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TECHNICAL DATA SHEET 631

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PolyTransport Buffer

Catalog Number 24311

Introduction:

After removing a biopsy from a patient during surgery, it is often placed directly in fixative. Treatment with Neutral Buffered Formalin may be inappropriate for a variety of required procedures such as frozen sections or electron microscopy. Freezing the tissue immediately may cause artifacts to form upon defrosting the tissue, rendering it unfit for further histology and especially electron microscopy. Placing the tissue in a transport media designed to preserve the tissue in a viable state during transport and that is not a fixative can alleviate these issues.

PolyTransport Buffer is a specially formulated transport medium that allows the specimen to be placed in a solution that holds the osmolarity and the pH for 24 to 48 hours. This allows time to transport the specimen and divide it as required for different protocols, procedures, and fixatives. PolyTransport Buffer contains a cryoprotectant to assist in preventing artifacts such as ice crystal formation during rapid freezing techniques.

Advantages of PolyTransport Buffer:

- Contains a membrane stabilizing agent to prevent membrane lysis
- Contains a cryoprotectant to prevent ice crystal formation for frozen sections
- Inhibits bacterial growth and autolysis of specimen during transport
- Preserves proteins without denaturing or cross-linking
- Specimens will appear as fresh tissue
- Compatible with Immunohistochemistry (IHC) or histochemistry reactions
- Obtain excellent results with routine paraffin procedures and staining
- Electron Microscopy protocols can be completed with fixative of choice

Cold Transport and Storage:

It is recommended that specimens to be transported over a 24 to 48 hour period and be placed in a container with cold packs to maintain a temperature of 0°C to 4°C throughout shipment. This is extremely important when ambient temperatures are above 70°F. If the transport vehicle is not refrigerated there may be very high temperatures in the cargo area.

Stored specimens should be kept at 4°C until they are placed in the correct fixative or frozen. Room temperature storage or transport is not recommended for Electron Microscopy specimens and should be avoided for all specimens, if possible.

Limitations:

Excised or biopsy tissue should not be transported or held for more than 48 hours for routine paraffin processing. Electron Microscopy, frozen, IHC, and histochemistry specimens should be placed in fixative within 24 to 48 hours and processed as required. Electron Microscopy specimens ultrastructure is best preserved when processed within 24 hours.

Procedures for Use of PolyTransport Buffer:

The biopsy or specimen should be placed in PolyTransport Buffer at room temperature, immediately upon removal from the patient or animal. The temperature should then be immediately reduced to 4°C for transport. Introducing the warm specimen into PolyTransport Buffer at room temperature will assist in avoiding thermal shock and tissue deformation. Although the temperature of PolyTransport Buffer can be maintained at room temperature, the tissue may not retain all of the cellular morphology required for Electron Microscopy. Specimens larger than biopsies are not recommended for use with PolyTransport Buffer. The recommended specimen size is approximately 1mm to 1.5mm in thickness. Larger specimens cannot be penetrated quickly enough to prevent autolysis and cell damage.

Specimens do not require rinsing prior to placement in fixative for Light or Electron Microscopy. Specimens to be frozen can be placed on the chuck with PolyFreeze (Cat. #19636-1) and frozen immediately. The cryoprotect-

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tant in PolyTransport Buffer will assist in preventing ice crystal formation.

PolyTransport Buffer does not interfere with fixation or embedding techniques thus allowing its use with all forms of microscopy and staining techniques or reactions.

Storage of PolyTransport Buffer:

PolyTransport Buffer is stable for up to one year at room temperature. Once the solution is opened it should be used within six months. The solution cannot be reused.

Safety and Handling Precautions:

PolyTransport Buffer is harmful if swallowed. Drink copious amounts of water and call a physician if it is ingested accidentally.

Ordering Information

Cat. #	Description	Quantity
24311-250	PolyTransport Buffer	250ml
24311-500	PolyTransport Buffer	500ml
16864-3.75	Poly LEM Fixative (10% NBF not stabilized for LM & EM)	3.75L
09860-1	Reagent Alcohol	1 gallon
19636-1	PolyFreeze (Freezing Media)	1 case (6 x 120ml)
18606-20	Aqua-PolyMount (Aqueous Coverslipping Media)	20ml
08381-120	Poly-Mount (Coverslipping Media)	120ml
24216-1	Tissue Tack Microscope Slides™ (Silane Charged)	1 box
22247-1	Microscope Slides (Poly-L-Lysine Coated)	1 box
24300-1	<i>Embed-It</i> ™ Low Viscosity Epoxy Embedding Kit	1 kit
24198-1	Micro-Cut Paraffin (56-58°C) (22lbs.)	1 case
24201-1	Micro-Cut Paraffin (52-54°C) (22lbs.)	1 case

24202-1	Micro-Cut Paraffin (62-64°C) (22lbs.)	1 case
18646C-1	Peel-A-Way® Embedding Molds Rectangular R40 (264 molds)	1 case
18646B-1	Peel-A-Way® Embedding Molds Rectangular R30 (288 molds)	1 case
18646A-1	Peel-A-Way® Embedding Molds Square S22 (288 molds)	1 case
18986-1	Peel-A-Way® Embedding Molds Truncated T12 (288 molds)	1 case
18985-1	Peel-A-Way® Embedding Molds Truncated T8 (288 molds)	1 case
08389-1	Xylene, Histology Grade	1 gallon

To Order:

In The U.S. Call: 1-800-523-2575 • 215-343-6484

In The U.S. FAX: 1-800-343-3291 • 215-343-0214

In Germany Call: (49) 6221-765767

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Order online anytime at www.polysciences.com

Please see our catalog for our complete line of Light and Electron Microscopy Fixative and Embedding products.

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