

Mouse Anti-Rat IgM Monoclonal Antibody, R-PE Conjugated

Mouse, Monoclonal (Immunoglobulin M)

Cat. No. DMAB4903

Lot. No. (See product label)

PRODUCT INFORMATION

Product Overview: MAb to IgM

Mouse Monoclonal Antibody to Rat Immunoglobulin M (IgM),
 μ heavy chain

Clone: N3A2

Ig Isotype: Mouse IgG1k

Format: *R-phycoerythrin (R-PE) Conjugate

Quality: 0.1 mg

Specificity: Reacts with the μ heavy chain (Fc) of rat IgM

Applications: Identification and enumeration of IgM⁺ cells by
flow cytometry

Identification and enumeration of IgM⁺ cells by immunofluo-
rescence microscopy

Second step reagent for rat IgM monoclonal antibodies

ELISA

Surface IgM detection

B cell stimulation

Characterization: To ensure lot-to-lot consistency, each
batch of monoclonal antibody is tested as a second step
reagent by flow cytometry and/or ELISA to conform with
characteristics of a standard reference reagent. Representa-
tive data are included in this product insert.

Working Dilutions: Flow Cytometry: $\leq 0.02 \mu\text{g}/10^6$ cells;

Other Applications: Since applications vary, each investigator
should determine the optimum working dilutions of the prod-
uct that is appropriate for their specific needs.

Handling And Storage: The R-phycoerythrin (R-PE) conju-
gate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a
stabilizing agent. Store at 2-8°C. Protect conjugated forms
from light. Each reagent is stable for the period shown on the
bottle label if stored as directed.

Warning: Reagents contain sodium azide. Sodium azide is
very toxic if ingested or inhaled. Avoid contact with skin, eyes,
or clothing. Wear eye or face protection when handling. If
skin or eye contact occurs, wash with copious amounts of
water. If ingested or inhaled, contact a physician immediately.
Sodium azide yields toxic hydrazoic acid under acidic condi-
tions. Dilute azide-containing compounds in running water
before discarding to avoid accumulation of potentially explo-
sive deposits in lead or copper plumbing.

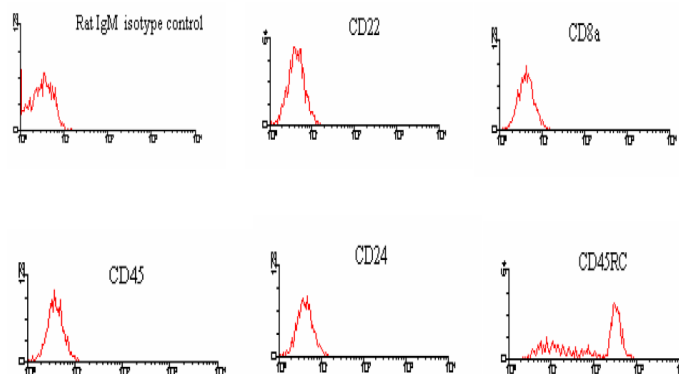
REFERENCES

1. U.S. Patent 4,520,110; European Patent No. 76,695; and
Canadian Patent No. 1,179,942.
2. FACScan™ is a registered trademark of Becton Dickinson
Immunocytometry Systems, Inc. (BDIS, San Jose, CA)

BACKGROUND

Introduction: Immunoglobulin M, or IgM for short, is a basic
antibody that is produced by B cells. It is the primary antibody
against A and B antigens on red blood cells. IgM is by far the
physically largest antibody in the human circulatory system. It
is the first antibody to appear in response to initial exposure to
antigen.

Keywords: Constant region of heavy chain of IgM; Hepatitis B
virus receptor binding protein; Ig mu chain C region; IGHM;
Immunoglobulin mu chain; Immunoglobulin heavy chain; VH;
Immunoglobulin M; IgM; Immunoglobulin M μ ; IgM μ ; Immu-
noglobulin M μ heavy chain; IgM μ heavy chain;



IMMUNOFLUORESCENT STAINING

Amount Used: 0.02 $\mu\text{g}/10^6$ cells

B6 Splenocytes were incubated with rat IgM isotype, rat anti-
mouse CD22 (2D6, rat IgG1), rat anti- mouse CD8
(53-6.7, rat IgG2a), rat anti-mouse CD45 (LCA) (13/2.3, rat
IgG2b), rat anti-mouse CD3 (C363.29B, rat IgG2c), and
rat anti-mouse CD45RC (GL24, rat IgM). After washing, the
cells were stained with R-PE-labeled Mouse Anti-Rat
IgM. Small lymphocytes were gated and analyzed on a FAC-
Scan™ low cytometer (BDIS, San Jose, CA).

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