MAYO CLINIC LABORATORIES

FILE DEFINITION TEST CHANGE

Notification Date: November 10, 2026
Effective Date: December 15, 2026

Leukemia/Lymphoma Immunophenotyping, Flow Cytometry, Varies

Test ID: LCMS

Explanation: The Testing Algorithm and Reflex Test Table will be updated on the effective date.

Current Algorithm	New Algorithm
The testing process begins with a screening panel. The screening panel will be charged based on the number of markers tested (FIRST for first marker, ADD1 for each additional marker). The interpretation will be based on markers tested in increments of 2 to 8, 9 to 15, or 16 and greater. In addition, reflex testing may occur to fully characterize a disease state or clarify any abnormalities from the screening test. Reflex tests will be performed at an additional charge for each marker tested (FIRST if applicable, ADD1 if applicable).	The testing process begins with a screening panel. The screening panel will be charged based on the number of markers tested (FIRST for first marker, ADD1 for each additional marker). The interpretation will be based on markers tested in increments of 2 to 8, 9 to 15, or 16 and greater. In addition, reflex testing may occur to fully characterize a disease state or clarify any abnormalities from the screening test. Reflex tests will be performed at an additional charge for each marker tested (FIRST if applicable, ADD1 if applicable).
In addition to reflexing flow cytometric panels, acute myeloid leukemia (AML) fluorescence in situ hybridization (FISH) testing for *PML::RARA* translocation t(15;17) may be added by the Mayo Clinic pathologist to exclude acute promyelocytic leukemia if there is morphologic suspicion or if blasts and promyelocytes are CD34-negative and HLA-DR-negative.	In addition to reflexing flow cytometric panels, APLDF / Acute Promyelocytic Leukemia-PML::RARA Fusion, Expedited Diagnostic FISH, Varies for *PML::RARA* translocation t(15;17) may be added by the Mayo Clinic pathologist to exclude acute promyelocytic leukemia if there is morphologic suspicion or if blasts and promyelocytes are CD34-negative and HLA-DR-negative.
The triage panel is initially performed to evaluate for monotypic B cells by kappa and lambda immunoglobulin light chain expression, increased numbers of blast cells by CD34 and CD45 expression along with side scatter gating, and increased plasma cells by CD45 expression and side scatter gating. The triage panel also includes antibodies to assess the number of CD3-positive T cells and CD16-positive/CD3-negative natural killer (NK) cells present. This triage panel also determines if there is an increase in the number of T cells that aberrantly coexpress CD16, an immunophenotypic feature of T-cell granular lymphocytic leukemia.	The triage panel is initially performed to evaluate for monotypic B cells by kappa and lambda immunoglobulin light chain expression, increased numbers of blast cells by CD34 and CD45 expression along with side scatter gating, and increased plasma cells by CD45 expression and side scatter gating. The triage panel also includes antibodies to assess the number of CD3-positive T cells and CD16-positive/CD3-negative natural killer (NK) cells present. This triage panel also determines if there is an increase in the number of T cells that aberrantly coexpress CD16, an immunophenotypic feature of T-cell granular lymphocytic leukemia.
This panel, together with the provided clinical history and morphologic review, is used to determine what, if any, additional testing is needed for disease diagnosis or classification. If additional testing is required, it will be	This panel, together with the provided clinical history and morphologic review, is used to determine what, if any, additional testing is needed for disease diagnosis or classification. If additional testing is required, it will be added

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added per the algorithm to fully characterize a disease state with a charge per unique antibody tested.

If no abnormalities are detected by the initial triage panel, no further flow cytometric assessment will be performed unless otherwise indicated by specific features of the clinical presentation or prior laboratory results.

In addition to reflexing flow cytometric panels, FISH, molecular testing or cytochemical stains may be recommended by the Mayo Clinic pathologist to facilitate diagnosis. They will contact the referring provider or pathologist to confirm the addition of these tests.

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Current Reflex Tests

Test ID	Reporting Name	Available Separately	Always Performed
FCINT	Flow Cytometry Interp, 2-8 Markers	No (Bill Only)	No
FCIMS	Flow Cytometry Interp, 9-15 Markers	No (Bill Only)	No
FCINS	Flow Cytometry Interp,16 or greater	No (Bill Only)	No
AMLMF	AML, Specified FISH	Yes	No
AMLFA	Adult-AML panel, FISH	Yes	No

New Reflex Tests

Test ID	Reporting Name	Available Separately	Always Performed
FCINT	Flow Cytometry Interp, 2-8 Markers	No (Bill Only)	No
FCIMS	Flow Cytometry Interp, 9-15 Markers	No (Bill Only)	No
FCINS	Flow Cytometry Interp,16 or greater	No (Bill Only)	No
APLDF	APL – PML::RARA fusion, FISH, BL/BM	Yes	No

Questions

Contact Melissa Lonzo, Laboratory Resource Coordinator, at 800-533-1710.

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