

Specimen Collection and Handling Guidelines for Snap-Frozen Tissue or Bone Marrow Biopsy Cores

If protocol-specific tissue collection and handling instructions for frozen tissue are not provided in the protocol or through a linked resource (usually in Section 15 in SWOG-led protocols), then follow the instructions outlined below.

Collecting Tissue

1. If the amount of frozen tissue requested is not specified in the protocol:
 - a. For bone marrow biopsy core, the core should be 1-2 cm in length. Remove peripheral blood from the biopsy by touching the biopsy with a sterile swab.
 - b. For other frozen tissues, then collect > 5 mm³ (approximately "pea to almond size").
2. Tissue should be free of tissue capsules (e.g., kidney capsule or membrane) and/or hair (e.g., scalp or skin lesions).
3. Tissue should be small enough to place in a cryovial without force.

Snap Freezing Tissue

1. Snap freeze tissue immediately after the biopsy for optimal antigen preservation. If tissue cannot be frozen within 15 minutes, then store at 4°C for no longer than 2 hours.
2. Pre-label a cryovial according to [specimen labeling requirements](#) and chill by placing on dry ice.
3. Place pre-sectioned tissue on a piece of foil or in a pre-labeled, pre-chilled cryovial and snap freeze tissue on dry ice or in the vapor phase liquid nitrogen (do not submerge the tissue in liquid nitrogen). If dry ice or liquid nitrogen are not available, then freeze tissue in a -70°C to -80°C freezer.
4. If frozen correctly, tissue should be able to move freely in the cryovial (i.e., not adhered to the wall of the vial).

Storing Frozen Tissue

- Store snap frozen tissue in a liquid nitrogen freezer (at vapor phase) or a -70°C to -80°C freezer until ready to ship.

Required Documents for Shipping Frozen Tissue:

- Corresponding **pathology report** indicating the morphological diagnosis. The report must be labeled with the SWOG Participant ID # and surgical pathology identification number.
- SWOG Online Specimen Tracking System Packing List.