Peroxide Block

REF / Cat. No.: ZUC019-008 8 ml
ZUC019-100 100 ml
ZUC019-500 500 ml

Instructions for use

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.
Peroxide Block is intended for research use only.

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.

Principle of the 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.

Reagent provided

REF / Cat. No. ZUC019-008
8 ml **Peroxide Block (ready-to-use)**

REF / Cat. No. ZUC019-100
100 ml **Peroxide Block (ready-to-use)**

REF / Cat. No. ZUC019-500
500 ml **Peroxide Block (ready-to-use)**

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 Zytomed Systems' technical support or your local distributor.

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.

Staining 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.

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.

Troubleshooting

If you observe unusual staining or other deviations from the expected results please read these instructions carefully, contact Zytomed Systems' technical support or your local distributor. Also refer to the instructions of the detection systems containing Peroxide Block for guidance on general troubleshooting (e. g. the kits HRP008DAB or HRP008AEC).

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.

Limitations of the 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.
Zytomed Systems 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 Zytomed System be liable for any damages arising out of the use of the reagent provided.

Performance characteristics

Zytomed Systems has conducted studies to evaluate the performance of the reagent. The product has been found to be suitable for the intended use.

Bibliography

Nadji M and Morales AR Ann N.Y. Acad Sci 420:134-9, 1983

www.zytomed-systems.de

Zytomed Systems GmbH • Anhaltinerstraße 16 • 14163 Berlin, Germany • Tel: (+49) 30-804 984 990

Explanations of the symbols on the product label

Symbols are used in accordance with ISO 15223-1. Further symbols on the product label might be:

GSH02: Flammable

GSH05: Caustic

GSH07: Attention / Warning

GSH08: Systemic health hazards

RUO For Research Use Only