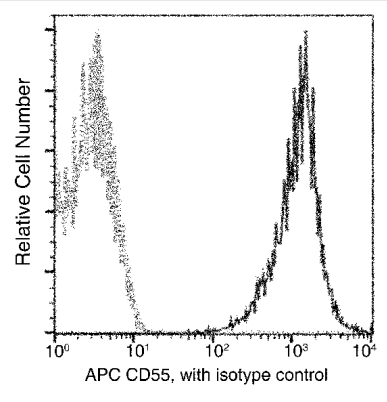
CD55 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	CD55/DAF, Monoclonal Antibody
Full Product Name	Anti-CD55/DAF Antibody (APC), Mouse Monoclonal
Product Gene Name	anti-CD55 antibody
Product Synonym Names	CD55/DAF Antibody (APC), Mouse MAb; CD55 molecule, decay accelerating factor for complement (Cromer blood group); Anti-CR Antibody; Anti-CROM Antibody; Anti-DAF Antibody; Anti-TC Antibody
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Number	04
Host	Mouse
Species Reactivity	Human
Form/Format	Liquid; Aqueous solution containing 0.5% BSA and 0.09% sodium azide
Purity/Purification	Protein A
Concentration	5ul/Test, 0.1mg/ml (lot specific)
Specificity	Human CD55/DAF
Preparation and Storage	This antibody can be stored at 2-8 degree C for twelve months without detectable loss of activity. Protected from prolonged exposure to light. Do not freeze! Sodium azide is toxic to cells and should be disposed of properly. Flush with large volumes of water during disposal.
Molecular Weight	41,400 Da
Chromosome Location	Chromosome: 1; NC_000001.10 (207494817..207534311). Location: 1q32
OMIM	125240
3D Structure	ModBase 3D Structure for P08174
Immunogen	Recombinant Human CD55/DAF Protein
Conjugation	APC
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Human CD55/DAF (rh CD55/DAF) and conjugated with APC under optimum conditions, the unreacted APC was removed.
Product Categories/Family for anti-CD55 antibody	Complement Activation Pathways
Applications Tested/Suitable for anti-CD55 antibody	Flow Cytometry (FC/FACS/FCM)

Related Product Information for anti-CD55 antibody	CD55, also well known as decay-accelerating factor (DAF), is a member of the RCA (regulators of complement activation) family characterized by four to 30 SCRs (short consensus repeats) in their plasma-exposed regions. It is a major regulator of the alternative and classical pathways of complement activation and is expressed on all serum-exposed cells. CD55 is physiologically acting as an inhibitor of the complement system, but is also broadly expressed in malignant tumours. DAF seems to exert different functions beyond its immunological role such as promotion of tumorigenesis, decrease of complement mediated tumor cell lysis, autocrine loops for cell rescue and evasion of apoptosis, neoangiogenesis, invasiveness, cell motility. It is commonly hijacked by invading pathogens, including many enteroviruses and uropathogenic Escherichia coli, to promote cellular attachment prior to infection. This 70-75 kDa glycoprotein CD55 containing four SCR modules is involved in the regulation of the complement cascade. It inhibits complement activation by suppressing the function of C3/C5 convertases, thereby limiting local generation or deposition of C3a/C5a and membrane attack complex (MAC or C5b-9) production. DAF has been identified as a ligand for an activation-associated, seven-transmembrane lymphocyte receptor, CD97, which is a receptor mediating attachment and infection of several viruses and bacteria. In addition, it has been shown that DAF regulates the interplay between complement and T cell immunity in vivo, and thus may be implicated in immune and tumor biology.
Product References and Citations for anti-CD55 antibody	Lea S. (2002) Interactions of CD55 with non-complement ligands. Biochem Soc Trans. 30(Pt 6): 1014-9.Mikesch JH, et al. (2006) The expression and action of decay-accelerating factor (CD55) in human malignancies and cancer therapy. Cell Oncol. 28(5-6): 223-32.Wang Y, et al. (2010) Decay accelerating factor (CD55) protects neuronal cells from chemical hypoxia-induced injury. J Neuroinflammation. 7:24.
Other Notes	Small volumes of anti-CD55 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CD55 purchase	MBS8100891 is an antibody targeting CD55. Also known as Anti-CD55/DAF Antibody (APC), Mouse Monoclonal. Reactive in Human. Host: Mouse.



Flow Cytometry (FC/FACS) of anti-CD55 antibody
Flow cytometric analysis of Human CD55 expression on K562 cells. Cells were stained with APC-conjugated anti-Human CD55. The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD55. It may not necessarily be applicable to this product.

NCBI GI #	10835143
NCBI GeneID	1604
NCBI Accession #	NP_000565.1
UniProt Primary Accession #	P08174
UniProt Secondary Accession #	P09679; P78361; B1AP14; D3DT83; D3DT84
UniProt Related Accession #	P08174
GenBank Nucleotide #	NM_000574.3
NCBI Official Full Name	complement decay-accelerating factor isoform 1 preproprotein

NCBI Official Synonym Full Names	CD55 molecule, decay accelerating factor for complement (Cromer blood group)
NCBI Official Symbol	CD55
NCBI Official Synonym Symbols	CR; TC; DAF; CROM
UniProt Protein Name	Complement decay-accelerating factor
Protein Family	Complement decay-accelerating factor
UniProt Gene Name	CD55
UniProt Synonym Gene Names	CR; DAF
UniProt Entry Name	DAF_HUMAN
NCBI Protein Information	complement decay-accelerating factor; CD55 antigen
NCBI Summary for CD55	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, Jul 2008]
UniProt Comments for CD55	CD55: 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. Belongs to the receptors of complement activation (RCA) family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Membrane protein, GPI anchor; Cell surface Chromosomal Location of Human Ortholog: 1q32 Cellular Component: cell surface; integral to plasma membrane; extracellular region; plasma membrane; lipid raft Molecular Function: viral receptor activity; protein binding; lipid binding Biological Process: respiratory burst; entry of virus into host cell; elevation of cytosolic calcium ion concentration; negative regulation of complement activation; regulation of complement activation; innate immune response; regulation of lipopolysaccharide-mediated signaling pathway; complement activation, classical pathway Disease: Blood Group, Cromer System
Research Articles on CD55	**1.** Crry deletion from DAF-deficient mouse platelets cause abnormal platelet turnover, leading to compensatory increase in thrombopoiesis.
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