

# CD8a Monoclonal Antibody (53-6.7), Super Bright™ 600, eBioscience™

Product Details	
Size	25 µg
Species Reactivity	Mouse
Published Species	Hamster, Human, Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), Super Bright™ 600, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	53-6.7
Conjugate	Super Bright™ 600
Excitation/Emission Max	414/601 nm
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_2637162

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	9 Publications
Immunocytochemistry (ICC/IF)	-	6 Publications
Flow Cytometry (Flow)	0.5 µg/test	77 Publications
Immunoprecipitation (IP)	-	1 Publication

## 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  $\mu$ L. Cell number should be determined empirically but can range from  $10^5$  to  $10^8$  cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Super Bright 600 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 600 nm. We recommend using a 610/20 bandpass filter. 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.

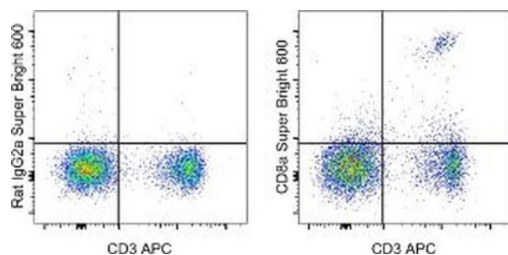
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100  $\mu$ L of cell sample + 100  $\mu$ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 2-8°C with minimal impact on brightness and FRET efficiency /compensation. Some generalizations regarding fluorochrome performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 405 nm; Emission: 600 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™ 600, eBioscience™



### CD8a Antibody (63-0081-80) in Flow

Staining of mouse splenocytes with Anti-Mouse CD3 APC (Product # 17-0032-82) and 0.25  $\mu$ g of Rat IgG2a K Isotype Control Super Bright 600 (Product # 63-4321-82) (left) or 0.25  $\mu$ g of Anti-Mouse CD8a Super Bright 600 (right). Cells in the lymphocyte gate were used for analysis.

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

## 93 References

### Immunohistochemistry (9)

#### 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 # 63-0081-82) in Immunohistochemistry"

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

Year  
2020

#### Scientific reports

#### Type 2 Innate Lymphocytes Actuate Immunity Against Tumours and Limit Cancer Metastasis.

"Published figure using CD8a monoclonal antibody (Product # 63-0081-82) in Immunohistochemistry"

Authors: Saranchova I, Han J, Zaman R, Arora H, Huang H, Fenninger F, Choi KB, Munro L, Pfeifer CG, Welch I, Takei F, Jefferies WA

Year  
2018

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

### Immunocytochemistry (6)

#### Nature communications

#### Oncofetal gene SALL4 reactivation by hepatitis B virus counteracts miR-200c in PD-L1-induced T cell exhaustion.

"Published figure using CD8a monoclonal antibody (Product # 63-0081-82) in Immunofluorescence"

Authors: Sun C, Lan P, Han Q, Huang M, Zhang Z, Xu G, Song J, Wang J, Wei H, Zhang J, Sun R, Zhang C, Tian Z

Year  
2018

#### Nature

#### Metabolic maintenance of cell asymmetry following division in activated T lymphocytes.

"Published figure using CD8a monoclonal antibody (Product # 63-0081-82) in Flow Cytometry"

Authors: Verbist KC, Guy CS, Milasta S, Liedmann S, Kamiski MM, Wang R, Green DR

Year  
2016

[View more ICC/IF references on thermofisher.com](#)

### More applications with references on thermofisher.com

Flow (77) IP (1)

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