



**Cytogenetics, Flow Cytometry and FISH
Specimens for Leukemia, Lymphoma and
Other Oncology Referrals**

General Specimen Requirements

- DO NOT ADD FORMALIN**
- Use sterile technique; maintain sterility
- Close tubes tightly.
- Keep at ambient room temperature; avoid freezing or exposing the specimen to extreme temperatures. Protect from temperature extremes by adding an ice pack to the shipping carton during hot weather. **Keep the ice pack from coming into direct contact with the specimen.**
- Do not centrifuge or split specimens.
- Handle as PRIORITY specimen. It is preferable that specimens be received the same day of collection, and always within 24 hours.
- Lymph nodes and other tissue should be delivered to the laboratory for processing on the same day as collection for best results. Flow Studies are best if delivered by 4 p.m.

Information to Submit with Specimen

- Complete a Legacy Laboratory Services requisition.
- Include clinical indication or suspected diagnosis.
- For blood and bone marrow Flow Studies, include recent CBC with differential (collected within 72hrs).
- For bone marrow Flow Studies, always include unstained aspirate and blood smears, minimum of two each, preferably four each.

General Shipping Guidelines

- For local delivery:** Call Client Services at (503) 413-1234 or Toll Free 1-877-270-5566 to arrange a PRIORITY local courier service.
- For long distance shipping:** Ship specimens with a priority status for delivery within 24 hours. Use courier service previously arranged by your Legacy Diagnostic Field Representative. Call Client Services Toll Free 1-877-270-5566 to notify us of your transportation method and tracking number.

	TISSUE Lymph node, tumor biopsy	BLOOD	BONE MARROW
CYTOGENETICS			
Specimen Requirements	Approx 1.0 cm ³ biopsy, covered with sterile saline, Hank's balanced salt solution or transport media (e.g. RPMI).	2-4 mL blood in preservative free sodium heparin vacutainer tube (dark green top).	Collect 2-4 mL in sterile sodium heparinized syringe. Mix well by inverting and transfer into sterile sodium heparin tube (dark green top).
Comments		Leukemia workups require a minimum of 5% blasts.	RPMI is recommended if transit time of more than six hours is anticipated.
PATHOLOGY			
Specimen Requirements			Place bone marrow biopsy and aspirate clot into separate containers with 10% neutral buffered formalin. Note: Do not use B5.



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	TISSUE Lymph node, tumor biopsy	BLOOD	BONE MARROW
FISH			
Specimen Requirements	<p><u>Specimens for HER-2/neu FISH:</u></p> <p>Only 10% neutral buffered formalin-fixed, paraffin embedded tissue sections; Minimum of two charged slides or paraffin block are acceptable with an H&E stained slide.</p> <p><u>For all other specimens:</u></p> <p>Fresh tissue immersed in RPMI media. Transport at room temperature within 24 hours of collection, OR (adults only) 10% neutral buffered formalin-fixed, paraffin embedded tissue sections. Minimum of four charged slides or paraffin block are acceptable with an H&E stained slide.</p>	<p><u>Specimens for Multiple Myeloma:</u></p> <p>Collect 2-4 mL of peripheral blood in EDTA (lavender top) or sodium heparin (green top). Specimen should be received at Legacy within 72 hours of collection.</p> <p><u>For all other specimens:</u></p> <p>Pediatrics: Collect 2-4 mL of peripheral blood in sodium heparin (green top).</p> <p>Adults: Collect 2-4 mL of peripheral blood in sodium heparin (green top) or EDTA (lavender top).</p>	<p><u>Specimens of Multiple Myeloma:</u></p> <p>Collect 2-4 mL of bone marrow in EDTA (lavender top), sodium heparin (green top), or RPMI. Specimen should be received at Legacy within 72 hours of collection.</p> <p><u>For all other specimens:</u></p> <p>Pediatrics: Collect 2-4 mL of bone marrow in sodium heparin (green top).</p> <p>Adults: Collect 2-4 mL of bone marrow in sodium heparin (green top), EDTA (lavender top), or RPMI.</p> <p>RPMI is recommended if transit time of more than six hours is anticipated.</p>
FLOW CYTOMETRY			
Specimen Requirements	Place in 5mL–10mL RPMI. Ensure that the tissue is completely immersed in the RPMI nutrient transport media.	2-4 mL EDTA (lavender top) anticoagulated blood.	Collect 2-4 mL in sterile sodium heparinized syringe. Mix well by inverting and transfer into an EDTA tube (lavender top) or into RPMI for transport to the laboratory.
Comments	Completely immerse fresh tissue in RPMI tissue culture medium. Arrange for delivery to the lab by 4 p.m. on the same day of collection. Transport at room temp.	EDTA (lavender top) tube is preferred, but sodium heparin (green top) tube may be used. Transport at room temp.	EDTA (lavender top) tube is preferred, but sodium heparin (green top) tube may be used RPMI is recommended if transit time of more than six hours is anticipated. Transport at room temp.
FLOW CYTOMETRY Specimen Requirements			
FNA	CSF	BAL	BODY FLUIDS
FNA in 5 mL RPMI in sterile container. Transport at room temp.	1-3 mL CSF in sterile container. Preferred: Centrifuge CSF, decant supernate and resuspend CSF cell pellet in 2 mL RPMI. Transport CSF cell pellet in RPMI at room temp ASAP.	15.0 mL BAL fluid in sterile container. Transport at room temp.	15.0-30.0 mL Body Fluid in sterile container. DO NOT SEND EVAC BOTTLE. Transport at room temp.

Specimen rejection: ONLY by Cytogenetics, Flow Cytometry or FISH lab personnel