

Datasheet: MCA1267SBY720T

BATCH NUMBER 100007860

Description:	MOUSE ANTI HUMAN CD4:StarBright Yellow 720
Specificity:	CD4
Format:	StarBright Yellow 720
Product Type:	Monoclonal Antibody
Clone:	RPA-T4
Isotype:	IgG1
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 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 720 - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	StarBright Yellow 720	549	719
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide (NaN ₃)		
Stabilisers	1% Bovine Serum Albumin		
	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

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.

Flow Cytometry

Use 5µl of the suggested working dilution to label 10⁶ cells in 100µl. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.

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.
2. Zarkesh-Esfahani, H. *et al.* (2001) High-dose leptin activates human leukocytes via receptor expression on monocytes. [J Immunol. 167 \(8\): 4593-9.](#)
3. 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.](#)
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. Zhang, Y. *et al.* (2013) Accelerated *in vivo*. proliferation of memory phenotype CD4⁺ T-cells in human HIV-1 infection irrespective of viral chemokine co-receptor tropism. [PLoS Pathog. 9 \(4\): e1003310.](#)
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.](#)
9. Wooldridge, L. *et al.* (2006) Anti-coreceptor antibodies profoundly affect staining with peptide-MHC class I and class II tetramers. [Eur J Immunol. 36 \(7\): 1847-55.](#)
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.](#)

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/MCA1267SBY720T20471
Regulatory	For research purposes only

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

Worldwide

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: 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

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)

'M419102:230522'

Printed on 16 Feb 2024

© 2024 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)