Product No. I-6635
Lot 046H4845

Monoclonal anti-Human Secretory Component (IgA)
Mouse Ascites Fluid
Clone GA-1

Monoclonal Anti-Human Secretory Component (mouse IgG1 isotype) is derived from the hybridoma produced by the fusion of mouse myeloma cells and splenocytes from an immunized mouse. Secretory component purified from human colostrum was used as the immunogen. The isotype is determined using Sigma ImmunoType™ Kit (Sigma Stock No. ISO-1) and by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Sigma Stock No. ISO-2). The product is provided as ascites fluid with 0.1% sodium azide (see MSDS)* as a preservative.

Specificity

Monoclonal Anti-Human Secretory Component is immunospecific for secretory human IgA and the free secretory component as determined by ELISA. The antibody does not react with human IgG, IgM or IgE.

Description

The secretory component is a single chain glycoprotein which is synthesized principally by epithelial cells in mucous membranes and exocrine glands. It occurs in a free form and as a subunit of the secretory immunoglobulin A (SIgA) molecule. It has a molecular weight of approximately 75,000 daltons. The secretory component is attached to the immunoglobulin molecule during the secretion process. The biological function of the secretory component 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 concentrations of sIgA or free secretory component in serum are reportedly high in patients with carcinomas and chronic infectious diseases.
Human IgA accounts for approximately 20% of all immunoglobulins found in adult human serum. It consists of two α-chains and two light chains. In serum it is usually monomeric but in secretions it exists as a dimer linked by a J-chain (m.w. 15,000 daltons) 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 secretions) where is has the role of creating an immune barrier against various microorganisms at exposed mucous surfaces.

Uses

Monoclonal Anti-Human Secretory Component 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.

Working Dilution

A dilution of 1:10,000 was determined by ELISA using human IgA from colostrum at a concentration of 5 µg/ml as the coating solution.
In order to obtain best results, it is recommended that each individual user determine their working dilution by titration assay.

*Due to the sodium azide content a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling practices.

Storage

For continuous use, store at 2-8°C. For extended storage, the solution may be frozen in working aliquots. Repeated freezing and thawing is **not** recommended. Storage in "frost-free" freezers is **not** recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.