

## Mouse Anti-Rat IgG2c Monoclonal Antibody, FITC Conjugated

### Mouse, Monoclonal (Immunoglobulin G2c)

Cat. No. DMAB4882

Lot. No. (See product label)

#### PRODUCT INFORMATION

**Product Overview:** MAb to IgG2c;  
Mouse Monoclonal Antibody to Rat Immunoglobulin G2c  
(IgG2c),  $\gamma$ 2c heavy chain  
**Clone:** 3D9F2

**Ig Isotype:** Mouse IgG2ak

**Format:** Fluorescein (FITC) Conjugate

**Quality:** 0.5 mg

**Specificity:** Reacts with the  $\gamma$ 2c heavy chain (Fc) of rat IgG2c

**Applications:** Identification and enumeration of IgG2c<sup>+</sup> cells by immunofluorescence microscopy  
Second step reagent for rat IgG2c monoclonal antibodies ELISA

**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. Representative data are included in this product insert.

**Working Dilutions:** Flow Cytometry:  $\leq 1.0 \mu\text{g}/10^6$  cells;  
Other Applications: Since applications vary, each investigator should determine the optimum working dilutions of the product that is appropriate for their specific needs.

**Handling And Storage:** The fluorescein (FITC) conjugate is supplied as 0.5 mg and the Cyanine 5 (CYTM5) is supplied as 0.1mg in 1.0 mL of PBS/NaN<sub>3</sub>. 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 conditions. Dilute azide-containing compounds in running water before discarding to avoid accumulation of potentially explosive deposits in lead or copper plumbing.

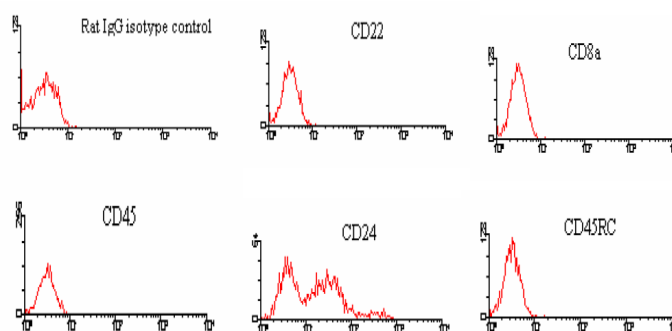
#### REFERENCES

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 G (IgG) are antibody molecules. Each IgG is composed of four peptide chains — two heavy chains  $\gamma$  and two light chains. Each IgG has two antigen binding sites. Other Immunoglobulins may be described in terms of polymers with the IgG structure considered the monomer. IgG molecules are synthesized and secreted by plasma B cells. IgG antibodies are large molecules of about 150 kDa composed of 4 peptide chains. It contains 2 identical heavy chains of about 50 kDa and 2 identical light chains of about 25 kDa, thus a tetrameric quaternary structure. The two heavy chains are linked to each other and to a light chain each by disulfide bonds. The resulting tetramer has two identical halves, which together form the Y-like shape. Each end of the fork contains an identical antigen binding site. The Fc regions of IgGs bear a highly conserved N-glycosylation site. The N-glycans attached to this site are predominantly core-fucosylated diantennary structures of the complex type. In addition, small amounts of these N-glycans also bear bisecting GlcNAc and  $\alpha$ -2,6-linked sialic acid residues.

**Keywords:** Immunoglobulin G2c; IgG2c; IgG2c  $\gamma$ 2c; Immunoglobulin G2c  $\gamma$ 2c; IgG2c heavy chain, Immunoglobulin G2c heavy chain; IgG2c  $\gamma$ 2c heavy chain; Immunoglobulin G2c  $\gamma$ 2c heavy chain



#### IMMUNOFLUORESCENT STAINING

Amount Used: 0.3  $\mu\text{g}/10^6$  cells

BALB/c splenocytes were incubated with rat IgG2a 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 CD24 (30-F1, rat IgG2c), and rat anti-mouse CD45RC (GL24, rat IgM). After washing, the cells were stained with FITC-labeled Mouse Anti-Rat IgG2b. Small lymphocytes were gated and analyzed on a FACScan™ flow cytometer (BDIS, San Jose, CA).

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