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Product Information

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

Catalog Number **B1140**

Product Description

Antiserum is produced in goat using purified human IgG as the immunogen. Affinity isolation removes essentially all goat serum proteins, including immunoglobulins, which do not specifically bind to the γ -chain of human IgG. Goat anti-human IgG is conjugated to (+)-Biotin N-hydroxysuccinimide ester, Catalog Number H1759, by a modification of the method of Bayer, et al.¹

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 1% BSA with 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

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

Product Profile

Direct ELISA: a minimum titer of 1:20,000 is recommended. Titer is defined as the dilution of conjugate that will give a change in absorbance of 1.0 at 492 nm after 30 minutes of substrate conversion at 25 °C.^{2,3}

Microtiter plates are coated with purified human IgG at a concentration of 200 ng/ml in 0.05 M carbonate-bicarbonate buffer pH 9.6. Following incubation with the biotinylated antibody, a solution of Avidin–Peroxidase, diluted in 0.01 M phosphate buffered saline, pH 7.4, containing 0.05% Tween® 20 and 0.5% BSA is added.

Substrate: 0.04% *o*-Phenylenediamine dihydrochloride** (OPD) and 0.012% hydrogen peroxide** in phosphate-citrate buffer, pH 5.0. [25.7 ml 0.2 M sodium phosphate dibasic, 24.3 ml 0.1 M citric acid, and 50 ml deionized water].

**Add immediately before use.

Reagents

Avidin–Peroxidase, Catalog No A3151
Carbonate/Bicarbonate Buffer capsules, Catalog No. C3041
Citric acid monohydrate, Catalog No. C7129.
Hydrogen peroxide solution, 30% w/w in water, Catalog No, H1009
o-Phenylenediamine dihydrochloride, 30 mg substrate per tablet, Catalog No. P8412.
Sodium phosphate dibasic, Catalog No. S0876

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

References

1. Bayer, E.A., et al., *Methods in Enzymology*, **62**, 308 (1979).
2. Voller, A., et al., *Bulletin WHO*, **53**, 557(1976).
3. Gudeson, J. L., et al., *J. Histochem. and Cytochem.*, **27**, 1131 (1979).

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