

Aug 28, 2024

Collection and shipment of specimen for Visium Spatial Transcriptomics (vST/Visium ST)

DOI

dx.doi.org/10.17504/protocols.io.36wgqn193gk5/v1

Laura Robinson¹, Susan Sheehan¹, Gaven Garland¹, Ron Korstanje¹

¹The Jackson Laboratory, Bar Harbor, ME, USA

Cellular Senescence Net...



Harshpreet Chandok

The Jackson Laboratory

OPEN  ACCESS



DOI: dx.doi.org/10.17504/protocols.io.36wgqn193gk5/v1

Protocol Citation: Laura Robinson, Susan Sheehan, Gaven Garland, Ron Korstanje 2024. Collection and shipment of specimen for Visium Spatial Transcriptomics (vST/Visium ST). **protocols.io** <https://dx.doi.org/10.17504/protocols.io.36wgqn193gk5/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: August 28, 2024

Last Modified: August 28, 2024

Protocol Integer ID: 106590

Funders Acknowledgement:

National Institute on Aging

(NIA) JAX-Sen Senescence

Tissue Mapping Center

Grant ID: U54 AG079753

Abstract

These samples are part of the JAX-Sen project in the SenNet Consortium. Here we provide details on specimen collection and shipment procedures for Visium Spatial Transcriptomics (vST/Visium ST).

Reagents and Materials:

- 1
 - 10% NBF fixative
 - Tweezers
 - Appropriate container for fixing

Quality Key Points:

- 2
 - The tissue specimen should be always kept at 4 degrees Celsius and RNase-free.
 - It is crucial to not store the tissue specimen at RT to avoid any cell death, and tissue and/or RNA degradation.

Procedure:

3 **Collection/Harvest:**

- 3.1 Animal was euthanized via cervical dislocation.
- 3.2 Animal was pinned to a necropsy tray which remained on wet ice throughout the harvest.
- 3.3 Animal was perfused with 20ml cold PBS.
- 3.4 Heart, pancreas, and kidney was collected and the specimen was fixed in 10-20 X volume of 10% NBF fixative for 24-48 hours at room temperature.
- 3.5 Samples were kept at 4 degrees Celsius until submission to histology for processing and embedding.

4 **Embedding:**

- 4.1 Samples to be embedded into FFPE blocks at Histology, Jax-BH.



- 4.2 Samples can be stored with Histology at Jax-BH (Rama/Juliana will coordinate further procedures)