

Monoclonal Antibody to CD90 - FITC

Alternate names:	CDw90, THY1, Thy-1, Thy-1 membrane glycoprotein
Catalog No.:	CL039F
Quantity:	0.1 mg
Concentration:	0.1 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. Donor: AKR/J Spleen. Fusion Partner: Spleen from immunized recipient fused with myeloma P3-NSI-1-Ag4-1.
Format:	State: Liquid purified IgG fraction. Purification: Protein G Chromatography. Buffer System: PBS containing 0.02% Sodium Azide as preservative and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml Label: FITC
Applications:	Flow Cytometry. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This monoclonal 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)].
Species Reactivity:	Tested: Mouse.
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

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

- General References:**
1. Krieg, A., Gourley, M. and Steinberg, A. 1991. Association of Murine Lupus and Thymic Full-Length Endogenous 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.
 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.

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 1/50 -1/100 dilution in 50 μ l 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. (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 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 - Tissue Distribution:

Mouse Strain: BALB/c
Cell Concentration: 1×10^6 cells per tests
Antibody Concentration Used: 1/50 in 50 μ l/ 10^6 cells
Isotypic Control: FITC Mouse IgG2b

Cell Source Percentage of cells stained above control:

Thymus: 97.4%
Spleen: 52.6%

Results - Strain Distribution:

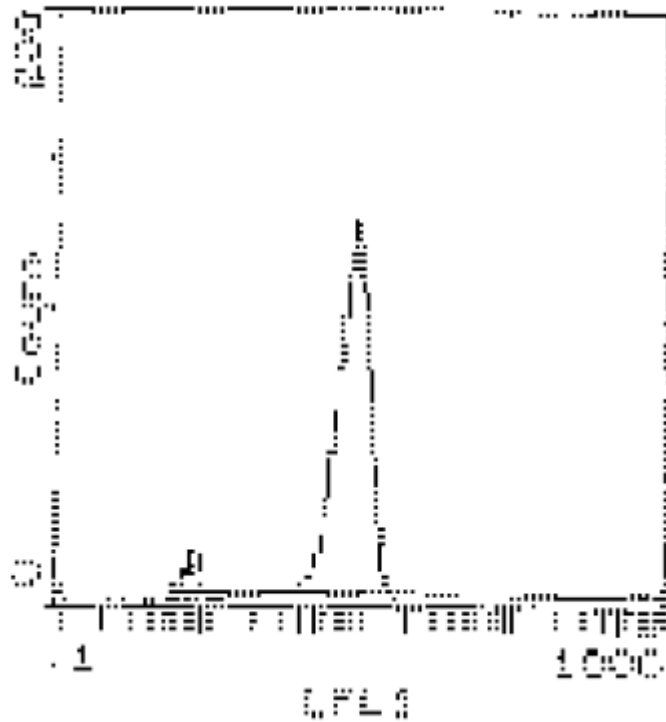
Tissue: Spleen
Cell Concentration: 1×10^6 cells per test
Antibody Concentration Used: 1/100 in 50 μ l/ 10^6 cells
Strains Tested: C57BL/6, C3H/He, CBA/J, BALB/c, ATL, AKR/J
Positive: C57BL/6, C3H/He, CBA/J, BALB/c, ATL
Negative: AKR

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Pictures:



Cell Source: Thymus - Percentage of cells stained above control: 97.4%

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