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CD55 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14798A

Product Information

Application	WB, IF, IHC-P, FC, E
Primary Accession	P08174
Other Accession	NP_000565.1, NP_001108224.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB33641
Calculated MW	41400
Antigen Region	51-79

Additional Information

Gene ID	1604
Other Names	Complement decay-accelerating factor, CD55, CD55, CR, DAF
Target/Specificity	This CD55 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 51-79 amino acids from the N-terminal region of human CD55.
Dilution	WB~~1:1000 IF~~1:10~50 IHC-P~~1:100~500 FC~~1:10~50 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	CD55 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CD55
Synonyms	CR, DAF
Function	This protein recognizes C4b and C3b fragments that condense with

	cell-surface hydroxyl or amino groups when nascent C4b and C3b are locally generated during C4 and c3 activation. Interaction of daf with cell-associated C4b and C3b polypeptides interferes with their ability to catalyze the conversion of C2 and factor B to enzymatically active C2a and Bb and thereby prevents the formation of C4b2a and C3bBb, the amplification convertases of the complement cascade (PubMed:7525274). Inhibits complement activation by destabilizing and preventing the formation of C3 and C5 convertases, which prevents complement damage (PubMed:28657829).
Cellular Location	[Isoform 1]: Cell membrane; Single-pass type I membrane protein [Isoform 3]: Secreted [Isoform 5]: Secreted [Isoform 7]: Cell membrane; Lipid-anchor, GPI-anchor
Tissue Location	Expressed on the plasma membranes of all cell types that are in intimate contact with plasma complement proteins. It is also found on the surfaces of epithelial cells lining extracellular compartments, and variants of the molecule are present in body fluids and in extracellular matrix

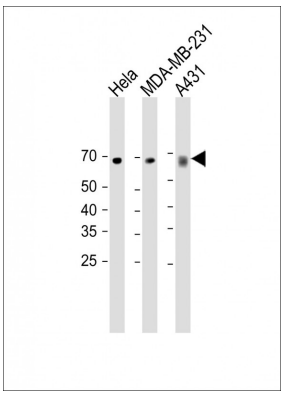
Background

This gene encodes a protein involved in the regulation of the complement cascade. The encoded glycoprotein is also known as the decay-accelerating factor (DAF); binding of DAF to complement proteins accelerates their decay, disrupting the cascade and preventing damage to host cells. Antigens present on the DAF glycoprotein constitute the Cromer blood group system (CROM). Two alternatively spliced transcripts encoding different proteins have been identified. The predominant transcript encodes a membrane-bound protein expressed on cells exposed to plasma component proteins but an alternatively spliced transcript produces a soluble protein present at much lower levels. Additional, alternatively spliced transcript variants have been described, but their biological validity has not been determined. [provided by RefSeq].

References

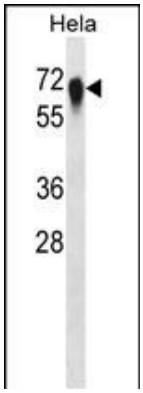
Romero, R., et al. Am. J. Obstet. Gynecol. 203 (4), 361 (2010) :
Gustafsson, D.J., et al. Virology 405(2):474-482(2010)
Alegretti, A.P., et al. Cell. Immunol. 265(2):127-132(2010)
Kim, Y., et al. Ann. Clin. Lab. Sci. 40(3):226-232(2010)
Storry, J.R., et al. Transfusion 43(3):340-344(2003)

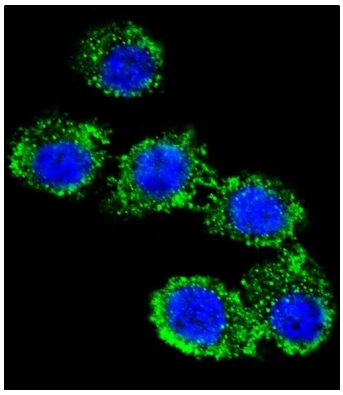
Images



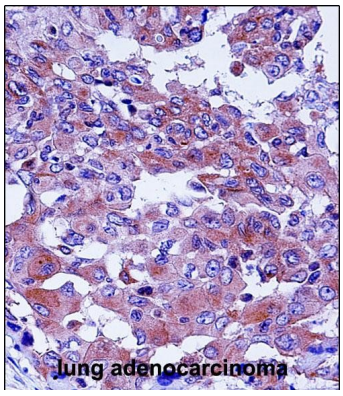
All lanes: Anti-CD55 Antibody (N-term) at 1:500 dilution Lane 1: Hela whole cell lysate Lane 2: MDA-MB-231 whole cell lysate Lane 3: A431 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 65 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

CD55 Antibody (N-term) (Cat. #AP14798a) western blot analysis in Hela cell line lysates (35ug/lane).This demonstrates the CD55 antibody detected the CD55 protein (arrow).

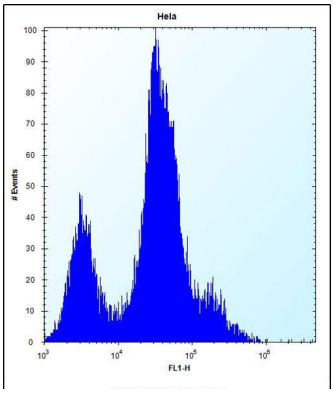




Confocal immunofluorescent analysis of CD55 Antibody (N-term)(Cat#AP14798a) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green).DAPI was used to stain the cell nuclear (blue).



CD55 Antibody (N-term) (Cat. #AP14798a)immunohistochemistry analysis in formalin fixed and paraffin embedded human lung adenocarcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of CD55 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.



CD55 Antibody (N-term) (Cat. #AP14798a) flow cytometric analysis of Hela cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- Ultrasound-enhanced scintillation proximity assay for rapid diagnostics.
- Development of a radionuclide-labeled monoclonal anti-CD55 antibody with theranostic potential in pleural metastatic lung cancer.