

Product Information

Anti-Human Kappa Light Chain (Bound and Free)-Alkaline Phosphatase

produced in goat, affinity isolated antibody

Catalog Number **A3813**

Product Description

Anti-Human Kappa Light Chain (Bound and Free) is produced in goat using purified Bence Jones kappa light chain as the immunogen. The antibody is isolated from anti-human kappa light chain antiserum by immunospecific purification which removes essentially all goat serum proteins, including immunoglobulins that do not specifically bind to the human kappa light chain. Goat anti-human kappa light chain is conjugated to alkaline phosphatase by protein crosslinking with 0.2% glutaraldehyde.¹

Specificity of Anti-Human Kappa Light Chain-Alkaline Phosphatase is determined by Enzyme Linked Immunosorbent Assay (ELISA). The conjugate is specific for human kappa light chain when tested against human IgA, IgG, IgM, IgG λ , IgA λ , IgM λ , 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 against anti-goat IgG and anti-goat whole serum results in single arcs of precipitation.

Reagent

Supplied as a solution in 0.05 M Tris buffer, pH 8.0, containing 1 mM MgCl₂, 1% bovine serum albumin, 50% glycerol and 15 mM sodium azide.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at 2-8 °C.

Product Profile

Direct ELISA: minimum dilution 1:30,000 (bound kappa) Titer is defined as the dilution of conjugate sufficient to give a change in absorbance of 1.0 at 405 nm after 30 minutes of substrate conversion at 25 °C.² Microtiter plates are coated with purified antigen at a concentration of 5 µg/ml in 0.05 M carbonate/bicarbonate buffer, pH 9.6. Carbonate-Bicarbonate Buffer capsules, Cat. No. C3041.

Substrate: 4-Nitrophenyl Phosphate (pNPP), Cat. No. N2765, 1.0 mg/mL in 10% diethanolamine buffer, pH 9.8, containing 0.5 mM MgCl₂.

Dot Blot: minimum dilution 1:30,000 Diluted conjugate detects < 20 ng of bound kappa and < 20 ng of free kappa bound to nitrocellulose.

Substrate: 5-Bromo-4-chloro-3-indolyl Phosphate/Nitroblue Tetrazolium (BCIP/NBT), SIGMAFAST™ Tablets, Cat. No. B5655.

Immunohistochemistry: minimum antibody dilution 1:50

Determined by a direct assay using formalin-fixed, paraffin-embedded sections of human tonsil.

Substrate: Fast Red TR/AS-MX Naphthol Phosphate³, SIGMAFAST Tablets, Cat. No. F4523 or F4648.

Note: Working dilutions should be determined by titration assays. Due to differences in assay systems, these titers may not reflect the user's actual working dilution.

References

1. Avrameas, V., *Immunochemistry*, **6**, 43 (1969).
2. Voller, A., et al., *Bull. World Health Organ.*, **53**, 55 (1976).

3. Pluzek, K., and Ramlaou, R. Alkaline Phosphatase Labeled Reagents, In: CRC Handbook of Immunoblotting of Proteins, Bjerrum, O., and Heegaard, N., (Eds.), (CRC Press Inc., Boca Raton, FL, **1**, p. 177, 1988).

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