

Datasheet: MCA1107F

BATCH NUMBER 164215

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	<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					
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant						
Buffer Solution	Phosphate buffered saline						
Preservative	0.09% sodium azide (NaN ₃)						
Stabilisers	1% bovine serum albumin						
Approx. Protein	IgG concentration 0.1 mg/ml						

Concentrations

Immunogen Mouse spleen cells.

External Database Links

UniProt:

[P06332](#) [Related reagents](#)

Entrez Gene:

[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 10µl of the suggested working dilution to label 10⁶ cells or 100µl whole blood. The Fc region of monoclonal antibodies may bind to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR ([BUF041A/BUF041B](#)).

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.](#)
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.](#)
3. Wise, M.P. *et al.* (1998) Linked suppression of skin graft rejection can operate through indirect recognition. [J Immunol. 161 \(11\): 5813-6.](#)
4. Carling, 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.](#)
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.](#)
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.](#)
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.](#)
8. Carling, J. *et al.* (2012) Conjugation of lymphoma idiotype to CD40 antibody enhances lymphoma vaccine immunogenicity and antitumor effects in mice. [Blood. 119: 2056-65.](#)
9. Kim, I. *et al.* (2017) Ibrutinib suppresses alloantibody responses in a mouse model of allosensitization. [Transpl Immunol. 45: 59-64.](#)
10. Agnieszka, S. *et al.* (2019) Immunogenic Evaluation of Ribosomal P-Protein Antigen 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 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.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1107F>
10041

Regulatory For research purposes only

Related Products

Recommended Negative Controls

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

North & South Tel: +1 800 265 7376

America Fax: +1 919 878 3751

Email: 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

Europe

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

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](https://www.bio-rad-antibodies.com/datasheets)

'M408115:221010'

Printed on 16 Jun 2023

© 2023 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)