

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

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 Stabilisers	<0.1% Sodium Azide (NaN ₃) 1% Bovine Serum Albumin		
Immunogen	Mouse thymus or spleen.		

**External Database
Links**

UniProt:

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

Entrez Gene:

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

Synonyms

Lyt2, Lyt-2

RRID

AB_905994

Specificity

Rat anti Mouse CD8 alpha antibody, clone 53-6.7 detects mouse CD8a, also known as Lyt-2. CD8 α 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.

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.

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.

Flow Cytometry

Use 10ul of the suggested working dilution to label 1x10⁶ cells in 100ul.

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](#)).

References

1. Takahashi, K. *et al.* (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. *et al.* (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. *et al.* (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. DO NOT FREEZE.
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.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10041 available at:
10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

Regulatory For research purposes only

Related Products

Recommended Negative Controls

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

Recommended Useful Reagents

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

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

North & South Tel: +1 800 265 7376

America 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

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

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