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CD46 (Membrane Cofactor Protein) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone 197-2B1]
Catalog # AH11800

Product Information

Application	IF, FC
Primary Accession	P15529
Other Accession	4179, 510402
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2a, kappa
Clone Names	197-2B1
Calculated MW	43747

Additional Information

Gene ID	4179
Other Names	Membrane cofactor protein, TLX, Trophoblast leukocyte common antigen, CD46, CD46, MCP, MIC10
Application Note	IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	CD46 (Membrane Cofactor Protein) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

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.

Background

Recognizes a protein of 52kDa-58kDa, identified as CD46 (also known as membrane cofactor protein, MCP). CD46 exists as many isoforms in a variety of tissues. 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. CD46 functions as a C3b/C4b-binding glycoprotein that inhibits complement activation on host cells. It also serves as a measles virus receptor, an adherence factor for group A Streptococcus pyogenes, and a cellular pilus receptor for pathogenic Neisseria. This MAb can be applied to test complement activation in pseudo-allergic reactions to acetylsalicylic acid and to test for measles virus infection of cells.

References

Kishimoto T. et al., eds. Leukocyte Typing VI, p506-509 and p1145-1146, Garland Publishing, Inc., New York and London, 1997. | Liszewski MK and Atkinson JP. Membrane cofactor protein (MCP; CD46). Isoforms differ in protection against the classical pathway of complement. J Immunol 1996, 156:4415-4421. | Blixenkrone-Moller M, et al. Role of CD46 in measles virus infection in CD46 transgenic mice. Virology 1998, 249(2):238-248 | Okada N et al. Membrane cofactor protein (CD46) is a keratinocyte receptor for the M protein of the group A streptococcus. Proc Natl Acad Sci U S A 1995, 92(7):2489-2493. | Kallstrom H et al. Cell signaling by the type IV pili of pathogenic Neisseria. J Biol Chem 1998, 273(34):21777-8

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