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CD59 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1775a

Specification

CD59 Antibody - Product Information

Application	**E, WB, IF, FC, IHC**
Primary Accession	P13987
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**14.2kDa KDa**

Description
This gene encodes a cell surface glycoprotein that regulates complement-mediated cell lysis, and it is involved in lymphocyte signal transduction. This protein is a potent inhibitor of the complement membrane attack complex, whereby it binds complement C8 and/or C9 during the assembly of this complex, thereby inhibiting the incorporation of multiple copies of C9 into the complex, which is necessary for osmolytic pore formation. This protein also plays a role in signal transduction pathways in the activation of T cells. Mutations in this gene cause CD59 deficiency, a disease resulting in hemolytic anemia and thrombosis, and which causes cerebral infarction. Multiple alternatively spliced transcript variants, which encode the same protein, have been identified for this gene.

Immunogen
Purified recombinant fragment of human CD59 (AA: 31-111) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

CD59 Antibody - Additional Information

Gene ID 966

Other Names
CD59 glycoprotein, 1F5 antigen, 20 kDa homologous restriction factor, HRF-20, HRF20, MAC-inhibitory protein, MAC-IP, MEM43 antigen, Membrane attack complex inhibition factor, MACIF, Membrane inhibitor of reactive lysis, MIRL, Protectin, CD59, CD59, MIC11, MIN1, MIN2, MIN3, MSK21

Dilution
E~~1/10000
WB~~1/500 - 1/2000
IF~~1/50 -1/200
FC~~1/200 - 1/400
IHC~~1/200 - 1/1000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small

aliquots to prevent freeze-thaw cycles.

Precautions
CD59 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

CD59 Antibody - Protein Information

Name CD59

Synonyms MIC11, MIN1, MIN2, MIN3, MSK21

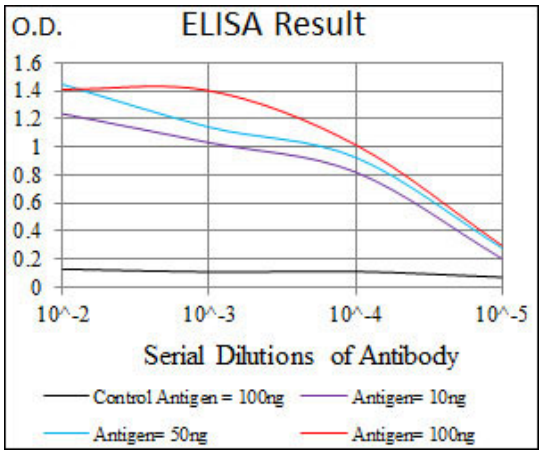
Function
Potent inhibitor of the complement membrane attack complex (MAC) action. Acts by binding to the C8 and/or C9 complements of the assembling MAC, thereby preventing incorporation of the multiple copies of C9 required for complete formation of the osmolytic pore. This inhibitor appears to be species-specific. Involved in signal transduction for T-cell activation complexed to a protein tyrosine kinase.

Cellular Location
Cell membrane; Lipid-anchor, GPI-anchor. Secreted. Note=Soluble form found in a number of tissues

CD59 Antibody - 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



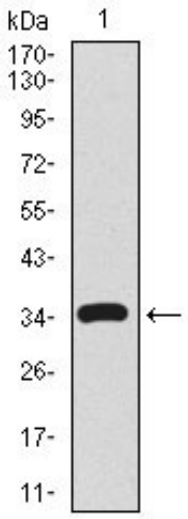


Figure 1: Western blot analysis using CD59 mAb against human CD59 recombinant protein. (Expected MW is 34.7 kDa)

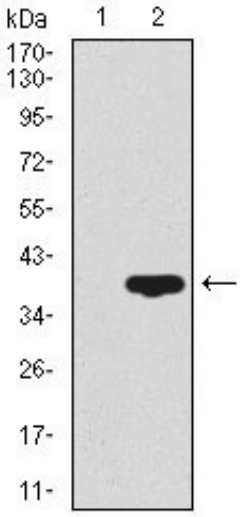


Figure 2: Western blot analysis using CD59 mAb against HEK293 (1) and CD59 (AA: 31-111)-hIgGFc transfected HEK293 (2) cell lysate.

