

Datasheet: MCA609GA

#### **BATCH NUMBER 1808**

Description:	RAT ANTI MOUSE CD8 ALPHA		
Specificity:	CD8 ALPHA		
Other names:	LY-2		
Format:	Purified		
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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry				1/100 - 1/200
Immunohistology - Frozen (1)	•			
Immunohistology - Paraffin		•		
ELISA				
Immunoprecipitation				
Western Blotting				
Immunofluorescence				
Functional Assays			•	

Where this product 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 product 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

supernatant

Buffer Solution	Phosphate buffered saline		
Preservative Stabilisers	0.09% Sodium Azide		
Carrier Free	Yes		
Approx. Protein Concentrations	IgG concentration 1 mg/ml		
Immunogen	T cell clone, C6		
External Database Links	UniProt: P01731 Related reagents  Entrez Gene:		
	12525 Cd8a Related reagents		
Synonyms	Lyt2, Lyt-2		
RRID	AB_323706		
Fusion Partners	Spleen cells from immunized SD rats were fused with cells of the NS0 mouse myeloma cell line		
Specificity	Rat anti mouse CD8 $\alpha$ , clone KT15, recognizes the <u>alpha chain of mouse CD8</u> . CD8 is a heterodimeric protein composed of disulphide-linked CD8 $\alpha$ and <u>CD8<math>\beta</math></u> 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 ( <u>Nakauchi</u> , H. <i>et al.</i> , 1985) & <u>Nakauchi</u> , H. <i>et al.</i> , 1987).		
	Clone KT15 is reported to block T-cell-mediated cytotoxicity in <i>in vitro</i> assays (Zeis, M. et al., 2002).		
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.		
References	1. Tomonari, K. & Lovering, E. (1988) T-cell receptor-specific monoclonal antibodies against a V beta 11-positive mouse T-cell clone. <a href="Immunogenetics.28">Immunogenetics. 28</a> (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. <a href="J">J</a> <a href="Histochem Cytochem.43">Histochem Cytochem. 43</a> (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. <a href="Exp Anim.52">Exp Anim. 52</a> : 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. <a href="J Immunol.186">J Immunol. 186</a> : 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.
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- 8. Stevenson, P.G. *et al.* (2002) Uncoupling of virus-induced inflammation and anti-viral immunity in the brain parenchyma. <u>J Gen Virol. 83: 1735-43.</u>
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- 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. <u>J Am Soc Nephrol. 16:</u> 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. <u>J Clin Invest. 117: 3330-8.</u>
- 15. Meyer, C. *et al.* (2011) Chronic inflammation promotes myeloid-derived suppressor cell activation blocking antitumor immunity in transgenic mouse melanoma model. <u>Proc Natl</u> 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 glomeru-lonephritis. 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. <u>J Gene Med. 17 (8-9): 153-60.</u>
- 19. Abiko K *et al.* (2015) IFN-γ from lymphocytes induces PD-L1 expression and promotes progression of ovarian cancer. <u>Br J Cancer. 112 (9): 1501-9.</u>
- 20. Phan-Lai, V. *et al.* (2016) The Antitumor Efficacy of IL2/IL21-Cultured Polyfunctional Neu-Specific T Cells Is TNFα/IL17 Dependent. <u>Clin Cancer Res. 22 (9): 2207-16.</u>
- 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. <u>Eur J Immunol.</u> 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. <u>Exp Neurol. 275</u>

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. <u>PLoS One. 9 (3): e91268.</u>
24. Groh, J. *et al.* (2021) Immune modulation attenuates infantile neuronal ceroid lipofuscinosis in mice before and after disease onset <u>Brain Communications. fcab047</u>

[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. 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 #10040 available at:

https://www.bio-rad-antibodies.com/SDS/MCA609GA

10040

**Regulatory** For research purposes only

## Related Products

### **Recommended Secondary Antibodies**

Rabbit Anti Rat IgG (STAR16...) DyLight®800

Rabbit Anti Rat IgG (STAR17...)

Goat Anti Rat IgG (STAR72...)

Goat Anti Rat IgG (STAR69...)

Goat Anti Rat IgG (STAR73...)

RPE

Rabbit Anti Rat IgG (STAR21...)

HRP

Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...) DyLight®550, DyLight®650, DyLight®800

Goat Anti Rat IgG (STAR131...) Alk. Phos., Biotin

### **Recommended Negative Controls**

RAT IgG2a NEGATIVE CONTROL (MCA1212)

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
 Fax: +44 (0)1865 852 739
 Fax: +49 (0) 89 8090 95 50

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M375929:210114'

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