

Datasheet: MCA500EL

| | |
|----------------------|----------------------------------|
| Description: | RAT ANTI MOUSE CD3:Low Endotoxin |
| Specificity: | CD3 |
| Format: | Low Endotoxin |
| Product Type: | Monoclonal Antibody |
| Clone: | KT3 |
| Isotype: | IgG2a |
| Quantity: | 0.5 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 | ▪ | | | 1/100 |
| Immunohistology - Frozen (1) | ▪ | | | |
| Immunohistology - Paraffin | | ▪ | | |
| ELISA | | | ▪ | |
| Immunoprecipitation | | | ▪ | |
| Western Blotting | | | ▪ | |

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.

(1)The epitope recognised by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. Bio-Rad recommends the use of acetone fixation for frozen sections.

| | |
|------------------------|---|
| Target Species | Mouse |
| Product Form | Purified IgG - liquid |
| Preparation | Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant |
| Buffer Solution | Phosphate buffered saline |
| Preservative | None present |

Stabilisers

Carrier Free Yes

Endotoxin Level <0.01EU/ug

Approx. Protein Concentrations IgG concentration 1.0 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

RRID AB_10845156

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 ([Tomonari 1988](#)).

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 in 100ul.

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 $\alpha 4$ 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 diarrhoea 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.](#)

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 [Ev-Based Comp Alt Med.. 2020: 1-8.](#)

26. Granadillo, M. *et al.* (2019) Impact on antitumor response using a new adjuvant preparation as a component of a human papillomavirus type 16 therapeutic vaccine candidate. [Vaccine. 37 \(30\): 3957-60.](#)

Storage Store at -20°C only.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. 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 #10162 available at: 10162: <https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR20...) [RPE](#)
Goat Anti Rat IgG (STAR69...) [FITC](#)
Goat Anti Rat IgG (STAR73...) [RPE](#)
Donkey Anti Rat IgG (H/L) (643001...) [HRP](#)
Rabbit Anti Rat IgG (STAR21...) [HRP](#)
Rabbit Anti Rat IgG (STAR17...) [FITC](#)
Goat Anti Rat IgG (STAR131...) [Alk. Phos.](#)

Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:Low Endotoxin \(MCA1212EL\)](#)

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)

'M368114:200529'

Printed on 15 Oct 2021
