Datasheet: MCA1075F

Description:	MOUSE ANTI HUMAN CD32:FITC
Specificity:	CD32
Other names:	FcRII
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	AT10
Isotype:	IgG1
Quantity:	0.1 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	▪			Neat - 1/10

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

Species Cross Reactivity

Reacts with: Dog, Rhesus Monkey, Pig
N.B. Antibody reactivity and working conditions may vary between species.

Product Form

Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

Preparation

Purified IgG prepared by affinity chromatography on Protein A

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide
1% Bovine Serum Albumin

Approx. Protein Concentrations

IgG concentration 0.1 mg/ml

Immunogen

K562 cell line.

External Database Links	**UniProt:** P12318 Related reagents P31994 Related reagents P31995 Related reagents **Entrez Gene:** 2212 FCGR2A Related reagents 2213 FCGR2B Related reagents 9103 FCGR2C Related reagents
Synonyms	CD32, FCG2, FCGR2A1, IGFR2
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS1 myeloma cell line.
Specificity	**Mouse anti Human CD32 antibody, clone AT10** recognizes the human CD32 antigen, a ~40 kDa glycoprotein that acts as a low affinity receptor for IgG (also known as Fc gamma RII). The antigen mediates several functions including endocytosis, activation of secretion, cytotoxicity and immunomodulation. CD32 is expressed by B cells, monocytes, granulocytes and platelets. Clone AT10 blocks the binding of IgG to Fc gamma RII (Larsson *et al.* 1997).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells or 100ul whole blood
References	1. Greenman, J. *et al.* (1991) Characterization of a new monoclonal anti-Fc gamma RII antibody, AT10, and its incorporation into a bispecific F(ab')2 derivative for recruitment of cytotoxic effectors. Mol Immunol. 28 (11): 1243-54. 2. Van Den Herik-Oudijk, I.E. *et al.* (1994) Functional analysis of human Fc gamma RII (CD32) isoforms expressed in B lymphocytes. J Immunol. 152 (2): 574-85. 3. Lilliehöök, I. *et al.* (1998) Expression of adhesion and Fcgamma-receptors on canine blood eosinophils and neutrophils studied by anti-human monoclonal antibodies. Vet Immunol Immunopathol. 61 (2-4): 181-93. 4. Larsson M *et al.* (1997) Human dendritic cells handling of binding, uptake and degradation of free and IgG-immune complexed dinitrophenylated human serum albumin *in vitro*. Immunology. 90 (1): 138-46. 5. Dutertre, C.A. *et al.* (2008) A novel subset of NK cells expressing high levels of inhibitory FcgammaRIIB modulating antibody-dependent function. J Leukoc Biol. 84 (6): 1511-20. 6. Devriendt, B. *et al.* (2010) Targeting of *Escherichia coli* F4 fimbriae to Fcgamma receptors enhances the maturation of porcine dendritic cells. Vet Immunol Immunopathol. 135: 188-98. 7. Sims, G.P. *et al.* (2005) Identification and characterization of circulating human transitional B cells. Blood. 105: 4390-8. 8. Benitez-Ribas, D. *et al.* (2006) Plasmacytoid dendritic cells of melanoma patients present exogenous proteins to CD4+ T cells after Fc gamma RII-mediated uptake. J Exp Med. 203: 1629-35. 9. Zhao, X.W. *et al.* (2011) CD47-signal regulatory protein-α (SIRPα) interactions form a barrier for antibody-mediated tumor cell destruction. Proc Natl Acad Sci U S A. 108 (45): 18342-7. 10. Araújo, M.S.*et al.* (2011) Immunological changes in canine peripheral blood leukocytes triggered by immunization with first or second generation vaccines against canine visceral leishmaniasis. Vet Immunol Immunopathol. 141: 64-75. 11. Benitez-Ribas, D. *et al.* (2006) Plasmacytoid dendritic cells of melanoma patients present exogenous proteins to CD4+ T cells after Fc gamma RII-mediated uptake. J Exp Med. 203:

1629-35.
12. Santer, D.M. *et al.* (2010) C1q deficiency leads to the defective suppression of IFN-alpha in response to nucleoprotein containing immune complexes. J Immunol. 185: 4738-49.
13. Shannon, O. *et al.* (2010) Platelet activation and biofilm formation by *Aerococcus urinae*, an endocarditis-causing pathogen. Infect Immun. 78: 4268-75.
14. Ito, T. *et al.* (1999) A CD1a+/CD11c+ subset of human blood dendritic cells is a direct precursor of Langerhans cells. J Immunol. 163: 1409-19.
15. Moreira, M.L. *et al.* (2016) Vaccination against canine leishmaniosis increases the phagocytic activity, nitric oxide production and expression of cell activation/migration molecules in neutrophils and monocytes. Vet Parasitol. 220: 33-45.
16. Gazendam, R.P. *et al.* (2016) Impaired killing of *Candida albicans* by granulocytes mobilized for transfusion purposes: a role for granule components. Haematologica. 101 (5): 587-96.
17. Liu M *et al.* (2011) Vitellogenin mediates phagocytosis through interaction with FcγR. Mol Immunol. 49 (1-2): 211-8.
18. Petersson, F. *et al.* (2018) Platelet activation and aggregation by the opportunistic pathogen *Cutibacterium (Propionibacterium) acnes*. PLoS One. 13 (1): e0192051.

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. This product is photosensitive and should be protected from light. 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 #10041 available at: 10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:FITC (MCA928F)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

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