

Datasheet: MCA715PE

Description:	RAT ANTI HUMAN CD59:RPE
Specificity:	CD59
Other names:	HRF, PROTECTIN
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	YTH53.1
Isotype:	IgG2b
Quantity:	100 TESTS

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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	■			Neat

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.

Target Species	Human		
Product Form	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized		
Reconstitution	Reconstitute with 1 ml distilled water		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578
Preparation	Purified IgG prepared by ion exchange chromatography		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide		
Stabilisers	1%	Bovine Serum Albumin	
	5%	Sucrose	
Immunogen	Human Peripheral Blood T cells.		
External Database Links	UniProt: P13987 Related reagents		

Entrez Gene:

[966](#) CD59 [Related reagents](#)

Synonyms	MIC11, MIN1, MIN2, MIN3, MSK21
Fusion Partners	Spleen cells from an immunised DA rat were fused with cells of the Y3/Ag1.2.3 rat myeloma cell line.
Specificity	Rat anti Human CD59 antibody, clone YTH53.1 recognizes the human CD59 cell surface antigen, also known as MAC-inhibitory protein, 1F5 antigen, 20 kDa homologous restriction factor, MEM43 antigen, membrane attack complex inhibition factor, membrane inhibitor of reactive lysis or protectin. CD59 is produced as a 103 amino acid proprotein, further processed to produce an 18-20 kDa GPI linked glycoprotein broadly expressed by human leucocytes and erythrocytes. Mutation of the CD59 gene can result in the presentation of Hemolytic anemia, CD59-mediated, with or without polyneuropathy (HACD59) a disease characterized by infantile onset of a relapsing-remitting polyneuropathy manifest as limb muscle weakness, and hyporeflexia. Rat anti Human CD59 antibody, clone YTH53.1 blocks the normal function of CD59 (Walsh et al. 1991).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul. We do not recommend using this antibody in lysed whole blood techniques due to inhibition of staining caused by CD59 expression on erythrocytes.
References	1. Davies, A. <i>et al.</i> (1989) CD59, an LY-6-like protein expressed in human lymphoid cells, regulates the action of the complement membrane attack complex on homologous cells. J Exp Med. 170 (3): 637-54. 2. Walsh, L.A. <i>et al.</i> (1991) Transfection of human CD59 complementary DNA into rat cells confers resistance to human complement. Eur J Immunol. 21 (3): 847-50. 3. Davies, A. <i>et al.</i> (1995) Identification of MIC 11 antigen as an epitope of the CD59 molecule. Immunology. 85 (2): 220-7. 4. Ellison BS <i>et al.</i> (2007) Complement susceptibility in glutamine deprived breast cancer cells. Cell Div. 2: 20. 5. Ajona, D. <i>et al.</i> (2007) Down-regulation of human complement factor H sensitizes non-small cell lung cancer cells to complement attack and reduces in vivo tumor growth. J Immunol. 178 (9): 5991-8. 6. Yang, P. <i>et al.</i> (2009) Expression and modulation of RPE cell membrane complement regulatory proteins. Invest Ophthalmol Vis Sci. 50: 3473-81. 7. Hosokawa, M. <i>et al.</i> (2004) Human oligodendroglial cells express low levels of C1 inhibitor and membrane cofactor protein mRNAs. J Neuroinflammation. 1: 17. 8. Koch, N. <i>et al.</i> (2009) IL-10 protects monocytes and macrophages from complement-mediated lysis. J Leukoc Biol. 86: 155-66.
Storage	Prior to reconstitution store at +4°C. Following reconstitution store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.
Shelf Life	12 months from date of reconstitution.

Health And Safety Information	Material Safety Datasheet documentation #10075 available at: 10075: https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

[RAT IgG2b NEGATIVE CONTROL:RPE \(MCA6006PE\)](#)

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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Printed on 05 May 2018