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

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**We use this protocol and it's working**

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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

## Troubleshooting

## Safety warnings




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



## Before start

- 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


## 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<sub>2</sub>O 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

12h

