

# CD8a Monoclonal Antibody (53-6.7), Brilliant Violet™ 711, eBioscience™

Product Details	
Size	25 µg
Species Reactivity	Mouse
Host/Isotype	Rat / IgG2a, kappa
Class	Monoclonal
Type	Antibody
Clone	53-6.7
Conjugate	Brilliant Violet™ 711
Excitation/Emission Max	406/711 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_2921028

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.5 µg/test	-

## 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 may 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.

Brilliant Violet™ 711 (BV711) is a tandem dye that emits at 713 nm and is intended for use on cytometers equipped with a violet (405 nm) laser. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright, Brilliant Violet™, Brilliant Ultra Violet™, or other polymer dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401-42) or Brilliant Stain Buffer™ (Product # 00-4409-75) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer or Brilliant Stain Buffer for more information.

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

light.

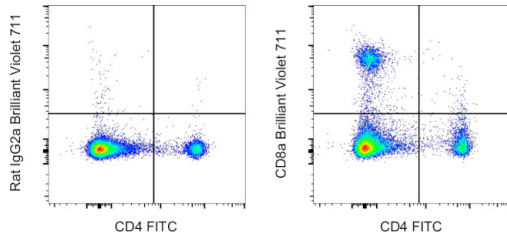
Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222-49) (100  $\mu$ L of cell sample + 100  $\mu$ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333-54) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone-specific performance should be determined empirically.

Our internal testing suggests that Brilliant Violet™ 711 (BV711) is not compatible with methanol-based fixation.

Excitation: 407 nm; Emission: 713 nm; Laser: Violet Laser.

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## Product Images For CD8a Monoclonal Antibody (53-6.7), Brilliant Violet™ 711, eBioscience™



### CD8a Antibody (407-0081-80) in Flow

C57BL/6 mouse splenocytes were stained with CD4 Monoclonal Antibody, FITC (Product # 11-0042-82) and 0.25  $\mu$ g of Rat IgG2a kappa Isotype Control, Brilliant Violet 711 (Product # 407-4321-81) (left) or 0.25  $\mu$ g of CD8a Monoclonal Antibody, Brilliant Violet 711 (right). Viable cells in the lymphocyte gate were used for analysis, as determined by 7-AAD (Product # 00-6993-50).

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