

## Datasheet: MCA1054GA

**BATCH NUMBER 166484**

<b>Description:</b>	MOUSE ANTI HUMAN CD59
<b>Specificity:</b>	CD59
<b>Other names:</b>	HRF, PROTECTIN
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MEM-43
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	0.1 mg

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/25 - 1/100
Immunohistology - Frozen	▪			
Immunohistology - Paraffin (1)	▪			
ELISA	▪			
Immunoprecipitation	▪			
Western Blotting (2)	▪			
Immunofluorescence	▪			
Immuno-electron Microscopy	▪			

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

**(1) This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH 6.0 is recommended for this purpose.**

**(2) This product recognizes CD59 under non-reducing conditions.**

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid

<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% sodium azide (NaN <sub>3</sub> )
<b>Approx. Protein Concentrations</b>	IgG concentration 1 mg/ml
<b>Immunogen</b>	Thymocytes and T lymphocytes.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P13987</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">966</a>    CD59    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	MIC11, MIN1, MIN2, MIN3, MSK21
<b>RRID</b>	AB_323963
<b>Specificity</b>	<p><b>Mouse anti Human CD59 antibody, clone MEM-43</b> recognizes CD59, a glycosyl-phosphatidylinositol (GPI) anchored membrane protein also known as membrane attack complex inhibition factor. CD59 blocks the formation of the complement membrane attack complex (MAC) by binding of C8a and C9. CD59 is found on all types of leucocytes including platelets and is also expressed on many non-haematopoietic cells. The epitope recognized by Mouse anti Human CD59 antibody, clone MEM-43 is lost after reduction therefore, non-reducing conditions are required for western blotting techniques.</p>
<b>Flow Cytometry</b>	Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl
<b>Histology Positive Control Tissue</b>	Tonsil
<b>References</b>	<ol style="list-style-type: none"> <li>Horejsí, V. <i>et al.</i> (1988) Monoclonal antibodies against human leucocyte antigens. II. Antibodies against CD45 (T200), CD3 (T3), CD43, CD10 (CALLA), transferrin receptor (T9), a novel broadly expressed 18-kDa antigen (MEM-43) and a novel antigen of restricted expression (MEM-74). <a href="#">Folia Biol (Praha). 34 (1): 23-34.</a></li> <li>Stefanová, I. <i>et al.</i> (1989) Characterization of a broadly expressed human leucocyte surface antigen MEM-43 anchored in membrane through phosphatidylinositol. <a href="#">Mol Immunol. 26 (2): 153-61.</a></li> <li>Stefanová, I. <i>et al.</i> (1989) in Leucocyte Typing IV: White cell differentiation antigens. Ed. Knapp, W. <i>et al.</i> Oxford University Press pp 678-97.</li> <li>Stefanová, I. &amp; Horejsí, V. (1991) Association of the CD59 and CD55 cell surface glycoproteins with other membrane molecules. <a href="#">J Immunol. 147 (5): 1587-92.</a></li> <li>Tandon, N. <i>et al.</i> (1994) Expression and function of multiple regulators of complement</li> </ol>

