Product Information

Anti-Rabbit IgG (γ-chain specific)–Peroxidase Antibody, Mouse Monoclonal

Clone RG-96, Purified from Hybridoma Cell Culture

A1949

Product Description

Anti-Rabbit IgG (γ-chain specific)-Peroxidase Antibody, Mouse Monoclonal is a monoclonal anti-rabbit IgG conjugated to horseradish peroxidase. Monoclonal anti-rabbit IgG is derived from the RG-96 hybridoma produced by the fusion of mouse myeloma cells and splenocytes from mice immunized with rabbit IgG. The immunoglobulin fraction of the ascites fluid is conjugated to peroxidase by protein crosslinking with 0.2% glutaraldehyde.

Anti-Rabbit IgG (γ-chain specific) Peroxidase Antibody, Mouse Monoclonal recognizes an epitope located on the γ (heavy)-chain of rabbit IgG. In immunoblotting, the antibody recognizes both native and denatured forms of rabbit IgG. In ELISA, the antibody is specific for rabbit IgG, and shows no cross-reactivity with rabbit IgA and IgM or human IgG, IgA, and IgM. No cross-reaction is observed with IgG from the following species: bovine, cat, chicken, dog, goat, guinea pig, horse, pig, rat, or sheep.

Monoclonal Anti-Rabbit IgG (γ-chain specific)-peroxidase may be used for the localization of rabbit IgG using various immunochemical assays including ELISA, immunohistology, and dot immunobinding assay.

Rabbit antibodies against numerous analytes are widely used as primary antibodies in many research techniques. Polyclonal antibodies that are commonly used to detect these rabbit antibodies often lack specificity to rabbit 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 peroxidase conjugated monoclonal antibody to rabbit 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

The conjugated antibody is lyophilized from 0.01 M phosphate buffered saline, pH 7.4, containing 1% bovine serum albumin and 0.05% MIT.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses.

Preparation Instructions

To one vial of lyophilized powder, add 0.5 mL of deionized water. Rotate vial gently until powder dissolves.

Storage/Stability

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.

Product Profile

Molar Ratio: (IgG:Peroxidase) 0.7 to 1.4

Titers

Direct ELISA

Minimum 1:40,000 multi-well plates are coated with rabbit IgG at a concentration of 5 µg/mL in 0.05 M Carbonate-Bicarbonate buffer, pH 9.6, capsules, (C3041).

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]

Substrate

o-Phenylenediamine dihydrochloride (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 (P4922).

Immunoblotting

A working dilution of 1:160,000 is determined using immunoblot assay detecting β-Actin in total cell extract of HeLa cells (5-10 µg per well).

Immunohistology

A dilution of at least 1:200 was determined in an indirect assay using formalin-fixed, paraffin-embedded human tonsils. Rabbit Anti-Human IgG (I8635) 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.

Reference

1. Voller, A. et al., Bull. World Health. Organ. 53, 55 (1976).

Notice

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