

Rat Anti-Mouse IgG2b Monoclonal Antibody, FITC Conjugated

Rat, Monoclonal (IgG2b)

Cat. No. DMAB4751

Lot. No. (See product label)

PRODUCT INFORMATION

Product Overview: Mab to IgG2b; Rat Monoclonal Antibody to Mouse Immunoglobulin G2b, γ 2b heavy chain

Clone: TB75g

Ig Isotype: Rat IgG2b

Format: Fluorescein (FITC) Conjugate

Quality: 0.5 mg

Specificity: Reacts with the γ 2b heavy chain of mouse IgG2b. Minimal reaction with other mouse immunoglobulins as determined by ELISA. May react with immunoglobulins from other species.

Applications: Identification and enumeration of IgG2b⁺ cells by flow cytometry; Second step reagent for mouse IgG2b monoclonal antibodies; Enzyme-Linked-Immunosorbent Assay (ELISA)

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

Working Dilutions: Flow Cytometry: Fluorescein conjugate $\leq 0.1 \mu\text{g}/10^6$ 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 in 1.0 mL of PBS/NaN₃. Store at 2-8°C. Protect conjugated forms from light. Reagents are stable for the period shown on the 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.

BACKGROUND

Introduction: Immunoglobulin G (IgG) are antibody molecules. Each IgG is composed of four peptide chains -two heavy chains γ 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 α -2,6-linked sialic acid residues.

Keywords: gamma2b; Igh-3; IGHG2B; Immunoglobulin G2b; IgG2b; IgG2b γ 2b; Immunoglobulin G2b γ 2b; IgG2b heavy chain; Immunoglobulin G2b heavy chain; IgG2b γ 2b heavy chain; Immunoglobulin G2b γ 2b heavy chain

REFERENCES

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2. Hashira S, Okitsu-Negishi S, Yoshino K (August 2000). "Placental transfer of IgG subclasses in a Japanese population". *Pediatr Int* 42 (4): 337-342.

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