

Instructions for use

Product name	Monosan Peroxid-Block
Intended Use	The blocking solution Peroxide Block is intended for inhibition of endogenous peroxidase activity in tissue sections. It is primarily intended to be used in immunohistochemistry on formalin-fixed paraffin-embedded samples if using a detection system with horse radish peroxidase.
Applications	IHC-P, IHC-Fr, IF
Summary and explanation	Endogenous peroxidase activity in the tissue can result in unspecific background staining in immunohistochemical staining procedures using horse radish peroxidase (HRP) as detection enzyme. This effect can be eliminated when tissue sections are incubated with Peroxide Block prior to immunohistochemical staining. Hydrogen peroxide in the solution blocks the activity of endogenous peroxidase.

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Principle of method

Peroxide Block is applied onto tissue sections to reduce non-specific staining due to endogenous peroxidase activity in immunohistochemistry. The step is carried out before incubation with primary antibody but after dewaxing and rehydration. If a heat induced epitope retrieval (HIER) or enzymatic digestion is necessary for immunohistochemical detection it is of no importance if the Peroxide Block is used before or after this step. In some cases it has been shown, that blocking of endogenous peroxidase before the epitope retrieval leads to better results.

Reagents provided

500 ml Peroxide Block (ready-to-use)

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Storage and handling

The solution should be stored at 2-8°C without further dilution. Please store the reagent in a dark place and do not freeze it. Avoid exposure to strong light. Under these conditions the solution is stable up to the expiry date indicated on the label. Do not use product after the expiry date. A positive and a negative control have to be carried out in parallel to the test material. If you observe unusual staining or other deviations from the expected results which could possibly be caused by this reagent, please contact our technical support.

Reagent preparation

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Procedure

1. Apply Peroxide Block for 10 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 protein blocking or the primary antibody.

Expected results

During the reaction of the substrate with horse radish peroxidase or alkaline phosphatase in the presence of a chromogen, a coloured precipitate is formed at the location of the bound primary antibody. This reaction only takes place if the target antigen is existent in the tissue. The chromogen used determines the colour of the precipitate. The analysis is carried out using a light microscope

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Trouble shooting

If you observe unusual staining or other deviations from the expected results please read these instructions carefully, contact our technical support. Also refer to the instructions of the detection systems containing Peroxide Block for guidance on general troubleshooting

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Quality control

We recommend carrying out a positive and a negative control with every staining run. The positive control permits the validation of appropriate processing of the sample. If the negative control has a positive result, this points to unspecific binding. Please refer to the instructions of the detection system for guidance on general quality control procedures.

Performance

Studies have been conducted to evaluate the performance of the kit reagents. The product has been found to be suitable for the intended use

Limitations of procedure

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. Sanbio guarantees that the product will meet all requirements described from its shipping date until its expiry date, as long as the product is correctly stored and utilized. No additional guarantees can be given. Under no circumstances shall Sanbio be liable for any damages arising out of the use of the reagent provided.

Precautions

Use by qualified personnel only. Wear protective clothing to avoid contact of reagent or specimen with eye, skin or mucous membrane. In case of the reagent or specimen coming into contact with a sensitive area, wash the area with large amounts of water. Microbial contamination of the reagent must be avoided, since otherwise non-specific staining may occur. A material safety data sheet (MSDS) is available upon request

References

1. Elias JM Immunohistopathology – A practical Approach to Diagnosis ASCP Pr
2. Nadji M and Morales AR Ann N.Y. Acad Sci 420:134-139, 1983
3. -

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