

Jun 17, 2024

# FFPE Blocking and Sectioning - UMN TMCs

DOI

#### dx.doi.org/10.17504/protocols.io.yxmvme3d9g3p/v1

Colleen Forster, HT(ASCP)QIHC1, David A Bernlohr1, Laura J Niedernhofer1

<sup>1</sup>University of Minnesota, Minneapolis, MN

Cellular Senescence Net...

**UMN SenNet** 



### Allie Pybas

**UMN** 

# OPEN ACCESS



DOI: dx.doi.org/10.17504/protocols.io.yxmvme3d9g3p/v1

Protocol Citation: Colleen Forster, HT(ASCP)QIHC, David A Bernlohr, Laura J Niedernhofer 2024. FFPE Blocking and Sectioning -UMN TMCs. protocols.io https://dx.doi.org/10.17504/protocols.io.yxmvme3d9g3p/v1

License: This is an open access protocol distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

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

working

Created: May 28, 2024

Last Modified: June 17, 2024

Protocol Integer ID: 100784

Funders Acknowledgement:

Grant ID: 5U54AG079754-02

Grant ID: 5U54AG076041-03



## **Abstract**

FFPE Blocking and Sectioning protocol from BLS Histology at the University of Minnesota.



BLS Tissueprocessing protocl 1 over... 50KB



## FFPE Blocking

#### 1 **Specimen Preparation:**

The tissues for processing should be well fixed, rinsed in running tap and placed into 80% alcohol. The suggested fixation is perfusion with 4% paraformaldehyde, fresh tissue dropped into 4% paraformaldehyde or 10% formalin for 24-48 hours or alcohol fixed tissues. To improve fixation, fix small pieces of tissue so solution can penetrate better.

- 2 Label cassettes using a pencil.
- 3 Block tissues according to researcher requests.
- 4 Place into labeled cassette, cover and place into container under running tap water.
- 5 Rinse well.
- 6 Drain tap water and replace with 80% alcohol
- 7 Bring to Rm2-155 Jackson Hall for processing.



<u>Station</u>	<u>Solution</u>	<u>Time</u>
		#1 ON
1	80% ethanol	40 min
2	95% ethanol	40 min
3	95% ethanol	40 min
4	100% ethanol	40 min
5	100% ethanol	40 min
6	100% ethanol	40 min
7	100/xylene 50/50	30min
8	xylene	60min
9	xylene	90min
10	xylene	30min
11	paraffin	30min
12	paraffin	60min
13	paraffin	90min
14	paraffin	30min
		11hr

- 8 Place cassettes in paraffin bath at embedding center
- 9 Cover with paraffin.
- 10 Move to cold plate for hardening.
- 11 Pop cooled block out of mold and trim edges.
- 12 Block is ready to cut.
- 13 When cutting the tissue, prepare sections according to the Histology Request sheet.

# FFPE Slide Sectioning

- 14 Remove excess wax from the sides of the plastic cassettes by scraping or melting.
- 15 Orient the block in chuck holder
- 16 Begin carefully cutting into paraffin block until a full face of tissue is exposed
- 17 Place block onto ice/water and soak for 15 minutes or longer if necessary
- 18 Cut section at desired thickness ensuring proper orientation
- 19 Carefully pick up section and place in a water bath
- 20 Place tissue section on required glass slide
- 21 Air dry for minimum of 1 hour and then move to the 37 degree oven
- 22 Dry slides overnight.