# Datasheet: MCA1107F

## BATCH NUMBER 0913

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| **Description:** | RAT ANTI MOUSE CD4:FITC |
| **Specificity:** | CD4 |
| **Other names:** | L3T4 ANTIGEN, LY-4 |
| **Format:** | FITC |
| **Product Type:** | Monoclonal Antibody |
| **Clone:** | YTS177.9 |
| **Isotype:** | IgG2a |
| **Quantity:** | 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.

| | 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.

**Target Species**

Mouse

**Product Form**

Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

**Max Ex/Em**

| Fluorophore | Excitation Max (nm) | Emission Max (nm) |
|---|---|---|
| FITC | 490 | 525 |

**Preparation**

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

**Buffer Solution**

Phosphate buffered saline

**Preservative Stabilisers**

0.09% Sodium Azide
1% Bovine Serum Albumin

**Approx. Protein**

IgG concentration 0.1 mg/ml

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| **Concentrations** | |
| **Immunogen** | Mouse spleen cells. |
| **External Database Links** | **UniProt:**<br>P06332 Related reagents<br><br>**Entrez Gene:**<br>12504 Cd4 Related reagents |
| **RRID** | AB_321372 |
| **Fusion Partners** | Spleen cells from immunised DA rats were fused with cells of the Y3/Ag1.2.3 rat myeloma cell line. |
| **Specificity** | **Rat anti Mouse CD4 antibody, clone YTS177.9** reacts with the Mouse CD4 antigen, non polymorphic epitope (Qin *et al.* 1990). Rat anti Mouse CD4 antibody, Rat anti Mouse CD4 antibody, clone YTS177.9 reacts with CD4 transfectants (Cobbold *et al.* 1990).Rat anti Mouse CD4 antibody, clone YTS177.9 also blocks MHC-II dependant T-cell responses *in vitro* and *in vivo* and induces tolerance (Qin *et al.* 1990) and Cobbold *et al.* 1990). |
| **Flow Cytometry** | Use 10ul of the suggested working dilution to label $10^6$ cells or 100ul whole blood.<br><br>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 ( BUF041A/B). |
| **References** | 1. Qin, S.X. *et al.* (1990) Induction of tolerance in peripheral T cells with monoclonal antibodies. Eur J Immunol. 20 (12): 2737-45.<br>2. Cobbold, S.P. *et al.* (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. Eur J Immunol. 20 (12): 2747-55.<br>3. Wise, M.P. *et al.* (1998) Linked suppression of skin graft rejection can operate through indirect recognition. J Immunol. 161 (11): 5813-6.<br>4. Carlring, J. *et al.* (2012) Conjugation of lymphoma idiotype to CD40 antibody enhances lymphoma vaccine immunogenicity and antitumor effects in mice. Blood. 119 (9): 2056-65.<br>5. Agua-Doce, A. and Graca, L. (2011) Prevention of house dust mite induced allergic airways disease in mice through immune tolerance. PLoS One. 6: e22320.<br>6. Daley, S.R. *et al.* (2007) A key role for TGF-beta signaling to T cells in the long-term acceptance of allografts. J Immunol. 179: 3648-54.<br>7. Saunders, A. *et al.* (2009) Expression of GIMAP1, a GTPase of the immunity-associated protein family, is not up-regulated in malaria. Malar J. 8: 53.<br>8. Carlring, J. *et al.* (2012) Conjugation of lymphoma idiotype to CD40 antibody enhances lymphoma vaccine immunogenicity and antitumor effects in mice. Blood. 119: 2056-65.<br>9. Kim, I. *et al.* (2017) Ibrutinib suppresses alloantibody responses in a mouse model of allosensitization. Transpl Immunol. 45: 59-64.<br>10. Agnieszka, S. *et al.* (2019) Immunogenic Evaluation of Ribosomal P-Protein Antigen |

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| | P0, P1, and P2 and Pentameric Protein Complex P0-(P1-P2)2 of *Plasmodium falciparum* in a Mouse Model Journal of Immunology Research. 2019: 1-19. |
| **Storage** | Store at +4°C or at -20°C if preferred.<br><br>This product should be stored undiluted.<br><br>Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.<br><br>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 #10041 available at:<br>https://www.bio-rad-antibodies.com/SDS/MCA1107F<br>10041 |
| **Regulatory** | For research purposes only |

## Related Products

### Recommended Negative Controls

RAT IgG2a NEGATIVE CONTROL:FITC (MCA1212F)


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|---|---|---|---|---|---|
| **North & South America** | Tel: +1 800 265 7376<br>Fax: +1 919 878 3751<br>Email: antibody_sales_us@bio-rad.com | **Worldwide** | Tel: +44 (0)1865 852 700<br>Fax: +44 (0)1865 852 739<br>Email: antibody_sales_uk@bio-rad.com | **Europe** | Tel: +49 (0) 89 8090 95 21<br>Fax: +49 (0) 89 8090 95 50<br>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

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