

Antibody diluent

Reference: AP12000



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INTENDED USE AND PRESENTATION:

For *in vitro* diagnostic use.

AP12000, 100 mL. Ready to use.

SUMMARY, EXPLANATION AND LIMITATIONS:

Antibody diluents used in immunohistochemistry should protect the antibody from microbial contamination and stabilize the antibody chemically. Antibody Diluent reduces non-specific binding of antibodies to tissue sections and is therefore extremely useful in receiving background-free staining results.

Immunohistochemistry is a complex technique involving both histological and immunological detection methods. It requires a highly trained histotechnologist. Tissue processing and handling prior to immunostaining, for example variations in fixation and embedding or the inherent nature of the tissue can cause inconsistent results (Nadji and Morales, 1983). Inadequate counterstaining and mounting can influence the interpretation of the results.

APPLICATIONS:

Antibody Diluent is developed for dilution of certain primary antibodies. Antibodies diluted with Antibody Diluent are primarily used in immunohistochemistry with formalin-fixed paraffin-embedded tissue sections, but also with frozen, HOPE-fixed, and cytological samples as well as in immunoblot procedures. Can be used in automatic staining procedures.

The interpretation of the stain results is the full responsibility of the user. Any experimental result must be confirmed by a medically established diagnostic product or procedure.

REAGENT PROVIDED:

100 mL. **Antibody diluent**, Ready to use.

METHOD AND PROCEDURE:

Principle of the method: The IHC as technique to demonstrate the presence of an antigen in tissues and cells, is a sequential procedure of several steps: the application of antibody specific for the antigen of interest (primary antibody), the detection and visualization of bound antibody by one of a variety of enzyme chromogenic systems and washing steps. The chromogenic enzyme activation results in a visible product at the site where the antigen is located. The results can be evaluated in a light microscope.

Immunohistochemical staining procedures often start with incubation of a blocking solution to reduce unspecific binding of primary antibody to tissue sections. This step can be omitted if the antibody used is diluted in Antibody Diluent.

Antibody Diluent

- minimises unspecific binding of the primary antibody to the tissue section,
- reduces surface tension of the antibody solution and improves spreading the reagent on the slide,
- increases microbial and chemical stability of the antibody,
- reduces adhesion of antibody to the surface of the vial,

- and minimises the danger of antibody degradation by proteolytic enzymes.

Specimen: Formalin-fixed paraffin-embedded tissue section.

Reagent preparation: Antibody Diluent is a ready-to-use buffered solution (pH 7.4), with carrier protein and preservative for stabilization.

Procedure: Mix the Antibody Diluent with the primary antibody in a ratio recommended by manufacturer of primary antibody.

See our web site at www.genova-europe.com for detailed protocols ancillary reagents and support products.

REQUIRED MATERIALS BUT NOT SUPPLIED:

All reagents, materials, and laboratory equipment for IHC procedures are not provided with this product. This includes primary antibodies, adhesive slides and cover slips, positive and negative control tissues, Xylene or adequate substitute, ethanol, distilled H₂O, heat pretreatment equipment (pressure cooker, steamer, microwave), pipettes, Coplin jars, glass jars, moist chamber, histological baths, negative control reagents, counter-staining solution, mounting materials, and microscope.

Antibodies, buffered solutions for antigen retrieval, enzyme treatments, others highly sensitive detection systems, and other auxiliary reagents are available from Genova Scientific.

STORAGE AND STABILITY:

Store at 2-8 °C without further dilution and do not freeze it. Do not use after the expiration date. If fresh solutions are required, these must be prepared immediately prior to use, and will be stable for at least 6 hours if stored in a dark place. Unused portion of working solution should be discarded after this time. If the product is stored under different conditions from those stipulated in these technical indications, the new conditions must be verified by the user.

Genova Scientific guarantees that the product will maintain all of the described characteristics from the production date until the expiration date, as long as the product is stored and used as recommended. No other guarantees are provided. Under no circumstances is Genova Scientific obliged to cover damages caused by use of this reagent.

TROUBLESHOOTING:

If you observe unusual staining or other deviations from the expected results please read these instructions carefully, contact Genova Scientific's technical support or your local distributor. Also refer to the instructions of the detection systems for guidance on general troubleshooting.

PRECAUTIONS:

Use only by qualified personnel.

Use proper protective equipment in order to avoid contact with reagents and samples in the eyes, skin, and mucosal tissues. In case of contact with sensitive areas, immediately flush the affected area with water. Avoid microbial



Catalog number



Batch code



In Vitro diagnostic medical device



Temperature limitation



Expiration date



Manufacturer



See instruction for use



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contamination of the reagent, as this may produce nonspecific staining results. Material safety data sheet (MSDS) is available upon request.

PERFORMANCE CHARACTERISTICS:

Genova Scientific has conducted studies to evaluate the performance of the kit reagents. The product has been found to be suitable for the intended use.

BIBLIOGRAPHY:

Elias JM "Immunohistopathology – A practical Approach to Diagnosis" ASCP Press 2003
Nadji M, Morales AR. Immunoperoxidase, part 1: the techniques and its pitfall. Lab Med 1983; 14:767-770.

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