

# Anti-Mouse CD8a Antibody, Clone 2.43, FITC

Rat monoclonal antibody against mouse CD8a, FITC-conjugated

Catalog #100-1635

100 µg

0.5 mg/mL

## Product Description

This monoclonal antibody reacts with mouse cluster of differentiation 8 subunit alpha (CD8a), a 32 - 34 kDa type I transmembrane glycoprotein. CD8 is a disulfide-bonded dimer, found either as a heterodimer of CD8a (α) and CD8b (β) subunits (i.e. αβ) or a homodimer (i.e. αα). CD8 is expressed in the αβ form by a majority of thymocytes and a subset of mature peripheral blood T cells (T cytotoxic cells), and in the ββ form by γδ T cells, a subset of intestinal intraepithelial lymphocytes, and dendritic cells. CD8 acts as a co-receptor to the T cell receptor (TCR) during T cell activation by binding to the major histocompatibility (MHC) Class I molecules presented by an antigen-presenting cell. The CD8a chain binds to the alpha3 domain of MHC class I molecules. 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 lymphocyte-specific protein tyrosine kinase (Lck). This antibody is used as a phenotypic marker for mouse CD8 on cytotoxic T cells, thymocytes, as well as on certain cell types that do not express the TCR, which includes some natural killer cells and lymphoid dendritic cells.

Target Antigen:	CD8a
Alternative Names:	CD8 alpha, Ly-2, Ly-35, Ly-B, Lyt-2
Gene ID:	12525
Species Reactivity:	Mouse
Host Species:	Rat
Clonality:	Monoclonal
Clone:	2.43
Isotype:	IgG2b, kappa
Immunogen:	Mouse CTL clone L3
Conjugate:	FITC (Fluorescein isothiocyanate)

## Applications

Verified Applications: FC

Reported Applications: FC

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; FCXM: Flow cytometric crossmatch assay; FISH: Fluorescence in situ hybridization; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IHC-F: Immunohistochemistry (frozen-tissue); IHC-P: Immunohistochemistry (paraffin-embedded); IP: Immunoprecipitation; NMR: Nuclear magnetic resonance spectroscopy; RIA: Radioimmunoassay; WB: Western blotting

## Properties

**Product Formulation:** Phosphate-buffered saline, pH 7.2, containing 0.09% sodium azide and 0.1% gelatin

**Purification:** The antibody was purified by affinity chromatography and conjugated with FITC under optimal conditions. The solution is free of unconjugated FITC.

**Stability and Storage:** Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. Stable until expiry date (EXP) on label.

**Directions for Use:** For flow cytometry, the suggested use of this antibody is  $\leq 1 \mu\text{g}$  per  $1 \times 10^6$  cells in 100  $\mu\text{L}$ . It is recommended that the antibody be titrated for optimal performance for each application.

## Related Products

For a complete list of antibodies, including other conjugates, sizes, and clones, as well as related products available from STEMCELL Technologies, visit [www.stemcell.com/antibodies](http://www.stemcell.com/antibodies), or contact us at [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

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