

## Product datasheet for **CL008F**

### Cd8a Rat Monoclonal Antibody [Clone ID: CT-CD8a]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	CT-CD8a
Applications:	FC
Recommended Dilution:	Flow Cytometry Analysis (see Protocols).
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Murine thymocytes
Specificity:	This anti-mouse CD8a antigen monoclonal antibody recognizes the mouse CD8 $\alpha$ chain. The $\alpha$ chain of CD8 associates with the CD8 $\beta$ chain to form a CD8 $\alpha/\beta$ heterodimer that is expressed by the majority of thymocytes and by the MHC class I restricted subset of mature T cells1. Mouse CD8 $\alpha$ can also form a CD8 $\alpha/\alpha$ chain homodimer on subsets of CD8 positive cells. For this reason antibodies specific for CD8a rather than CD8b are recommended for a rigorous delineation of CD8 positive cells.
Formulation:	PBS, 0.09% NaN <sub>3</sub> and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml Label: FITC State: Liquid purified IgG
Concentration:	lot specific
Purification:	Protein G Chromatography
Conjugation:	FITC
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. This product is photosensitive and should be protected from light.
Stability:	Shelf life: one year from despatch.
Gene Name:	CD8 antigen, alpha chain



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**Database Link:** [Entrez Gene 12525 Mouse P01731](#)

**Background:** The CD8 antigen is a cell surface glycoprotein found on most cytotoxic T lymphocytes that mediates efficient cell to cell interactions within the immune system. The CD8 antigen, acting as a coreceptor, and the T cell receptor on the T lymphocyte recognize antigen displayed by an antigen presenting cell (APC) in the context of class I MHC molecules. The functional coreceptor is either a homodimer composed of two alpha chains, or a heterodimer composed of one alpha and one beta chain. Both alpha and beta chains share significant homology to immunoglobulin variable light chains.

**Synonyms:** CD8 alpha chain, CD8A, MAL

**Note:** Protocol: **FLOW CYTOMETRY ANALYSIS:**

**Method:**

1. Prepare a cell suspension in media A. For cell preparations, deplete the red blood cell population with Lympholyte®-M cell separation medium.
2. Wash 2 times.
3. Resuspend the cells to a concentration of  $2 \times 10^7$  cells/ml in media A. Add 50  $\mu$ l of this suspension to each tube (each tube will then contain  $1 \times 10^6$  cells, representing 1 test).
4. To each tube, add  $\sim 1.0 \mu\text{g}^*$  of this Ab per  $1 \times 10^6$  cells.
5. Vortex the tubes to ensure thorough mixing of antibody and cells.
6. Incubate the tubes for 30 minutes at  $4^\circ\text{C}$ . (It is recommended that the tubes are protected from light, since most fluorochromes are light sensitive.)
7. Wash 2 times at  $4^\circ\text{C}$ .
8. Resuspend the cell pellet in 50  $\mu$ l ice cold media B.
9. Transfer to suitable tubes for flow cytometric analysis containing 15  $\mu$ l of propidium iodide at 0.5 mg/ml in PBS. This stains dead cells by intercalating in DNA.

**Media:**

- A. Phosphate buffered saline (pH 7.2) + 5% normal serum of host species + sodium azide (100  $\mu$ l of 2M sodium azide in 100 mls).
- B. Phosphate buffered saline (pH 7.2) + 0.5% Bovine serum albumin + sodium azide (100  $\mu$ l of 2M sodium azide in 100 mls).

**Results:**

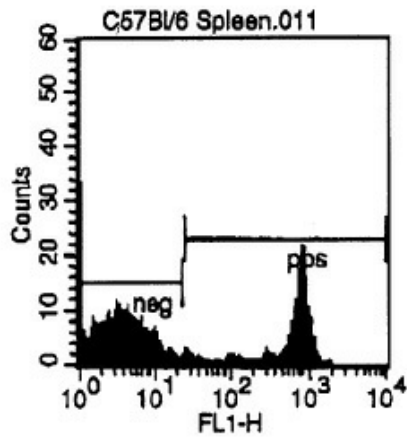
Mouse Strain: C57BL/6

Cell Concentration:  $1 \times 10^6$  cells per test

Antibody Concentration Used:  $1.0 \mu\text{g}/10^6$  cells

Isotypic Control: FITC Rat IgG2a

## Product images:



Representative Histogram - Cell Source: CD3e  
Positive Spleen Cells Percentage of cells stained  
above control: 34.7%