

Datasheet: MCA5665A647

BATCH NUMBER 168577

Description:	MOUSE ANTI HUMAN CD16:Alexa Fluor® 647
Specificity:	CD16
Other names:	FcRIII
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	KD1
Isotype:	IgG2a
Quantity:	100 TESTS/1ml

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	▪			Neat - 1/10

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 Alexa Fluor 647 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®647	650	665

Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture

supernatant

Buffer Solution Phosphate buffered saline

Preservative 0.09% Sodium Azide (NaN₃)
Stabilisers 1% Bovine Serum Albumin

Approx. Protein Concentrations IgG concentration 0.05 mg/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, FCGR3III, 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 ([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.

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 ([Elh mouzi-Younes et al. 2010](#)).

Flow Cytometry Use 10ul of the suggested working dilution to label 1x10⁶ cells in 100ul

References

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2. Ciccone, E. *et al.* (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.](#)
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.](#)
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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.](#)
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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 \[Epub ahead of print\].](#)

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. This product is photosensitive and should be protected from light.

Guarantee

12 months from date of despatch

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Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA5665A647>
10041

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA929A647\)](#)

Recommended Useful Reagents

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

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

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