

## Datasheet: MCA1267P647

<b>Description:</b>	MOUSE ANTI HUMAN CD4:RPE-Alexa Fluor® 647
<b>Specificity:</b>	CD4
<b>Format:</b>	RPE-ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	RPA-T4
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://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.

<b>Target Species</b>	Human		
<b>Product Form</b>	Purified IgG conjugated to R. Phycoerythrin (RPE) - Alexa Fluor® 647 - lyophilized		
<b>Reconstitution</b>	Reconstitute with 1 ml distilled water		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	RPE-Alexa Fluor®647 488nm laser	496	667
	RPE-Alexa Fluor®647 561nm laser	546	667
<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		
<b>Stabilisers</b>	1% Bovine Serum Albumin 5% Sucrose		
<b>Immunogen</b>	Human PHA blasts		
<b>External Database Links</b>	<b>UniProt:</b>		

**Entrez Gene:**

[920](#) CD4 [Related reagents](#)

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**RRID** AB\_566747

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**Fusion Partners** Spleen cells from immunized BALB/c mice were fused with cells of the mouse NSI myeloma cell line

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**Specificity** **Mouse anti human CD4 antibody, clone RPA-T4** recognizes human CD4, a 55 kDa cell surface glycoprotein that is primarily expressed on a subpopulation of T lymphocytes, on peripheral blood monocytes and on tissue macrophages. Epitope mapping studies have shown that antibodies, produced by clone RPA-T4, recognize an epitope within domain 1 of the extracellular region of the CD4 molecule.

Mouse anti human CD4 antibody, clone RPA-T4 has been reported to block gp120-CD4 interaction and inhibit syncytium formation (Piatier-Tonneau *et al*, 1997). Bio-Rad recommend the use of [Mouse anti Human CD4:Low Endotoxin \(MCA1267EL\)](#) for this purpose.

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**Flow Cytometry** Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells or 100ul whole blood. Tandem conjugates of RPE-Alexa Fluor® 647 display fluorescence properties that are virtually identical to those of RPE-Cy5 tandem conjugates.

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- References**
1. Zarkesh-Esfahani, H. *et al.* (2001) High-dose leptin activates human leukocytes via receptor expression on monocytes. [J Immunol. 167 \(8\): 4593-9.](#)
  2. Voehringer, D. *et al.* (2002) Lack of proliferative capacity of human effector and memory T cells expressing killer cell lectinlike receptor G1 (KLRG1). [Blood. 100 \(10\): 3698-702.](#)
  3. Piatier-Tonneau, D. (1997) CD4 workshop panel report. In: Leucocyte Typing VI: White Cell Differentiation Antigens: Proceedings of the Sixth International Workshop and Conference Held in Kobe, Japan, 10-14 November 1996. Garland Pub., 1998.
  4. Pentón-Rol, G. *et al.* (2011) C-Phycocyanin ameliorates experimental autoimmune encephalomyelitis and induces regulatory T cells. [Int Immunopharmacol. 11 \(1\): 29-38.](#)
  5. Wright, G.J. *et al.* (2001) The unusual distribution of the neuronal/lymphoid cell surface CD200 (OX2) glycoprotein is conserved in humans. [Immunology. 102 \(2\): 173-9.](#)
  6. Zhang, Y. *et al.* (2013) Accelerated *in vivo*. proliferation of memory phenotype CD4<sup>+</sup> T-cells in human HIV-1 infection irrespective of viral chemokine co-receptor tropism. [PLoS Pathog. 9 \(4\): e1003310.](#)
  7. Bughani, U. *et al.* (2017) T cell activation and differentiation is modulated by a CD6 domain 1 antibody Itlizumab. [PLoS One. 12 \(7\): e0180088.](#)
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**Storage** Prior to reconstitution store at +4°C. Following reconstitution store at +4°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.

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**Guarantee** 12 months from date of despatch

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**Acknowledgements** The Alexa Fluor® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays, and are covered

by pending and issued patents.

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**Health And Safety Information** Material Safety Datasheet documentation #10075 available at:  
10075: <https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE-Alexa Fluor® 647 \(MCA928P647\)](#)

### Recommended Useful Reagents

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

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

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