

## Anti-Mouse CD8a Antibody, Clone 53-6.7, APC



Scientists Helping Scientists™ | WWW.STEMCELL.COM

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

## Antibodies

Rat monoclonal IgG2a antibody  
against mouse, toad CD8a, APC-  
conjugated

Catalog #60023AZ  
#60023AZ.1

100 µg 0.2 mg/mL  
25 µg 0.2 mg/mL

## Product Description

The 53-6.7 antibody reacts with murine CD8a, a 32 - 34 kDa type I transmembrane glycoprotein which is a subunit of CD8. CD8 is a disulfide-bonded dimer, found either as a heterodimer of CD8a ( $\alpha$ ) and CD8b ( $\beta$ ) subunits (i.e.,  $\alpha\beta$ ) or a homodimer ( $\alpha\alpha$ ). CD8 acts as a co-receptor to the T cell receptor (TCR) during T cell activation by binding MHC Class I molecules presented by an antigen-presenting cell. It functions to strengthen the association between the TCR and MHC I-antigen complex and to amplify signals from the TCR to the cytoplasm through the interaction of its intracellular domain with cytoplasmic tyrosine kinases such as Lck. The CD8a chain binds to the alpha-3 domain of class I MHC molecules. CD8 is expressed in the  $\alpha\beta$  form by a majority of thymocytes and a subset of mature peripheral blood T cells (T cytotoxic cells), and in the  $\beta\beta$  form by  $\gamma\delta$  T cells, a subset of intestinal intraepithelial lymphocytes and dendritic cells. The 53-6.7 antibody reportedly blocks antigen presentation via MHC class I and inhibits IL-2-dependent T cell responses.

Target Antigen Name:	CD8a
Alternative Names:	Ly-2, Lyt2, T8
Gene ID:	12525
Species Reactivity:	Mouse, Toad
Host Species:	Rat (LOU)
Clonality:	Monoclonal
Clone:	53-6.7
Isotype:	IgG2a, kappa
Immunogen:	Mouse thymus or spleen
Conjugate:	APC

## Applications

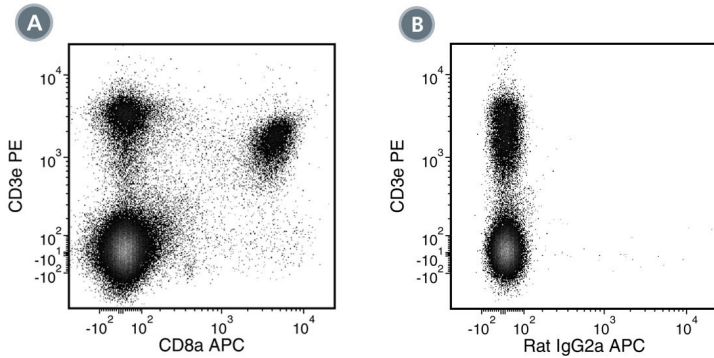
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse CD8+ T Cell Isolation Kit (Catalog #19853).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

## Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions. The solution is free of unconjugated APC and unconjugated antibody.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry the suggested use of this antibody is $\leq 0.25$ µg per $1 \times 10^6$ cells in 100 µL volume. It is recommended that the antibody be titrated for optimal performance for each application.

## Data



(A) Flow cytometry analysis of C57BL/6 mouse splenocytes labeled with Anti-Mouse CD8a Antibody, Clone 53-6.7, APC and Anti-Mouse CD3e Antibody, Clone 145-2C11, PE (Catalog #60015PE).

(B) Flow cytometry analysis of C57BL/6 mouse splenocytes labeled with Rat IgG2a, kappa Isotype Control Antibody, Clone RTK2758, APC (Catalog #60076AZ) and Anti-Mouse CD3e Antibody, Clone 145-2C11, PE.

## Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at [www.stemcell.com/antibodies](http://www.stemcell.com/antibodies) or contact us at [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

## References

1. Bankoti J et al. (2010) Effects of TCDD on the fate of naive dendritic cells. *Toxicol Sci* 115(2): 422–34. (FC)
2. McDole JR 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.
3. Geiben-Lynn R et al. (2008) CD4+ T lymphocytes mediate in vivo clearance of plasmid DNA vaccine antigen expression and potentiate CD8+ T-cell immune responses. *Blood* 112(12): 4585–90. (Depletion)
4. Bouwer HGA et al. (2006) Directed antigen delivery as a vaccine strategy for an intracellular bacterial pathogen. *Proc Natl Acad Sci USA* 103(13): 5102–7. (Depletion, FC)
5. Shih FF et al. (2006) Differential MHC class II presentation of a pathogenic autoantigen during health and disease. *J Immunol* 176(6): 3438–48. (FC)
6. Grabbe S et al. (2002) Beta2 integrins are required for skin homing of primed T cells but not for priming naive T cells. *J Clin Invest* 109(2): 183–92. (IHC)
7. Hathcock KS. (2001) T cell depletion by cytotoxic elimination. *Curr Protoc Immunol Chapter 3: Unit 3.4*. (Depletion)
8. Takahashi K et al. (1992) CD4 and CD8 regulate interleukin 2 responses of T cells. *Proc Natl Acad Sci USA* 89(12): 5557–61. (FA, IP)
9. van Ewijk W et al. (1981) Fluorescence analysis and anatomic distribution of mouse T lymphocyte subsets defined by monoclonal antibodies to the antigens Thy-1, Lyt-1, Lyt-2, and T-200. *J Immunol* 127(6): 2594–604.
10. Ledbetter JA & Herzenberg LA. (1979) Xenogeneic monoclonal antibodies to mouse lymphoid differentiation antigens. *Immunol Rev* 47: 63–90. (IHC, IP)

STEMCELL TECHNOLOGIES INC.'S QUALITY MANAGEMENT SYSTEM IS CERTIFIED TO ISO 13485. PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2016 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, Scientists Helping Scientists and EasySep are trademarks of STEMCELL Technologies Inc. All other trademarks are the property of their respective holders. Alexa Fluor® is a registered trademark of Life Technologies Corporation. This product is licensed for internal research use only and its sale is expressly conditioned on the buyer not using it for manufacturing, performing a service, or medical test, or otherwise generating revenue. For use other than research, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad, CA 92008 USA or [outlicensing@lifetech.com](mailto:outlicensing@lifetech.com). While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.