Datasheet: MCA914T

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. 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
Preservative Stabilisers	0.09% Sodium Azide
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
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 x 10^7 M^{-1}. The antigen is pronase and trypsin resistant and chymotrypsin sensitive. Mouse anti Human CD55 antibody, clone BRIC216 recognises 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. Coyne, K.E. *et al.* (1992) Mapping of epitopes, glycosylation sites, and complement regulatory domains in human decay accelerating factor. J Immunol. 149 (9): 2906-13. 2. Loberg, R.D. *et al.* (2006) Inhibition of decay-accelerating factor (CD55) attenuates prostate cancer growth and survival *in vivo.* Neoplasia. 8: 69-78. 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. Ellison, B.S. *et al.* (2007) Complement susceptibility in glutamine deprived breast cancer cells. Cell Div. 2: 20. 5. 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. 6. Pahwa, R. *et al.* (2016) Modulation of PBMC-decay accelerating factor (PBMC-DAF) and cytokines in rheumatoid arthritis. Mol Cell Biochem. 414 (1-2): 85-94. 7. Kim, M.S. & Racaniello, V.R. (2007) Enterovirus 70 receptor utilization is controlled by capsid residues that also regulate host range and cytopathogenicity. J Virol. 81 (16): 8648-55. 8. Wu, G. *et al.* (2007) Coagulation cascade activation triggers early failure of pig hearts expressing human complement regulatory genes. Xenotransplantation. 14 (1): 34-47. 9. Liszewski, M.K. *et al.* (2007) Modeling how CD46 deficiency predisposes to atypical hemolytic uremic syndrome. Mol Immunol. 44: 1559-68. 10. Wiesner, J. *et al.* (1997) Host cell factor CD59 restricts complement lysis of Plasmodium falciparum-infected erythrocytes. Eur J Immunol. 27 (10): 2708-13. 11. 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. 12. 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. 13. Koch, N. *et al.* (2009) IL-10 protects monocytes and macrophages from complement-mediated lysis. J Leukoc Biol. 86 (1): 155-66. 14. Kim, M.S. & Racaniello, V.R. (2007) Enterovirus 70 receptor utilization is controlled by capsid residues that also regulate host range and cytopathogenicity. J Virol. 81 (16): 8648-55.
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 available at: Material Safety Datasheet Documentation #10040 available at: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR76...)	RPE
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos., HRP
Human Anti Mouse IgG1 (HCA036...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®549, DyLight®649, DyLight®680, DyLight®800, FITC, HRP
Rabbit Anti Mouse IgG (STAR13...)	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

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