

Datasheet: MCA1767EL

### **BATCH NUMBER 154113**

Description:	RAT ANTI MOUSE CD4:Low Endotoxin
Specificity:	CD4
Other names:	L3T4 ANTIGEN, LY-4
Format:	Low Endotoxin
<b>Product Type:</b>	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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	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 cultur supernatant	ҽ

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: P06332 Related reagents
	Entrez Gene:  12504 Cd4 Related reagents
RRID	AB_566740
Specificity	Rat anti Mouse CD4 antibody, clone YTS191.1 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	1. 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. <i>Eur J Immunol.</i> 20 (12): 2747-55.  2. Bemelman, F. <i>et al.</i> (1998) Bone marrow transplantation induces either clonal deletion or infectious tolerance depending on the dose. <i>J Immunol.</i> 160 (6): 2645-8.  3. 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. <i>J Immunol.</i> 162 (1): 486-93.  4. 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. <i>J Immunol.</i> 166: 4124-30.  5. 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. <i>J Immunol.</i> 186: 83-91.  6. Gaupp, S. <i>et al.</i> (2008) Amelioration of experimental autoimmune encephalomyelitis in IL-4Ralpha-/- mice implicates compensatory up-regulation of Th2-type cytokines. <i>Am J Pathol.</i> 173: 119-29.  7. Grimm, M. <i>et al.</i> (2010) Evaluation of immunological escape mechanisms in a mouse

model of colorectal liver metastases. BMC Cancer. 10: 82.

- 8. Jégou, J.F. *et al.* (2007) C3d Binding to the Myelin Oligodendrocyte Glycoprotein Results in an Exacerbated Experimental Autoimmune Encephalomyelitis <u>J Immunol. 178:</u> 3323-31.
- 9. Huber, J.M. *et al.* (2009) The proteasome inhibitor bortezomib aggravates renal ischemia-reperfusion injury. <u>Am J Physiol Renal Physiol. 297: F451-60.</u>
- 10. Wolf, D. *et al.* (2005) CD4+CD25+ regulatory T cells inhibit experimental anti-glomerular basement membrane glomerulonephritis in mice. <u>J Am Soc Nephrol. 16:</u> 1360-70.
- 11. Abdulreda, M.H. *et al.* (2011) High-resolution, noninvasive longitudinal live imaging of immune responses. Proc Natl Acad Sci U S A. 108: 12863-8.
- 12. Nakashima, H. *et al.* (2011) A Novel Combination Immunotherapy for Cancer by IL-13Rα2-Targeted DNA Vaccine and Immunotoxin in Murine Tumor Models. <u>J Immunol.</u> 187: 4935-46.
- 13. Scotland, R.S. *et al.* (2011) Sex-differences in resident immune cell phenotype underlies more efficient acute inflammatory responses in female mice. <u>Blood. 118:</u> 5918-27.
- 14. Zitt, E. *et al.* (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>
- 15. Nelvagal, H.R. *et al.* (2020) Comparative proteomic profiling reveals mechanisms for early spinal cord vulnerability in CLN1 disease. <u>Sci Rep. 10 (1): 15157.</u>
- 16. Groh, J. *et al.* (2021) Immune modulation attenuates infantile neuronal ceroid lipofuscinosis in mice before and after disease onset Brain Communications. fcab047.
- 17. Karikari, A.A. *et al.* (2022) Neurodegeneration by α-synuclein-specific T cells in AAV-A53T-α-synuclein Parkinson's disease mice. Brain Behav Immun. 101: 194-210.

#### **Storage**

Store at -20°C only.

This product should be stored undiluted.

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.

Guarantee	12 months from date of despatch
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
Regulatory	For research purposes only

# **Related Products**

## **Recommended Secondary Antibodies**

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

Rabbit Anti Rat IgG (STAR17...) <u>FITC</u>

Goat Anti Rat IgG (STAR72...)

Goat Anti Rat IgG (STAR69...)

Goat Anti Rat IgG (STAR73...)

Rabbit Anti Rat IgG (STAR21...)

HRP

Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...) <u>DyLight®550</u>, <u>DyLight®650</u>, <u>DyLight®800</u>

Goat Anti Rat IgG (STAR131...) Alk. Phos., Biotin

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#### Printed on 10 Apr 2024

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