3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

Anti-Human IgG (γ-chain specific)–Alkaline Phosphatase
produced in goat, affinity isolated antibody

Catalog Number **A3188**

Product Description

Anti-Human IgG (γ-chain specific) is produced in goat using as immunogen purified human IgG. The antibody is isolated from anti-human IgG antiserum by immunospecific purification which removes essentially all goat serum proteins, including immunoglobulins that do not specifically bind to the γ-chain of human IgG. The antibody preparation is solid phase adsorbed with mouse serum proteins to ensure minimal cross reactivity in tissue or cell preparations.

Anti-Human IgG is conjugated to alkaline phosphatase by protein cross linking with 0.2% glutaraldehyde.[1]

Specificity of Anti-Human IgG-Alkaline Phosphatase is determined by Enzyme Linked Immunosorbent Assay (ELISA). The conjugate is specific for human IgG when tested against human IgA, IgG, IgM, Bence Jones Kappa, and Lambda myeloma proteins. Cross reactivity of the antibody-conjugate is also determined by ELISA. The conjugate shows no reactivity with mouse IgG or mouse serum 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.

Reagent

Supplied as a solution in 0.05 M Tris buffer, pH 8.0, containing 1% BSA, 1 mM $MgCl_2$, 50% glycerol, 10 mM glycine, and 15 mM sodium azide as a preservative.

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
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 human IgG at a concentration of 5 μg/ml in 0.05 M carbonate/bicarbonate buffer, pH 9.6. Carbonate/bicarbonate Buffer capsules are available as Cat. No. C3041.

Substrate: *p*-nitrophenyl phosphate (pNPP) disodium salt hexahydrate, Cat. No. N2765; 1.0 mg/ml in 10% diethanolamine buffer, pH 9.8, containing 0.5 mM $MgCl_2$.

Dot Blot: minimum dilution 1:30,000
Diluted conjugate detects up to 20 ng human IgG bound to nitrocellulose.

Substrate: 5-Bromo-4-chloro-3-indolyl phosphate/nitroblue tetrazolium, SIGMA *FAST*™ BCIP/NBT tablets, Cat. No. B5655.

Immunohistochemistry: minimum dilution 1:50
Determined by a direct assay using formalin-fixed, paraffin-embedded sections of human tonsil.
Substrate: Fast Red TR/Naphthol AS-MX[3], SIGMA *FAST*™ Tablets, Cat. No. F4523 or F4648.

Note: In order to obtain the best results in various techniques and preparations. we recommend determining optimal working dilution by titration.

References

1. Avrameas, S., *Immunochemistry*, **6**, 43 (1969).
2. Voller, A., et al., *Bull. World Health Organ*., **53**, 55 (1976).
3. Pluzek, K.J. and R. Ramlau, Alkaline Phosphatase Labeled Reagents, in CRC Handbook of Immunoblotting of Proteins, O.J. Bjerrum and N.H.H. Heegaard, Eds., CRC Press Inc., Boca Raton, FL, **1**, p. 177, 1988.

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