



## Product Information

**ANTI-MOUSE IgG (Fab SPECIFIC)  
BIOTIN CONJUGATE**  
Antibody developed in Goat  
Affinity Isolated Antibody  
Adsorbed with Human IgG and Rat Serum Proteins

Product Number **B 0529**

### Product Description

Anti-mouse IgG (Fab specific) is developed in goat using purified mouse IgG as the immunogen. Affinity isolated antigen specific antibody is obtained from goat anti-mouse antiserum by immunospecific purification which removes essentially all goat serum proteins, including immunoglobulins, that do not specifically bind to the Fab fragment of mouse IgG. The antibody preparation is solid phase adsorbed with human IgG and rat serum proteins to ensure minimal cross reactivity in tissue or cell preparations. Affinity purified antibodies are conjugated to biotin  $\epsilon$ -amino caproic acid-N-hydroxysuccinimide ester, unconjugated material is removed by gel filtration.

This product is determined to be specific for the Fab fragment of mouse IgG by immunoelectrophoresis (prior to conjugation) using mouse IgG, the Fab fragment of mouse IgG and the Fc fragment of mouse IgG. No reactivity is observed with the Fc fragment of mouse IgG, human IgG, IgA, IgM or rat IgG.

### Reagents

The conjugate is supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15mM sodium azide as a preservative.

### Precautions and Disclaimer

Due to the sodium azide content a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling practices.

### Storage/Stability

Store at 2-8 °C.

For extended storage, freeze 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

Avidin, streptavidin or ExtrAvidin<sup>®</sup> show high affinity interaction with biotin and this feature renders the biotin-avidin system an extremely effective tool in molecular biology, protein chemistry and immunology. Because of the high specificity of the biotinylated antibody to mouse Fab, the stability of the biotin-avidin complex and the availability of a variety of secondary reagents (avidin, streptavidin or ExtrAvidin conjugated to FITC, TRITC, Peroxidase or Alkaline Phosphatase), the detection and quantitation of mouse immunoglobulins can be easily accomplished. The product may be used as a reagent in immunohistological studies, offering sensitive and specific activity for all mouse immunoglobulin isotypes without cross reactivity with human or rat immunoglobulins. Because of the minimal interspecies cross reactivity to human and rat serum proteins, this product is excellent for application in enzyme immunoassays or dot blotting in the presence of human or rat serum or plasma.

1. Direct ELISA: Minimum 1:200,000  
The working dilution of the conjugate, for use as reagent in enzyme immunoassay, is determined by testing dilutions of the conjugate in microtiter plates coated with mouse IgG at 1  $\mu$ g/ml. Using ExtrAvidin-Peroxidase (Product No. E 2886) at 2  $\mu$ g/ml gives an absorbance value of 1.0 at  $A_{450nm}$  following 30 minutes of substrate conversion.
2. Dot Blot
  - a. A minimum working dilution of 1:30,000 is determined in a direct assay using 40 ng mouse IgG/dot and ExtrAvidin-Peroxidase at 1-2  $\mu$ g/ml.
  - b. A minimum working dilution of 1:30,000 is determined by indirect dot blot using 20 ng human IgG/dot, Mouse Monoclonal Anti-Human

IgG (Product No. I 5885) as the primary antibody, and ExtrAvidin-Peroxidase at 1-2 µg/ml.

- c. In an indirect chemiluminescence system using 5 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 1:400,000 when used as secondary antibody with ExtrAvidin-Peroxidase at 1-2 µg/ml. Luminol plus enhancer was used as substrate.
3. Immunohistology

A minimum working dilution of 1:300 is determined by indirect assay using formalin-fixed, paraffin-embedded human tonsils and Monoclonal Anti-Human IgG (Product No. I5885) dilution as the primary antibody and ExtrAvidin-Peroxidase at 25 µg/ml.

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

JWM/DAA 3/2003

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