

## Datasheet: MCA1107F

<b>Description:</b>	RAT ANTI MOUSE CD4:FITC
<b>Specificity:</b>	CD4
<b>Other names:</b>	L3T4 ANTIGEN, LY-4
<b>Format:</b>	FITC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	YTS177.9
<b>Isotype:</b>	IgG2a
<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	▪			Neat - 1/10

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.

<b>Target Species</b>	Mouse						
<b>Product Form</b>	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid						
<b>Max Ex/Em</b>	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>FITC</td> <td>490</td> <td>525</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	FITC	490	525
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
FITC	490	525					
<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</b>	0.09% Sodium Azide						
<b>Stabilisers</b>	1% Bovine Serum Albumin						
<b>Approx. Protein Concentrations</b>	IgG concentration 0.1 mg/ml						

<b>Immunogen</b>	Mouse spleen cells.
<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_321372
<b>Fusion Partners</b>	Spleen cells from immunised DA rats were fused with cells of the Y3/Ag1.2.3 rat myeloma cell line.
<b>Specificity</b>	<b>Rat anti Mouse CD4 antibody, clone YTS177.9</b> reacts with the Mouse CD4 antigen, non polymorphic epitope ( <a href="#">Qin et al. 1990</a> ). Rat anti Mouse CD4 antibody, Rat anti Mouse CD4 antibody, clone YTS177.9 reacts with CD4 transfectants ( <a href="#">Cobbold et al. 1990</a> ). Rat anti Mouse CD4 antibody, clone YTS177.9 also blocks MHC-II dependant T-cell responses <i>in vitro</i> and <i>in vivo</i> and induces tolerance ( <a href="#">Qin et al. 1990</a> ) and ( <a href="#">Cobbold et al. 1990</a> ).
<b>Flow Cytometry</b>	<p>Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells or 100ul whole blood.</p> <p>The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR (<a href="#">BUF041A/B</a>).</p>
<b>References</b>	<ol style="list-style-type: none"> <li>1. Qin, S.X. <i>et al.</i> (1990) Induction of tolerance in peripheral T cells with monoclonal antibodies. <a href="#">Eur J Immunol. 20 (12): 2737-45.</a></li> <li>2. 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>3. Wise, M.P. <i>et al.</i> (1998) Linked suppression of skin graft rejection can operate through indirect recognition. <a href="#">J Immunol. 161 (11): 5813-6.</a></li> <li>4. Carlring, J. <i>et al.</i> (2012) Conjugation of lymphoma idiotype to CD40 antibody enhances lymphoma vaccine immunogenicity and antitumor effects in mice. <a href="#">Blood. 119 (9): 2056-65.</a></li> <li>5. Agua-Doce, A. and Graca, L. (2011) Prevention of house dust mite induced allergic airways disease in mice through immune tolerance. <a href="#">PLoS One. 6: e22320.</a></li> <li>6. Daley, S.R. <i>et al.</i> (2007) A key role for TGF-beta signaling to T cells in the long-term acceptance of allografts. <a href="#">J Immunol. 179: 3648-54.</a></li> <li>7. Saunders, A. <i>et al.</i> (2009) Expression of GIMAP1, a GTPase of the immunity-associated protein family, is not up-regulated in malaria. <a href="#">Malar J. 8: 53.</a></li> <li>8. Carlring, J. <i>et al.</i> (2012) Conjugation of lymphoma idiotype to CD40 antibody enhances lymphoma vaccine immunogenicity and antitumor effects in mice. <a href="#">Blood. 119: 2056-65.</a></li> <li>9. Kim, I. <i>et al.</i> (2017) Ibrutinib suppresses alloantibody responses in a mouse model of allosensitization. <a href="#">Transpl Immunol. 45: 59-64.</a></li> <li>10. Agnieszka, S. <i>et al.</i> (2019) Immunogenic Evaluation of Ribosomal P-Protein Antigen P0, P1, and P2 and Pentameric Protein Complex P0-(P1-P2)<sub>2</sub> of <i>Plasmodium falciparum</i> in a Mouse Model <a href="#">Journal of Immunology Research. 2019: 1-19.</a></li> </ol>

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**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. This product is photosensitive and should be protected from light.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: 10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:FITC \(MCA1212F\)](#)

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

**America** Fax: +1 919 878 3751

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**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

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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)  
'M384765:210513'

**Printed on 19 May 2022**

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