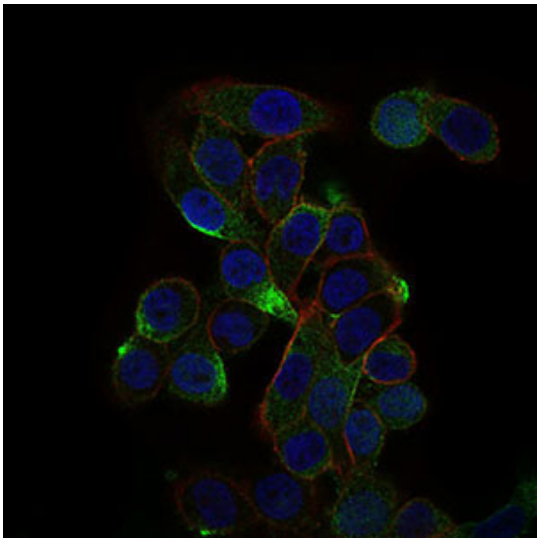


Figure 3: Immunofluorescence analysis of MCF-7 cells using CD59 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

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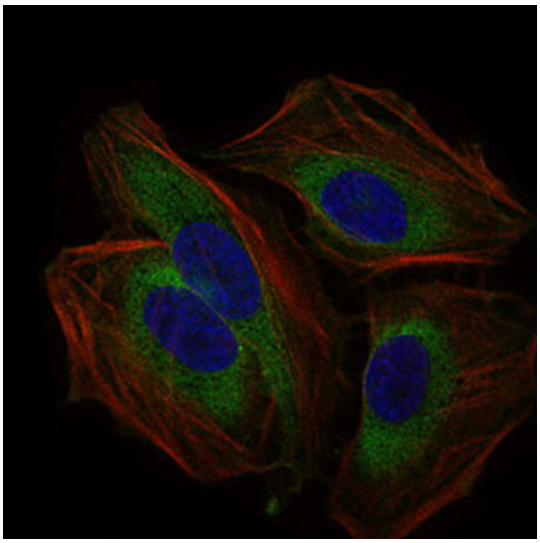

Figure 4: Immunofluorescence analysis of Hela cells using CD59 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

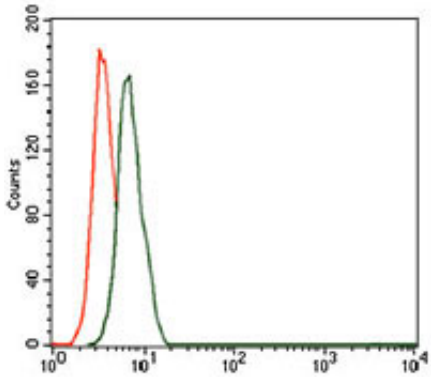

Figure 5: Flow cytometric analysis of HeLa cells using CD59 mouse mAb (green) and negative control (red).

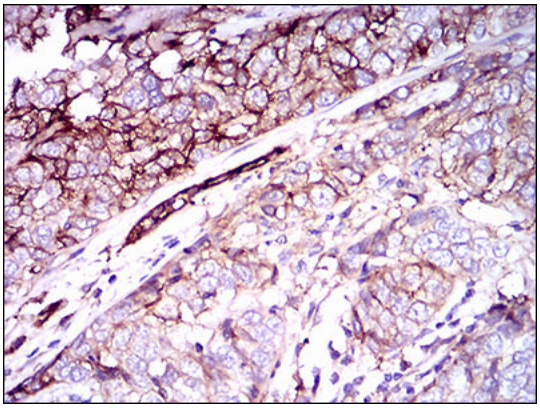

Figure 6: Immunohistochemical analysis of paraffin-embedded bladder cancer tissues using CD59 mouse mAb with DAB staining.

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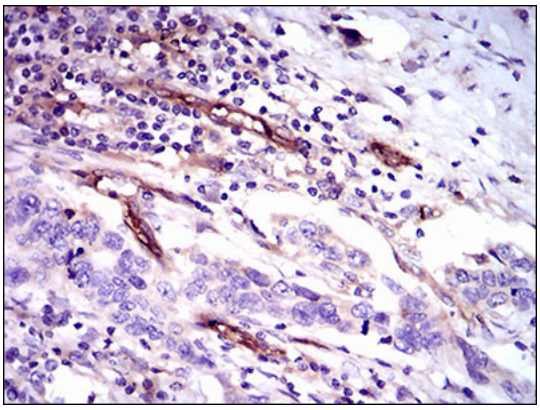

Figure 7: Immunohistochemical analysis of paraffin-embedded esophageal cancer tissues using CD59 mouse mAb with DAB staining.

CD59 Antibody - References

1.Cell Immunol. 2010;265(2):127-32. 2.Chin Med J (Engl). 2009 Sep 20;122(18):2123-8.