

## Product Information

### **Anti-Mouse IgG ( $\gamma$ -chain specific)–Alkaline Phosphatase** produced in goat, affinity isolated antibody

Catalog Number **A3438**

#### **Product Description**

Anti-Mouse IgG ( $\gamma$ -chain specific) is produced in goat using purified mouse IgG as the immunogen. Affinity isolated antibody is obtained from anti-mouse IgG antiserum by immunospecific purification which removes essentially all goat serum proteins, including immunoglobulins, which do not specifically bind to the  $\gamma$ -chain of mouse IgG. Anti-Mouse IgG is conjugated to alkaline phosphatase by protein cross linking with 0.2% glutaraldehyde.<sup>1</sup>

Specificity of Anti-Mouse IgG ( $\gamma$ -chain specific)-Alkaline Phosphatase is determined by Enzyme Linked Immunosorbent Assay (ELISA). The conjugate is specific for mouse IgG when tested against purified mouse IgA, IgG and IgM 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.

#### **Reagent**

Provided as a solution in 0.05 M Tris buffer, pH 8.0, containing 1% BSA, 1 mM MgCl<sub>2</sub>, 50% glycerol, 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**

Store at 2-8 °C.

#### **Product Profile**

**Direct ELISA:** Minimum 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.<sup>2</sup> Microtiter plates are coated with purified mouse IgG at a concentration of 5  $\mu$ g/ml in 0.05 M carbonate/bicarbonate buffer, pH 9.6. Carbonate/Bicarbonate Buffer capsules are available as Catalog Number C3041.

Substrate: *p*-Nitrophenyl Phosphate (pNPP), Catalog Number N2765, 1.0 mg/mL in 10% diethanolamine buffer, pH 9.8, containing 0.5 mM MgCl<sub>2</sub>.

**Dot Blot:** Minimum 1:30,000

Diluted conjugate detects < 20 ng mouse IgG bound to nitrocellulose.

Substrate: 5-Bromo-4-chloro-3-indolyl phosphate/Nitroblue tetrazolium (BCIP/NBT), SIGMAFAST™ Tablets, Catalog Number B5655.

**Immunohistochemistry:** Minimum 1:50

Determined by an indirect assay using formalin-fixed, paraffin-embedded sections of human tonsil and Monoclonal Anti-Human IgG (Fc specific), Catalog Number I6760, as the primary antibody.

Substrate:Fast Red TR/AS-MX Naphthol phosphate<sup>3</sup> SIGMAFAST Tablets, Catalog Number F4523 or F4648.

**Western Blotting:** 1:30,000

Mouse IgG was detected directly using 10  $\mu$ g protein run under reducing conditions on an SDS-PAGE gradient (4-20%) gel. The protein was transferred to nitrocellulose, blocked with 0.5% BSA in 0.05 M Tris and then incubated with the conjugate.

Substrate: 5-Bromo-4-chloro-3-indolyl phosphate/Nitroblue tetrazolium (BCIP/NBT), SIGMAFAST Tablets, Catalog Number B5655.

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

**References**

1. Avrameas, V., *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.

SIGMAFAST is a trademark of Sigma-Aldrich Biotechnology LP and Sigma-Aldrich Co.

TD,KAA,PHC 05/09-1