MAYO CLINIC LABORATORIES

TEST CHANGE

Notification Date: August 27, 2024
Effective Date: October 1, 2024

Leukemia and Lymphoma Phenotyping, Technical Only, Varies

Test ID: LLTOF

Explanation: Tissue specimens will no longer be acceptable on LLTOF and can now be ordered under the new test LLTOT/ Leukemia and Lymphoma Immunophenotyping, Technical Only, Tissue. LLTOF will now have ask at order entry (AOEs) fields required: specimen source and reason for referral.

Current Specimen Required	New Specimen Required
Submit only 1 of the following specimens: **Specimen Type: Whole blood** Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) or green top (sodium heparin) Specimen Volume: 10 mL Slides: If possible include 5 to 10 unstained blood smears, labeled with two unique identifiers Collection Instructions: 1. Send whole blood specimen in original tube. Do not aliquot. 2. Label specimen as blood. Specimen Stability Information: Ambient < or =4 days/Refrigerated < or =4 days **Specimen Type: Bone marrow** Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) or green top (sodium heparin) Specimen Volume: 1 to 5 mL Slides: If possible include 5 to 10 unstained bone marrow aspirate smears, which must be labeled with two unique identifiers Collection Instructions: 1. Submission of bilateral specimens is not required. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient < or =4 days/Refrigerated < or = 4 days	Submit only 1 of the following specimens: **Specimen Type: Whole blood** Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) or green top (sodium heparin) Specimen Volume: 10 mL Slides: If possible include 5 to 10 unstained blood smears, labeled with two unique identifiers Collection Instructions: 1. Send whole blood specimen in original tube. Do not aliquot. 2. Label specimen as blood. Specimen Stability Information: Ambient < or =4 days/Refrigerated < or =4 days **Specimen Type: Bone marrow** Container/Tube: Preferred: Yellow top (ACD solution A or B) Acceptable: Lavender top (EDTA) or green top (sodium heparin) Specimen Volume: 1 to 5 mL Slides: If possible include 5 to 10 unstained bone marrow aspirate smears, which must be labeled with two unique identifiers Collection Instructions: 1. Submission of bilateral specimens is not required. 2. Send bone marrow specimen in original tube. Do not aliquot. 3. Label specimen as bone marrow. Specimen Stability Information: Ambient < or =4 days/Refrigerated < or = 4 days

Specimen Type: Fluid
Sources: Serous effusions, pleural, pericardial, or abdominal (peritoneal fluid)
Container/Tube: Body fluid container
Specimen Volume: 20 mL
Collection Instructions:
1. If possible, fluids other than spinal fluid should be anticoagulated with heparin (1 U/mL of fluid).
2. Label specimen with fluid type.
Additional Information: The volume of fluid necessary to phenotype the lymphocytes or blasts in serous effusions depends upon the cell count in the specimen. Usually, 20 mL of pleural or peritoneal fluid is sufficient. Smaller volumes can be used if there is a high cell count.

Specimen Stability Information: Refrigerated < or =4 days/Ambient < or =4 days

Specimen Type: Spinal fluid
Container/Tube: Sterile vial
Specimen Volume: 1 to 1.5 mL
Collection Instructions:
1. An original cytospin preparation (preferably unstained) should be included with the spinal fluid specimen so correlative morphologic evaluation can occur.
2. Label specimen as spinal fluid.

Specimen Stability Information: Refrigerated /Ambient < or =4 days
Additional Information: The volume of fluid necessary to phenotype the lymphocytes or blasts in spinal fluid depends upon the cell count in the specimen. A cell count should be determined and submitted with the specimen. Usually, 1 to 1.5 mL of spinal fluid is sufficient. Smaller volumes can be used if there is a high cell count. If the cell count is less than 10 cells/mcL, a larger volume of spinal fluid may be required. When cell counts drop below 5 cells/mcL, the immunophenotypic analysis may not be successful.

Specimen Type: Tissue
Supplies: Hank's Solution (T132)
Container/Tube: Sterile container with 15 mL of tissue culture medium (eg, Hank's balanced salt solution, RPMI, or equivalent)
Specimen Volume: 5 mm(3) or larger biopsy
Collection Instructions:
1. Send intact specimen (do not mince).
2. Specimen cannot be fixed.
Specimen Stability Information: Ambient < or =4 days/Refrigerated < or =4 days

Specimen Type: Fluid
Sources: Serous effusions, pleural, pericardial, or abdominal (peritoneal fluid)
Container/Tube: Body fluid container
Specimen Volume: 20 mL
Collection Instructions:
1. If possible, fluids other than spinal fluid should be anticoagulated with heparin (1 U/mL of fluid).
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Collection Instructions:
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2. Label specimen as spinal fluid.

Specimen Stability Information: Refrigerated /Ambient < or =4 days
Additional Information: The volume of fluid necessary to phenotype the lymphocytes or blasts in spinal fluid depends upon the cell count in the specimen. A cell count should be determined and submitted with the specimen. Usually, 1 to 1.5 mL of spinal fluid is sufficient. Smaller volumes can be used if there is a high cell count. If the cell count is less than 10 cells/mcL, a larger volume of spinal fluid may be required. When cell counts drop below 5 cells/mcL, the immunophenotypic analysis may not be successful.

Specimen Type: Tissue is no longer acceptable see LLTOT/ Leukemia and Lymphoma Immunophenotyping, Technical Only, Tissue

Current Resultables		
Result ID	**Result Name**	**LOINC Value**
CK071	Flow Cytometry	69052-9
CK072	Final Diagnosis	22637-3
CK073	Microscopic Description	22635-7
CK074	Special Studies	30954-2

New Resultables		
Result ID	**Result Name**	**LOINC Value**
CK071	Flow Cytometry	69052-9
CK072	Final Diagnosis	22637-3
CK073	Microscopic Description	22635-7
CK074	Special Studies	30954-2
CKR2	**Reason for Referral**	**42349-1**
CKS2	**Specimen Source**	**31208-2**

Questions

Contact Connie Penz, Laboratory Resource Coordinator at 800-533-1710.