

## Datasheet: MCA1267SBY605

**BATCH NUMBER 100007517**

<b>Description:</b>	MOUSE ANTI HUMAN CD4:StarBright Yellow 605
<b>Specificity:</b>	CD4
<b>Format:</b>	StarBright Yellow 605
<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.

#### Target Species

Human

#### Product Form

Purified IgG conjugated to StarBright Yellow 605 - liquid

#### Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
StarBright Yellow 605	572	606

#### Preparation

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

#### Buffer Solution

Phosphate buffered saline

#### Preservative Stabilisers

0.09% Sodium Azide (NaN<sub>3</sub>)  
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, 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.

Mouse anti human CD4 antibody, clone RPA-T4 blocks gp120-CD4 interaction and inhibits syncytium formation ([Piatier-Tonneau et al., 1997](#)). The use of [Mouse anti Human CD4:Low Endotoxin \(MCA1267EL\)](#) is recommended for functional assays.

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**Flow Cytometry**

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.

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**References**

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.
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6. Bughani, U. *et al.* (2017) T cell activation and differentiation is modulated by a CD6 domain 1 antibody Itolizumab. [PLoS One. 12 \(7\): e0180088.](#)
7. Agrawal, S.M. *et al.* (2013) Extracellular matrix metalloproteinase inducer shows active perivascular cuffs in multiple sclerosis. [Brain. 136 \(Pt 6\): 1760-77.](#)
8. Malmassari, S.L. *et al.* (2007) Impact of hepatitis B virus basic core promoter mutations on T cell response to an immunodominant HBx-derived epitope. [Hepatology. 45 \(5\): 1199-209.](#)
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10. Wildum, S. *et al.* (2006) Contribution of Vpu, Env, and Nef to CD4 down-modulation and resistance of human immunodeficiency virus type 1-infected T cells to superinfection.

[J Virol. 80 \(16\): 8047-59.](#)

11. Kirchhof, J. *et al.* (2018) Learned immunosuppressive placebo responses in renal transplant patients. [Proc Natl Acad Sci U S A. 115 \(16\): 4223-7.](#)

12. Kelleher, M. *et al.* (2011) Comparative Kinetics of Immune Responses and Changes in Cellular Sub-Sets Detected in Colorectal Cancer Patients Vaccinated with MVA-5T4 (TroVax) Administered Alongside Two Different Chemotherapy Regimens [J Cancer Therapy. 02 \(01\): 54-64.](#)

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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: <https://www.bio-rad-antibodies.com/SDS/MCA1267SBY605>  
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

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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