Datasheet: MCA1568PET

Description:	MOUSE ANTI HUMAN CD14:RPE
Specificity:	CD14
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	TÜK4
Isotype:	IgG2a
Quantity:	25 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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat - 1/10

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

Target Species

Human

Species Cross Reactivity

Reacts with: Dog, Goat, Cat, Rabbit, Mink, Bovine, Pig, Sheep, Cynomolgus monkey, Llama
N.B. Antibody reactivity and working conditions may vary between species.

Product Form

Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized

Reconstitution

Reconstitute with 0.25ml 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.

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
RPE 488nm laser	496	578

Preparation

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

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide
1.0% Bovine Serum Albumin
5% Sucrose

External Database Links

UniProt:

P08571 Related reagents

Entrez Gene:

929 CD14 Related reagents

Specificity

Mouse anti human CD14 antibody, clone TÜK4 recognizes the human CD14 cell surface antigen. CD14 is a ~55 kDa glycoprotein that contains multiple leucine-rich repeats. It is anchored to the cell membrane via a glycosylphosphatidylinositol (GPI) linkage (Simmons *et al.* 1989), a soluble form of CD14 also exists (Bazil *et al.* 1986).

CD14 is strongly expressed on the surface of monocytes and macrophages but has also been shown to be expressed on the surface of non-myeloid cells (Jersmann 2005). CD14 functions as a pattern recognition receptor (Pugin *et al.* 1994, Dziarski *et al.* 1998) in innate immunity for a variety of ligands, in particular for the LPS (endotoxin) of Gram-negative bacteria.

Mouse anti human CD14 antibody, clone TÜK4 has been shown to block SDF-induced chemotaxis of U937 cells in a dose –dependent manner (Yang *et al.* 2003). Use of the anti-human CD14 antibody, Low Endotoxin format is recommended for this purpose.

Flow Cytometry

Use 10ul of the suggested working dilution to label 10^6 cells or 100ul whole blood.

References

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Further Reading	1. Simmons, D. L. *et al.* (1989) Monocyte antigen CD14 is a phospholipid anchored membrane protein. Blood. 73:284-9. 2. Bazil, V. *et al.* (1986) Biochemical characterization of a soluble form of the 53-kDa monocyte surface antigen. Eur J Immunol. 16:1583-9. 3. Jersmann, H.P. (2005) Time to abandon dogma: CD14 is expressed by non-myeloid lineage cells. Immunol Cell Biol. 83:462-7. 4. Pugin, J. *et al.* (1994) CD14 is a pattern recognition receptor. Immunity.1:509-16. 5. Dziarski, R. *et al.* (1998) Binding of bacterial peptidoglycan to CD14. J Biol Chem. 273:8680-90. 6. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. Vet Res. 39: 54.
Storage	Store at +4^{o}C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.
Shelf Life	12 months from date of reconstitution.
Health And Safety Information	Material Safety Datasheet documentation #10075 available at: 10075: https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG2a NEGATIVE CONTROL:RPE (MCA929PE)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

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Printed on 21 Jun 2018