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ProductInformation

ANTI-RAT IgG (WHOLE MOLECULE)
ALKALINE PHOSPHATASE CONJUGATE
IgG Fraction of Antiserum

Product Number **A 0543**

Product Description

Anti-Rat IgG (whole molecule) is developed in rabbit using IgG isolated from pooled normal rat serum as the immunogen. The antibody is isolated from rabbit anti-rat IgG antiserum by immunospecific purification to remove essentially all rabbit serum proteins, including immunoglobulins, which do not specifically bind to rat IgG. Rabbit anti-rat IgG is conjugated to Sigma alkaline phosphatase using 0.2% glutaraldehyde.

Specificity of the anti-rat IgG antibodies for rat IgG is determined by immunoelectrophoresis and double diffusion assays prior to conjugation using normal rat serum and rat IgG.

Reagents

The conjugate is provided as a solution in 0.05 M Tris buffer, pH 8.0, containing 1% BSA, and 1 mM $MgCl_2$, with 0.1% sodium azide as 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 hazards and safe handling practices.

Storage/Stability

Store at 2-8 °C. **Do Not Freeze**.

Product Profile

1. Minimum 1:20,000 (Direct ELISA)
   We are now reporting lot specific information as a titer by direct ELISA rather than as a working dilution. Titer is defined as the dilution of conjugate sufficient to give a change in absorbance of 1.0 at 405 nm after 30 minutes of substrate conversion at 25 °C.[1] Microtiter 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. C 3041).
   Substrate: *p*-Nitrophenyl Phosphate (pNPP, Product No. N 2765), 1.0 mg/ml in 10% diethanolamine buffer, pH 9.8, containing 0.01% $MgCl_2$ and 0.02% NaN_3.
2. Dot Blot
   a. A minimum dilution of 1:30,000 was determined in a direct assay using 2.5-40 ng rat IgG/dot.
   b. A minimum dilution of 1:150,000 was determined in an indirect assay using 2.5-40 ng human IgG/dot and rat anti-human IgG as the primary antibody.
   c. In an indirect chemiluminescence system using 2.5-40 ng human IgG/dot and rat anti-human IgG as the primary antibody, this product was determined to have a minimum dilution of 1:1,000 when used as secondary antibody. Luminol plus enhancer was used as substrate.
3. Immunohistology
   A minimum dilution of 1:50 was determined by an indirect assay using formalin-fixed, paraffin-embedded human tonsil and rat anti-human IgG as the primary antibody.

Working dilution should be determined by titration assay. Due to product improvement and changes in the assay procedure, we now list a lot specific titer by direct ELISA for this product. Due to differences in assay systems, this titer 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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