

Datasheet: MCA609PB

BATCH NUMBER 163085

Description:	RAT ANTI MOUSE CD8 ALPHA:Pacific Blue®
Specificity:	CD8 ALPHA
Other names:	LY-2
Format:	Pacific Blue®
Product Type:	Monoclonal Antibody
Clone:	KT15
Isotype:	IgG2a
Quantity:	100 TESTS/1ml

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	▪			1/5 - 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 Pacific Blue® - 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>Pacific Blue®</td> <td>410</td> <td>455</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	Pacific Blue®	410	455
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
Pacific Blue®	410	455					
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant						
Buffer Solution	Phosphate buffered saline						
Preservative	0.09% Sodium Azide						
Stabilisers	1% Bovine Serum Albumin						
Approx. Protein	IgG concentration 0.05 mg/ml						

Concentrations

Immunogen T cell clone, C6

External Database Links

UniProt:

[P01731](#) [Related reagents](#)

Entrez Gene:

[12525](#) Cd8a [Related reagents](#)

Synonyms Lyt2, Lyt-2

RRID AB_566915

Fusion Partners Spleen cells from immunized SD rats were fused with cells of the NS0 mouse myeloma cell line

Specificity **Rat anti Mouse CD8 α , clone KT15**, recognizes the [alpha chain of mouse CD8](#). CD8 is a heterodimeric protein composed of disulphide-linked CD8 α and [CD8 \$\beta\$](#) chains that is expressed primarily on cytotoxic T-cells. CD8 functions in the interaction with MHC Class I-bearing targets and plays a role in T-cell-mediated killing ([Nakauchi, H. et al., 1985](#) & [Nakauchi, H. et al., 1987](#)).

Clone KT15 is reported to block T-cell-mediated cytotoxicity in *in vitro* assays ([Zeis, M. et al., 2002](#)).

Flow Cytometry Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

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. & Lovering, E. (1988) T-cell receptor-specific monoclonal antibodies against a V beta 11-positive mouse T-cell clone. [Immunogenetics. 28 \(6\): 445-51.](#)
2. Whiteland, J.L. et al. (1995) Immunohistochemical detection of T-cell subsets and other leukocytes in paraffin-embedded rat and mouse tissues with monoclonal antibodies. [J Histochem Cytochem. 43 \(3\): 313-20.](#)
3. Lee, Y.L. et al (2003) Oral administration of *Agaricus blazei* (H1 strain) inhibited tumor growth in a sarcoma 180 inoculation model. [Exp Anim. 52: 371-5.](#)
4. Eller, K. et al. (2011) IL-9 production by regulatory T cells recruits mast cells that are essential for regulatory T cell-induced immune suppression. [J Immunol. 186: 83-91.](#)
5. Grimm, M. et al. (2010) Evaluation of immunological escape mechanisms in a mouse model of colorectal liver metastases. [BMC Cancer. 10: 82.](#)
6. Liao, D. et al. (2009) Cancer Associated Fibroblasts Promote Tumor Growth and Metastasis by Modulating the Tumor Immune Microenvironment in a 4T1 Murine Breast Cancer Model [PLoS One. 4: e7965.](#)
7. Moos, M.P. et al. (2005) The lamina adventitia is the major site of immune cell accumulation in standard chow-fed apolipoprotein E-deficient mice. [Arterioscler Thromb](#)

[Vasc Biol. 25: 2386-91.](#)

