Product No. A-6281
Lot 055H8865

Anti-Human IgD (δ-chain specific) Peroxidase Conjugate

Antibody developed in Goat
Affinity Isolated Antigen Specific Antibody

Anti-Human IgD is developed in goat using purified human IgD as the immunogen. Affinity isolation removes essentially all goat serum proteins, including immunoglobulins which do not specifically bind to the δ-chain of human IgD. Goat anti-human IgD is conjugated to Sigma Horseradish Peroxidase, Type VI (Sigma Product No. P-8375) by a modification of the periodate method of Wilson and Nakane.[1] The conjugate is provided as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 1% BSA with 0.01% thimerosal as a preservative.

Specificity

Specificity of the Peroxidase Conjugated Anti-Human IgD is determined by Enzyme Linked Immunosorbent Assay (ELISA). The conjugate is specific for human IgD when tested against human IgA, IgD, IgG, IgM, Bence Jones kappa and lambda myeloma proteins.

Identity and Purity

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.

Titer: 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 IgD at a concentration of 5 µg/ml in 0.05 M carbonate/bicarbonate buffer, pH 9.6 (carbonate/bicarbonate buffer capsules are available as Sigma Product No. C-3041).

Substrate: *o*-Phenylenediamine Dihydrochloride (OPD, Sigma 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 Sigma Product No. P-4922).

Working Dilution

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.B., and P.K. Nakane, Immunofluorescence and Related Staining Techniques (Elsevier/North-Holland Biomedical Press, Amsterdam), p215 (1978)
2. Voller, A., et al., Bulletin WHO, **53**, 55 (1976)

Storage

For continuous use, store at 2-8°C. 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.