Datasheet: MCA914T

BATCH NUMBER 160643

Description:	MOUSE ANTI HUMAN CD55
Specificity:	CD55
Other names:	DAF
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	BRIC216
Isotype:	IgG1
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	▪			
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting (1)	▪			
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 guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

(1) **Clone BRIC216 recognises human CD55 under non-reducing conditions**.

(2) **This product contains sodium azide, removal by dialysis is recommended prior to use in functional assays.**

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Buffer Solution	TRIS buffered saline
Preservative Stabilisers	<0.1% Sodium Azide (NaN_3) ≤100mM Glycine
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Human fibroblast cell line.
External Database Links	**UniProt:** P08174 Related reagents **Entrez Gene:** 1604 CD55 Related reagents
Synonyms	CR, DAF
RRID	AB_1102203
Specificity	**Mouse anti Human CD55 antibody, clone BRIC216** recognizes the CD55 antigen, a ~70 kDa glycoprotein also known as Decay Accelerating Factor (DAF). CD55 is distributed on erythrocytes and other circulating blood cells and also on cells in non-haemopoietic tissue particularly epithelium and endothelium. CD55 is also expressed at the foetal-maternal interfaces in placenta.CD55 has reduced expression on individuals with paroxysmal nocturnal haemoglobinuria. Mouse anti Human CD55 antibody, clone BRIC216 has a functional binding affinity to erythrocytes of 8.7×10^7 M^{-1}. The antigen is pronase and trypsin resistant and chymotrypsin sensitive. Mouse anti Human CD55 antibody, clone BRIC216 recognizes the consensus region 3 of the DAF molecule, which contains the functional site, and the antibody blocks the function of DAF.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul
References	1. Fodor, W.L. *et al.* (1995) A novel bifunctional chimeric complement inhibitor that regulates C3 convertase and formation of the membrane attack complex. J Immunol. 155 (9): 4135-8. 2. Wiesner, J. *et al.* (1997) Host cell factor CD59 restricts complement lysis of Plasmodium falciparum-infected erythrocytes. Eur J Immunol. 27 (10): 2708-13. 3. Triantafilou, M. *et al.* (2000) A 70 kDa MHC class I associated protein (MAP-70) identified as a receptor molecule for Coxsackievirus A9 cell attachment. Hum Immunol. 61 (9): 867-78. 4. Tieng, V. *et al.* (2002) Binding of Escherichia coli adhesin AfaE to CD55 triggers cell-surface expression of the MHC class I-related molecule MICA. Proc Natl Acad Sci U S A. 99: 2977-82. 5. Loberg, R.D. *et al.* (2006) Inhibition of decay-accelerating factor (CD55) attenuates prostate cancer growth and survival *in vivo.* Neoplasia. 8: 69-78. 6. Wu, G. *et al.* (2007) Coagulation cascade activation triggers early failure of pig hearts

expressing human complement regulatory genes. Xenotransplantation. 14 (1): 34-47.
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8. Ellison, B.S. *et al.* (2007) Complement susceptibility in glutamine deprived breast cancer cells. Cell Div. 2: 20.
9. Liszewski, M.K. *et al.* (2007) Modeling how CD46 deficiency predisposes to atypical hemolytic uremic syndrome. Mol Immunol. 44: 1559-68.
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11. Tu, C.F. *et al.* (2010) The *in vitro* protection of human decay accelerating factor and hDAF/heme oxygenase-1 transgenes in porcine aortic endothelial cells against sera of Formosan macaques. Transplant Proc. 42 (6): 2138-41.
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13. Gullipalli, D. *et al.* (2018) Antibody Inhibition of Properdin Prevents Complement-Mediated Intravascular and Extravascular Hemolysis. J Immunol. 201 (3): 1021-9.
14. Noda, G.S. *et al*. (2020) Specificities and isotypes of erythrocytes autoantibodies in patients with warm autoimmune hemolytic anemia Rev Cubana Hematol Inmunol Hemoter 36(4): e1283

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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10511 available at: https://www.bio-rad-antibodies.com/SDS/MCA914T 10511
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos., HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC

Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

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

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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