

Flow Cytometry

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Hours: 7 a.m. - 5 p.m. Monday - Friday

The Flow Cytometry Laboratory provides high quality immunophenotyping and DNA ploidy analysis for Allina Hospitals and Clinics. It also serves as a reference laboratory for clinical outreach work and for clinical research projects.

The following is a listing of panels currently available. If consultation or additional testing is required, please contact the Flow Laboratory at 651-241-8910. ***All panels include a pathologist morphology and flow cytometry interpretation unless otherwise noted.***

Please refer to the specific test panel in the AML Collection Manual for specimen collection requirements.

Flow Cytometry Panels and CDs

All panels include pathologist morphology and flow cytometry interpretation unless otherwise noted.

Acute Leukemia

Use: Determine acute leukemia phenotype

Markers included: CD7, CD10, CD13, CD19, CD33, CD34, CD45, MPO, TdT, plus lineage specific 2nd stage markers

B Cell Leukemia / Lymphoma

Use: Determine B cell lymphoproliferative phenotype

Markers Included: CD2, CD4, CD5, CD8, CD10, CD19, CD20, CD22, CD23, CD38, CD43, CD45, CD79b, FMC7, Kappa, Lambda

Blast cell CD33

Use: Determine presence of CD33 for Myelotarg treatment

Markers Included: CD33, CD34, CD45

CD4/CD8/total T

Use: Monitor CD4 levels for HIV+ patients

Markers Included: CD3, CD4, CD8 (No pathologist interpretation)

Hairy Cell - Qualitative

Use: Determine presence of Hairy Cell leukemia

Markers Included: CD2, CD5, CD10, CD11c, CD19, CD20, CD22, CD23, CD25, CD45, CD103, FMC7, Kappa, Lambda

Hairy Cell – Quantitative

Use: Monitor level of Hairy Cell Leukemic cells

Markers Included: CD2, CD11c, CD19, CD20, CD22, CD25, CD45, CD103, Kappa, Lambda

Immunodeficiency

Use: Evaluate T cell function

Markers Included: CD2, CD3, CD4, CD5, CD7, CD8, CD19, CD45, CD56+16, TCR $\alpha\beta$,
TCR $\gamma\delta$ (No pathologist interpretation)

Light Chain Screen

Use: Screen for abnormal B cells

Markers Included: CD2, CD19, CD20, CD45, Kappa, Lambda

Lymphocyte CD20

Use: Determine presence of CD20 for Rituxan treatment

Markers Included: CD19, CD20, CD45

Lymphocyte CD20, CD8, CD4

Use: ECOG Rituxan study

Markers Included: CD3, CD4, CD8, CD19, CD20, CD45

Lymphocyte Subset

Use: Evaluate T cell function

Markers Included: CD2, CD3, CD4, CD5, CD7, CD8, CD19, CD45, CD56+16, TCR $\alpha\beta$,
TCR $\gamma\delta$

Plasma Cell / Myeloma

Use: Determine phenotype of abnormal plasma cells

Markers Included: CD19, CD38, CD45, CD56, CD138, IgA (cytoplasmic), IgG
(cytoplasmic), IgM (cytoplasmic), Kappa (cytoplasmic), Lambda
(cytoplasmic)

Plasma Cell Screen

Use: Screen for abnormal plasma cells

Markers Included: CD38, CD45, Kappa (cytoplasmic), Lambda (cytoplasmic)

PNH

Use: Determine presence of PNH+ WBCs and RBCs

Markers Included: CD13, CD45, CD55, CD59 RBC, CD59 WBC

Residual Leukemia

Use: Monitor presence of previous leukemia phenotype

Markers Included: CD10, CD13+33, CD19, CD22, CD34, CD43, CD45, Plus specific aberrant markers according to previous phenotype

T & B Cell Screen

Use: Screen for abnormal T and B cells

Markers Included: CD2, CD3, CD4, CD8, CD19, CD20, CD45, CD56+16, Kappa, Lambda

T Cell Leukemia / Lymphoma

Use: Determine T cell lymphoproliferative phenotype

Markers Included: CD2, CD3, CD4, CD5, CD7, CD8, CD20, CD25, CD45, CD56, CD56+16, CD57, HLA-DR, TCR $\alpha\beta$, TCR $\gamma\delta$