

Datasheet: MCA609F

BATCH NUMBER 154580

Description:	RAT ANTI MOUSE CD8 ALPHA:FITC
Specificity:	CD8 ALPHA
Other names:	LY-2
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	KT15
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						
Stabilisers	1% Bovine Serum Albumin						
Approx. Protein	IgG concentration 0.1 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_321409

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. Sep 26. \[Epub ahead of print\]](#)
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. fcab047 \[Epub ahead of print\].](#)

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: <https://www.bio-rad-antibodies.com/SDS/MCA609F10041>

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)
'M375941:210114'

Printed on 08 Mar 2024

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