have established CD46 as an important target in immunology, infectious disease, and cancer

research.

A CD46 Antibody is a valuable research tool for investigating membrane cofactor protein expression, complement regulation, immune cell biology, host-pathogen interactions, and cancer biology.

Learn more about related cell surface immune proteins by exploring our CD Antibodies page, featuring antibodies against cluster of differentiation (CD) markers used in immunology, oncology, stem cell, and hematology research.

Application Notes

Optimal dilution of the CD46 antibody should be determined by the researcher.

Immunogen

Amino acids YRYLQRRKKKGTYLTDETHREVKFTSL of human CD46 were used as the immunogen for the CD46 antibody.

Storage

After reconstitution, the CD46 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

CD46 antibody, Membrane Cofactor Protein antibody, MCP antibody, Cluster of Differentiation 46 antibody

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