Product Information

Anti-Human IgG (γ-Chain Specific) Peroxidase Conjugate

Antibody developed in Goat
F(ab')$_2$ Fragment of Affinity Isolated Antigen Specific Antibody

A2290

Product Description

Anti-Human IgG is developed in goat using purified human IgG as the immunogen. The F(ab')$_2$ fragment of the antibody is obtained from pepsin digested antiserum by immunospecific methods of purification. 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 Sigma Horseradish Peroxidase, Type VI (Product No. P 8375) by a modification of the periodate method of Wilson and Nakane.[1]

Specificity of the Peroxidase Conjugated Anti-Human IgG 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.

Identity and purity of the antibody is established by immunoelectrophoresis (IEP), 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. The antibody preparation is found to consist only of the F(ab')$_2$ fragment of goat IgG as determined by SDS-Polyacrylamide Gel Electrophoresis (PAGE). No contamination with goat IgG whole molecule is observed.

Reagents

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

Precautions and Disclaimer

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

Storage/Stability

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.

Product Profile

Titer: Minimum 1:10,000 (Direct ELISA)

We are now reporting lot specific information as a titer by direct ELISA 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 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. C 3041).

Substrate: *o*-Phenylenediamine dihydrochloride (OPD, Product No. P 8287), 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. P 4922).

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.

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).

Notice

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A2290dat Rev 05/21