

Mouse Anti-Rat IgG2b Monoclonal Antibody, R-PE Conjugated

Mouse, Monoclonal (IgG2b R-PE)

Cat. No. DMAB4861

Lot. No. (See product label)

PRODUCT INFORMATION

Product Overview: Mab to IgG_{2b}

Mouse Monoclonal Antibody to Rat Immunoglobulin G_{2b}(IgG_{2b}), γ_2b heavy chain

Clone: 3C11A9

Ig Isotype: Mouse IgG_{2b}K

Format: R-phycoerythrin (R-PE) Conjugate

Quality: 0.1 mg

Specificity: Reacts with the γ_2b heavy chain (Fc) of rat IgG_{2b}

Applications: Identification and enumeration of IgG_{2b}⁺ cells by immunofluorescence; Second step reagent for rat IgG2b 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 to characteristics of a standard reference reagent. Representative 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 product that is appropriate for their specific needs.

Handling And Storage: The R-phycoerythrin (R-PE) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. Do not freeze!

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: IgG_{2b}; Immunoglobulin G_{2b}; IgG_{2b} γ_2b ; Immunoglobulin G_{2b} γ_2b ; IgG_{2b} heavy chain; Immunoglobulin G_{2b} heavy chain; IgG_{2b} γ_2b heavy chain; Immunoglobulin G_{2b} γ_2b heavy chain;

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