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ProductInformation

ANTI-HUMAN IgG (γ-chain specific)
FITC CONJUGATE
F(ab')$_2$ Fragment of Affinity Isolated Antigen Specific Antibody

Product No. **F 1641**

Product Description

Anti-Human IgG is developed in goat using purified human IgG as the immunogen. The F(ab')$_2$ fragment of the antibody is obtained from pepsin-digested antiserum by immunospecific methods of purification. Affinity isolation removes essentially all goat serum proteins, including immunoglobulins that do not specifically bind to the γ-chain of human IgG. The antibody preparation is tested using 8.5% SDS polyacrylamide gel elelctrophoresis (PAGE) to ensure that no goat IgG (whole molecule) remains. Goat anti-human IgG is then conjugated to Sigma Fluorescein Isothiocyanate (FITC), Isomer I (Sigma Product No. F7250). Following conjugation, unbound FITC is removed by extensive dialysis.

Specificity for the γ-chain of human IgG is determined by Ouchterlony Double Diffusion (ODD), prior to conjugation. The antibody preparation is specific for human IgG when tested against purified human IgA, IgG, IgM, Bence Jones kappa and lambda myeloma proteins.

Identity and purity of the antibody is established by immunoelectrophoresis (IEP), prior to conjugation. Electrophoresis of the antibody preparation followed by diffusion versus anti-goat IgG and anti-goat whole serum results in single arcs of precipitation. The antibody preparation is found to consist only of the F(ab')$_2$ fragment of goat IgG as determined by SDS-Polyacrylamide Gel Electrophoresis (PAGE). No contamination with goat IgG whole molecule is observed.

Reagents

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

Product Profile

The product is provided with a specific antibody content of 1.0 mg/ml (prior to the addition of BSA).
The minimum working dilution of 1:32 was determined by direct immunofluorescent labeling of human peripheral blood lymphocytes.

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

F/P Molar Ratio: 2.5-6.5
The F/P molar ratio is determined spectrophotometrically as follows:

$$F = A_{496}/0.15 \qquad P = \frac{A_{280} - (A_{496} \times 0.32)}{1.4}$$

$$\text{F/P Molar Ratio} = F/P \times 0.41$$

Where:
0.15 = The extinction coefficient of bound FITC at a concentration of 1 µg per ml at pH 7.2
0.32 = The fluorochrome absorbance correction factor (non-protein absorbance).
0.41 = The factor for conversion of fluorochrome to protein ratios from weight to molar ratios.

Storage

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.

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