Technical Data Sheet

10X Zinc Fixative (Formalin Free)

Product Information

Material Number: Size: **552658** 500 mL

Description

10X Zinc Fixative is a Tris-based buffer with zinc ions for fixation of tissue for immunohistochemical staining. Zinc fixation is an alternative to formalin fixation of tissue for paraffin embedded sections. 10% neutral buffered formalin fixes the tissue by cross-linking proteins, but may cause a conformational change or "masking" of the antigenic epitope leading to reduced or absent antibody reactivity. Different antigen retrieval techniques can be used to unmask the epitope, such as with BD Retrievagen A and B solutions. It is not possible, however, in some situations to retrieve the epitope and obtain optimal immunohistochemical staining. In these situations, the fixation of tissue with IHC Zinc Fixative is recommended, as it is a milder fixative compared to formalin. Zinc-fixed, paraffin embedded sections can provide for excellent immunostaining results for many different leukocyte markers with tissue morphology comparable to formalin-fixation. Use of antigen retrieval techniques on zinc-fixed paraffin sections may even further enhance antibody reactivity in some cases. Investigators should note that some antigens may not be preserved by zinc-fixation and in these situations, the use of fresh frozen tissue for immunohistochemical staining is recommended.





10X Zinc Fixative: Mouse spleen fixed in zinc fixative (left panel) or neutral buffered formalin (right panel) was embedded in paraffin and sectioned. The sections were stained with anti-mouse CD45.1 antibody (Cat. No. 553774). Positive staining of cells can be identified by the intense brown labeling. Amplification 20X.

Preparation and Storage

Store undiluted at room temperature.

Application Notes

Application

Immunohistochemistry-zinc-fixed

Tested During Development

Recommended Assay Procedure:

10X Zinc Fixative must be diluted 1:10 in sterile water prior to use. For optimal immunohistochemical preservation of antigens, Zinc Fixative is recommended prior to processing and embedding into paraffin blocks. Fix tissues by placing freshly dissected tissue pieces (no larger than 3 mm in thickness) in Zinc Fixative and allowing to sit 24-48 hr at room temperature. Tissue can then be processed according to a normal processing schedule with the exception of 1X Zinc Fixative in station # 1 in place of 10% neutral buffered formalin. Tissue can then be embedded into a paraffin block for storage until microtome sectioning.

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Hazard Statements

Causes skin irritation. Causes serious eye damage. Toxic to aquatic life with long lasting effects.

Precautionary Statements

Wear protective clothing / eye protection. Wear protective gloves. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of water. Dispose of contents/container in accordance with local/regional/national/international regulations.

Suggested Companion Products

Catalog Number	Name	Size	Clone
550527	BD Retrievagen B (pH 9.5)	250 mL	(none)
550524	Retrievagen A (pH 6.0)	1000 mL	(none)

Product Notices

1. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Beckstead JH. A simple technique for preservation of fixation-sensitive antigens in paraffin-embedded tissues. J Histochem Cytochem. 1994; 42(8):1127-1134. (Methodology)

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