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Product Information

Anti-Secretory component (IgA) antibody, Mouse monoclonal
Clone GA-1, purified from hybridoma cell culture

Product Number **SAB4200787**

Product Description

Anti-Secretory component (IgA) antibody, Mouse monoclonal (mouse IgG1 isotype) is derived from the GA-1 hybridoma, produced by the fusion of mouse myeloma cells and splenocytes from a mouse immunized with the secretory component purified from human colostrum. 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-Secretory component (IgA) antibody, Mouse monoclonal specifically recognizes secretory human IgA and the free secretory component.[1] The antibody shows no cross-reactivity with human IgGs, IgM, IgE and serum IgA. This clone has been established as a useful human IgG1 specificity standard by the WHO/IUIS.[2] The antibody is recommended to use in various immunological techniques, including ELISA.

The secretory component is a single chain glycoprotein which is synthesized principally by epithelial cells in mucous membranes and exocrine glands. It occurs both in a free form and as a subunit of the secretory immunoglobulin A (SIgA) molecule.[3] It has a molecular mass of ~75,000 Daltons. The secretory component is attached to the immunoglobulin molecule during the secretion process.

Its biological function has not been established although several possibilities for which there are varying degrees of support have been suggested. These possibilities include: protection of IgA against destruction by proteolysis, transport of IgA across the epithelial surface, and attraction of circulating lymphocytes with surface IgA to mucous membranes. Secretory IgA is also present in circulating blood and high concentrations of SIgA or free secretory component are reported in patients with carcinomas and chronic infectious diseases.

Human IgA accounts for ~20% of all immunoglobulins found in adult human serum. It consists of two heavy chains and two light chains. In serum it is usually found as monomeric but in secretions it exists as a dimer linked by a J-chain and associated by a peptide secretory component. Although IgA has been shown to have the usual antibody properties, it is probably more important in secretions (saliva, colostrum, tears, nasal, bronchial, and intestinal) where it has the role of creating an immune barrier against various microorganisms at exposed mucous surfaces.[4]

Anti-Secretory component (IgA) antibody, Mouse monoclonal may be used for quantitative determination of human secretory component or secretory IgA in various body fluids and immunohistochemical localization of secretory component in mucous membrane tissue.

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 0.06–0.12 μg/mL is recommended using 5 μg/mL secretory human IgA 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. Mestecky, J. et al., *J. Immunol. Methods*, **193**, 103-48 (1996).
2. Jefferis, R. et al., *Immunol. Lett*., **10**, 223-52 (1985).
3. Weicker, J., and Underdown, B.J., *J. Immunol*., **114**, 1337-44 (1975).
4. Ishiguro, Y. et al., *Clin. Chim. Acta*, **116**, 237-43 (1981).

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