

Datasheet: MCA715PE

BATCH NUMBER INN0215

Description:	RAT ANTI HUMAN CD59:RPE
Specificity:	CD59
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 Stabilisers	0.09% Sodium Azide		
	1%	Bovine Serum Albumin	
	5%	Sucrose	

Immunogen	Human Peripheral Blood T cells.
External Database Links	<p>UniProt: P13987 Related reagents</p> <p>Entrez Gene: 966 CD59 Related reagents</p>
Synonyms	MIC11, MIN1, MIN2, MIN3, MSK21
RRID	AB_321513
Fusion Partners	Spleen cells from an immunised DA rat were fused with cells of the Y3/Ag1.2.3 rat myeloma cell line.
Specificity	<p>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.</p> <p>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.</p> <p>Rat anti Human CD59 antibody, clone YTH53.1 blocks the normal function of CD59 (Walsh et al. 1991).</p>
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	<ol style="list-style-type: none"> 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. 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. Davies, A. <i>et al.</i> (1995) Identification of MIC 11 antigen as an epitope of the CD59 molecule. Immunology. 85 (2): 220-7. Ellison BS <i>et al.</i> (2007) Complement susceptibility in glutamine deprived breast cancer cells. Cell Div. 2: 20. 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. 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. *et al.* (2004) Human oligodendroglial cells express low levels of C1 inhibitor and membrane cofactor protein mRNAs. [J Neuroinflammation. 1: 17.](#)

8. Koch, N. *et al.* (2009) IL-10 protects monocytes and macrophages from complement-mediated lysis. [J Leukoc Biol. 86: 155-66.](#)

9. Zhu, C. *et al.* (2020) Isatuximab Acts Through Fc-Dependent, Independent, and Direct Pathways to Kill Multiple Myeloma Cells. [Front Immunol. 11: 1771.](#)

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.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #20487 available at: <https://www.bio-rad-antibodies.com/SDS/MCA715PE>
20487

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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