

Monoclonal Antibody to CD72 (CD72.1 alloantigen) - FITC

Alternate names: B-Cell marker, B-cell differentiation antigen CD72, Ly-32, Ly32, Lyb-2, Lymphocyte antigen

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Catalog No.: CL033FX
Quantity: 0.3 mg
Concentration: 0.1 mg/ml

Background: CD72 antigen is a member of the type II integral membrane glycoproteins which includes

other related cell surface molecules such as the asialoglycoprotein receptors, CD23 and the Kupffer cell receptor. The function of CD72 is unknown but the exposure of B cells to CD72 antibodies activates a variety of signaling pathways and can induce MHC class II expression and B cell proliferation. CD72 antigen is expressed on all cells of B cell lineage

with the exception of plasma cells and weakly on human tissue macrophages.

Uniprot ID: P21855

NCBI: XP_003086403.1

GeneID: 100504743

Host / Isotype: Mouse / IgG2a

Clone: CT-72.1

Format: State: Liquid purified Ig fraction

Buffer System: PBS, 0.09% sodium azide (NaN3) and EIA grade BSA as a stabilizing protein

to bring total protein concentration to 4-5 mg/ml.

Label: FITC

Applications: Flow cytometry (For details please see "protocols" / "specifity" below).

Other applications not tested. Optimal dilutions are dependent on conditions and should

be determined by the user.

Specificity: This antibody reacts with the CD72 alloantigen CD72.1, a B-cell surface protein that is

encoded by the Cd72a allele. CD72.1 is expressed on cells of the B cell lineage, except plasma cells3. Mouse strains expressing CD72.1 include C57L/-, C58/-, DBA/1, DBA/2, and

SWR/J.

Tissue Distribution by Flow Cytometry Analysis:

(Representative Dot Plot) Mouse Strain Tested: DBA/2

Cell Concentration: 1x10e6 cells per test

Antibody Concentration Used: 0.25 µg/10e6 cells

Isotypic Control: FITC Mouse IgG2a.

Species: Mouse.

Other species not tested.



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Storage:

Store the antibody at 2 - 8 °C for up to one month. For long term storage, aliquot and freeze unused portion at -20 °C in volumes appropriate for single usage. Avoid repeated freezing and thawing This product is photosensitive and should be protected from light. Shelf life: one year from despatch.

- General References: 1. Robinson, W.H., Tutt Landolfi, M.M., Schafer, H. and Parnes, J.R. 1993 Biochemical identity of the mouse Ly-19.2 and Ly-32.2 alloantigens with the B cell differention antigen Lyb-2/CD72. J. Immunol. 151:4764-4772.
 - 2. Luo, W., de Velde, H.V., Hoegen, I.V., Parnes, J.R. and Thielemans, K. 1992 Ly-1 (CD5), a membrane glycoprotein of mouse T lymphocytes and a subset of B cells, is a natural ligand of the B cell surface protein Lyb-2 (CD72). J. Immunol. 148:1630-1634.
 - 3. Ying, H., J.I. Healy, C.C. Goodnow, and J.R. Parnes. 1998. Regulation of mouse CD72 gene expression during B lymphocyte development. J. Immunol. 161: 4760-4767.

Protocols:

FLOW CYTOMETRY ANALYSIS:

Method:

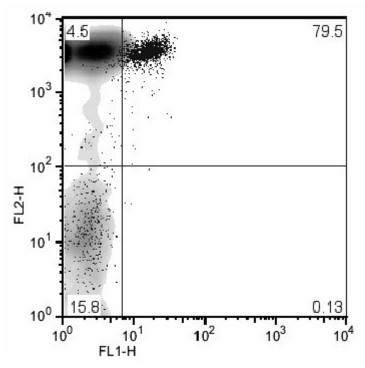
- 1. Prepare a cell suspension in media A. For cell preparations, deplete the red blood cell population.
- 2. Wash 2 times.
- 3. Resuspend the cells to a concentration of 2x10e7 cells/ml in media A. Add 50 µl of this suspension to each tube (each tube will then contain 1 x 10e6 cells, representing 1 test).
- 4. To each tube, add ~0.25 µg of antibody per 1 x 10e6 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 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).



Pictures:



Lymphozytes FL1-H: Mouse anti mouse CD72.1, FL2-H: B222 PE