invitrogen™ | MOLECULAR PROBES®

**PRODUCT INSERT**

# RAT anti-MOUSE CD44

| Product Code | Form | Volume | Antibody* | Excitation (nm) | Peak Emission (nm) | Matching Isotype Controls | |
|---|---|---|---|---|---|---|---|
| RM5700 | Purified | 1.0 ml | 200 µg | N/A | N/A | Rat IgG2b Purified | Code R2b00 |
| RM5715 | Biotin | 1.0 ml | 100 µg | N/A | N/A | Rat IgG2b Biotin | Code R2b15 |
| RM5715-3 | Biotin | 3.0 ml | 300 µg | | | | |
| RM5726 | Alexa Fluor®† 405 | 1.0 ml | 100 µg | 405 | 421 | Rat IgG2b Alexa Fluor 405 | Code R2b26 |
| RM5701 | FITC | 1.0 ml | 100 µg | 488 | 525 | Rat IgG2b FITC | Code R2b01 |
| RM5701-3 | FITC | 3.0 ml | 300 µg | | | | |
| RM5704 | R-PE | 0.5 ml | 50 µg | 488 | 575 | Rat IgG2b R-PE | Code R2b04 |
| RM5704-3 | R-PE | 3.0 ml | 300 µg | | | | |

## PRODUCT DESCRIPTION

Rat monoclonal antibody to mouse CD44 antigen

**Clone:** IM7.8.1

**Isotype:** Rat IgG2b

**Immunogen:** myeloid cell line M1 induced with $1x10^{-5}$ M dexamethazone[1]

**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. For fluorochrome conjugated antibodies, light exposure should be avoided. 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 IM7 monoclonal antibody (mAb) reacts with CD44[1] antigen. CD44 antigen is also known as Pgp or Ly-24, a polymorphic glycoprotein, which is broadly distributed on hematopoietic cells and a variety of non-hematopoietic cells[1,2]. CD44 antigen is a cell adhesion receptor and its primary ligand is hyaluronan[3]. The IM7 mAb recognizes both Ly-24.1 and Ly-24.2, as well as every isoform of CD44[4] antigen. Applications of the IM7 mAb include immunoprecipitation, immunostaining for flow cytometry, detection of soluble CD44 antigen with ELISA, and complement-mediated depletion[1,2,3].

## PRODUCT QUALITY CONTROL

Every lot is tested by flow cytometry using freshly harvested mouse splenocytes. From this testing it is recommended that between 0.1 and 0.25 µg of antibody be used per 1 x $10^6$ cells in a 100 µl 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:


1. Trowbridge, I. S., J. Lesley, R. Schulte, R. Hyman, and J. Trotter. 1982. Biochemical characterization and cellular distribution of polymorphic, murine cell-surface glycoprotein expressed on lymphoid tissues. *Immunogenetics* 15: 299–312.
2. Lesley, J., and I. S. Trowbridge. 1982. Genetic charcterization of a polymorphic murine cell-surface glycoprotein. *Immunogenetics* 15: 313–320.
3. Katoh, S., J. B. McCarthy, and P. W. Kincade. 1994. Characterization of soluble CD44 in the circulation of mice. Levels are affected by immune activity and tumor growth. *J. Immunol.* 153: 3440–3449.
4. Lesley, J., R. Hyman, and P. W. Kincade. 1993. CD44 and its interaction with extracellular matrix. *Adv. Immunol.* 54: 271–335.


* The amount of antibody is determined by measuring the optical density using a spectrophotometer. The antibody titer is verified by immunofluorescent staining and flow cytometric analysis.

† The Alexa Fluor dye conjugates in this product are sold under license from Molecular Probes, Inc., and are covered by pending and issued patents.

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