Please notify the MLabs Client Services Center prior to sending a renal biopsy specimen. Renal biopsy collection kits are available from MLabs and will be required in advance of the procedure. MLabs Customer Service can be reached at 800-862-7284 or 734-936-2598 (local).

If STAT or RUSH results are required, the nephrologist must speak directly with the on-call renal pathologist and provide history and a contact for results. The Renal Pathology Office can be reached at 734-647-2921.

**Preparation Instructions**

1. Three separate cores (16-18 gauge) of renal cortex are preferred.
2. Immediately upon obtaining tissue, place the biopsy specimen(s) in saline solution in a petri dish or wrap specimen in saline saturated gauze.
3. Using a dissecting microscope or inverted microscope ocular, examine the core(s) for the presence of punctate blood filled glomeruli.
4. Important: Do not crush tissue with instruments. If the specimen floats in the fixatives it is probably adipose tissue and not renal parenchyma.

**Specimen Handling**

1. If **3 cores** are obtained, place one in each of the 3 fixatives formalin, glutaraldehyde and Zeus.
2. If **2 cores** are obtained, they may be divided with alcohol cleaned razor blades as follows:

   | EM | Formalin | EM | IF | Formalin | IF |

   Cut 2 mm fragments from the ends of each core and transfer them to fluorescence and electron microscopy fixatives; place the remainder in formalin.
3. If **1 core** is obtained, it may be divided with an alcohol cleaned razor blade as follows:

   | EM | IF | Formalin | IF | EM |

   Cut two 1-2 mm fragments from the ends of the core for electron microscopy and place in the glutaraldehyde. Then submit 1-2 mm fragments from the new ends and place in the Zeus. The center of the core should be placed in the formalin.

**Specimen Submission**

The three different diagnostic modalities require three different fixatives. Fix all three specimens in the appropriate fixative and hold at 4°C until shipment. Ship at ambient (room) temperature. **Do not freeze the specimen.**

**Light Microscopy (Formalin):** Place the specimen into 10% formalin neutral-buffered formalin.

**Electron Microscopy (EM):** Place the specimen into the 3% formaldehyde/3% glutaraldehyde fixative.

**Immunofluorescence Microscopy (IF):** Place the specimen in Zeus Scientific Tissue Fixative (a.k.a. Michel's Holding Solution). (Tissue placed in the aldehyde fixatives first cannot be used for fluorescence microscopy and should not be transferred to the immunofluorescence media.)

**Important Safety Tip** Expired fixative should be disposed of through an organized waste management system. The fixatives are toxic aldehydes and proper caution should be observed (gloves, protective eyewear) when handling these solutions.

**Required Information and Shipping**

1. Label the containers with the patient’s name and a 2nd patient identifier such as a date of birth or a medical record number.
2. Complete the **Renal Biopsy Patient Clinical Information Form** and the **MLabs Surgical/Cytology Requisition** to accompany the specimens.
3. Once the biopsies have been placed in their liquid containers and the tops secured, place inside the ziploc specimen biohazard bag with the absorbent sheet and seal. Wrap the bag with bubble wrap and place inside transport box. Please be careful to not contaminate the outside of the transport bags, paperwork or box when handling. Transport at room temperature.
4. If shipping by Federal Express, place closed box inside Clinical Pak and seal according to instructions on the Clinical Pak. Call Federal Express at 800-463-3339 to schedule pick up. For Friday specimens, clearly indicate Saturday Delivery required.