

# CD8a Monoclonal Antibody (53-6.7), Super Bright™ 645, eBioscience™

Product Details	
Size	25 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), Super Bright™ 645, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	53-6.7
Conjugate	Super Bright™ 645
Excitation/Emission Max	414/645 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_2662352

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	7 Publications
Flow Cytometry (Flow)	0.5 µg/test	71 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 and immunohistology staining of frozen tissue sections.

**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 645 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 645 nm. We recommend using a 660/20 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.

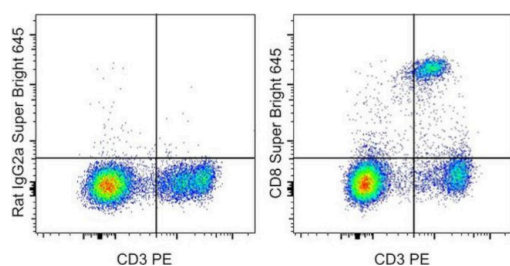
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (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: 645 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™ 645, eBioscience™



### CD8a Antibody (64-0081-80) in Flow

Staining of mouse splenocytes with Anti-Mouse CD3 PE (Product # 12-0032) and 0.25  $\mu$ g of Rat IgG2a K Isotype Control Super Bright 645 (Product # 64-4321-82) (left) or 0.25  $\mu$ g of Anti-Mouse CD8a Super Bright 645 (right). Cells in the lymphocyte gate were used for analysis.

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

## Immunohistochemistry (7)

iScience

### HMGB1/GPC3 dual targeting vaccine induces dendritic cells-mediated CD8<sup>+</sup>T cell immune response and elicits potential therapeutic effect in hepatocellular carcinoma.

Year  
2023

"Published figure using CD8a monoclonal antibody (Product # 64-0081-82) in Immunohistochemistry"  
Authors: Shi X,Ding J,Zheng Y,Wang J,Sobhani N,Neeli P,Wang G,Zheng J,Chai D

Cells

### Complete Freund's Adjuvant Induces a Fibroblast-like Synoviocytes (FLS) Metabolic and Migratory Phenotype in Resident Fibroblasts of the Inoculated Footpad at the Earliest Stage of Adjuvant-Induced Arthritis.

Year  
2023

"Published figure using CD8a monoclonal antibody (Product # 64-0081-82) in Immunohistochemistry"  
Authors: González-Chávez SA,Chaparro-Barrera E,Alvarado-Jáquez MF,Cuevas-Martínez R,Ochoa-Albíztegui RE,Pacheco-Tena C

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

## Flow Cytometry (71)

STAR protocols

### Protocol for PPP1R15A-inhibited mouse model establishment with subcutaneous B16F1 tumor and single-cell analysis.

Year  
2023

"Published figure using CD8a monoclonal antibody (Product # 64-0081-82) in Flow Cytometry"  
Authors: Wang R,Wang M,Pei S,Zhang Y,Guo S,Guo W,Wu Z,Wang H,Li Y,Zhu Y,Meng LH,Lang J,Jin G,Xiao Y,Hu L,Kong X

Frontiers in endocrinology

### Footprint of pancreas infiltrating and circulating immune cells throughout type 1 diabetes development.

Year  
2023

"Published figure using CD8a monoclonal antibody (Product # 64-0081-82) in Flow Cytometry"  
Authors: Bruggeman Y,Martens PJ,Sassi G,Viaene M,Wasserfall CH,Mathieu C,Gyseman C

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

## More applications with references on thermofisher.com

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