

# Datasheet: MCA1267SBUV605T

Description:	MOUSE ANTI HUMAN CD4:StarBright UltraViolet 605		
Specificity:	CD4		
Format:	StarBright UltraViolet 605		
Product Type:	Monoclonal Antibody		
Clone:	RPA-T4		
Isotype:	lgG1		
Quantity:	25 TESTS/0.125ml		

## **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 <u>www.bio-rad-antibodies.com/protocols</u> .					
		Yes N	0	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 UltraViolet 605 - liquid					
Max Ex/Em	Fluorophore	Excitation Max	(nm)	Emission Max (nm)		
	StarBright UltraViolet 605	340		609		
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 ( 1% Bovine Serum Alb 0.1% Pluronic F68 0.1% PEG 3350 0.05% Tween 20	,				

Immunogen	Human PHA blasts		
External Database Links	UniProt:		
	P01730 Related reagents		
	Entrez Gene:		
	920 CD4 Related reagents		
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the mouse NSI myeloma cell line		
Specificity	<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.		
	Mouse anti human CD4 antibody, clone RPA-T4 blocks gp120-CD4 interaction and inhibits syncytium formation ( <u>Piatier-Tonneau <i>et al</i>, 1997</u> ). The use of <u>Mouse anti Human</u> <u>CD4:Low Endotoxin (<b>MCA1267EL</b>)</u> is recommended for functional assays.		
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.		
References	<ol> <li>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>Zarkesh-Esfahani, H. <i>et al.</i> (2001) High-dose leptin activates human leukocytes via receptor expression on monocytes. J Immunol. 167 (8): 4593-9.</li> </ol>		
	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. <u>Immunology. 102 (2): 173-9.</u>		
	4. Pentón-Rol, G. <i>et al.</i> (2011) C-Phycocyanin ameliorates experimental autoimmune encephalomyelitis and induces regulatory T cells. Int Immunopharmacol. 11 (1): 29-38.		
	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. <u>PLoS</u>		
	Pathog. 9 (4): e1003310. 6. Bughani, U. <i>et al.</i> (2017) T cell activation and differentiation is modulated by a CD6 domain 1 antibody Itolizumab. PLoS One. 12 (7): e0180088.		
	7. Agrawal, S.M. <i>et al.</i> (2013) Extracellular matrix metalloproteinase inducer shows active		
	perivascular cuffs in multiple sclerosis. <u>Brain. 136 (Pt 6): 1760-77.</u>		
	8. Malmassari, S.L. <i>et al.</i> (2007) Impact of hepatitis B virus basic core promoter mutations on T cell response to an immunodominant HBx-derived epitope. <u>Hepatology. 45 (5)</u> :		
	<u>1199-209.</u> 0. Wooldridge L. et al. (2006) Anti-correceptor antibodies profoundly affect staiping with		
	<ol> <li>Wooldridge, L. <i>et al.</i> (2006) Anti-coreceptor antibodies profoundly affect staining with peptide-MHC class I and class II tetramers. <u>Eur J Immunol. 36 (7): 1847-55.</u></li> <li>Wildum, S. <i>et al.</i> (2006) Contribution of Vpu, Env, and Nef to CD4 down-modulation</li> </ol>		
	and resistance of human immunodeficiency virus type 1-infected T cells to superinfection.		

	<ul> <li>J Virol. 80 (16): 8047-59.</li> <li>11. Kirchhof, J. <i>et al.</i> (2018) Learned immunosuppressive placebo responses in renal transplant patients. <u>Proc Natl Acad Sci U S A. 115 (16): 4223-7.</u></li> <li>12. Kelleher, M. <i>et al.</i> (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 <u>Therapy. 02 (01): 54-64.</u></li> </ul>				
Storage	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted.				
Guarantee	12 months from date of despatch				
Acknowledgements	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/MCA1267SBUV605T 20471				
Regulatory	For research purposes only				

## **Related Products**

#### **Recommended Useful Reagents**

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)

North & South	Tel: +1 800 265 7376	Worldwide	Tel: +44 (0)1865 852 700	Europe	Tel: +49 (0) 89 8090 95 21
America	Fax: +1 919 878 3751		Fax: +44 (0)1865 852 739		Fax: +49 (0) 89 8090 95 50
	Email: antibody_sales_us@bio-rad.com		Email: antibody_sales_uk@bio-rad.com		Email: 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 'M415450:221223'

#### Printed on 18 Apr 2024

© 2024 Bio-Rad Laboratories Inc | Legal | Imprint