

# Product Information

## Anti-Human IgG ( $\gamma$ -chain specific) antibody, Mouse monoclonal clone GG-5, purified from hybridoma cell culture

Product Number **SAB4200713**

### Product Description

Anti-Human IgG ( $\gamma$ -chain specific) antibody, Mouse monoclonal (mouse IgG1 isotype) is derived from the GG-5 hybridoma, produced by the fusion of mouse myeloma cells and splenocytes from mouse immunized with purified human IgG. 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.

Monoclonal Anti-Human IgG ( $\gamma$ -chain specific) is specific against a determinant on the heavy chain of Human IgG as shown by ELISA. No cross reactivity is observed with purified kappa and lambda light chains or human IgM. Monoclonal Anti-Human IgG ( $\gamma$ -chain specific) can be used for the identification of human IgG isotype in various immunoassays including ELISA.<sup>1-3</sup>

Immunoglobulins (Igs) are produced by B lymphocytes and secreted into the plasma. Immunoglobulins can be divided into 5 main classes/isotypes which are IgA, IgD, IgE, IgG, and IgM. Immunoglobulin class identity is determined by class-specific sequences in the Fc region of the heavy chain. IgG isotype is identified by  $\gamma$  type of heavy chain. IgG antibody class are the most abundant Immunoglobulins isotype in blood, lymph fluid, cerebrospinal fluid and peritoneal fluid and serve as key players in the humoral immune response. IgGs include four subclasses (IgG1, IgG2, IgG3, and IgG4). 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>4-6</sup>

### 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

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

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  $\mu$ g/mL is recommended using 5  $\mu$ g/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. Colque-Navarro P., et al., *Clin Vaccine Immunol.*, **17**, 1117-23 (2010).
2. Ruijne N., et al., *Clin Vaccine Immunol.*, **13**, 797-801 (2006).
3. Ladjemi MZ., et al., *Eur Respir J.*, **45**, 980-93 (2015).
4. Reimer CB., et al., *Hybridoma*, **3**, 263-75 (1984).
5. Papadea C. and Check IJ. *Crit Rev Clin Lab Sci.*, **27**, 27-58 (1989).
6. Jefferis R., et al., *Ann Biol Clin*, **52**, 57-65 (1994)

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