

Monoclonal Antibody to CD90 - Purified

Alternate names:	CDw90, THY1, Thy-1, Thy-1 membrane glycoprotein
Catalog No.:	CL039P
Quantity:	0.25 mg
Concentration:	0.2 mg/ml
Background:	CD90 / Thy1 antigen is a GPI linked glycoprotein member of the Immunoglobulin superfamily. It is expressed on murine T cells, thymocytes, neural cells, cells of granulocytic lineage, early hematopoietic progenitors, fibroblasts, neurons and Kupffer's cells. Thy1 may play a role in cell to cell or cell to ligand interactions during synaptogenesis and other events in the brain. It is found in most mouse strains except AKR/J, A, Thy1.1 and B6.PL (74NS) expressing Thy1.1.
Uniprot ID:	P01831
NCBI:	NP_033408.1
GeneID:	21838
Host / Isotype:	Mouse / IgG2b
Clone:	5a-8
Immunogen:	CBA/J
Format:	State: Liquid IgG fraction. Buffer System: PBS with 0.02% sodium azide as preservative. Label: APC conjugated.
Applications:	Immunohistochemistry on frozen sections. Cytotoxicity Analysis (see protocol). Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody reacts with all T lymphocytes from mouse strains expressing the Thy 1.2 phenotype (e.g. C57BL/6, C3H/He, DBA/2, CBA/J, BALB/c), but does not react with lymphocytes expressing the Thy 1.1 phenotype [e.g. AKR/J, B6.PL(74NS)].
Storage:	Store the antibody undiluted at 2-8°C. Do Not Freeze! Avoid prolonged exposure to light. Shelf life: one year from despatch.
General References:	1. Krieg, A., Gourley, M. and Steinberg, A. 1991. Association of Murine Lupus and Thymic Full-Length Endoneous Retroviral Expression Maps To A Bone Marrow Stem Cell. J. Immunol. 146:3002-3005. 2. Haba, S. and Nisonoff, A., 1991. Induction of Tolerance To Syngeneic IgE In Neonatal Mice. J. Immunol. 146:807-811.

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

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3. Miyajima, H., Takao, H., et al. 1991. Suppression By IL-2 Of IgE Production By B Cells Stimulated By IL-4. *J. Immunol.* 146:457- 462.
4. Kruger, M. and Riley, R. 1990. The Age-Dependent Loss Of Bone Marrow B Cell Precursors In Autoimmune NZ Mice Results From Decreased Mitotic Activity, But Not From Inherent Stromal Cell Defects. *J. Immunol.* 144:103-110.
5. Fine, J., Siverstone, A. and Gasiewicz, T. 1990. Impairment Of Prothymocyte Activity By 2,3,7,8-Tetrachlorocibenzo-p-Dioxin. *J. Immunol.* 144:1169-1176.
6. Ledbetter, J.A., Rouse, R.V., Micklem, H.S., Hezenberg, L.A., 1980. T cell subsets defined by expression of Ly-1,2,3 and Thy-1 antigens. Two parameter immunofluorescence and cytotoxicity analysis with monoclonal modifies current views. *J. Exp. Med.* 152: 280-295.
7. Radrizzani, M., Carminatti, H., Pivetta, O.H., and Vargas, V.P.I. 1995. Developmental regulation of Thy 1.2 rate of synthesis in the mouse cerebellum. *J. Neurosci. Res.* 42:220-227.

Protocols:**CYTOTOXICITY 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 2x10⁷ cells/ml in media A. Add 50 µl of this suspension to each tube (each tube will then contain 1x10⁶ cells, representing 1 test).
4. To each tube, add 1.0 µg of this Ab per 10⁶ 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 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-Tissue Distribution:

Mouse Strain: BALB/c
Cell Concentration : 1x10⁶ cells per test
Antibody Concentration Used: 1.0 µg / 10⁶ cells
Isotypic Control: APC Mouse IgG2b

Cell Source-Percentage of cells stained above control:

Thymus: 99.8%

Strain Distribution:

Tissue: Thymus
Cell Concentration: 1x10⁶ cells per test
Antibody Concentration Used: 1.0 µg/10⁶ cells

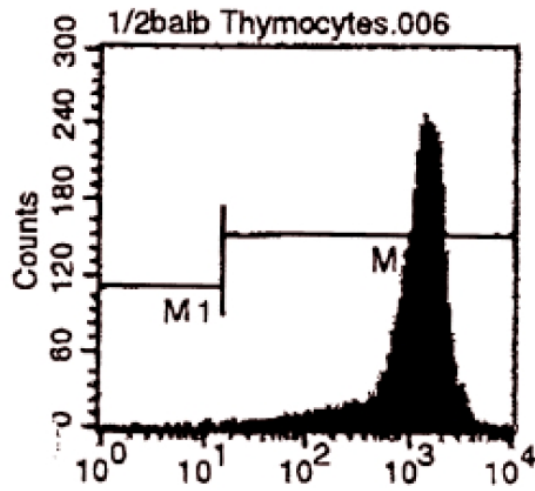
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Strains Tested: C57BL/6, C3H/He, CBA/J, BALB/c, ATL, AKR/J
Positive: C57BL/6, C3H/He, CBA/J, BALB/c, ATL
Negative: AKR

Pictures:



Cell Source: Thymus

Percentage of cells stained above control: 99.8 %

AM08351PU-N at 10 µg/ml staining CD19 in Human Skin by Immunohistochemistry,
Formalin-Fixed Paraffin-Embedded tissue.

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