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CD55 / Decay Accelerating Factor (DAF) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone 143-30]
Catalog # AH11138

Product Information

Application	IF, FC, IHC-F
Primary Accession	P08174
Other Accession	1604, 126517
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	143-30
Calculated MW	41400

Additional Information

Gene ID	1604
Other Names	Complement decay-accelerating factor, CD55, CD55, CR, DAF
Application Note	IF~~1:50~200 FC~~1:10~50 IHC-F~~N/A
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	CD55 / Decay Accelerating Factor (DAF) Antibody - With BSA and Azide 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). [Isoform 1]: Cell membrane; Single-pass type I membrane protein [Isoform 3]:

Cellular Location	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

Recognizes a single chain glycoprotein of 70kDa, identified as CD55 (also known as decay accelerating factor, DAF). CD55/DAF is widely expressed on cells throughout the body including leukocytes, erythrocytes, epithelium, endothelium, and fibroblasts. It is a Glycosyl phosphatidylinositol anchored (GPI-anchored) member of the membrane bound complement regulatory proteins that inhibit autologous complement cascade activation. It prevents the amplification steps of the complement cascade by interfering with the assembly of the C3-convertases, C4b2a and C3bBb, and the C5-convertase, C4b2a3b and C3bBb3b. CD55 also serves as receptor for CD97 and for echovirus and Coxsackie B virus. The MAb 143-30 can be used as marker for paroxysmal nocturnal hemoglobinuria (PNH).

References

Schlossman S et al. (eds) Leukocyte Typing V. Oxford University Press, Oxford, 1995. Kishimoto T. et al., eds. Leukocyte Typing VI, Garland Publishing, Inc, New York and London, 1997.Koretz, K. et al., Decay-accelerating factor (DAF, CD55) in normal colorectal mucosa, adenomas and carcinomas. British J. Cancer 66: 810-814, (1992). | Knapp, W. et al., Leucocyte typing IV, pp 541, 694-697, 1088. Oxford Univ