

TEST SPECIFICATIONS: CLINICAL FLOW CYTOMETRY LABORATORY

Leukemia Panels, CLL/Lymphoma Panels, T-Lymphocyte Subset Panels, PNH, NOBA

DELIVER ALL SAMPLES DIRECTLY TO THE FLOW CYTOMETRY LABORATORY

Clinical Laboratory Building
Room 9032 (9th floor)
3477 Euler Way
Pittsburgh, PA 15213
(412) 864-6173

FLOW CYTOMETRY LAB HOURS OF OPERATION

Monday through Friday: 8:00 am to 6:00 pm. In **all** cases, notify the lab before the specimen is sent (412- 864-6173). It is recommended that on Friday specimens be received by 5 pm.

Saturday: Emergency specimens can be processed on Saturday. The laboratory must be notified by 12 pm and the specimen **must** arrive by 1 pm. The hematopathologist on call can be reached through the UPMC Oakland operator at (412) 647-2345.

Sundays and Holidays: The lab is closed on Sunday and the following holidays: New Year's Day, Martin Luther King Day, Memorial Day, July 4, Labor Day, Thanksgiving Day and Christmas Day. Specimens should be received by 3 pm on the day before a holiday.

SPECIAL INSTRUCTIONS

- Send a **completed** requisition. In addition **FAX** the requisition to 412-682-1784 in advance of sending the specimen.
- See specific instructions for storage/transport of specimens.
- Use adequate safety measures in transporting specimens.

LEUKEMIA, CLL/LYMPHOMA PANELS

Test Description

These tests utilize a panel of monoclonal antibodies in the immunophenotypic analysis of hematopoietic and lymphoid proliferation. The panels are used to assess cell lineage and to look for features that support a neoplastic rather than reactive proliferation.

Specimen Requirements

Bone marrow aspirate: Minimum of 2 ml in a heparinized (green top) tube. **Store/transport specimen at room temperature.** If possible send one non-heparinized, unstained aspirate smear.

Peripheral blood: One EDTA (preferred; purple top) tube or heparinized (green top) tube with at least 5 ml of blood. **Store/transport specimen at room temperature.**

Lymph nodes: Preferably 1 cm³ fresh tissue in RPMI or any other growth media. Normal saline may be used if RPMI is unavailable and transport time is kept to a minimum. A small portion of all tissues (or other tissues) will be processed for histologic sections. **Send tissue as soon as possible – preferably to be received within 24 hours. Store specimen at 2-8° C if delay in transport.**

Body fluids: Preferably should be a minimum of approximately 100,000 cells (e.g. 100 cells/ul x 1 ml; 10 cells/ul x 10 ml). Testing can be attempted even on very low count specimens. **Send specimen as soon as possible. Store at 2-8° C if delay in transport.**

Fine needle aspirates: Place cores (preferably two) and any additional aspirate in RPMI or other growth media. Normal saline may be used if RPMI is unavailable and transport time is kept to a minimum. **Send tissue as soon as possible – preferably to be received within 24 hours. Store specimen at 2-8° C if delay in transport.**

T-LYMPHOCYTE SUBSET EVALUATION

Test Description

This test may be identified as T Cell Subsets, T and B Cells, CD4:CD8 counts and other synonyms. The test panel includes a Total T or Pan T antibody, a Total B cell or Pan B antibody, a Total Helper antibody, a Total Suppressor antibody, the Helper/Suppressor, and a Total Natural Killer antibody. There are no functional tests associated with these antibodies.

A limited CD4 evaluation can be performed if requested.

Specimen Requirements

One 4 ml EDTA (purple top) tube or two BD microtainer (purple top) pediatric tubes. **Store/transport specimen at room temperature.** Testing must be performed within 48 hours of specimen collection.

EVALUATION FOR PAROXYSMAL NOCTURNAL HEMOGLOBINURIA (PNH)

Test Description

The flow cytometric test for PNH evaluates the GPI-linked markers: CD59 on RBCs; CD24 and CD16 on Neutrophils and CD14 on Monocytes. The WBC assay also determines binding of the fluorochrome labeled toxin Aerolysin.

Specimen Requirements

One 4 ml EDTA (purple top) tube. **Store/transport specimen at room temperature.** Testing must be performed within 48 hours of specimen collection.

EVALUATION FOR NEUTROPHIL OXIDATIVE BURST ASSAY (NOBA)

Test Description

This test is a replacement for the Nitro Blue Tetrazolium (NBT) test for Chronic Granulomatous Disease (CGD). The neutrophil oxidative burst assay measures the respiratory burst of neutrophils following stimulation with phorbol 12-myristate 13-acetate (PMA). Patients with CGD lack the usual oxidative burst.

Specimen Requirements

One 4 ml EDTA (purple top) tube kept at room temperature. **Store/transport specimen at room temperature.** Testing must be performed within 24 hours of specimen collection. In addition a normal control (from an UNRELATED donor) **MUST** accompany the specimen.

CONTACTS, DIVISION OF HEMATOPATHOLOGY

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