

Monoclonal Antibody to CD8 - PE

Alternate names:	CD8 alpha chain, CD8A, MAL, T-cell surface glycoprotein CD8 alpha chain, T-lymphocyte differentiation antigen T8/Leu-2
Catalog No.:	CL008RX
Quantity:	0.3 mg
Concentration:	0.1 mg/ml
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.
Uniprot ID:	P01731
NCBI:	NP_001074579.1
GeneID:	12525
Host / Isotype:	Rat / IgG2a
Clone:	CT-CD8a
Format:	State: Liquid purified IgG Buffer System: PBS, 0.1% sodium azide (NaN ₃) and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml Label: PE
Applications:	Flow cytometry analysis (see protocols). (Reported to be useful in immunohistochemistry on acetone-fixed frozen sections.) Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This anti-mouse CD8a antigen monoclonal antibody recognizes the mouse CD8a chain. The α chain of CD8 associates with the CD8β chain to form a CD8α/β heterodimer that is expressed by the majority of thymocytes and by the MHC class I restricted subset of mature T cells ¹ . Mouse CD8α can also form a CD8α/α 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. Species: Mouse. Other species not tested.

For research and in vitro use only. Not for diagnostic or therapeutic work.

Material Safety Datasheets are available at www.acris-antibodies.com or on request.

Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com

Storage: Store the antibody undiluted at 2-8°C.
DO NOT FREEZE!
This product is photosensitive and should be protected from light.
Shelf life: one year from despatch.

General References: 1. Tomonari, k. and Spencer, S. 1990 Epitope-specific binding of CD8 regulates activation of T cells and induction of cytotoxicity. *International Immunology* 2(12): 1189-1194.
2. Sharon, M., et al. 1999. Interleukin-12 Gene Transfer Results in CD8-Dependant Regression of Mouse CT26 Liver Tumors. *Animals of Surgical Oncology* 6(2): 186-194.

Protocols: **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 $\sim 1.0 \mu$ g* of this Ab per 1×10^6 cells.
5. Vortex the tubes to ensure thorough mixing of antibody and cells.
6. Incubate the tubes for 30 minutes at 4°C. (It is recommended that the tubes are protected from light, since most fluorochromes are light sensitive.)
7. Wash 2 times at 4°C.
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 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 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).

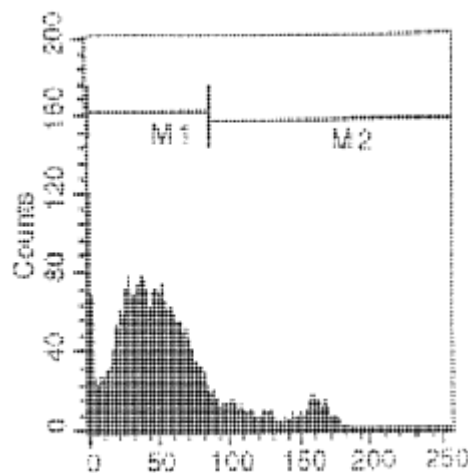
Results:

Mouse Strain: BALB/c

Cell Concentration: 1×10^6 cells per test

Antibody Concentration Used: 1.0 μ g/ 10^6 cells

Pictures:



Representative Histogram - Isotypic Control:
PE Rat IgG2a - Percentage of cells stained
above control: 13.04%

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