

# **MOLECULAR PROBES®**

## PRODUCT INSERT

# RAT anti-MOUSE F4/80

<b>Product Code</b>	Form	Volume	Antibody*	Excitation (nm)	Peak Emission (nm)	Matching Isotype Controls	
RM2920	Alexa Fluor® 488	1.0 ml	100 μg	488	519	Rat IgG2b Alexa Fluor® 488	Code R2b20
RM2918	PE-Cy5.5 <sup>†</sup>	0.5 ml	100 µg	488	694	Rat IgG2b PE-Cy5.5	Code R2b18

#### PRODUCT DESCRIPTION

Rat monoclonal antibody to mouse F4/80

Clone: CI:A3-1

Isotype: Rat IgG2b

Lot No: See label Expiration: See label

**Buffer:** Phosphate buffered saline (PBS)

**Preservatives:** 0.1% *sodium azide*. Sodium azide is an extremely toxic and dangerous compound particularly when combined with acids or metals. Solutions containing sodium azide should be disposed of properly.

**Stabilizer:** For conjugated products only, a highly purified grade of BSA has been added as a stabilizing protein.

## STORAGE & HANDLING

Store reagents at 2-8°C. Light exposure should be avoided with fluorochrome-conjugated reagents. Use dim light during handling, incubation with cells and prior to analysis. It is recommended that cells be analyzed within 18 hours of staining. If the reagent is being diluted, it is recommended that only the quantity to be used within one week be diluted.

#### PRODUCT CHARACTERIZATION

**Antigen Specificity:** The CI: A3-1 monoclonal antibody (mAb) reacts with the F4/80 antigen which is a macrophage-restricted cell surface glycoprotein<sup>1</sup>. Applications of the CI: A3-1 mAb include immunohistochemistry<sup>3</sup> and immunostaining for flow cytometry<sup>2</sup>.

# PRODUCT QUALITY CONTROL

Every lot is tested by flow cytometry using freshly harvested mouse peritoneal exudate cells. From this testing it is recommended that between 0.1 and 0.25  $\mu$ g of antibody be used per 1 x 10<sup>6</sup> cells in a 100  $\mu$ l staining volume. Because conditions may vary, it is recommended that

each investigator determine the optimal amount of antibody to be used for each application.

#### **REFERENCES:**

- McKnight, A. J., A. J. Macfarlane, P. Dri, L. Turley, A. C. Willis, and S. Gordon. 1996. Molecular cloning of F4/80, a murine macrophage-restricted cell surface glycoprotein with homology to the G-protein-linked transmembrane 7 hormone receptor family. *J. Biol. Chem.* 271: 486-489.
- Li, X. Q., M. Itoh, A. Yano, K. Miyamoto, and Y. Takeuchi. 1998. Immunohistochemical detection of testicular macrophage during the period of postnatal maturation in the mouse. *Int. J. Androl.* 21: 370-376.
- Whiteland, J. L., S. M. Nicholls, C. Shimeld, D. L. Easty, N. A. Williams, and T. J. Hill. 1995. Immunohistochemical detection of T-cell subsets and other leukocytes in paraffin-embedded rat and mouse tissues with monoclonal antibodies. *J. Histochem. Cytochem.* 43: 313-320.
- \* Antibody value assigned is based on the Optical Density at 280 nm.

TR, Texas Red®

† TC, TRI-COLOR®, PE-Cy5

The efficiency of energy transfer in tandem dyes can be significantly decreased by exposure to visible light. We recommend that longer wavelength fluorochrome conjugates, e.g. PE-Cy7, PE-Alexa Fluor<sup>®</sup> 700, be protected from light during staining and while awaiting analysis, e.g. cover with aluminum foil.

**FIX & PERM**® and **COMBI-IC** reagents are produced for Caltag Laboratories by An Der Grub Bio Research GmbH, Austria.

The Texas Red<sup>®</sup>, Alexa Fluor<sup>®</sup> and Pacific Blue<sup>®</sup> dye conjugates in this product are sold under license from Molecular Probes, Inc., for research use only or as analyte specific reagents, except for use in combination with microarrays or high content screening, and are covered by pending and issued patents.

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PI: L11209

(Rev 12/08) DCC-08-1818