



## Datasheet: MCA1267SBY575

**BATCH NUMBER 100007214**

<b>Description:</b>	MOUSE ANTI HUMAN CD4:StarBright Yellow 575
<b>Specificity:</b>	CD4
<b>Format:</b>	StarBright Yellow 575
<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 Yellow 575 - liquid						
<b>Max Ex/Em</b>	<table><thead><tr><th>Fluorophore</th><th>Excitation Max (nm)</th><th>Emission Max (nm)</th></tr></thead><tbody><tr><td>StarBright Yellow 575</td><td>548</td><td>579</td></tr></tbody></table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	StarBright Yellow 575	548	579
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
StarBright Yellow 575	548	579					
<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 Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin 0.1% Pluronic F68 0.1% PEG 3350 0.05% Tween 20						

<b>Immunogen</b>	Human PHA blasts
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P01730</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">920</a>    CD4    <a href="#">Related reagents</a></p>
<b>Fusion Partners</b>	Spleen cells from immunized BALB/c mice were fused with cells of the mouse NSI myeloma cell line
<b>Specificity</b>	<p><b>Mouse anti human CD4 antibody, clone RPA-T4</b> recognizes human CD4, a ~55 kDa cell surface glycoprotein, primarily expressed on a subpopulation of T lymphocytes, on peripheral blood monocytes and on tissue macrophages. Epitope mapping shows that antibodies, produced by clone RPA-T4, recognize an epitope within domain 1 of the extracellular region of the CD4 molecule.</p> <p>Mouse anti human CD4 antibody, clone RPA-T4 blocks gp120-CD4 interaction and inhibits syncytium formation (Piatier-Tonneau <i>et al</i>, 1997). The use of <a href="#">Mouse anti Human CD4:Low Endotoxin (MCA1267EL)</a> is recommended for functional assays.</p>
<b>Flow Cytometry</b>	Use 5µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.
<b>References</b>	<ol style="list-style-type: none"> <li>1. 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.</li> <li>2. Zarkesh-Esfahani, H. <i>et al</i>. (2001) High-dose leptin activates human leukocytes via receptor expression on monocytes. <a href="#">J Immunol. 167 (8): 4593-9.</a></li> <li>3. Wright, G.J. <i>et al</i>. (2001) The unusual distribution of the neuronal/lymphoid cell surface CD200 (OX2) glycoprotein is conserved in humans. <a href="#">Immunology. 102 (2): 173-9.</a></li> <li>4. Pentón-Rol, G. <i>et al</i>. (2011) C-Phycocyanin ameliorates experimental autoimmune encephalomyelitis and induces regulatory T cells. <a href="#">Int Immunopharmacol. 11 (1): 29-38.</a></li> <li>5. Zhang, Y. <i>et al</i>. (2013) Accelerated <i>in vivo</i>. proliferation of memory phenotype CD4<sup>+</sup> T-cells in human HIV-1 infection irrespective of viral chemokine co-receptor tropism. <a href="#">PLoS Pathog. 9 (4): e1003310.</a></li> <li>6. Bughani, U. <i>et al</i>. (2017) T cell activation and differentiation is modulated by a CD6 domain 1 antibody Itolizumab. <a href="#">PLoS One. 12 (7): e0180088.</a></li> </ol>
<b>Storage</b>	<p>Store at +4°C.  DO NOT FREEZE.  This product should be stored undiluted.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts

**Health And Safety Information**      Material Safety Datasheet documentation #20471 available at:  
<https://www.bio-rad-antibodies.com/SDS/MCA1267SBY575>  
20471

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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

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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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