



RENAL AND HEART BIOPSY COLLECTION INSTRUCTIONS

Manufacturer

ARUP Laboratories

Kit/Reagent Purpose

To submit renal or heart biopsies for diagnostic interpretation via light microscopy (LM), immunofluorescence studies (IF), and electron microscopy (EM)

Kit/Reagent Contents

- One vial Zeus fixative (IF)
- One vial formalin 10% neutral buffered (LM)
- One vial glutaraldehyde 2.5% (EM)
- Styrofoam 3-tube protection insert with box
- Ambient (green) specimen bag
- Safety data sheets (SDS)

Other Supplies Needed

Petri dish or gauze, physiologic saline solution, razor knife, dissecting microscope, and ARUP test requisition

Specimen Requirements/Collection

Renal Biopsy: Procure three or more core biopsy specimens in an approved manner.

Heart Biopsy: Collect four biopsies for transplant hearts. Collect five biopsies for native hearts. (The number of specimens required for testing depends on the designation of transplant or native.)

RENAL BIOPSY Preparation Instructions

1. Immediately upon obtaining tissue, place the biopsy specimens in saline solution in a petri dish or wrap specimens in saline-saturated gauze.
2. Using a dissecting microscope, examine the core(s) for glomeruli. (They appear as red dots.)
3. Submit specimens as follows:
 - If three or more cores of tissue are obtained, one is submitted for each study into each LM, IF, and EM vial.
 - a. If two cores of tissue are obtained, one is submitted for LM; the second is divided and placed into each IF and EM vial.
 - b. If one core is obtained, submit two 1–2 mm fragments from the end of the core for EM. Then submit two 1–2 mm fragments from the new ends for IF. Submit the main portion of the core for LM. (See figure 1 below.)



(Fig. 1)

HEART BIOPSY Preparation Instructions

1. Immediately upon obtaining biopsies, place the biopsy specimens directly into the appropriate vials.
2. Submit specimens as follows:
 - a. If transplant, three biopsies are submitted into LM vial and one biopsy is submitted into IF vial. (EM vial should be discarded.)
 - b. If native, three biopsies are submitted into LM vial, one biopsy is submitted into IF vial, and one biopsy is submitted into EM vial. (Note: EM testing will be performed at the discretion of the pathologist.)

Specimen Storage/Transport (Renal and Heart Biopsies)

Note: All vials must be labeled with patient's full name and unique identifier. Avoid drying of specimens; make sure the specimens are completely submerged into the fixative and not caught on vial sides or in the threads of the cap.

1. Place each vial into the Styrofoam protection insert, then into the green, ambient (room temperature) specimen bag and seal shut.
2. Place the sealed specimen bag into the box and close.
3. Place an electronic order for either Comprehensive Kidney Biopsy Workup (test code 2013259) or Comprehensive Heart Biopsy Workup (3001981) via interface or ARUP Connect. This provides tracking and informs the testing lab of an incoming specimen. To avoid reporting delays required information includes:
 - a. Provide designation (transplant or native) in the comment section and include patient clinical history related to kidney/heart disease.
 - b. Provide attending nephrologist/cardiologist name and contact number.
 - c. If unable to order electronically, complete an ARUP test request form and place into the outer pouch of the bag. Indicate on the form if transplant or native and include patient clinical history and attending physician's name and contact number.
4. Send the specimens to ARUP for testing.

Safety Data Sheet (SDS), if applicable

10% Buffered Formalin, 2.5% Glutaraldehyde, and Zeus Fixative

Note: Applicable SDS can be found in the eSupply Catalog located on ARUP Connect.