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# TECHNICALLY *Speaking*

Place your order with CEDARLANE® or your local distributor.

*Please contact CEDARLANE® for lot specific information.*

## **PE Anti-Rat CD43 Monoclonal Antibody**

**CL002PE**  
**CL002PE-4**  
**LOT: 0251**

### **DESCRIPTION:**

Cedarlane's anti-rat CD43 monoclonal antibody recognizes a monomorphic determinant expressed on rat thymocytes, polymorphonuclear cells, plasma cells and stem cells, but not B lymphocytes or pre-B cells (1,3). The antigen is a heavily glycosylated glycoprotein of apparent molecular weight 95 kDa and has a high content of O-linked carbohydrate structures (3). This major glycoprotein of thymocytes and T lymphocytes is referred to by several names including leukocyte sialoglycoprotein and leukosialin. The carbohydrate structures of leukosialin account for approximately 60% of its weight (2). On thymocytes, this glycoprotein is the main target for binding of peanut lectin (4). This antibody is useful for labelling T but not B lymphocytes and in studies on stem cells since pre-B cells are not labelled while the multipotential stem cell is. It may also be used in analysis of NK cells (5) and in molecular studies in the sialoglycoprotein which it recognizes.

### **PRESENTATION:**

50 µg (CL002PE) or 200µg (CL002PE-4) conjugated Ig buffered in PBS, 0.02% NaN<sub>3</sub> and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml.

### **STORAGE/STABILITY:**

Store at 4°C. **DO NOT FREEZE.** Avoid prolonged exposure to light.

For more information or to place an order please contact...

**CEDARLANE®**  
**LABORATORIES LIMITED**



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**SPECIFICATIONS:**

Clone: W3/13 HLK

Hybridoma Production:

Immunization: Immunogen: Rat thymocyte membrane  
Donor: BALB/c spleen

Fusion Partner: NS1/1

Specificity: Rat CD43

Ig Class: Mouse IgG<sub>1</sub>

Format: R-PE conjugated Ig buffered in PBS, 0.02% NaN<sub>3</sub> and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml. (Purified from ascitic fluid via Protein G Chromatography)

Antibody Concentration: 0.1 mg/ml

**FLOW CYTOMETRY ANALYSIS:**

Method:

1. Prepare a cell suspension in media A. For cell preparations, deplete the red blood cell population with Lympholyte<sup>®</sup>-Rat Cell Separation Medium (CL5040).
2. Wash 2 times.
3. Resuspend the cells to a concentration of  $2 \times 10^7$  cells/ml in media A. Add 50  $\mu$ l of this suspension to each tube (each tube will then contain  $1 \times 10^6$  cells, representing 1 test).
4. To each tube, 0.5  $\mu$ g-1.0  $\mu$ g of **CL002PE or CL002PE-4** 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 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  $\mu$ l ice cold media B.
9. Transfer to suitable tubes for flow cytometric analysis containing 15  $\mu$ 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).

Results:Tissue Distribution by Flow Cytometry Analysis:

Rat Strain: Fisher

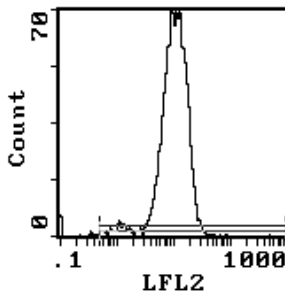
Cell Concentration :  $1 \times 10^6$  cells per test

Antibody Concentration Used:  $0.5 \mu\text{g}/10^6$  cells

Isotypic Control: PE Mouse IgG<sub>1</sub>

Cell SourcePercentage of cells stained above control:

Thymus	96.5%
Spleen	63.7%
Lymph Node	74.8%



Cell Source: Thymus

Percentage of cells stained above control: 96.5%

**N.B. Appropriate control samples should always be included in any labelling studies.**

**For optimal results in various applications, it is recommended that each investigator determine dilutions appropriate for individual use.**

R-Phycoerythrin conjugates are produced under license and protected under Stanford University held patents 4,520,110; 4,542,104; 4,859,582; 5,055,556 (U.S.); 76695 (EPC); 548440 (Australia); 1,179,942 (Canada); and 1,594,827 (Japan).

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