

Datasheet: MCA2694T

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

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 - 1/20
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.

Target Species	Mouse
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	<0.1% Sodium Azide (NaN ₃)

Approx. Protein Concentrations	IgG concentration 0.5mg/ml
Immunogen	Mouse thymus or spleen.
External Database Links	<p>UniProt: P01731 Related reagents</p> <p>Entrez Gene: 12525 Cd8a Related reagents</p>
Synonyms	Lyt2, Lyt-2
RRID	AB_1102362
Specificity	<p>Rat anti Mouse CD8 alpha antibody, clone 53-6.7 detects mouse CD8a, also known as Lyt-2. CD8α 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⁺ cells.</p>
Flow Cytometry	<p>Use 10ul of the suggested working dilution to label 1x10⁶ 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 (BUF041A/B).</p>
Immunohistology	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.
References	<ol style="list-style-type: none"> 1. Takahashi, K. <i>et al.</i> (1992) CD4 and CD8 regulate interleukin 2 responses of T cells. Proc Natl Acad Sci U S A. 89 (12): 5557-61. 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. J Mol Biol. 384 (5): 1190-202. 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. Am J Pathol. 177 (4): 1823-33. 4. 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. PLoS One.

[8 \(8\): e71746.](#)

5. Johnson, H.L. *et al.* (2014) Perforin competent CD8 T cells are sufficient to cause immune-mediated blood-brain barrier disruption. [PLoS One. 9 \(10\): e111401.](#)

6. Zhang, M.Z. *et al.* (2015) Inhibition of cyclooxygenase-2 in hematopoietic cells results in salt-sensitive hypertension. [J Clin Invest. 125 \(11\): 4281-94.](#)

Further Reading 1. Jabbari, A. & Harty, J.T. (2006) The generation and modulation of antigen-specific memory CD8 T cell responses. [J Leukoc Biol. 80 \(1\): 16-23.](#)

Storage This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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/MCA2694T>
10040

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Rat IgG (STAR73...) [RPE](#)
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...) [DyLight®550](#), [DyLight®650](#), [DyLight®800](#)
Rabbit Anti Rat IgG (STAR21...) [HRP](#)
Rabbit Anti Rat IgG (STAR16...) [DyLight®800](#)
Goat Anti Rat IgG (STAR131...) [Alk. Phos.](#), [Biotin](#)
Rabbit Anti Rat IgG (STAR17...) [FITC](#)
Goat Anti Rat IgG (STAR72...) [HRP](#)
Goat Anti Rat IgG (STAR69...) [FITC](#)

Recommended Negative Controls

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

North & South America	Tel: +1 800 265 7376 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
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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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