# Datasheet: MCA1767EL BATCH NUMBER 1610

Description:	RAT ANTI MOUSE CD4:Low Endotoxin		
Specificity:	CD4		
Other names:	L3T4 ANTIGEN, LY-4		
Format:	Low Endotoxin		
Product Type:	Monoclonal Antibody		
Clone:	YTS191.1		
Isotype:	lgG2b		
Quantity:	0.5 mg		

### **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	No	Not Determined	Suggested Dilution
Flow Cytometry				1/100 - 1/200
Immunohistology - Frozen (1)	•			
Immunohistology - Paraffin				
ELISA			•	
Immunoprecipitation			•	
Western Blotting			•	
Functional Assays				

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

(1)The epitope recognised by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. Bio-Rad recommends the use of acetone fixation for frozen sections.

Target Species	Mouse
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	None present
Carrier Free	Yes
Endotoxin Level	< 0.01 EU/ug
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
External Database Links	UniProt: <u>P06332</u> <u>Related reagents</u> Entrez Gene: <u>12504</u> Cd4 <u>Related reagents</u>
RRID	AB_566740
Specificity	<b>Rat anti Mouse CD4 antibody, clone YTS191.1</b> recognizes the murine CD4 cell surface antigen, expressed by a subset of T lymphocytes.
	Rat anti Mouse CD4 antibody, clone YTS191.1 exhibits depleting activity when used <i>in vivo</i> (Bemelman <i>et al.</i> 1998).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
References	<ol> <li>Cobbold, S.P. <i>et al.</i> (1990) The induction of skin graft tolerance in major histocompatibility complex-mismatched or primed recipients: primed T cells can be tolerized in the periphery with anti-CD4 and anti-CD8 antibodies. <u>Eur J Immunol. 20 (12):</u> <u>2747-55.</u></li> <li>Bemelman, F. <i>et al.</i> (1998) Bone marrow transplantation induces either clonal deletion or infectious tolerance depending on the dose. <u>J Immunol. 160 (6): 2645-8.</u></li> <li>Higgins, L.M. <i>et al.</i> (1999) Regulation of T cell activation in vitro and in vivo by targeting the OX40-OX40 ligand interaction: amelioration of ongoing inflammatory bowel disease with an OX40-IgG fusion protein, but not with an OX40 ligand-IgG fusion protein. <u>J</u> <u>Immunol. 162 (1): 486-93.</u></li> <li>Croxford, J.L. <i>et al.</i> (2001) Different therapeutic outcomes in experimental allergic encephalomyelitis dependent upon the mode of delivery of IL-10: a comparison of the effects of protein, adenoviral or retroviral IL-10 delivery into the central nervous system. <u>J</u> <u>Immunol. 166: 4124-30.</u></li> <li>Eller, K. <i>et al.</i> (2011) IL-9 production by regulatory T cells recruits mast cells that are essential for regulatory T cell-induced immune suppression. <u>J Immunol. 186: 83-91.</u></li> <li>Gaupp, S. <i>et al.</i> (2008) Amelioration of experimental autoimmune encephalomyelitis in IL-4Ralpha-/- mice implicates compensatory up-regulation of Th2-type cytokines. <u>Am J</u> <u>Pathol. 173: 119-29.</u></li> <li>Grimm, M.<i>et al.</i> (2010) Evaluation of immunological escape mechanisms in a mouse</li> </ol>

Regulatory	For research purposes only
Health And Safety Information	Material Safety Datasheet documentation #10162 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1767EL">https://www.bio-rad-antibodies.com/SDS/MCA1767EL</a> 10162
Guarantee	12 months from date of despatch
	Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Storage	Store at -20 <sup>o</sup> C only. This product should be stored undiluted.
Storage	lipofuscinosis in mice before and after disease onset <u>Brain Communications. fcab047.</u> 17. Karikari, A.A. <i>et al.</i> (2022) Neurodegeneration by α-synuclein-specific T cells in AAV-A53T-α-synuclein Parkinson's disease mice. <u>Brain Behav Immun. 101: 194-210.</u>
	early spinal cord vulnerability in CLN1 disease. <u>Sci Rep. 10 (1): 15157.</u> 16. Groh, J. <i>et al.</i> (2021) Immune modulation attenuates infantile neuronal ceroid
	<ul> <li>14. Zitt, E. <i>et al.</i> (2011) The selective mineralocorticoid receptor antagonist eplerenone is protective in mild anti-GBM glomeru-lonephritis. <u>Int J Clin Exp Pathol. 4:606-15.</u></li> <li>15. Nelvagal, H.R. <i>et al.</i> (2020) Comparative proteomic profiling reveals mechanisms for early spinal cord yulperability in CLN1 disease. Sci Rep. 10 (1): 15157.</li> </ul>
	13. Scotland, R.S. <i>et al.</i> (2011) Sex-differences in resident immune cell phenotype underlies more efficient acute inflammatory responses in female mice. <u>Blood. 118:</u> <u>5918-27.</u>
	12. Nakashima, H. <i>et al.</i> (2011) A Novel Combination Immunotherapy for Cancer by IL-13Rα2-Targeted DNA Vaccine and Immunotoxin in Murine Tumor Models. <u>J Immunol.</u> <u>187: 4935-46.</u>
	<u>1360-70.</u> 11. Abdulreda, M.H. <i>et al.</i> (2011) High-resolution, noninvasive longitudinal live imaging of immune responses. <u>Proc Natl Acad Sci U S A. 108: 12863-8.</u>
	<ul> <li>ischemia-reperfusion injury. <u>Am J Physiol Renal Physiol. 297: F451-60.</u></li> <li>10. Wolf, D. <i>et al.</i> (2005) CD4+CD25+ regulatory T cells inhibit experimental anti-glomerular basement membrane glomerulonephritis in mice. <u>J Am Soc Nephrol. 16</u>:</li> </ul>
	<ul> <li>model of colorectal liver metastases. <u>BMC Cancer. 10: 82.</u></li> <li>8. Jégou, J.F. <i>et al.</i> (2007) C3d Binding to the Myelin Oligodendrocyte Glycoprotein Results in an Exacerbated Experimental Autoimmune Encephalomyelitis <u>J Immunol. 178:</u> <u>3323-31.</u></li> <li>9. Huber, J.M. <i>et al.</i> (2009) The proteasome inhibitor bortezomib aggravates renal</li> </ul>

## **Related Products**

## **Recommended Secondary Antibodies**

Rabbit Anti Rat IgG (STAR16)	DyLight®800
Rabbit Anti Rat IgG (STAR17)	<u>FITC</u>

Goat Anti Rat IgG (STAR72)		<u>HRP</u>		
Goat Anti Rat IgG (STAR69)		<u>FITC</u>		
Goat Anti Rat IgG (STAR73)		<u>RPE</u>		
Rabbit Anti Rat IgG (STAR21)		HRP		
Goat Anti Rat IgG (MOUSE ADSC	ORBED) (STAR71	) <u>DyLight®550</u> , <u>Dy</u>	/Light®650,	DyLight®800
Goat Anti Rat IgG (STAR131)		<u>Alk. Phos., Biotir</u>	<u>1</u>	
North & South Tel: +1 800 265 7376	Worldwide Tel: +4	4 (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 'M365692:200529'

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