

Product Information

Anti-Human IgG (Fc Specific)-Peroxidase Antibody

Mouse Monoclonal, Clone GG-7, Purified from Hybridoma Cell Culture

SAB4200790

Product Description

Monoclonal Anti-Human IgG (Fc specific) (mouse IgG1 isotype) is derived from the GG-7 hybridoma, produced by the fusion of mouse myeloma cells and splenocytes from mouse immunized with purified human IgG myeloma proteins covalently coupled to polyaminostyrene (PAS) microbeads. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Cat. No. ISO2. The antibody is purified from culture supernatant of hybridoma cells and is conjugated to horseradish peroxidase.

Monoclonal Anti-Human IgG (Fc specific) is specific for the Fc fragment of Human IgG and is observed with all human IgG subclasses but not with the Fab fragment of human IgG, purified light chains, human IgA or human IgM. The antibody is recommended to use in various immunological techniques, including ELISA.

IgGs are the most common immunoglobulins isotype in blood, lymph fluid, cerebrospinal fluid, and peritoneal fluid and a key players in the humoral immune response. IgGs include four subclasses (IgG1, IgG2, IgG3, and IgG4), they 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, their distribution pattern is found to be age-dependent and every subclass has a specific biological function. IgG deficiencies are often associated with various diseases.¹⁻³

The Fc fragment has various important functions such as complement fixation, site for rheumatoid factor (autoantibody directed to Fc) attachment, passage through the placental membrane and protein A binding. A certain population of lymphocytes also possess an "Fc receptor".¹ These functions indicate 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 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 1:40,000-1:80,000 is recommended using 2.5 µg/mL human IgG1 for coating.

Note: In order to obtain best results in different techniques and preparations, it is recommended to determine optimal working concentration by titration test.

References

1. Reimer CB., et al., Hybridoma, **3**: 263-75 (1984).
2. Papadea C. and Check IJ. Crit Rev Clin Lab Sci., **27**: 27-58 (1989).
3. Jefferis R., et al., Ann Biol Clin, **52**: 57-65 (1994).

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