

## Datasheet: MCA609SBY720

**BATCH NUMBER 100007350**

<b>Description:</b>	RAT ANTI MOUSE CD8 ALPHA:StarBright Yellow 720
<b>Specificity:</b>	CD8 ALPHA
<b>Other names:</b>	LY-2
<b>Format:</b>	StarBright Yellow 720
<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.

### Target Species

Mouse

### Product Form

Purified IgG conjugated to StarBright Yellow 720 - liquid

### Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
StarBright Yellow 720	548	719

### Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

### Buffer Solution

Phosphate buffered saline

### Preservative Stabilisers

0.09% Sodium Azide (NaN<sub>3</sub>)  
1% Bovine Serum Albumin  
0.1% Pluronic F68  
0.1% PEG 3350

0.05% Tween 20

---

**Immunogen**

T cell clone, C6

---

**External Database Links****UniProt:**

[P01731](#)    [Related reagents](#)

**Entrez Gene:**

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

---

**Synonyms**

Lyt2, Lyt-2

---

**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 [alpha chain of mouse CD8](#). CD8 is a heterodimeric protein composed of disulphide-linked CD8 $\alpha$  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 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.

---

**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- $\gamma$ /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- $\alpha$  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. 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. 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.](#)

---

<b>Storage</b>	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted.
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20471 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA609SBY720">https://www.bio-rad-antibodies.com/SDS/MCA609SBY720</a> 20471
<b>Regulatory</b>	For research purposes only

---

## Related Products

### Recommended Useful Reagents

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

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

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
----------------------------------	---	------------------	---	---------------	---

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)  
'M416099:230130'

**Printed on 08 Mar 2024**