

RENAL BIOPSY TISSUE SUBMISSION PROTOCOL



Please notify the Michigan Medicine Laboratories (MLabs) Client Services 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 Client Services 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.

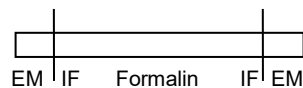
Specimen Handling

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:



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:



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.**

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LIGHT MICROSCOPY (FORMALIN)

Place the specimen into Formalin Fixative.

ELECTRON MICROSCOPY (EM)

Place the specimen into the Glutaraldehyde Fixative.

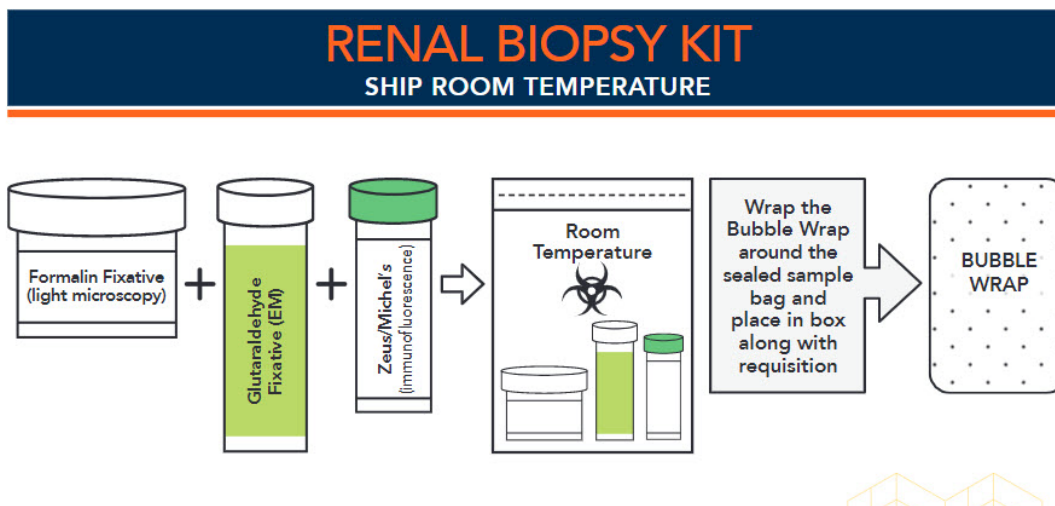
IMMUNOFLUORESCENCE MICROSCOPY (IF)

Place the specimen in Tissue Fixative. (Tissue placed in the aldehyde fixatives first cannot be used for fluorescence microscopy and should not be transferred to the immunofluorescence media.)

Required Information and Shipping

Label the containers with the patient's name and a 2nd patient identifier such as a date of birth or a medical record number. Complete the [MLabs Muscle/Nerve/Renal Biopsy Requisition](#) to accompany the specimens.

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 UPS, call 800.742.5877 to schedule a pick up. Specimens should be sent Monday – Thursday (preferred); if sending on Friday is necessary, clearly indicate Saturday delivery required.

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.

Questions

Call 800.862.7284 or mlabs.umich.edu