

## Datasheet: MCA1767GA

<b>Description:</b>	RAT ANTI MOUSE CD4
<b>Specificity:</b>	CD4
<b>Other names:</b>	L3T4 ANTIGEN, LY-4
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	YTS191.1
<b>Isotype:</b>	IgG2b
<b>Quantity:</b>	0.1 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 [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/50 - 1/200
Immunohistology - Frozen (1)	▪			
Immunohistology - Paraffin		▪		
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	

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.

**(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.**

<b>Target Species</b>	Mouse
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline

<b>Preservative Stabilisers</b>	0.09% sodium azide (NaN <sub>3</sub> )
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1 mg/ml
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P06332</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">12504</a> Cd4    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_323559
<b>Specificity</b>	<p><b>Rat anti Mouse CD4 antibody, clone YTS191.1</b> recognizes the murine CD4 cell surface antigen, expressed by a subset of T lymphocytes.</p> <p>Rat anti Mouse CD4 antibody, clone YTS191.1 exhibits depleting activity when used <i>in vivo</i> (Bemelman <i>et al.</i> 1998).</p>
<b>Flow Cytometry</b>	Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl
<b>References</b>	<ol style="list-style-type: none"> <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. <a href="#">Eur J Immunol. 20 (12): 2747-55.</a></li> <li>Bemelman, F. <i>et al.</i> (1998) Bone marrow transplantation induces either clonal deletion or infectious tolerance depending on the dose. <a href="#">J Immunol. 160 (6): 2645-8.</a></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. <a href="#">J Immunol. 162 (1): 486-93.</a></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. <a href="#">J Immunol. 166: 4124-30.</a></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. <a href="#">J Immunol. 186: 83-91.</a></li> <li>Gaupp, S. <i>et al.</i> (2008) Amelioration of experimental autoimmune encephalomyelitis in IL-4Ralpha<sup>-/-</sup> mice implicates compensatory up-regulation of Th2-type cytokines. <a href="#">Am J Pathol. 173: 119-29.</a></li> <li>Grimm, M. <i>et al.</i> (2010) Evaluation of immunological escape mechanisms in a mouse model of colorectal liver metastases. <a href="#">BMC Cancer. 10: 82.</a></li> <li>Jégou, J.F. <i>et al.</i> (2007) C3d Binding to the Myelin Oligodendrocyte Glycoprotein Results in an Exacerbated Experimental Autoimmune Encephalomyelitis <a href="#">J Immunol. 178: 3323-31.</a></li> </ol>

9. Huber, J.M. *et al.* (2009) The proteasome inhibitor bortezomib aggravates renal ischemia-reperfusion injury. [Am J Physiol Renal Physiol. 297: F451-60.](#)
10. Wolf, D. *et al.* (2005) CD4+CD25+ regulatory T cells inhibit experimental anti-glomerular basement membrane glomerulonephritis in mice. [J Am Soc Nephrol. 16: 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-13R $\alpha$ 2-Targeted DNA Vaccine and Immunotoxin in Murine Tumor Models. [J Immunol. 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. [Blood. 118: 5918-27.](#)
14. Zitt, E. *et al.* (2011) The selective mineralocorticoid receptor antagonist eplerenone is protective in mild anti-GBM glomerulonephritis. [Int J Clin Exp Pathol. 4:606-15.](#)
15. Nelvagal, H.R. *et al.* (2020) Comparative proteomic profiling reveals mechanisms for early spinal cord vulnerability in CLN1 disease. [Sci Rep. 10 \(1\): 15157.](#)
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  $\alpha$ -synuclein-specific T cells in AAV-A53T- $\alpha$ -synuclein Parkinson's disease mice. [Brain Behav Immun. 101: 194-210.](#)
18. Badr, M. *et al.* (2022) Expansion of regulatory T cells by CD28 superagonistic antibodies attenuates neurodegeneration in A53T- $\alpha$ -synuclein Parkinson's disease mice. [J Neuroinflammation. 19 \(1\): 319.](#)
19. McFleder, R.L. *et al.* (2023) Brain-to-gut trafficking of alpha-synuclein by CD11c(+) cells in a mouse model of Parkinson's disease. [Nat Commun. 14 \(1\): 7529.](#)
20. Griffiths, M.R. *et al.* (2018) CD93 regulates central nervous system inflammation in two mouse models of autoimmune encephalomyelitis. [Immunology. 155 \(3\): 346-55.](#)
21. Mahadevan, K.K. *et al.* (2024) Type I conventional dendritic cells facilitate immunotherapy in pancreatic cancer. [Science. 384 \(6703\): eadh4567.](#)
22. Aringer, I. *et al.* (2021) Agonism of Prostaglandin E2 Receptor 4 Ameliorates Tubulointerstitial Injury in Nephrotoxic Serum Nephritis in Mice. [J Clin Med. 10 \(4\): 832.](#)
23. Rauschenberger, L. *et al.* (2022) Age-dependent neurodegeneration and neuroinflammation in a genetic A30P/A53T double-mutated  $\alpha$ -synuclein mouse model of Parkinson's disease. [Neurobiol Dis. 171: 105798.](#)
24. Karikari, A.A. *et al.* (2022) Neurodegeneration by  $\alpha$ -synuclein-specific T cells in AAV-A53T- $\alpha$ -synuclein Parkinson's disease mice. [Brain Behav Immun. 101: 194-210.](#)
25. Montero, A.S. *et al.* (2024) Effect of ultrasound-mediated blood-spinal cord barrier opening on survival and motor function in females in an amyotrophic lateral sclerosis mouse model. [EBioMedicine. 106: 105235.](#)

---

**Storage**

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

---

**Guarantee** 12 months from date of despatch

---

**Health And Safety Information** Material Safety Datasheet documentation #10040 available at:  
<https://www.bio-rad-antibodies.com/SDS/MCA1767GA>  
10040

---

**Regulatory** For research purposes only

---

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight®800</a>
Rabbit Anti Rat IgG (STAR17...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR72...)	<a href="#">HRP</a>
Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR73...)	<a href="#">RPE</a>
Rabbit Anti Rat IgG (STAR21...)	<a href="#">HRP</a>
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®800</a>
Goat Anti Rat IgG (STAR131...)	<a href="#">Alk. Phos.</a> , <a href="#">Biotin</a>

**North & South America** Tel: +1 800 265 7376

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)  
'M411427:221103'

**Printed on 17 Jul 2024**

---

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