Antibody Diluent C
(Special Diluent for certain antibodies)

REF / Cat. No.: ZUC103-025 25 ml
ZUC103-100 100 ml

Instructions for use

Intended use
Antibody Diluent C is especially developed for dilution of certain primary antibodies. Antibodies diluted with Antibody Diluent C are primarily used in immunohistochemistry with formalin-fixed and paraffin-embedded tissue sections, but also with frozen, HOPE-fixed, and cytological samples as well as in immunoblot procedures.
Antibody Diluent C is intended for research use only.

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

Principle of the method
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 C.
Antibody Diluent C

- 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.

Reagent provided

REF / Cat. No. ZUC103-025
25 ml **Antibody Diluent C** (ready-to-use)

REF / Cat. No. ZUC103-100
100 ml **Antibody Diluent C** (ready-to-use)

Storage and handling
The solution should be stored at 2-8°C without further dilution. Do not freeze it. Under these conditions the solution is stable up to the expiry date indicated on the label. Do not use product after the expiry date.
If stored at room temperature the solution is stable for at least 10 month from the date of delivery.
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.
(NaN_3), used for stabilisation, is not considered hazardous material in the concentration used. Sodium azide deposits in drainage pipes made of lead or copper can result in the formation of highly explosive metallic azides. To avoid such deposits in drainage pipes, sodium azide should be discarded in a large volume of running water. A material safety data sheet (MSDS) is available upon request.

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 staining. 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 for guidance on general troubleshooting.

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
Elias JM "Immunohistopathology – A practical Approach to Diagnosis" ASCP Press 2003

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

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1. 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