# Phosphate Buffered Saline (10X)

**Laboratory Use Only**

**PRODUCT INFORMATION:**

**REF**

**PS028 100ml**
**PS028 500ml**

## INTENDED USE

**For *laboratory* use only**

Phosphate Buffered Saline (10X) is intended for use in immunohistochemistry (IHC) and immunofluorescence (IF) staining protocols.

## SUMMARY AND EXPLANATION

Phosphate Buffered Saline (10X) is a pH-adjusted blend of phosphate buffers and saline solutions. It pH is 7.4. Each 10X PBS solution is ready to use upon dilution to the desired concentration. It is used to rinse reagents off slides and to provide a medium for the short-term storage of immunohistochemistry and immunofluorescence specimens between reagent applications.

## PRINCIPLE OF THE PROCEDURE

PBS buffer is ideal for maintaining a constant pH. Since it is isotonic and non-toxic to cells, it can be used as a diluent for antibodies and as a wash buffer for immunological assays such as IHC and IF techniques. PBS buffer is used to rinse away reagents between steps of manual and automated IHC staining protocols, as well as between steps of the IF protocol. This solution helps maintain the morphological characteristics of the antibodies and their respective epitopes, promoting effective washing to prevent non-specific background staining (in the case of Immunohistochemistry) or auto-fluorescence (in the case of Immunofluorescence).

## STORAGE AND HANDLING

Store at 2-8 °C for up to 18 months from the date of manufacture (see product label for the expiration date). If desired, the solution may be stored at 4 °C or lower. Some salts may precipitate out of solution at a lower temperature. Allow the buffer to equilibrate to room temperature (18° to 26 °C) to restore the solubility of salts.

**Reagent Preparation**

1. Prepare a working solution as follows:
   Dilute the concentrated 10X PBS Buffer with DI water in a 1:10 ratio.

**Recommended Protocol(s)**

1. When used with manual IHC/ immunofluorescence (IF) staining protocols, agitate slides 5 times in the Phosphate Buffered Saline (PBS) Working solution to remove excess staining reagents. When used with automated IHC staining techniques, use according to the manufacturer's specifications for the instrument.

## INTERPRETATION OF RESULTS

The clinical interpretation of any staining, or the absence of staining, must be complemented by morphological studies and evaluation of proper controls. A qualified pathologist must evaluate the patient within the context of their clinical history and other diagnostic tests.

## QUALITY CONTROL PROCEDURES

**Appearance**

Colourless, straightforward solution.

**pH:**

pH of 1X Working solution: 7.20 -7.60
pH of 10X Stock solution: 6.70 -7.00

## WARNINGS AND PRECAUTIONS

1. This product is for laboratory use and is to be used by professionals only.
2. Do not use it after the expiration date printed on product labels. The user must validate any storage conditions that differ from those specified in the package insert.
3. Bring all reagents, slides, and specimens to room temperature (18- 24° C) prior to use.
4. Cross-contamination of reagents or samples may give false results.
5. Avoid contamination of reagents, as this could produce incorrect results.
6. Avoid contact with reagents in the eyes and mucous membranes. If reagents come into contact with sensitive areas, wash them thoroughly with copious amounts of water.
7. Do not smoke, eat, or drink in areas where specimens or reagents are handled.
8. Reusable glassware must be washed and thoroughly rinsed free of detergents prior to use. All glassware must be clean and dry before use.
9. Never pipette by mouth and avoid contact with reagents and specimens with skin and mucous membranes. If contact occurs, wash with copious amounts of water.
10. Do not use the product if the packaging, including bottles and vials, has been compromised and/or shows evidence of cloud appearance, discolouration, drying, cracking, or other signs of deterioration.

## TROUBLESHOOTING

1. Follow the specific protocol recommendations according to the data sheet provided.
2. Gently mix all the reagents prior to use.
3. If unusual results occur, contact PathnSitu Technical Support at +91-40-2701 5544 or E-mail: techsupport@pathnsitu.com.

## LIMITATIONS AND WARRANTY

1. This product is intended for use only by authorised, trained, and qualified personnel.
2. A qualified and trained pathologist/personnel must interpret the results of the test.
3. Interpretation of test results must be made in conjunction with relevant background information and additional laboratory findings.
4. Always use the recommended volume and concentration of reagents to ensure complete coverage of the tissue section and to minimise the risk of false-positive or false-negative results.
5. Use appropriate buffers, instruments, consumables, and incubation conditions as recommended to achieve optimal staining performance.
6. It is strongly recommended to include known positive and negative controls when performing the test to ensure the validity of results.
7. The product has been validated on formalin-fixed, paraffin-embedded (FFPE) tissues. The end user must establish performance on other tissue types.
8. Unexpected results may occur in untested tissues due to inherent variability in tissue components.
9. False-positive reactions may occur due to insufficient washing, inappropriate protocol conditions, or other contributing factors.
10. Maintain the product under the recommended storage conditions to preserve reagent stability and performance.
11. Do not use reagents that appear cloudy, discoloured, or show signs of contamination. Discard any components showing signs of deterioration.
12. PathnSitu makes no warranties beyond those expressly stated in the product description.
13. PathnSitu shall not be liable for property damage, personal injury, time or effort, or economic loss arising from the use of this product.
14. Please refer to the complete datasheet for all instructions, precautions, and additional product limitations.
15. For detailed information and specifications on individual components, please refer to the Product Material Safety Data Sheet (MSDS)

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## REFERENCES


1. Lennette EH, Halonen P and Murphy FA. Laboratory Diagnosis of Infectious Disease - Principles and Practices (1988). Springer, New York, p.43.
2. WHO Manual for the laboratory diagnosis and virological surveillance of influenza, 2011.
3. Winn, W. C., & Koneman, E. W. (2006). Koneman's color atlas and textbook of diagnostic microbiology (6th ed.). Philadelphia: Lippincott Williams & Wilkins.
4. WHO Guidelines on the Establishment of Virology Laboratories in Developing Countries, 2008.





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## EXPLANATION OF SYMBOLS


Lot number / Batch number

Expiry

Storage limitation

Manufacturer address

Date of manufacture


Catalogue number



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