

# Datasheet: MCA1075 BATCH NUMBER 157342

Description: MOUSE ANTI HUMAN CD	
Specificity:	CD32
Other names:	FcRII
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AT10
Isotype:	lgG1
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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	•			20ug/ml
Immunohistology - Frozen (1)	-			1/500 - 1/1000
Immunohistology - Paraffin		•		
ELISA			•	
Immunoprecipitation	•			20ug/ml
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)The epitope recognised by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. Bio-Rad recommends the use of acetone fixation for frozen sections.
- (2)This product contains sodium azide, removal by dialysis is recommended prior to use in functional assays.

Target Species	Human
Species Cross Reactivity	Reacts with: Dog, Rhesus Monkey, Pig <b>N.B.</b> Antibody reactivity and working conditions may vary between species. Cross

reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form	Purified IgG - liquid			
Preparation	Purified IgG prepared by affinity chromatography on Protein A			
Buffer Solution	TRIS buffered saline			
Preservative Stabilisers	0.09% Sodium Azide (NaN <sub>3</sub> )			
Approx. Protein Concentrations	IgG concentration 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			
RRID	AB_321659			
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS1 myeloma cell line.			
Specificity	<b>Mouse anti Human CD32 antibody, clone AT10</b> recognizes the human CD32 antigen, a ~40 kDa glycoprotein that acts as a low affinity receptor for IgG (also known as Fc gamma RII). CD32 mediates several functions including endocytosis, activation of secretion, cytotoxicity and immunomodulation. CD32 is expressed by B cells, monocytes, granulocytes and platelets.			
	Mouse anti Human CD32 antibody, clone AT10 blocks the binding of IgG to Fc gamm ( <u>Larsson et al. 1997</u> ).			
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells or cells or 100ul whole blood.			
Histology Positive Control Tissue	Lymph node			

#### References

- 1. Van Den Herik-Oudijk, I.E. *et al.* (1994) Functional analysis of human Fc gamma RII (CD32) isoforms expressed in B lymphocytes. <u>J Immunol</u>. 152 (2): 574-85.
- 2. Lilliehöök, I. *et al.* (1998) Expression of adhesion and Fcgamma-receptors on canine blood eosinophils and neutrophils studied by anti-human monoclonal antibodies. <u>Vet Immunol Immunopathol. 61 (2-4): 181-93.</u>
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- 4. Mold, C. and Du Clos, T.W. (2006) C-reactive protein increases cytokine responses to *Streptococcus pneumoniae* through interactions with Fc gamma receptors. <u>J Immunol.</u> 176: 7598-604.
- 5. Dutertre, C.A. *et al.* (2008) A novel subset of NK cells expressing high levels of inhibitory FcgammaRIIB modulating antibody-dependent function. <u>J Leukoc Biol. 84 (6)</u>: 1511-20.
- 6. Devriendt, B. *et al.* (2010) Targeting of *Escherichia coli* F4 fimbriae to Fcgamma receptors enhances the maturation of porcine dendritic cells. <u>Vet Immunol Immunopathol.</u> 135: 188-98.
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- 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. <u>J Exp Med. 203: 1629-35.</u>
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- 13. Shannon, O. *et al.* (2010) Platelet activation and biofilm formation by *Aerococcus urinae*, an endocarditis-causing pathogen. <u>Infect Immun. 78: 4268-75.</u>
- 14. Ito, T. *et al.* (1999) A CD1a+/CD11c+ subset of human blood dendritic cells is a direct precursor of Langerhans cells. <u>J Immunol</u>. 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. <u>Vet Parasitol. 220: 33-45.</u>
- 16. Gazendam, R.P. *et al.* (2016) Impaired killing of *Candida albicans* by granulocytes mobilized for transfusion purposes: a role for granule components. <u>Haematologica. 101</u> (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*. <u>PLoS One. 13 (1): e0192051.</u>

19. Kahn, F. et al. (2008) Antibodies against a surface protein of Streptococcus pyogenes promote a pathological inflammatory response. PLoS Pathog. 4 (9): e1000149.

20. Bruggeman, C.W. et al. (2019) Tissue-specific expression of IgG receptors by human macrophages ex vivo. PLoS One. 14 (10): e0223264.

21. Chen, T. et al. (2020) Capsular glycan recognition provides antibody-mediated immunity against tuberculosis. J Clin Invest. 130 (4): 1808-22.

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.

Guarantee	12 months from date of despatch		
Health And Safety Information	Material Safety Datasheet documentation #10057 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1075">https://www.bio-rad-antibodies.com/SDS/MCA1075</a> 10057		
Regulatory	For research purposes only		

## Related Products

### **Recommended Secondary Antibodies**

Rabbit Anti Mouse IgG (STAR12...) **RPE** 

Goat Anti Mouse IgG IgA IgM (STAR87...) HRP

Goat Anti Mouse IgG (STAR76...) **RPE** 

Goat Anti Mouse IgG (STAR70...) **FITC** 

Rabbit Anti Mouse IgG (STAR13...) **HRP** 

Goat Anti Mouse IgG (Fc) (STAR120...) FITC, HRP

Rabbit Anti Mouse IgG (STAR9...) **FITC** 

Goat Anti Mouse IgG (STAR77...) **HRP** 

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 Tel: +1 800 265 7376 America

Worldwide

Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Europe

Tel: +49 (0) 89 8090 95 21

Fax: +1 919 878 3751

Fax: +49 (0) 89 8090 95 50

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Email: antibody sales uk@bio-rad.com

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 'M376419:210202'

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