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## Anti-Rat CD90 (Thy 1.1) Monoclonal Antibody

Catalogue#	Format	Size	Concentration	Isotype Control
CL005A	Ascites	0.5 ml	N/A	CLCMG100
CL005AP/-2	Purified	250µg/500 µg	1.0 mg/ml	CLCMG100
CL005LE/-2	Purified	500 µg /1mg	1.0 mg/ml	CLCMG100
CL005NA	Purified	1 mg	1.0 mg/ml	CLCMG100
CL005B/-5	Biotin	100µg/500 µg	0.1 mg/ml	CLCMG115
CL005F/-5	FITC	100µg/500 µg	0.1 mg/ml	CLCMG101
CL005PE/-4	PE	50µg/200 µg	0.1 mg/ml	CLCMG104
CL005AF4	Alexa Fluor®488	100 µg	0.1 mg/ml	N/A

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Ig Class: Mouse IgG1

### **DESCRIPTION:**

Cedrlane's anti-rat CD90 (Thy 1.1) monoclonal antibody recognizes the Thy 1.1 antigenic determinant on rat as well as mouse cells. This particular determinant has been defined to be monomorphic within rats but polymorphic in the mouse. CL005 antibody reacts with Thy 1.1 mice (ie. AKR) but not Thy 1.2 mice (ie. CBA, BALB/c). The affinity of the F(ab) fragment of CL005 antibody for rat Thy-1.1 is  $3 \times 10^9 \text{ M}^{-1}$  and for mouse Thy 1.1 is  $3 \times 10^8 \text{ M}^{-1}$  (1). The Thy-1.1 antigen is found on a variety of cell types including thymocytes, neuronal cells (mouse, rat) (8), T and immature B cells (rat), breast epithelial cells (rat) (6), and connective tissue (2). CL005 antibody has been used to determine that the Thy 1.1 molecule is a glycoprotein with 112 amino acids which is homologous to immunoglobulin domains (3). The Thy-1 antigen is found on a diversity of cell types (4) and thus it can be used as a cell marker. Furthermore, the binding characteristics of CL005 antibody have been extensively studied (1) and this appears to be an excellent antibody for studying the killing of Thy-1.1 positive tumour cells with Ab-toxin conjugates (5). In addition, the antibody can be coupled to Sepharose-4B and used to effectively purify mouse Thy 1.1 and rat Thy-1.1 antigens. This clone has been reported to work in immunohistochemistry (frozen sections).

### **PRESENTATION:**

**Ascites:** 0.5ml Lyophilized.

**Purified:** Purified IgG buffered in PBS and 0.02% NaN<sub>3</sub>. (Purified from ascitic fluid via Protein G Chromatography). For maximal recovery of contents, please quick-spin vial before opening.

**LE:** Purified Ig buffered in PBS, no preservative, 0.2µm sterile filtered. (Purified from cell culture supernatant via Protein G Chromatography)

**No Azide:** Purified Ig buffered in PBS, no preservative, 0.2µm sterile filtered. (Purified from ascitic fluid via Protein G Chromatography)

**Biotin, FITC, PE and AF488:** Biotin/FITC/PE/AF488 conjugated IgG 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:**

For all formats, store at 4°C. DO NOT FREEZE **PE and AF488** conjugates. For long term storage (**Ascites, Purified, LE, NA, Biotin and FITC**), aliquot and freeze unused portion at -20°C in volumes appropriate for single usage. Avoid freeze/thaw cycles.

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## **SPECIFICATIONS:**

**Clone:** MRC OX-7

### **Hybridoma Production:**

Immunization: Immunogen: Rat thymocyte Thy-1 antigen  
 Donor: BALB/c spleen  
 Fusion Partner: P3-NS1-Ag4(NS1/1)

**Specificity:** Rat CD90 (Thy 1.1), cross reacts with mouse CD90 (Thy 1.1)

## **TEST RESULTS:**

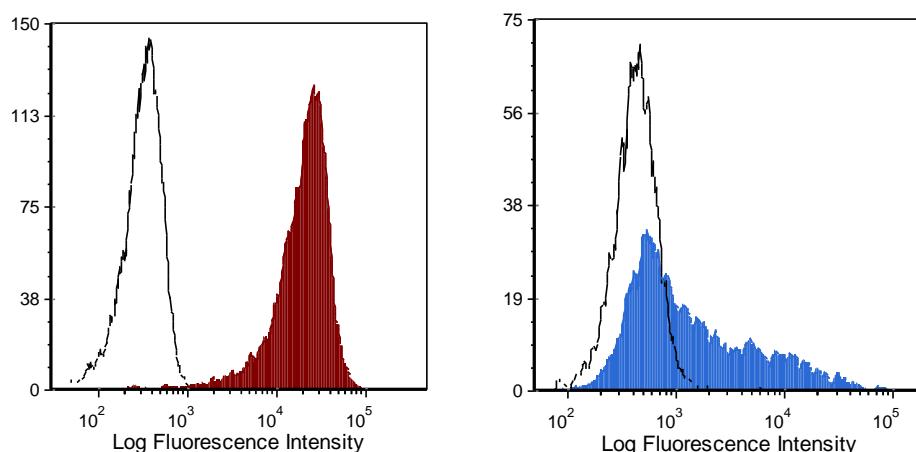
### **Tissue Distribution by Flow Cytometry Analysis:**

Rat Strain: Wistar

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

Antibody Concentration Used:  $1.0 \mu\text{g}/10^6$  cells

<u>Cell Source</u>	<u>Percentage of cells stained above control:</u>
Thymus	99.26%
Spleen	4.82%
Lymph Node	8.58%



Wistar rat thymocytes (left) and splenocytes (right) were stained with anti-CD90 (clone: OX-7) (filled histogram) or mouse IgG1, κ isotype control (open histogram).

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

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

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