Biopsy specimens are typically obtained by percutaneous needle biopsy (rarely by “open” wedge biopsy).

A. Use sharp razor blade or scalpel to avoid crushing tissue.

B. Place portions of tissue in the appropriate solution, as directed below.

**Note:** All supplies required for shipping biopsies are available in Mayo Medical Laboratories’ Renal Biopsy Kit (T231).

Ideally, a minimum of 3 biopsy cores are taken and should be assessed to ensure they contain cortex/glomeruli; 1 core is then submitted for LM, IF, and EM, respectively. The specimen should be placed into the respective vials of fixative/preservative as soon as possible to limit drying and fixation artifacts.

Only if limited cores/cortex available, divide/allocate as follows:

<table>
<thead>
<tr>
<th>One Core Available</th>
<th>Two Cores Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM</td>
<td>EM</td>
</tr>
<tr>
<td>IF</td>
<td>IF</td>
</tr>
<tr>
<td>LM</td>
<td>EM</td>
</tr>
<tr>
<td>IF</td>
<td>LM</td>
</tr>
<tr>
<td>EM</td>
<td>EM</td>
</tr>
</tbody>
</table>

**A. Light Microscopy:**

The allocated core/portion for light microscopy should be placed into vial of 10% neutral buffered formalin (T118).

**B. Immunofluorescent Histology:**

1. Place the allocated core/portion of the biopsy (cortex) into vial of Zeus tissue fixative (T321).

   **Note:** Michel’s fixative can also be used.

2. If Zeus or Michel’s fixative unavailable:
   a. Place specimen on aluminum foil.
   b. Cover with optimal cutting temperature (OCT) compound.
   c. Wrap in aluminum foil.
   d. Quick freeze.
   e. Send specimen frozen on dry ice.

**C. Electron Microscopy**

Place the allocated core/portion for Electron Microscopy into vial of 1% buffered glutaraldehyde/Trumps fixative (T130).

The thickness of the tissue should not exceed 2-3 mm. **Do not** dice into multiple small fragments.

**Required Information and Shipping**

1. The patient’s full first and last name and a second unique identifier must be present on each of the vials.
   a. The name on the vials must match the paperwork being sent with the specimens.
   b. Second unique identifiers include: patient medical record, specimen/accession number or order number, and patient’s birth date (Month DD, YYYY)

2. Complete all information on the “Renal Biopsy Patient Information.”
   a. The referring/contact nephrologist’s name and telephone number are required.

3. Include a copy of the patient’s medical history and current relevant lab results.

4. **Place vials in the biohazard bag. Place biohazard bag and all required paperwork in the white envelope supplied in the Renal Biopsy Kit (T231).**

5. Ship biopsies as ambient. **Do not** place on ice, dry ice, or freeze the formalin, Zeus, or glutaraldehyde specimens.

**Shipping address:** Mayo Medical Laboratories
3050 Superior Drive NW
Attn: Pathology - SDSC Building
Rochester, MN 55901