

Product datasheet for **CL007R**

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). This antibody has been reported to be suitable for use in Immunohistochemistry on PFA-Fixed Paraffin-Embedded tissue sections (antigen retrieval is required). (7) This clone has been reported to work in Immunohistochemistry on Frozen Sections. (6)
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Mouse Ly-2 thymocytes. Donor: (LOU X DA) F1 rat. Fusion Partner: Y3/Ag1.2.3.
Specificity:	This anti-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 (ie. 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. (1) It can also be useful to identify/eliminate cytotoxic or suppressor T lymphocytes in vivo or in vitro. Strains Tested: C57BL/6, BALB/c, AKR/J, C3H/He Positive: : C57BL/6, BALB/c, AKR/J, C3H/He Negative: None.
Formulation:	PBS containing 0.02% Sodium Azide and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml Label: PE State: Liquid purified IgG fraction



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Concentration:	lot specific
Conjugation:	PE
Storage:	Store the antibody undiluted at 2-8°C. DO NOT FREEZE! This product is photosensitive and should be protected from light.
Stability:	Shelf life: one year from despatch.
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 cell suspension in Media A. For cell preparations, deplete the red blood cell population.
2. Wash 2 times.
3. Resuspend cells to a concentration of 2×10^7 cells/ml 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 2.0 μ g of this Ab per 10^6 cells.
5. Vortex to ensure thorough mixing of antibody and cells.
6. Incubate tubes at 4°C for 30 minutes. (It is recommended that the tubes are protected from light, since most fluorochromes are light sensitive.)
7. Wash 2 times at 4°C in Media B.
8. Resuspend the cell pellet in 50 μ l ice cold Media B.
9. Transfer to suitable tubes for flow cytometric analysis containing 15 μ l of propidium iodide at 0.5 mg/ml in phosphate buffered saline. (This stains dead cells by intercalating DNA).

Media:

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

Results - Tissue Distribution

Mouse Strain: BALB/c

Cell Concentration: 1×10^6 cells per test

Antibody Concentration Used: 2.0 μ g/ 10^6 cells

Isotypic Control: PE Rat IgG2b,k

Percentage of cells stained above control:

Thymus 66.2%

Spleen 19.6 %

Lymph node 14.0%

Results - Strain Distribution

Cell Concentration: 1×10^6 cells per test

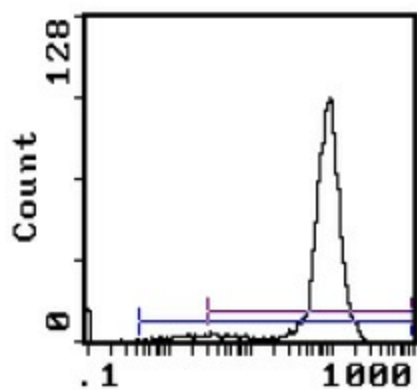
Antibody Concentration Used: 0.2 μ g/ 10^6 cells

Strains Tested: BALB/c, C57BL/6

Positive: BALB/c, C57BL/6

Negative: none

Product images:



Cell Source: Thymus. Percentage of cells stained above control: 66.2%