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Protocol status: Working
We use this protocol and it's working

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General Microtome Sectioning of Formalin-Fixed Paraffin Embedded (FFPE) blocks

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ABSTRACT

This protocol describes the steps for the sectioning of formalin-fixed paraffin embedded blocks in preparation for further tissue processing such as immunohistochemistry.

MATERIALS

Superfrost™ charged microscope slides
Microtome
Fine tweezers
Fine paintbrush (optional)
Water bath
Slide holder

SAFETY WARNINGS

Follow approved local risk assessment and institutional policies on the use of sharps.

BEFORE START INSTRUCTIONS

- Check all equipment, supplies and consumables
- Set-up water bath to required temperature
- Ensure blade is fit-for-purpose and clean
- Label/barcode SuperFrost Plus slides

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Preparation

1 Check all equipment, consumables and supplies are in place.

2 Place a clean blade into the blade holder of the microtome.

3 Place the FFPE block onto ice, with the face of the block on the surface of the On ice until the block is cold through.

4 Heat 1 L distilled H_2O to 40 °C in a water bath.

Sectioning

12h

5 Once both block and water are at the correct temperature, insert the block into the chuck of the microtome.

6 Adjust the levers on the microtome to position the face of the block parallel with the blade.

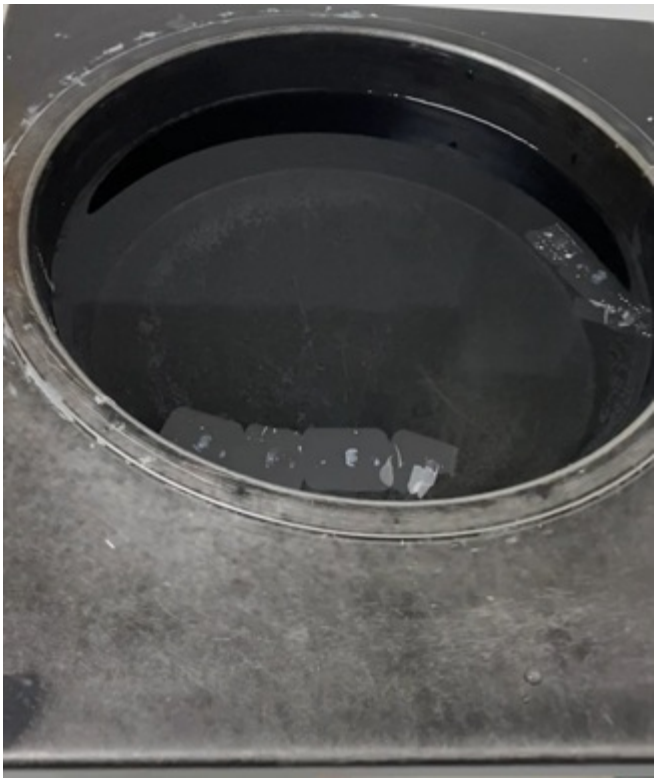
7 Lower the block until it is level with the blade and move the block closer to the blade using the handle on the microtome.

8 Select the thickness of choice on the microtome (usually 4-7 µm.

9 Section and trim into the block until the whole tissue cross-section is present in the sections.

10 Using tweezers or a fine paintbrush, gently pull sections down until a ribbon of tissue sections has formed.

11 Pick up the ribbon with tweezers and place into the water bath to allow wrinkles to disappear from the tissue.



A ribbon of four consecutive sections floating in the water bath to remove wrinkles.

12 Separate sections using tweezers and collect individual sections on SuperFrost™ charged microscope slides.

13 Allow slides to drain and air dry vertically at Room temperature for > 12:00:00 prior to furth 12h processing.