3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

ProductInformation

MONOCLONAL ANTI-ALKALINE PHOSPHATASE
Clone AP-59
Mouse Ascites Fluid

Product Number **A 9549**

Product Description

Monoclonal Anti-Alkaline Phosphatase (mouse IgG1 isotype) is derived from the hybridoma produced by the fusion of mouse myeloma cells and splenocytes from an immunized mouse. Purified bovine intestinal alkaline phosphatase was used as the immunogen. The isotype is determined using Sigma ImmunoType™ Kit (Product Code ISO-1) and by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Product Code ISO-2).

Monoclonal Anti-Alkaline Phosphatase is immunospecific for bovine intestinal alkaline phosphatase as determined by an indirect ELISA. The antibody cross reacts with intestinal alkaline phosphatase from cat, dog and pig. It shows no cross reaction with the enzyme derived from: bovine liver, milk and placenta, human placenta, *E. coli*, pig placenta, and intestinal enzyme from chicken, eel, guinea pig, horse, pigeon, rabbit, sheep, or trout.

Mouse monoclonal antibodies are of increasing importance for the immunochemical detection of antigens in histological and cytological preparations and for the detection and quantitation of solid-phase antigens in techniques such as ELISA and immunoblotting. The specificity and the absence of background staining of monoclonal antibodies are only fully exploited if optimal methods are used to detect their binding. The binding of monoclonal antibodies is usually monitored by a second antibody directed to mouse immunoglobulin or by the conjugation of the antibody to a label such as enzyme or fluorochrome. An alternative to of covalent antibody/enzyme conjugates is to use an antibody bridge between a specific antibody and an anti-enzyme antibody, the latter acting as an acceptor of the subsequently added enzyme. This method using alkaline phosphatase as the marker has been further simplified by previously preparing an alkaline phosphatase-anti-alkaline phosphatase (APAAP) soluble complex. The use of monoclonal APAAP complexes in the unlabeled antibody-enzyme method results in an intense signal with a very low background, while the problems inherent to the conjugation of antibodies are avoided.

The choice of alkaline phosphatase as the labeling enzyme avoids interference of endogenous enzyme activity in mammalian antigen preparations and the toxic substrate used when other enzyme-labels are applied.

Reagents

The product is provided as ascites fluid with 0.1% sodium azide as a preservative.

Precautions and Disclaimer

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/Stability

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

Product Profile

Monoclonal Anti-Alkaline Phosphatase may be used for the amplification of the signal obtained with primary mouse monoclonal antibodies used in various immunochemical techniques including ELISA, immunohistochemistry and immunoblotting by stepwise procedure of the preparation of an APAAP complex. APAAP may also be used together with other enzyme-labeled antibodies such as peroxidase or peroxidase-anti-peroxidase (PAP) for double labeling and easy evaluation due to high color contrast.

The minimum working dilution of 1:1,000 was determined by an indirect ELISA using a mouse monoclonal primary antibody, bridging antibody and purified bovine intestinal alkaline phosphatase.

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

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