

## Product Information

**Anti-Human IgG (Fc specific) antibody, Mouse monoclonal**  
clone GG-7, purified from hybridoma cell culture

Product Number **SAB4200682**

### Product Description

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, Product Number ISO2. The antibody is purified from culture supernatant of hybridoma cells.

Anti-Human IgG (Fc specific) is specific for the Fc fragment of Human IgG as determined by an ELISA Reactivity 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. Monoclonal Anti-Human IgG (Fc specific) can be used in various immunoassays including: ELISA, Imprint Immunofixation (IIF), Immunofluorometric Assay (IFMA), Hemagglutination (HA), Hemagglutination Inhibition (HAI), Particle Counting Immunoassay (PACIA) and detection of cytoplasmic IgG.<sup>1</sup>

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.<sup>2-4</sup>

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 possesses a "Fc receptor".<sup>2</sup> These functions indicate the importance of immunoreagents specific for the Fc fragment of Human IgG.

### Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

### Precautions and Disclaimer

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

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

### Product Profile

Indirect ELISA: a working concentration of 0.25-0.5 µg/mL is recommended using 5 µg/mL human IgG for coating.

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

### References

1. Wang L., et al., *Hybridoma*, **1**, 293-302 (1982).
2. Reimer CB., et al., *Hybridoma*, **3**, 263-75 (1984).
3. Papadea C. and Check IJ. *Crit Rev Clin Lab Sci.*, **27**, 27-58 (1989).
4. Jefferis R., et al., *Ann Biol Clin*, **52**, 57-65 (1994)

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