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Product Information

**ANTI-RAT IgG (WHOLE MOLECULE)
PEROXIDASE CONJUGATE
Affinity Isolated Antigen Specific Antibody
Adsorbed with Human IgG**

Product Number **A 5795**

Product Description

Anti-rat IgG(whole molecule) is developed in rabbit using purified rat IgG as the immunogen. The antibody is isolated from rabbit anti-rat IgG antiserum by immunospecific purification which removes essentially all rabbit serum proteins, including immunoglobulins, which do not specifically bind to rat IgG. The antibody preparation is solid phase adsorbed with human IgG to ensure minimal cross reactivity in tissue or cell preparations. Rabbit anti-rat IgG is conjugated to peroxidase by protein cross linking with 0.2% glutaraldehyde.

Specificity of the anti-rat IgG is determined by immunoelectrophoresis (IEP) using normal rat serum and rat IgG. The conjugate shows no reaction with human IgG by IEP.

Identity and purity of the antibody is established by immunoelectrophoresis, prior to conjugation. Electrophoresis of the antibody preparation followed by diffusion against anti-rabbit IgG and anti-rabbit whole serum results in single arcs of precipitation.

Reagent

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

Precautions and Disclaimer

This product is for research use only. Consult the MSDS for information regarding hazards and safe handling practices.

Storage/Stability

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.

Product Profile

Molar Ratio (IgG: Peroxidase): 0.8 to 1.5

Titers

- 1:50,000 to 1:60,000 (Direct ELISA)
We are now reporting lot specific information as a titer by direct ELISA rather than as a working dilution (see below). Multiwell plates are coated with purified rat 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. 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 (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 Capsules with Sodium Perborate are available as Product No. P 4922).

2. Dot Blot
- a. A minimum dilution of 1:12,000 was determined in a direct assay using 40 ng of rat IgG/dot.
 - b. A minimum dilution of 1:12,000 was determined in an indirect assay using 20 ng of human IgG/dot and rat anti-human IgG as the primary antibody.
 - c. In an indirect chemiluminescence system using 10 ng of human IgG/dot and rat anti-human IgG 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 1:750 was determined in an indirect assay using formalin-fixed, paraffin-embedded human tonsil and rat anti-human IgG 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.

References

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

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