

BC Children's Hospital Research (BCCHR) Institute Histology Core Facility

Preparing Tissue for Paraffin Processing:

NOTE: Histology staff will process your samples as if they were prepared according to these steps. If you are using a different method, please consult with the histology staff to make sure our processing methods are compatible with your preparation methods.

1. Prepare and fix tissue as per lab protocol or outlined at:
<https://www.leicabiosystems.com/pathologyleaders/an-introduction-to-specimen-preparation/>
2. Trim the tissue to fit the cassette, ensure that it **does not exceed 4mm** in height, and to the maximum size of 15 x 15 mm (roughly one third of cassette area).
3. For cross sections, ensure that you have cut a **flat edge** which will then be embedded down.
4. Use biopsy pads for small or thin tissues (2 mm or less in any dimension).
5. Place only **one type of tissue** per cassette. If you would like to combine more than one tissue type please discuss this project with a histology staff member before submitting a work order.
6. Place your sample in the orientation you would like it embedded, or provide instructions when placing your work order as to how you would like your samples to be embedded.
7. Follow requirements for your tissue type:
 - a. Gel embedded: only one piece of tissue per cassette.
 - b. Small tissue (<2mm in height): only one piece of tissue per cassette.
 - c. Any type of gut: no more than 3 pieces of tissue per cassette.
 - d. Other: ensure the tissue(s) follows the size requirements above at #2, and no more than 3 pieces of tissue per cassette.
8. Label cassettes with a **numerical ID** and a **specific sample ID**, on the front and/or side, with pencil (HB lead or harder). **Numerical ID** begins from 1 to n and corresponds to the number of cassettes (n) that you will submit. The **specific sample ID** can be the experimental ID, treatment, or anything else specific to your samples to differentiate your samples from other projects.
Example: Example: 1-16D KO col, 2-16D WT col, 3-8D KO col, etc.

Make sure that the sample ID on the cassette will match the slide IDs on the work order. **You will be contacted if the ID on the work order does not match the cassette.**

9. Immerse your tissue cassettes in 70% ethanol (for PFA fixation) or 100% ethanol (for Carnoy's fixation) and keep at 4°C until processing. Submit your order and tissue by Thursday, 2pm to be included in same week tissue processing batch.