- activation in autoimmune thyroid disease. [Immunology. 81 \(4\): 643-7.](#)
6. Vanderplasschen, A. *et al.* (1997) Extracellular enveloped vaccinia virus is resistant to complement because of incorporation of host complement control proteins into its envelope. [Proc Natl Acad Sci U S A. 95: 7544-9.](#)
7. Cowan, P.J. *et al.* (1998) High-level endothelial expression of human CD59 prolongs heart function in an *ex vivo* model of xenograft rejection. [Transplantation. 65: 826-31.](#)
8. Chong, Y.H. and Lee, M.J. (2000) Expression of complement inhibitor protein CD59 in human neuronal and glial cell lines treated with HIV-1 gp41 peptides. [J Neurovirol. 6: 51-60.](#)
9. Shamri, R. *et al.* (2002) Chemokine stimulation of lymphocyte alpha 4 integrin avidity but not of leukocyte function-associated antigen-1 avidity to endothelial ligands under shear flow requires cholesterol membrane rafts. [J Biol Chem. 277: 40027-35.](#)
10. Zhang, J. *et al.* (2002) Early complement activation and decreased levels of glycosylphosphatidylinositol-anchored complement inhibitors in human and experimental diabetic retinopathy. [Diabetes. 51: 3499-504.](#)
11. Donin, N. *et al.* (2003) Complement resistance of human carcinoma cells depends on membrane regulatory proteins, protein kinases and sialic acid. [Clin Exp Immunol. 131: 254-63.](#)
12. Gendek-Kubiak, H. and Gendek, E.G. (2004) Immunolocalization of protectin (CD59) and macrophages in polymyositis and dermatomyositis. [J Neuroimmunol. 149: 187-94.](#)
13. Jolly, C, and Sattentau. Q.J. (2005) Human Immunodeficiency Virus Type 1 Virological Synapse Formation in T Cells Requires Lipid Raft Integrity [J Virol. 79: 12088-94.](#)
14. Ohyama, M. *et al.* (2006) Characterization and isolation of stem cell-enriched human hair follicle bulge cells. [J Clin Invest. 116: 249-60.](#)
15. Ellison, B.S. *et al.* (2007) Complement susceptibility in glutamine deprived breast cancer cells. [Cell Div. 2007 2: 20.](#)
16. Takemoto, M. *et al.* (2007) Human herpesvirus 7 infection increases the expression levels of CD46 and CD59 in target cells. [J Gen Virol. 88: 1415-22.](#)
17. Shaw, M.L. *et al.* (2008) Cellular proteins in influenza virus particles. [PLoS Pathog. 4: e1000085.](#)
18. Bonnon, C. *et al.* (2010) Selective export of human GPI-anchored proteins from the endoplasmic reticulum. [J Cell Sci. 123: 1705-15.](#)
19. Sadallah, S. *et al.* (2011) Microparticles (ectosomes) shed by stored human platelets downregulate macrophages and modify the development of dendritic cells. [J Immunol. 186: 6543-52.](#)
20. Rondelli, T. *et al.* (2013) The frequency of granulocytes with spontaneous somatic mutations: a wide distribution in a normal human population. [PLoS One. 8 \(1\): e54046.](#)
21. Abe, Y. *et al.* (2017) Glycan region of GPI anchored-protein is required for cytosidal oligomerization of an anticancer parasporin-2, Cry46Aa1 protein, from *Bacillus thuringiensis* strain A1547. [J Invertebr Pathol. 142: 71-81.](#)
22. Sica, M. *et al.* (2017) Eculizumab treatment: stochastic occurrence of C3 binding to individual PNH erythrocytes. [J Hematol Oncol. 10 \(1\): 126.](#)
23. Gullipalli, D. *et al.* (2018) Antibody Inhibition of Properdin Prevents Complement-Mediated Intravascular and Extravascular Hemolysis. [J Immunol. 201 \(3\): 1021-1029.](#)
24. Ueda, M. *et al.* (2019) Endovascular trophoblast expresses CD59 to evade complement-dependent cytotoxicity. [Mol Cell Endocrinol. 490: 57-67.](#)

**Storage** This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

---

<b>Guarantee</b>	12 months from date of despatch
------------------	---------------------------------

---

<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1054GA">https://www.bio-rad-antibodies.com/SDS/MCA1054GA</a> 10040
--------------------------------------	---

---

<b>Regulatory</b>	For research purposes only
-------------------	----------------------------

---

## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">Alk. Phos.</a> , <a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight@488</a> , <a href="#">DyLight@550</a> , <a href="#">DyLight@650</a> , <a href="#">DyLight@680</a> , <a href="#">DyLight@800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>

### Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
----------------------------------	---	------------------	---	---------------	---

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)  
'M410482:221028'

Printed on 26 Jun 2024