Datasheet: MCA500A700T

Description:	RAT ANTI MOUSE CD3:Alexa Fluor® 700
Specificity:	CD3
Format:	ALEXA FLUOR® 700
Product Type:	Monoclonal Antibody
Clone:	KT3
Isotype:	IgG2a
Quantity:	25 TESTS/0.25ml

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

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 Alexa Fluor® 700 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®700	702	723

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide
1% Bovine Serum Albumin

Approx. Protein Concentrations

IgG concentration 0.05 mg/ml

Immunogen

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

Fusion Partners Spleen cells from immunised 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, which is expressed by mature T cells. Rat anti Mouse CD3 antibody, clone KT3 may be used to trigger proliferation and cytotoxicity of CD3 positive cells.

NB. For optimal staining incubations should be performed at room temperature.

Flow Cytometry Use 10ul of the suggested working dilution to label 10^6 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 (BUF041A/B).

References

1. Tomonari, K. (1988) A rat antibody against a structure functionally related to the mouse T-cell receptor/T3 complex. Immunogenetics. 28 (6): 455-8.
2. 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 *Cryptosporidium parvum* infection. Infect Immun. 70 (4): 2090-9.
3. Tomonari, K. & Lovering, E. (1988) T-cell receptor-specific monoclonal antibodies against a V beta 11-positive mouse T-cell clone. Immunogenetics. 28 (6): 445-51.
4. 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.
5. 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.
6. Hirsh, M. *et al.* (2004) Response of lung gammadelta T cells to experimental sepsis in mice. Immunology. 112: 153-60.
7. Tarlton, J.F. *et al.* (2000) The role of up-regulated serine proteases and matrix metalloproteinases in the pathogenesis of a murine model of colitis. Am J Pathol. 157: 1927-35.
8. Lazarovits, A.I. *et al.* (1999) Mechanisms of induction of renal allograft tolerance in CD45RB-treated mice. Kidney Int. 55: 1303-10.
9. Bauer, D. *et al.* (2009) Amniotic membrane transplantation induces apoptosis in T lymphocytes in murine corneas with experimental herpetic stromal keratitis Invest Ophthalmol Vis Sci. 50: 3188-98.
10. Heitmann, S. *et al.* (1999) Immunohistological characterization of leukocytes in the lungs of healthy mice and after bacterial intratracheal infection. Lab Anim. 33: 288-94.
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. J Exp Med. 208 (12): 2465-76.
15. Salem, M. *et al.* (2011) Interferon regulatory factor-7 modulates experimental autoimmune encephalomyelitis in mice. J Neuroinflammation. 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. Prog Neuropsychopharmacol Biol Psychiatry. Apr 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. Virus Res. 208: 44-55.
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. Acta Neuropathol. 124 (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. Am J Transplant. 16 (1): 99-110.
22. Kim, I. *et al.* (2016) Immunological characterization of de novo and recall alloantibody suppression by CTLA4Ig in a mouse model of allosensitization. Transpl Immunol. 38: 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. Am J Pathol. 187 (7): 1613-22.

Storage	Store at +4^{o}C or at -20^{o}C if preferred. This product should be stored undiluted. 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.
Shelf Life	18 months from date of despatch.
Acknowledgements	This product is provided under an intellectual property licence from Life Technologies Corporation. The transfer of this product is contingent on the buyer using the purchase product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or outlicensing@thermofisher.com
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: 10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

RAT IgG2a NEGATIVE CONTROL:Alexa Fluor® 700 (MCA1212A700)

North & South America	Tel: +1 800 265 7376 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

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