

CD59 / Complement Regulatory Protein / Protectin Antibody - With BSA and Azide
Mouse Monoclonal Antibody [Clone MACIF/629]
Catalog # AH12769

Specification

CD59 / Complement Regulatory Protein / Protectin Antibody - With BSA and Azide -
Product Information

Application	IHC, IF, FC
Primary Accession	P13987
Other Accession	966 , 278573 , 709466 , 710641
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Calculated MW	20kDa KDa

CD59 / Complement Regulatory Protein / Protectin Antibody - With BSA and Azide -
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

Application Note

IHC~~1:100~500
IF~~1:50~200
FC~~1:10~50

Storage

Store at 2 to 8°C. Antibody is stable for 24 months.

Precautions

CD59 / Complement Regulatory Protein / Protectin Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

CD59 / Complement Regulatory Protein / Protectin Antibody - With BSA and Azide -
Protein Information

Name CD59 {ECO:0000303|PubMed:2475570, ECO:0000312|HGNC:HGNC:1689}

Function

Potent inhibitor of the complement membrane attack complex (MAC) action, which protects human cells from damage during complement activation (PubMed: [11882685](http://www.uniprot.org/citations/11882685), PubMed: [1698710](http://www.uniprot.org/citations/1698710), PubMed: [1698710](http://www.uniprot.org/citations/1698710), PubMed: [1698710](http://www.uniprot.org/citations/1698710))

[2475111](http://www.uniprot.org/citations/2475111), PubMed:<[2475570](http://www.uniprot.org/citations/2475570)>, PubMed:<[2606909](http://www.uniprot.org/citations/2606909)>, PubMed:<[9053451](http://www.uniprot.org/citations/9053451)>). Acts by binding to the beta-haipins of C8 (C8A and C8B) components of the assembling MAC, forming an intermolecular beta-sheet that prevents incorporation of the multiple copies of C9 required for complete formation of the osmolytic pore (PubMed:<[11882685](http://www.uniprot.org/citations/11882685)>, PubMed:<[1698710](http://www.uniprot.org/citations/1698710)>, PubMed:<[36797260](http://www.uniprot.org/citations/36797260)>).

Cellular Location

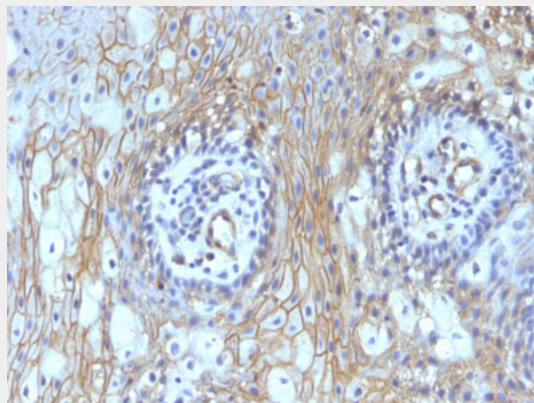
Cell membrane; Lipid-anchor, GPI-anchor. Secreted. Note=Localizes to the cell surface (PubMed:36797260). Soluble form found in a number of tissues (PubMed:8670172).

CD59 / Complement Regulatory Protein / Protectin Antibody - With BSA and Azide - Protocols

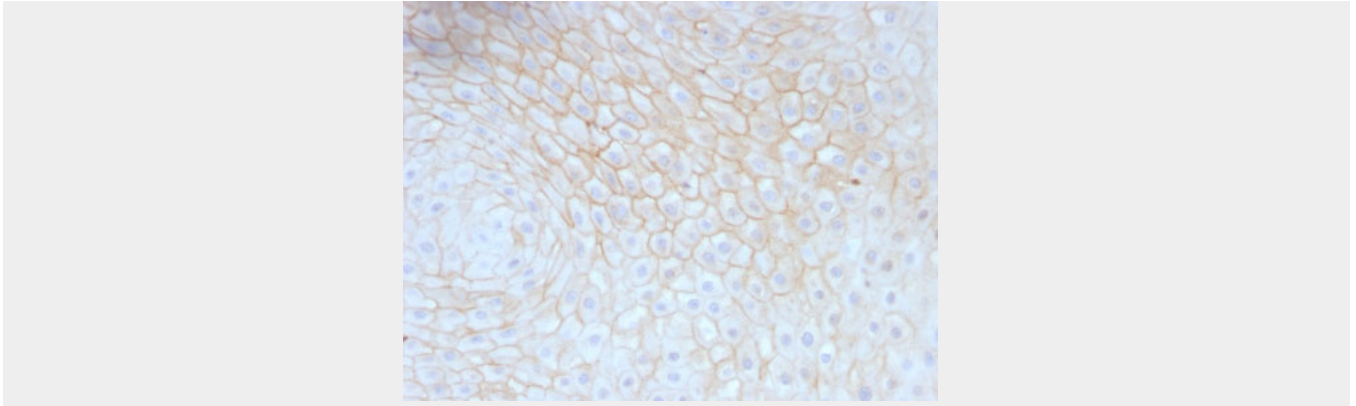
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CD59 / Complement Regulatory Protein / Protectin Antibody - With BSA and Azide - Images



Formalin-fixed, paraffin-embedded human Tongue stained with CD59 Monoclonal Antibody (MACIF/629)



Formalin-fixed, paraffin-embedded human Tonsil stained with CD59 Monoclonal Antibody (MACIF/629)

CD59 / Complement Regulatory Protein / Protectin Antibody - With BSA and Azide - Background

Reacts with human CD59, a 20kDa glycosyl phosphatidyl-inositol (GPI)-anchored cell surface protein. CD59 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. It inhibits formation of MAC, thus protecting cells from complement-mediated lysis. Genetic defects in GPI-anchor attachment, that cause a reduction or loss of CD59 and CD55 on erythrocytes produce the symptoms of the disease paroxysmal hemoglobinuria (PNH). This MAb is useful for study on GPI-anchored proteins, PNH and CD59 functions. CD59 is widely distributed on cells in all tissues. The expression of CD59 on erythrocytes is important for their survival.

CD59 / Complement Regulatory Protein / Protectin Antibody - With BSA and Azide - References

A E Fritzinger, F. Marciano-Cabral, et al. (2006) *Infection and Immunity* 74(2):1189-1195. | J Zhang, C Gerhardinger, M Lorenzi (2002) *Diabetes* 51(12): 3499-3504 |