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Product Information

**ANTI-MOUSE IgG (FAB SPECIFIC)
BIOTIN CONJUGATE**
**Affinity Isolated Antigen Specific Antibody
Adsorbed with Bovine, Horse and Human Serum
Proteins**

Product No. **B7151**

Product Description

Anti-mouse IgG (Fab specific) 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 biotin ϵ -amino caproic acid-N-hydroxysuccinimide ester by covalent attachment. 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 Biotin Conjugated Anti-Mouse IgG is determined by Enzyme Linked Immunosorbent Assay (ELISA). The conjugate is specific for mouse IgG and mouse IgG Fab fragment. Cross reactivity of the antibody-conjugate is also determined by ELISA. The conjugate shows no reactivity with mouse IgG 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 against anti-goat IgG and anti-goat whole serum result in single arcs of precipitation.

Reagents

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

Precautions

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 hazards and safe handling practices.

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

Product Profile

Antibody content is at least 2 mg/ml

Titers

- 1:200,000 to 1:300,000 (Direct ELISA)
Titer is defined as the dilution of conjugate that gives a change in absorbance of 1.0 at 450 nm after 30 minutes of substrate conversion at 25 °C (Voller, et al., and Guesdon et al.)^{1,2}. Microtiter plates are coated with purified mouse IgG at a concentration of 1 μ g/ml in 0.05 M carbonate/bicarbonate buffer pH 9.6 (Carbonate/Bicarbonate Buffer Capsules are available as Product No. C3041). Following incubation with the biotinylated antibody a 2 μ g/ml solution of ExtrAvidin® -Peroxidase (Product No. E2886) is added.

Substrate: 0.04% o-Phenylenediamine Dihydrochloride* (OPD, Product No. P8412), and 0.012% Hydrogen Peroxide* (H₂O₂, Product No. H 1009) in phosphate-citrate buffer, pH 5.0 [25.7 ml 0.2 M dibasic sodium phosphate (Product No. S 0876), 24.3 ml 0.1 M citric acid (Product No. C7129) and 50 ml deionized water].

*Add immediately before use.

2. Dot Blot

- a. A dilution of at least 1:40,000 was determined in a direct assay using 40 ng mouse IgG/dot and ExtrAvidin-Peroxidase at 1-2 µg/ml.
- b. A dilution of at least 1:40,000 was determined in an indirect assay using 20 ng human IgG/dot and Mouse Monoclonal Anti-Human IgG (Product No. I5885) as the first antibody and ExtrAvidin- Peroxidase at 1-2 µg/ml.
- c. In an indirect chemiluminescence system using 20 ng human IgG/dot, Mouse Monoclonal Anti-Human IgG (Product No. I5885) as the primary antibody and ExtrAvidin- Peroxidase at 1-2 µg/ml, this product was determined to have a dilution of at least 1:40,000 when used as secondary antibody. Luminol plus enhancer was used as substrate.

3. Immunohistology

A dilution of at least 1:200 was determined in an indirect assay using formalin-fixed, paraffin-embedded human tonsil and Mouse Monoclonal Anti-Human IgG (Product No. I5885) as primary antibody and ExtrAvidin-Peroxidase at 25 µg/ml.

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.

Storage

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.

References

1. Voller, A., et al., Bull. World Health Organ., **53**, 55 (1976).
2. Guesdon, J.L., et al., J. Histochem. and Cytochem., **27**, 1131 (1979).

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