

Product Information

Anti-Human IgG (Fc specific)-Peroxidase antibody, Mouse monoclonal clone HP-6017, purified from hybridoma cell culture

Product Number **SAB4200743**

Product Description

Anti-Human IgG (Fc specific)-Peroxidase antibody, Mouse monoclonal (mouse IgG2a isotype) is derived from the HP-6017 hybridoma, produced by the fusion of mouse myeloma cells and splenocytes from a mouse immunized with purified human IgG myeloma proteins covalently coupled to polyaminostyrene (PAS) microbeads.¹ The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2. The antibody is purified from culture supernatant of hybridoma cells, and is conjugated to horseradish peroxidase.

Monoclonal Anti-Human IgG (Fc specific) specifically recognizes Fc fragment of human IgG. Reactivity is observed with all human IgG subclasses. The antibody shows no cross-reactivity with the Fab fragment of human IgG, purified light chains, human IgA or IgM. This clone has been evaluated for specificity using a wide range of immunological techniques (IUIS/WHO study) and has been adopted as a standard reagent.² The antibody is recommended for use in ELISA.³

IgGs (Immunoglobulin G) are the most common Immunoglobulin's isotype in blood, lymph, cerebrospinal and peritoneal fluids and serve as key players in the humoral immune response. IgGs include four subclasses (IgG1, IgG2, IgG3, and IgG4), consist of a variable Fab fragment (which includes the antibody recognition site) and a conserved Fc fragment. The IgG subclasses differ in their physical and chemical properties. In addition, their distribution pattern is found to be age-dependent and each subclass has a specific biological function. IgG deficiencies are often associated with various diseases.⁷⁻⁸ The Fc fragment has various important functions (e.g complement fixation, site for rheumatoid factor attachment and protein A binding) which indicate on the importance of immunoreagents specific for the Fc fragment of Human IgG.

Reagent

Supplied as a lyophilized powder.

Preparation Instructions

Reconstitute the content of the vial with 0.25 mL of distilled water to a final antibody concentration of ~2 mg/mL. After reconstitution, the solution contains 1% BSA, 2.5% trehalose, 0.05% MIT in 0.01 M sodium phosphate buffered saline.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store the lyophilized product at 2–8 °C. For extended storage after reconstitution, keep at –20 °C in working aliquots. Avoid repeated freeze-thaw cycles. For continuous use after reconstitution, keep at 2–8 °C for up to 1 month. Solutions at working dilution should be discarded if not used within 12 hours.

Product Profile

Direct ELISA: a working dilution of 1:80,000-1:160,000 is recommended using 5 µg/mL Human IgG myeloma for coating.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

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4. McLaughlin KA., et al., *J Immunol.*, **183**, 4067-76 (2009).
5. Ronda N., et al., *Clin Exp Immunol.*, **109**, 211-6 (1997).
6. Becker M., et al. *BMC Biotechnol.*, **15**, 43 (2015).

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8. Jefferis R., et al., *Ann Biol Clin.*, **52**, 57-65 (1994)

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