

Mouse Anti-Human IgG4 Monoclonal Antibody, FITC Conjugated

Mouse, Monoclonal (Immunoglobulin G4)

Cat. No. DMAB4663

Lot. No. (See product label)

PRODUCT INFORMATION

Product Overview: Mab to IgG4

Mouse Monoclonal Antibody to Human Immunoglobulin G4 (IgG4), γ_4 chain specific

Clone: IP6024

Ig Isotype: Mouse IgG_{3k}

Format: Fluorescein (FITC) Conjugate

Quality: 0.5 mg

Specificity: Reacts with the pFc' portion of the heavy chain of human IgG4 as demonstrated by ELISA and/or FLISA.

Applications: Enzyme-Linked-Immunosorbent-Assay (ELISA); Fluorescent-Linked-Immunosorbent-Assay (FLISA); 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 and/or FLISA for conformance to characteristics of a standard reference reagent.

Working Dilutions:

Immunofluorescence: 1:200-1:400;

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. 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 antennary 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: IgG4; Ig gamma 4 chain C region; IGHG4; Immunoglobulin heavy constant gamma 4 (G4m marker); MGC117419; Immunoglobulin G4; IgG4 γ_4 ; Immunoglobulin G4 γ_4 ; IgG4 pFc'; Immunoglobulin G4 pFc'; IgG4 heavy chain; Immunoglobulin G4 heavy chain; IgG4 γ_4 heavy chain; Immunoglobulin G4 γ_4 heavy chain

REFERENCES

1. Chen, C.H., J.E. Lehmeyer, and M.D. Cooper. 1982. J. Immunol. 129:2580-2585.
2. Southern Biotechnology Associates, Inc. Unpublished observations.

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