LEGACY HEALTH | LEGACY LABORATORY SERVICES

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

## General Specimen Requirements

- 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 7 p.m.
- If submitting specimens for both Cytogenetic and Flow Studies, place in separate bags - each with a copy of the completed laboratory requisition.

## Information to Submit with Specimen

- Complete a Legacy Laboratory Services requisition.
- Include clinical indication or suspected diagnosis.
- Include recent CBC with differential.
- For Flow Studies, always include 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**<br>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. |

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|---|---|---|---|
| **FLOW CYTOMETRY** | | | |
| **Specimen Requirements** | Completely immerse fresh tissue in RPMI tissue culture medium. Arrange for delivery to the lab by 7 p.m. on the same day of collection. | 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** | | | 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.<br><br>Note: Do not use B5. |
| **FISH** | | | |
| **Specimen Requirements** | Specimens for HER-2/*neu* FISH:<br><br>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).<br><br>For all other specimens:<br><br>Fresh tissue immersed in RPMI media. Transport at ambient room temperature within 24 hours of collection OR 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). | Specimens for Multiple Myeloma:<br><br>Collect 2-4 mL of peripheral blood in EDTA (lavender top) tube. Sodium heparin will be accepted if EDTA is not available.<br><br>For all other specimens:<br><br>Collect 2-4 mL (for adults) of peripheral blood in sodium heparin (green top) tube or in RPMI media. | Specimens of Multiple Myeloma:<br><br>Collect 2-4 mL of bone marrow in EDTA (lavender top) tube. Sodium heparin will be accepted if EDTA is not available.<br><br>For all other specimens:<br><br>Collect 2-4 mL (for adults) of bone marrow in sodium heparin (green top) tube or RPMI is recommended if transit time of more than six hours is anticipated. |