

Datasheet: MCA5665

Description:	MOUSE ANTI HUMAN CD16
Specificity:	CD16
Other names:	FcRIII
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	KD1
Isotype:	IgG2a
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	■			1/25 - 1/200
Immunohistology - Frozen			■	
Immunohistology - Paraffin			■	
ELISA			■	
Immunoprecipitation			■	
Western Blotting			■	
Functional Assays (1)	■			

Where this product 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 product for use in their own system using appropriate negative/positive controls.

(1) This product contains sodium azide, removal by dialysis is recommended prior to use in functional assays. Dialysis cassettes [EQU003](#) are suitable for this purpose. "

Target Species	Human
Species Cross Reactivity	Reacts with: Bovine, Sheep, Dolphin Does not react with: Rat, Dog Reacts weakly with: Horse, Pig N.B. Antibody reactivity and working conditions may vary between species.
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	A polyclonal population of NK cells.
External Database Links	UniProt: P79107 Related reagents P08637 Related reagents O75015 Related reagents Entrez Gene: 281766 FCGR3A Related reagents 2214 FCGR3A Related reagents 2215 FCGR3B Related reagents
Synonyms	CD16A, CD16B, FCG3, FCGR3, FCGRIII, IGFR3
Fusion Partners	Spleen cells from immunised mice were fused with cells of the P3U1 myeloma cell line.
Specificity	Mouse anti Human CD16 antibody, clone KD1 recognizes human CD16, a 50-65 kDa cell surface molecule, which is the low affinity receptor for IgG (FcR III). CD16 exists as a transmembranous form (Fc gammaRIIIA, or CD16A) and a glycosyl phosphatidylinositol (GPI) anchored form (Fc gammaRIIIB, or CD16B). CD16A is expressed by NK cells, some T cells, and macrophages (< href="http://www.ncbi.nlm.nih.gov/pubmed /?term=2137855"target="_blank">Moretta <i>et al.</i> 1990), whereas CD16B is primarily expressed by granulocytes (Bonecchi <i>et al.</i> 1999). Clone KD1 recognizes both forms of CD16 and will therefore recognize all cell types expressing CD16. Mouse anti Human CD16, clone KD1 can be used to identify CD16 in a range of species including bovine (Boysen <i>et al.</i> 2010) and ovine (Elh mouzi-Younes <i>et al.</i> 2010).
Flow Cytometry	Use 100ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul.
References	- Moretta, A. <i>et al.</i> (1989) CD16 surface molecules regulate the cytolytic function of CD3CD16+ human natural killer cells. Int J Cancer. 44 (4): 727-30. - Zocchi, M.R. <i>et al.</i> (1998) HIV-1 Tat inhibits human natural killer cell function by blocking L-type calcium channels. J Immunol. 161: 2938-43. - Ciccone, E. <i>et al.</i> (1990) Specific recognition of human CD3-CD16+ natural killer cells requires the expression of an autosomic recessive gene on target cells. J Exp Med. 172 (1): 47-52. - Boysen, P. <i>et al.</i> (2008) Natural killer cells in lymph nodes of healthy calves express CD16 and show both cytotoxic and cytokine-producing properties. Dev Comp Immunol. 32: 773-83. - Hernández-Caselles, T. <i>et al.</i> (2006) A study of CD33 (SIGLEC-3) antigen expression and function on activated human T and NK cells: two isoforms of CD33 are generated by alternative splicing. J Leukoc Biol. 79: 46-58. - Elh mouzi-Younes, J. <i>et al.</i> (2010) Ovine CD16+/CD14- blood lymphocytes present all the major characteristics of natural killer cells. Vet Res. 41 (1): 4. - Connelley, T. <i>et al.</i> (2011) NKp46 defines ovine cells that have characteristics corresponding to NK cells. Vet Res. 42: 37. - Cantón, G.J. <i>et al.</i> (2013) Phenotypic characterisation of the cellular immune infiltrate in

placentas of cattle following experimental inoculation with *Neospora caninum* in late gestation. [Vet Res. 44: 60.](#)

9. Pomeroy, B. *et al.* (2016) Longitudinal characterization of bovine monocyte-derived dendritic cells from mid-gestation into subsequent lactation reveals nadir in phenotypic maturation and macrophage-like cytokine profile in late gestation. [J Reprod Immunol. 118: 1-8.](#)

10. Pomeroy, B. *et al.* (2017) Counts of bovine monocyte subsets prior to calving are predictive for postpartum occurrence of mastitis and metritis. [Vet Res. 48 \(1\): 13.](#)

11. Gibson, A.J. *et al.* (2016) Differential macrophage function in Brown Swiss and Holstein Friesian cattle. [Vet Immunol Immunopathol. 181: 15-23.](#)

12. Elnaggar, M.M. *et al.* (2017) Identification of monoclonal antibodies cross-reactive with bottlenose dolphin orthologues of the major histocompatibility complex and leukocyte differentiation molecules. [Vet Immunol Immunopathol. 192: 54-9.](#)

Storage	Store at +4°C or at -20°C if preferred. 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.
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

Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

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