

Datasheet: MCA1568A647

## **BATCH NUMBER 1801**

Description:	MOUSE ANTI HUMAN CD14:Alexa Fluor® 647		
Specificity:	CD14		
Format:	ALEXA FLUOR® 647		
Product Type:	Monoclonal Antibody		
Clone:	TÜK4		
Isotype:	lgG2a		
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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	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. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for					
Product Form	further information.  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 prepar supernatant	red by affinity chromatog	raphy on Protein A from tissue culture	Э		

Buffer Solution	Phosphate buffered saline		
Preservative Stabilisers	0.09% Sodium Azide 1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml		
External Database Links	UniProt: P08571 Related reagents  Entrez Gene: 929 CD14 Related reagents		
RRID	AB_566517		
Specificity	<b>Mouse anti human CD14 antibody, clone TÜK4</b> 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 ( <u>Jersmann 2005</u> ). CD14 functions as a pattern recognition receptor ( <u>Pugin et al. 1994</u> , <u>Dziarski et al. 1998</u> ) 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 5ul of the suggested working dilution to label 10<sup>6</sup> cells or 100ul whole blood.

#### References

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- 3. Sopp, P. & Howard, C.J. (1997) Cross-reactivity of monoclonal antibodies to defined human leucocyte differentiation antigens with bovine cells. <u>Vet Immunol Immunopathol. 56</u> (1-2): 11-25.
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- 12. Ferret-Bernard, S. *et al.* (2010) Cellular and molecular mechanisms underlying the strong neonatal IL-12 response of lamb mesenteric lymph node cells to R-848. <u>PLoS One.</u> 5: e13705.
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- 14. Willett, B.J. *et al.* (2007) Probing the interaction between feline immunodeficiency virus and CD134 by using the novel monoclonal antibody 7D6 and the CD134 (Ox40) ligand. <u>J Virol. 81: 9665-79.</u>
- 15. Kallapur, S.G. *et al.* (2011) Pulmonary and systemic inflammatory responses to intraamniotic IL-1α in fetal sheep. Am J Physiol Lung Cell Mol Physiol. 301 (3): L285-95.
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- 18. Gelain, M.E. *et al.* (2014) CD44 in canine leukemia: analysis of mRNA and protein expression in peripheral blood. Vet Immunol Immunopathol. 159 (1-2): 91-6.
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#### **Further Reading**

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- 3. Jersmann, H.P. (2005) Time to abandon dogma: CD14 is expressed by non-myeloid lineage cells. <u>Immunol Cell Biol.</u> 83:462-7.
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- 5. Dziarski, R. *et al.* (1998) Binding of bacterial peptidoglycan to CD14. <u>J Biol Chem.</u> <u>273:8680-90.</u>
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### Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. 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.

#### Guarantee

12 months from date of despatch

#### Acknowledgements

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**Health And Safety** Information

Material Safety Datasheet documentation #10041 available at:

https://www.bio-rad-antibodies.com/SDS/MCA1568A647

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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North & South Tel: +1 800 265 7376

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