

## Datasheet: MCA5665PE

**BATCH NUMBER 166226**

<b>Description:</b>	MOUSE ANTI HUMAN CD16:RPE
<b>Specificity:</b>	CD16
<b>Other names:</b>	FcRIII
<b>Format:</b>	RPE
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	KD1
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	100 TESTS

## 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	▪			

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.

### 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 conjugated to R. Phycoerythrin (RPE) - lyophilized

### Reconstitution

Reconstitute with 1.0 ml distilled water

Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution

<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	RPE 488nm laser	496	578
	RPE 561nm laser	546	578
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		
<b>Buffer Solution</b>	Phosphate buffered saline		
<b>Preservative</b>	0.09% Sodium Azide (NaN <sub>3</sub> )		
<b>Stabilisers</b>	1% Bovine Serum Albumin 5% Sucrose		
<b>Immunogen</b>	A polyclonal population of NK cells.		
<b>External Database Links</b>	<p><b>UniProt:</b></p> <p><a href="#">P79107</a>      <a href="#">Related reagents</a></p> <p><a href="#">P08637</a>      <a href="#">Related reagents</a></p> <p><a href="#">O75015</a>      <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b></p> <p><a href="#">281766</a>    FCGR3A    <a href="#">Related reagents</a></p> <p><a href="#">2214</a>      FCGR3A    <a href="#">Related reagents</a></p> <p><a href="#">2215</a>      FCGR3B    <a href="#">Related reagents</a></p>		
<b>Synonyms</b>	CD16A, CD16B, FCG3, FCGR3, FCGRIII, IGFR3		
<b>Fusion Partners</b>	Spleen cells from immunised mice were fused with cells of the P3U1 myeloma cell line.		
<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="#">Bonecchi 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="#">Elhmouzi-Younes et al. 2010</a>).</p>		
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100ul		
<b>References</b>	<p>1. Moretta, A. <i>et al.</i> (1989) CD16 surface molecules regulate the cytolytic function of CD3CD16+ human natural killer cells. <a href="#">Int J Cancer. 44 (4): 727-30.</a></p> <p>2. 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. <a href="#">J Exp Med. 172 (1): 47-52.</a></p>		

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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.](#)
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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 \[Epub ahead of print\].](#)

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**Storage**

Prior to reconstitution store at +4°C.

After reconstitution store at +4°C.

DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #20487 available at:  
<https://www.bio-rad-antibodies.com/SDS/MCA5665PE>  
20487

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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL:RPE \(MCA929PE\)](#)

### Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070B\)](#)

[HUMAN SEROBLOCK \(BUF070A\)](#)

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