

LABORATORY: FLOW CYTOMETRY
 Internal Phone: 76-39420
 MLabs Phone: 800-862-7284

ORDER CODE: LEUKS

ACCEPTABLE SPECIMEN TYPES:

Specimen Type	Container	Normal Volume	Minimum Volume
Peripheral Blood	Green top (sodium heparin)	7 – 10 mL	3 mL
Bone Marrow Aspirate	Green top (sodium heparin)	1 – 2 mL	1 mL
Bone Marrow Core Biopsy	Submerged in RPMI tissue culture medium for optimal cell viability; sterile saline is acceptable	NA	NA
Fresh Tissue	Minced and submerged in RPMI tissue culture medium for optimal cell viability; sterile saline is acceptable	NA	NA
Body Fluid	Sterile, leak-proof container (no additives)	20 – 50 mL	5 mL*
CSF	Sterile, leak-proof container (no additives)	5 – 10 mL	1 mL*
Fine Needle Aspiration (FNA)	RPMI tissue culture medium	NA	NA

*The volume of Body Fluids and CSF required is dependent on the cellularity of the specimen. A cell count should be determined and submitted with the specimen. When cell counts drop below 5 cells/cmm and ≤ 1 mL of sample, immunophenotypic analysis may not be successful.

OFFSITE SPECIMEN COLLECTION INSTRUCTIONS:

The following is required with the Hematopathology Consult Requisition or electronic test order:

- Relevant clinical history.
- Clinical or morphological findings and suspicions.
- Specimen source.
- Specimen collection date and time.
- Ordering physician name and doctor/pager number.

Peripheral Blood

- Collect specimen in a green top (sodium heparin) tube.
- Send intact specimen at room temperature within 12 hours of collection.
- Include an unstained peripheral blood smear.
- Include a copy of patient's most recent white blood cell count, platelet count, and peripheral blood differential.

Bone Marrow Aspirate

- Add 1 - 2 mL of first pull bone marrow aspirate to a green top (sodium heparin) tube.
- Send intact specimen at room temperature within 12 hours of collection.
- Include 4 unstained aspirate smears.
- Include an unstained peripheral blood smear.
- Include a copy of patient's most recent white blood cell count, platelet count, and peripheral blood differential.

Body Fluids

- Add fluid (e.g., CSF, pleural, peritoneal) to a clean, leak proof container.
- Send at room temperature within 12 hours of collection.
- Include a copy of body fluid cell count and cell differential.
- An original cytospin preparation (preferably unstained) should also be sent with CSF specimens when possible for correlative morphological evaluation.

Bone Marrow Core Biopsy and FNA

- Submerge in RPMI tissue culture medium (for optimal cell viability) or sterile saline.
- Send at room temperature within 12 hours of collection.

Fresh Tissue

- Mince and submerge in RPMI tissue culture medium (for optimal cell viability) or sterile saline.
- Send refrigerated within 12 hours of collection.

ONSITE SPECIMEN COLLECTION INSTRUCTIONS:

The following is required with the Flow Cytometry Laboratory Requisition:

- Relevant clinical history.
- Clinical or morphological findings and suspicions.
- Specimen source.
- Specimen collection date and time.
- Ordering physician name and doctor/pager number.

Blood:

- Collect in a 7 mL green (sodium heparin) vacutainer tube and transport at room temperature within 4 hours of collection.
- A concurrent Complete Blood Count with Differential (CBCPD) should also be ordered for the patient.

Bone Marrow Aspirate:

- Add 1 - 2 mL first pull bone marrow aspirate to a green (sodium heparin) vacutainer tube and transport at room temperature within 4 hours of collection.
- A Complete Blood Count with Differential (CBCPD) should also be ordered for the patient.

Body Fluids:

- Add fluid (e.g., CSF, pleural, peritoneal) to a sterile, leak-proof container and transport at room temperature within 2 hours of collection.
- A fluid cell count and cell differential should also be ordered for the patient.

Bone Marrow Core Biopsy and FNA:

- Submerge in RPMI tissue culture medium and transport at room temperature within 2 hours of collection.

Fresh Tissue:

- Mince and submerge in RPMI tissue culture medium and transport within 2 hours of collection. Place in Flow Cytometry (2F351 UH) specimen bucket inside of refrigerator.

ALTERNATE SPECIMEN

Yellow top (ACD) A or B and Lavender top (EDTA) tubes are acceptable but not preferred.

REJECTION CRITERIA

Green top tubes containing lithium heparin are not acceptable.

TEST USAGE

Confirmation of diagnosis and immunophenotype of acute and chronic leukemias.

Recommended Use:

1. Phenotypic profiling of aberrant blast forms as adjunct to client's morphologic evaluation. (Panel 1)
2. Phenotypic profiling of aberrant mature B-cells and T-cells as adjunct to client's morphologic evaluation. (Panel 2)
3. Evaluation of large granular lymphocytes (T-cell and NK type: please specify if required). (Panel 2)
4. Surveillance for residual Acute Leukemia or neoplasm during/after treatment. (Panels 1 and 2)

NOT Recommended for the Following:

1. Blast quantitation (see WHO guidelines).
2. Exclusion of chronic Myeloproliferative or low-grade myelodysplastic disorders.
3. Final classification of stem cell neoplasms (requires Hematopathology consultation).
4. Detection of Hodgkin's Disease.
5. Final classification of non-Hodgkin's lymphomas (requires Hematopathology consultation)

DAYS SET UP: Monday – Friday, 8:00 am – 4:30 pm; Saturday, 8:00 am – 12:00 noon
ANALYTIC TIME: 8 – 48 hours