



# Microscope Slides and Paraffin Block Storage and Handling

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## 1. Purpose

The purpose of this SOP is to provide a standardized method for the proper storage and handling of microscope slides and paraffin blocks.

## 2. Scope

Users of the ACTG/IMPAACT Lab Manual

## 3. Background

Microscope slides containing tissue or excreta samples and biopsy samples containing fixed tissue samples in paraffin blocks may be collected for immediate processing by a local testing laboratory, or shipped to a central laboratory for real-time or near-time testing, or shipped to a repository for long-term storage. The proper labeling, packaging and handling of microscope slides and paraffin-fixed tissue blocks is essential for ensuring the quality of the specimen.

## 4. Authority and Responsibility

- 4.1 The Network Laboratory Directors (or his/her designee) have the authority to establish, review and update this procedure.
- 4.2 The ACTG/IMPAACT Laboratory Technologist Committee (LTC) is responsible for the maintenance and control of SOP documentation.
- 4.3 The Laboratory Director is responsible for the implementation of this LTC SOP or laboratory-specific SOP and for ensuring that all appropriate personnel are trained. A laboratory SOP must:
  - 4.3.1 Include, without procedural modification, the portions of the current version of the LTC SOP that are used within the network site-affiliated laboratory.
  - 4.3.2 Reference the current version of the LTC SOP.
- 4.4 All laboratory technicians are responsible for reading and understanding this SOP prior to performing the procedures described.
- 4.5 The site PI and designees are responsible for understanding and adhering to the patient preparation and specimen collection components.

### 5. Materials and Supplies

#### 5.1 Slide Examples

5.1.1 VWR Frosted Bev-L-Edge\* Microscope Slide (Supplier: PROPPER MFG CO INC, Catalogue # 48300-740)

5.1.2 Fisherbrand™ Bev-L-Edge™ Frosted Microscope Slides (Catalogue # 12-549-6)

#### 5.2 Slide Holder and Mailer Examples

5.2.1 Cardboard Fisher single slide holder (Cat #12-587-23)

5.2.2 Cardboard Fisher Scientific Microslide Holder (Cat # 12-587-16)

5.2.3 Plastic Fisherbrand™ Two-Place Plastic Microscope Slide Mailer and Transporter (Cat # 04-335-45)

5.2.4 Plastic VWR® Microscope Slides Holders/Mailers (Cat # 95042-208)

#### 5.3 Paraffin Blocks

#### 5.4 Absorbent Lining Material

#### 5.5 Zip lock specimen bags

#### 5.6 Fiberboard storage box or large cardboard storage box

### 6. Procedure: Slides

#### 6.1 Types of Slides

6.1.1 Microscope slides used in the collection of tissues, blood, swabs smears or other samples should have the following description and specifications:

6.1.2 Each slide should be 75mm in length and 25mm wide (3" x 1"); preferably with round edges.

6.1.3 Only use slides with a frosted end to permit writing with a pencil.



**Slide Example:**

### 6.2 Slide Holders/Mailers

- 6.2.1 Cardboard single or dual slide holders may be used to store slides.
- 6.2.2 A single slide should be placed in a slide holder. Tape or a rubber band can be used to keep the slide holder closed during storage and shipping. The LDMS bar code label must be placed on the outside of the slide holder.
- 6.2.3 Plastic single or dual slide holders may be used to store slides.
- 6.2.4 A single slide should be placed in a slide holder. Tape or a rubber band can be used to keep the slide holder closed during storage and shipping. The LDMS bar code label must be placed on the outside of the slide mailer.

#### Slide Holder/Mailer Examples:



### 6.3 Storage of Slides

- 6.3.1 The slides should be labeled with the PID, date and protocol using a pencil on the etched end of the slide before the specimen is collected.
- 6.3.2 The slides should be allowed to dry completely per the LPC before sealing the slide holder.
- 6.3.3 Then slides should be placed in slide holders, either cardboard or plastic and secured with a rubber band or tape so the slide holder does not open during storage or shipping.
- 6.3.4 Place the LDMS barcode labels on the outside of the slide holder; this will allow labs and BRI to see LDMS information without opening the slide holder.

6.3.5 Follow the LPC instructions for the protocol for the proper storage conditions.

6.3.5.1 Slides in the slide holders can be stored per storage directions in the protocol LPC.

6.3.5.2 Slides holders should be stored on their side in 3” freezer boxes or as directed in the protocol LPC.

6.3.5.3 Larger numbers of slides can be stored and shipped in larger storage boxes (example below).

6.3.5.4 The storage boxes should be labeled in the same manner as cryovial shipments with the sending lab LDMS number, the receiving lab name and/or LDMS number and the LDMS shipping batch number.

#### 6.4 Shipping of Slides

6.4.1 The slide holder/mailler containing the properly labeled slides may be stacked on their side in a 2 or 3” freezer box for shipping to the repository or testing laboratory.

6.4.2 The boxes should be label the same as cryovial shipments with the sending lab LDMS number , the receiving laboratory name and/or LDMS number and the LDMS shipping batch number.

6.4.3 The storage boxes should be wrapped in bubble wrap, secured with a rubber band or tape and placed in an outer shipping box.

6.4.4 Bubble wrap or other material can be used to ensure the specimen box is secure during transport.

6.4.5 Microscope slides can be shipped as exempt medical specimens.



**Slide Labeling Examples:**

#### **Slide Storage Examples:**



## 7. Procedure: Paraffin-Fixed Tissue Blocks

- 7.1 Paraffin blocks should be stored per the protocol LPC directions. Most paraffin blocks can be stored at 20-27°C. **Paraffin blocks must not be exposed to temperatures that exceed 27°C (80°F).**
- 7.2 Labeled paraffin blocks should be placed in plastic zip-lock bags with the LDMS barcode label on the outside of the bag.
- 7.3 The blocks should be stored on the side to prevent damage to the blocks due to stacking.
- 7.4 Most blocks will come to the processing lab from the histology lab with a PID and date of collection stamped on the end of the block. See examples below.



Paraffin Block Examples:

### 7.5 Shipping Paraffin Blocks

- 7.5.1 The plastic bags containing the paraffin-fixed tissue blocks that are appropriately labeled with the LDMS barcode labels on the outside of the bag can be stacked on their side in 2" cryovial freezer boxes for shipping to the repository or testing laboratory.
- 7.5.2 The boxes should be label the same as cryovial shipments with the sending lab LDMS number , the receiving laboratory name and/or LDMS number and the LDMS shipping batch number.
- 7.5.3 The storage boxes should be wrapped in bubble wrap, secured with a rubber band or tape and placed in an outer shipping box.
- 7.5.4 Bubble wrap or other material can be used to ensure the specimen box is secure during transport.
- 7.5.5 Use refrigerated gel packs in the outer shipping box to help maintain ambient temperatures when shipping paraffin blocks.
- 7.5.6 Paraffin-fixed tissue blocks can be shipped as exempt medical specimens.

### Paraffin Block Storage Examples:

