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ProductInformation

MONOCLONAL ANTI-GLUCOSE OXIDASE
Clone GO-40
Mouse Ascites Fluid

Product No. **G5399**

Product Description

Monoclonal anti-Glucose Oxidase (mouse IgG1 isotype) is derived from the hybridoma produced by the fusion of mouse myeloma cells and splenocytes from an immunized mouse. Purified glucose oxidase from Aspergillus niger was used as the immunogen. The isotype is determined by a double diffusion assay using immunoglobulin and subclass specific antisera.

Monoclonal anti-Glucose Oxidase reacts with soluble glucose oxidase which retains its enzymatic activity. It does not react with the enzyme when coated on nitrocellulose in an immunoblot procedure.

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, immunoblotting, and dot-blotting. The specificity and absence of background staining are only fully exploited if optimal methods are employed to detect their binding. Typically, binding of monoclonal antibodies is monitored by a second antibody directed to mouse immunoglobulin or by the conjugation of the antibody to a label such as an enzyme or fluorochrome. An alternative method is to use an antibody bridge between the specific antibody and an anti-enzyme antibody, the latter acting as an acceptor of the subsequently added enzyme. The method of using glucose oxidase as the marker has been further simplified by previously preparing a glucose oxidase anti-glucose oxidase (GAG) soluble complex. Monoclonal GAG complexes result in an intense signal with very low background, while the problems inherent to the conjugation of antibodies are avoided. The ability to prepare such a complex using a crude preparation of a low cost enzyme and unpurified ascites fluid containing the monoclonal antibody, decreases the cost of the test considerably. The interference by endogenous enzyme activity in mammalian antigen preparations and the toxic substrate used when other enzyme labels are applied, are avoided by the choice of glucose oxidase as the labeling enzyme. There are no problems with endogenous enzyme activity encountered when using this enzyme which is not present in mammalian preparations. The use of flow through immunoreactor coupled to thin-layer amperometric detections have also been used in conjunction with GAG complexes.

Monoclonal anti-Glucose Oxidase can be useful in the amplification of the specific reaction of primary mouse monoclonal antibodies in various immunochemical techniques both by stepwise procedure or by the preparation of the GAG complex. GAG may also be used with other enzyme labeled antibodies such as peroxidase anti-peroxidase (PAP) or alkaline phosphatase anti-alkaline phosphatase (APAAP) for double labeling and easy evaluation due to color contrast. The product may be most useful for immunoenzymatic staining of blood and bone marrow smears or tissue sections. This antibody may also be used in the purification of the enzyme.

Reagents

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

Product Description

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.

Product Profile

The minimum antibody titer of 1:10,000 was determined by creation of a GAG complex and application in a Dot Immunobinding procedure using a mouse monoclonal primary antibody, bridging antibody and purified glucose oxidase from Aspergillus niger.

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

Storage/Stabiliy

For continuous use, store at 2-8 °C for up to one month. 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.