

Datasheet: MCA5665GA

Description:	MOUSE ANTI HUMAN CD16
Specificity:	CD16
Other names:	FcRIII
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	KD1
Isotype:	IgG2a
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	▪			
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.

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	<p>UniProt:</p> <p>P79107 Related reagents</p> <p>P08637 Related reagents</p> <p>O75015 Related reagents</p> <p>Entrez Gene:</p> <p>281766 FCGR3A Related reagents</p> <p>2214 FCGR3A Related reagents</p> <p>2215 FCGR3B Related reagents</p>
Synonyms	CD16A, CD16B, FCG3, FCGR3, FCGR3III, IGFR3
RRID	AB_10960637
Fusion Partners	Spleen cells from immunised mice were fused with cells of the P3U1 myeloma cell line.
Specificity	<p>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 (Moretta et al. 1990), whereas CD16B is primarily expressed by granulocytes (Bonecchi et al. 1999). 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 (Boysen et al. 2010) and ovine (Elhmouzi-Younes et al. 2010).</p>
Flow Cytometry	Use 100ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul.
References	1. 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.

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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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12. Liu, J. *et al.* (2020) *Theileria annulata*. transformation altered cell surface molecules expression and endocytic function of monocyte-derived dendritic cells. [Ticks Tick Borne Dis. 11 \(3\): 101365.](#)
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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.](#)

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.

Guarantee

12 months from date of despatch

**Health And Safety
Information**

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

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

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

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

Recommended Negative Controls

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

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