

CD46 Rabbit pAb

Catalog # AP98844

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P15529
Other Accession	P15529
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	43747
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CD46
Epitope Specificity	251-355/355
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 4 Sushi (CCP/SCR) domains.
SUBUNIT	Interacts with C3b and C4b. Binds to Measles virus H protein, to Human herpesvirus 6 GH protein and to human adenovirus B/D PIV/fiber protein, and acts as a receptor for these viruses. Binds to Streptococcus pyogenes M protein and to type IV pili from Neisseria, and may act as a receptor for these pathogenic bacteria.
Post-translational modifications	May be O-glycosylated (By similarity). N-glycosylated.
DISEASE	Defects in CD46 are a cause of susceptibility to hemolytic uremic syndrome atypical type 2 (AHUS2) [MIM:612922]. An atypical form of hemolytic uremic syndrome. It is a complex genetic disease characterized by microangiopathic hemolytic anemia, thrombocytopenia, renal failure and absence of episodes of enterocolitis and diarrhea. In contrast to typical hemolytic uremic syndrome, atypical forms have a poorer prognosis, with higher death rates and frequent progression to end-stage renal disease. Note=Susceptibility to the development of atypical hemolytic uremic syndrome can be conferred by mutations in various components of or regulatory factors in the complement cascade system. Other genes may play a role in modifying the phenotype. Patients with CD46 mutations seem to have an overall better prognosis compared to patients carrying CFH mutations.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	CD46 is one of the membrane complement regulatory proteins. CD46 possesses C3b-binding and factor I cofactor activities which play important roles in the regulation of the complement activation pathway. CD46 is widely distributed on blood cells, endothelial cells, epithelial cells and tumor cell lines. CD46 exists as many isoforms in a variety of tissues. The antigen has a broad distribution and is present on leukocytes, platelets, endothelial cells, epithelial cells and fibroblasts. It is strongly expressed on salivary gland ducts and kidney ducts, moderately on lymphocytes and endothelium, and weakly on interstitial tissues and muscle cells, but not on erythrocytes. It is expressed on thymocytes, B cells, monocytes, granulocytes, NK cells, platelets, epithelial

and endothelial cells.

Additional Information

Gene ID	4179
Other Names	Mcp; AHUS2; MIC10; TLX; TRA2.10; MCP_HUMAN; CD46; Trophoblast leukocyte common antigen; MCP_MOUSE; MCP_RAT; CD46 molecule; antigen identified by monoclonal antibody TRA-2-10; membrane cofactor protein (CD46, trophoblast-lymphocyte cross-reactive antigen); CD46 antigen, complement regulatory protein; CD46 molecule, complement regulatory protein; trophoblast-lymphocyte cross-reactive antigen
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1 µg /test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	CD46
Synonyms	MCP, MIC10
Function	Acts as a cofactor for complement factor I, a serine protease which protects autologous cells against complement-mediated injury by cleaving C3b and C4b deposited on host tissue. May be involved in the fusion of the spermatozoa with the oocyte during fertilization. Also acts as a costimulatory factor for T-cells which induces the differentiation of CD4+ into T-regulatory 1 cells. T-regulatory 1 cells suppress immune responses by secreting interleukin-10, and therefore are thought to prevent autoimmunity.
Cellular Location	Cytoplasmic vesicle, secretory vesicle, acrosome inner membrane; Single-pass type I membrane protein. Note=Inner acrosomal membrane of spermatozoa. Internalized upon binding of Measles virus, Herpesvirus 6 or Neisseria gonorrhoeae, which results in an increased susceptibility of infected cells to complement-mediated injury. In cancer cells or cells infected by Neisseria, shedding leads to a soluble peptide
Tissue Location	Expressed by all cells except erythrocytes.

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