

Product Information

Monoclonal Anti-Rabbit Immunoglobulins Biotin Conjugate Clone RG-16

Immunoglobulin Fraction of Mouse Ascites Fluid

Product Number **B 3275**

Product Description

Monoclonal Anti-Rabbit Immunoglobulins (mouse IgG1 isotype) is derived from the hybridoma produced by the fusion of mouse myeloma cells and splenocytes from an immunized mouse. Purified rabbit IgG was used as the immunogen. The isotype is determined using Sigma ImmunoType™ Kit (Product Code ISO-1) and by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents (Product Code No. ISO-2). The immunoglobulin fraction of the ascites fluid containing anti-rabbit immunoglobulins is conjugated to epsilon amino caproyl biotin. This covalent coupling of biotin to the immunoglobulin allows for the binding of Avidin, ExtrAvidin® or Streptavidin bearing a variety of different labels.

Monoclonal Anti-Rabbit Immunoglobulins is specific for an epitope on the heavy chain rabbit IgG, IgA, and IgM. In an immunoblot of denatured non-reduced rabbit immunoglobulins, the antibody stains bands of the whole molecule and at the heavy chains. Reduction of rabbit immunoglobulins appears to destroy the epitope. In an ELISA procedure, the product shows no cross reaction with human serum (IgG, IgA, and IgM) or tissue preparations. No cross reaction is observed with IgG from the follow species; bovine, cat, chicken, dog, goat, guinea pig, horse, pig, rabbit, rat, sheep, or turkey.

Rabbit antibodies against many analytes are in wide use as primary antibodies in various assay techniques, both in research and clinical practices. Second antibodies to rabbit immunoglobulins may suffer from the lack of specificity and as a result will recognize non-related immunoglobulins that may appear in a test preparation. This is often the case when the test preparation is of human origin. As a result, an extensive adsorbing step has to be integrated into the manufacturing process of these second antibodies. The use of a biotin conjugated monoclonal antibody to rabbit immunoglobulins which is devoid of any binding capacity to human and many other species immunoglobulins can therefore serve as an essential tool in many applications.

Biotin Monoclonal Anti-Rabbit Immunoglobulins may be used for the localization of the rabbit immunoglobulins IgG, IgA, or IgM in a variety of immunochemical assays such as, ELISA, immunoblotting, dot blotting, and immunocytochemistry.

Reagents

The conjugate is provided a a liquid in 0.01 M phosphate buffered saline, pH 7.4, with 1% BSA and 15 mM sodium azide as a 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

For continuous use, store at 2-8 °C for up to one month. For extended storage, solution may be frozen in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify by centrifugation before use.

Product Profile

1. ELISA
A minimum working dilution of 1:60,000 was determined using Rabbit IgG at 1 µg/ml (freshly prepared) as the coat, with ExtrAvidin®-Peroxidase (Product No. E 2886) and o-phenylenediamine dihydrochloride tablets (OPD, Product No. P 8787).
2. Dot Blot
 - a. A minimum dilution of 1:30,000 was determined by direct dot blot using 40 ng of rabbit IgG/dot.
 - b. A minimum dilution of 1:150,000 was determined by indirect dot blot using 20 ng of human IgG/dot and Rabbit Anti-Human IgG (Product No. I 8635) as the primary antibody.

3. Immunohistology

A minimum working dilution of 1:1,500 was determined by indirect assay using formalin-fixed, paraffin-embedded human tonsil and Rabbit Anti-Human IgG (Product No. I 8635) as the primary antibody.

In order to obtain best results, it is recommended that each individual user determine their optimal working dilution by titration assay.

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