CL033RX
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# Monoclonal Antibody to CD72 (CD72.1 alloantigen) - PE

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

**Catalog No.:** CL033RX

**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
**Buffer System:** PBS, 0.09% NaN3 and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml
**Label:** PE

**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 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 cells1. Mouse strains expressing CD72.1 include C57L/-, C58/-, DBA/1, DBA/2, and SWR/J.
**Species:** Mouse.
Other species not tested.

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

**General References:**
1. Ying, H., J. I. Healy, C.C. Goodnow, and J.R. Parnes. 1998. Regulationof mouse CD72 gene expression during B lymphocyte development. J Immunol. 161: 4760-4767

2. 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.
3. Luo, W., de Velde, H.V., Hoegen, I.V., Parnes, J.R. and Thielemans, K. 1992 Ly-1 (CD5), a membrane glycoprotien of mouse TT lympholytes and a subset of B cells, is a natural ig and of the B cell surface protein Lyb-2 (CD72). J immunol. 148:1630-1634.

## 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 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 this Ab per 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 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:**
Cell Concentration: 1x10e6 cells per test
Antibody Concentration Used: 0.25 µg/10e6 cells
Isotypic Control: PE Mouse IgG2a
Strain Tested: DBA mouse