CD46 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	CD46, Polyclonal Antibody
Full Product Name	CD46, CT (CD46, MCP, MIC10, Membrane cofactor protein, TLX, Trophoblast leukocyte common antigen, CD46) (MaxLight 405)
Product Gene Name	anti-CD46 antibody
Product Synonym Names	CD46; MCP; MIC10; Membrane cofactor protein; TLX; Trophoblast leukocyte common antigen; CD46
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight405.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human CD46.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight405 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	392
OMIM	gene+phenotype 612922
3D Structure	ModBase 3D Structure for P15529
Immunogen	KLH-conjugated synthetic peptide mapping to a fragment of residues within amino acids 317-343 in the C-terminal region of human CD46, UniProt Accession #P15529.
Conjugate	MaxLight405
Note	Preservative Free
Product Categories/Family for anti-CD46 antibody	Antibodies; CD Markers
Applications Tested/Suitable for anti-CD46 antibody	Flow Cytometry (FC/FACS), Western Blot (WB), Immunofluorescence (IF), Immunohistochemistry (IHC) Paraffin, FLISA
Application Notes for anti-CD46 antibody	FC/FACS: 1:10-1:50 WB: 1:1000 IF: 1:10-1:50 IHC-P: 1:50-1:100 Applications are based on unconjugated antibody.
Related Product Information for anti-CD46 antibody	MBS6283285 is an antibody targeting CD46. Also known as CD46, CT (CD46, MCP, MIC10, Membrane cofactor protein, TLX, Trophoblast leukocyte common antigen, CD46) (MaxLight 405). Reactive in Human. Host: Rabbit.
Product References and Citations for anti-CD46 antibody	1. Weyand, N.J., et al. J. Immunol. 184(2):694-701(2010). 2. Santiago, C., et al. Acta Crystallogr. Sect. F Struct. Biol. Cryst. Commun. 66 (PT 1), 91-94 (2010). 3. Sullivan, M., et al. Ann. Hum. Genet. 74(1):17-26(2010). 4. Lee, S.W., et al. J. Cell Biol. 156(6):951-957(2002).

Other Notes	Small volumes of anti-CD46 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD46. It may not necessarily be applicable to this product.

NCBI GI #	41019474
NCBI GeneID	4179
NCBI Accession #	P15529.3
UniProt Primary Accession #	P15529
UniProt Secondary Accession #	Q15429; Q53GV9; Q5HY94; Q5VWS6; Q5VWS7; Q5VWS8; Q5VWS9; Q5VWT0; A0T1T0; A0T1T1; A0T1T2
UniProt Related Accession #	P15529
NCBI Official Full Name	Membrane cofactor protein
NCBI Official Synonym Full Names	CD46 molecule, complement regulatory protein
NCBI Official Symbol	CD46
NCBI Official Synonym Symbols	MCP; TLX; AHUS2; MIC10; TRA2.10
UniProt Protein Name	Membrane cofactor protein
UniProt Synonym Protein Names	TLX; Trophoblast leukocyte common antigen; CD_antigen: CD46
Protein Family	Membrane cofactor protein
UniProt Gene Name	CD46
UniProt Synonym Gene Names	MCP; MIC10
UniProt Entry Name	MCP_HUMAN
NCBI Protein Information	membrane cofactor protein; measles virus receptor; complement membrane cofactor protein; trophoblast leucocyte common antigen; trophoblast leukocyte common antigen; CD46 antigen, complement regulatory protein; trophoblast-lymphocyte cross-reactive antigen
NCBI Summary for CD46	The protein encoded by this gene is a type I membrane protein and is a regulatory part of the complement system. The encoded protein has cofactor activity for inactivation of complement components C3b and C4b by serum factor I, which protects the host cell from damage by complement. In addition, the encoded protein can act as a receptor for the Edmonston strain of measles virus, human herpesvirus-6, and type IV pili of pathogenic Neisseria. Finally, the protein encoded by this gene may be involved in the fusion of the spermatozoa with the oocyte during fertilization. Mutations at this locus have been associated with susceptibility to hemolytic uremic syndrome. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Jun 2010]

UniProt Comments for CD46	CD46: 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. A number of viral and bacterial pathogens seem to exploit this property and directly induce an immunosuppressive phenotype in T-cells by binding to CD46. Defects in CD46 are a cause of susceptibility to hemolytic uremic syndrome atypical type 2 (AHUS2). 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. 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. 16 isoforms of the human protein are produced by alternative splicing. Protein type: Membrane protein, integral; Receptor, misc.; Cell surface Chromosomal Location of Human Ortholog: 1q32 Cellular Component: Golgi apparatus; inner acrosomal membrane; focal adhesion; cell surface; basolateral plasma membrane; integral to plasma membrane; plasma membrane Molecular Function: enzyme inhibitor activity; complement binding; protein binding; cadherin binding; endopeptidase activity; receptor activity Biological Process: positive regulation of memory T cell differentiation; adaptive immune response; positive regulation of regulatory T cell differentiation; viral reproduction; T cell mediated immunity; proteolysis; positive regulation of interleukin-10 production; regulation of Notch signaling pathway; negative regulation of complement activation; single fertilization; negative regulation of catalytic activity; interleukin-10 production; regulation of complement activation; innate immune response; positive regulation of T cell proliferation; complement activation, classical pathway
Research Articles on CD46	**1.** The expression levels of CD46, CD55, and CD59 were significantly higher in colon cancer tissues compared with the normal adjacent colon tissues.
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