

Datasheet: MCA2694T

BATCH NUMBER 149154

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	0.09% 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. 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.](#)
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. Schuster, C. *et al.* (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.](#)

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 Store at +4°C or at -20°C if preferred.
Storage in frost-free freezers is not recommended.
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 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/MCA2694T>
10040

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP
Goat Anti Rat IgG (STAR69...)	FITC
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 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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