

## Product Information

### Anti-Biotin Alkaline Phosphatase Conjugate

antibody produced in goat, affinity isolated antibody

Product Number **A7064**

#### Product Description

Anti-Biotin is developed in goat using purified biotin-KLH as the immunogen. Antibody is isolated from goat anti-biotin antiserum by immunospecific purification which removes essentially all goat serum proteins, including immunoglobulins that do not specifically bind to biotin. Goat anti-biotin is conjugated to alkaline phosphatase by protein cross linking with 0.2% glutaraldehyde.<sup>1</sup>

Specificity of the Alkaline Phosphatase Conjugated Anti-Biotin is determined by Enzyme Linked Immunosorbent Assay (ELISA). The conjugate is specific for biotin when tested against biotin-goat IgG, goat IgG, and KLH.

Identity and purity of the antibody is established by immunoelectrophoresis, prior to conjugation. Electrophoresis of the product followed by diffusion against anti-goat IgG and anti-goat whole serum results in single arcs of precipitation.

#### Reagent

The conjugate is 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 10 mM glycine with 0.1% sodium azide as 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.

#### Storage/Stability

Store at 2-8 °C. Do Not Freeze.

#### Product Profile

1. 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 biotin-goat 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 Product No. C3041).

Substrate: p-Nitrophenyl Phosphate (pNPP, Product No. N2765), 1.0 mg/ml in 10% diethanolamine buffer, pH 9.8, containing 0.5 mM MgCl<sub>2</sub>.

2. Dot Blot: Minimum 1:30,000  
Diluted conjugate detects <20 ng biotin-goat IgG bound to nitrocellulose.  
Substrate: 5-Bromo-4-chloro-3-indolyl Phosphate/Nitroblue Tetrazolium (BCIP/NBT, SIGMA FAST<sup>™</sup> Tablets, B5655).
3. Immunohistology: Minimum 1:50  
Determined by an indirect assay using formalin-fixed, paraffin-embedded sections of human tonsil and Biotin conjugate-Monoclonal Anti-Human IgG (Fc) (Product No. B3773) as the primary antibody.  
Substrate: Fast Red TR/AS-MX Naphthol Phosphate (SIGMAFAST Tablets F4523 or F4648).<sup>3</sup>

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

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