

Rat and Mouse kidneys for LCM-proteomics

We (at Inserm U858 Toulouse, France) have prepared rat- and mouse kidneys for the LCM training school in Rotterdam, NL (May 25-27, 2009). The feedback was that these samples obtained by a simple protocol were suitable for LCM-proteomics on Hematoxylin stained sections.

The following protocol was used for both mouse (17 weeks old male C57Bl/6J strain) and rat (3 months old female Sprague Dawley) kidneys:

- 1) Anaesthesia with pentobarbital (quantities as indicated on the bottle, based on weight).
- 2) Flushed with PBS by direct injection in the left ventricle of the heart after cutting (for pressure relief) the inferior vena cava (most accessible vein) until the kidney “whitens.”
- 3) Kidney dissection and decapsulation.
- 4) Cut longitudinally.
- 5) Frozen on Whatman paper in N₂(l) vapour until the kidney hardens (gets really white). This avoids the kidney “cracking” and losing kidney structure.
- 6) Insert the frozen kidney with Whatman paper in appropriate sized tube (1.5 ml for mouse and Eppendorf and 15 ml Falcon for rat) and dropped in the N₂(l).
- 7) Stored for long-term storage at -80°C.
- 8) Transport on dry-ice.

V1, October, 2009, Inserm U858, Joost Schanstra