

## Datasheet: MCA609SBY575

<b>Description:</b>	RAT ANTI MOUSE CD8 ALPHA:StarBright Yellow 575
<b>Specificity:</b>	CD8 ALPHA
<b>Other names:</b>	LY-2
<b>Format:</b>	StarBright Yellow 575
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	KT15
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	100 TESTS/0.5ml

### 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

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.

<b>Target Species</b>	Mouse						
<b>Product Form</b>	Purified IgG conjugated to StarBright Yellow 575 - liquid						
<b>Max Ex/Em</b>	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>StarBright Yellow 575</td> <td>548</td> <td>579</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	StarBright Yellow 575	548	579
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
StarBright Yellow 575	548	579					
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant						
<b>Buffer Solution</b>	Phosphate buffered saline						
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin 0.1% Pluronic F68 0.1% PEG 3350 0.05% Tween 20						

<b>Immunogen</b>	T cell clone, C6
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P01731</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">12525</a> Cd8a    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	Lyt2, Lyt-2
<b>Fusion Partners</b>	Spleen cells from immunized SD rats were fused with cells of the NS0 mouse myeloma cell line
<b>Specificity</b>	<p><b>Rat anti Mouse CD8<math>\alpha</math>, clone KT15</b>, recognizes the <a href="#">alpha chain of mouse CD8</a>. CD8 is a heterodimeric protein composed of disulphide-linked CD8<math>\alpha</math> and <a href="#">CD8<math>\beta</math></a> 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 (<a href="#">Nakauchi, H. et al., 1985</a> &amp; <a href="#">Nakauchi, H. et al., 1987</a>).</p> <p>Clone KT15 is reported to block T-cell-mediated cytotoxicity in <i>in vitro</i> assays (<a href="#">Zeis, M. et al., 2002</a>).</p>
<b>Flow Cytometry</b>	Use 5ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Tomonari, K. &amp; Lovering, E. (1988) T-cell receptor-specific monoclonal antibodies against a V beta 11-positive mouse T-cell clone. <a href="#">Immunogenetics. 28 (6): 445-51.</a></li> <li>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 Histochem Cytochem. 43 (3): 313-20.</a></li> <li>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: 371-5.</a></li> <li>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: 83-91.</a></li> <li>5. Grimm, M. et al. (2010) Evaluation of immunological escape mechanisms in a mouse model of colorectal liver metastases. <a href="#">BMC Cancer. 10: 82.</a></li> <li>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 <a href="#">PLoS One. 4: e7965.</a></li> <li>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. <a href="#">Arterioscler Thromb Vasc Biol. 25: 2386-91.</a></li> <li>8. Stevenson, P.G. et al. (2002) Uncoupling of virus-induced inflammation and anti-viral immunity in the brain parenchyma. <a href="#">J Gen Virol. 83: 1735-43.</a></li> <li>9. Wang, X. et al. (2011) Quercetin and Bornyl Acetate Regulate T-Lymphocyte Subsets and INF-<math>\gamma</math>/IL-4 Ratio In Utero in Pregnant Mice. <a href="#">Evid Based Complement Alternat Med. 2011: 745262.</a></li> </ol>

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- $\alpha$  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- $\gamma$  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 $\alpha$ /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- $\alpha$ -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  $\alpha$ -synuclein-specific T cells in AAV-A53T- $\alpha$ -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- $\alpha$ -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) AFM<sub>1</sub> 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** Store at +4°C. DO NOT FREEZE.  
This product should be stored undiluted.

---

**Guarantee** 12 months from date of despatch

---

**Acknowledgements** This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts

---

**Health And Safety Information** Material Safety Datasheet documentation #20471 available at: <https://www.bio-rad-antibodies.com/SDS/MCA609SBY575>  
20471

---

**Regulatory** For research purposes only

---

## Related Products

### 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](mailto: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](mailto: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](mailto: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)

'M413690:221125'

**Printed on 08 Mar 2024**

---

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