

Datasheet: MCA500F

#### **BATCH NUMBER 1709**

Description:	RAT ANTI MOUSE CD3:FITC
Specificity:	CD3
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	KT3
Isotype:	lgG2a
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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry				Neat - 1/5

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 conjugat	ed to Fluorescein Isoth	niocyanate Isomer 1
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525
Suffer Solution	Phosphate buffered s	saline	
reservative	0.09% Sodium Azide		
tabilisers	1% Bovine Serum	Albumin	
pprox. Protein oncentrations	IgG concentration 0.	l mg/ml	
mmunogen	CBAT6 thymocytes		

External Database Links	UniProt:
	P22646 Related reagents
	P24161 Related reagents
	P11942 Related reagents
	P29020 Related reagents
	P04235 Related reagents
	Entrez Gene:
	12501 Cd3e Related reagents
	12503 Cd247 Related reagents
	12500 Cd3d Related reagents
	12502 Cd3g Related reagents
	12503 Cd247 Related reagents
Synonyms	Cd3z, T3d, Tcrz
RRID	AB_321256
Fusion Partners	Spleen cells from immunized SD rats were fused with cells of the NS0 mouse myeloma cell line.
Specificity	Rat anti Mouse CD3 antibody, clone KT3 recognizes the mouse CD3 antigen, expressed by mature T cells. Rat anti Mouse CD3 antibody, clone KT3 may be used to trigger proliferation and cytotoxicity of CD3 positive cells ( <a href="Tomonari 1988">Tomonari 1988</a> ).
	NB. For optimal staining incubations should be performed at room temperature.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells or 100ul whole blood.
	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 ( <u>BUF041A/B</u> ).
References	<ol> <li>Tomonari, K. (1988) A rat antibody against a structure functionally related to the mouse T-cell receptor/T3 complex. Immunogenetics. 28 (6): 455-8.</li> <li>Lacroix-Lamandé, S. et al. (2002) Role of gamma interferon in chemokine expression in the ileum of mice and in a murine intestinal epithelial cell line after <i>Cryptosporidium parvum</i> infection. Infect Immun. 70 (4): 2090-9.</li> <li>Tomonari, K. &amp; Lovering, E. (1988) T-cell receptor-specific monoclonal antibodies against a V beta 11-positive mouse T-cell clone. Immunogenetics. 28 (6): 445-51.</li> <li>Haroon, F. et al., (2011) Gp130-dependent astrocytic survival is critical for the control of autoimmune central nervous system inflammation. J Immunol. 186: 6521-31.</li> <li>Kumar, L. et al. (2002) Differential role of SLP-76 domains in T cell development and function. Proc Natl Acad Sci U S A. 99: 884-9.</li> </ol>
	6. Hirsh, M. et al. (2004) Response of lung gammadelta T cells to experimental sepsis in

7. Tarlton, J.F. et al. (2000) The role of up-regulated serine proteases and matrix

mice. Immunology. 112: 153-60.

