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Product Information

Anti-Human Kappa Light Chain (Bound & Free) FITC Conjugate Affinity Isolated Antigen Specific Antibody

Product No. **F 3761**

Product Description

Antiserum is developed in goat using purified Bence Jones-kappa myeloma protein as the immunogen. Affinity isolated antigen specific antibody is obtained from antiserum by immunospecific purification which removes essentially all goat serum proteins, including immunoglobulins, which do not specifically bind to the kappa light chain (bound and free). Goat anti-kappa light chain is conjugated to Sigma Fluorescein Isothiocyanate (FITC), Isomer I (Product No. F 7250). Following conjugation, unbound FITC is removed by extensive dialysis.

Specificity for the kappa chain of human immunoglobulins is determined by Ouchterlony Double Diffusion (ODD). The antibody preparation is specific for human kappa light chain when tested against purified bound kappa light chain (human IgA, IgG, and IgM) and free kappa light chain (Bence Jones Kappa myeloma protein). The conjugate shows no reaction with bound or free lambda light chains.

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.

Reagents

The conjugate is provided as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 1% BSA with 15 mM 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 conjugate is provided with an antibody content of at least 1.0 mg/ml.

A minimum working dilution of 1:16 is 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: 3.0-5.0 prior to the addition of 1% BSA
The F/P molar ratio is determined spectrophotometrically as follows:

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

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

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

Store at 2-8 °C. If slight turbidity occurs on prolonged storage, clarify by centrifugation before use.

Reference

1. Becker, W., *Immunochemistry*, **6**, 539 (1969).

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