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CD59 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22266c

Product Information

Application	WB, FC, IF, IHC-P-Leica, E
Primary Accession	P13987
Other Accession	Q28216
Reactivity	Human
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB56691
Calculated MW	14177

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
Target/Specificity	This CD59 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 74-110 amino acids from the Central region of human CD59.
Dilution	WB~~1:2000 FC~~1:25 IF~~1:25 IHC-P-Leica~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CD59 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

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, PubMed:1698710, PubMed:2475111, PubMed:2475570, PubMed:2606909, PubMed: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, PubMed:1698710, PubMed: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).

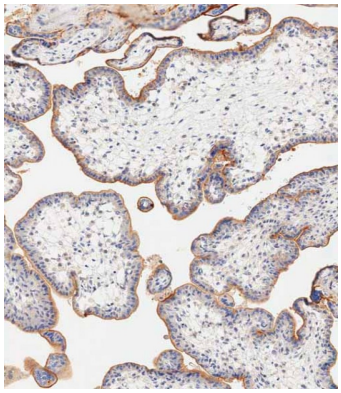
Background

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.

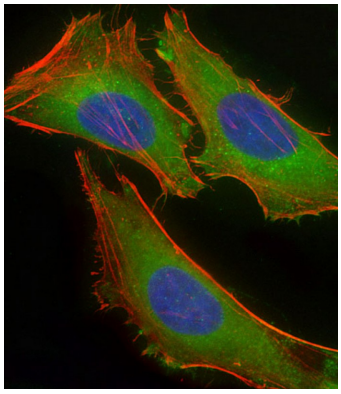
References

Davies A.,et al.J. Exp. Med. 170:637-654(1989).
Philbrick W.M.,et al.Eur. J. Immunol. 20:87-92(1990).
Okada H.,et al.Biochem. Biophys. Res. Commun. 162:1553-1559(1989).
Sugita Y.,et al.J. Biochem. 106:555-557(1989).
Sawada R.,et al.DNA Cell Biol. 9:213-220(1990).

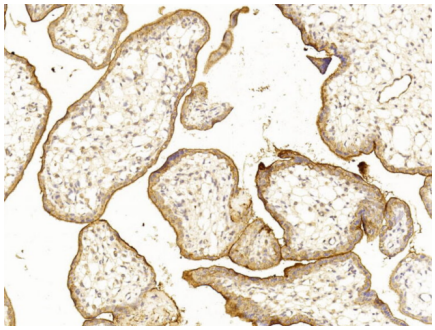
Images



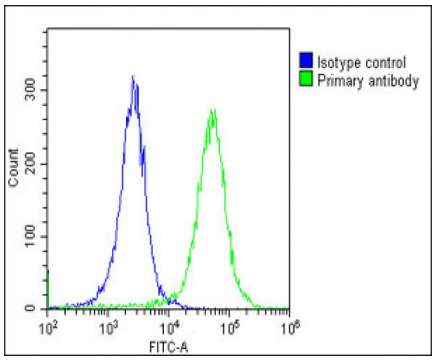
Immunohistochemical analysis of paraffin-embedded human placent tissue using AP22266c performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature; antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:1000) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



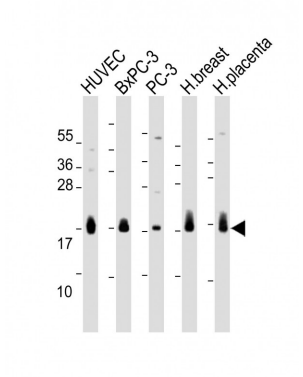
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervical epithelial adenocarcinoma cell line) cells labeling CD59 with AP22266c at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-rabbit IgG (NK179883) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm staining on HeLa cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (PD18466410) at 1/100 dilution (red). The nuclear counter stain is DAPI (blue).



Immunohistochemical analysis of paraffin-embedded Human placenta section using Pink1(Cat#AP22266c). AP22266c was diluted at 1:250 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



Overlay histogram showing HeLa cells stained with AP22266c(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP22266c, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OE188374) at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.



All lanes : Anti-CD59 Antibody (Center) at 1:2000 dilution Lane 1: HUVEC whole cell lysate Lane 2: BxPC-3 whole cell lysate Lane 3: PC-3 whole cell lysate Lane 4: Human breast lysate Lane 5: Human placenta lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 14 kDa Blocking/Dilution buffer: 5% NFDM/TBST.