

Mouse Anti-Human IgG1 Monoclonal Antibody, FITC Conjugated

Mouse, Monoclonal (Immunoglobulin G1)

Cat. No. DMAB4894

Lot. No. (See product label)

PRODUCT INFORMATION

Product Overview: MAb to IgG1

Mouse Monoclonal Antibody to Human Immunoglobulin G1 (IgG1), hinge heavy chain

Clone: 5F4

Ig Isotype: Mouse IgG1

Format: Fluorescein (FITC) Conjugate

Quality: 0.5 mg

Specificity: Reacts with the hinge region of the heavy chain of human IgG1 as demonstrated by ELISA. May also react with IgG from other species.

Applications: Enzyme-Linked-Immunosorbent-Assay (ELISA)¹

Fluorescent-Linked-Immunosorbent-Assay (FLISA)

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

Working Dilutions: FLISA: 1:200 - 1:400; 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 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. 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 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: Ig gamma 1 chain C region; IGHG1; Immunoglobulin heavy constant gamma 1 (G1m marker); IgG1; Immunoglobulin G1; IgG1 hinge region; Immunoglobulin G1 hinge region; IgG1 hinge heavy chain; Immunoglobulin G1 hinge heavy chain;

REFERENCES

1. Mark T. Whary, Natliya Sundina, Luis E. Bravo, Pelayo Correa, Francisco Quinones, Fanny caro, and James G. Fox 2005 Cancer Epidemiol Biomarkers Prev 14(6):1464.
2. Quan FS, Kim Y, Lee S, etc.(2011). "Viruslike particle vaccine induces protection against respiratory syncytial virus infection in mice." J Infect Dis. Oct;204(7):987-95.

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