Datasheet: MCA1614

Description:	MOUSE ANTI HUMAN CD55
Specificity:	CD55
Other names:	DAF
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	67
Isotype:	IgG1
Quantity:	0.2 mg

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	▪			1/10 - 1/25
Immunohistology - Frozen	▪			1/100 - 1/1000
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			

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 - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A 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	K562 cells

External Database Links	**UniProt:** P08174 Related reagents **Entrez Gene:** 1604 CD55 Related reagents
Synonyms	CR, DAF
Specificity	**Mouse anti Human CD55 antibody, clone 67** recognizes the human CD55 cell surface antigen, a GPI linked molecule also known as decay accelerating factor (DAF). CD55 is expressed by a wide range of cell types. CD55 is the complement regulatory protein, decay accelerating factor (DAF) (Lublin and Atkinson 1989). Human CD55 is a ~70 kDa glycoprotein (in erythrocytes) anchored in the membrane by glycosylphosphatidylinositol tail. In other cells the apparent molecular weight is somewhat larger. It has a substantial content of O-glycans, and also on N-glycan. DAF binds to activated C4b or C3b complement fragments on the cell surface, preventing the assembly and accelerating the decay of both classical and alternative pathways. DAF carries the Cromer related blood group antigens. DAF has a wide distribution on cells in non-hemopoietic tissues, particularly epithelium and is specifically found at the fetal-maternal interface in placenta (Holmes *et al.* 1990 and Yang *et al.* 2009). Soluble forms of DAF are found, for example, in plasma, saliva and urine (Medof *et al.* 1987). The antigen on erythrocytes is pronase and chymotrypsin sensitive, but resistant to trypsin.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul. Please note: Bio-Rad do not recommend the use of this reagent to stain erythrocytes
Histology Positive Control Tissue	Human Tonsil
References	1. Lublin, D.M. & Atkinson, J.P. (1989) Decay-accelerating factor: biochemistry, molecular biology, and function. Annu Rev Immunol. 7: 35-58. 2. Daniels, G. (1989) Cromer-related antigens--blood group determinants on decay-accelerating factor. Vox Sang. 56 (4): 205-11. 3. Holmes, C.H. *et al.* (1990) Preferential expression of the complement regulatory protein decay accelerating factor at the fetomaternal interface during human pregnancy. J Immunol. 144 (8): 3099-105. 4. Yang, P. *et al.* (2009) Expression and modulation of RPE cell membrane complement regulatory proteins. Invest Ophthalmol Vis Sci. 50: 3473-81. 5. van de Sande, M.G. *et al.* (2011) Different stages of rheumatoid arthritis: features of the synovium in the preclinical phase. Ann Rheum Dis. 70: 772-7. 6. Mo, B. *et al.* (2006) ECC-1 cells: a well-differentiated steroid-responsive endometrial cell line with characteristics of luminal epithelium. Biol Reprod. 75: 387-94. 7. Araten, D.J. *et al.* (2005) A quantitative measurement of the human somatic mutation rate. Cancer Res. 65: 8111-7. 8. de Launay, D. *et al.* (2010) Silencing the expression of Ras family GTPase homologues decreases inflammation and joint destruction in experimental arthritis. Am J Pathol. 177: 3010-24. 9. Gheorghe, K.R. *et al.* (2011) Prostaglandin E2 synthesizing enzymes in rheumatoid arthritis B cells and the effects of B cell depleting therapy on enzyme expression. PLoS One. ;6: e16378. 10. Kraan, M.C. *et al.* (2004) T cells, fibroblast-like synoviocytes, and granzyme B+ cytotoxic cells are associated with joint damage in patients with recent onset rheumatoid arthritis. Ann Rheum Dis. 63: 483-8.

11. van Holten, J. *et al.* (2005) A multicentre, randomised, double blind, placebo controlled phase II study of subcutaneous interferon beta-1a in the treatment of patients with active rheumatoid arthritis. Ann Rheum Dis. 64 (1): 64-9.
12. Abreu, J.R. *et al.* (2009) The Ras guanine nucleotide exchange factor RasGRF1 promotes matrix metalloproteinase-3 production in rheumatoid arthritis synovial tissue. Arthritis Res Ther.11(4):R121.
13. Thurlings, R.M. *et al.* (2008) Synovial tissue response to rituximab: mechanism of action and identification of biomarkers of response. Ann Rheum Dis. 67 (7): 917-25.
14. Vos, K. *et al.* (2007) Early effects of rituximab on the synovial cell infiltrate in patients with rheumatoid arthritis. Arthritis Rheum. 56 (3): 772-8.
15. Edginton S *et al.* (2016) Effects of Rituximab and Infliximab Treatment on Carboxypeptidase B and Its Substrates in RA Synovium. J Rheumatol. 43 (5): 846-54.

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

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

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