- metalloproteinases in the pathogenesis of a murine model of colitis. <u>Am J Pathol. 157:</u> 1927-35.
- 8. Lazarovits, A.I. *et al.* (1999) Mechanisms of induction of renal allograft tolerance in CD45RB-treated mice. <u>Kidney Int. 55: 1303-10.</u>
- 9. Bauer, D. *et al.* (2009) Amniotic membrane transplantation induces apoptosis in T lymphocytes in murine corneas with experimental herpetic stromal keratitis <u>Invest</u> <u>Ophthalmol Vis Sci. 50: 3188-98.</u>
- 10. Heitmann, S. *et al.* (1999) Immunohistological characterization of leukocytes in the lungs of healthy mice and after bacterial intratracheal infection. <u>Lab Anim. 33: 288-94.</u>
- 11. Hare, K.J. *et al.* (2003) Modeling TCR signaling complex formation in positive selection. J Immunol. 171: 2825-31.
- 12. Erlandsson, L. *et al.* (2004) Impaired B-1 and B-2 B cell development and atypical splenic B cell structures in IL-7 receptor-deficient mice. Eur J Immunol. 34: 3595-603.
- 13. Severinová, J. *et al.* (2005) Co-inoculation of *Borrelia afzelii* with tick salivary gland extract influences distribution of immunocompetent cells in the skin and lymph nodes of mice. Folia Microbiol (Praha). 50: 457-63.
- 14. Rothhammer, V. *et al.* (2011) Th17 lymphocytes traffic to the central nervous system independently of α4 integrin expression during EAE. <u>J Exp Med. 208 (12): 2465-76.</u>
- 15. Salem, M. *et al.* (2011) Interferon regulatory factor-7 modulates experimental autoimmune encephalomyelitis in mice. <u>J Neuroinflammation</u>. 8: 181.
- 16. Hoeksema, M.A. *et al.* (2014) Targeting macrophage Histone deacetylase 3 stabilizes atherosclerotic lesions. EMBO Mol Med. pii: e201404170.
- 17. Scheinert, R.B. *et al.* (2016) Therapeutic effects of stress-programmed lymphocytes transferred to chronically stressed mice. <u>Prog Neuropsychopharmacol Biol Psychiatry. Apr</u> 21. pii: S0278-5846(16)30056-2. [Epub ahead of print]
- 18. Schaut, R.G. *et al.* (2015) Bovine viral diarrhea virus type 2 *in vivo* infection modulates TLR4 responsiveness in differentiated myeloid cells which is associated with decreased MyD88 expression. <u>Virus Res. 208: 44-55.</u>
- 19. Janssen, E. *et al.* (2016) A DOCK8-WIP-WASp complex links T cell receptors to the actin cytoskeleton. J Clin Invest. 126 (10): 3837-51.
- 20. Teeling, J.L. *et al.* (2012) Intracerebral immune complex formation induces inflammation in the brain that depends on Fc receptor interaction. <u>Acta Neuropathol. 124</u> (4): 479-90.
- 21. Van Aelst, L.N. *et al.* (2016) RNA Profiling in Human and Murine Transplanted Hearts: Identification and Validation of Therapeutic Targets for Acute Cardiac and Renal Allograft Rejection. <u>Am J Transplant. 16 (1): 99-110.</u>
- 22. Kim, I. *et al.* (2016) Immunological characterization of de novo and recall alloantibody suppression by CTLA4Ig in a mouse model of allosensitization. <u>Transpl Immunol. 38:</u> 84-92.
- 23. Massa, M.G. *et al.* (2017) Testosterone Differentially Affects T Cells and Neurons in Murine and Human Models of Neuroinflammation and Neurodegeneration. <u>Am J Pathol.</u> 187 (7): 1613-22.
- 24. Zamudio, F. *et al.* (2020) TDP-43 mediated blood-brain barrier permeability and leukocyte infiltration promote neurodegeneration in a low-grade systemic inflammation mouse model. J Neuroinflammation. 17 (1): 283.
- 25. Yun, M. *et al.* (2020) Enriched-Baicalein Attenuates Allergy in Cells and Mice <u>Ev-Based Comp Alt Med.</u>. 2020: 1-8.

Storage	Store at +4°C or at -20°C if preferred.
	This product should be stored undiluted.
	Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.
	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: <a href="https://www.bio-rad-antibodies.com/SDS/MCA500F">https://www.bio-rad-antibodies.com/SDS/MCA500F</a> 10041
Regulatory	For research purposes only

### **Related Products**

North & South Tel: +1 800 265 7376

# **Recommended Negative Controls**

RAT IgG2a NEGATIVE CONTROL:FITC (MCA1212F)

America Fax: +1 919 878 3751

Worldwide

Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 **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 'M368115:200529'

## Printed on 08 Apr 2024

© 2024 Bio-Rad Laboratories Inc | Legal | Imprint