

Product datasheet for **CL007B**

Cd8a Rat Monoclonal Antibody [Clone ID: YTS169.4]

Product data:

Product Type:	Primary Antibodies
Clone Name:	YTS169.4
Applications:	FC
Recommended Dilution:	Flow Cytometry Analysis (see Protocols).
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Murine thymocytes Donor: (LOU X DA) F1 rats Fusion Partner: Myeloma Y3/Ag 1.2.3
Specificity:	This anti-mouse CD8a (Ly 2) monoclonal antibody reacts with a protein of approximately 30 kDa found on mouse thymocytes and mouse cytotoxic/ suppressor T cells. It does not bind to mouse helper/inducer T cells. It binds to T lymphocytes from all mouse strains regardless of phenotypic expression (i.e. reacts with T lymphocytes from mouse strains expressing the Ly 2.1 or Ly 2.2 phenotype). It can be used to investigate the role of T cells in models for infectious disease, autoimmunity, transplantation tolerance and fundamental aspects of immunology.
Formulation:	PBS, 0.02% Sodium Azide and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml Label: Biotin State: Liquid purified IgG fraction
Concentration:	lot specific
Purification:	Protein G Chromatography
Conjugation:	Biotin
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.



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Gene Name: CD8 antigen, alpha chain

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 2×10^7 cells/ml in media A. Add 50 μ l of this suspension to each tube (each tube will then contain 1×10^6 cells, representing 1 test).
4. To each tube, add 0.1-0.2 μ g* of this Ab per 10^6 cells.
5. Vortex the tubes to ensure thorough mixing of antibody and cells.
6. Incubate the tubes for 30 minutes at 4°C.
7. Wash 2 times at 4°C.
8. Add 100 μ l of secondary antibody (Streptavidin-FITC) at a 1:500 dilution.
9. Incubate tubes at 4°C for 30 - 60 minutes (It is recommended that tubes are protected from light since most fluorochromes are light sensitive).
10. Wash 2 times at 4°C.
11. Resuspend the cell pellet in 50 μ l ice cold media B.
12. Transfer to suitable tubes for flow cytometric analysis containing 15 μ l of propidium iodide at 0.5 mg/ml in PBS. The stains dead cells by intercalating in DNA.

Media:

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

Results - Tissue Distribution

Mouse Strain: BALB/c

Cell Concentration: 1×10^6 cells per tests

Antibody Concentration Used: 0.2 μ g/ 10^6 cells

Isotypic Control: Biotin Rat IgG2b

Results - Strain Distribution

Cell Concentration: 1×10^6 cells per tests

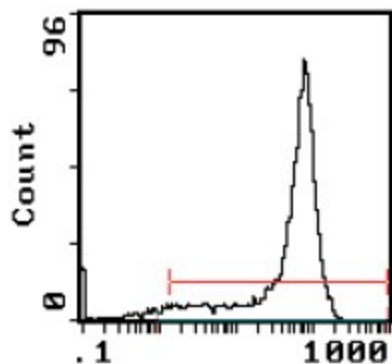
Antibody Concentration Used: 0.2 μ g/ 10^6 cells

Strains Tested: BALB/c, CBA/J, C3H/He, C57BL/6

Positive: BALB/c, CBA/J, C3H/He, C57BL/6

Negative: none

Product images:



FLOW CYTOMETRY ANALYSIS Cell Source: Thymus
Percentage of cells stained above control: 92.8%