

**AM32955PU-N****Monoclonal Antibody to CD55 / DAF - Purified**

<b>Alternate names:</b>	Complement decay-accelerating factor
<b>Quantity:</b>	0.1 mg
<b>Concentration:</b>	0.1 mg/ml
<b>Background:</b>	<p>Cells express on their surface several proteins which protect against complement attack, namely C receptor I (CR1), decay accelerating factor (DAF), membrane cofactor protein (MCP) and CD59. CR1, DAF and MCP regulate the activation pathways of complement by either accelerating decay of the C3 and C5 convertase (CR1, DAF), or acting as cofactors for the serine protease factor I, which cleaves and irreversibly inactivates C3b (CR1, MCP).</p> <p>Rat DAF (CD55) is a 60 kDa transmembrane protein that binds C3b and C4b to inhibit formation and half-life of the C3 convertases. It belongs to the receptors of complement activation (RCA) family. DAF is broadly distributed among cells in contact with plasma complement proteins, including both haematopoietic and nonhaematopoietic cells. Although DAF does not have an essential role in controlling hemolysis of erythrocytes, it has an important role in regulation of the deposition of C3 on nucleated cells.</p> <p>Together with other complement regulators DAF protects self cells from autologous complement-mediated injury. DAF cooperates with CD46 in circumventing autologous C3 deposition, while CD59 inhibits the pathway at the critical end-point.</p>
<b>Uniprot ID:</b>	<a href="#">Q9QYI9</a>
<b>NCBI:</b>	<a href="#">10116</a>
<b>Host / Isotype:</b>	Mouse / IgG1
<b>Recommended Isotype Controls:</b>	SM20P (for use in rat samples), AM03095PU-N
<b>Clone:</b>	RDIII-7
<b>Immunogen:</b>	NIH-3T3 cells expressing GPI-anchored Rat DAF
<b>Format:</b>	<b>State:</b> Liquid 0.2 µm filtered Ig fraction <b>Purification:</b> Protein G Chromatography <b>Buffer System:</b> PBS <b>Stabilizers:</b> 0.1% BSA <b>Endotoxin Level:</b> 2.98 EU/mg
<b>Applications:</b>	<b>Flow Cytometry</b> (Ref.2,3). <b>Western blot:</b> Non-reduced with a band size of 60-70kDa. As positive control CHO-Rat DAF hyper-expressing cells were used (Ref.1-6). <b>Functional Studies:</b> RDIII-7 antibody completely blocked the protective effect of expressed Rat DAF (Ref.2,3,6). <b>Immunofluorescence</b> (Ref.4,5). <b>Immunohistochemistry on Frozen Sections</b> (Ref.3-5). The typical starting working dilution is 1/50.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

**Specificity:**

The monoclonal antibody RDIII-7 recognizes complement decay accelerating factor (DAF), also designated as CD55. RDIII-7 recognizes the common extracellular SCR region of CD55, detecting all isoforms of the protein.

**Species Reactivity:**

**Tested:** Rat.

**Storage:**

Store undiluted at 2-8°C.

**DO NOT FREEZE!**

Shelf life: one year from despatch.

**General Readings:**

1. Spiller OB, Harris CL, Morgan BP. Efficient generation of monoclonal antibodies against surface-expressed proteins by hyperexpression in rodent cells. *J Immunol Methods*. 1999 Apr 22;224(1-2):51-60. PubMed PMID: 10357206.
2. Harris CL, Spiller OB, Morgan BP. Human and rodent decay-accelerating factors (CD55) are not species restricted in their complement-inhibiting activities. *Immunology*. 2000 Aug;100(4):462-70. PubMed PMID: 10929073.
3. Spiller OB, Hanna SM, Morgan BP. Tissue distribution of the rat analogue of decay-accelerating factor. *Immunology*. 1999 Jul;97(3):374-84. PubMed PMID: 10447757.
4. Mizuno M, Harris CL, Morgan BP. Spermatogenic cells distal to the blood-testis barrier in rats lack C3 convertase regulators and may be at risk of complement-mediated injury. *J Reprod Immunol*. 2006 Feb;69(1):23-34. Epub 2005 Dec 27. PubMed PMID: 16380167.
5. Mizuno M, Donev RM, Harris CL, Morgan BP. CD55 in rat male reproductive tissue: differential expression in testis and expression of a unique truncated isoform on spermatozoa. *Mol Immunol*. 2007 Mar;44(7):1613-22. Epub 2006 Sep 27. PubMed PMID: 17007930.
6. Harris CL, Williams AS, Linton SM, Morgan BP. Coupling complement regulators to immunoglobulin domains generates effective anti-complement reagents with extended half-life in vivo. *Clin Exp Immunol*. 2002 Aug;129(2):198-207. PubMed PMID: 12165074.