Product Information

Anti-Goat/Sheep IgG–Peroxidase antibody, Mouse Monoclonal

Clone GT-34, Purified from hybridoma cell culture

A9452

Product Description

Monoclonal Anti-Goat/Sheep IgG-Peroxidase is derived from the GT-34 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from mice immunized with goat IgG conjugated to purified horseradish peroxidase. Purified mouse immunoglobulin is conjugated to peroxidase by protein cross-linking with 0.2% glutaraldehyde.

Monoclonal Anti-Goat/Sheep IgG-Peroxidase recognizes an epitope located on the heavy chain of both goat IgG1 and IgG2. The product shows strong cross-reactivity with sheep IgG and cross-reacts with bovine IgG. No cross-reaction of the unconjugated monoclonal antibody is observed with human serum and tissue components, or with IgG derived from the following species: human, guinea pig, rat, mouse, rabbit, horse, dog, chicken, pig and cat.

Monoclonal Anti-Goat/Sheep IgG-Peroxidase may be used for the localization of goat or sheep IgG using various immunochemical assays including ELISA, immunohistology and dot immunobinding assay.

Goat antibodies against numerous analytes are widely used as primary antibodies in many research techniques. Polyclonal antibodies that are commonly used to detect these goat antibodies often lack specificity to goat IgG and may recognize non-related immunoglobulins appearing in the tested preparation. This is often observed when the tested preparation is of human origin. The use of a peroxidase-conjugated monoclonal antibody to goat IgG which is devoid of any binding capacity to human and many other species can serve as an essential tool in most applications, especially immunohistology.

Reagent

Supplied as a lyophilized powder from 0.01 M phosphate buffered saline containing 1% BSA and 0.05% MIT as preservative.

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Product Profile

IgG concentration

5-11 mg/mL

Molar Ratio (IgG: Peroxidase)

0.7-1.5

Direct ELISA

Minimum titer 1:30,000

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.[1]

Microtiter plates are coated with goat 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 Cat. No. C3041.

Substrate: *o*-Phenylenediamine dihydrochloride (OPD, Cat. No. P8287), 0.4 mg/mL in 0.05 M phosphate-citrate buffer, pH 5.0, containing 0.03% sodium perborate.

Phosphate-Citrate Buffer with Sodium Perborate capsules are available as Cat. No. P4922.

Dot Blot

In an indirect chemiluminescence system using 20 ng human IgG/dot and Goat Anti-Human IgG (Cat. No. I1011) as the primary antibody, this product was determined to have a minimum dilution of 1:160,000 when used as secondary antibody. Luminol plus enhancer was used as substrate.

Immunohistology

A minimum dilution of 1:100 was determined in an indirect assay using formalin-fixed, paraffin-embedded human tonsils. Goat Anti-Human IgG was used as the primary antibody.

Note: 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.

Reconstitution and Storage Instructions

To one vial of lyophilized powder, add 0.5 mL of deionized water. Rotate vial gently until powder dissolves. Prior to reconstitution, store the product at 2-8 °C. After reconstitution, the solution may be stored frozen in working aliquots. Repeated freezing and thawing 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).

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