

Datasheet: MCA715GT

Description:	RAT ANTI HUMAN CD59
Specificity:	CD59
Other names:	HRF, PROTECTIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	YTH53.1
Isotype:	IgG2b
Quantity:	25 µg

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	■			1/50 - 1/100
Immunohistology - Frozen	■			
Immunohistology - Paraffin (1)	■			1/5 - 1/10
ELISA			■	
Immunoprecipitation			■	
Western Blotting	■			
Functional Assays (2)	■			

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 contains sodium azide, removal by dialysis is recommended prior to use in functional assays. Bio-Rad recommend the use of [EQU003](#) for this purpose.**

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Carrier Free	Yes

Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
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.
Histology Positive Control Tissue	Placenta
References	- 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. - 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. - Koch, N. <i>et al.</i> (2009) IL-10 protects monocytes and macrophages from complement-mediated lysis. J Leukoc Biol. 86: 155-66.

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.
Shelf Life	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

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®549 , DyLight®649 , DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP

Recommended Negative Controls

[RAT IgG2b NEGATIVE CONTROL \(MCA6006GA\)](#)

North & South America	Tel: +1 800 265 7376 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 Email: antibody_sales_de@bio-rad.com
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