

Product Information

Anti-Human IgE antibody, Mouse monoclonal
clone GE-1, purified from hybridoma cell culture

Product Number **SAB4200741**

Product Description

Anti-Human IgE antibody, Mouse monoclonal (mouse IgG2b isotype) is derived from the GE-1 hybridoma, produced by the fusion of mouse myeloma cells and splenocytes from a BALB/c mouse immunized with purified human IgE myeloma protein. 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 IgE specifically recognizes Human IgE. The antibody shows no cross-reactivity with human IgG1, IgG2, IgG3, IgG4, IgA and IgM. The antibody is recommended to use in various immunological techniques, including ELISA¹, Immunoblot, Immunoprecipitation and IgE quantification using piezoelectric (Pz) crystal bioassay.²

In comparison to other members of the family (IgA, IgD, IgG and IgM), IgE (Immunoglobulin E) is the least abundant immunoglobulin isotype³ IgE is produced by plasma cells and is highly functional in the lung, skin and mucous membranes. It plays a critical role in allergic reactions and host protection from parasites.⁴⁻⁵ Normal levels of IgE in serum are less than 1 µg/ml. However, during an allergic reaction (such as atopic eczema, extrinsic asthma or hay fever, fungal and parasitic infection, atopic disease or primary immunodeficiency) the serum IgE levels can be induced up to 5 fold.⁶⁻⁷ IgE specifically and reversibly binds to the membrane receptor FcεR type I on the surface of basophils, eosinophils and mast cells. This binding activates the release of histamine, leukotrienes and other mediators responsible for hypersensitivity. Detection and measurement of total IgE concentrations is crucial for diagnosis, monitoring and treatment of allergy patients.⁸ In addition, the recognition and isolation of allergen-specific IgE can lead to progress in understanding of pathophysiologic mechanisms underlying IgE-associated allergic disorders.⁹

Reagent

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

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 Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at -20 °C. 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 0.15-0.3 µg/ml is recommended using 1 µg/ml human IgE myeloma for coating.

Immunoprecipitation: a working concentration 1-2 µg/test is recommended using human IgE myeloma.

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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