8. Stevenson, P.G. *et al.* (2002) Uncoupling of virus-induced inflammation and anti-viral immunity in the brain parenchyma. [J Gen Virol. 83: 1735-43.](#)
9. Wang, X. *et al.* (2011) Quercetin and Bornyl Acetate Regulate T-Lymphocyte Subsets and INF- γ /IL-4 Ratio In Utero in Pregnant Mice. [Evid Based Complement Alternat Med. 2011: 745262.](#)
10. Zeis, M. *et al.* (2002) Idiotype protein-pulsed dendritic cells produce strong anti-myeloma effects after syngeneic stem cell transplantation in mice. [Bone Marrow Transplant. 29: 213-21.](#)
11. Ideguchi, M. *et al.* (2008) Immune or inflammatory response by the host brain suppresses neuronal differentiation of transplanted ES cell-derived neural precursor cells. [J Neurosci Res. 86: 1936-43.](#)
12. Wolf, D. *et al.* (2005) CD4+CD25+ regulatory T cells inhibit experimental anti-glomerular basement membrane glomerulonephritis in mice. [J Am Soc Nephrol. 16: 1360-70.](#)
13. Severinova, 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. Zaini, J. *et al.* (2007) OX40 ligand expressed by DCs costimulates NKT and CD4+ Th cell antitumor immunity in mice. [J Clin Invest. 117: 3330-8.](#)
15. Meyer, C. *et al.* (2011) Chronic inflammation promotes myeloid-derived suppressor cell activation blocking antitumor immunity in transgenic mouse melanoma model. [Proc Natl Acad Sci U S A. 108: 17111-6.](#)
16. Zitt, E. *et al.* (2011) The selective mineralocorticoid receptor antagonist eplerenone is protective in mild anti-GBM glomerulonephritis. [Int J Clin Exp Pathol. 4:606-15.](#)
17. Singh, V. *et al.* (2011) Co-administration of IL-1+IL-6+TNF- α with Mycobacterium tuberculosis infected macrophages vaccine induces better protective T cell memory than BCG. [PLoS One. 6: e16097.](#)
18. Kalyanasundaram Bhanumathy, K. *et al.* (2015) Potent immunotherapy against well-established thymoma using adoptively transferred transgene IL-6-engineered dendritic cell-stimulated CD8(+) T-cells with prolonged survival and enhanced cytotoxicity. [J Gene Med. 17 \(8-9\): 153-60.](#)
19. Abiko K *et al.* (2015) IFN- γ from lymphocytes induces PD-L1 expression and promotes progression of ovarian cancer. [Br J Cancer. 112 \(9\): 1501-9.](#)
20. Phan-Lai, V. *et al.* (2016) The Antitumor Efficacy of IL2/IL21-Cultured Polyfunctional Neu-Specific T Cells Is TNF α /IL17 Dependent. [Clin Cancer Res. 22 \(9\): 2207-16.](#)
21. Kajiwara, T. *et al.* (2016) Hypoxia augments MHC class I antigen presentation via facilitation of ERO1- α -mediated oxidative folding in murine tumor cells. [Eur J Immunol. 46 \(12\): 2842-51.](#)
22. Srivastava, A.K. *et al.* (2016) Co-transplantation of syngeneic mesenchymal stem cells improves survival of allogeneic glial-restricted precursors in mouse brain. [Exp Neurol. 275 Pt 1: 154-61.](#)
23. Meier, R.P. *et al.* (2014) Survival of free and encapsulated human and rat islet xenografts transplanted into the mouse bone marrow. [PLoS One. 9 \(3\): e91268.](#)
24. Groh, J. *et al.* (2021) Immune modulation attenuates infantile neuronal ceroid lipofuscinosis in mice before and after disease onset [Brain Communications. 3\(2\): fcab047.](#)

25. Cecil, D.L. *et al.* (2022) COX-2 inhibitors decrease expression of PD-L1 in colon tumors and increase the influx of Type I tumor infiltrating lymphocytes. [Cancer Prev Res \(Phila\). canprevres.0227.2021.](#)
26. Karikari, A.A. *et al.* (2022) Neurodegeneration by α -synuclein-specific T cells in AAV-A53T- α -synuclein Parkinson's disease mice. [Brain Behav Immun. 101: 194-210.](#)
27. Badr, M. *et al.* (2022) Expansion of regulatory T cells by CD28 superagonistic antibodies attenuates neurodegeneration in A53T- α -synuclein Parkinson's disease mice. [J Neuroinflammation. 19 \(1\): 319.](#)
28. McFleder, R.L. *et al.* (2023) Brain-to-gut trafficking of alpha-synuclein by CD11c(+) cells in a mouse model of Parkinson's disease. [Nat Commun. 14 \(1\): 7529.](#)
29. Aloui, A. *et al.* (2023) AFM₁ Exposure in Male Balb/c Mice and Intervention Strategies Against Its Immuno-physiological toxicity using Clay Mineral and Lactic Acid Bacteria Alone or in Combination. [Immunopharmacol Immunotoxicol. : 1-32.](#)
30. Aringer, I. *et al.* (2021) Agonism of Prostaglandin E2 Receptor 4 Ameliorates Tubulointerstitial Injury in Nephrotoxic Serum Nephritis in Mice. [J Clin Med. 10 \(4\) :832.](#)

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

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 purchased 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: <https://www.bio-rad-antibodies.com/SDS/MCA609PB>
10041

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:Pacific Blue® \(MCA1212PB\)](#)

Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

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

'M385875:210513'

Printed on 08 Mar 2024

© 2024 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)