



## Product Information

**ANTI-MOUSE IgG (Fab specific)  
PEROXIDASE CONJUGATE**  
Antibody developed in Goat  
Affinity Isolated Antigen Specific Antibody  
Adsorbed with Bovine, Horse and Human Serum  
Proteins

Product No. **A 2304**

### Product Description

Antiserum is developed in goat using purified mouse IgG Fab fragment as the immunogen. Antibody is isolated from goat anti-mouse IgG antiserum by immunospecific purification which removes essentially all goat serum proteins, including immunoglobulins, which do not specifically bind to the Fab fragment of mouse IgG. Goat anti-mouse IgG is conjugated to peroxidase by protein cross linking with 0.2% glutaraldehyde. The antibody preparation is solid phase adsorbed with human serum proteins to ensure minimal cross reactivity in tissue or cell preparations. Solid phase adsorption with bovine and horse serum proteins ensures minimal cross reactivity with horse or fetal calf serum in hybridoma media.

Specificity of the peroxidase conjugated anti-mouse IgG is determined by Enzyme Linked Immunosorbent Assay (ELISA). The conjugate is specific for mouse IgG and mouse Fab fragment. Cross reactivity of the antibodyconjugate is also determined by ELISA. The conjugate shows no reactivity with mouse Fc fragment, human IgG, IgA, IgM, kappa and lambda light chain, bovine IgG and IgM, or horse IgG.

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.

### Reagents

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

### Product Profile

1. Minimum 1:50,000 (Direct ELISA)  
We are now reporting lot specific information as a titer by direct ELISA rather than as a working dilution (see below). Microtiter plates are coated with purified mouse 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 Product No. C 3041). 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 (Voller, et al.)<sup>1</sup>.

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 Bapsules with Sodium Perborate are available as Product No. P 4922).

2. Dot Blot
  - a. A minimum dilution of 1:10,000 was determined in a direct assay using 40 ng mouse IgG/dot.
  - b. A minimum dilution of 1:10,000 was determined in an indirect assay using 20 ng human IgG/dot and Mouse Monoclonal Anti-Human IgG (Product No. I 5885) as the primary antibody.
  - c. In an indirect chemiluminescence system using 10 ng human IgG/dot and Mouse Monoclonal Anti-Human IgG (Product No. I 5885) as the primary antibody, this product was determined to have a minimum dilution of 1:80,000 when used as secondary antibody. Luminol plus enhancer was used as substrate.

3. Immunohistology

A minimum dilution of 1:200 was determined in an indirect assay using formalin-fixed, paraffin-embedded human tonsil and Mouse Monoclonal Anti-Human IgG (Product No. I 5885) as the primary antibody. Working dilutions should be determined by titration assay. Due to differences in assay systems, these titers may not reflect the user's actual working dilution.

Molar Ratio (Antibody:Peroxidase) 0.8-1.5

ABPT

In an agar diffusion assay the conjugate produces a precipitation arc at a minimum dilution of 1:32 versus a dilution of mouse serum.

**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.

**Reference**

1. Voller, A., et al., Bulletin WHO, **53**, 55 (1976).

This goat antiserum was maintained at pH 5.0 for 40 minutes to meet USDA requirements.

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