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Technical Data Sheet

# Anti-Mouse CD8a BG Violet 450

Catalog Number :10122-40

RUO: For Research Use Only. Not for use in diagnostic procedures.

## Product Information

**Clone:** 53-6.7

**Format/Conjugate:** BG Violet 450

**Concentration:** 0.2 mg/mL

**Reactivity:** Mouse

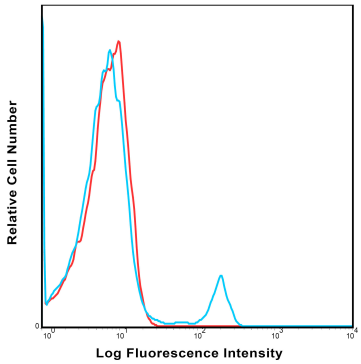
**Laser:** Violet (405nm)

**Peak Emission:** 450nm

**Peak Excitation:** 404nm

**Filter:** 450/50

**Brightness (1=dim,5=brightest):** 2




C57Bl/6 splenocytes were stained with BG Violet 450 53-6.7 with relevant isotype control in Red.

**Isotype:** Rat IgG2a, kappa

**Formulation:** Phosphate-buffered aqueous solution, ≤0.09% Sodium azide, may contain carrier protein/stabilizer, ph7.2.

**Storage:** Product should be kept at 2-8°C and protected from prolonged exposure to light.

**Applications:** FC

## Description

The 53-6.7 monoclonal antibody specifically reacts with Ly-2, the 38 kDa alpha chain, and with Lyt-2, the 34 kDa alpha' chain, of the mouse CD8 antigen. The alpha' chain is the truncated form of alpha chain, encoded by the same CD8a gene. In CD8a, the alpha and alpha' chains form heterodimers with CD8b (the beta chains) or homodimers (alpha-alpha), which occur as receptors on the surface of the majority of thymocytes. A subpopulation of mature T lymphocytes expresses the CD8 alpha beta (alpha beta TCR T cells), and a subpopulation of intestinal intraepithelial lymphocytes and dendritic cells express CD8a without CD8b.CD8 interacts with the mouse major histocompatibility complex class I (MHC class I) molecules on antigen-presenting cells or epithelial cells. Its function seems to be to attenuate the CD8-mediated signal for the stimulation of intrathymic T-cell maturation.

The 53-6.7 antibody is useful for depleting CD8+ peripheral T lymphocytes. It cross reacts with the alpha- and alpha'-like polypeptides on some thymic and peripheral lymphocytes.

BG Violet 450 conjugate is an alternative to the Pacific Blue, eFluor 450, or BD Horizon V450 dyes. It is excited by the violet (405 nm) laser, with a peak emission of 450nm.

## Preparation & Storage

The product should be stored undiluted at 4°C and should be protected from prolonged exposure to light. Do not freeze.The monoclonal antibody was purified utilizing affinity chromatography and unreacted dye was removed from the product.

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## Application Notes

The antibody has been analyzed for quality through the flow cytometric analysis of the relevant cell type. For flow cytometric staining, the suggested use of this reagent is ≤0.25 ug per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

## References

1.Ledbetter, J. A., Herzenberg, L. A. (1979). Xenogeneic Monoclonal Antibodies to Mouse Lymphoid Differentiation Antigens*.;Immunological reviews,;47(1), 63-90.

2. Ledbetter, J. A., Rouse, R. V., Micklem, H. S., Herzenberg, L. A. (1980). T cell subsets defined by expression of Lyt-1, 2, 3 and Thy-1 antigens. Two-parameter immunofluorescence and cytotoxicity analysis with monoclonal antibodies modifies current views.;The Journal of experimental medicine,152(2), 280-295.

3. Hathcock, K. (1991). T cell enrichment by cytotoxic elimination of B cells and accessory cells.;Current protocols in immunology, 3-3.