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Anti-CD46 Antibody Picoband™ (monoclonal, 9E9)

Catalog # ABO14932

Specification

Anti-CD46 Antibody Picoband™ (monoclonal, 9E9) - Product Information

Application	**WB, IHC, FC**
Primary Accession	P15529
Host	**Mouse**
Isotype	**Mouse IgG1**
Reactivity	**Human**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-CD46 Antibody Picoband™ (monoclonal, 9E9) . Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500 µg/ml.

Anti-CD46 Antibody Picoband™ (monoclonal, 9E9) - Additional Information

Gene ID 4179

Other Names
Membrane cofactor protein, TLX, Trophoblast leukocyte common antigen, CD46, CD46, MCP, MIC10

Calculated MW
50-70 kDa KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human
 Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/ml, Human
 Flow Cytometry, 1-3 µg/1x10^6 cells, Human

Tissue Specificity
Expressed by all cells except erythrocytes.

Protein Name
Membrane cofactor protein

Contents
Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human CD46.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross-reactivity with other proteins.

Storage	**Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.**

Anti-CD46 Antibody Picoband™ (monoclonal, 9E9) - 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.

Anti-CD46 Antibody Picoband™ (monoclonal, 9E9) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-CD46 Antibody Picoband™ (monoclonal, 9E9) - Images

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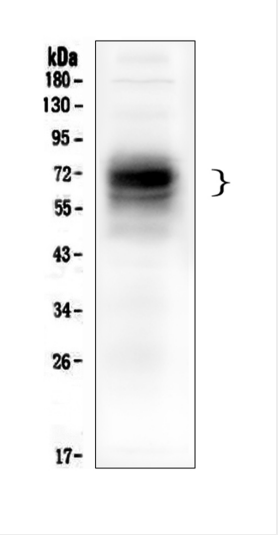

Figure 1. Western blot analysis of CD46 using anti ZO-1 antibody (M00377-2).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: human HepG2 tissue lysates,
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-CD46 antigen affinity purified polyclonal antibody (Catalog # M00377-2) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for CD46 at approximately 50-70KD. The expected band size for CD46 is at 44KD.

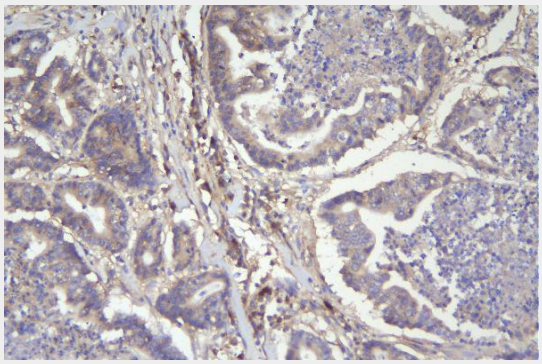

Figure 2. IHC analysis of CD46 using anti-CD46 antibody (M00377-2).
DCK was detected in paraffin-embedded section of human rectum cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 µg/ml mouse anti-CD46 Antibody (M00377-2) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

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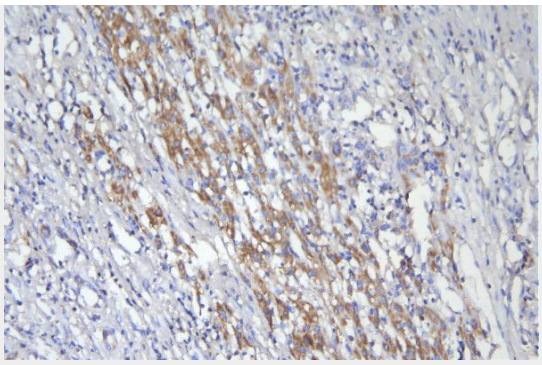

Figure 3. IHC analysis of CD46 using anti-CD46 antibody (M00377-2).
DCK was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 µg/ml mouse anti-CD46 Antibody (M00377-2) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

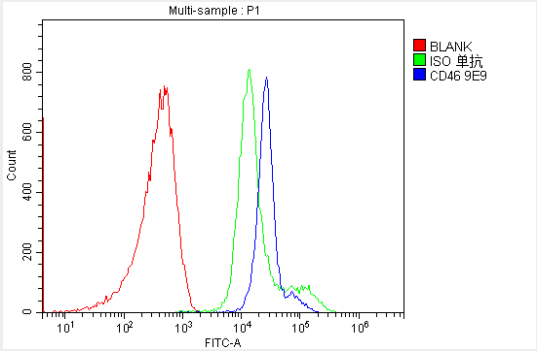

Figure 4. Flow Cytometry analysis of PBMC cells using anti-CD46 antibody M00377-2).
Overlay histogram showing PBMC cells stained with M00377-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-CD46 Antibody (M00377-2, 1 µg/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 µg/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Anti-CD46 Antibody Picoband™ (monoclonal, 9E9) - Background

CD46 complement regulatory protein also known as CD46 (cluster of differentiation 46) and Membrane Cofactor Protein is a protein which in humans is encoded by the CD46 gene. The protein encoded by this gene is a type I membrane protein and is a regulatory part of the complement system. And 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.