

Product Information

Anti-Biotin Peroxidase Conjugate

Antibody Developed in Goat
Affinity Isolated Antigen Specific Antibody

A4541

Product Description

Antiserum is developed in goat using purified biotin conjugated to carrier protein as the immunogen. Affinity isolated antigen specific antibody is obtained 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 Sigma Horseradish Peroxidase, Type VI (Cat. No. P8375) by a modification of the periodate method of Wilson and Nakane.¹

Affinity isolated antibody to biotin is determined to be immunospecific for biotin by immunoelectrophoresis (IEP) and enzyme linked immunosorbent assay (ELISA) versus biotin. Cross reactivity is also determined by IEP and ELISA. The antibody preparation shows no reaction with the free carrier protein.

Identity and purity of the antibody is established by immunoelectrophoresis, 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.

Reagents

The conjugate is provided as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 1% BSA with 0.1% Kathon™ as a preservative.

Precautions and Disclaimer

Consult the SDS for information regarding hazards and safe handling practices.

Product Profile

We are now reporting lot specific information as a titer by direct ELISA (minimum 1:2,000) rather than as a working dilution. Titer is defined as the dilution of conjugate sufficient to give a change in absorbance of 1.0 at 450 nm after 30 minutes of substrate conversion at 25 °C.²

Microtiter plates are coated with purified biotin 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: o-Phenylenediamine Dihydrochloride (OPD, Cat. No. P8287), 0.4 mg/mL in 0.05 M phosphate-citrate buffer, pH 5.0, containing 0.03% sodium perborate (Phosphate-Citrate Buffer Capsules with Sodium Perborate are available as Cat. No. P4922).

Working dilution should be determined by titration assay. Due to product improvement and changes in the assay procedure, we now list a lot specific titer by direct ELISA for this product. Due to differences in assay systems, this titer may not reflect the user's actual working dilution.

Storage

For continuous use, store at 2-8 °C for up to one month. For extended storage, the solution may be frozen in working aliquots. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.

References

1. Wilson, M., and Nakane, P., Immunofluorescence and Related Staining Techniques, Elsevier/North Holland Biomedical Press, Amsterdam, p. 215, (1978).
2. Voller, A., et al., Bull. World Health Organ., **53**: 55 (1976).

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A4541dat Rev 05/21

