

**Product No. A-4416**  
**Anti-Mouse IgG (whole molecule)**  
**Peroxidase Conjugate**  
Affinity Isolated Antigen Specific Antibody  
Antibody Developed in Goat

**Lot** 041H88051

Antiserum is developed in goat using purified mouse IgG as the immunogen. Affinity isolated antigen specific antibody is obtained from goat anti-mouse IgG antiserum by immunospecific purification which removes essentially all goat serum proteins, including immunoglobulins, that do not specifically bind to mouse IgG. Goat anti-Mouse IgG is conjugated to Sigma Horseradish Peroxidase, Type VI (Sigma Product No. P-8375) by a modification of the periodate method of Wilson and Nakane.<sup>1</sup> The conjugate is provided as a solution in 0.01M phosphate buffered saline, pH 7.4, containing 1% BSA with 0.01% thimerosal as a preservative.

**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:** 1:13,000 (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 450nm after 30 minutes of substrate conversion at 25°C (Voller, et al.<sup>2</sup>). Microtiter plates are coated with purified mouse IgG at a concentration of 5 µg/ml in 0.05M carbonate- bicarbonate buffer, pH 9.6 (carbonate/bicarbonate buffer capsules are available as Sigma Product No. C-3041).

Please see below for working dilution.

**Substrate:** o-Phenylenediamine Dihydrochloride (OPD, Sigma Product No. P-8287), 0.4mg/ml in 0.05M 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.

**Enzyme Activity:** 13 purpurogallin units/ml

Enzyme activity is determined using 5% pyrogallol (Sigma Product No. P-0381) in deionized water, pH 6.0, at 20°C. One purpurogallin unit will form 1 mg of purpurogallin from pyrogallol in 20 seconds at pH 6.0, 20°C.

**References**

1. Wilson, M.B., and P.K. Nakane, Immunofluorescence and Histochemistry, Springfield, Ill., 1968, p. 178.
2. Voller, A., et al., Bulletin WHO, **53**, 55 (1976).

**Storage**

For continuous use, store at 0-5°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.

Sigma warrants that its products conform to the information contained in this and other Sigma products. Purchaser must determine the suitability of the products for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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