

The quality of laboratory results are highly dependent upon proper specimen collection and handling procedures. Listed below are specimen requirements and handling procedures. All samples MUST be labeled with patient name and date of collection.

Specimen Type	IHC	DNA Flow	FISH	Flow Cytometry Immunophenotyping*	PCR or RT-PCR	Cytogenetics/A-CGH	Circulating Tumor Cells	Storage/Transport
Formalin Fixed Paraffin Embedded Tissue Blocks	0.2 cm ³ piece of tissue	0.2 cm ³ piece of tissue (Minimum of 1 million cells required)	0.2 cm ³ piece of tissue	Not Applicable	0.2 cm ³ piece of tissue	Not Applicable	Not Applicable	Room Temperature
Formalin Fixed Paraffin Embedded Unstained Slides	4 micron thickness, 2 slides per marker BM: 3 micron thickness, 2 slides Per marker	Not Applicable	4 slides 4 micron thickness	Not Applicable	Minimum of 5 slides, 7 micron thickness	Not Applicable	Not Applicable	Room Temperature
Fresh Tissue Biopsy**	Not Applicable	Tissue Media ¹	Tissue Media ¹	Tissue Media ¹	Tissue Media ¹ (T&B Cell Gene Rearrangements)	Tissue Media ¹	Not Applicable	Room Temperature Use cold pack for transport ²
Peripheral Blood	Not Applicable	Not Applicable	Green⁴ Top Tube 5-10 mL	Green⁴ and/or Lavender/Purple⁵ Top Tube 5-10 mL	Lavender/Purple⁵ Top Tube 5-10 mL (15 mL) ³	Green⁴ Top Tube 5-10 mL	CellSave [®] tube only (10 mL)	Room Temperature Use cold pack for transport ²
Bone Marrow Core/Clot	Formalin Fixed Tissue	In Formalin	Tissue Media ¹	Not Applicable	Formalin Fixed Tissue	Tissue Media ¹	Not Applicable	Room Temperature Use cold pack for transport ²
Bone Marrow Aspirate***	Not Applicable	Not Applicable	Green⁴ Top Tube 1-2 mL	Green⁴ or Lavender/Purple⁵ Top Tube 1-2 mL	Lavender/Purple⁵ Top Tube 1-2 mL (5-7 mL) ³	Green⁴ Top Tube 1-2 mL	Not Applicable	Room Temperature Use cold pack for transport ²
Malignant Fluids	Collection Pouch ³ 50-100 mL	Collection Pouch ³ 50-100 mL	Collection Pouch ³ 50-100 mL	Collection Pouch ³ 50-100 mL	Collection Pouch ³ 50-100 mL	Collection Pouch ³ 50-100 mL	Not Applicable	Room Temperature Use cold pack for transport ²
Fine Needle Aspirate (FNA)	Tissue Media ¹ 10 pieces preferred (minimum of 2 pieces- 0.2 cm ³ in aggregate)	Tissue Media ¹ 10 pieces preferred (minimum of 2 pieces- 0.2 cm ³ in aggregate)	Tissue Media ¹ 10 pieces preferred (minimum of 2 pieces- 0.2 cm ³ in aggregate)	Tissue Media ¹ 10 pieces preferred (minimum of 2 pieces- 0.2 cm ³ in aggregate)	Tissue Media ¹ 10 pieces preferred (minimum of 2 pieces- 0.2 cm ³ in aggregate)	Tissue Media ¹ 10 pieces preferred (minimum of 2 pieces- 0.2 cm ³ in aggregate)	Not Applicable	Room Temperature Use cold pack for transport

Bone Marrow Preparation & Collection:

Supplies: (1) Bone Marrow Collection Kit provided by TOPA. The kit contains two Heparin (green top) tubes, one EDTA (lavender top) tube, two 5-slide cassette containers, and two jars of buffered 10% formalin. (2) TOPA requisition titled "Hematopathology Requisition".

Specimens: (1) **Bone marrow aspirate smears** should be made within 30 minutes of the procedure. Place thoroughly dried slides into 5-slide cassette container and place into foam insert in the space provided. (2) **Bone Marrow aspirate for flow cytometry, cytogenetics, FISH, or PCR**, place in green and lavender top tubes (3) **CBC:** Peripheral blood smear and copy of most recent CBC results or if you want TOPA to run a CBC and make a peripheral blood smear, include a tube of peripheral blood (lavender top) placed into foam insert (4) **Bone marrow biopsy** placed in one of the formalin jars. (5) **Bone marrow clot section** placed in the other formalin jar.

Note: All smears, blood tubes and formalin jars must be properly labeled with patient name and one other unique identifier such as date of birth.

Call TOPA for specimen pick-up at (805) 373-8582.

Include CBC data, peripheral blood smear, clinical history, and prior test results if available.

Please refer to TOPA Specimen Collection Handbook or handouts, "How to Prepare a Bone Marrow / Blood Smear" for further information.

- 1 **Caution:** Do Not Use RPMI if it is cloudy, yellow, or beyond expiration date
- 2 Cold pack should not be placed in direct contact with the specimen during shipping (cold packs are not required for tissue fixed in formalin).
- 3 Cells will be processed into a cell block for IHC staining.
- 4 **Green** Top Tube = Sodium Heparin
- 5 **Lavender/Purple** Top Tube = EDTA

- * For Flow Immunophenotype please prepare a smear and send CBC results.
- ** For Bone Marrow morphology, please provide fresh air-dried aspirate smears, for evaluation.
- *** Provide bone marrow aspirate smears and/or stained slides in sealed containers with no exposure to formalin fumes.