

## RAT anti-MOUSE CD31/PECAM-1

Publication Part No. L11344

MAN0003863

Rev. 2.00

Store at 2° to 8°C

| Catalog No.        | Form             | Amount           | Excitation | Peak Emission | Matching Isotype Control                             |
|--------------------|------------------|------------------|------------|---------------|------------------------------------------------------|
| RM5200             | Purified         | 1.0 mL           | —          | —             | Rat IgG <sub>2a</sub> Purified (Cat. no. R2a00)      |
| RM5228             | Pacific Blue™    | 1.0 mL           | 405 nm     | 455 nm        | Rat IgG <sub>2a</sub> Pacific Blue™ (Cat. no. R2a28) |
| RM5201<br>RM5201-3 | FITC             | 1.0 mL<br>3.0 mL | 488 nm     | 519 nm        | Rat IgG <sub>2a</sub> FITC (Cat. no. R2a01)          |
| A14716             | Alexa Fluor® 647 | 0.05 mL (25 µg)  | 650 nm     | 668 nm        | —                                                    |
| A14715             | PE-Cy®7          | 0.25 mL (25 µg)  | 488 nm     | 767 nm        | —                                                    |

### Product Description

The Rat anti-Mouse CD31/PECAM-1 Monoclonal Antibody (mAb) reacts with CD31, a transmembrane glycoprotein belonging to the immunoglobulin superfamily. CD31 is expressed constitutively on endothelial cells and at lower density on platelets, neutrophils, monocytes, and a subset of T cells. CD31 mediates hemophilic and heterophilic cell-cell adhesion and is involved in the process of angiogenesis.

### Product Specifications

|                           |                               |
|---------------------------|-------------------------------|
| <b>Clonality:</b>         | Monoclonal                    |
| <b>Host/Class:</b>        | Rat IgG                       |
| <b>Reactivity:</b>        | Mouse CD31                    |
| <b>Immunogen:</b>         | Mouse leukocyte cell line 32D |
| <b>Alternate Names:</b>   | PECAM-1                       |
| <b>Apparent MW:</b>       | 130 kDa                       |
| <b>Gene ID:</b>           | 18613                         |
| <b>Sequence Identity:</b> | Mouse                         |
| <b>Clone/PAD:</b>         | 390                           |
| <b>Isotype:</b>           | IgG <sub>2a</sub>             |
| <b>Lot:</b>               | See product label             |

### Product Applications

Applications reported for the Rat anti-Mouse CD31/PECAM-1 mAb include flow cytometry, immunostaining of acetone-fixed frozen sections and zinc-fixed paraffin-embedded tissues, blocking of CD31-mediated interactions, and immunoprecipitation.

Because conditions may vary, it is recommended that each investigator determine the optimal amount of antibody to be used for each application.

**Note:** Using formalin to fix cells following immunofluorescent staining may cause the degradation of tandem fluorochromes. Analyze cells stained with TRI-COLOR®, PE-Cy®7, PE-TR or APC-Cy®7 by flow cytometry within 18 hours of fixation.

### Storage and Handling

Store reagents at 2° to 8°C. If the reagent is being diluted, it is recommended that only the quantity to be used within one week be diluted. Cells should be analyzed within 18 hours of staining for best results.

Avoid light exposure with fluorochrome-conjugated antibodies. Use dim light during handling, incubation with cells, and prior to analysis.

### Stability

When stored as instructed, expires one year from date of receipt unless otherwise indicated on product label.

### Storage Buffer

Phosphate buffered saline (PBS) with 0.1% sodium azide, and BSA as a stabilizing agent. Alexa Fluor® conjugates contain PBS with 0.1% sodium azide. PE-Cy®7 conjugates contain PBS with 0.1% sodium azide, and a non-BSA stabilizing agent.

**Caution:** Sodium azide is an extremely toxic and dangerous compound particularly when combined with acids or metals. Properly dispose of solutions containing sodium azide.

**For research use only. Not for human or animal therapeutic or diagnostic use.**

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**References**

1. Baldwin, H. S., H. M. Shen, H.-C. Yan, H. M. DeLisser, A. Chung, C. Mikanin, T. Trask, N. E. Kirschbaum, P. J. Newman, S. M. Albelda, and C. A. Buck. 1994. Platelet endothelial cell adhesion molecule-1 (PECAM-1/CD31): alternatively spliced, functionally distinct isoforms expressed during mammalian cardiovascular development. *Development* 120: 2539–2553.
2. DeLisser, H. M., P. J. Newman, and S. M. Albelda. 1994. Molecular and functional aspects of PECAM-1/CD31. *Immunol. Today* 15: 490–495.
3. DeLisser, H. M., M. Christofidou-Solomidou, R. M. Strieter, M. D. Burdick, C. S. Robinson, R. S. Wexler, J. S. Kerr, C. Garlanda, J. R. Merwin, J. A. Madri, and S. M. Albelda. 1997. Involvement of endothelial PECAM-1/CD31 in angiogenesis. *Am. J. Pathol.* 151: 671–677.

**Product Documentation**

To obtain a Certificate of Analysis or Safety Data Sheets (SDSs), visit [www.lifetechnologies.com/support](http://www.lifetechnologies.com/support).

**Related Products**

| Product Name                               | Quantity | Catalog no. |
|--------------------------------------------|----------|-------------|
| AbC™ Anti-Mouse Bead Kit                   | 1 kit    | A10344      |
| AbC™ anti-Rat/Hamster Bead Kit             | 1 kit    | A10389      |
| Protein A Agarose                          | 5 mL     | 15918-014   |
| Recombinant Protein G (rProtein G) Agarose | 5 mL     | 15920-010   |

**Explanation of symbols**

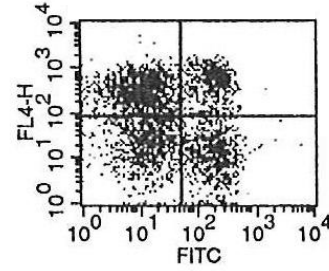
| Symbol | Description                                                                       | Symbol | Description                                  |
|--------|-----------------------------------------------------------------------------------|--------|----------------------------------------------|
|        | Catalogue Number                                                                  |        | Batch code                                   |
|        | Research Use Only                                                                 |        | In vitro diagnostic medical device           |
|        | Use by                                                                            |        | Temperature limitation                       |
|        | Manufacturer                                                                      |        | European Community authorised representative |
|        | Without, does not contain                                                         |        | With, contains                               |
|        | Protect from light                                                                |        | Consult accompanying documents               |
|        | Directs the user to consult instructions for use (IFU), accompanying the product. |        |                                              |

**Limited Product Warranty**

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**Figure 1** Two-color analysis of CD31/PECAM-1 expression on mouse splenocytes.

BALB/c splenocytes were double-stained with Rat anti-Mouse CD31/PECAM-1-Alexa Fluor® 647 Monoclonal Antibody (Cat. no. A14716) and a rat anti-mouse CD3-FITC antibody.

**Note:** All flow cytometric data shown may not necessarily have been generated using the enclosed lot of reagent. For this reason, and due to differences in flow cytometers and cytometer settings, results may vary from those illustrated above. It is suggested that investigators titrate reagents to determine optimal conditions for use in their systems.

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