

Nov 28, 2024

FFPE Sample Collection, Processing, and Embedding

DOI

<https://dx.doi.org/10.17504/protocols.io.36wgqd7j5vk5/v1>

Joanna Bi¹

¹Stanford University

Human BioMolecular Atlas Program (HuBMAP) Method Development Community
Tech. support email: Jeff.spraggins@vanderbilt.edu



Joanna Bi

Stanford University

Create & collaborate more with a free account

Edit and publish protocols, collaborate in communities, share insights through comments, and track progress with run records.

Create free account

OPEN  ACCESS



DOI: <https://dx.doi.org/10.17504/protocols.io.36wgqd7j5vk5/v1>

Protocol Citation: Joanna Bi 2024. FFPE Sample Collection, Processing, and Embedding. **protocols.io**

<https://dx.doi.org/10.17504/protocols.io.36wgqd7j5vk5/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: November 28, 2024

Last Modified: November 28, 2024

Protocol Integer ID: 113018

Keywords: ffpe sample collection, embedded sample, ffpe, embedding protocol, embedding formalin, processing, sample, fixed paraffin, paraffin, snyder lab, formalin

Abstract

Protocol for collecting, processing, and embedding formalin fixed paraffin embedded samples used in the Snyder Lab and Stanford University.



Sample Collection

- 1 Sample is collected fresh and kept on ice until the next step.
- 2 Clean samples and cut into pieces that fit into a tissue embedding cassette.
- 3 Transfer samples into labeled cassettes and place in 10% neutral buffered formalin for at least 24 hours.
- 4 Transfer samples (still in cassettes) into 70% ethanol until the next step.

Tissue Processing

- 5 Follow the following settings with adjustments made to the time for tissue size

Bath	Time
70% EtOH	Any
85% EtOH	1 hour
95% EtOH	1 hour
100% EtOH	1 hour
100% EtOH	1.5 hours
100% EtOH	2 hours
Xylene	1 hour
Xylene	1 hour
Empty	5 min
Paraffin (60°C)	1 hour
Paraffin (60°C)	1 hour
Paraffin (60°C)	1 hour

- 6 Transfer the cassettes with the samples to an embedding station



Embedding

- 7 Place the cassettes into a hot paraffin bath.
- 8 Working one sample at a time, add a small amount of melted paraffin into the bottom of the embedding mold
- 9 Place the sample into the mold in the desired orientation.
- 10 Pour more melted paraffin on top
- 11 Place the cassette flat side down on top of the mold and add enough melted paraffin to cover the slats of the cassette
- 12 Move the mold and cassette to a cooling station, fridge, or ice block.
- 13 Remove the block and cassette from the mold once fully cooled.