

Datasheet: MCA2694PE

Description:	RAT ANTI MOUSE CD8 ALPHA:RPE
Specificity:	CD8 ALPHA
Other names:	LY-2
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	53-6.7
Isotype:	IgG2a
Quantity:	100 TESTS/1ml

Product Details

RRID AB_905994

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	■			

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 R. Phycoerythrin (RPE) - liquid

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578

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

Buffer Solution Phosphate buffered saline

Preservative 0.09% Sodium Azide (NaN₃)
Stabilisers 1% Bovine Serum Albumin

Immunogen Mouse thymus or spleen.

External Database Links

UniProt:
[P01731](#) [Related reagents](#)

Entrez Gene:

Synonyms	Lyt2, Lyt-2
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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>
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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>
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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. <i>et al.</i> (2015) Inhibition of cyclooxygenase-2 in hematopoietic cells results in salt-sensitive hypertension. J Clin Invest. 125 (11): 4281-94.5. Johnson, H.L. <i>et al.</i> (2014) Perforin competent CD8 T cells are sufficient to cause immune-mediated blood-brain barrier disruption. PLoS One. 9 (10): e111401.6. 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. PLoS One. 8 (8): e71746.
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Further Reading	<ol style="list-style-type: none">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.
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Storage	<p>Store at +4°C. DO NOT FREEZE.</p> <p>This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
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Guarantee	18 months from date of despatch.
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Health And Safety Information	Material Safety Datasheet documentation #10041 available at: 10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf
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Regulatory	For research purposes only
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Related Products

Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:RPE \(MCA1212PE\)](#)

Recommended Useful Reagents

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

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

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