

Anti-Mouse CD8a Antibody, Clone 53-6.7, Alexa Fluor® 488



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Antibodies

Rat monoclonal IgG2a antibody
against mouse, toad CD8a, Alexa
Fluor® 488-conjugated

Catalog #60023AD
#60023AD.1

100 µg	0.5 mg/mL
25 µg	0.5 mg/mL

Product Description

The 53-6.7 antibody reacts with murine CD8a, a 32 - 34 kDa type I transmembrane glycoprotein which is a subunit of CD8. CD8 is a disulfide-bonded dimer, found either as a heterodimer of CD8a (α) and CD8b (β) subunits (i.e., $\alpha\beta$) or a homodimer ($\alpha\alpha$). CD8 acts as a co-receptor to the T cell receptor (TCR) during T cell activation by binding MHC Class I molecules presented by an antigen-presenting cell. It functions to strengthen the association between the TCR and MHC I-antigen complex and to amplify signals from the TCR to the cytoplasm through the interaction of its intracellular domain with cytoplasmic tyrosine kinases such as Lck. The CD8a chain binds to the alpha-3 domain of class I MHC molecules. CD8 is expressed in the $\alpha\beta$ form by a majority of thymocytes and a subset of mature peripheral blood T cells (T cytotoxic cells), and in the $\beta\beta$ form by $\gamma\delta$ T cells, a subset of intestinal intraepithelial lymphocytes and dendritic cells. The 53-6.7 antibody reportedly blocks antigen presentation via MHC class I and inhibits IL-2-dependent T cell responses.

Target Antigen Name:	CD8a
Alternative Names:	Ly-2, Lyt2, T8
Gene ID:	12525
Species Reactivity:	Mouse, Toad
Host Species:	Rat (LOU)
Clonality:	Monoclonal
Clone:	53-6.7
Isotype:	IgG2a, kappa
Immunogen:	Mouse thymus or spleen
Conjugate:	Alexa Fluor® 488

Applications

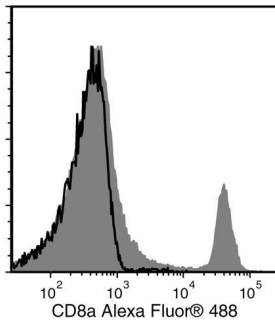
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse CD8+ T Cell Isolation Kit (Catalog #19853) and EasySep™ Mouse CD90.2 Positive Selection Kit II (Catalog #18951).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 488 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 488.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry the suggested use of this antibody is $\leq 0.25 \mu\text{g}$ per 1×10^6 cells in 100 μL volume. It is recommended that the antibody be titrated for optimal performance for each application.

Data



Flow cytometry analysis of C57BL/6 mouse splenocytes labeled with Anti-Mouse CD8a Antibody, Clone 53-6.7, Alexa Fluor® 488 (filled histogram) or a rat IgG2a, kappa Alexa Fluor® 488 isotype control antibody (solid line histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

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