Initial Rapid Pathology Assessment of Kidney Tissue

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1 Works for me dx.doi.org/10.17504/protocols.io.9dph25n

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ABSTRACT

Scope:
Prepare formalin fixed tissue with freezing fresh tissue protocol (dx.doi.org/10.17504/protocols.io.6wghfbw).

This protocol provides the steps to prepare formalin fixed human kidney tissue and perform histology assessment for normalcy.

Expected Outcome:
Pathological assessment of kidney tissue for use in LC-MS/MS and imaging.

1 Once fixed (dx.doi.org/10.17504/protocols.io.6wghfbw) take tissue to pathology Core for paraffin emedding.

2 Section samples at 5 µm.

3 PAS stain tissue sections (dx.doi.org/10.17504/protocols.io.4qngvve).

4 Scan slides with brightfield scanner (Leica) and save as .tiff or .jpg

5 Place saved images on QuPath for analysis.

6 Assess and record the following information for each tissue:
(%): cortex and medulla
(Yes/No): Pyramid Presence, Autolysis, Non-Renal disease (*i.e.* cancer)
(0=None – 3=Severe): Glomerular disease, Tubulointerstitial disease

7 Based on FFPE assessment, kidneys will be used accordingly:

LC-MS/MS normalcy:
low or no glomerular disease, and 75% or more cortex for normal
100% tumor for diseased

3D Imaging:
50:50 cortex:medulla
low or no glomerular disease
no renal disease