

## Mouse Anti-Human IgG2 Monoclonal Antibody, R-PE Conjugated

### Mouse, Monoclonal (Immunoglobulin G)

Cat. No. DMAB4637

Lot. No. (See product label)

#### PRODUCT INFORMATION

**Product Overview:** Mab to IgG2

Mouse Monoclonal Antibody to Human Immunoglobulin G2 (IgG2),  $\gamma_2$  chain specific

**Clone:** IP6015

**Ig Isotype:** Mouse IgG<sub>1k</sub>

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

**Quality:** 0.1 mg

**Source:** Ascites fluid

**Specificity:** Reacts with the Fd portion of the heavy chain of human IgG<sub>2</sub> as demonstrated by ELISA

**Applications:** Enzyme-Linked-Immunosorbent-Assay (ELISA); Western blotting; Dot- and slot-immunoblotting; Immunohistochemistry (frozen sections); Immunocytochemistry

**Characterization:** To insure lot-to-lot consistency, each batch of product is tested by ELISA for conformance to characteristics of a standard reference reagent.

**Working Dilutions:**

**Immunofluorescence:**  $\leq 0.2 \mu\text{g}/10^6$  cells;

**Other Applications:** Since applications vary, you should determine the optimum working dilution of the product that is appropriate for your specific need.

**Handling And Storage:** The R-phycoerythrin (R-PE) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN<sub>3</sub> and a stabilizing agent. Store at 2-8°C. Do not freeze! 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.

#### 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:** IgG2; Ig gamma-2 chain C region; immunoglobulin Gm2; immunoglobulin heavy constant gamma 2 (G2m marker); immunoglobulin heavy constant, gamma 2; Immunoglobulin G2; IgG2  $\gamma_2$ ; Immunoglobulin G2  $\gamma_2$ ; IgG2 Fd; Immunoglobulin G2 Fd; IgG2 heavy chain, Immunoglobulin G2 heavy chain; IgG2  $\gamma_2$  heavy chain; Immunoglobulin G2  $\gamma_2$  heavy chain

#### REFERENCES

1. Mallery DL, McEwan WA, Bidgood SR, Towers GJ, Johnson CM, James LC (2010). "Antibodies mediate intracellular immunity through tripartite motif-containing 21 (TRIM21)". Proc. Natl. Acad. Sci. U.S.A. 107 (46): 19985–19990.
2. Stadlmann J, Pabst M, Kolarich D, Kunert R, Altmann F. (2008) Analysis of immunoglobulin glycosylation by LC-ESI-MS of glycopeptides and oligosaccharides. Proteomics. 2008 Jul;8 (14):2858-2871.

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