

## Datasheet: MCA1267SBV440

<b>Description:</b>	MOUSE ANTI HUMAN CD4:StarBright Violet 440
<b>Specificity:</b>	CD4
<b>Format:</b>	StarBright Violet 440
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	RPA-T4
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	100 TESTS/0.5ml

## 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

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.

<b>Target Species</b>	Human		
<b>Product Form</b>	Purified IgG conjugated to StarBright Violet 440 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	StarBright Violet 440	385	438
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G 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		
	0.1% Pluronic F68		
	0.1% PEG 3350		
	0.05% Tween 20		

Immunogen Human PHA blasts

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**External Database Links**

**UniProt:**

[P01730](#) [Related reagents](#)

**Entrez Gene:**

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

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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 5ul of the suggested working dilution to label  $10^6$  cells in 100ul. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.

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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 Itolizumab. [PLoS One. 12 \(7\): e0180088.](#)
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**Storage**

Store at +4°C. DO NOT FREEZE.  
This product should be stored undiluted.

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**Guarantee**

12 months from date of despatch

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**Acknowledgements** This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts

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**Health And Safety Information** Material Safety Datasheet documentation #20471 available at:  
20471: <https://www.bio-rad-antibodies.com/uploads/MSDS/20471.pdf>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Useful Reagents

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

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

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide**

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

**Europe**

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

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