

## Datasheet: MCA2694T

<b>Description:</b>	RAT ANTI MOUSE CD8 ALPHA
<b>Specificity:</b>	CD8 ALPHA
<b>Other names:</b>	LY-2
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	53-6.7
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	25 µg

## Product Details

**RRID** AB\_1102362

### 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 - 1/20
Immunohistology - Frozen	▪			
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.

<b>Target Species</b>	Mouse
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Approx. Protein Concentrations</b>	IgG concentration 0.5mg/ml

<b>Immunogen</b>	Mouse thymus or spleen.
<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>Specificity</b>	<p><b>Rat anti Mouse CD8 alpha antibody, clone 53-6.7</b> detects mouse CD8a, also known as Lyt-2. CD8<math>\alpha</math> is the alpha chain of the CD8 antigen. CD8 is expressed on T-cells, and exists either a homodimer composed of two alpha chains, or a heterodimer composed of one alpha and one beta chain.</p> <p>CD8 functions as a co-receptor with the T-cell receptor and mediates efficient cell to cell interactions within the immune system. The CD8 alpha chain specifically binds to class I MHC molecules.</p> <p>Rat anti Mouse CD8 alpha antibody, clone 53-6.7 has been reported to block antigen presentation via MHC class I and inhibit T cell responses to IL-2. Rat anti Mouse CD8 alpha antibody, clone 53-6.7 has also been used for depletion of CD8a<sup>+</sup> cells.</p>
<b>Flow Cytometry</b>	<p>Use 10ul of the suggested working dilution to label 1x10<sup>6</sup> cells in 100ul.</p> <p>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 (<a href="#">BUF041A/B</a>).</p>
<b>Immunohistology</b>	MCA2694T has been reported as working well on Zinc-fixed paraffin-embedded sections. However, inconsistent results have been reported on formalin-fixed paraffin-embedded tissue sections.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Takahashi, K. <i>et al.</i> (1992) CD4 and CD8 regulate interleukin 2 responses of T cells. <a href="#">Proc Natl Acad Sci U S A. 89 (12): 5557-61.</a></li> <li>2. Shore, D.A. <i>et al.</i> (2008) The crystal structure of CD8 in complex with YTS156.7.7 Fab and interaction with other CD8 antibodies define the binding mode of CD8 alphabeta to MHC class I. <a href="#">J Mol Biol. 384 (5): 1190-202.</a></li> <li>3. McDole, J.R. <i>et al.</i> (2010) Rapid formation of extended processes and engagement of Theiler's virus-infected neurons by CNS-infiltrating CD8 T cells. <a href="#">Am J Pathol. 177 (4): 1823-33.</a></li> <li>4. Zhang, M.Z. <i>et al.</i> (2015) Inhibition of cyclooxygenase-2 in hematopoietic cells results in salt-sensitive hypertension. <a href="#">J Clin Invest. 125 (11): 4281-94.</a></li> <li>5. Johnson, H.L. <i>et al.</i> (2014) Perforin competent CD8 T cells are sufficient to cause immune-mediated blood-brain barrier disruption. <a href="#">PLoS One. 9 (10): e111401.</a></li> <li>6. Schuster, C. <i>et al.</i> (2013) A missing PD-L1/PD-1 coinhibition regulates diabetes induction by preproinsulin-specific CD8 T-cells in an epitope-specific manner. <a href="#">PLoS One. 8 (8): e71746.</a></li> </ol>
<b>Further Reading</b>	1. Jabbari, A. & Harty, J.T. (2006) The generation and modulation of antigen-specific memory CD8 T cell responses. <a href="#">J Leukoc Biol. 80 (1): 16-23.</a>
<b>Storage</b>	<p>Store at +4°C or at -20°C if preferred.</p> <p>Storage in frost-free freezers is not recommended.</p> <p>This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before</p>

use.

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<b>Guarantee</b>	18 months from date of despatch.
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: 10040: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a>
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR17...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR131...)	<a href="#">Alk. Phos., Biotin</a>
Goat Anti Rat IgG (STAR73...)	<a href="#">RPE</a>
Rabbit Anti Rat IgG (STAR21...)	<a href="#">HRP</a>
Goat Anti Rat IgG (STAR72...)	<a href="#">HRP</a>
Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight®800</a>
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight®800</a>

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL \(MCA1212\)](#)

<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>
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