

## Datasheet: MCA5665GA

**BATCH NUMBER 171199**

<b>Description:</b>	MOUSE ANTI HUMAN CD16
<b>Specificity:</b>	CD16
<b>Other names:</b>	FcRIII
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	KD1
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			
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.**

### 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. 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.

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<b>Product Form</b>	Purified IgG - liquid
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<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
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<b>Buffer Solution</b>	Phosphate buffered saline
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<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
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<b>Carrier Free</b>	Yes
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<b>Approx. Protein Concentrations</b>	IgG concentration 1.0mg/ml
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<b>Immunogen</b>	A polyclonal population of NK cells.
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<b>External Database Links</b>	<b>UniProt:</b> <a href="#">P79107</a> <a href="#">Related reagents</a> <a href="#">P08637</a> <a href="#">Related reagents</a> <a href="#">O75015</a> <a href="#">Related reagents</a>  <b>Entrez Gene:</b> <a href="#">281766</a> FCGR3A <a href="#">Related reagents</a> <a href="#">2214</a> FCGR3A <a href="#">Related reagents</a> <a href="#">2215</a> FCGR3B <a href="#">Related reagents</a>
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<b>Synonyms</b>	CD16A, CD16B, FCG3, FCGR3, FCGR3III, IGFR3
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<b>RRID</b>	AB_10960637
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<b>Fusion Partners</b>	Spleen cells from immunised mice were fused with cells of the P3U1 myeloma cell line.
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<b>Specificity</b>	<p><b>Mouse anti Human CD16 antibody, clone KD1</b> 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 (<a href="#">Moretta et al. 1990</a>), whereas CD16B is primarily expressed by granulocytes (<a href="#">Bonocchi et al. 1999</a>). Clone KD1 recognizes both forms of CD16 and will therefore recognize all cell types expressing CD16.</p> <p>Mouse anti Human CD16, clone KD1 can be used to identify CD16 in a range of species including bovine (<a href="#">Boysen et al. 2010</a>) and ovine (<a href="#">Elh mouzi-Younes et al. 2010</a>).</p>
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<b>Flow Cytometry</b>	Use 100ul of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100ul.
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## References

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3. Zocchi, M.R. *et al.* (1998) HIV-1 Tat inhibits human natural killer cell function by blocking L-type calcium channels. [J Immunol. 161: 2938-43.](#)
4. Hernández-Caselles, T. *et al.* (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.](#)
5. Boysen, P. *et al.* (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.](#)
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13. Kolar, Q.K. *et al.* (2020) Anatomical distribution of respiratory tract leukocyte cell subsets in neonatal calves. [Vet Immunol Immunopathol. 227: 110090.](#)
14. Park, D.S. *et al.* (2021) Dynamic changes in blood immune cell composition and function in Holstein and Jersey steers in response to heat stress. [Cell Stress Chaperones. 26 \(4\): 705-20.](#)
15. Fiorenza, M.F. *et al.* (2021) Neutrophils recognize and amplify IFNT signals derived from day 7 bovine embryo for stimulation of ISGs expression *in vitro*.: A possible implication for the early maternal recognition of pregnancy. [Biochem Biophys Res Commun. 553: 37-43.](#)
16. Howell, A. *et al.* (2024) Resting and activated bovine neutrophils and eosinophils differ in their responses to adrenergic agonists. [Vet Immunol Immunopathol. 272: 110758.](#)
17. Hong, S. *et al.* (2024) Impact of an Injectable Trace Mineral Supplement on the Immune Response and Outcome of *Mannheimia haemolytica* Infection in Feedlot Cattle. [Biol Trace Elem Res. Jun 10 \[Epub ahead of print\].](#)
18. Scatà, C.M. *et al.* (2024) Characterization of Cellular Immune System at Different Ages in Water Buffalo (*Bubalus bubalis*) [Journal of Buffalo Science. 13: 133-139.](#)

19. Gilbert, F.B. *et al.* (2025) Expression of FcγR by bovine mononuclear blood leukocytes. [Dev Comp Immunol. 162: 105304.](#)

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**Storage** This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA5665GA>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

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

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

### Recommended Negative Controls

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

**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://www.bio-rad-antibodies.com/technical-support)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](http://bio-rad-antibodies.com/datasheets)  
'M438530:250513'

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