

Protein Blocking Solution

Reference: AP12004



1 of 2

INTENDED USE AND PRESENTATION:

For *in vitro* diagnostic use.

AP12004. 100 mL. Ready to use

SUMMARY, EXPLANATION AND LIMITATIONS:

Unspecific binding of primary and secondary antibodies to tissue sections in immunohistochemical staining procedures can result in background staining. This effect can be eliminated when tissue sections are incubated with Blocking Solution prior to incubation with the primary antibody. The Protein in Blocking Solution abolishes unspecific binding.

Blocking Solution is a universal blocking reagent. Unlike other frequently used blocking solutions (e. g. serum blocks) the reagent can be used regardless of the origin species of the secondary antibody. Interferences with secondary antibodies or other components of detection systems are not observed. In contrast to other blocking reagents this Blocking Solution should not be incubated longer than 10 minutes and should be rinsed away with wash buffer (eg. AP12005/AP12006). Otherwise the signal intensity of the immunohistochemical staining reaction could be decreased.

Immunohistochemistry (IHC) is a complex technique in which immunological and histological detection methods are combined. In general, the manipulation and processing of tissues before immunostaining, especially different types of tissue fixation and embedding, as well as the nature of the tissues themselves may cause inconsistent results (Nadji and Morales, 1983).

APPLICATIONS:

Protein Blocking Solution is developed to eliminate unspecific binding of primary and secondary antibodies to tissue sections. It is primarily intended to be used in immunohistochemistry on formalin-fixed paraffin-embedded samples.

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 **Protein Blocking Solution**, 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.

Blocking Solution is applied on tissue sections to reduce background staining due to unspecific binding of primary and secondary antibodies in immunohistochemistry. The step is carried out prior to incubation with the primary antibody.

Specimen: Formalin-fixed paraffin-embedded tissue section.

Reagent preparation: Protein Blocking Solution is ready-to-use and should be at room temperature prior to use.

Procedure: The Protein in Blocking Solution abolishes unspecific binding.

1. Apply Blocking Solution for 5 minutes at room temperature. The section should be covered completely.

2. Rinse with wash buffer.

3. Proceed with next steps for immunohistochemical staining as usual starting with the primary antibody.

See our web site at www.gennova-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 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.

Buffered solutions for antigen retrieval, enzyme treatments, highly sensitive detection systems, and other auxiliary reagents are available from Gennova Scientific.

STORAGE AND STABILITY:

The solution should be stored at 2-8°C without further dilution until the expiration date printed on product label. Do not freeze it. Do not use after the expiration date. If the product is stored under different conditions from those stipulated in these technical indications, the new conditions must be verified by the user.

Gennova 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 Gennova Scientific obliged to cover damages caused by use of this reagent.

TROUBLESHOOTING:

If unusual staining is observed or any other deviations from the expected results, please read these instructions carefully, along with the instructions from the detection system. If this does not solve the problem, please contact Gennova Scientific's technical support department or your local distributor.

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 contamination of the reagent, as this may produce



Catalog number



Batch code



In Vitro diagnostic medical device



Temperature limitation



Expiration date



Manufacturer



See instruction for use



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2 of 2

nonspecific staining results. Material safety data sheet (MSDS) is available upon request.

PERFORMANCE CHARACTERISTICS:

Gennova Scientific has performed studies to evaluate the functioning of the kit for use with standard detection systems, concluding that 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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