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Product datasheet for CL008APC

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
Specificity:	This anti-mouse CD8a antigen monoclonal antibody recognizes the mouse CD8α 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 cells1. Mouse CD8α can also form a CD8α/α chain homodimer on subsets of CD8 positive T cells. For this reason, antibodies specific for CD8a rather than CD8b are recommended for a rigorous delineation of CD8 positive cells.
Formulation:	0.5 ml PBS and 0.1% sodium azide (NaN3). A highly purified grade of BSA has been added as a stabilizing protein to bring the final protein concentration to 4-5 mg/ml after conjugation. Label: APC State: Liquid purified IgG
Concentration:	lot specific
Conjugation:	APC
Storage:	Store the antibody undiluted at 2-8°C. DO NOT FREEZE! This product is photosensitive and should be proteced from light.
Stability:	Shelf life: one year from despatch.
Gene Name:	CD8 antigen, alpha chain
Database Link:	Entrez Gene 12525 Mouse P01731

View online »

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

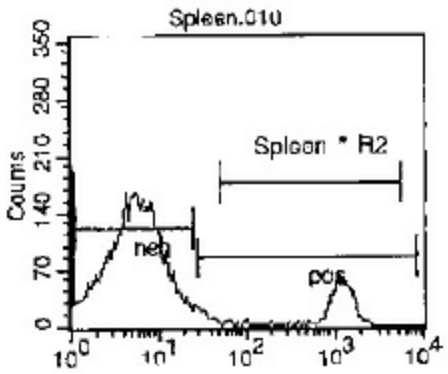
Note: Protocol: **FLOW CYTOMETRY ANALYSIS:**

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 2x10e7 cells/ml in media A. Add 50 µl of this suspension to each tube (each tube will then contain 1x10e6 cells, representing 1 test).
4. To each tube, add ~0.5 µg* of this Ab.
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 µl ice cold media B.
9. Transfer to suitable tubes for flow cytometric analysis containing 15 µl 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 µl of 2M sodium azide in 100 mls).
B. Phosphate buffered saline (pH 7.2) + 0.5% Bovine serum albumin + sodium azide (100 µl of 2M sodium azide in 100 mls).

Results:
Mouse Strain: BALB/c
Cell Concentration: 1 x 10e6 cells per test
Antibody Concentration Used: 0.5 µg/10e6 cells
Isotypic Control: APC Rat IgG2a

Product images:



Cell Source: CD3+ Spleen cells Percentage of cells stained above control: 13.1%