

Datasheet: MCA1054T

Description:	MOUSE ANTI HUMAN CD59
Specificity:	CD59
Other names:	HRF, PROTECTIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MEM-43
Isotype:	IgG2a
Quantity:	25 µg

Product Details

RRID AB_1102223

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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/5 - 1/10
Immunohistology - Frozen	▪			
Immunohistology - Paraffin (1)	▪			
ELISA	▪			
Immunoprecipitation	▪			
Western Blotting (2)	▪			
Immunofluorescence	▪			
Immuno-electron Microscopy	▪			

Where this product 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 product 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.

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide

Approx. Protein Concentrations	IgG concentration 1 mg/ml
Immunogen	Thymocytes and T lymphocytes.
External Database Links	<p>UniProt: P13987 Related reagents</p> <p>Entrez Gene: 966 CD59 Related reagents</p>
Synonyms	MIC11, MIN1, MIN2, MIN3, MSK21
Specificity	<p>Mouse anti Human CD59 antibody, clone MEM-43 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.</p> <p>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>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
Histology Positive Control Tissue	Tonsil
References	<ol style="list-style-type: none"> 1. Stefanova, 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. 2. Stefanová, I. <i>et al.</i> (1989) Characterization of a broadly expressed human leucocyte surface antigen MEM-43 anchored in membrane through phosphatidylinositol. Mol Immunol. 26 (2): 153-61. 3. Tandon, N. <i>et al.</i> (1994) Expression and function of multiple regulators of complement activation in autoimmune thyroid disease. Immunology. 81 (4): 643-7. 4. 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). Folia Biol (Praha). 34 (1): 23-34. 5. Stefanová, I. & Horejsí, V. (1991) Association of the CD59 and CD55 cell surface glycoproteins with other membrane molecules. J Immunol. 147 (5): 1587-92. 6. Shaw, M.L. <i>et al.</i> (2008) Cellular proteins in influenza virus particles. PLoS Pathog. 4: e1000085. 7. Sadallah, S. <i>et al.</i> (2011) Microparticles (ectosomes) shed by stored human platelets downregulate macrophages and modify the development of dendritic cells. J Immunol. 186: 6543-52. 8. 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. 9. Shamri, R. <i>et al.</i> (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. Bonnon, C. <i>et al.</i> (2010) Selective export of human GPI-anchored proteins from the endoplasmic reticulum. J Cell Sci. 123: 1705-15. 11. Zhang, J. <i>et al.</i> (2002) Early complement activation and decreased levels of glycosylphosphatidylinositol-anchored complement inhibitors in human and experimental diabetic retinopathy. Diabetes. 51: 3499-504.

12. Ellison, B.S. *et al.* (2007) Complement susceptibility in glutamine deprived breast cancer cells. [Cell Div. 2007 2: 20.](#)
13. 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.](#)
14. 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.](#)
15. 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.](#)
16. 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.](#)
17. Gendek-Kubiak, H. and Gendek, E.G. (2004) Immunolocalization of protectin (CD59) and macrophages in polymyositis and dermatomyositis. [J Neuroimmunol. 149: 187-94.](#)
18. Abe, Y. *et al.* (2017) Glycan region of GPI anchored-protein is required for cytotoxic oligomerization of an anticancer parasporin-2, Cry46Aa1 protein, from *Bacillus thuringiensis* strain A1547. [J Invertebr Pathol. 142: 71-81.](#)
19. Sica, M. *et al.* (2017) Eculizumab treatment: stochastic occurrence of C3 binding to individual PNH erythrocytes. [J Hematol Oncol. 10 \(1\): 126.](#)
20. Ueda, M. *et al.* (2019) Endovascular trophoblast expresses CD59 to evade complement-dependent cytotoxicity. [Mol Cell Endocrinol. Apr 11 \[Epub ahead of print\].](#)

Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee

18 months from date of despatch.

Health And Safety Information

Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

- Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
- Goat Anti Mouse IgG (STAR77...) [HRP](#)
- Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
- Rabbit Anti Mouse IgG (STAR8...) [DyLight®800](#)
- Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
- Goat Anti Mouse IgG (STAR76...) [RPE](#)
- Goat Anti Mouse IgG (STAR70...) [FITC](#)
- Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
- Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
- Human Anti Mouse IgG2a (HCA037...) [FITC](#), [HRP](#)
- Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®680](#), [DyLight®800](#), [FITC](#), [HRP](#)

Recommended Negative Controls

MOUSE IgG2a NEGATIVE CONTROL (MCA929)

North & South Tel: +1 800 265 7376

America Fax: +1 919 878 3751

Email: antibody_sales_us@bio-rad.com

Worldwide

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: antibody_sales_uk@bio-rad.com

Europe

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

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