

# CD8a Monoclonal Antibody (53-6.7), Super Bright™ 780, eBioscience™

Product Details	
Size	25 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Rat / IgG2a, kappa
Class	Monoclonal
Type	Antibody
Clone	53-6.7
Conjugate	Super Bright™ 780
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2722975

Applications	Tested Dilution	Publications
Western Blot (WB)	-	1 Publication
Immunohistochemistry (IHC)	-	1 Publication
Flow Cytometry (Flow)	0.5 µg/test	8 Publications

## Product Specific Information

Description: The 53-6.7 monoclonal antibody reacts with the mouse CD8a molecule. CD8a is an approximately 32-34 kDa cell surface receptor expressed either as a heterodimer with the CD8 beta chain (CD8 alpha beta) or as a homodimer (CD8 alpha alpha). A majority of thymocytes and a subpopulation of mature alpha beta TCR T cells express CD8 alpha beta while gamma delta TCR T cells, a subpopulation of intestinal intraepithelial lymphocytes (IELs) and dendritic cells express CD8 alpha alpha. CD8 binds to MHC class I and through its association with protein tyrosine kinase p56lck plays a role in T cell development and activation of mature T cells.

Applications Reported: This 53-6.7 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This 53-6.7 antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Super Bright 780 can be excited with the violet laser line (405 nm) and emits at 780 nm. We recommend using a 780/60 bandpass filter, or equivalent. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

In some experiments, we have observed that compensation values for Super Bright 780-conjugated antibodies are higher in the violet 450/50 channel when using UltraComp eBeads microspheres (Product # 01-2222-42) as compared to single-color stained cells. In such circumstances, we would recommend setting compensation with cells. We have also observed this in some experiments using AbC Total Antibody Compensation beads (Product # A10497).

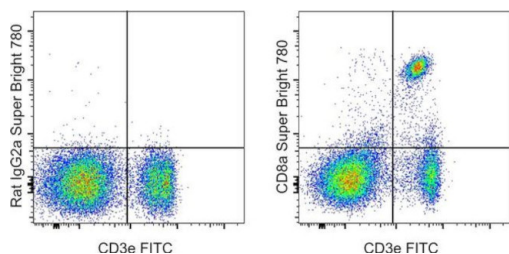
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100  $\mu$ L of cell sample + 100  $\mu$ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 405 nm; Emission: 780 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

## Product Images For CD8a Monoclonal Antibody (53-6.7), Super Bright™ 780, eBioscience™



### CD8a Antibody (78-0081-80) in Flow

C57/B6 splenocytes were stained with CD3e Monoclonal Antibody, FITC (Product # 11-0031-82) and 0.25  $\mu$ g of Rat IgG2a Kappa Isotype Control, Super Bright 780 (Product # 78-4321-82) (left) or 0.25  $\mu$ g of CD8a Monoclonal Antibody, Super Bright 780 (right). Total viable cells were used for analysis.

[View more figures on thermofisher.com](https://www.thermofisher.com)

## 10 References

### Western Blot (1)

eLife

#### Hemozoin produced by mammals confers heme tolerance.

"Published figure using CD8a monoclonal antibody (Product # 78-0081-82) in Western Blot"

Authors: Pek RH, Yuan X, Rietzschel N, Zhang J, Jackson L, Nishibori E, Ribeiro A, Simmons W, Jagadeesh J, Sugimoto H, Alam MZ, Garrett L, Haldar M, Ralle M, Phillips JD, Bodine DM, Hamza I

Year  
2019

### Immunohistochemistry (1)

Communications biology

#### A Cu<sub>9</sub>S<sub>5</sub> nanoparticle-based CpG delivery system for synergistic photothermal-, photodynamic- and immunotherapy.

"Published figure using CD8a monoclonal antibody (Product # 78-0081-82) in Immunohistochemistry"

Authors: Zhou L, Chen L, Hu X, Lu Y, Liu W, Sun Y, Yao T, Dong C, Shi S

Year  
2020

### Flow Cytometry (8)

Vaccines

#### Local Sustained GM-CSF Delivery by Genetically Engineered Encapsulated Cells Enhanced Both Cellular and Humoral SARS-CoV-2 Spike-Specific Immune Response in an Experimental Murine Spike DNA Vaccination Model.

"78-0081-82 was used in Flow Cytometry to investigate whether murine Granulocyte-macrophage colony-stimulating factor (GM-CSF) represents a suitable adjuvant for SARS-CoV-2 immunization."

Authors: Vernet R, Charrier E, Cosset E, Fièvre S, Tomasello U, Grogg J, Mach N

Year  
2021

Species  
Mouse

Frontiers in immunology

#### RIPK3 and Caspase-1/11 Are Necessary for Optimal Antigen-Specific CD8 T Cell Response Elicited by Genetically Modified *Listeria monocytogenes*.

"Published figure using CD8a monoclonal antibody (Product # 78-0081-82) in Flow Cytometry"

Authors: Rana A, de Almeida FC, Paico Montero HA, Gonzales Carazas MM, Bortoluci KR, Sad S, Amarante-Mendes GP

Year  
2021

[View more Flow references on thermofisher.com](#)

### More applications with references on thermofisher.com

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