Datasheet: MCA1075EL

Description:	MOUSE ANTI HUMAN CD32:Low Endotoxin
Specificity:	CD32
Other names:	FcRII
Format:	Low Endotoxin
Product Type:	Monoclonal Antibody
Clone:	AT10
Isotype:	IgG1
Quantity:	0.5 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	▪			20ug/ml
Immunohistology - Frozen (1)	▪			1/500 - 1/1000
Immunohistology - Paraffin		▪		
ELISA			▪	
Immunoprecipitation	▪			20ug/ml
Western Blotting			▪	
Functional Assays	▪			

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.**

Target Species

Human

Species Cross Reactivity

Reacts with: Dog, Rhesus Monkey, Pig

N.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 from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	None present
Endotoxin Level	<0.01 EU/ug
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_10965067
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). 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 gamma RII (Larsson *et al.* 1997).
Flow Cytometry	Use 10µl of the suggested working dilution to label 10^6 cells or cells or 100µl 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. J Immunol. 152 (2): 574-85.
2. 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.
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. 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.
5. Su, K. *et al.* (2004) A promoter haplotype of the immunoreceptor tyrosine-based inhibitory motif-bearing FcgammaRIIb alters receptor expression and associates with autoimmunity. II. Differential binding of GATA4 and Yin-Yang1 transcription factors and correlated receptor expression and function. J Immunol. 172: 7192-9.
6. Pawar, P. *et al.* (2004) Fluid shear regulates the kinetics and receptor specificity of *Staphylococcus aureus* binding to activated platelets. J Immunol. 173: 1258-65.
7. Sims, G.P. *et al.* (2005) Identification and characterization of circulating human transitional B cells. Blood. 105: 4390-8.
8. Bonnefont-Rebeix, C. *et al.* (2006) CD86 molecule is a specific marker for canine monocyte-derived dendritic cells. Vet Immunol Immunopathol. 109 (1-2): 167-76.
9. 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.
10. Mold, C. and Du Clos, T.W. (2006) C-reactive protein increases cytokine responses to *Streptococcus pneumoniae* through interactions with Fc gamma receptors. J Immunol. 176: 7598-604.
11. 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.
12. Kahn, F. *et al.* (2008) Antibodies against a surface protein of *Streptococcus pyogenes* promote a pathological inflammatory response. PLoS Pathog. 4 (9): e1000149.
13. Shannon, O. *et al.* (2010) Platelet activation and biofilm formation by *Aerococcus urinae*, an endocarditis-causing pathogen. Infect Immun. 78: 4268-75.
14. 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.
15. 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.
16. 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.
17. Liu M *et al.* (2011) Vitellogenin mediates phagocytosis through interaction with FcγR. Mol Immunol. 49 (1-2): 211-8.
18. 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.

19. van der Heijden, J. *et al.* (2012) Phenotypic variation in IgG receptors by nonclassical FCGR2C alleles. J Immunol. 188 (3): 1318-24.
20. Pellerin, A. *et al.* (2015) Anti-BDCA2 monoclonal antibody inhibits plasmacytoid dendritic cell activation through Fc-dependent and Fc-independent mechanisms. EMBO Mol Med. 7 (4): 464-76.
21. 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.
22. 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.
23. Petersson, F. *et al.* (2018) Platelet activation and aggregation by the opportunistic pathogen *Cutibacterium (Propionibacterium) acnes*. PLoS One. 13 (1): e0192051.
24. Bruggeman, C.W. *et al.* (2019) Tissue-specific expression of IgG receptors by human macrophages *ex vivo*. PLoS One. 14 (10): e0223264.
25. Chen, T. *et al.* (2020) Capsular glycan recognition provides antibody-mediated immunity against tuberculosis. J Clin Invest. 130 (4): 1808-22.
26. Teuben, M.P.J. *et al.* (2021) Standardized porcine unilateral femoral nailing is associated with changes in PMN activation status, rather than aberrant systemic PMN prevalence. Eur J Trauma Emerg Surg. Jun 10 [Epub ahead of print].
27. Álvarez, B. *et al.* (2023) Porcine Macrophage Markers and Populations: An Update. Cells. 12 (16): 2103.
28. Jimenez, R.V. *et al.* (2018) C-Reactive Protein Impairs Dendritic Cell Development, Maturation, and Function: Implications for Peripheral Tolerance. Front Immunol. 9: 372.

Storage	Store at -20°C only. Storage in frost-free freezers is not recommended. This product should be stored undiluted. 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 #10162 available at: https://www.bio-rad-antibodies.com/SDS/MCA1075EL 10162
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
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC

Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:Low Endotoxin (MCA928EL)

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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