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# DAF Antibody

Catalog # ASC11840

## Product Information

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| **Application** | WB, IF, E, IHC-P |
| **Primary Accession** | P08174 |
| **Other Accession** | NP_001108224, 168693643 |
| **Reactivity** | Human |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Calculated MW** | 41400 |
| **Concentration (mg/ml)** | 1 mg/mL |
| **Conjugate** | Unconjugated |
| **Application Notes** | DAF body can be used for detection of DAF by Western blot at 1 - 2 g/ml. Antibody can also be used for Immunohistochemistry starting at 5 g/mL. For immunofluorescence start at 20 g/mL. |

## Additional Information

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| **Gene ID** | 1604 |
| **Other Names** | Complement decay-accelerating factor, CD55, CD55, CR, DAF |
| **Target/Specificity** | CD55; DAF antibody is human specific. At least two isoforms of DAF are known to exist; this antibody will only detect the longest isoform. |
| **Reconstitution & Storage** | DAF antibody can be stored at 4°C for three months and -20°C, stable for up to one year. |
| **Precautions** | DAF Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **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). |

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| **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 |

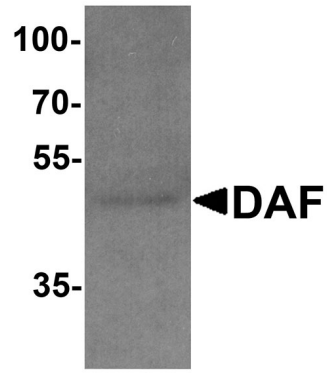
## Background

The decay-accelerating factor (DAF), also known as CD55, is an integral membrane glycoprotein that is involved in the regulation of the complement cascade (1). DAF limits excessive complement activation by accelerating their decay following DAF binding, thereby disrupting the cascade and preventing damage to host cells (2). Antigens present on the DAF glycoprotein constitute the Cromer blood group system (CROM) (3).

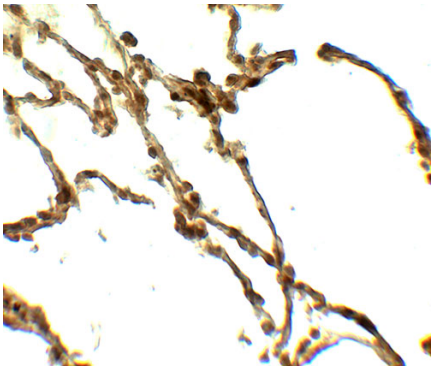
## References


Nicholson-Weller A, March JP, Rosen CE, et al. Surface membrane expression by human blood leukocytes and platelts of decay-accelerating factor, a regulatory protein of the complement system. Blood 1985; 65:1237-44.
Seya T and Atkinson JP. Functional properties of membrane cofactor protein of complement. Biochem. J. 1989; 64:581-8.
Storry JR, Reid ME, and Yazer MH. The Cromer blood group system: a review. Immunohematology 2010; 109-18.


## Images

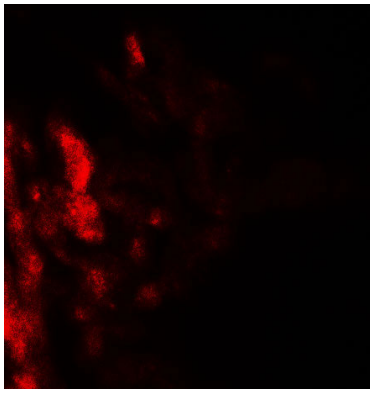



Western blot analysis of DAF in A549 cell lysate with DAF antibody at 1 µg/ml.



Immunohistochemistry of DAF in human lung tissue with DAF antibody at 5 µg/ml.

Immunofluorescence of DAF in human lung tissue with



DAF antibody at 20 µg/ml.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.