

Apr 10, 2020

# Embedding Rat Heart

Forked from a private protocol

 In 2 collections

DOI

[dx.doi.org/10.17504/protocols.io.w52fg8e](https://dx.doi.org/10.17504/protocols.io.w52fg8e)

Shaina Robbins<sup>1</sup>

<sup>1</sup>Thomas Jefferson University

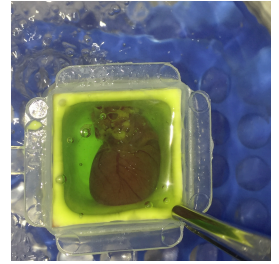
SPARC

Tech. support email: [info@neuinfo.org](mailto:info@neuinfo.org)



Shaina Robbins

Thomas Jefferson University



OPEN  ACCESS



DOI: [dx.doi.org/10.17504/protocols.io.w52fg8e](https://dx.doi.org/10.17504/protocols.io.w52fg8e)

**Protocol Citation:** Shaina Robbins 2020. Embedding Rat Heart. **protocols.io**

<https://dx.doi.org/10.17504/protocols.io.w52fg8e>

**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:** January 16, 2019

**Last Modified:** April 10, 2020



**Protocol Integer ID:** 19354



## Heart Removal

- 1 Remove heart from rat immediately following sacrifice  
Rinse heart in 1X PBS for  00:00:30 to flush blood from the chambers

## Embedding Heart

- 2
  1. Place heart (still beating) in solution of 1X PBS with 25% Optimal Cutting Temperature Compound (OCT) for  00:01:00 with gentle agitation
  2. Place heart in solution of 1X PBS with 50% OCT for  00:00:45

### Note

The heart should still be beating at this point, albeit weaker. This will allow for OCT infiltration into the chambers in order to mitigate any structural collapse while sectioning.

3. Place heart in the embedding mold containing a layer of frozen 100% OCT at bottom.


### Note

This layer of OCT is to help prevent the heart from sinking to the bottom of the mold exposing the tissue. All areas of the tissue sample should be covered with OCT to allow for optimal sectioning capability.


4. Flash freeze the embedding mold containing heart in 100% OCT by suspending mold in either liquid nitrogen or methanol in dry ice

### Note

Be careful to not allow any liquid nitrogen or methanol to splash into the embedding mold. This will make the OCT become a goeey texture and very difficult to section.

5. Store heart in  -80 °C freezer wrapped in aluminum foil and plastic wrap until the sectioning process is started.

### Note

Allow heart to sit in  -80 °C freezer for at least one day before beginning to section.

