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Product Information

MONOCLONAL ANTI-FITC BIOTIN CONJUGATE

Clone FL-D6

Purified Mouse Immunoglobulin

Product Number **B 0287**

Product Description

Monoclonal Anti-FITC (mouse IgG1 isotype) is derived from the hybridoma produced by the fusion of mouse myeloma cells and splenocytes from an immunized mouse. A FITC-BSA conjugate was used as the immunogen. The isotype is determined using the Sigma ImmunoType™ Kit (Product Code ISO-1) and by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Product Code ISO-2). The immunoglobulin fraction of the ascites fluid is conjugated to biotin ϵ -amino caproic acid N-hydroxysuccinimide.

Fluorochrome labeling provides a rapid and accurate localization of the site of antigen-antibody interaction when one of the reactants from parts of a cell, tissue or other biological structure. Fluorescein isothiocyanate (FITC) is a commonly used marker for antibodies in immunofluorescence techniques since the conjugation of FITC to proteins is relatively easy and does not, in general, destroy the biological activity of the labeled substances. FITC is widely used as a hapten to label different proteins and anti-FITC antibodies are used to identify these labeled proteins. Anti-FITC can be used to study the interactions between antibody and antigen since FITC is a well defined hapten. Antibodies to FITC serve as universal indicator reagents by bridging FITC with another immunohistochemical reagent, such as alkaline phosphatase, horseradish peroxidase or biotin. A typical application would be labeling with FITC for use in fluorescence microscopy and then labeling with another marker for regular microscopy by reacting with Biotin Conjugate Mouse Monoclonal Anti-FITC followed by an avidin-linked enzyme marker. Molecular weight marker proteins labeled with FITC have also been detected by Anti-FITC after SDS-PAGE and transfer onto nitrocellulose paper. FITC-Anti-FITC system has been used in the amplification of signals in immunofluorescence detection, in fluorescence *in situ* hybridization (FISH), as a mean of separating bound from free tracer and in immunoaffinity chromatography to isolate cells that have FITC-labeled ligand on their surface.

Reagents

The conjugate is supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 1% BSA and 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, 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.

Product Profile

Biotin Conjugated Monoclonal Anti-FITC recognizes the free FITC molecule and FITC conjugated to various biomolecules such as proteins (immunoglobulins, enzymes), oligonucleotides, nucleic acids and other ligands.

Working Dilution: At least 1:400

The working dilution was determined by indirect immunohistology using formalin-fixed, paraffin-embedded human tonsil sections with FITC Monoclonal Anti- α -Smooth Muscle Actin (Product No. F 3777) as the primary and FITC-ExtrAvidin (Product No. E 2761) or ExtrAvidin-Alkaline Phosphatase (Product No. E 2636).

Biotin Conjugated Monoclonal Anti-FITC may be used for the detection of FITC and as a universal indicator reagent for bridging FITC-labeled compounds with other immunochemical reagents. It can be used in ELISA and immunofluorescent techniques. A FITC-Anti-FITC system has been used in the amplification of

signal in immunofluorescent detection and as a means of separating bound from free tracer by affinity chromatography. The antibody can also be used to isolate cells that have a FITC labeled ligand on their surface.

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