



ZYTOMED Systems Wash Buffer (20 X)

REF / Cat. No.: ZUC020-500 500 ml
ZUC020-2500 2500 ml

Instructions for use

Intended use

ZYTOMED Systems Wash Buffer is designed as washing solution for immunohistochemical and immunocytological staining procedures on slides. Wash Buffer is primarily used with formalin-fixed paraffin-embedded tissue sections, but also with frozen, HOPE-fixed, and cytological samples as well as in immunoblot procedures. ZYTOMED Systems Wash Buffer is suitable for manually operated and automated immunohistochemical staining. The solution is intended for in vitro diagnostic use.

Summary and explanations

Immunohistochemical staining procedures consist of sequential incubation steps with blocking solutions, antibodies and secondary reagents, enzymes and chromogenic substrates carried out on tissue sections. Washing away the applied reagents after each incubation step is critical to receive optimally stained samples. ZYTOMED Systems Wash Buffer is especially designed for effective washing and therefore ensures brilliant staining results.

Principle of the method

ZYTOMED Systems Wash Buffer is a 20fold concentrated phosphate buffer with additives of sodium chloride, detergent, and stabilising substances. For preparation of the working strength solution the buffer concentrate is diluted 1:20 with deionised or distilled water. The resulting solution has a pH of 7.2 (7.0 to 7.4).

ZYTOMED Systems Wash Buffer

- is wetting the tissue sections with detergent and thus reduces surface tension and improves spreading the reagents on the tissue section,
- reduces unspecific binding of reagents on the tissue sample,
- and because of the exact tuned salt concentration effects an excellent preservation of cell morphology.

Reagents provided

REF / Cat. No. ZUC020-500

500 ml ZYTOMED Systems Wash Buffer
(20fold concentrated, adequate for 10 litres ready-to-use wash buffer)

REF / Cat. No. ZUC020-2500

2500 ml ZYTOMED Systems Wash Buffer
(20fold concentrated, adequate for 50 litres ready-to-use wash buffer)

Storage and handling

The solution should be stored at room temperature. It is stable up to the expiry date indicated on the label if undiluted. Do not use product after the expiry date. The diluted working strength solution is stable for about 1 week depending on the ambient temperature. 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. ProClin 300 is used for stabilisation. A material safety data sheet (MSDS) is available upon request.

Reagent preparation

Preparation of the Wash Buffer working strength solution:

- Dilute ZYTOMED Systems Wash Buffer concentrate 1:20 with deionised or distilled water and mix thoroughly.
- The pH-value should be at 7.2 (7.0 to 7.4). If necessary adjust pH-value with diluted NaOH or HCl solution.

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 Wash Buffer is a 20fold concentrated solution with a mildly acidic pH-value. The correct pH-value of about 7.0 (+/- 0.2) is achieved after diluting the solution 1:20. Sometimes deionised water has pH-values considerably different from the neutral point (pH 7.0) depending on the preparation method. Experiments have shown that ZYTOMED Systems Wash Buffer can successfully be diluted with deionised or distilled with water in the pH-range of 5.5 up to 9.5.

If a detection system with alkaline phosphatase is used please note: larger amounts of wash buffer remaining on the slides can lead to decreasing enzyme activity.

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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Doc: DBE_ZUC020_500_2500

Explanation of the symbols on the product label:

	Bestellnummer Catalog Number Reference du catalogue		Verwendbar bis Use By Utiliser jusque		Gebrauchsanweisung beachten Consult Instructions for use Consulter les instructions d'utilisation
	Chargenbezeichnung Batch Code Code du lot		Lagerungstemperatur Temperature Limitation Limites de température		Nur für Forschungszwecke For Research Use Only Pour la recherche uniquement
	In vitro Diagnostikum In Vitro Diagnostic Medical Device Dispositif médical de diagnostic in vitro		Achtung/Gefahr Warning/Danger Attention/Danger		Hersteller / Manufacturer / Fabricant Zytomed Systems GmbH Anhaltinerstraße 16 14163 Berlin, Germany Tel: (+49) 30-804 984 990 www.zytomed-systems.de
	Achtung/Gefahr Warning/Danger Attention/Danger		Achtung Warning Attention		