

Product Information

Monoclonal Anti-Protein A-Biotin produced in mouse clone SPA-27, purified immunoglobulin

Product Number **B3150**

Product Description

Monoclonal Anti-Protein A (mouse IgG1 isotype) is derived from the hybridoma produced by the fusion of mouse myeloma cells and splenocytes from an immunized mouse. Purified protein A from Cowan 1 strain of *Staphylococcus aureus* was used as the immunogen. The isotype is determined by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2. The immunoglobulin fraction of the ascites fluid is conjugated to epsilon amino caproyl biotin. This covalent coupling of biotin to the immunoglobulin allows for the binding of avidin, ExtrAvidin® or streptavidin bearing a variety of different labels.

Monoclonal Anti-Protein A-Biotin reacts specifically with protein A in ELISA, immunoblotting (native and denatured protein A) and in dot blot assays. The antibody does not react with protein G. The activity of the antibody is due to specific antigen antibody interaction with protein A. Protein A reacts minimally with the Fc portion of this mouse IgG1 antibody. The antibody will bind to protein A even in the presence of IgG.

Monoclonal Anti-Protein A-Biotin may be used in a variety of immunological techniques to determine the purity of native protein A from *S. aureus* or of recombinant protein A produced in other species. The antibody can be used to detect protein A during the preparation of mouse or human hybridoma products when protein A affinity chromatography is used to purify the product. The high affinity of this antibody enables the detection of very low concentrations of protein A.

Protein A is a 42 kDa single chain polypeptide isolated from the cell wall of *Staphylococcus aureus* Cowan 1 strain. Due to its affinity for the Fc region of many mammalian immunoglobulins, protein A is considered a universal reagent in biochemistry and immunology.

It is used for different applications such as purification of immunoglobulins by affinity chromatography, cell surface studies, RIA, EIA, immunoprecipitations, etc., both in its native form or when conjugated to various markers. Antibodies to protein A have been produced in rabbits, guinea pigs, chickens and mice. Polyclonal antibodies have in addition to the Fab antigen binding sites, specific for protein A, a significant nonimmune Fc binding activity with protein A. The availability of a monoclonal antibody of the mouse IgG1 isotype is of a great advantage as the non-specific binding of the mouse IgG1 to protein A is low.

Reagents

Supplied as a liquid in 0.01 M PBS, pH 7.4, with 1% inactivated BSA and 15 mM sodium azide.

Precautions

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 2-8 °C for up to one month. For extended storage, solution may be frozen in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify by centrifugation before use.

Product Profile

ELISA: a working dilution of 1:80,000-1:160,000 was determined using 1 µg/ml Protein A for coating with ExtrAvidin-Peroxidase and o-Phenylenediamine Dihydrochloride (OPD) as substrate.

Note: In order to obtain best results it is recommended that each individual user determine their optimal working dilution by titration assay.

ExtrAvidin is a registered trademark of Sigma-Aldrich Co. LLC.

DS,PHC 06/17-1